SQUATTER SETTLEMENT IN THE THIRD WORLD AND A CASE STUDY IN TEHRAN, IRAN

by

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abstract

The most characteristic expression of rapid population growth and urbanization is the drastic increase in squatter settlements throughout the urban centers of the developing world. This thesis reviews and analyzes the third world squatter phenomenon and focuses on a case study of squatter settlements in Tehran, Iran.

Part one examines the severity of the problem as well as factors leading to the growth of squatter settlements. Different types of squatters and squatter settlements are presented and patterns of government response are discussed. Part one terminates with a partial conclusion in the form of implications.

Part two outlines the national context of the squatter phenomenon in Iran and focuses on Tehran. The squatter settlements of South Tehran are explored in depth, and government responses are analysed. Design guidelines and a policy proposal for progressive upgrading of the squatter settlements of South Tehran form the conclusion of this thesis.

resume

L'expression la plus caractéristique d'une population qui augmente rapidement ainsi que l'urbanisation accélérée est l'agrandissement rapide des bidonvilles partout dans les centres urbains des pays en voie de développement. Cette thèse passe en revue et analyse le phénomène des bidonvilles au Tiers-Monde et met au point un cas précis à Teheran, Iran.

La première partie examine la sévérité du problème ainsi que les facteurs qui mènent à l'agrandissement des bidonvilles. Les differents genres de squatter et de bidonvilles y sont présentés et les réactions des gouvernements sont discutées. La première partie termine avec une conclusion partielle à propos des implications.

La deuxième partie esquisse le contexte national du phénomène des bidonvilles en Iran et se concentre sur Teheran. Les bidonvilles du Sud de Teheran y sont examinés en profondeur, et l'on retrouve une analyse des réactions du gouvernement. Des conseils pour la conception et la politique d'une amélioration progressive des bidonvilles du Sud de Teheran sont la conclusion de cette thèse.

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introduction

According to a United Nations' study in 1980, more than one billion people in Africa, Asia and Latin America were either homeless or living in extremely unsatisfactory, subhuman housing conditions (1). The high rates of population growth due to lower death rates and medical services and even higher rates of urbanization have persisted and will likely continue to do so in the short and intermediate-term future. Peasants flood into the big cities in search of jobs and the advantages of urban services, and in flight from the unbearable conditions of rural areas. However, the urban centers of third world countries have not been able to provide all these benefits.

The most characteristic expression of rapid population growth and rapid urbanization is the drastic increase in squatter settlements throughout the urban centers of the developing world. Strictly defined, the term refers to those lands which have been invaded and occupied illegally. More loosely, it means uncontrolled, unplanned, unauthorized and spontaneous settlement.

The squatter settlement phenomenon results from more than just the rate of population growth; also involved are such determinants as socio-political, economic, industrial and agricultural development. Hence consequences of the phenomenon have implications beyond mere density and additional housing unit projections. Therefore, housing policy regarding squatter settlements necessarily involves complex factors cutting across all sectors of development.

This thesis is organized into two parts, each consisting of six chapters. Part one presents an overview and analysis of the squatter phenomenon in the third world. Part two deals with a case study of squatter settlements in Tehran, Iran, including a policy-proposal for improvement through progressive upgrading.

The first part of the thesis outlines the dimensions of the problem through population and housing impacts. This is followed by a discussion and analysis of the factors leading to the expansion of squatter settlements, such as: rapid population growth; rural-urban migration; absorptive capacities of cities in terms of economic growth patterns and institutional structures; public policies with regard to housing and squatter settlements and problems of access to standard housing.

The overview continues with presentation and analysis of types of squatters and squatter settlements. It includes a study of conditions in these settlements, as well as the social functions. The overview concludes with a discussion of government and various agency responses to the squatter phenomenon. These responses are grouped under three broad headings: laissez-faire policies, restrictive or preventive policies, and supportive policies. This study examines the following approaches: laissez-faire; slum-clearance; public housing; on-site upgrading; site and service schemes; rural development; new towns; decentralization of industries; public administration and social service institutions; and restricted migration.

The second part of this thesis, which is the case study, begins with a general survey of the country of Iran. The historical growth of squatter settlements in the national demographic context is considered: urbanization, rural-urban migration, the urban housing shortage. Socio-political factors are also taken into account: The Shah's "White Revolution", the land reform program, and dependency on foreign capital.

The second part of the thesis continues with specific descriptions and analyses of squatter settlements in particular sectors of South Tehran regarding the residential patterns and the socio-economic conditions. A review of the impact of government policies, programs and actions on these sectors, both before and after the revolution of 1979, completes this section of the study.

Finally, the last chapter consists of a policy-proposal for improvement of squatter settlements in South Tehran through progressive upgrading. This thesis concludes that what is needed is a wide range of simultaneous approaches to the problem of squatter settlements. It is not enough to speak exclusively, for example, in terms of the number of housing units to be built. The problem must be dealt with at all levels, since it is of national scope. The approach to the squatter settlement phenomenon must be comprehensive. It is not sectorial by nature and consequently its solution cannot be fragmented.

The squatter-generating conditions of rapid urbanization must be examined and confronted. Policies of rural development, industrial decentralization and family planning should receive public support and priority. It must be recognized however, that these approaches have long-range impacts and require time for their implementation. As a consequence, immediate steps must be taken to deal with the crucial difficulties of the present.

The extent to which developing countries can confront the squatter issue is determined by their available resources and technology; those are the very elements which most developing countries sorely lack. Further research is essential if this severe problem is to be fully understood and if a solution is to be found.

part one:

OVERVIEW AND ANALYSIS OF THE SQUATTER SETTLEMENT PHENOMENON

1 introduction to part one

An investigation of the dynamics of the squatter phenomenon reveals that there is a definite interrelationship of factors, which act as both determinants and consequences in the growth of squatter settlements. According to the United Nations, the term squatter settlement is meant to include all urban housing developments in which the construction activities are primarily under the control of and directly financed by the family builder, and in which at least part of the process is illegal. Illegal is defined in terms of: 1) land transaction - the land may be illegally invaded; or 2) land and houses may be occupied before provision of basic services - in violation of local housing codes; or 3) the building itself may not comply with building permits - in violation of local building codes.

This investigation makes consideration of the explosive population growth in developing countries unavoidable. Rising rates of natural increase of population are only part of the picture. However, more crucial to the issue are the even higher rates of population growth in urban centers. Following the U.N. standards, an urban center is one in which the population is over 20,000 inhabitants.

The question arises as to why the urban population is growing so much faster than the natural increase in developing countries. For the answer we must look to rural-urban migration, which is caused by multiple factors such as increased mechanization of farms and other capital - intensive, labour-saving techniques and advances in agriculture. Moreover, the lure of industrial jobs in the cities fuels the migration. Industralization cannot keep pace with the flow of migrants and is unable to provide enough work for the burgeoning population. Thereby, the more unfortunate migrants gravitate to squatter settlements and sink to a bare subsistence level or fall into abject poverty.

The elements interlock in a complex pattern; it is impossible to examine one factor without considering all the others. For the purpose of this study, each element will be examined individually, keeping in mind the dynamics of the problem. The fundamental causes of squatter settlements are to be found in:

1. The speed of urbanization process;
2. The structure of the labour and housing markets;
3. The nature of public housing and development policies.

2

dimensions of the squatter settlement phenomenon

A major portion of the populations of Africa, Asia, and Latin America - i.e. over a billion people are either homeless or living in extremely unsatisfactory housing conditions. By any human standard, these conditions are unacceptable (see Figs. 1 to 9). The secretary-general of Habitat, Enrique Penalosa, stated that many people throughout the developing world are living at a subhuman level and for them even substandard housing would be an improvement (2).

In order to gain a clear perspective of the severity of squatter settlement phenomenon, it is worthwhile to look at some of the facts presented at the United Nations' Conference on Human Settlements in Vancouver, Canada (1976).

Rapid global change affects all future planning with regard to improving existing settlements in developing countries. Population growth and urbanization are two of the most important factors in this global change. Some aspects of these factors are:

Population Growth

1. It took at least 500,000 years for the first 100 million people to appear on earth.
2. By 1500, A.D. there were perhaps 500 million inhabitants.

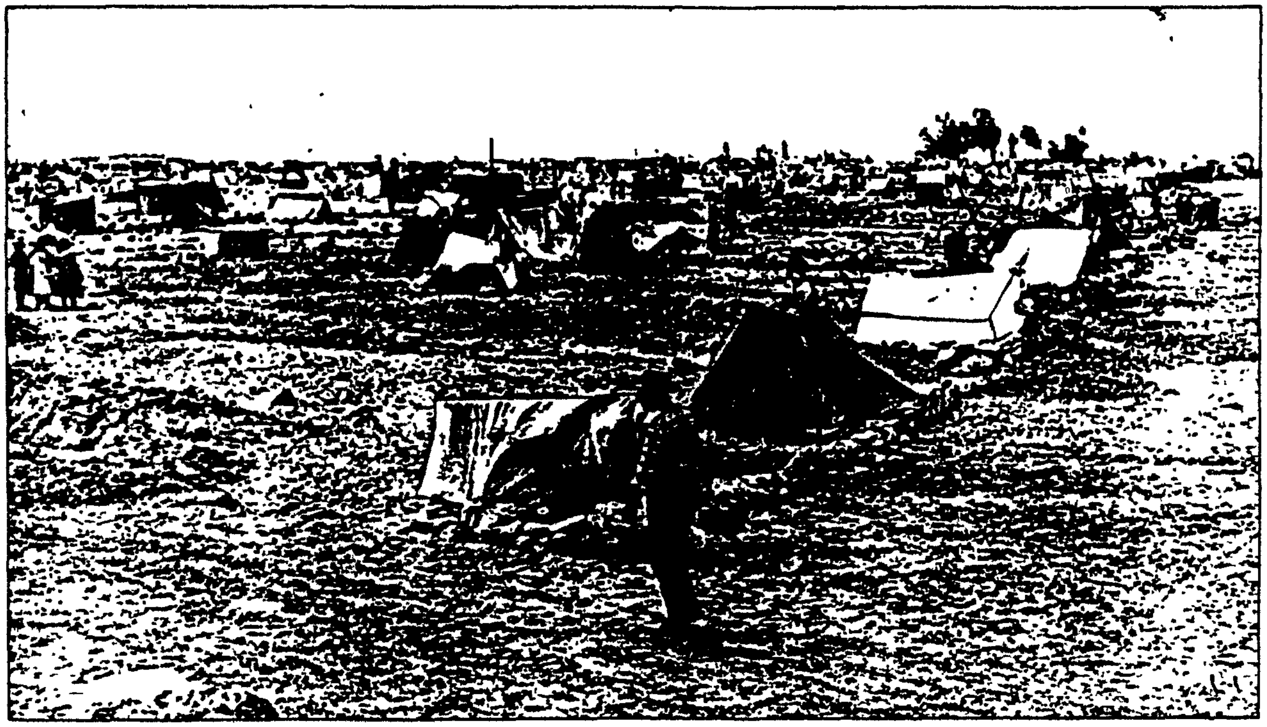


Fig. 1. Early stages of urban land invasion.
Source: Urban Housing in the Third World (92)

Fig. 2. The squatter settlement has none of the amenities of a satisfactory habitat. Source: Habitat Bill of Rights (35)

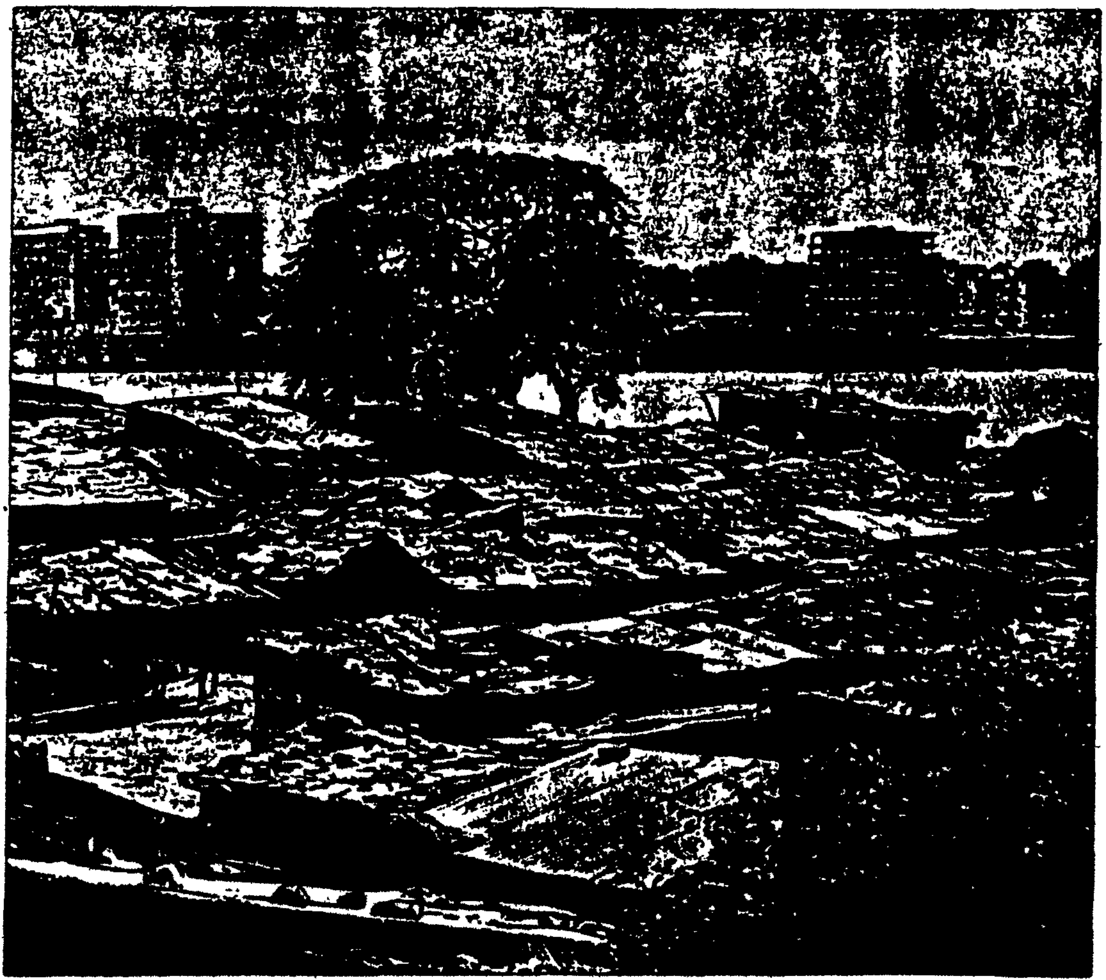
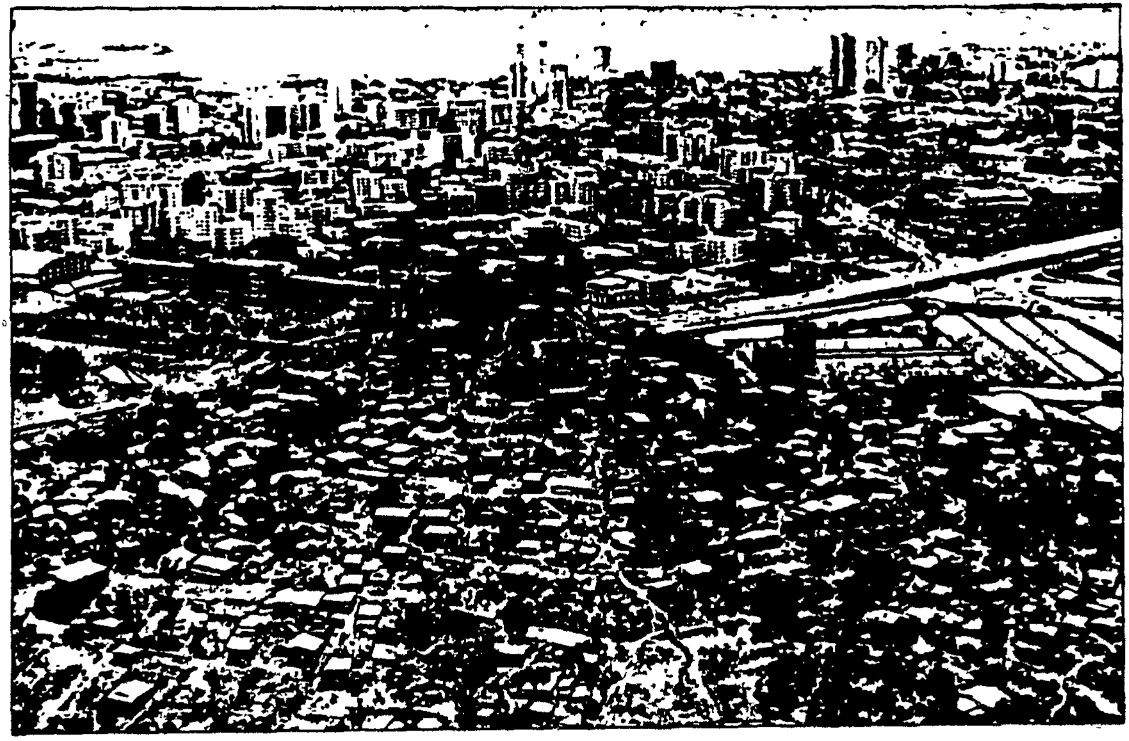
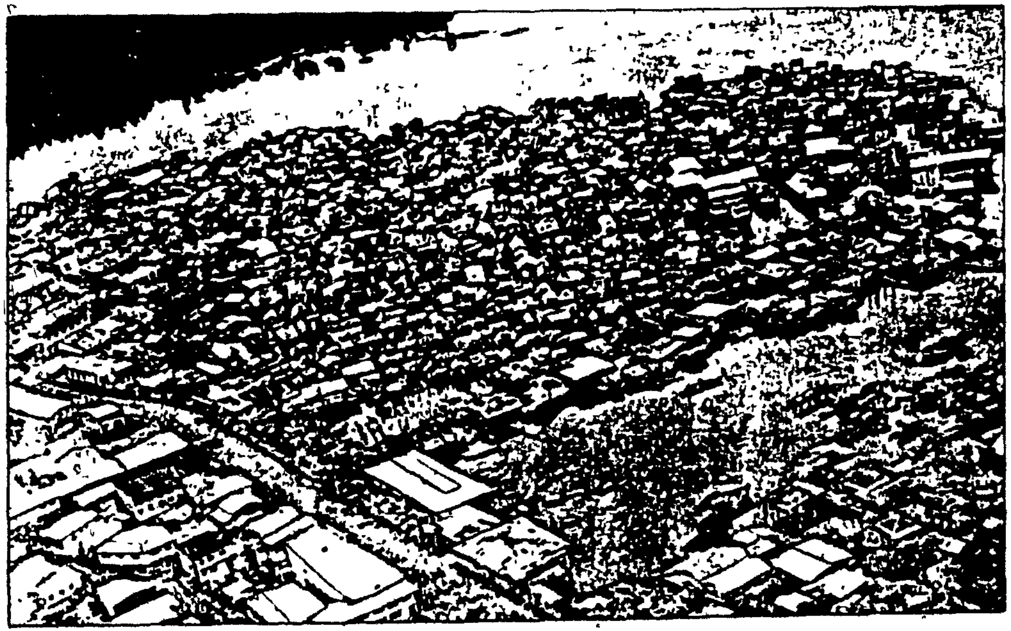


Fig. 3. Spontaneous community adjacent to downtown Panama City, Panama. Squatters invade centrally located vacant lands because they are close to employment opportunities.



Source: Human Settlement Issues 3 (8)

Fig. 4. Non-availability of land for housing and lack of security in the hinterland cause the growth of the squatter colony off-shore.



Source: Cities in Transformation (71)

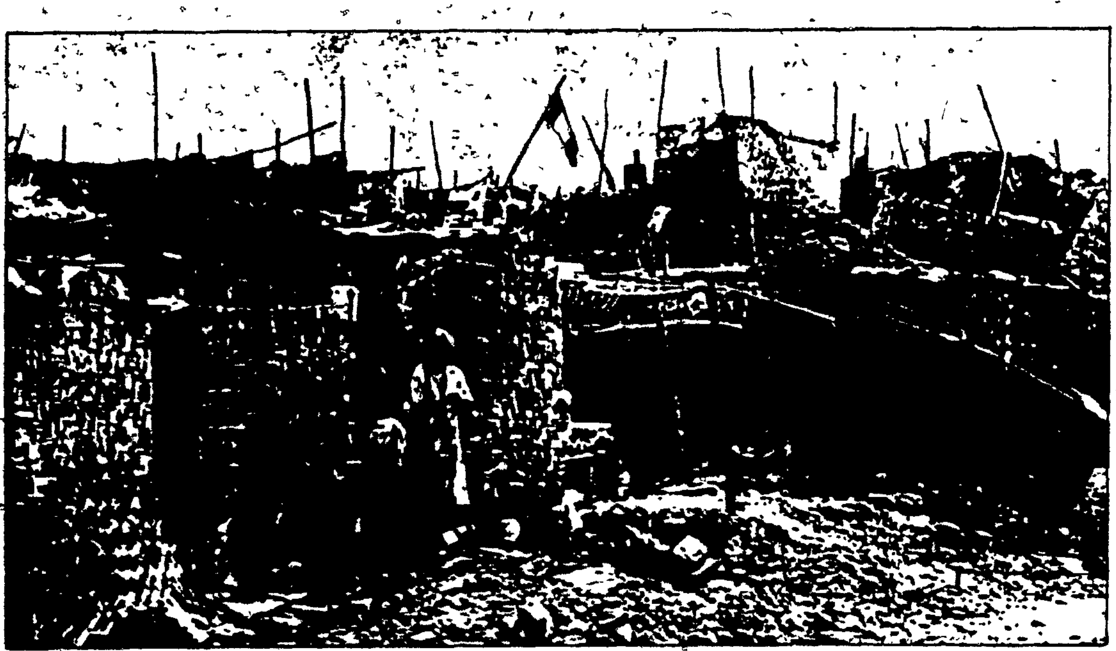


Fig. 5. Possession of the land, with minimal shelter.
Source: People and Housing in Third World Cities (23)

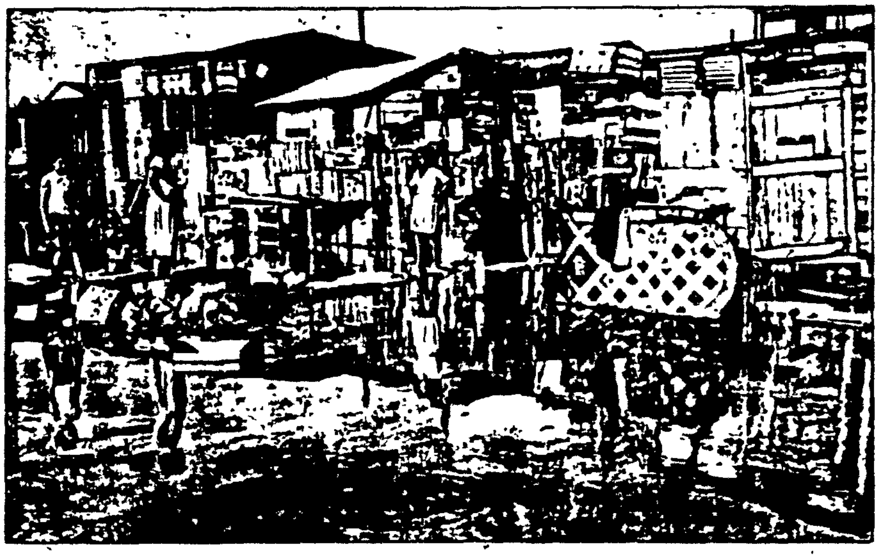


Fig. 6.

A squatter settlement on a tidal swamp.

Source: Man's Struggle for Shelter in an Urbanizing World (1)

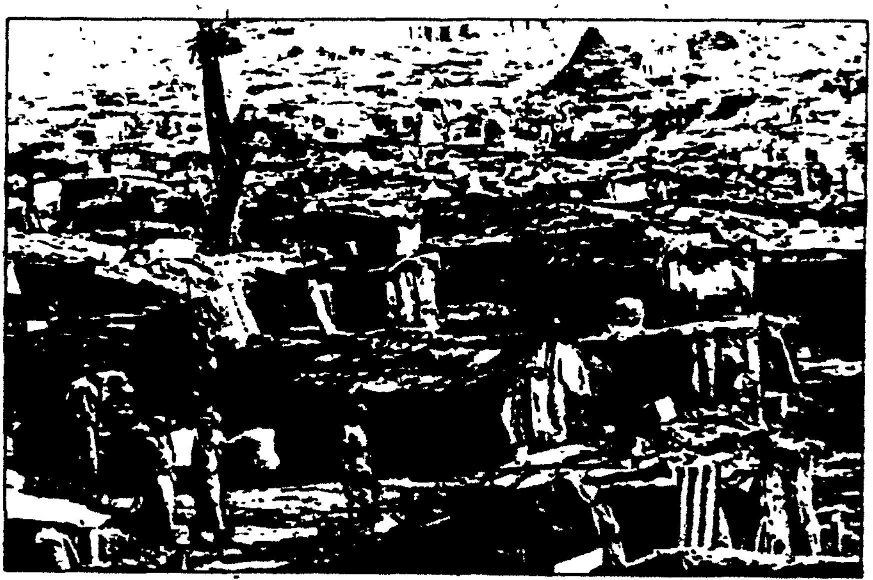


Fig. 7.

A heavily populated squatter settlement.

Source: People and Housing in Third World Cities (23)

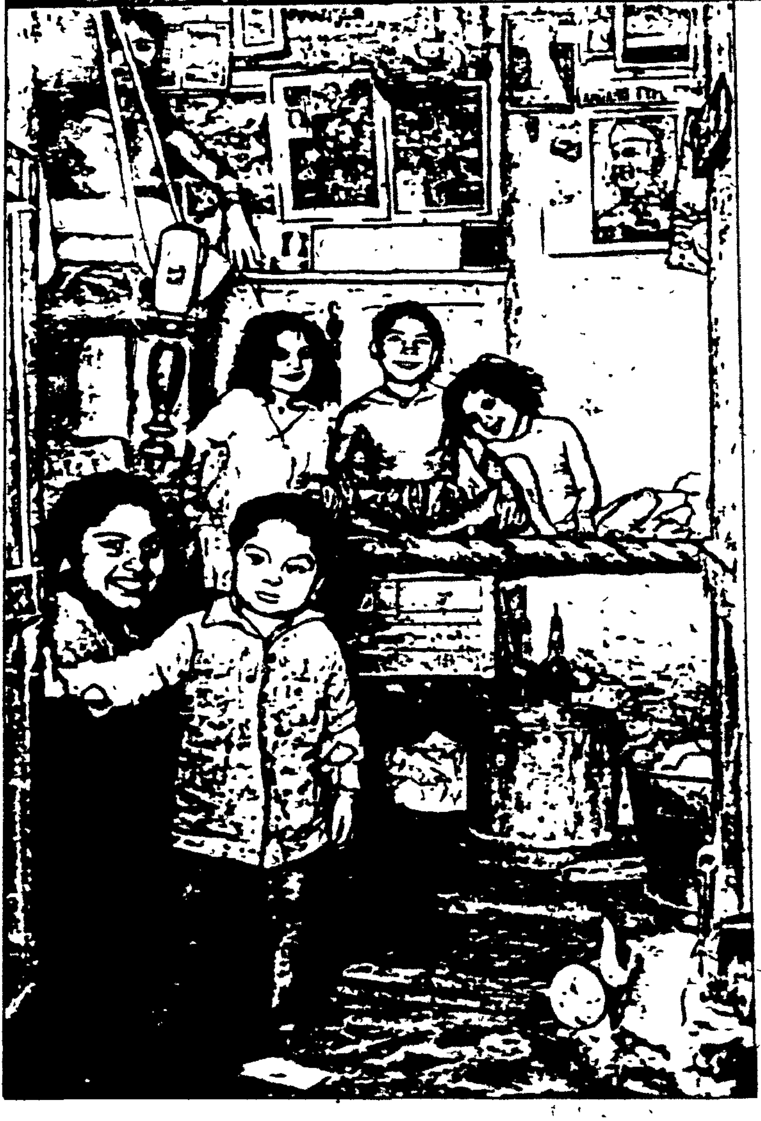


Fig. 8. (above)

In the squatter settlement, the individual's sense of identity and self-worth are frustrated; security decreases as concepts of territoriality and privacy are abandoned.

Source: Habitat Bill of Rights (35)

Fig. 9. (left)

View of Indian children in their single, tiny room in which family members cook, eat and sleep. There is no electricity, no plumbing, no ventilation.

Source: Slums and Community Development (19)

3. The population had reached one billon by 1830 A.D.
4. In the next 100 years, the world population increased by one billion.
5. In the next 30 years, the world population increased another billion.
6. In the last 15 years, the world population increased by yet another billion bringing the planetary total to over 4 billion.

It seems likely, given the statistics, that the Present world's population will be doubled in less than 40 years.

Urbanization

1. After 100 years or so of industrialization, the urban population accounted for 15% of the world's total.
2. By 1960, the urban population had grown to one third of the world's total.
3. By the year 2,000, it is estimated that urban dwellers will constitute 51.1% of the world's total, outnumbering rural dwellers (3).

2.1 Population Impact

According to current projections, at the turn of the next century the world's population will be between six and seven billion, having quadrupled in just one hundred years. These masses of people, however, are not distributed evenly throughout the world's territory. Millions are concentrated in urban centers, particularly those with a population of a million or more. Economic forces compel people to gravitate to cities in order to earn a living or even to survive. This pattern which results from these migrations, takes the form of squatter settlements which are increasing faster than the total urban population.

At the present time many of the larger cities are confronting squatter settlement population growth of between 10% to 20% a year; the doubling of squatter populations within the next 4 to 8 years is now a real possibility. As it is, the squatter population already accounts for one third or more of the total population in many cities (see Table 1). It seems likely that squatter settlements are rapidly becoming, and in some places have already become, a major element of the city in terms of living conditions and urban patterns. Though these settlements vary widely in type, social structure and degree of poverty, there is a measure of similarity which is characterized by the housing conditions. These are generally extremely poor, with an absence of even minimal standards of water supply, sewage, transportation and social facilities. For example, the World Health Organization estimates that only one quarter of the world's population is presently receiving public water supply directly into houses or courtyards, and only an additional quarter is being supplied with water from public standpipes (4).

Urban population has increased four times in the last forty years. By the year 2,000, the urban population is likely to be twenty times that of 1920 (5). As urbanization has increased, even more so have the pace and volume of squatting in recent years. Judging by very modest standards, it has been estimated that by the year 1985, the developing countries of the world will have 147 cities with over one million population. On the basis of present conditions, it is quite probable that one-third to two-thirds of the inhabitants of each and every one of these 147 cities will be considered to reside in some kind of slum or squatter settlement (6).

One incredible, but not exceptional example, is Metropolitan Tehran where the total population in 1940 was 512,000 inhabitants and the total population in 1970 was 3,485,000 inhabitants. This represents an increase of 580% during that period. With the current growth rate of squatters in Tehran, it is predicted that by 1990 three million of Tehran's expected six million inhabitants will be illegal squatters (7).

TABLE 1

Selected Data on Squatter Settlements

Country	City	Year	City Pop.	Population in Squatter Settlements	
				Total	As % of the City Pop.
AFRICA					
Senegal	Dakar	1971	650,000	390,000	60.0
Tanzania	Dar-es-Salaam	1970	334,000	167,000	50.0
Zambia	Lusaka	1969	279,000	133,920	48.0
ASIA AND FAR EAST					
Afghanistan	Kabul	1971	483,000	101,430	21.0
India	Bombay	1971	5,839,000	1,459,750	25.0
	Calcutta	1971	6,881,000	2,270,730	33.0
Indonesia	Jakarta	1972	4,174,000	1,085,240	26.0
Iran	Isfahan	1976	671,825	174,674	26.0
	Kermanshah	1976	290,861	98,892	34.0
	Tehran	1976	4,496,159	1,438,770	32.0
Pakistan	Karachi	1970	3,442,000	791,660	23.0
Philippines	Manila	1972	2,942,000	1,029,700	35.0
LATIN AMERICA					
Brazil	Racife	1970	1,046,000	523,000	50.0
Colombia	Buenaventura	1969	119,000	95,200	80.0
Ecuador	Guayaquil	1969	742,000	363,580	49.0
Mexico	Mexico City	1952	2,372,000	330,000	14.0
		1970	3,026,000	1,391,960	46.0
Peru	Lima	1961	1,716,000	360,000	21.0
		1970	2,877,000	1,150,800	40.0
Venezuela	Caracas	1969	2,290,000	916,000	40.0
	Maracaibo	1969	727,000	363,500	50.
EUROPE					
Turkey	Total Urban Pop.	1965	10,800,000	2,365,000	21.8
	Ankara	1965	979,000	460,000	47.0
		1970	1,250,000	750,000	60.0
	Izmir	1970	640,000	416,000	65.0

Source: U.N. Department of Economic and Social Affairs, "Improvement of Slums and U.N. Controlled Settlements"

U.N., 1971, ST/TAO/SER.C/124, pp. 21-23

Iran, Municipality of Tehran "Goad va Goadneshini dar Tehran"

1355/1976

A look at some of the most recent U.N. data on slums and squatter settlements* reveals that squatters presently make up at least one-third of the populations of Tehran and Kermanshah in Iran, Lima in Peru, Caracas in Venezuela, Manila in the Philippines, and Calcutta, India. Squatters exceed half of the population in such cities as Rasife in Brazil, Maracaibo in Venezuela, Ankara and Izmir in Turkey and Buenaventura, Colombia.

It is important to note that, in spite of the scale of urbanization and the tendency in developing continents for very large cities to grow rapidly, towns of intermediate size are by no means stagnating. In some of the smaller Asian countries, such as Burma and Sri-Lanka, towns of every size appear to be growing at about the same pace. In Latin America, in the decade of the 50's, the expansion of the population in Argentina, Brazil, Chile, Ecuador, Mexico and Venezuela was larger in medium-sized towns - i.e. in those which exceeded 20,000 inhabitants at the last census - than in older, larger and more established cities. Even if some of them have been acting predominantly as "staging areas" for migration to the bigger cities, they are still keeping a larger portion of the population than they are losing and consequently adding to the squatter inhabitants (9).

The U.N.'s Center for Housing, Building and Planning has assembled crude but roughly comparable figures for 36 cities in developing countries around the world. These figures show some comparison between the population of the urban area as a whole versus the population of the slum and squatter settlement areas in particular. It must be noted that the U.N. has made no distinction between slums and squatter settlements, while the primary focus of this study is on squatter settlements alone. Slums and squatter settlements are in fact different phenomena, with different paths of development, different impacts, and different policy implications. However, the terms are often used interchangeably, and it can be very difficult to get any reliable, accurate information on the magnitude of the squatter problem alone. The fact is that there has been no systematic collection of data and true analysis of conditions in squatter settlements, slums, shanty towns, barriados, hashiehneshinies, favelas, etc., no matter what they are labelled. As a result, it can be claimed that insufficient attention has been paid to these important elements of cities.

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* United Nations definitions:

Slums: A very heavily populated area where badly deteriorated buildings combine with a low level of public amenities to produce poverty conditions.

Squatter Settlements: The non-legal or illegal occupation of land or construction of buildings by low-income people. Low-income urban areas often have both characteristics (slums and squatter settlements) (8).

Of the 36 cities the U.N. Center examined, only six had populations in slums and squatter settlements which totalled less than 25% of the total urban population; half had slum and squatter populations which were more than one-third of the total, and in five cities these populations were in the majority.

Table 1 presented some of the examples illustrating the comparative Population size of those areas. One must not underestimate the severity of the situation. These data, in many cases, are incomplete, out of date and/or inaccurate. Often the authorities are conservative and more than likely tend to minimize the extent of the problem. This is the result of the lack of sufficient information and concern about the phenomenon of squatter settlements on the part of policy-makers and the "powers that be". As an example, according to an official Iranian report in 1976, the squatter population of South Tehran was stated to be 595,000, while the actual number was later revealed as being approximately 900,000. This demonstrates the inaccuracy and unreliability of information given by the authorities (10). The speed with which the squatter settlements are growing and the fact that they are the "strongest, most active forces shaping the cities" in developing countries cannot and must not be disregarded any longer.

2.2 Housing Impact

An integral part of the squatter settlement phenomenon is the issue of the glaring need for new housing. There are three main aspects of this need, which may be expressed as: 1) the need resulting from the net population increases in urban centers, whether through natural increase or cityward migration. 2) the need arising from the depletion of existing housing stock, that is, the loss of dwellings through obsolescence, demolition or destruction by fire, flood, earthquake, or other natural disasters. 3) the accumulated backlog of housing demand, which consists of those people inadequately housed or without any kind of housing at a specific time, and is expressed in terms of the annual construction required to eliminate deficiencies in the existing housing supply (11).

As for the need resulting from population increases alone, according to the current rate it is probable that over 200 million new dwellings will be needed in the urban centers of developing countries between now and the end of this century, simply to house the additions to the urban population. This total is almost equal to all the urban dwellings of the world in 1960 (12).

As for the third aspect of the housing demand, the United Nations has calculated that, given the need to replace the existing housing stock in thirty years in urban areas (and in twenty years in rural areas), the accumulated backlog of housing demand will call for an *average annual output* of more than 27 million dwellings by 1975 in Africa, Asia and Latin America. The total requirements for 1960 through 1975 have been estimated to be about 390 million dwellings (see Table 2), demanding an annual housing program which produces 8 to 10 dwellings per thousand inhabitants. According to the U.N.'s available statistics for some developing countries, however, only 0.5 to 3.0 dwellings per thousand inhabitants were completed each year during the decade of the 70's. In other words, in most developing countries less than two houses per thousand inhabitants are being built each year, which is far below the desired range of between 8 to 10 (13). For instance, in Iran during the 70's (which was the boom of housing construction) about 2.5 units per thousand inhabitants were constructed while the desired range was 8 (14).

The task facing these developing countries is obviously formidable, especially when it is recognized that only a few *developed* countries have been able to reach an annual housing output of 8 to 10 dwellings per thousand inhabitants (15). The cost of reducing this backlog was exemplified in India, where the amount required represented the entire national development budget for the five year period of 1975 to 1980 (16).

Considering the estimated housing backlog of 390 million dwellings for Africa, Asia, and Latin America (1975) combined with the 200 million units currently needed to house the additional population of the urban centers by the end of the century, without taking into account the need arising from the depletion of the existing housing stock, the implications are truly staggering. It would seem quite impossible for the developing world to meet even a MINIMUM part of the housing demand.

TABLE 2

Estimated Housing Needs of Africa, Asia, Latin America 1960-1975 (in millions of dwelling units)

Housing Required to Provide for:	Average Annual Requirements 1960-1965		1965-1970		1970-1975		Total Requirements 1960-1975	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Population Increase								
Africa	0.4	0.9	0.5	1.0	0.7	1.1	7.8	14.7
Asia	2.2	4.0	2.7	4.2	3.2	4.3	41.0	62.1
Latin America	0.9	0.4	1.3	0.3	1.5	0.3	18.7	4.8
Sub Total	3.5	5.3	4.5	5.5	5.4	5.7	67.5	81.6
Replacement of Obsolescent Stock								
Africa	0.1	1.1	0.1	1.1	0.1	1.1	1.8	16.1
Asia	1.1	6.3	1.1	6.3	1.1	6.3	16.5	94.0
Latin America	0.3	0.7	0.3	0.7	0.3	0.3	4.1	10.3
Sub Total	1.5	8.1	1.5	8.1	1.5	8.1	22.4	120.4
Elimination of Existing Shortages								
Africa	0.1	0.7	0.1	0.7	0.1	0.7	1.8	10.7
Asia	0.7	4.2	0.7	4.2	0.7	4.2	14.6	62.6
Latin America	0.2	0.5	0.2	0.5	0.2	0.5	3.4	6.9
Sub Total	1.0	5.4	1.0	5.4	1.0	5.4	19.8	80.2
TOTALS	6.0	18.8	7.0	18.0	7.9	19.2	109.7	282.2

Source: U.N., Department of Economic and Social Analysis, World Housing Conditions and Estimated Housing Requirements, 1965, p. 4

NOTE: This table is from 1965 and is the most recent data available on the subject.

It is by no means advocated to use annual housing out statistics as the focus for housing programs in developing countries, but in this limited use they are a clear portrayal of one aspect of the need. As previously stated, these houses are being built at an annual rate far below the needs of these countries. The incredible size of existing housing deficits and the probable extent of future needs have now reached a shocking level. As a result, housing development must be given greater attention if any significant impact is to be made upon the outrageous housing shortages of these countries.

3 factors leading to the growth of squatter settlements

3.1 Rapid Population Growth

The world's population is now more than four billion with an annual growth rate of 1.7% and even higher rate of 2.08% in developing countries alone. According to 1980 estimates and projections, the world's population will be doubled by the year 2,025 (17).

The essential point about rapid population growth is that national rates of increase, i.e. crude birth rate minus crude death rate in developing countries, are proceeding at such a rapid pace that they are outstripping the abilities of these countries to meet the growing needs of their inhabitants. This problem is felt most severely in cities of the developing world which increasingly cannot cope with the problems of their rapidly expanding populations. Table 3 represents the population size and rate of increase for developing countries.

As third world countries have participated in the process of development, they have been able to partake of some of the "fruits of progress", not the least of which are medical and scientific conquests of major diseases and the grosser health hazards with which they have traditionally been faced. This has had a direct impact on the death rates

TABLE 3

Population Size and Rate of Increase for the Major Regions and Areas of Less Developed Countries Medium Variation 1960-2025 as Assessed in 1980

	Population (millions)								Average Annual Rate of Growth (Percentage)							
	1960	1970	1975	1980	1985	1990	2000	2025	1960 1965	1970 1975	1970 1980	1980 1985	1985 1990	1990 1995	1995 2000	2020 2025
World Total	3037	3695	4066	4432	4826	5242	6119	8195	1.99	1.91	1.72	1.70	1.65	1.60	1.50	0.96
Less Developed Regions	2092	2648	2974	3301	3656	4036	4847	6818	2.33	2.32	2.08	2.04	1.98	1.89	1.77	1.10
Africa	275	355	407	470	546	635	853	1542	2.48	2.73	2.90	3.00	3.02	2.99	2.90	1.91
Latin America	216	283	322	364	410	459	566	865	2.80	2.54	2.45	2.38	2.28	2.15	2.02	1.48
East Asia	816	991	1096	1175	1250	1327	1475	1712	1.94	1.96	1.38	1.24	1.20	1.09	1.02	0.38
South Asia	877	1116	1257	1404	1565	1731	2075	2819	2.40	2.36	2.22	2.17	2.02	1.90	1.72	0.95

Source: United Nations, Department of International Economic and Social Affairs, "World Population Prospect as Assessed in 1980," ST/ESA/SER.A/78, New York, 1981 in general and infant mortality in particular. Since fewer children are dying in infancy, family size is increasing. In the past a family had to have 6 to 8 children to ensure that 3 or 4 might survive. With advances in medical science and worldwide health campaigns against such diseases as rubella and malaria, it is now possible for 5 to 6 children to survive. There is a definite lag in the awareness of families that it is no longer necessary to have 8 children in order to have three survive to adulthood. The demographic result is that while the birth rates remain high, the death rates have declined. This is a widening gap which must be dealt with through population and family planning.

It is not just the problem of the rate of natural population increase however, or of the annual growth rate (rate of natural increase/1000 inhabitants) of the population which has the greatest impact upon the development of squatter settlements. One of the most important factors is the annual rate of urbanization which has to be studied concurrently. In other words, although the populations of the developing countries are growing at a highly accelerated pace, they are experiencing an even greater rate of urbanization (the percentage of the total population born in or moving into cities over a given time period) (see Table 4) (18). It is this even faster increase in the population of cities which is more relevant to the development of squatter settlements. Many of the large cities are doubling their populations (see Table 5).

A message from the United Nations is worth noting.

> "Between 1960 and 1980 the developing world could add to its urban settlements more than the total urban population of the developed world today. The houses, power systems, sanitation, schools, transport, in fact the whole complex pattern of urban living created over several centuries would have to be doubled in just 22 years." (19).

TABLE 4

Average Annual Rates of Increase in Urban Population

Year	Urban Population World Total	More Developed Regions	Less Developed Regions
1955	3.40	2.49	4.88
1960	3.47	2.40	5.01
1965	3.02	2.18	4.09
1970	2.93	1.96	4.07
1975	3.05	1.76	4.38
1980	3.05	1.69	4.29
1985	3.02	1.61	4.15
1990	2.91	1.45	3.95
1995	2.81	1.29	3.76
2000	2.69	1.18	3.53

Source: Bertrand Renaud A World Bank Research Publication
National Urbanization Policy in Developing Countries
Oxford University Press, U.S.A., 1981, p. 14

TABLE 5

Selected City Population of Developing Countries 1950-1980

(thousands)

City	Country	1950	1960	1970	1980
Tehran	Iran	1126	1905	3264	5447
Isfahan	Iran	199	311	501	808
Mashhad	Iran	188	298	489	813
Karachi	Pakistan	1127	2000	3139	5005
Baghdad	Iraq	579	1024	2518	5138
Ankara	Turkey	281	635	1264	2164
Seoul	Republic of Korea	1113	2362	5322	8490
Bangkok	Thailand	1414	2151	3205	4870
Abidjan	Ivory Coast	69	180	356	685
Nairobi	Kenya	139	238	550	1275
Santa Domingo	Dominican Republic	238	464	900	1661
Bogota	Colombia	633	1309	2776	5493
Caracas	Venezuela	702	1335	2111	3093
Sao Paulo	Brazil	2483	4451	8027	13541

Source: United Nations, Department of International Economic and Social Affairs, Population Studies, No. 68 Patterns of Urban and Rural Population Growth, ST/ESA/SER.A/68 New York, Oct. 1980

To view the rapid rate and scale of urbanization (a term which the United Nations uses to encompass both the steady shift of population from rural to urban areas and the processes of social and economic change associated with that shift) in the developing world with anything less than alarm is naive, to say the least.

The facts of population growth, distribution and urbanization indicate that by the end of this century the majority of humanity will live in an urban environment. It has been forecasted that the world's urban population which in 1960 was 33% of the total population, was increased to 41% in 1980 and will reach 51% in the year 2,000 (20). Furthermore, there is undeniable evidence that the urbanization in developing countries is appearing not only in greater magnitudes but in even larger units, i.e. not only is there an increasing urban population but there are also more places which are urbanizing and growing in area. This has serious implications for those poorer developing countries where at present the great majority of the population is rural as in many parts of Africa and Asia. For these countries, migration to the towns of even a small proportion of their rural population, will produce a larger increase in the urban population. Consequently, those countries least able to cope with the problems of urbanization because of their limited resources, are the very ones confronted by the most serious effects of this rapid urbanization.

While the population in developing countries typically grows at rates of two or three percent a year, and many city populations grow at rates exceeding six percent (see Table 6), urban squatter settlements commonly grow at a rate of twelve percent, and some at rates exceeding twenty percent. At twenty percent, the population doubles in four years. It can be plainly seen that in developing countries squatter settlements are by far the fastest growing part of urban areas.

TABLE 6

Annual % Growth in Selective Cities in Developing Countries 1960-1980

Country	City	Annual % Growth	
		1960-70	1970-80
Iran	Tehran	6.4	5.5
	Isfahan	5.1	5.2
	Mashhad	5.3	5.5
Pakistan	Karachi	5.6	5.1
Iraq	Baghdad	9.3	7.6
Turkey	Ankara	5.9	5.8
Bangladesh	Dacca	9.4	8.4
Kenya	Nairobi	6.2	8.8
Ghana	Accra	6.8	6.8
Ivory Coast	Abidjan	7.6	7.0
Venezuela	Caracas	5.3	4.2
Colombia	Bogota	7.3	7.3
Peru	Lima	5.1	5.1

Source: World Bank, Sector Policy Paper Housing, 1975. pp. 62-63
Iranian Statistical Center National Census of Population and Housing, Iran, Tehran 1981,
United Nations, ST/ESA/SER.A/68,
Patterns of Urban and Rural Population Growth, pp. 125-162.

The implications of this rapid growth are staggering. The effects of population and urban growth generate a whole set of problems: The severe and constantly widening gap between housing supply and housing demand, particularly among the urban poor; growing unemployment and underemployment; deficits throughout the wide range of social services; problems of traffic congestion and transportation inadequacies; and the increasing deterioration and insufficiencies of water supply, sewage and drainage systems. Under these conditions and given the present level of technology, the continued expansion of large urban centers in general, and the squatter settlements in particular, create risks of physical, economic and social breakdown, with potentially great political ramifications. It is felt that these ramifications will not be confined to the developing world alone.

3.2 Rural-Urban Migration

Apart from the high increases in population, the phenomenal growth of urban centers in general and squatter settlements in particular, lead us straight to the consideration of rural areas and the changes taking place there. As previously stated, it is impossible to isolate any one factor of urban or squatter settlement growth without dealing with the other interrelated factors.

The rapid growth of urban centers is not due to rates of natural increase alone. Migration is a crucial element and may very well be the greatest single cause of such explosive urban growth. The "push and pull" factors responsible for this rural-urban migration must be explored. A relationship exists between the forces pushing peasants out of the rural areas and those forces pulling them into the urban centers. The situation which exists in the cities of the developing world today is an outgrowth of the combination of both these push and pull forces acting concurrently and interdependently.

From a historical perspective, it is interesting to examine some of the differences in the growth of industrial cities of the United Kingdom, Europe, North America and Japan. Unlike these nations, the developing countries have not been able to integrate agricultural productivity with industrial development. In Western countries, the decisive changes in agriculture which created vital food surpluses above subsistence level preceded the growth of industrial cities. This has only begun to occur recently on an adequate scale in developing countries (21). Furthermore, the slow increases in productivity in rural areas results in slow increases in capital and income in rural areas. This capital formation is further hindered by a time lag between a rural economy and industrialization.

Modest increases in food production were not sufficient to offer a comparable rise in employment for the rapidly growing rural population. Recent agricultural production advances such as "green revolution" (which has had little success), hybrid strains, improved fertilizers and irrigation practices can at best relieve food shortages for about two decades (22). This hardly seems enough time within which to achieve a better balance between population and resources. With few exceptions, the level of rural unemployment in developing countries has continued to rise due to the lack of capital for investment in agricultural land. Consequently, migrants are squeezed out of the countryside by poverty and their belief that life in the urban centers could not be worse.

Patterns of land ownership also act as a catalyst in rural emigration. According to an official Iranian government report of 1964, although 60% of Iran's population was in agriculture, almost 80% of the arable land was in the hands of 5.5% of the landowners (23). Furthermore, the land tenure system either resulted in the progressive fragmentation of land due to multiple inheritance or, if the family structure was based on primogeniture, it caused younger sons and daughters to be displaced by the eldest son who inherited everything. This forced most of the children in such a family to seek employment in the cities, because there was insufficient land which could be worked for a living.

In the past, the availability of new opportunities from growing industrialization and development drew manpower from the agricultural sector. More productive farming methods required fewer workers to produce increasing quantities of food; farm mechanization is capital-intensive rather than labour-intensive. The release of manpower from agriculture in the past, however, did not overload the cities until the middle of the nineteenth century. Population growth in urban societies was Partially held in check by disease caused by unsanitary conditions. Modern medicine has changed this, and at present the population of large cities is out of proportion to fresh opportunities for stable urban employment, especially industrial.

Among the factors which constitute the "push" that forces rural residents to abandon the land are: the disruption and disorganizaiton produced by war and revolution; the political and economic changes in government such as land reform programs and their consequences; and the seasonal nature of agricultural employment which provides an opportunity for seasonal migration to urban areas.

The dynamics of rural existence which continues to force peasants out of the rural areas and into urban centers can be easily understood. Jobs have been too scarce, life in the rural areas too poor and too hard for the migrants to reach any decent standard of living. In some situations, even a subsistence level of life was impossible.

Accompanying these "push" factors were the simultaneous and perhaps equally strong "pull" forces emanating from the cities. Modern means of transportation and communication, especially radio and T.V., linked remote areas of developing countries with the cities and with each other. Word spread of the better economic opportunities available in the cities and the lure of a better life began to take hold.

The city, especially the capital, which in most developing countries is the only large city, has traditionally been the political, administrative, economic and commercial center of life. The city center is also attractive because of its vitality and cultural opportunities. In fact migrants to the cities do seem to be better off than those who remain behind in the rural areas. This is borne out by the fact that the migration pattern is predominantly one way. If the situation in the cities were inferior to that in the rural areas, greater numbers of migrants would probably be returned there.

There is a "revolution of rising expectations" taking place in much of the developing world. Some progress has been made by developing nations towards implementing a system of universal education, thereby broadening the horizons of many. Military service, which in certain countries is compulsory, also exposes many rural young people to glimpses of urban opportunities for the first time. An official report of the government of Iran in 1976 states that 78% of the rural people who had joined the army in the decade of 1964-74 never moved back to their points of origin and stayed in urban centers (24). Growing lines of communication brought formerly secluded areas of developing countries into some degree of contact with other parts of the world. The presence of kinfolk already established in the cities may act as another "pull".

The lack of health and education services in rural areas and the reputation that cities have for providing them act as another stimulus for urban migration, especially in terms of services available for the children. A study of migration to Tehran from Simnan, a town in the east central region of Iran, revealed that the desire to obtain better educational opportunities was the most important reason for the departure of the inhabitants (25).

Finally, among the factors leading to rural-urban migration, it can be argued that the expansion of dependent capitalism in developing countries encourages this cityward migration. The theory of dependency, as developed originally by Latin American scholars and later modified and applied to other regions, claims that a part of this migration is a result of the rapid and worldwide expansion of western industrial countries and their need for resource materials. The need to supply these materials for the growth of western industry has brought about the abandonment of farmlands in developing countries.

All of these so-called objective push and pull factors are filtered through the attitudes and decisions of the individual migrants. These men and women belong to a self-selected group. They are at the peak of their working power and have taken a deliberate decision about their own future (26). Rural-urban migration is not therefore merely a symptom, a demographic fact, or a reaction to certain economic pressures, but it may be seen as a psychological phenomenon - a type of social revolution. This aspect of rural-urban migration has political implications. One might think that these new urban dwellers, having used their initiative to better their lot, would be opposed to social revolution. Having raised their living standard through their own efforts, they might be expected to have a politically conservative attitude.

To summarize, we are left with this constant flow of population into the urban centers which must be housed somewhere. Because most of the migrants have a very meager budget and therefore limited access to standard housing, they are forced to find shelter in squatter settlements.

3.3 Absorptive Capacity of Cities

As the speed and magnitude of natural population increases combine with population movement and in turn, merge with the lagging ability of cities to cope with these added burdens, more consideration must be given to the issue of the absorptive capacity of cities, and their ability/inability to house this added population.

"Absorption" has been defined as a process whereby a new household acquires certain essential components of urban living, namely (1) regular source(s) of income; (2) security of tenure of a housing plot within a network of "on-site" services; (3) shelter; (4) access to "off-site" urban activity centers; and (5) opportunities for participation in the social and political life of the city (27).

There are two major aspects to the absorptive capacity of cities which should be considered; One is the slow economic growth and industrialization patterns and the other is the institutional structures of cities.

3.3.1 Slow Economic Growth and Industrailization Patterns

Slow economic growth, coupled with the city's industrial patterns of development are two major influences which are inexorably linked. These will therefore be discussed jointly rather than independently.

Stated simplistically, when a situation develops in which a larger portion of a country's population live in urban areas than their degree of economic development justifies, the result is overurbanization (28). A more realistic interpretation of overurbanization is "the situation in which an excess of urban growth over industrial growth produces insufficient employment opportunities and generally poor living conditions in urban areas" (29). This interpretation recognizes the value of unemployment rates which, when used within a time frame, are a good indicator of overurbanization.

As a consequence as well as a cause of urbanization, it has proven impossible for most developing countries to provide the traditional range of public services. The underlying reasons for this lack of success are to be found in inherent fiscal constraints and the lack of managerial abilities (30).

Perhaps the greatest problem is the city's inability to provide suitable employment for migrants and to match people and jobs. Since urbanization is commonly in excess of the expansion of employment opportunities in manufacturing, it follows that if employed at all, migrants must earn their living (if it can be called a "living") at unskilled construction work or in a variety of service jobs. It is important to recognize the nature of this urban service sector: it consists primarily of petty commerce and street vending, domestic service, and unskilled and transitory work.

The fact is that employment is rarely secure in developing countries. Some U.N. estimates put national unemployment, in this case including aspects of underemployment such as temporary and part-time employment and work at low levels of productivity, as high as 30% of the working force. Within this percentage, the highest rates of both unemployment and underemployment are in agriculture and in the service sector (31).

This brings us to the question of why the industrial sector has failed to expand sufficiently to keep ahead of urbanization and to offer wider access to industrial work. The developing countries today are faced with disadvantages, in terms of technology and their scope for expansion and development; these disadvantages were not experienced by the countries developing and industrializing in the 19th century. Today the pattern of competitive industrialism requires more capital, which developing countries lack, and less manpower, which they have available in great excess. In order to compete with large foreign firms of superior efficiency, developing industries in developing countries often feel compelled to use the latest, up-to-date, most modern technology, which is usually labour-saving as well. Thus it only reinforces industry's inability to supply the cities with the much-needed jobs. As a result, the cities remain receiving points of untrained rural migrants without providing them an easy transfer to new jobs, new skills and rising standards of living.

In addition to the problems generated by technology, there is also the problem of the scale of demand. Domestic markets in developing countries are limited by argicultural stagnation and urban unemployment (since an unemployed person is hardly a very active consumer). But new plants require a certain size of market if they are to produce a surplus and that market size may be unavailable domestically and is often greatly restricted abroad. For example, the share of the developing world in the export of manufactured goods is still only five percent of world trade (32).

The cities' inabilities to deal with all the migrants is not only reflected in the inadequate supply of jobs. The city has insufficient physical resources with which to absorb and care for its growing population. Perhaps the most formidable and noticeable problem of the urban setting with which the government has to deal relates to housing and the physical environment. That is, to provide an adequate infrastructure for urban living and development to enable low-income families to obtain decent housing with adequate amenities, especially water and sewage. But governments are seriously handicapped by the level of their national economy and by the difficulty of choosing between "social" and "productive" investment. The cities are forced to meet a variety of social needs, such as decent housing and other urban services; environmental sanitation; educational, health and welfare facilities, etc. These needs and services must often be weighed against the need to provide "essential requisites" for the expansion of the per capita and aggregate products, such as sufficient power, transportation, water supply, highways, bridges, etc., for industrial and commercial use (33).

Without these stimuli and facilities, economic growth and industrial development are held down; this in turn has an impact on employment opportunities for the low income, unskilled migrants. There is little doubt that in much of the developing world, there is a bias towards providing public urban services (especially housing) mainly to middle income families who are able to contribute something to the building costs.

3.3.2 Institutional Structures

Some of the basic institutional structures surrounding the problem of housing impact on the cities absorptive capacities are so restrictive that the inevitable end product is the squatter settlement.

Turner hypothesized that "a squatter settlement is the product of the difference between the popular demand for housing and that demanded and supplied by institutional society .... policy objectives and the institutional framework for their fulfillment are too often geared to one sector of society (the relatively wealthy minority) but are economically and culturally unacceptable to the remainder, the 'remainder' being composed of four-fifths of the urban population." (34) We would add, not only are these policy objectives and their institutional framework unacceptable, but perhaps even more significant, they are often inaccessible and inappropriate.

Newcomers to the cities are faced with the harsh realities of incomes which are so low and unstable that the migrants are pushed beyond the reach of most conventional institutional mechanisms which would ordinarily allow them to participate in the officially recognized housing market, such as publically-assisted low-rent or low-cost housing, and the legitimate credit mechanisms of the housing system. Thus the majority of new urban families are unable to meet the costs of "modern" housing. Many of them are simply unable to bear the burden of such costs even on the most favourable terms. Under these circumstances, the reality is that the effective "demand" for housing is much smaller than the "need" for housing in terms of the number of families living in very crowded conditions or in dwellings which are unfit for human habitation. Their options eventually narrow to either the more well-established squatter settlements or the newly-formed ones, so that today the majority of the populations of these settlements are those young newcomers to the city who were drawn by their perceived notions of the greater opportunities available in the cities (35).

3.4 Public Policies/Public Housing Policies

Public Policies cannot be isolated because they are too interrelated, and their impacts on squatter settlements should not be underestimated. Also housing policies are firmly linked with other developmental policies. Charles Abrams demonstrated the interconnection well:

> ..."Amelioration of agricultural distress will reduce migration and hold down the urban housing demand. Stimulation of industrial activity will expand housing demand, and a policy that disperses industry will distribute the housing demand. An over-all policy favouring production of materials will encourage housing production. A policy that increases incomes will stimulate savings, raise housing demand, and perhaps funnel savings into home production and help spur economic improvement" (36)

Until recently squatter settlement and slum development were usually regarded as nothing more than a temporary problem involving a marginal sector of the population. As a result, government policies were primarily aimed at prohibiting migration and preventing the settlement of in-migrants. Comprehensive policies capable of dealing with the causes as well as the symptoms of the problem have rarely been developed. With the exception of measures to control population movement (primarily through an internal passport system), to expel squatters and to eradicate their unauthorized settlements, nothing has been done to correct the social malady that these settlements represent. The tearing down, bulldozing and/or burning of the shacks with the hope of driving the squatters back to their villages have in general not produced the desired effect. Even when combined with new public housing, the results have usually led to unproductive use of resources, meager improvements and unequal treatment of low-income families. This continues to the present, where the latest governmental policies have been limited to housing projects which, with rare exceptions, are beyond the economic means of the lowest income sectors of the population (37).

Perhaps the most common policy of all, in the face of rapid urbanization and growing rural-urban migration, is still one of laissez-faire. Unfortunately, the lack of a consistent offical policy, or one based on ignoring the issue, usually encourages further squatting; existing settlements spread, and new settlements spring forth.

The general bias which exists in the provision of various urban services is another aspect of the pressure exerted on squatter settlements by public policies and attitudes. This should not be overlooked, and is influenced by the cities' absorptive capacities.

It is generally true that governments in developing countries labour under terrible constraints, in terms of finance, equipment and direction. They are often unable to cope with the scale of the problems facing them. The great majority of the urban population does not have the means to provide sufficient tax returns to the municipal government to enable it to address all its urban woes. Given such limited government resources, the needs of the poor are commonly low on any list of priorities. One finding of the Rohovet Conference on "Urbanization and the Developing Countries" was that some urban areas which were supplied with all the urban services were side-by-side with areas where living conditions were not much better, if at all, than in the rural areas (38).

3.4.1 Legal Standards for Urban and Building Construction

When unrealistic standards, particularly for urban and building construction, are rigidly enforced as a matter of policy, people, especially low-income people, are almost inevitably forced to take illegal actions to protect themselves against these unrealistic standards. More often than not these standards totally ignore the realities of squatter settlements. They are often the result of regulations which govern maximum occupancy or density, high construction standards, minimum utilities and specifications signed by registered professionals. These standards also tend to require contractual means of construction and institutional loans. Between profits and interest these contractual means may add 20 to 40% to the cost of a dwelling.

When these costs are added to frequently inflated land costs, and considering the inefficient building methods of urban development, it goes beyond the capacities of most settlers to deal with them. The end result is the inability of poor people to afford standard housing, which is the issue to be addressed next.

3.5 Inaccessibility to Standard Housing

One of the greatest problems (perhaps second only to the problem of unemployment) which faces both the national and municipal governments of developing countries today is the need for housing the poor. It is primarily the low-income families, who are generally fairly recent comers, that make up squatter settlements. Their low incomes, as well as the nature of the housing market itself in most developing countries, restrict their access to standard housing. When there is no housing available to the migrants, they turn to their only option of appropriating land, more often publicly owned land from which there is less chance of being removed.

Additional elements aggravate the problem of housing the poor; population increases and redistribution, which necessitate the construction of dwellings for new families or migrant families in specific locations are an example. The deterioration or demolition of existing housing, and rising standards according to which much of the existing housing stock is considered uninhabitable is another.

3.5.1 Low Income and Skewed Income Distribution

Much has been said already about the influence of the economy on the development of the squatter settlement phenomenon. A low and unsteady income does not cover the rent and forces the majority of low-income families to seek alternative solutions. The rent paid by the migrant is generally a very high percentage of his income and this, coupled with the probable instability of his employment, threatens his ability to pay rent at all. Therefore, the migrant is stimulated to seek a situation in which he is no longer at the mercy of the landlord. He may not be able to relieve that situation for several years, but eventually he may join either an organized or individual "invasion" of vacant land.

Unemployment in developing urban centers, as we have seen, is high and getting higher due to the increased rural-urban migration. "With increasing unemployment, inequality of income distribution appears to have intensified. Nowhere are the results more obvious than in the growth of squatter settlements" (39). A situation of polarization of incomes has developed within the urban centers with a small and increasingly wealthy group separated socially and often physically from the masses or urban poor. It is also widely recognized that a large gap exists between incomes in towns and those in the countryside. It is the awareness of this gap which pulls migrants to the cities. An official report of the Iranian government identifies that in 1972 the average daily income of a male unskilled factory worker in urban areas was seven times more than his agricultural counterpart (40).

This situation of low-income families in particular having limited access to standard housing due to the limitations of their financial resources is further exacerbated by the huge housing deficit which exists in most cities of the developing world. Abrams, Breese and others have written extensively on this shortage. It has been stated that the deficit is "of astonishing proportions, doubtless underestimated, and progressively greater as a result of the increased in-migration of the population and the overuse of the existing housing supply - which accelerates its deterioration and removal from use" (41).

One of the concomitant elements of this huge deficit is chronic overcrowding, mainly a result of the traditional obligation in much of the developing world to take in relatives or tribes people who are new arrivals to the city. It is further accentuated by the frequently low level of repair which characterizes much of urban housing, and by housing destruction which is caused by urban renewal and redevelopment schemes for central business districts, and government projects. In 1973 one of the squatter settlements of east Tehran was bulldozed and thousands of squatters were left in the streets for the sake of a new sports center (42).

The underlying reasons for urban renewal and redevelopment schemes which destroy existing squatter settlments can be found within the realm of competition for urban land uses. From the government's point of view, they prefer the more profitable, revenue-generating land uses to the non-revenue-generating use of the land by squatters. It is therefore perfectly consistent with the government's attitudes to clear that land and free it for more productive development. In this situation the government has opted for "productive" investment over "social investment (see page 34).

However, this tends to be a very narrow approach; it completely ignores the social benefits accrued to squatters through their non-revenue-generating land use. This is a use which satisfies the squatters needs for housing and more. Also, it must be considered that there is a trade-off in operation. Once the squatters are removed and their invaded land is freed for more productive uses, the governments are then usually faced with the costs of resetting and housing the former occupants of the land.

So while the land is now being used more profitably, the government is forced to compensate for that housing deficit through the construction of public housing. Unfortunately, in most cases the governments are already straining under the weight of other crucial problems of development, and their economies are hard-pressed to make the necessary compensations.

It is not just a matter of the financial burden on the governments, however, although the magnitude of that burden cannot be stated strongly enough. It would be a problem for many developing countries to produce enough structures, even if there were adequate funds available. Rates of production of housing units are inevitably handicapped by the industrial and financial institutional structures of these countries. Some of the characteristics are: chronic shortages of many critical building materials which may have to be imported from abroad at great expense (often requiring the use of limited foreign-exchange reserves), plus the frequent depedence on slower, labour-intensive methods of construction. The housing problem is still further complicated by the frequent lack of both professionally-trained and experienced staff in this area and supporting services. There may also be a lack of administrative mechanisms with which to create and implement viable programs for dealing with housing. As well, there may be related infrastructure deficiencies in community facilities and services. At the heart of the matter is the fact that housing must compete with other government responsibilities for priority in staff, funds and execution.

It is not simply a problem of governments lacking the abilities or the drive to mount vast housing programs. It is also the case that in many cities private enterprise is almost always uninterested in supplying housing for low-income families, and often fails to meet the need for even outright squatter housing.

It is important, at this point, to look at the principal ways in which rural migrants to urban centers are presently being accommodated: (1) by a rapid increase in living densities in central, low rental areas, thus extending and intensifying slum conditions; and (2) by the invasion of vacant and public and private lands, typically in peripheral areas, with little or no provision for long-term improvement necessary for development. In some cases the two forms overlap, where former migrants already established in the urban area through the squatting process provide rental accommodations to successive migrants. It is the second mode, the squatter invasions, which concern us here.

Perhaps the most salient feature of the housing situation, as stated previously, is the stark fact that typically well over a third of the urban population of

Africa, Asia and Latin America cannot afford minimal "permanent construction" housing. This is so even if financing arrangements are made available or limited subsidies are given (43).

As a result, they eventually end up living in squatter settlements, which although of "substandard" quality and usually very overcrowded, have in fact been provided by the unaided self-help efforts of the migrants themselves. Such activity undoubtedly represents a substantial share of all housing construction. By providing the housing for themselves, migrants appear to be not only creating a problem, but at least providing a solution to it as well.

4

squatters and squatter settlements

Charles Abrams and John F.C. Turner, have pioneered the research in the developmental processes of squatter settlements. Both have written extensively on the squatter phenomenon since the late 1950's. Most of their findings have been supported by more recent studies. The following discussion will be based to a large degree, on their writings.

As Turner says "the characteristics of uncontrolled urban settlements are almost as varied as those of human settlements in general" (44). According to him, it does not matter what the duration or expectations of the urban settlement are. "Squatter settlements" are any settlements which take place independently of the authorities charged with the "control" of local building and planning.

Abrams' findings are that what a person will put into his/her dwelling environment is directly influenced by his/her "security of tenure". In developing countries, squatter tenures usually have neither law nor custom to define them. This security of tenure is interpreted as "sense of security" rather than as a legalistic security. This in turn determines what the individual can get out of the dwelling environment. When uninterrupted tenure seems probable, more lasting structures may be built. When the tenure of possession is uncertain, the squatter may build a portable house. Or he may build one in which the materials can be disassembled or discarded.

4.1 Types of Squatters

Squatters can be classified according to a) tenure b) social and economic situation, c) function of the settlement.

4.1.1. Classification According to Tenure

Abrams' analysis of type of squatters, based on the issue of tenure provides the following classifications:

1. Squatter Owner-Occupier: This is the main, most common form of squatter tenure. Under it, the squatter has no title to land which he can legally convey. There is, however, a constructive ownership in the building. The squatter erects his shack on any vacant plot he can find. Public lands and those of absentee owners are the most prized...
2. Squatter Tenancy: is another common form of tenure, and is divided through the squatter owner. The squatter tenant is in the poorest class, not owning or building a shack, but paying rent to another squatter. Many newcomers begin as squatter tenants, with the hope of converting to ownerhsip status when possible. Further, squatter subtenancy exists where a tenant of a squatter sublets all or part of his holding to another squatter.
3. The Squatter Holdover: is a former tenant who has ceased paying rent and whom the landloard fears to evict.
4. Professional Squatter Landlord: usually a squatter of long standing, is another type. He usually offers houses or rooms and even bed space for rent as a business. Frequently these are offered

at exorbitant profit and often on a short term basis (daily, weekly, monthly). The squatter landlord is usually the best informed person on the latest fluctuations on official policies toward squatters.

5. Squatter Cooperators: are a group who share the foothold and protect it against intruders, both public and private. Cooperators may, on occasion, be a mixed group who assemble for the express purpose of acquisition. They may be from the same village, family or tribe, or may share a common trade.

6. Squatters with a "Colour of Right": a government may promise land but the plots have not been defined and the deeds not delivered. In anticipation of the government fulfilling its commitments, squatters take over the land and build on it.

7. The Speculator-Squatter: buys and sells squattage. He may have several houses in settlements one of which he may occupy himself.

8. Commerical or Occupational Squatters: are in trade or carry on service operations in a squatter shop or house. The shop may have adjoining living quarters; or it may be some type of cart upon, or under which, the squatters curl at night.

9. Street-Sleeping: which is most common in India is technically a form of squatting. Unless a shelter is set up on the street, it lacks the security of squatting with a dwelling.

In some cases, street-sleeping becomes habitational street squatting. Street-sleepers may also be vagrants, but most often they are victims of homelessness and poverty in the extreme. Bombay, for example, is thought to have many of these pavement dwellers (see Figs. 10 & 11).

A first breach of the conventional code of behaviour of the city, according to Koenigsberger, is "sleeping rough". Included is snatching a few hours of sleep on pavements or benches in public parks. It also includes huddling up in a doorway, under a road bridge or in a public waiting room. A newcomer can be driven to this in his/her struggle for survival. Also, it is a means for a 'foothold' in the urban economy. He feels that the second breach is squatting, which he defines simply as "the illegal occupation of land or buildings" (45).

10. Floating Squatters: are another type, who live in old hulks or junks which are towed or sailed into the city's harbour or waterways. These serve as family homes and often as workshops. They may be owned or rented, and the stay may be temporary or permanent.

11. Semi-Squatting: when rent is accepted from a squatter, the private landlord has come to terms with the squatters. The squatting has been converted into a legal relationship. The semi-squatter, in constructing his house, usually flouts the building codes.

Abrams' classification is too tenure-oriented. It is, in some instances, in conflict with interpretations of squatting based on the definition stated at the beginning. Certainly the "squatter owner-occupier" would be considered the "classic" or typical squatter. But Abrams' considers street-sleeping as a form of squatting. Street sleeping may be a prelude to some sort of individual or group squatter invasion. However, there is no structure of any kind constructed. Therefore, it is not truly a type of squatting. Abrams has identified numerous ways in which the urban

Fig. 10.

Calcutta residents sleeping in their only homes: the street.

Source: The Urban World (90)

Fig. 11. A street sleeper in Hong Kong.
Source: Man's Struggle for Shelter in an Urbanizing World (1)

poor shelter themselves, but it is inappropriate to label them all squatters.

4.1.2 Classification According to Social and Economic Situation

This classification is based on Turner's work and is presented by Otto H. Koenigsberger. He speaks of "footholders" vis-à-vis "consolidators".

1. Footholders are the recent arrivals to the urban centers. They are at the earliest stages of urban settlement. They usually settle near centers of intense urban activity in order to maximize their job opportunities. For them land ownership and housing are items of low priority.
2. Consolidators, who are the suburban squatters, are prepared to make considerable sacrifices for the secure tenure of a piece of land. These people are willing and able to invest in shelter for themselves and their families. They are the ones who are most likely to have reached a higher stage of urban settlement. They have regular employment and are therefore less dependent on proximity to their places of work. They can afford to commute (46).

4.1.3 Classification According to Function of the Settlement

a Functional approach to the classification of squatter settlement dwellers was developed by Seeling, in which inhabitants fall into four categories (47).

1. Permanent necessitarians, include those who choose to live in a squatter settlement because it is the only place suited to their income and way of life. Among this group are the indolent, the adjusted poor and the social outcast.

2. Temporary necessitarians, include those forced to take up residence in a squatter settlement, but who look upon it as a temporary home until they can afford something better. This group consists of the respectable poor and trapped people.
3. Permanent opportunists, include those who prefer living in squatter settlements because of the opportunities to be found there. They can hide from society while they operate their underground activities away from the law. Many are fugitives or misplaced persons.
4. Temporary opportunists, are those people who choose to live in a squatter settlement temporarily. They take advantage of circumstances around them. This group primarily consists of beginners in urban life, people wanting to climb the social ladder, and entrepreneurs.

Zorbaugh has made an exaggerated statement about how slums and squatter settlements acquire their distinct characteristics. According to him, there is a cumulative process of natural selection as the more energetic move out, the unadjusted and undesirable move in (48). Squatters, however, can be classified as well according to the length of time they remain in the settlements, and the reasons for their presence as in Seely's classification.

4.2 Types of Squatter Settlements

There are four major classifications of types of squatter settlements: a) based on Morse's issues; b) based on Turner's issues; c) based on social mobility; and d) based on comparative typology.

4.2.1 Based on Morse's Issues

Morse discusses three major types of squatter settlements:

1. The traditional "slum" dwelling for the urban proletariat, the key characteristics are rental occupancy and location in older districts of the city center with heavy population.

2. The segregated urban nucleus, key elements include illegal land occupation and usage of waste material for construction. Generally the dwellings are single-room buildings without sanitary facilities and occupy a peripheral location. There is constant displacement by the growth of the city. Occasionally these settlements may be more than 20 years old.

3. The suburban settlement or semi-segragated urban nucleus. One characteristic is land titles acquired through the settler's initiative or by government intervention. Another is the use of heterogeneous building materials and construction by settlers, government or private firms. A third characteristic is generally a peripheral location and varying access to public utilities (49).

Morse's first category, the traditional 'slum' dwelling, should not be considered as a type of squatter settlement. The residents of slums are in most cases not squatting. They have not invaded land nor taken illegal possession of land. They are also not directly responsible for the construction of the dwellings. Typically, they are renting rooms in older, established, dilapidated buildings. Here again, it looks like there is a tendancy to include slums as an aspect of squatter settlements. They are in actuality separate phenomena.

Morse, apparently following Abrams' thinking, also classifies his latter types of settlements in terms of legal tenure. His primary distinction between the segregated urban nucleus and the suburban settlement seems to be that of legal title. In the first case there is no legal title to the land, where in the second case land titles have been acquired.

4.2.2 Based on Turner's Issues

Turner has also developed an elaborate hierarchy. He claims these are typical stages of settlement development. He relates different stages of physical development to different degrees of tenure. They seem to be, however, another classification of types of squatter settlements. His two major criteria are security of tenure and investment inputs (50 . Briefly, his findings are as follows:

1. "Tentative Settlements": Turner presents this as the first stage of settlement development. They are either "provisional" or "incipient" settlements of intended permanent squatters. If there is any effective police opposition, Turner feels that settlements must pass through this stage rapidly. They are "tentative" in that they will go on toward becoming one or the other type of settlement. This outcome is mainly determined by location, land values and density. These "transient" settlements are not to be thought of as temporary, if they are but the first stage of a future settlement. These settlements can be either permanent, semi-permanent or provisional. In addition, settlements at this stage of development display a wide divergence in the relative wealth of their inhabitants. As well, there is divergence in their locations and in the possibilities which their sites offer (51).

Turner concluded that the "tentative" or "transient" settlements which manage to establish themselves become semi-permanent "provisional" settlements (see the following discussions for explanation). This will occur if the squatters have very low or unstable incomes or if they are located on land of high or potentially high value and of limited area. Successful "tentative" settlements established by relatively stable, urbanized wage-earners on land of low value tend rapidly to become "incipient squatter settlements" (52).

2. "Incipient Squatter Settlements": settlements with insecure tenure but with a significant degree of fixed capital investment. These are self-improving settlements which occur predominantly in countries where urbanization is occurring rapidly and where industrialization has made a significant start. Turner cites Latin America, North Africa and the Eastern Mediterranean as the major locations.

3. "Incipient and Advanced Semi-Squatter Settlements": These are settlements with secure but semi-legal tenure and with significant or advanced degrees of material investment. These settlements are frequently occupied by middle-income families relative to their socio-economic and cultural levels. This sector of society is often badly in need of housing due to the structure of the housing market, inflated land costs and interest rates (53). These middle-income families often cannot afford to build their dwellings in accordance with all the legal requirements. So they often build in these advanced semi-squatter developments, thus circumventing cost-inflating regulations. This has been borne out in most of the semi-squatter settlements in the northern part of Tehran. Many of these dwellings, primarily those in the choicest locations nearer the base of the hills, are quite substantially built. They belong to taxi-drivers, street vendors, etc.

4. "Provisional Squatter Settlement": These settlements involve illegal but de facto possession with little or no investment in permanent construction or installations. These settlements are generally inhabited by the very poor. Since squatters are basically motivated by the need for minimum costs, any expenditure for non-essential needs is a luxury.

These non-essential needs would include transportation costs as well as any physical improvements to their dwellings above the barest minimum. Because these "provisional" settlements are primarily the refuge of the unemployed and underemployed, they tend to be located as near as possible to sources of employment (54).

It is vital to the squatter to be able to "make the rounds" looking for odd-jobs, etc. This involves as little cost for transportation as possible, ideally no cost at all. As a result, provisional settlements tend to be located in relatively central areas. These areas are near centers of casual employment for unskilled or semi-skilled labour. If these centers of employment are the central markets or around the central business districts, the likelihood is that the provisional settlements will then be found on marginal lands nearby, such as hillsides, marshes, ravines, etc. There are instances of provisional settlements occurring on the periphery of a city, but that usually is when they are located near peripheral industrial areas.

Turner states, and the author's experience supports his findings; that the majority of provisional settlements of today will eventually be eradicated, primarily due to the fact that the land they occupy is of potentially high value (55). As competition for this land increases, more and more of these settlements will be cleared.

Turner's classification of settlement types can be related to Morse's classifications. As previouslsy described, Turner's "provisional" settlements seem comparable to Morse's "segregated urban nucleus". Morse also points out this issue of displacement by the city's growth. Furthermore, Morse's "suburban settlement" is very similar to Turner's "incipient" settlements.

Another system of distinguishing squatter settlements may be one based on location in relation to the urban area.

That is, centrally-located settlements versus peripheral settlements. It is important to recognize that peripheral settlements are distinctly different in nature and function from centrally-located settlements. This system can incorporate Turner's basic categories of "provisional" and "incipient" squatter settlements. Turner found that provisional settlements are generally centrally-located whereas incipient settlements are often peripheral. His research led him to conclude that: "centrally-located 'provisional' settlement dwellers are almost always of lower status than peripherally located incipient settlements unless the latter have become urban satellites" (56).

From data so far obtained by Turner, there seems to be a definite correlation between the types and stages of squatter settlement in a given region or city and the income levels of the population. The lower the per capita income levels, the greater the preponderance of the "provisional" squatter settlements. In areas with appreciably higher per capita income levels, the bulk of the squatter settlement is of the incipient type (57).

The interrelationships between location, income and type of squatter settlement are clearly linked to the points previously made: The low-income squatter, who is probably an unemployed, underemployed or unstably employed migrant, cannot afford to commute to employment opportunities. In addition the lower the income, the less important is housing (see page 54). Therefore, the centrally-located "provisional" squatter settlement or slum is more convenient to him than is the peripherally-located squatter settlement. On the contrary, the very cheap or even free-for-the-taking peripheral land, which is within commuting distance of work places, is most convenient for those with a regular wage. Additionally, since it is unlikely to find a recent migrant to the city who is a regular wage-earner, it is unlikely to find newcomers from rural areas in the peripheral settlements. In other words, choice of location for an urban squatter is greatly influenced by his/her need to be near jobs. The greater the need, determined by the economics of income and commuting, the more likely he/she is to choose centrally-located squatter settlements.

4.2.3 Based on Social Mobility

This classification model was developed by Stokes who used two main variables (58). First is the attitude of the squatter towards social mobility. This is accomplished through assimilation or acculturation in the social and economic lifestyle of the community. Second is the measure of socio-economic handicaps and barriers to such a movement.

The first variable he calls the "escalator" settlement. The second is "non-escalator" settlement. Each of these two variables provide in their turn two general classifications: "settlements of hope" and "settlements of despair".

According to this classification, four types can be identified

1. Settlements of hope with escalator clauses: a group of people who are optimistic in their outlook on life. They have ambitions for a better standard of living and a higher income. Some of these people will move up the social ladder.

2. Settlements of hope with non-escalator clauses: a group of people who are optimistic in their outlook on life. These people lack the ambition to better their income, social standing, or standard of living.

3. Settlements of despair with escalator clauses: these people have a pessimistic outlook and do not try to better their lifestyle. However, they might be tempted to do so through illegal means.

4. Settlements of despair with non-escalator clauses: This group is extremely pessimistic. They do nothing to better themselves and merely exist from day to day (59).

4.2.4 Based on Comparative Typology

Finally, squatter settlements can be classified along a continuum according to the permanence of the inhabitants; the quality of the social and political organizations; the physical setting; the overcrowding; and the types of problems presented. Also, there are certain types of squatter settlements that could be classified dependent upon the degree of enthusiasm of the squatters according to two variables:

1. The Open-Ended Settlement in which the community consists largely of young families for whom this settlement is a staging area in the urbanization process.

2. The dead-end settlement in which the community consists of social rejects, the sick, and the elderly. They live in decaying areas ripe for urban renewal with little hope for future development.

4.3 Conditions in Squatter Settlements

Stated simply, the basic conditions are overcrowding, congested housing, and deficient physical amenities. The truth, however, goes much deeper than that. It has been said that one billion people are living in conditions which are intolerable to them, not just to us (60). Though usually primitive, the appearance of squatter settlements varies somewhat according to the availability of building materials, the financial status of the squatters and their prospects of continued possession. Conditions in these settlements are seldom stable and are usually undergoing a process either of gradual improvement or of deterioration.

Major environmental problems exist but vary according to the physical circumstances. This depends on whether the area is an old central city slum, which has been swollen by migration and a rapid rate of natural increase, or whether the area was previously vacant land, either in the center of the city or on the periphery, which has been "invaded", or settled in some nonlegal fashion. Further determinants of environmental problems are the length of time the settlement has been in existance, the conditions under which it has grown, the physical characteristics of the area, the climate, and the access to utilities and community services.

The location of squatter colonies follows the line of least resistance. Small groups occupy wide pavements, shopping arcades, unguarded public open spaces, parks and playgrounds. They may invade marginal land, reserves along railway lines, banks of canals, temporarily unused plots of absentee landlords, and even bombed sites. Larger groups are driven to settle on stretches of land which prevent their normal use, such as sites that are subject to flooding, steep hillsides, the neighbourhoods or refuse tips or sewage works (see Figs. 12 & 13).

The degree of environmental deprivation is usually severe. Families establishing themselves in these settlement areas commonly exist, in the beginning, at the lowest levels of subsistance. Water may be difficult to acquire. It is usually necessary to carry it a distance, by hand or by head. Access may be irregular and expensive (especially if purchased from water-tank trucks) and in all probability the water will be contaminated. Inadequate, or more likely non-existent, sewage and garbage disposal services will create optimum conditions for the spread of vermin and disease. Words cannot sufficiently describe, nor photographs convey, the stench which is common to many squatter settlements (see Figs. 14 to 16).

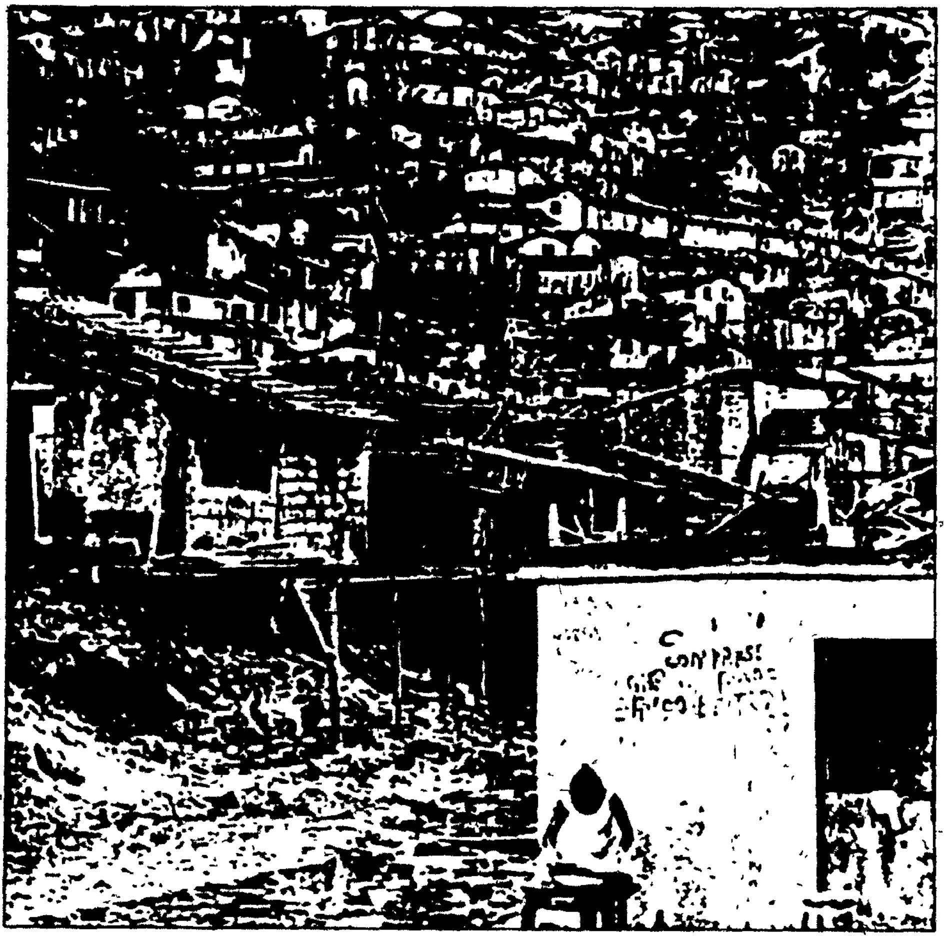
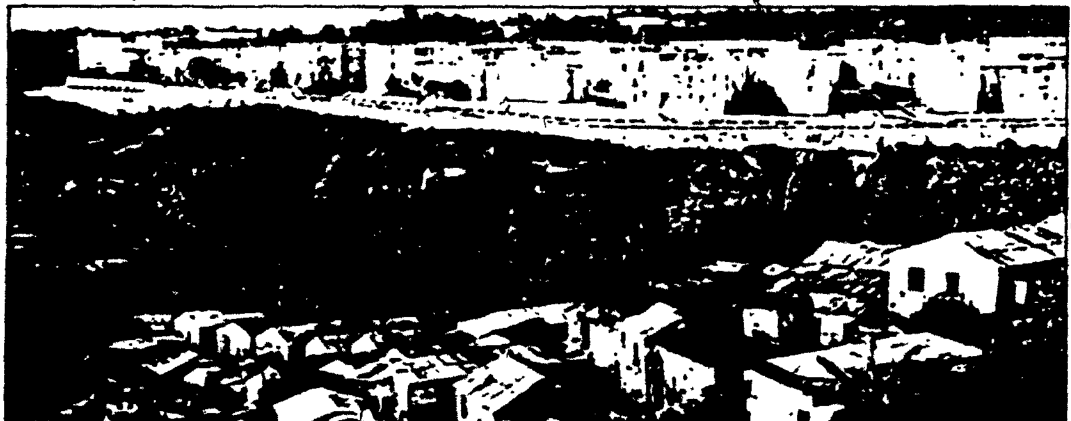


Fig. 12. Large group of squatters have invaded land on a steep hillside, Rio de Janeiro, Brazil.
Source: Cities in Transformation (71)

Fig. 13. Small group of squatters have invaded marginal land and have improvised shacks, Santo Domingo.
Source: Human Settlement Issues 3 (8)



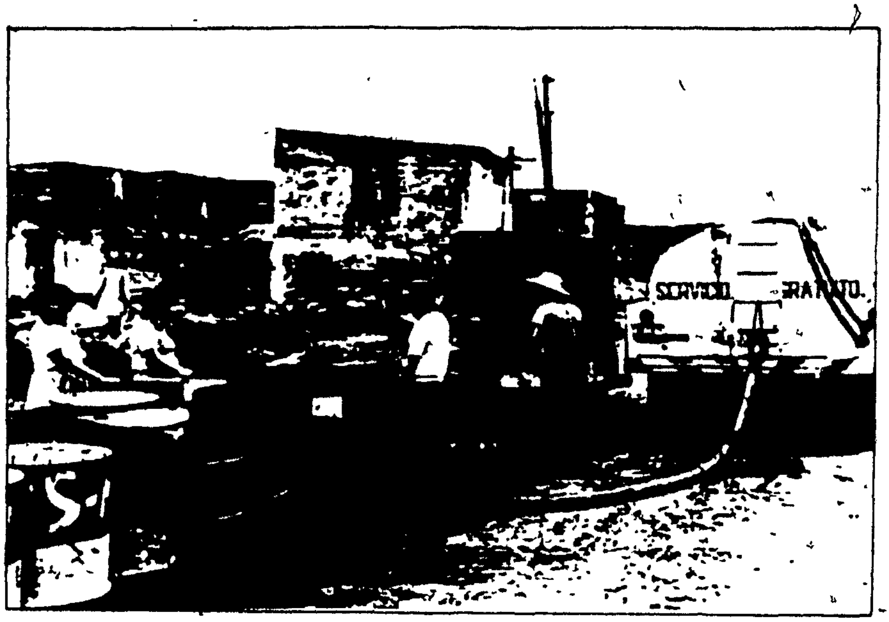


Fig. 14.

In Santo Domingo, water has to be brought in by truck.

Source: Self-help Housing, A Critique (141)

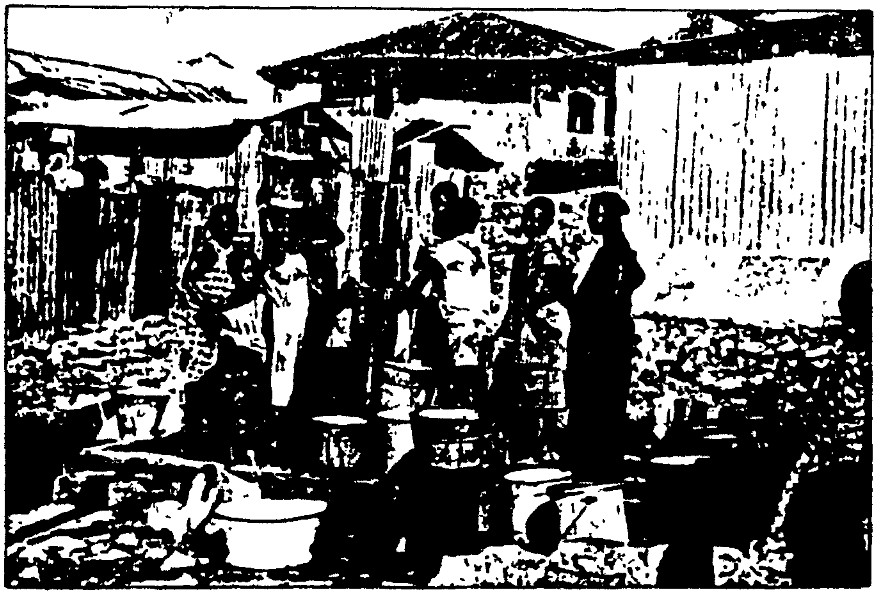


Fig. 15.

A typical scene in Africa, the common water tap.

Source: Man's Struggle for Shelter in an Urbanizing World (1)

Fig. 16.

Carrying water from the public water faucet into the squatter settlement, Mexico.

Source: Network and Marginality (77)

Surprisingly, even in those squatter areas without water and sewage, there is usually some system of electricity supply. It may be supplied by the local utility company, a neighbour's generator, or it may be tapped illegally. Even though it is often illicit, make-shift and far below prescribed standards, the system usually functions (see Figs. 17 & 18).

Natural forces such as fire, floods, and landslides are a constant threat to squatter settlement dwellers. Sickness and infant mortality will be high and life expectancy short. Streets are unpaved, privacy is rarely possible. Access to normal community facilities such as health, education and recreation facilities is typically difficult or impossible. These settlements are most often outside the established zones of public services. Lack of schools is considered a serious problem. The surroundings often suffer from a high density of population, without open space or ready access to transportation to other parts of the city. Populations of squatter settlements often seem to place more emphasis on the provision of minimal utilities and services, particularly water supply and health facilities, than on the provision of more adequate dwellings as such (61).

The "squatments" or dwellings in squatter settlements are usually one- or two-room shacks built solely or in combinations of adobe and scrape, old oil drums (as in the north African bidonvilles), scrap metal, cardboard, tin cans, odd boards, wattle and daub, rags, bamboo, trees, leaves, active or inactive brick kiln (as in south Tehran) etc.

Most of the building is done with materials which are generally located in the immediate physical vicinity of the building site. Furthermore, if building materials are cheap and readily available, squatments may even be durable from the start, especially if uninterrupted tenure seems likely. It is important to note that squatment-building is by no means always a static process. It may be a jumbled assemblage of four walls and a makeshift roof (which provides a better moral case against eviction, as well as a temporary sleeping place). But the squatment may nevertheless serve as a temporary structure which is meant to be inevitably replaced by a more lasting structure. The process may take anywhere from one to ten years (62) (see Figs. 19 to 22).

As noted previously, squatter settlements themselves vary widely in density, income level and type of location. Many of the older, more-established squatter settlements show evidence of self-generated upgrading and improvements. Dwellings built of more permanent materials proliferate along with small enterprises. Rudimentary urban facilities may be improvised. It would seem that security of tenure and development of community organization play essential roles in this process.

4.4 Functions of Squatter Settlements

Throughout history, squatter settlements have met various needs and served useful functions for its residents and non-residents. The poorer people, who are usually the residents, are served by these settlements in that they provide shelter and a modicum of privacy for the essential functions of life, group associations, education for the people in the urban ways of life, and a place to store ones' possessions. They may not serve all these purposes well, if at all, but are often the only means available. The settlements benefit those non-residents who are employers by providing a place where employees could live for lower rents, or more likely, no rent at all and therefore subsist on lower incomes. There are two major classifications for the functions of squatter settlements: a) United Nations' classification; b) Turner's classification.

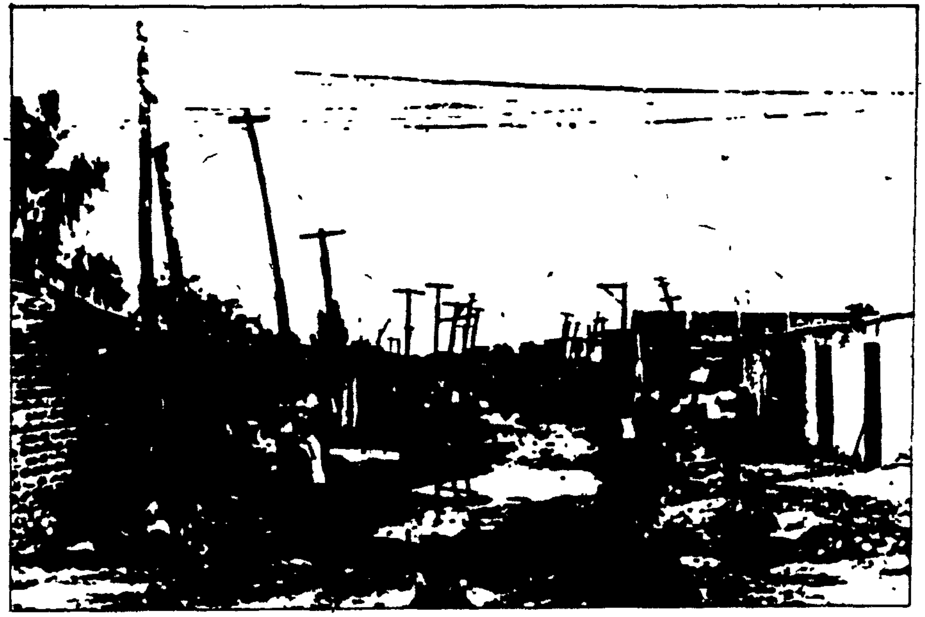


Fig. 17.

Electricity cables steal power from nearby neighborhoods, Santo Domingo.

Source: Self-help Housing, A Critique (141)

Fig. 18.

Mexico, many homes have TV antennas.

Source: Network and Marginality (77)

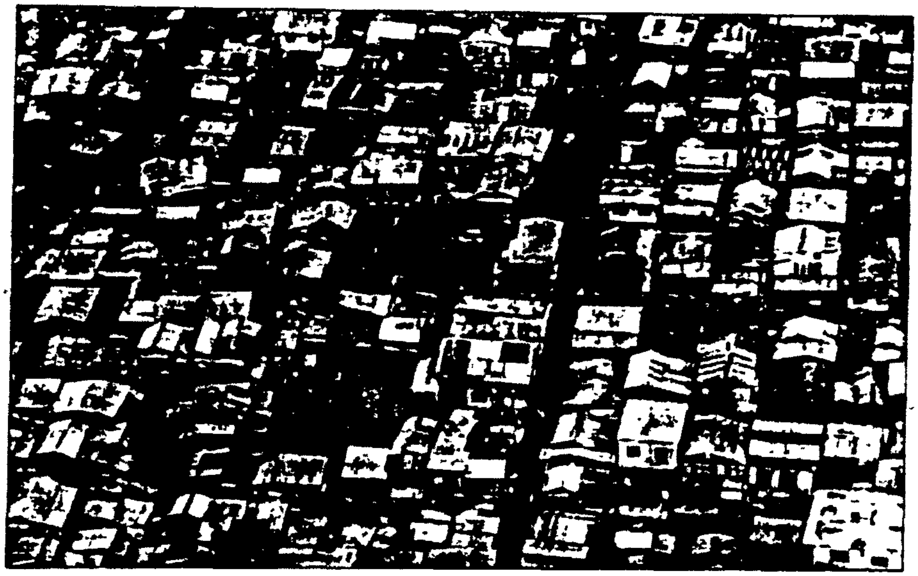


Fig. 19.

Improvised, makeshift shacks in Manila, Philippines.

Source: Housing by People (112)

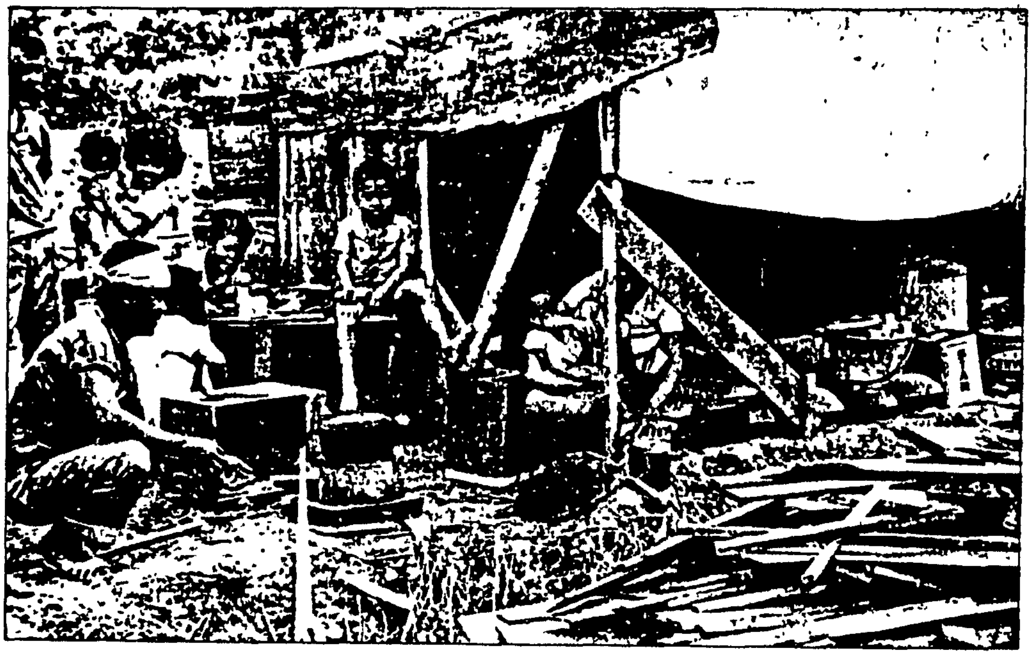


Fig. 20. Use of readily available materials, Philippines. Source: Cities in Transformation (71)

Figs. 21, 22. In the squatter settlements, the individual has hardly any access to suitable building materials. Source: Habitat Bill of Rights (35)

4.4.1 United Nations' Classification

The U.N. identifies six functions served by centrally-located squatter settlements. These also serve as a good general framework (63):

1. They provide housing at reasonable rates, and often at no rate at all. This is a crucial function for a substantial portion of the populations since it may be the only housing to which they have access.

2. They act as "reception centers" for migrants. This provides a mechanism to assist them in their adaptation to urban life.

3. They provide within themselves a wide variety of employment in marginal and small-scale enterprises (see Figs. 23 to 25).

4. They provide a means of finding accommodation in close proximity to work places. This function applies more to centrally-located, provisional settlements or tentative settlements, than to peripherally-located settlements.

5. Their social and communal organizations and their social structures provide essential social support during unemployment and other times of difficulty. Kinship and tribal bonds are very strong and supportive in many of these situations. There is usually someone around with whom to leave the baby or from whom to get a helping hand in time of need.

6. Finally, they encourage and reward small-scale private entrepreneurship in the field of housing. The speculator-squatter and the squatter landlord are both examples of this type of entrepreneur (see type of squatters on page 44 & 45 for explanation).

Although these functions or services refer primarily to tentative or provisional squatter settlements, they still cover the major functions which should be served by all types of settlements:

Fig. 23.

In squatter settlements, homes are often small production centers; San Salvador.

Source: Man's Struggle for Shelter in an Urbanizing World (1)

Fig. 24.

Female head of the family runs a small shop in the settlement.

Source: Housing by People (112)

Fig. 25.

Reoccupied shops on a Lagos squatter settlement. The shops are also used as sleeping quarters.

Source: (1)

1) To provide housing, that is, some form of shelter, which is within the economic reach of the low-income population.

2) To provide relatively easy and cheap access to employment opportunities.

3) To provide low to middle-income families with a measure of security from the fear of eviction). They also provide a means of investing their small savings directly in improving and upgrading their housing.

4) To provide the social context and support necessary for the initial adjustment to, as well as continued existence in, the urban environment.

4.4.2 Turner's Classification

Turner feels that, in spite of all their weaknesses, squatter settlements could benefit their residents. With a moderate amount of direction and aid, they could contribute useful functions. He delineates three categories of necessary functions of squatter settlements:

1. Security - viewing the prime function of the dwelling environment, the "home" as providing the person with a secure location in society. That is, to provide a "fixed abode".

2. Mobility - the environment is seen as a determinant of social status and mobility. One aspect of this environment is the place in which a person lives. Another is the security of his tenancy on the property he lives. Both are important determinants of the person's opportunities for social change.

3. Comfort - or shelter which is of much lesser importance to most squatters than the other two functional areas. Opportunities for social mobility and already possessed security influence morale and attitudes more than aspects of physical comfort (64).

Turner further hypothesizes that squatter settlements provide "bridgeheads" for the economically unestablished and "consolidation settlements" for those with a status to defend. The United Nations termed these "bridgeheads" as "reception centers". Koenigsberger expanded Turner's hypothesis into his theories of "footholders" and "consolidators".

A recognized key function of squatter settlements is to open up greater job-market opportunities. Locational proximity and a job information "grapevine" provide the new migrant with strategically located "bridgeheads". From here he stands the best chance of getting jobs and of solving the immediate and overwhelming problem of survival. Consequently, housing conditions for "the bridgeheader" are relatively unimportant compared to the vital aspects of getting and holding jobs.

Self-improving incipient settlements are those where land is securely held and the buildings are of permanent construction. It's function is to protect the "consolidators" from some of the consequences of unemployment. There is no landlord or public housing agency threatening to evict them for non-payment of rent. It also provides a means by which they can invest their savings directly into their dwellings and environment.

Under present conditions of rapid urbanization, there is unauthorized occupation of urban lands. Along with this, there is construction of impromptu shelters. Some degree of domestic security is necessary in the city; for large numbers of recent migrants, squatter settlements are the only option available. Squatting often represents the most positive response these groups can make within their limited resources and opportunities. Under these conditions, squatter settlements are not only functional, but logical and even in a fashion, "normal" (65).

The point is that squatter housing performs a basic service. It houses the mass of migrants who cannot be housed in any other "legitimate" way. There is no other alternative either available or feasible within their economic constraints nor is there an alternative within the economic constraints of the municipality or the country. The government itself would be unable to fill the gap now being filled by squatter housing.

Squatter settlements are a substantial part of the housing problem of cities in developing countries. But they also function necessarily as part of the solution to that housing problem. The goal should be to provide other viable, affordable and realistic housing alternatives to squatter settlements. At the same time these alternatives should also be safe, decent and healthy.

5

review and analysis of government responses to squatter settlement

Governments and various agencies are faced with a wide range of policies for dealing with the squatter problem. The aim of most policies is either to ignore, prevent, control, contain, direct, or assist squatting. These responses, with respect to squatter settlements, can be grouped under three broad headings: a) laissez-faire policies; b) restrictive or preventive policies; and c) supportive policies (66). These policies are either physical or non-physical; they can have a short- or long-term effect upon the squatters. Some deal more with the roots of the problem than with the manifestation of it, and vice-versa. Policies may involve more than one of the mentioned aims simultaneously, and different policies with different objectives may be pursued by a government or an agency at the same time.

In general, "laissez-faire" policies are simply the descriptive term applied to the practice of some governments to officially ignore the existence of squatter areas and allocate public resources to other development sectors. Restrictive policies, on the other hand, seek to eliminate, or reduce the size of low-income areas. These policies are generally employed in those countries where squatter settlements are considered to be "illegal", either because of land tenure requirements or because of land-use policies or construction standards. This practice excludes these areas from being provided with such urban services as public utilities, education facilities, and health and social services.

In contrast to the laissez-faire and restrictive approaches are others which may be described as "supportive". Founded on the belief that squatter settlements have an inherent potential for improvement, supportive policies seek the inclusion of squatter areas in the national development process. Ultimately, this will include the social and economic integration of the residents into the surrounding area (67).

There are different approaches within the context of these policies which should be analyzed separately.

5.1 Laissez-Faire

The most common policy where rapid urbanization and rural-urban migration are happening concurrently is one of "laissez-faire". This alternative response is based on the notion that doing nothing for potential urban settlers would discourage them from coming to the urban centers. This in turn will thereby retard migration. This hypothesis has been repeatedly tested within the last thirty years in cities of every size all over the developing countries.

For instance, Iran is a good example of this approach. Up until the end of 1979 the main but not the only strategy of the government, towards the squatter settlements was based on ignoring them. By doing nothing for the squatters at the beginning, it was thought this would retard cityward migration. Later it would encourage the squatters to go back to their point of origin.

Koenigsberger states that it seems impossible to find a single case where this option has been validated. The weakness may be that while this policy does nothing to aid squatters, it most often also ignores the root causes of the "trespass of desperation" as Abrams has described squatting (68).

A variation on this "do nothing" approach has been the sporadic attempts at "cosmetic" action, which also does not take into account the conditions which have created and/or perpetuated squatter settlements. One example of such "cosmetic" action was observed by the author. In 1976, Tehran was in preparation for the celebration of 2500 years history of Iran, where an international ceremony took place. At the end of the ceremony all the visitors went to the mausoleum of Reza Shah, (the founder of Pahlavi Dynesty), in the south part of Tehran. For this occasion all squatter settlements which were along the route to his mausoleum were hidden from the view by high fences. The fencing was high enough to obstruct the view of settlements from automobiles travelling along the route. One positive outcome, however was that after the ceremony the fences were scavenged and put to valuable use as parts of dwellings.

5.2 Slum Clearance

It is uncommon for governments to alternate between policies of "laissez-faire" and the more radical approach of slum clearance combined with the expulsion of squatters. The clearance operations, which waste scarce public resources, even when couched in such euphemisms as "urban renewal" often consist of bulldozing the shacks. All this usually accomplishes is a net reduction of the housing available to low-income families. This then forces those evicted to find shelter in other parts of the city and thereby worsens the overall housing shortage. It also exacerbates already grossly-overcrowded living conditions.

Slum clearance often deprives slum-dwellers of small but productive industrial establishments and enterprises without adequately replacing them. Although the residents may be relocated, their enterprises most often are not. It also often results in the clearing away of traditional social systems while it clears away the physical structures.

There are several examples in countries throughout the world, where the authorities simply cleared specific squatter settlements. No concern for the destiny of the displaced families was evidenced except that they should be anywhere but on that particular site. The benefit to the health and economy of the city was that the particular site was cleared. On the debit side, the displaced families simply re-established themselves on other vacant sites in the city, government-owned or privately owned. At the same time they suffered some social dislocation becoming, if anything, a little more defiant towards the local authority.

For instance, in Iran during the month of November 1958, an official eradication party including 130 soldiers; 100 policemen; 120 officers of the police relief organization; 300 municipal officers, workers and street sweepers attacked the 1,356 squatters who lived in a settlement called south city pits. As planned, the soldiers surrounded the pits and the rest of the party entered the pits to evacuate the residents. A few of the squatters tried to escape but were prevented by the soldiers. After half an hour, the squatters were evacuated. The mayor then ordered the destruction of the shacks while the squatters belongings were set on fire. The net result of the whole effort was futile, as these squatters or others soon re-established themselves in the old habitat. One young poor migrant attempted self-immolation by pouring gas on himself and burning himself (69).

It becomes apparent that slum clearance, as the sole governmental policy, can have disastrous effects. Once again, it is a response to the results of the problem, and not to the origins. One view of slum clearance is presented by Marshall Clinard, when he states:

> "Slum clearance is impractical in developing countries where most personal incomes barely support life at a tolerable level and when the urban populations are doubling and tripling every decade. No government could hope to eradicate slums and to prevent squatting under these conditions. Consequently, physical clearance is probably absolutely necessary where housing and sanitary conditions are exceptionally bad or where over-all city plans require it" (70).

There is potential for abuse, through slum clearance, under circumstances "where over-all city plans require it". Once again, it seems that slum clearance is warranted as a last resort, only when it occurs in concert with policies to house those squatters who are displaced by the clearance operations.

5.3 Resettlement

Resettlement schemes have often been attempted along with clearance operations. This happens after slum clearance has been recognized as an ineffectual mechanism for dealing with the squatter problem. New houses had to be built before squatters could be relocated. Unfortunately, the large tracts of land needed for new housing schemes are generally available only outside the city. Land that was cheap as well, was even further away from the city center. Urban activities and job opportunities were the factors that had attracted the migrants to the city in the first place. Resettlement generally meant separation from these factors which were so necessary for economic survival.

For the recent migrants, those Koenigsberger calls "footholders", compulsory resettlement is usually a severe blow. They cannot afford commuting, since their employment is often unstable or minimal. As a result the resettlement colonies tend to be ghettoes for predominantly poor families, offering few opportunities for local trade or service employment.. The usual pattern is for "footholders" to drift back to the city center where there is greater opportunity for their needs to be met. Their places in the resettlement colonies are taken by "consolidators" who are more prepared for suburban housing and commuting (71).

One often-cited, typical example of the disruptive consequences of resettlement schemes is the case of Pedro Mineiro. Pedro, a bricklayer who lived in a Brazilian favela over-looking Rio de Janerio's Botafogo Bay was able to walk to work in Copacabana. His wife took in washing for rich people and after work Pedro could go to dig crabs for food on the beach. They had electricity but no water or sewage and were able to save a little money in a tin can for emergencies.

The Mineiros were forcibly relocated in a distant housing project, Vila Kennedy, which was financed by United States funds through the alliance for progress. Now in addition to meeting house payments Pedro has a long and expensive journey to work. He is too far away to go crabbing, and his wife has lost her clients. Due to the burden of housing and transportation costs they cannot save anymore and sometimes cannot even meet their monthly payments. Pedro's journey to work now takes him nearly four to six hours a day; he leaves at 4 a.m. and returns at 9 p.m. As a result he rarely sees his children during the week (72).

The combination of slum clearance and resettlement, despite its obvious weaknesses, is still being pursued. A Gazette (Montreal, Canada) article, dated October 31, 1983 and headlined "Zimbabwe Razes Squatter Shacks" reports:

> "Soldiers and police armed with submachine-guns evicted hundreds of squatters on the weekend and bulldozed their shacks made of plastic, wood and metal on the outskirts of the Zimbabwe capital...

> ...Police said the operation was part of a 'cleaning-up exercise' to move tens of thousands of illegal squatters from the capital..... The government says the shanty towns are a health hazard and an eyesore and that thousands of squatters have denuded large tracts of forest land on the outskirts of the capital, cutting trees to build huts. ... Housing Minister said that 'all illegal settlements will be razed and those squatters who are genuinely landless may be resettled'.... Those who are not interested in the land and would like to continue loitering in the city will have to go' he said".

A New York Times article, dated March 7, 1976 and headlined "Indian Government is Pressing a Campaign to Clear the Streets of Bombay of Thousands of Beggars", reports:

> The drive on the beggars...reflects a new zeal for at least cosmetic reform... In Delhi hundreds of shacks have been pulled down.... and tens of thousands of the poorest people have been moved from the huts they live in to new communities far out of town and out of sight ... Officials have said that the adult male beggars who are able to work would be offered menial jobs at two irrigation-dam projects in rural areas near Bombay, and that the ones who declined would be sent away from the city with orders not to return.

Once again, we see evidence of a very short-sighted approach which ignores some basic issues. For example, what happens to the people who are sent away from the city? Where will they be sent? What is in store for them when they get there? The conditions which originally drove them from the rural areas to the urban centers have not changed. In addition, what happens to those adult males (what about the rest of the beggar population?) when the menial jobs on the irrigation projects are completed? Most likely they will be right back at the point they are at now.

There are additional drawbacks to resettlement policies which should be mentioned. Rehousing migrants on the fringes of cities, where land prices are lower, involves much higher transportation costs for the migrants. Also, it eventually forces the city to expand expensive urban services and installations. Governments are handicapped by the difficulty of accurately computing the costs and benefits of the improper and inadequate provision of urban services. Consequently, this makes it difficult to weigh the relative merits of resettlement versus other policy options.

Another problem, as mentioned earlier, is that resettlement often implies relocation only of dwelling, but not of enterprises, which thrived in the squatter settlements. It is unfortunate the relocation schemes rarely consider resettlement in the proximity of the old, cleared squatter areas. This would have the advantage of keeping people near their traditional job sources and help pursue their existing social systems. It is recognized that high urban land prices act as a serious constraint on this option. Furthermore, selling the cleared urban land is one way of generating revenue for private and/or public sectors. Nor should we overlook the fact that real estate and governmental emphasis on relocation schemes may be based on their interest in vacating the land in order to sell it for revenue-generating landuses.

5.4 Public Housing

As population pressures increase, a frequent governmental reaction is to emulate developed countries by building public housing, preferably subsidized to assist low-income families. However, many countries and cities, especially the poorer ones, have found that they do not have sufficient resources with which to make a direct or indirect impact. As a result, it is often necessary to restrict low-income public housing to city and state employees and a few demonstration or pilot projects for industrial labour (73). Koenigsberger has found few growing cities in which public sector-built or aided houses represent more than 15% of the total housing stock (74). This represents a small proportion when compared to the slums and squatter settlements which make up over one third of much of the housing in cities of developing countries (presented in Table 1). Other problems arise with public housing programs.

Complete dwellings are constructed according to minimal standards for space and materials; but almost always even these low standards are too expensive in relation to the total needs and the total resources available. For most squatters and slum dwellers, the heavy interest and maintenance costs, along with ~~the~~ high capital costs per family, add up to too heavy a burden. If rents or mortgage payments are high enough to amortize investments, they are most likely to be far above what the low-income families can normally afford. This eventually leads to a high rate of default, with the public housing eventually being occupied by higher income groups (75). Thus it remains beyond the financial capabilities of the very group which is most in need of the housing assistance, and for whom it was originally intended.

A very good example of public housing and its result is the Kuyi Nuhum-i Aban Settlement. A public housing project was built by the exgovernment of Iran (for the celebration of the Shah's son's birthday) for some poor migrants in the southern part of Tehran. Forty-five percent of housed people had to sell their houses in the first five years due to high monthly payments and a very low or most likely no income at all.

Apart from the financial point of view, an attack on public-housing is made by Jane Jacobs, when she says "mass clearance of slum areas and their replacement by new public housing projects is destructive of the vitality and diversity of the city, which, in turn, brings about conditions far worse than had existed in the slum. Low-income projects that become worse centers of delinquency, vandalism and general social hoplessness than the slums which they were supposed to replace" (76). These housing projects are truly marvels of dullness and regimentation, sealed against any buoyancy or vitality of city life.

John F.C. Turner, criticizing orthodox "low-income" projects which are designed to give maximum comfort to the maximum number of people with the minimum outlay, states: unless the state is prepared to invest its limited capital resources and restrict its building program to an insignificantly small minority of subsidized dwellings, the family will have to pay for utilities as well as the land itself. This means that half or more of what they must pay for goes into installations which, relatively speaking, are luxuries. The result is that they must accept a very small house and wait, in all probability for schools, market places, and soon the lack of which will be all the more serious for the relatively distant location which the cost of the undeveloped land imposes (77).

5.5 On-Site Upgrading

Because of the high costs and negative results of past experiences such as: eviction, demolition and forced resettlement policies, new solutions are currently being employed in many countries through legalization and upgrading of squatter settlements. Fortunately many governments and authorities are becoming more tolerant of informal solutions as they have learned that all steps taken over in the past, to a large extent, were insufficient. Upgrading is generated through various self-help and mutual help programs; either as unaided, incrementally-developed self-help, or as governmental programs of slum improvement and rehabilitation.

As previously discussed, when low-income residents of squatter settlements obtain a modicum of employment security and land tenure security, they often act to improve their environment. This is done through the investment of a substantial portion of their resources, money and labour in the gradual improvement by incremental stages of development.

The physical facilities developed through this process of improvement may amount to a significant contribution to the capital assets of the country.

Self-help programs through the government involve providing basic construction tools and building materials. This is coupled sometimes with on-site guidance and tutorial instructions, and allowing the squatters to constuct their own homes out of these materials. In mutual-help programs, the people are taught basic building techniques and acquire specific skills in the construction process. They then move from house to house performing that skill, not knowing which house will end up becoming their own. Completed houses are assigned to the various families by lottery.

All upgrading schemes also include securing land tenure for the squatter residents. Depending on who the original land-owner was, this is done through several methods: the local government donates the lots to the people, if they have invaded public lands, or makes them acquire them with time payments in very small monthly amounts; the local government expropriates the land from private owners, usually paying them amounts that are well below the market value (78).

Officially-undertaken on-site improvement operations which consist of careful, incremental installation of support networks and infrastructures, offer the most feasible solutions to the problems presented by squatter settlements. The reasons for this are as follows:

a) the burden on public funds can be considerably less than for public housing and relocation, if upgrading programs are designed using principles of affordability by the residents and the mobilization of popular action;

b) the provision of security of tenure and access to credit, and people's participation in terms of savings and labour can be mobilized and directed to upgrading activities;

c) there are politcal and practical reasons against relocating total communities on the scale that is common in most cities;

d) given the precarious nature of the informal sector activities (community dependency, location, etc.), relocation removes people from employment sources and reduces their capacity for economic survival. It is hard to imagine how informal sector activities can survive in public housing and apartment blocks;

e) social and economic survival of squatter settlements depends to a large extent on community organization and neighbourhood relationships. Relocation and public housing destroys the social fabric of poor urban settlements (79).

The fundamental objection to upgrading as a policy is that it is limited to correcting or mitigating the results of past mistakes or neglect (80). It seems that it is necessary for a government to have a two-pronged approach to the problem; one aimed at relieving the underlying causes of squatting, and another aimed at relieving the immediate deplorable conditions in the squatter settlements. On-site upgrading carried out by the government seems as effective for this latter goal (see Figs. 26 to 28).

At the end, the policies of three selected countries may typify the kind of approach that can be employed through government upgrading programs. In India, the government's Minimum Needs Programme is designed to achieve a "minimum level of improvement of the environmental quality of existing squatter settlements". In Egypt, the government limits its

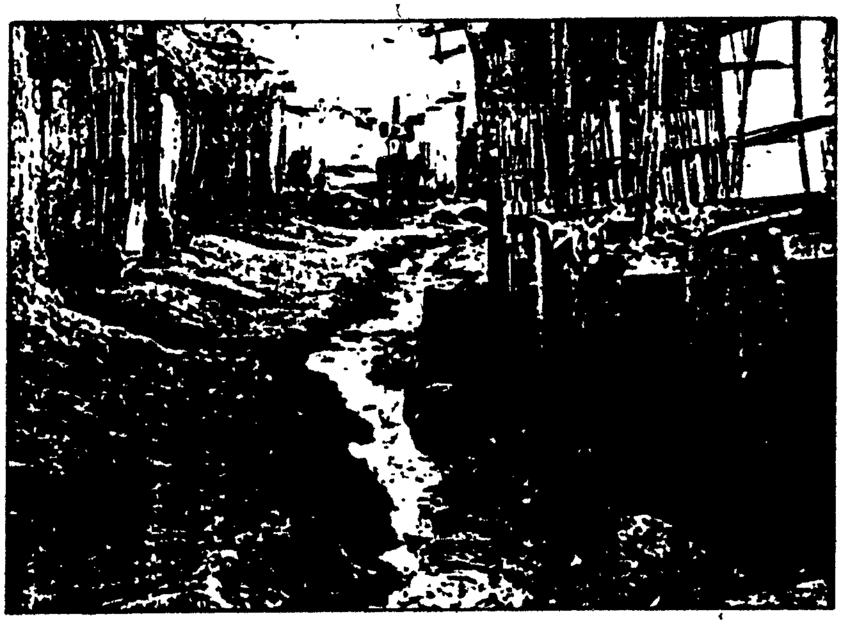


Fig. 26.
A typical trench for waste disposal in a Moroccan squatter settlement

Source: Man's Struggle for Shelter in an Urbanizing World (1)

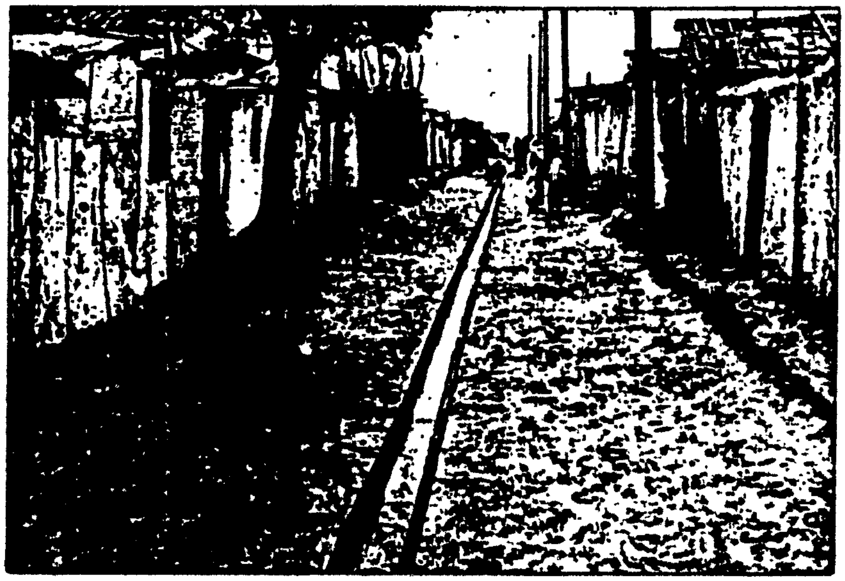


Fig. 27.
The same Moroccan squatter settlement after the installation of a drain.

Source: Man's Struggle for Shelter in an Urbanizing World (1)

Fig. 28.
The upgraded squatter community of LasColinas in Bogota, Colombia, now an integrated neighbourhood of the city.

Source: Human Settlement Issues 3 (8)

direct action in squatter areas to providing basic infrastructure and community facilities. It seeks to encourage the private sector to improve housing in squatter settlements by offering such inducements as tax credits and low-interest loans. In the case of Sri Lanka, the government has adopted a multi-faceted approach by providing basic physical infrastructure and community facilities. This is supplemented with limited new construction, the provision of serviced sites and the transfer of ownership to squatters of the units they occupy, with the expectation that they will improve them (81).

5.6 Site and Service Schemes

It would seem that a natural simultaneous or consequent outgrowth of governmental in-place upgrading projects are the site and service schemes. This is a more positive, realistic, and promising approach to the solution of the squatter settlement problem; this approach is being recognized as an eminently viable solution. These projects are initiated by city governments and particularly by international organs of change such as: The World Bank (International Bank for Reconstruction and Development: IBRD); United Nations: UN; Agency for International Development: AID; Inter-American Development Bank: IDB. It must be noted, however, that like all solutions attempted to the squatter probelm, it is at best a partial solution. No one scheme can hope to solve a problem of such social, physical, political and economic magnitude.

Under site and service schemes, the government first acquires urban land in advance, then plans it to facilitate linkages with existing infrastructures and community services, then building sites, which are equipped with the minimum services essential for health and access, are made available to low-income groups (82). As a result, the local authority can concentrate its limited resources on those aspects which the individual settler cannot effectively provide for himself. This includes land, infrastructure and such public services as fire, police and solid waste collection. Street lighting is also generally provided, in addition to drainage where warranted due to the configuration of the terrain. The settler is left with the responsibilities which he is most able to meet, that is, to construct a house, by incremental development, with the help of family members, relatives and friends; in other words, do what they do best and like best to do. Usually this is done through weekend work that lasts several months for each house according to the availability of time and the pace at which he can accumulate some savings.

There are different types of approaches which can be defined as follows. A "site and services project" is a plot with infrastructure services providing the settler with sanitation, electricity and water supply. Therefore sites and services schemes do not have any shelter, but some have the "service core". This is a bathroom or an area for preparing food, or both. Another type of approach is the "support structure" project which consists of site and services plus an unfinished shelter with space for bathroom, kitchen and a common area used for dining, living or sleeping. The support structure is defined by John Habraken as "a construction which allows the provision of a dwelling which can be altered and taken down, independently of the others" (83). This shelter is designed to enable the settler to have fast or immediate occupancy (see Figs. 29 & 30).

Three important favourable aspects of this approach (site and services) are: first, it allows the city to take the initiative in determining the location and pace of urban expansion. It is the city which first prepares the housing plots for the settler, thus it avoids the squatters, subdivider or speculators invasion tactics of legalizing squatters'

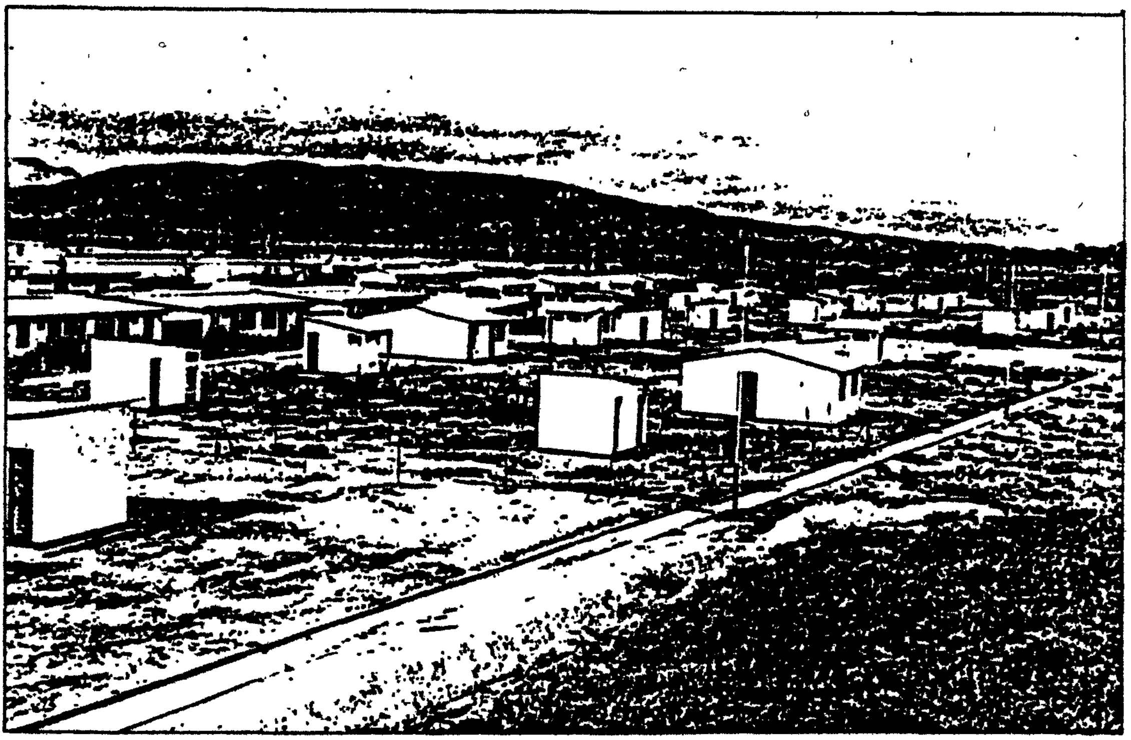
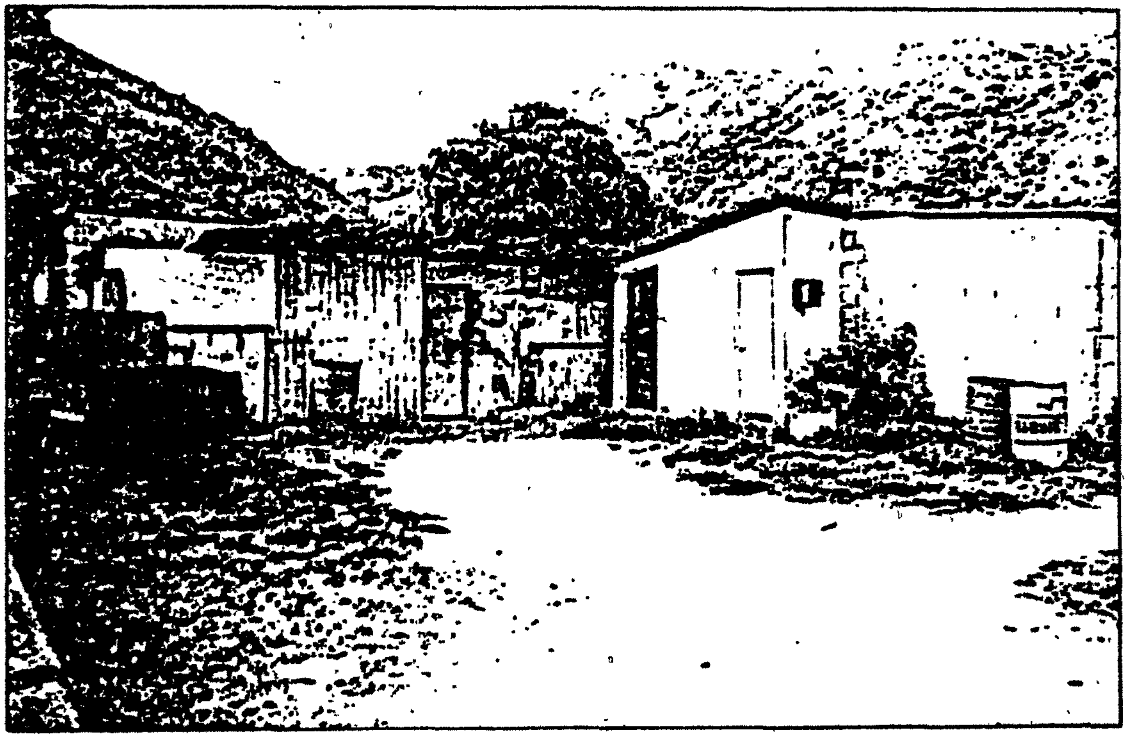


Fig. 29. Typical site & service project built in Venezuela.
Source: Design Guideline for Progressive Growth in Urban Shelter (76).

Fig. 30. First step of above project built by owner in the back of the plot.
Source: Design Guideline for Progressive Growth in Urban Shelter (76).



action "expost facto". Second site and service schemes are a recognition by government that it is not possible to solve the problem alone, but rather through a sensible division of labour between the public and private sectors. Finally, the squatters themselves probably feel somewhat welcome, or at least officially tolerated as new citizens, since the city made certain site preparations to receive them, something of extreme psychological importance (84).

Koenigsberger discusses some very important lessons to be learned from various recent applications of site and services schemes:

1. Questions of project numbers and sizes are all important, if site and service schemes are to make an impact on the supply and demand situation. The need is not only for projects of appropriate magnitude, but also for programs that extend over many years to meet foreseeable demand from urban settlers.
2. There is a tendency for serviced plots to end up in the hands of comparatively wealthy buyers if the site and service schemes are too small. This is reinforced further by the enforcement of rules and regulations regarding the quality and appearance of buildings. This tends to make the plots too expensive for the very groups for whom they were intended.
3. Isolated projects have little effect. What is needed is a series of site and service projects which are timed to keep pace with urban population growth.
4. Finally, planning must go beyond more production of serviced plots, to include the distribution of the plots to the low-income groups for whom they are intended (85).

Site and services schemes require considerably less administrative, technical and financial resources than conventional public housing programs. When successfully implemented, they can serve as the basis for future re-development as national incomes and living standards rise. Nevertheless, this approach does require a degree of institutional capacity and some capability to mobilize financial resources. In addition, despite its advantages, it has some problems. Unrealistically high standards that are frequently employed, make it "wasteful of land use" and usually beyond the reach of the majority or urban squatters (86).

5.7 Rural Development

Other strategies which governemnts embrace with varying degrees of enthusiasm generally focus their attention outside the cities, and seek primarily to stop urban migration at its source. It must be recognized that these development strategies are all long-range and cannot be expected to have any immediate impact on rural-urban migration.

The first of such measures, rural development, is aimed at halting the rural exodus by concentrating on agricultural modernization and giving village life priority in development strategies. This may cover any combination of programs: better rural schools, social services, amenities and recreation; better marketing and credit facilities; better rural roads and electrification; land reform; colonization of thinly populated regions; water storage and irrigation in regions that are periodically depopulated by drought; minimum wage and protective legislation for agricultural labour; and/or changes in the content of education to raise the present low prestige of agricultural work (87).

Another aspect of rural development may focus on the support or rural towns, so that they may absorb surplus population and relieve some of the strain on larger urban centers. It is felt that urban decentralization is essential for developing countries; in order to speed up the process of development, a system of rural towns based on a hierarchy of functions is necessary. The rural towns would serve the following functions of the development process:

1. They would provide the basis for activating the supporting systems, example, the transition from a farm with a closed economic structure to a farm beginning to produce large amounts of a variety of market products.
2. Rural towns could serve as an appropriate location for the development of industries that must be dispersed in rural regions.
3. Rural towns could bring urban culture to the hinterland and speed up the process of modernization (88).

It must be remembered, however, that if rural towns go through a period of intense and rapid urbanization, there could be severe negative results. The small, rural towns are the ones least able to deal with the consequences of rapid urbanization. They have less in the way of resources and experience than do th larger cities.

Investment in rural development is essential to any long-term planning in developing countries. However, there is insufficient information on the motives for migration. Consequently, developing countries are limited in their ability to choose intelligently between policies aimed at removing those motivations. This constraint is further compounded by the likelihood of any measure taken having unintentianal contradictory effects. For example, better schooling may raise the standard of living of rural peasants. But it may also make them more discontented with their lot, and more aware of urban opportunities. It may also give them greater confidence in their ability to make a living in the city.

This policy of rural development, which stated another way is a policy of anti-urbanization, is theoretically and practically unfeasible, if there is no simultaneous dispersal of industries to rural areas. For in the long run modernization in agriculture eventually leads to an irreversible decline in the need for rural manpower. Increases in agricultural employment, as a results of mechanization, irrigation, and double or triple cropping are only temporary.

As productivity and mechanization increase, the need for agricultural workers must decrease. The U.N. concluded that "developing countries cannot hope to modernize without a steady decline in the proportion of the working population engaged in food production" (89). Without the development of rural towns and rurally-located industries to absorb that surplus population, the prospects would be bad indeed.

5.8 New Towns

Another part of a country's long-range development plans may include the building of new urban centers, which may range from new market towns to new metropolitan capitals. This is in order to set up alternate "growth poles" to relieve some of the pressure on the major existing city or cities.

A key factor which must be kept in mind is that the successful development of new towns is inextricably linked to the possibilities for jobs. No matter how attractive the housing conditions may be, if there are no prospects for employment, trade or progress, the chances of the new town surviving are severely reduced. The new town must be able to exert its own polar influences. Furthermore, new towns are often too costly (especially the financing of utilities and urban services) for many developing countries.

Another potential weakness of the reliance on new towns to relieve pressure on existing cities is that, in fact, they cannot be expected to make a noticeable impact on the growth rate of those existing cities (90). Perhaps, in the long run, they will affect the growth rates, but certainly not in the immediate future. For example, a look at the case of Shahinshaher, in the central southern part of Iran, shows that it surely is one of the most extravagant new towns developed. While it has accomplished a great deal by opening up the interior of the country to the possibilites of new development, its effects on the population growth of two big nearby cities of Isfahan and Shiraz appear to have been negligible.

An extension of the new towns approach to development is the development of satellite cities. While satellite cities often lack a variety of industries and social life, the older, established, nearby core city can usually provide the greater variety of choices and interests which the satellite city itself may lack. Thus, a worker may have a range of jobs to choose from both within the satellite and within the nearby city. However, all the constaints of distance and commuting may still be operating.

5.9 Decentralization: of Industries, Public Administration, and Social Service Institutions

There has in the past been little dispute over the need for policies to decentralize industries, to create new regional centers, to develop new "growth poles" in order to reduce the problems of urbanization on a national scale. For example, as already mentioned, if new industries could be located in rural areas, near the sources of rural-urban migration, it might keep people in their established rural communities and thereby help reduce the heavy flow of migrants to the urban centers. Furthermore, it would hopefully lower the high rate of unemployment and help reduce the need for greater investment in new transport and public facilities.

A major hindrance may be, however, that for a variety of reasons industries do not necessarily settle or wish to settle in a location which the government may regard as best serving the national interests. For example, since the major cities already are centers of commerce, administration, banking, industries, etc.; developing industries very likely would prefer (or need) to make use of those existing facilities. Facilities such as management and technical resources, support and transport infrastructures probably are not yet developed in the rural regions. Therefore it may be necessary for the government to provide incentives (such as improving electrical power supplies and transportation) for the establishment of new industries where the government wants them located. Or conversely, provide disincentives to industries locating in major cities.

As previously stated, however, such policies of decentralization evidently cannot in and of themselves reduce the problems and pressures of urbanization at the national level. It has been demonstrated that such policies can even aggravate these problems to some degree. The rural areas designated as growth centers, and especially the relatively small towns within these areas can be caught short. In the short-term they may have difficulty meeting the severe strain on financial and staff resources which a rapidly growing population would place upon them. They would probably be far less capable of providing community services than would be the larger metropolitan centers. It becomes obvious that the complexities and implications of decentralization policies must be more throughly examined both by the developing countries concerned and by international bodies.

5.10 Restricted Migration: "Closed Cities"

In order to limit the growth of the major cities, one of the oldest strategies is to create "closed cities", making it illegal for migrants to settle in the capital cities. This method has generally proven untenable (91). Variations on this theme include systems of internal passports, check-points and travel permission, as well as attempts at repatriation of migrants to their original villages.

These measures have failed in the past. They most likely will fail in the future, because like so many other policies, they deal with the symptoms of the disease (in this case the rural-urban migration); they do not address the roots of these symptoms. Failure to reduce the pressures at the rural level will doom any measures which deal exclusively with the more superficial manifestations of the squatter phenomenon.

A major pitfall of many of the policies discussed (e.g., public housing, resettlement) is that their aim gets subverted. The low-income families whom they were intended to benefit are economically squeezed out and higher income families replace them as primary beneficiaries.

6

implications

It is clear that what is needed to address the problem of squatter settlements is a wide range of simultaneous approaches. Planning exclusively in terms of the number of housing units to be built is no remedy. The phenomenon is national in scope and therefore all its ramifications must receive attention.

The generative conditions of rapid urbanization must be examined and confronted. Policies of rural development, industrial decentralization and family planning must receive public support and priority. It must be recognized however, that these approaches have long-range impacts, and require time for their implementation. As a consequence, immediate steps must be taken to alleviate current difficulties.

Under present conditions of urbanization, large numbers of recent migrants have only one option. In order to obtain some measure of domestic security in urban areas, the newcomers construct makeshift shelters on unauthorized urban lands. Governments can no longer afford to evade these issues. The options must be broadened to accommodate migrants, because they will continue to flood into cities until conditions encourage them to remain where they are.

An initial step would involve taking a comprehensive approach to the squatter phenomenon because its solutions cannot be sectoral or fragmented. Many developing countries have a type of national planning body which deals with the problems of urbanization in general and squatters in particular. The costs of urban housing, public works and social services are major concerns of such government agencies. These planning committees should be given more authority and funds. Their responsibilities should be expanded in order to coordinate urbanization related to national needs and resources. This can only be achieved through the effective coordination of various government departments.

The need for careful planning in the crucial areas of rural development and industrialization cannot be overstressed. Long-range plans are vital to the economic viability of developing countries in the throes of rapid urbanization. How this process takes place will determine the character of the major cities as well as the squatter settlements that mushroom around them.

Strategies for rural development and industrialization, particularly in regions surrounding large urban centers, should aim at balanced growth. Employment opportunities must be created and nurtured in both rural and urban areas. Unfortunately, the costs of such policies might be more than a country is able or willing to bear. An analysis of this issue, which is in the sphere of political-economy, is beyond the range of this thesis.

Governments must adapt policies for urban land use and enact control measures. In order to avoid land speculation, land must be acquired in advance of anticipated needs. Land acquisition must also be closely integrated with employment policies to permit government control over urban expansion. This type of planning enables governments to extend urban services to settlements more efficiently and economically.

Granting legal title to squatters for the land they occupy, in return for capital improvements to their dwellings, would give squatters an incentive to renovate. This approach would "capitalize" on the fact that low-income families would be building and improving their housing at little or no direct cost to governments.

In addition, the planning process should promote the maximum efficient use of local material resources and construction practices. This can be accomplished chiefly through on-site upgrading and site-and-service schemes. A number of considerations should be kept in mind 1) rigid building standards and inflexible administrative requirements should be avoided to prevent stifling initiative; progressive improvement by the inhabitants themselves should be encouraged. This has the advantage of being both immediately applicable and inexpensive for the government. 2) Technical assistance should be provided for development of small businesses, for the efficient use of building materials and for the coordination of community-oriented projects. There is still room for foreign aid in this realm to help defray some of the cost. 3) Finance and credit mechanisms must be devised in order to enable the multitude of low-income and low-middle income families to accumulate sufficient funds for the improvement of their environment.

A further responsibility of the government is to provide the necessary, vital community facilities in health and education. Other programs should be aimed at improving the environmental context of squatter settlements and not merely individual housing units. Such services as water supply, sewage, garbage disposal and electrical services are essential and should be met as the government's responsibility.

What is being suggested here is a broad range of policies, some of which address themselves to the relief of immediate problems; those which focus on the root causes of squatter settlements do not come to fruition until much later. Developing countries must employ this dual approach to the extent that their available resources and technology permit. The roots and causes of rapid urbanization and the squatter phenomenon go beyond national boundaries. As developing countries are affected by global conditions, so too must there be global commitment to seeking solutions.

part two:

A CASE STUDY OF SQUATTER SETTLEMENTS IN TEHRAN, IRAN

NOTE: At the time of submission of this thesis, the Iranian Government requested that no pictures dealing with the squatter settlements in Iran be published.

1 brief review of Iran

1.1 General Information

IRAN (i-rań), one of the earliest civilizations recorded in history, is a Moslem country in the Middle East. It is surrounded by the U.S.S.R. to the north, Turkey and Iraq to the west, the Persian Gulf and the Gulf of Oman to the south, and Pakistan and Afghanistan to the east (see Fig. 31).

SIZE: It has an area of 636,296 square miles or 1,648,000 square kilometers.

TOPOGRAPHY: Iran shows a marked physical unity, since it is roughly bowl-shaped with a large central plateau, and an average altitude of 3,000 feet (915 meters) above sea level. It is surrounded on three sides by rugged mountain ranges and the fourth side is the gulf shore. The highest peak is Mount Damavand, located in the central north, given as more than 18,000 feet (5,663 meters). The Caspian Sea, also in the north, is listed as about ninety-two feet below sea level.

CLIMATE: Because of its great altitude and the effects of the cold mass of Siberia to the north, and of India and Arabia to the east and west (which in summer are very hot), Iran has an extreme climate. Rain falls over most of the country only from October to March, and except in the north and northwest it is generally deficient in amount. Winters are cold, even bitter in the mountains, and summers are extremely hot. There is high humidity in the north along the Caspian Sea and south near the Persian Gulf, and the east especially is subject to strong sandstorms. Conditions in Tehran, the capital, are fairly typical of Iran as a whole: in summer, temperatures of 100^o-110^oF (38^o-43^oC) are common, and in winter 25^o-15^oF (-4^o--9^oC), with annual rainfall of 4-10 inches (10-25 cm).

LANGUAGE: The official language of Iran is Persian (Farsi) and is spoken by about 50 percent of the population. The second major language is Azerbaizhanis Turkish (27 percent). Kurdish, Arabic, Baluch and Turkoman languages make up less than 25 percent.

ETHNIC GROUPS: Persians constitute the largest ethnic group (63 percent); other important groups are Kurds, Azarbaijanis, Lurs, Baktiaris, Qashqais, Baluchis, and Arabs.

RELIGION: Shiite Islam is the official religion with approximately 90 percent adherence; also represented are Sunni Moslems, Jews, Armenian Christians, Assyrian Christians, Bahais, Sufis, and Zoroastrians.

POPULATION: According to the latest census in mid-1976 the population was 33,708,744 consisting of 17,356,347 males and 16,352,397 females, growing at a rate of about 3.0 percent per annum (estimated population July 1st, 1980: 37,447,000). The population is almost evenly divided between rural and urban; nomads and semi-nomads are estimated to account for less than 5 percent.

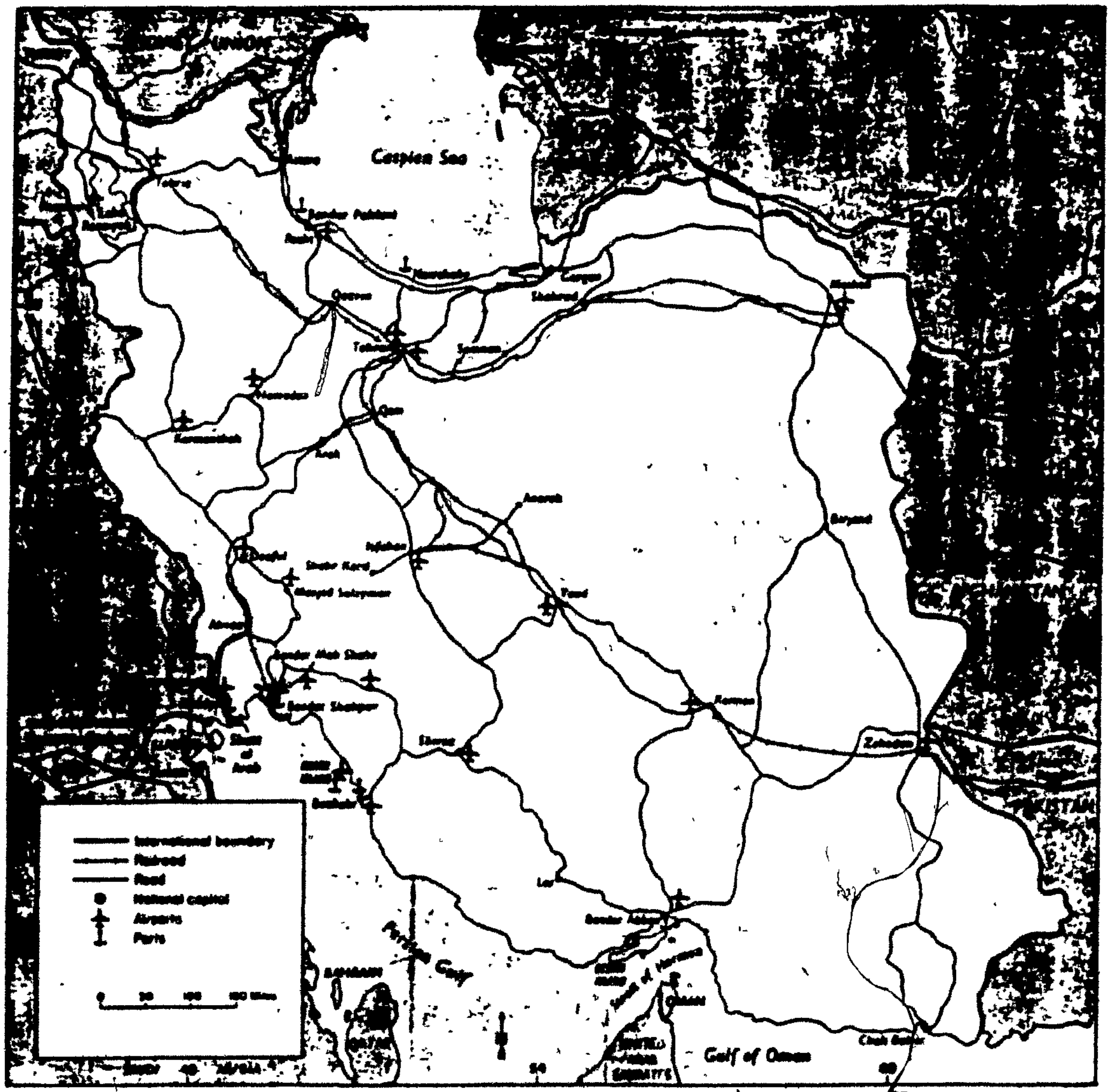

Caspian Sea
Tabriz
Bandar Pahlavi
Rasht
Qazvin
Tehran
Semnan
Shahrud
Gorgan
Mashhad
Hamadan
Kermanshah
Qom
Arak
Anarak
Esfahan
Shahr Kord
Dezful
Masjed Soleyman
Birjand
Yazd
Ahvaz
Bandar Mah Shahr
Bandar Shahpur
Kerman
Zahedan
Shiraz
Bushehr
Lar
Bandar Abbas
Persian Gulf
Strait of Hormuz
Gulf of Oman
Chah Bahar
International boundary
Railroad
Road
National capital
Airports
Ports
0 50 100 150 Miles

Fig. 31. Map of Iran.
Source: Iran, A Country Study.

CURRENCY: The basic unit of currency in Iran is the Rial which has the equivalent value of $0.0117 U.S. (U.S. $1. = 84.93 Rials) based on December 1983 exchange rates. Also used in Iran is the Tuman, which has the value of 10 Rials.

1.2 Recent History

Iran, a country with over 2,500 years of history, was called Persia until 1935 and adopted its first imperial constitution in 1906. In 1921 Reza Khan, a cossack officer, staged a military coup and became Minister of War, and was subsequently elected Shah (the founder of the Pahlavi dynasty). In 1941, British and Soviet forces entered Iran forcing the Shah to abdicate in favour of his son, Mohammed Reza Pahlavi. 10 years after, in March 1951, the Majlis (National Consultive Assembly) approved the nationalization of the petroleum industry. Shortly after, the Shah assumed total control of the government. Between 1965 and 1977 Iran enjoyed political stability and considerable economic growth, based on oil wealth. In March 1975 the Shah introduced a single party system (based on the Iran National Resurgence Party - Rastakhiz). Opposition became increasingly evident, however, and during 1977 and 1978 demonstrations and strikes against the Shah and, in particular, against his secret police (SAVAK) rose to crisis level.

The most effective opposition came from the exiled religious leader, Ayatollah Khomeini, who conducted his campaign from Paris, where he had arrived in October 1978 after 14 years of exile in Iraq. Ayatollah Khomeini demanded a return to the principles of Islam, and the response to this call in Iran was so great that the Shah felt compelled to leave Iran in January 1979. Ayatollah Khomeini arrived in Tehran on February 1 and took over on February 11, while appointing a provisional government. Subsequently, on April 1, he declaired Iran an Islamic Republic with a new constitution which was approved by referendum in December.

GOVERNMENT: Iran is governed by a popularly-elected President for a term of 4 years, and a popularly-elected Majlis (National Consultive Assembly) of 270 members for a term of 4 years. A 12-man council for the protection of the constitution ensures that legislation is in accordance with the constitution and Islam. The executive, legislative and judicial wings of state power are subject to the authority of the Velayat Feghih (religious leader).

PROVINCIAL DIVISIONS: According to the latest state division (May 1977), Iran is divided into 23 provinces (ostans), 472 counties (shahrestan) and 499 municipalities (bakhsh).

1.3 Economic Affairs

According to the United Nations, Iran falls into the category of middle-income, oil exporter countries with a G.N.P. per capita of almost $3,000 in 1980. Before the Islamic Revolution and the Gulf War, Iran was one of the world's leading petroleum producers, and massive oil revenues stimulated the rest of the economy. Although industry now predominates over agriculture in the formation of the G.N.P., agriculture still occupies a larger proportion than industry of the total labour force. Most types of grain, sugar beets, fruits, nuts and vegetables are grown. Dairy produce, wool, hair and hides are also produced. There is a small fishing industry, both in the Caspian Sea, where caviar is obtained, and in the Persian Gulf. Forests cover over 20 million hectares. There are considerable iron ore, copper and uranium deposits.

2 the national context of the squatter settlement phenomenon

Based on the study (undertaken in the first part) regarding the factors leading to the growth of squatter settlements, this chapter presents the two major components preceding the squatter phenomenon on a national scale in Iran; first is the demographic component and second, is the socio-political component. Each of these components consists of a few important elements which will be studied separately.

DEMOGRAPHIC COMPONENT:

2.1 Urbanization

In the first four decades of the twentieth century, the percentage of Iran's population living in urban areas remained relatively steady. During the years following the end of the Second World War, a noticeable growth in the proportion of the urban population occurred. By the time of the third nationwide census in 1976, more than 46% of the population lived in urban areas which were defined by the census organization as localities with 5000 or more population (see Table 7).

TABLE 7

Urban and Rural Population of Iran: 1900-1982
(in millions)

Year	Total	Urban	% Urban	Rural	% Rural
1900	9.86	2.07	20.9	7.79	79.1
1910	10.58	2.22	20.9	8.36	79.1
1920	11.37	2.39	21.0	8.98	79
1930	12.59	2.64	20.9	9.95	79.1
1940	14.55	3.20	21.9	11.35	78.1
1950	17.58	4.89	27.8	12.69	72.2
1960	22.83	7.79	33.9	15.07	66.1
1970	30.35	13.10	43.1	17.25	56.9
1976	33.59	15.71	46.7	17.87	53.2
1982	39.53	19.62	49.62	19.91	50.38

Sources: Adapted from Julian Bharier, "Economic Development in Iran. 1900-1970" (London: Oxford University Press, 1971); Iran, Plan and Budget Organization, Iranian Statistical Center, "Guzarish -i-Sarshumari-Yi Nufus", 1982.

In the 1966-1976 period, the urban population increased by approximately 6% annually. At least four factors explain the sharp percentage increase in urban population during the decade between the nationwide censuses of 1966 and 1977. There was, in the first place, a national population increase of 2,621,000 within that period. Boundaries of some cities expanded to include the surrounding villages and rural areas, so that a portion of the rural population (380,000) became urbanites without actually having migrated. Population of some villages increased to the point of surpassing the 5000 mark. These rural areas (117 localities with a total population of 891,000) were then recognized as urban centers. Finally, the urban population increased due to the substantial migration of villagers to major metropolitan centers. Between 1966 and 1976 about 2,111,000 migrants left their villages for the cities. In other words, cityward migration accounts for over 35% of the increase in total urban population of Iran during this period (see Table 8). There has not been a nationwide census since 1976 but it has been

TABLE 8

Increase in Urban Population: 1966-1976

	Total Population (thousands)	% of Total Increase	Average Annual Increase (thousands)
Natural Population Increase	2.621	43.7	262
Population in Expanded City Boundaries	380	6.3	38
Population in New Urban Centers	891	14.8	89
Rural to Urban Migration	2111	35.2	211
Total	6.003	100.0	

Source: Adapted from Iran, Plan and Budget Organization, Iranian Statistical Center, "*Guzarish-i-Sarshumari-yi Nufus*",1977

estimated that in 1982 approximately 49.62% of the total population of 39.53 million lived in urban areas.(1)

Although this expansion in the urban population will continue in the future, it should be noted that traditionally only a handful of the largest cities have dominated urban life in Iran. This has been especially the case with Tehran, Isfahan, Mashhad and Tabriz. In 1900, for example, there were only three cities with a population of 100,000 or more. This number increased to eight by 1948, to ten by 1956, to fourteen by 1966, and twenty-three by 1976. The number of persons living in cities of 100,000 or more increased from 500,000 in 1900 to 1,986,672 in 1948, 3,150,454 in 1956, 5,677,012 in 1966 and 9,900,460 in 1976. Likewise the percentage of urban population living in cities of 100,000 or more increased from 24% in 1900 to nearly 58% in 1966 and 63% in 1976 (see Table 9). The share of the major cities was substantial in this distribution. In 1948, the five largest cities, Tehran, Tabriz, Isfahan, Mashhad and Hamadan, contained 36.8% of the urban population. In 1956 and 1966, the five largest cities, Tehran, Isfahan, Mashhad,

TABLE 9

Population Distribution in Cities of 100,000 or More: 1900-1976

Year	Urban Population	Population in Cities of 100,000 or More Number	% of Urban Population
1900	2,070,000	500,000	24.1
1948	4,490,000	1,986,672	44.2
1956	5,953,563	3,150,454	52.9
1966	9,794,246	5,667,012	57.8
1976	15,715,336	9,900,460	62.9

Source: Iran, Ministry of Interior "Guzarishi-i Umumi-yi-Kishvar", Vol. 1, 1950; Iran, Plan Organization, Iranian Statistical Center, "National Census of Population and Housing", March, 1978.

Tabriz and Abadan, contained 42.4% and 43.1% of the urban population respectively. If the two cities of Shiraz and Ahvaz, each with a population of over 200,000, are added to the five largest cities in 1966, then close to 50% of the urban population is accounted for by these seven cities. In the 1976 census, the population of the ten largest cities amounted to 58% of all urban residents, and this figure rose to 60% in 1980 (see Table 10 FOR POPULATION DISTRIBUTION IN TEN LARGEST CITIES)

The overconcentration of urban population in a few large cities in Iran affected the development of the nation's social and economic life; it led to the centralization and concentration of industry in a few big cities. Consequently, this encouraged the flood of unemployed rural people to these urban centers, which will be the next issue studied.

2.2 Rural-Urban Migration

As previously stated, there is a relationship which exists between the forces pushing peasants out of the rural areas and the forces drawing or pulling them into the urban centers; these forces are operating simultaneously. This relationship or "gap" between cities and rural areas in Iran was not very great until the late nineteenth century, when

TABLE 10

Population Distribution in Ten Largest Cities

City	1956	1966	1976	1980
Tehran	1,512,082	2,719,730	4,496,159	5,447,000
Mashhad	241,989	409,616	670,180	813,603
Isfahan	254,708	424,045	671,825	808,156
Tabriz	289,996	403,413	598,576	702,663
Shiraz	170,659	269,865	416,408	495,677
Ahvaz	120,098	206,375	329,006	392,184
Kirmanshah	125,439	187,930	290,861	343,161
Abadan	226,083	272,962	296,081	321,373
Qum	96,499	134,292	246,831	205,032
Rasht	109,491	143,557	187,203	206,986

Sources: Iran, Census Reports, 1956, 1966, 1976.
Islamic Republic of Iran, Iranian Statistical
Center "*Guzarishi-i Umumi-yi-Kishvar*", 1981

Western political and economic influences intervened. Cities and rural areas have now developed quite distinct features and ways of life and with these differences a rapid increase in rural-urban migration has occurred.

The in-migration in Iran is conditioned by several related factors which can be used as evidence to support a "push-pull" theory of migration. These are:

1. Population pressure in the villages caused by high birth-rates and relatively low death-rates, resulting in out-migration when the amount of arable land and/or the yield harvests remains constant;
2. Technological advances and the mechanization of agriculture, causing unemployment or under-employment among farmers;
3. Soil erosion, drought and the ownership system, increasing rural poverty.
4. The development of transportation, mass media and the increase in literacy, making more information available about alternatives to rural life and increasing dissatisfaction among the rural population.

5. The concentration of employment opportunities in city-based industries and services, widening the economic gap between city and countryside.
6. The lack of health facilities, especially for children in rural areas.

Apart from these general factors, resulting in the in-migration, a great majority of the rural migrants in Iran is composed of landless peasants and farm labourers who, as the results of land reform, had to leave their lands. The available census data repeatedly confirms the central importance of economic factors in cityward migration. For example, in 1971 71.6% of the principal migrants residing in urban areas stated that they migrated either to seek work or a better job (2).

In the case of Iran, economic factors play a critical role in the migration decision. There are also, side by side with the economic factors, some important demographic and educational characteristics of migrants that also should be analyzed.

Demographic Characteristics:

Rural to urban migration is a significant factor in the recent increase of Iran's urban population. Although there is heavy cityward migration in Iran, the overall rate of internal migration from rural areas to urban centers is not substantial, amounting to only 14.5% in 1976 (see Table 11).

Julian Bharier's careful estimate of migration in Iran confirms the view that extensive cityward migration is of recent origin. He finds that, on the basis of the annual rates of growth of urban and total population, there was no significant net rural-urban migration before 1934 (see Table 12), but there were movements of population within both the rural and urban areas. Between 1900 and 1956,

TABLE 11

Internal Migration (Rural to Urban): 1956-1976

Year	Migrant Population	% Migration
1956	2,081,082	10.9
1966	3,224,200	12.8
1972	3,974,434	13.8
1976	4,513,827	14.5

Sources: Iran, Ministry of Interior, General Statistics Office, "Guzarishi-i Umumi-yi Kishvar", Vol. II, November 1956; Iran, National Statistical Center, "Guzarishi-i Nufus", 1972; Iran, Plan Organization, Iranian Statistical Center "National Census of Population and Housing" 1978

TABLE 12

Annual Rates of Population Growth: 1900-1976

Period	Urban	Rural	Total
1900-26	0.08	0.08	0.08
1927-34	1.50	1.50	1.50
1935-40	2.30	1.30	1.50
1941-56	4.40	1.40	2.20
1957-70	5.30	1.70	2.90
1970-76	6.00	1.10	3.00

Sources: Julian Bharier's "Economic Development in Iran: 1900-1970" (London: Oxford University Press, 1971); Iran, National Statistical Center, "National Census of Population and Housing", 1978.

Bharier's calculations point to a total of 685,000 rural to urban migrants, accounting for 39% of the internal population movement for that period. For 1956-1966 the net rural to urban migration was 1,680,000, a sharp increase over the previous decades. This figure is equivalent to 90% of the total internal population movement (3).

The pace of rural to urban migration did not slacken for the 1966-76 period. During this decade 2,111,000 individuals migrated from the rural areas to the cities. The 1976 nationwide census indicated an annual increase of 6% in urban population as opposed to only 1.1% in rural population for the previous ten year period.

Rural to urban migration also varies substantially for different towns and cities of the Iranian provinces, ranging from a low of 3.3% for migrants from Simnan (a small city in the central north) to a high of 71.3% for East Azerbaijan in the northwest of Iran (1976). The migrants tend to be equally divided between males and females, however, males most frequently migrate at younger ages than females.

A few cities, and particularly Tehran, have absorbed a large segment of rural migrants. For example, the first census of Tehran in 1884 reported only 26.6% native Tehranis. Between 1900 and 1956, 60% of all internal population movement was accounted for by migration to Tehran. In the following ten years Tehran absorbed 38% of the country's migrants. By the 1970's the number of migrants living in Tehran exceeded 50% of it's population, all looking for a job or higher income.

Educational Characteristics:

Most of the studies of rural to urban migration in Iran report a strong relationship between educational attainment and migration. The largest single group (43%) of cityward migrants in 1976 were without any education. Nevertheless, it is important to note that more than one half of these migrants did have some literacy. Since only about 20 percent of Iran's rural population can read or write, this finding tends to support the association between literacy and migration; those people who have a basic literacy are more likely to migrate, in the hope of getting better work, than those who are completely illiterate.

2.3 The Urban Housing Shortage

Prior to illustrating the urban housing shortage in each society, one has to answer two very pertinent questions: 1) what is the definition of housing? 2) based on what criteria will this shortage be calculated?

Housing demand is a relative concept. The determinants of its shortage depend directly upon its definition; this in turn, is based on social, economic, and climatic elements. However, generally speaking, the essence or the financial value of housing is the product of its physical comforts and conveniences.

The available statistics in Iran for housing have been calculated based on three major factors: 1) quality, i.e. materials, age of building, physical comfort, 2) number of families per unit, 3) density, i.e. the ratio of persons per room. This analysis of housing demand, either qualitative or quantitative, shows the enormous housing shortage in the country. For example, in 1976 58% of the housing units were constructred with non-durable materials, only 52% of the houses had public water supply and only 48% had electricity (4). In terms of density, 30% of the families lived in a one room unit while the average persons per family was 5.6. Finally, for the 6.7 million families in urban and rural areas, there were only 5.3 million units, which demonstrates a 1.4 million deficit in housing units for that year. This deficit exists despite the fact that in the decade prior to these 1976 statistics, the housing movement had made great progress. An active population of two million were engaged in the construction industry, which resulted in two million units being built within the mentioned decade (200,000 units per year).

As of 1982, the current statistics show a three million unit housing shortage across the country with a total or more than 50% in the urban centers. Fulfilling this shortage is not a question of one or two years. Taking into account the current growth rate of the population increase and urbanization, given a ten year period to eradicate the existing shortage and provide one unit per family, seven million units must be available in the urban areas of the country by 1992.

Considering the present housing situation very optimistically, a total of three million units are currently available. However, within the next ten years approximately 500,000 units will become obsolete. This means that 4.5 million units must be provided within the decade, a housing program which requires 450,000 units.

SOCIO-POLITICAL COMPONENT:

2.4 The Shah's White Revolution

Despite its claim to great achievements, by the end of the 1950's it was clear that the Shah's regime had failed to bring about a marked improvement in the social or economic conditions of an overwhelming majority of Iranians. Eventually, on January 26, 1963, the Shah unveiled a revolutionary front, a reform program within the framework of what he called "White Revolution". According to the Shah it was a "revolution" designed to appeal to and benefit a majority of the Iranian people. In a referendum based on the most advanced principles of justice and human rights that would change the framework of Iranian society and make it comparable to that of most developed countries in the world.

The revolution's philosophy and reform program were declared to be instrumental in transforming Iran from "an economically poor, socially feudal and divided and politically bankrupt country into a prosperous, just, industrialized and self-sufficient nation" (5). This goal, however, was to be achieved largely within the existing framework of Iran's close friendship and alliance with the West. The Shah announced that Westernization is our welcome ordeal.

Orginally, the Shah started off his revolution by introducing six major reforms:

1. The land reform law, to divide state, religious and landowner's estates among the peasants cultivating them, with compensation for the former owners;
2. The sharing of profits by workers in the industries in which they were employed;
3. The nationalization of forests and pastures, with compensation for former owners;
4. Electoral reform including the right of women to vote and to be elected;
5. The eradication of illiteracy by using conscripts to teach in the rural areas during their term of social service (literacy corps);
6. The transformation of state-owned industries into shareholding companies in which the public could invest.

By the end of the 1960's he added to these the creation of a health corps, a development and extension corps, and houses of equity; he also introduced the nationalization of water, national reconstruction and administrative and educational revolution. During the first seven years of the 1970's he added five other reforms.

In order to prompt the implementation of the White Revolution, the Shah proposed a Five Year Development Plan. This plan called for speedy development of agriculture, industry and the social sector.

Concurrent with land reform, the White Revolution's program stressed the rapid industrialization of Iran and improvements in the working and living conditions of the country's industrial labour force. According to official reports, in 1972 the average earned income per day from agricultural work was only $1.40 for male and $0.74 for female labourers. However, at the same time an unskilled construction or factory worker in the urban areas earned seven times this amount. This enhanced the attraction of the city to the agricultural labourers and encouraged their migration to the urban centers in the hope of finding a job in the factories. But these jobs were hard to find even for people who were already living in urban centers.

On the other end of the White Revolution existed what the Shah termed "Literacy Corps", "Health Corps", "Development and Extension Corps" and "Houses of Equity". Under the first three schemes, the government drafted thousands of unemployed university and high-school graduates as trained cadres to work in rural areas in lieu of part of their compulsory three years military service. Through the Corps, the government recruited the personnel it needed to propagate and accomplish the White Revolution; they increased contacts between the rural and urban populations with the long term goal of raising the ratio of urban residents to rural peasants.

The strategy of sending the Corps to rural areas initially attracted the peasants to the urban centers; there was an increase in the degree of education in the countryside and everything indicated to them the notion of a better life in the cities. This is a plausible contributing factor to cityward migration.

In brief, although the relevance of the Shah's White Revolution as a factor in marginalization of the squatters in Iran should not be dismissed, some of the reforms could be considered helpful to the situation of the poor.

2.5 Land Reform Program and Its Failure

The origin of the land reform program of Mohammad Reza Shah Pahlavi, with both political and economic objecttives in mind, can be seen in his edict of January 1963. As the first reform of the White Revolution, he proposed the distribution of crown lands among the peasants and consequently turned over the lands from the hands of large landowners to the local peasants. The law limited each landlord to one village and the remaining villages were purchased by the government for distribution to the peasants.

As a corollary to the land reform program, attempts were made to establish rural cooperative societies, joint-stock corporations, and large agribusiness farms in certain designated areas. These societies were charged with a variety of functions, including provision of agricultural implements, machinery, and primary necessities; purchase, storage, exchange, transport, and sale of the members' produce; granting of loans,credits, and acceptance of deposits. Joint-stock corporations were created to allow smallholding farmers to pool their lands and resources under supervision and financial assistance of the government. Finally, the agribusiness complexes were established to set up large and modern agro-industrial organizations. By the beginning of the 1970's, it was evident that land reform had essentially failed to achieve either its economic or its political objectives. The economic failure was particularly noteworthy since besides contributing to the major increase of cityward movements in Iran, it signalled the death of Iranian agriculture and created many political problems in its wake.

All three major economic attempts to make land reform a success - rural cooperative societies, joint-stock corporations, and large agribusiness farms - experienced varying degrees of failure. Even the organization of rural cooperatives, despite its early promise, did not meet expectations. Those selected as local managers of the cooperatives were usually the more prosperous farmers who frequently manipulated decision-making to their own advantage and economic benefit. The self-serving actions of these managers were damaging to the long-range success of the cooperatives, especially since other members were restricted in their part of the societies' decision making process. The farm cooperations were also faced with "poorly paid, poorly trained supervisory personnel and chronic underfinancing" (6). All three economic attempts suffered due to the clumsy decision making process as well as bureaucratic and managerial problems in their operations.

The net result of the failure in agricultural planning and policy was a great increase in the marginality of large segments of the rural population. They found themselves in a situation of growing destitution. Unemployment or underemployment became an even more common feature of rural life. Pressures to leave the rural areas for the cities where, at least from a distance, a subsistant life seemed possible increased daily. Therefore, in a classic case of push factors at the point of origin, the Iranian agricultural labourers migrated to the cities far and near, but they unfortunately settled in squatter settlements.

2.6 Dependency on Capitalism

One of the contributing elements leading to the growth of squatter settlements and increasing the number of poor migrants was the expansion of dependent capitalism in Iran.

The poverty of the third world nations is partly the result of rapid and worldwide expansion of the industrial West. The high demand to extract the required raw materials to support the growth of western industry has created a dependent capitalist system outside western metropolitan centers. Thus, backwardness and urban poverty are not only the result of growing factors in the third world; they are also the consequences of economic dependency to the West and its multinational enterprises. The development of dependent capitalism strengthens control of the urban elite over the peasants and rural inhabitants. Therefore, this pattern of dependency contributes to the growing decline of the rural areas and to the gradual destruction of agriculture. As a result, masses of peasants and agriculture labourers are forced off the land and subsequently move to the urban centers where capital is concentrated. This flood of labour with no technical skills finds its way into the shanty towns and squatter settlements of third world cities where unemployment, underemployment or marginal occupations are the common fate.

Applied to the Iranian case, it can be argued that the relationship between the United States and Iran essentially brought an interaction between rural areas and urban centers. The American involvement in the Shah's state-building attempts, both in the military and security forces and the civilian institutions, on one hand, and the type of wide-ranging economic activities of multinational corporations on the other hand, may be cited as supportive evidence of this claim. However, it is possible to view the dominance of the urban areas, especially the capital, Tehran, with a large percentage of squatters, over the countryside in Iran as another proof of how the dynamics of dependent relationships operate within the national boundary.

It therefore appears that the dependency theory is relevant to the analysis of the squatter settlements in the latter stages of the Shah's regime. However, the development of a dependent, consumer-based capitalistic society in Iran is only a contributing and partial explanation of the complex factors leading to the expansion of squatter settlements.

3

characteristics of the urbanization of Tehran

3.1 Historical Change in Tehran and Its Influence Upon Population Growth

The history of Tehran goes back several centuries to when it was an insignificant small village. An Iranian historian, A. Javahir-Kalam, points out that in the third Islamic century, two villages with the name of Tehran were known, one near Isfahan and the other near Ray. The Tehran of Ray was the lesser of the two villages and apparently had no historical significance. However, the surrounding area, particularly Mount Damavand, was replete with Persian mythology and legends (7).

The history of Tehran's growth is connected to the rise and fall of the famous nearby city of Ray. As long as Ray flourished as a great Islamic city, Tehran remained an obscure village. With the sacking of Ray and its terrible destruction by the Mongols in 1220, Tehran slowly emerged as a town of note. It was not however, until the reign of the Safavid King Shah Tahmasp I (1524-76) that Tehran acquired greater importance. Shah Tahmasp ordered the construction of walls, 114 towers (for the 114 verses of the Koran), and four gates for the defense of the city.

Under the Afshar and Zand rulers, Tehran continued to grow in importance. For the first time in the history of the city, Karim Khan Zand (1750-79) ordered Tehran to be his capital and built all the government's offices and royal buildings there. The modern history of Tehran begins with the founder of the Qajar dynesty, Agha Mohammad Khan in 1786. From this date on Tehran, as the seat of government, acquired great stature and was recognized as one of the principal cities of Iran.

The first census of Tehran in 1884 reported a total population of 155,736; its population continued to increase steadily. By the turn of the century, there were approximately 200,000 inhabitants. The events of Constitutional Revolution (1905-12), efforts towards westernization and industrialization, and in-migration from provincial areas increased Tehran's importance and helped to transform it into the country's dominant city (8). It can therefore be said that, owing to a variety of interrelated factors, in the first quarter of the twentieth century Tehran emerged as the principal and most important Iranian city.

By the time of Reza Shah Pahlavi's ascendancy to the throne in 1925, Tehran had well over 210,000 inhabitants. During Reza Shah's reign, the city was physically transformed. Initially Tehran's old quarters were left intact (9), and Reza Shah concentrated on constructing a new, modern city to the north of Tehran's old quarters. Large government buildings, wide paved streets, and squares characterized the new city. Modern amenities such as electricity were also added to the new quarters and were later extended to the older sections of the city. As some of the population began moving north to the new city quarters, the older sections slowly deteriorated. In the Post-World War II era, northward movement by the wealthier inhabitants of Tehran continued at a more rapid pace. Population of the older quarters also increased as migration from provincial areas to all parts of greater Tehran became a regular feature of the capitl's life. The net result of these movements was the making of old Tehran into the site of existing slums and squatter settlements of new Tehran.

During the second quarter of the twentieth century Tehran's population increased about 4.7 times. It made the capital by any definition a primate city; Tehran now has no longer any major competitor. Isfahan, Mashhad, and Tabriz, the three largest cities after Tehran, are all much smaller and do not enjoy the capital's preeminence (see Table 13). Although Iran is divided into 23 provinces and Tehran is a city in the central province, the population of Tehran alone is approximately 1/7 of the country's total.

TABLE 13

Population of Ten Largest Cities as Percentage of Tehran's Population: 1956-1980

City	1956	1966	1976	1980
Tehran	100.0	100.0	100.0	100.0
Mashhad	16.0	15.0	14.9	14.9
Isfahan	16.8	15.5	14.9	14.8
Tabriz	19.1	14.8	13.3	12.9
Shiraz	11.2	9.9	9.2	9.1
Ahvaz	7.2	7.5	7.3	7.2
Kirmanshah	8.2	6.9	6.4	6.3
Abadan	14.9	10.0	6.5	5.9
Qum	6.3	4.9	5.4	5.6
Rasht	7.2	5.2	4.1	3.8

3.2 Urbanization in Tehran

The case of urbanization in Tehran is even more noteworthy than in the country as a whole. Tehran's population, size, rate of growth, and concentration of economic and political power far outpass any other city in the country. Tehran has grown from a small village in the sixteenth century into a bustling city of 4.5 million in 1976 and 5.4 million in 1980. In 1966 nearly 11% of Iran's total population and 27.7% of its urban population lived in the city of Tehran. In 1980 these same percentages increased to 14 and 29.1 respectively (see Table 14).

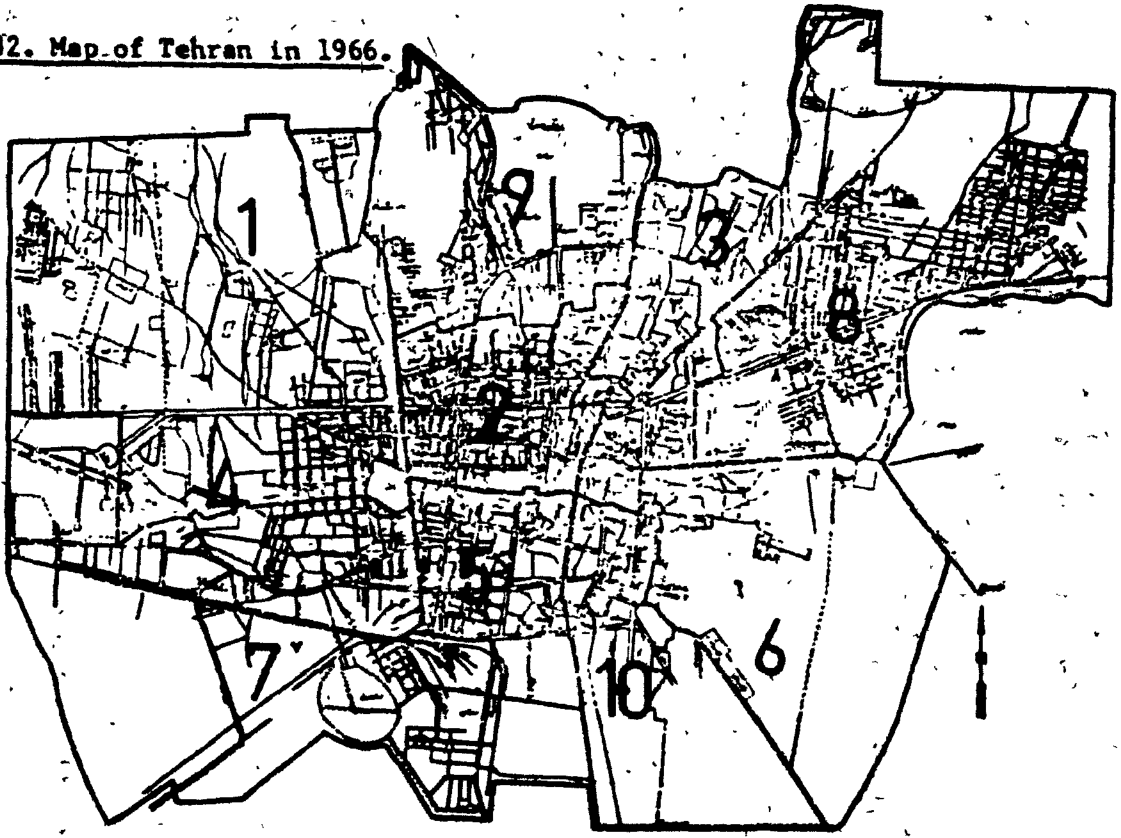
Apart from the population growth, the size of Tehran has been expanded enormously. In 1966 Tehran had 10 municipalities (see Fig. 32). It was increased to 12 in 1976 (see Fig. 33) and according to the last census in 1980, it now has 20 municipalities. This is due to the fact that it has absorbed a lot of its surroundings and become urbanized (see Fig. 34). For instance, in 1966 Tadjrish (in the north) and Ray (in the south) had their own mayors and municipalities. Now, these two towns are within Tehran's jurisdiction; moreover, Tehran's city limit has surpassed the boundaries of these two towns (see Fig. 35). It is very likely that Tehran will expand to Karadj which is located in the east of Tehran in the early future.

TABLE 14

Percentage of Urban and Total Population Living in Tehran: 1900-1980

Year	% of Urban Population Living in Tehran	% of Total Population Living in Tehran
1900	9.6	2.0
1946	20.8	5.6
1956	25.3	7.9
1966	27.7	10.8
1976	28.6	13.3
1980	29.1	14.3

Fig. 32. Map of Tehran in 1966.


1
9
3
8
2
4
5
7
10
6

Source: (32 & 33) Natyiji-i Amargiry- Yi Tehran, 59 (59).

Fig. 33. Map of Tehran in 1976.

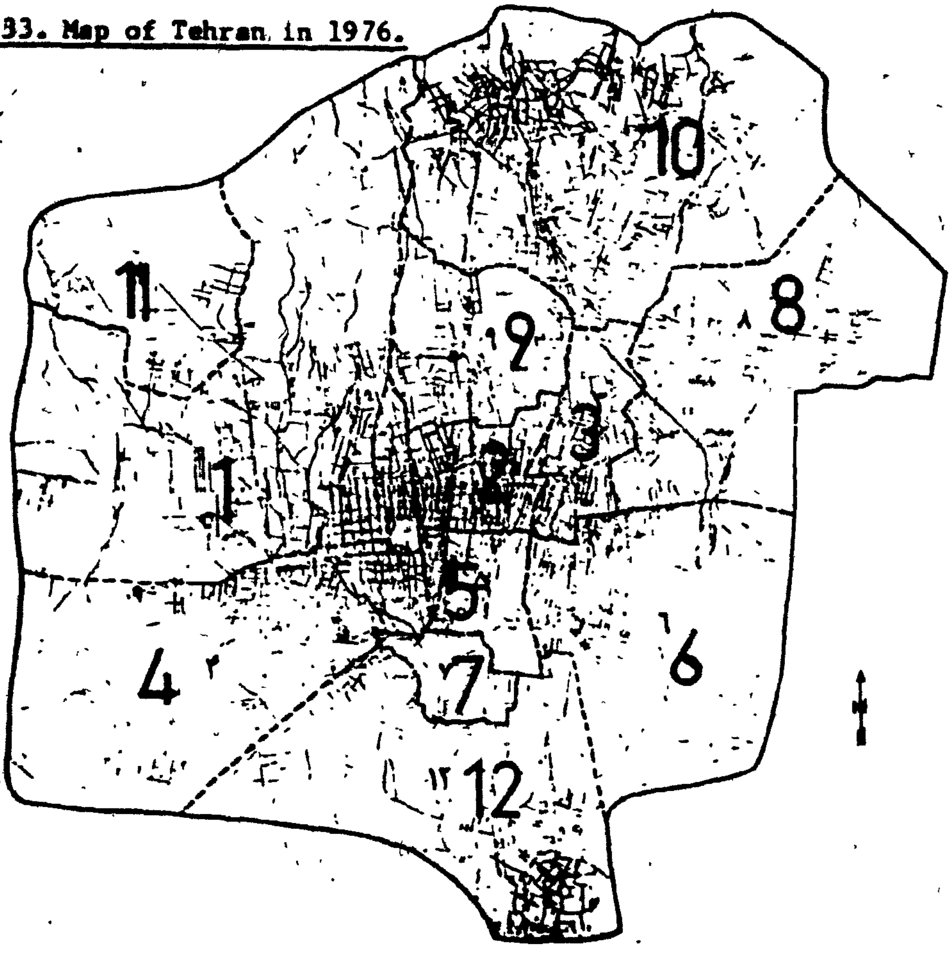
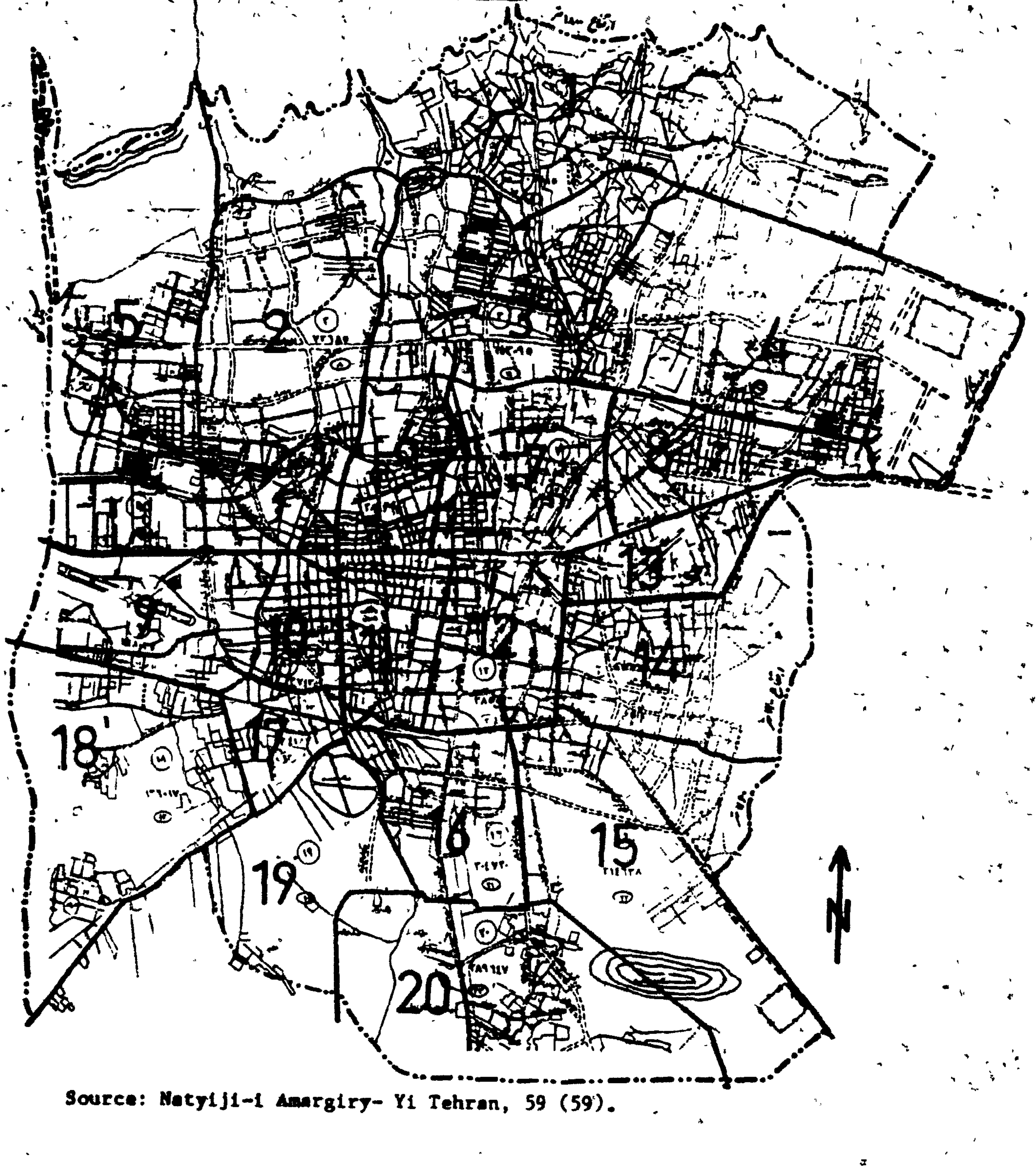

10
11
8
9
3
2
1
5
4
7
6
12

Fig. 34. Map of Tehran in 1980.


5
2
9
10
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16
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18
19
20
N

Source: Natyiji-i Amargiry- Yi Tehran, 59 (59).

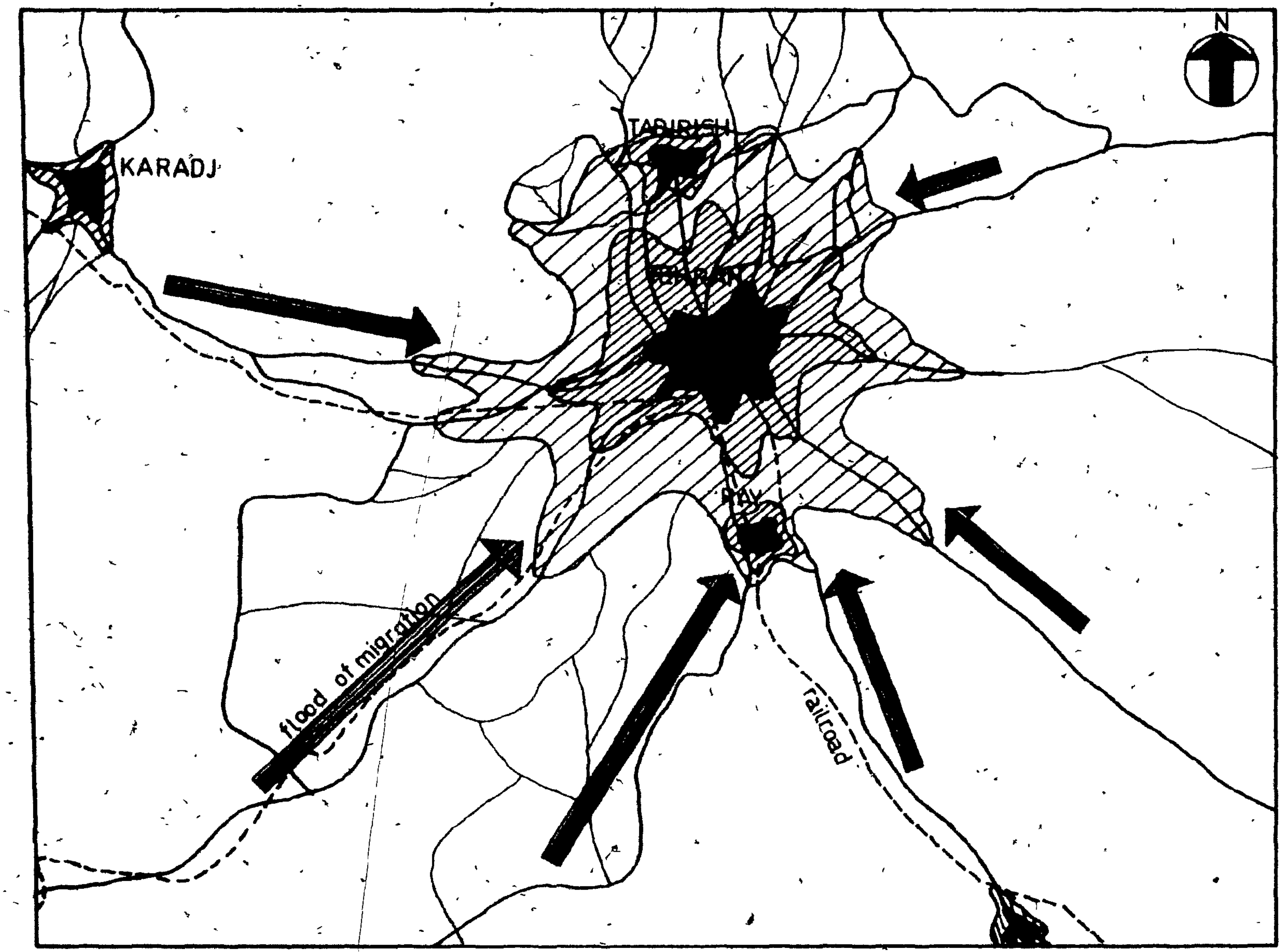

N
KARADJ
TAJRISH
TEHRAN
RAY
flood of migration
railroad

FIG. 35. EXPANSION OF TEHRAN IN THREE STAGES.

3.3 Modern Tehran

The dazzling city of Tehran with all its great urban facilities, such as modern highways, industrial establishments, education organization and medical and clinical institutions has its own major difficulties. The growth of Tehran as a primate city has had detrimental effects on the econonmic development and distribution of goods and services in the rest of the nation to the degree in which many of the desired goals of Iranian society are concentrated in Tehran. This concentration can be seen in virtually all areas of social life. For example 66.7% of all university students study in Tehran's institutions of higher learning (10). Also 82.7% of all companies and 46.1% of all industrial establishments are located in Tehran (11).

An important consequence of Tehran's rapid and unplanned growth is the fact that the city has not been able to provide adequate social services for its population. Shortage of housing units for the low-income groups is a particularly serious problem in the capital. In addition, difficulties in the distribution of electricity and water, inadequate public transportation facilities, and other such amenities have made life for the residents of Tehran and its newcomers excessively trying.

3.3.1 Distribution of Population Density

As one goes from south to north in Tehran, the level of classes in the city and their income is clearly reflected in the density, topography and physical appearance of their section. Tehran is divided into three sections with three classes and three different densities. The northern section, populated mainly by the upper class, has the lowest density with an average of 30 to 100 persons per hectare according the the 1981 statistics.

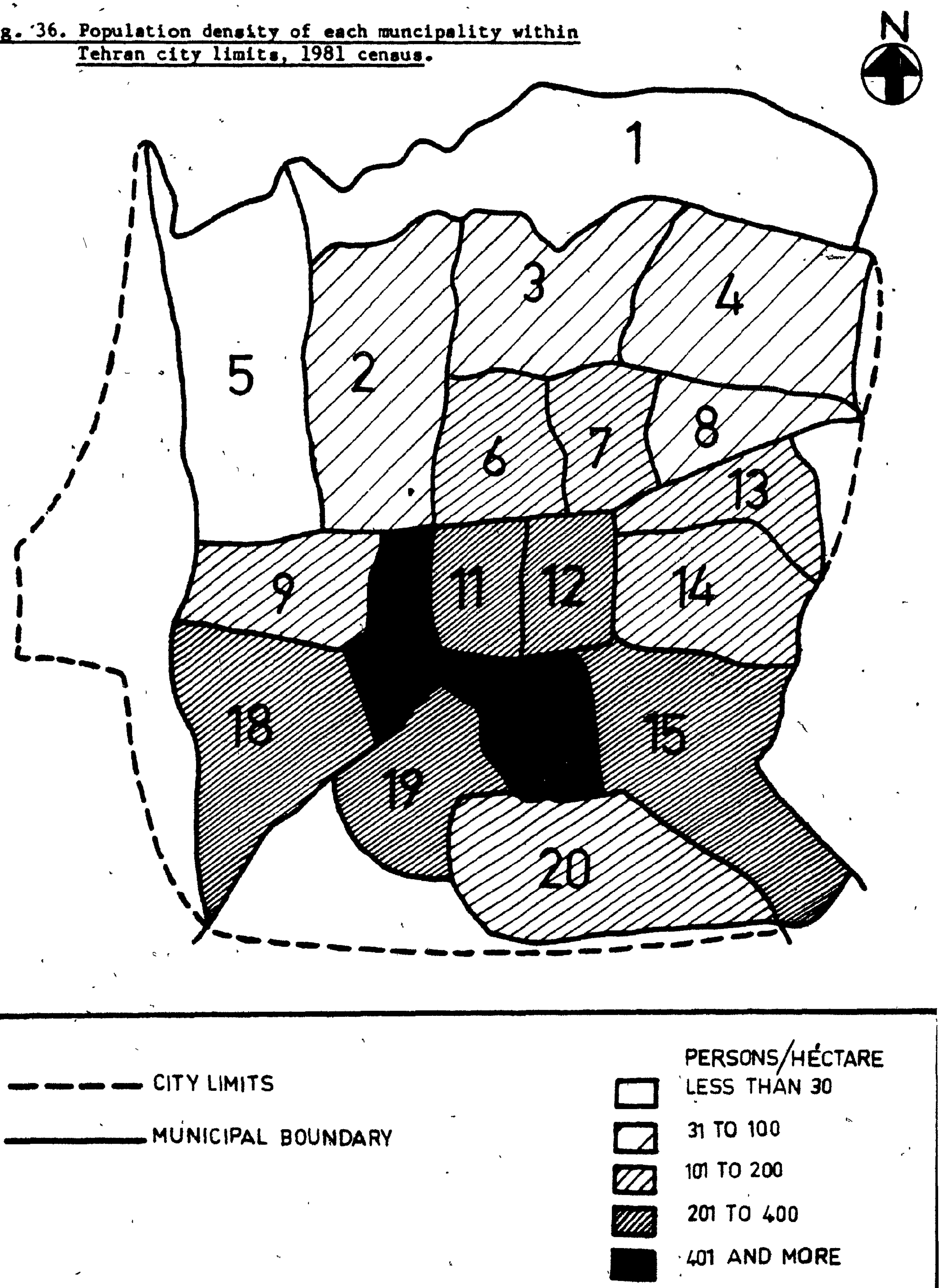
As one goes towards the south, the density rises; the middle section of the city, where the middle and lower middle classes live, has a medium density compared to the other two sections. This density ranges between 100 to 200 persons per hectare. The southern part consists of slum dwellers and squatters and has the highest density (see Fig. 36). Although this density varies from district to district, the average is between 200 to 400 persons per hectare.

3.4 Newcomer's of Tehran

Among the recent migrants to Tehran, three important groups can be differentiated. The first group consists of those migrants who are, on the whole, well-off economically and can establish themselves in Tehran without undue difficulty. They have come from Iran's other regional cities and are attracted to the capital because it is the nation's seat of government and center of economic and political power. They move from one urban center to another, and since they have both the economic means and probably appropriate political connections, adjustment to Tehran does not present them with difficulties; they have been in Tehran at least a few times before and perhaps have already bought their housing units. These migrants most often settle in the northern part of the city, where the rich class of the society lives (see Fig.37).

The second group is made up of migrants who, although not of high socioeconomic status, possess skills that allow them to at least maintain a low- to middle-class life in the capital. For the most part, these migrants come from the smaller cities and towns of Iran; the majority of them move to Tehran mainly because they already have a job offer. They also, as well as the first group, can establish themselves in the city, although it might take a little longer.

Fig. 36. Population density of each muncipality within Tehran city limits, 1981 census.


N
1
2
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4
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6
7
8
9
11
12
13
14
15
18
19
20
CITY LIMITS
MUNICIPAL BOUNDARY
PERSONS/HECTARE
LESS THAN 30
31 TO 100
101 TO 200
201 TO 400
401 AND MORE

They often live in the central part of the city with the hope that one day they can move to the northern section where the upper class resides. For these migrants, as for the first group, it is probably Tehran's pull and its envisaged opportunities that prompts their move in the first place. But once they are in the capital, they rarely move from one place to another (see Fig.37).

The last group, which is the subject of this study, presents a very different picture. These are migrants of low socioeconomic background, former share croppers and farm labourers, who have left the countryside for the city primarily because of occupational uncertainties in the village and other similar "push" factors. These are the poor and landless peasants, who, as a result of the land reform program and deterioration of Iran's agriculture, have found themselves either without land or unable to earn enough for subsistence on the land deeded to them by the government. Thus, the majority leave the countryside for the city because they can no longer maintain even a subsistence life in the village. These are the poor migrants who become urban squatters or slum dwellers once they are in the city. They make up 83% of the total migrants to Tehran.

The poor migrants can be subdivided into two groups on the basis of their residence and occupation: (1) those who live in the squatter settlements and rarely have regular wage-earning jobs, the precise subject of this study; and (2) the non-squatting poor migrants who usually reside in rented dwellings, mostly in the centrally located slum areas of Tehran. Many of the non-squatting migrants are employed in regular wage-earning occupations; they live in the periphery of old Tehran, the site of the slum areas. The squatters reside in large clusters, mainly in the south, southeast and southwest Tehran, with occasional small communities in parts of the affluent North Tehran (see Fig.37).

They suffer disproportionately the worst of urban ills, such as inadequate housing and service facilities, unemployment and underemployment, and poor medical care. They have a marginal life on the southern fringes of urban society and have no better option than living in squatter settlements.

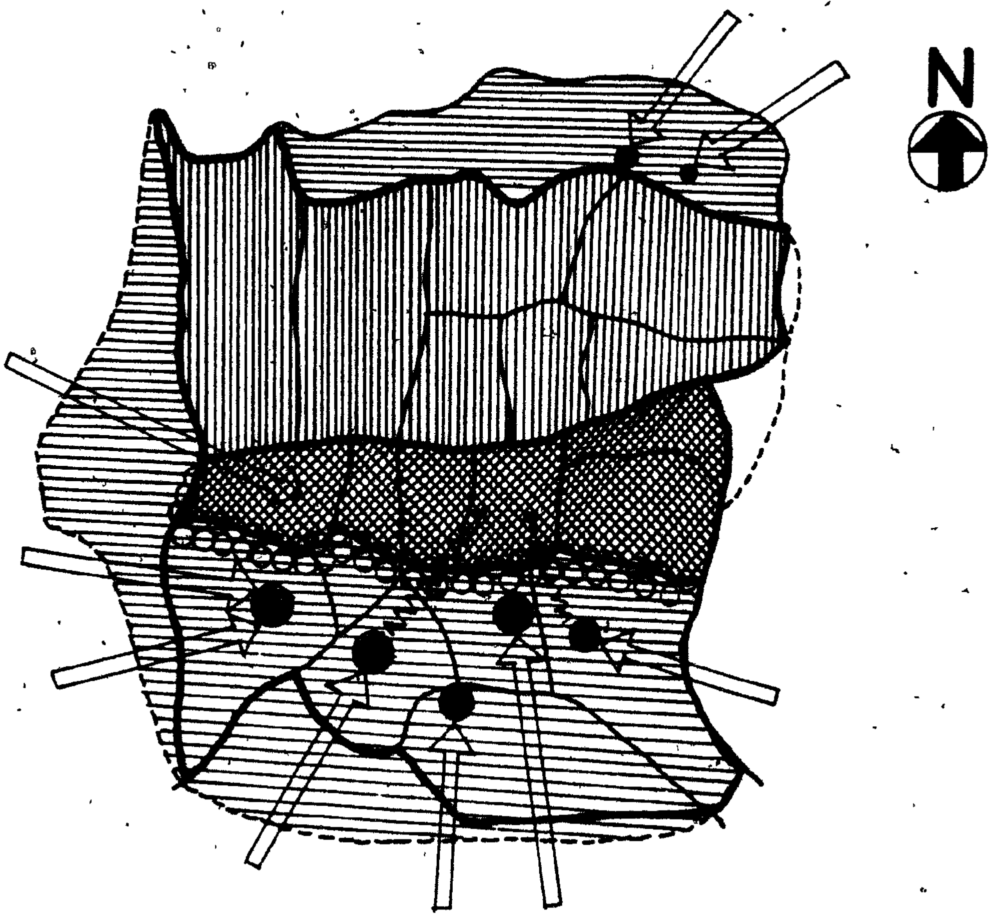


Fig. 37. Analysis of Migrant's Movement in Tehran.

▤ destination of non-skilled squatter migrants

▥ destination of rich migrants

○○○ destination of non-skilled non-squatter migrants

▩ destination of skilled migrants

4

exploration of squatter settlements in south Tehran

Nowhere in Iran has the growth of housing been able to keep pace with the urban population explosion, not even Tehran as the capital, seat of government, center of activities and eventually, primate city. In fact, the urban housing shortage is higher in Tehran than in any other city in Iran. Consequently, Tehran is surrounded by squatter settlements that house the most recent poor newcomers and low income class population of the city. These settlements are called hashiehneshin, goadneshin zaghehneshin, alounakneshin, etc., but their function is the same; they house those who have the least resources and nowhere else to go. In order to avoid unnecessary debates on terminology and typology, the term squatter settlement proposed by the U.N. is used for the illegally invaded, under-serviced housing of South Tehran.

There are approximately 1,700,000 people (383,758 families), who live in almost 200,000 units, in six districts of South Tehran (see Tables 15 and 16) (see Fig. 38). By any definition, they are considered squatters and squatter settlements of south Tehran. For a better understanding of them and their living conditions, the following sequence

TABLE 15

Number of Units by District for Squatter Settlements of South Tehran, 1981 Census

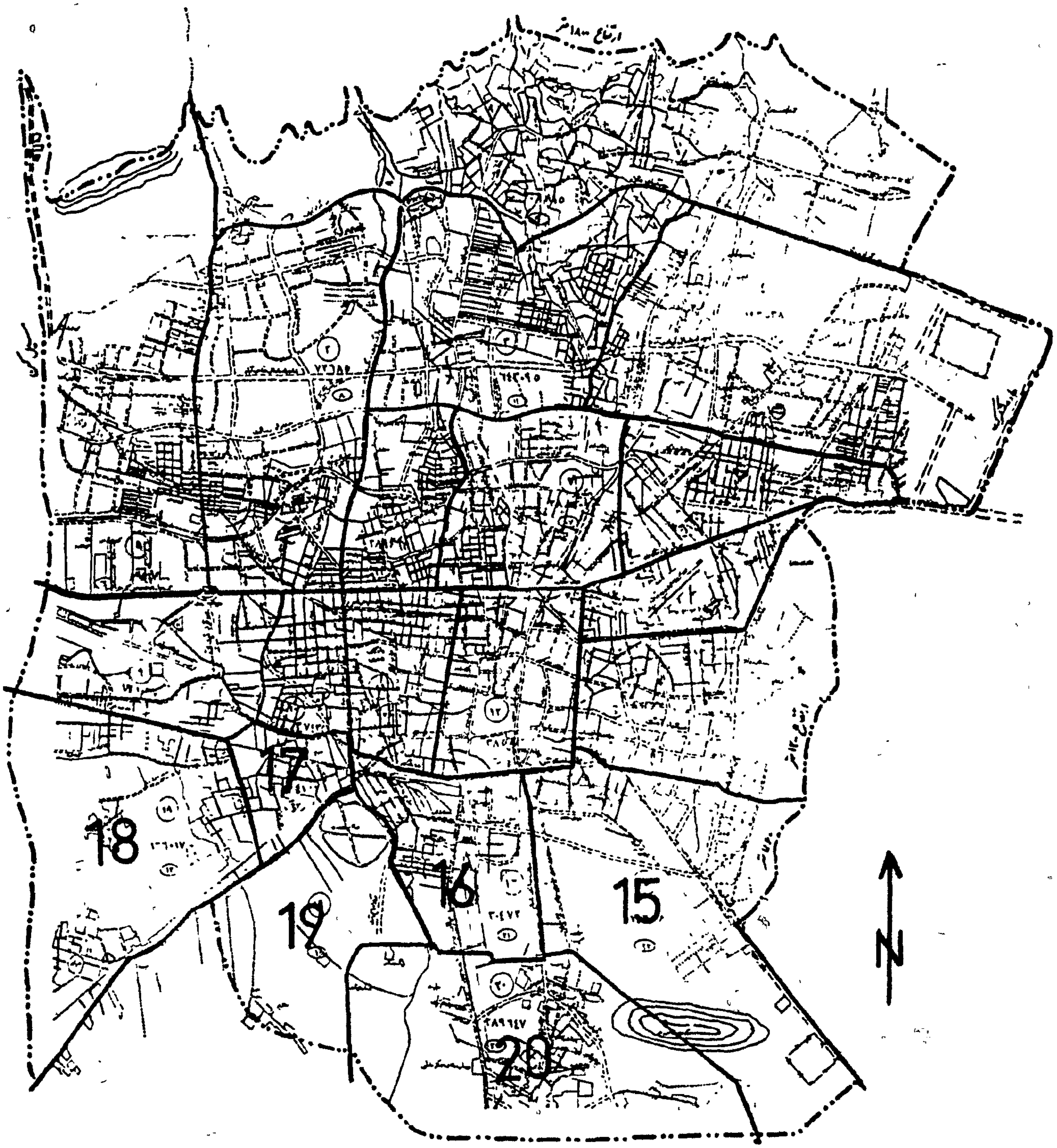
No. of Rooms Per Unit	Total	Number of Families Per Unit					
		1	2	3	4	5	6 or More
1	5817	5799	18	0	0	0	0
2	54978	45668	9299	11	0	0	0
3	59514	42245	14248	3014	0	7	0
4	56823	25176	24881	5726	1026	7	7
5	13679	3745	6062	2846	802	224	0
6	5611	721	2429	1477	711	199	74
7	1176	74	343	336	241	108	74
8	1327	74	486	277	263	136	91
9	292	35	74	95	35	21	32
10 and more	274	0	18	119	46	35	56
TOTAL OF UNITS	199491	123537	57858	13901	3124	737	334

TABLE 16

Family Population by District for Squatter Settlements of South Tehran, 1981 Census

Municipality (District)	Population and No. of Families		Number of Families									
	Population	No. of Families	1 Person per Family	2 Persons per Family	3 Persons per Family	4	5	6	7	8	9	10 and More
#15	375349	85533	4505	13155	14006	15708	13949	10537	7042	3908	1636	1087
#16	361605	83180	5693	14024	13934	13485	11794	9630	7051	4195	2013	1361
#17	353428	78576	4772	12668	12908	12680	10822	9190	6910	4492	2310	1824
#18	211606	46598	2167	6558	7199	8397	7821	6235	4163	2357	992	709
#19	142188	30481	1222	4001	4623	5472	5156	4139	2784	1705	786	593
#20	258425	59390	3452	9164	9290	9925	9010	7404	5046	4011	1231	857
TOTAL	1702601	383758	21811	59570	61960	65667	58552	47135	32996	20668	8968	6431

Fig. 38.
Six south districts of Tehran,
the site of squatter settlements.



17
18
19
16
15
20
N

will be studied:

1) residential patterns of the squatter settlements;
2) socio-economic characteristics of the squatters;
3) existing situation of three sample squatter settlements.

4.1 Residential Patterns of the Squatter Settlements

Squatter settlements in Tehran are made up of a large variety of shelters or shacks in most sections of the city. The largest concentration of them is in the periphery of greater Tehran, particularly in its southern section. In 1976, a survey of Tehran's squatter settlements was undertaken by the Institute for Social Research of Tehran University. The survey was confined strictly to the squatters and hence excluded substantial groups of the very low income people in the slums and non-squatting areas of Tehran. For purposes of identifying the squatter settlements according to their socio-economic characteristics, Tehran was divided into four major geographical sections. The survey discovered the highest concentration of the settlements in south Tehran, which accounted for over 69% of the units (see Figs. 39 & 40).

The over-concentration of squatters and other poor migrants in south Tehran is not surprising to anyone who has visited the city. When Tehran expanded in population and increased in area (shortly after the Second World War), the rich classes of the city moved northward. This movement of the dominant classes and their wealth to the northern sections of the city is clearly reflected in the topography and physical appearance of Tehran.

In order to identify the residential patterns of squatter settlements in south Tehran, the classification is as follows:

1) physical attributes of the settlements;
2) security of tenure;
3) age of settlements.

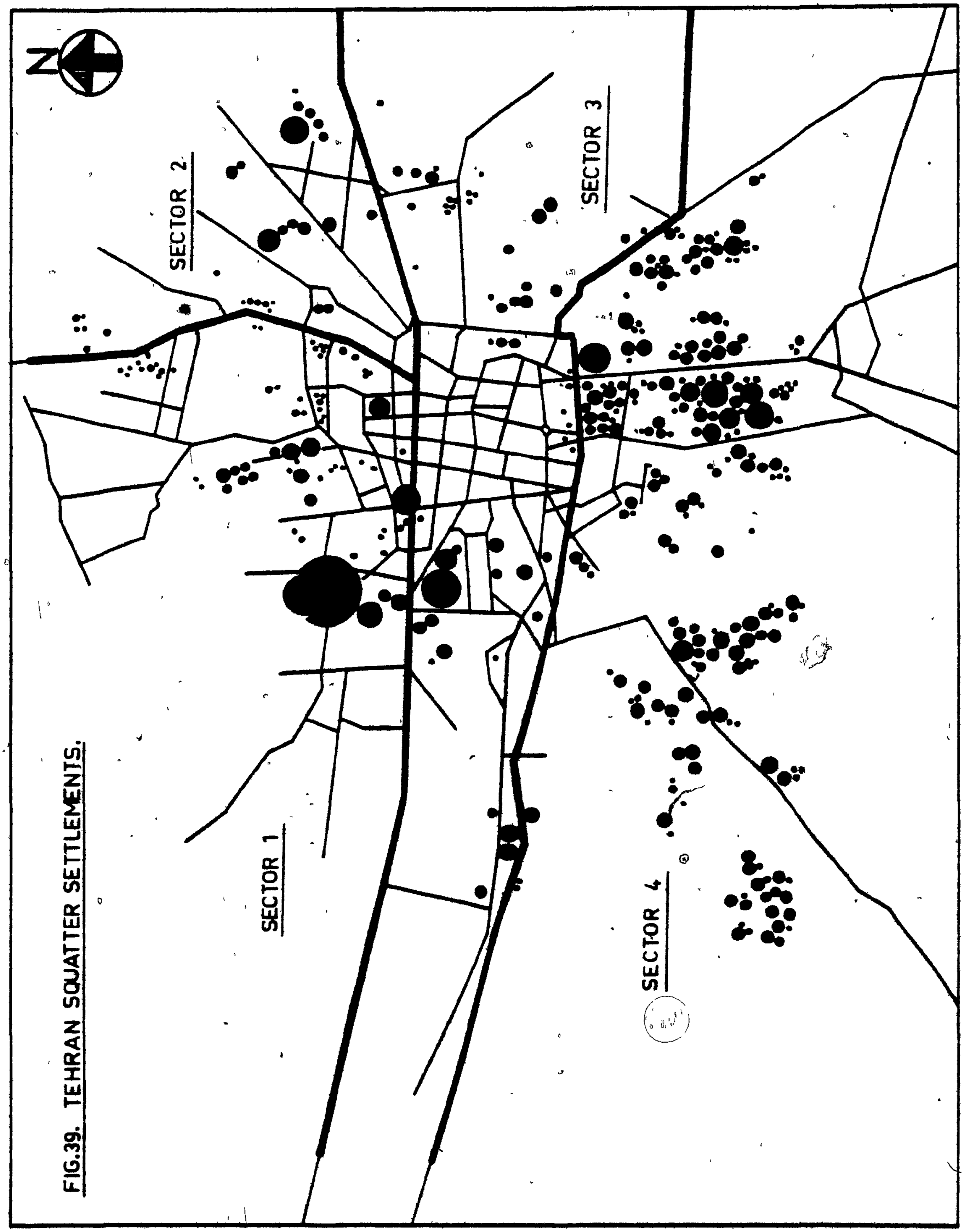

N
SECTOR 1
SECTOR 2
SECTOR 3
SECTOR 4

FIG.39. TEHRAN SQUATTER SETTLEMENTS.

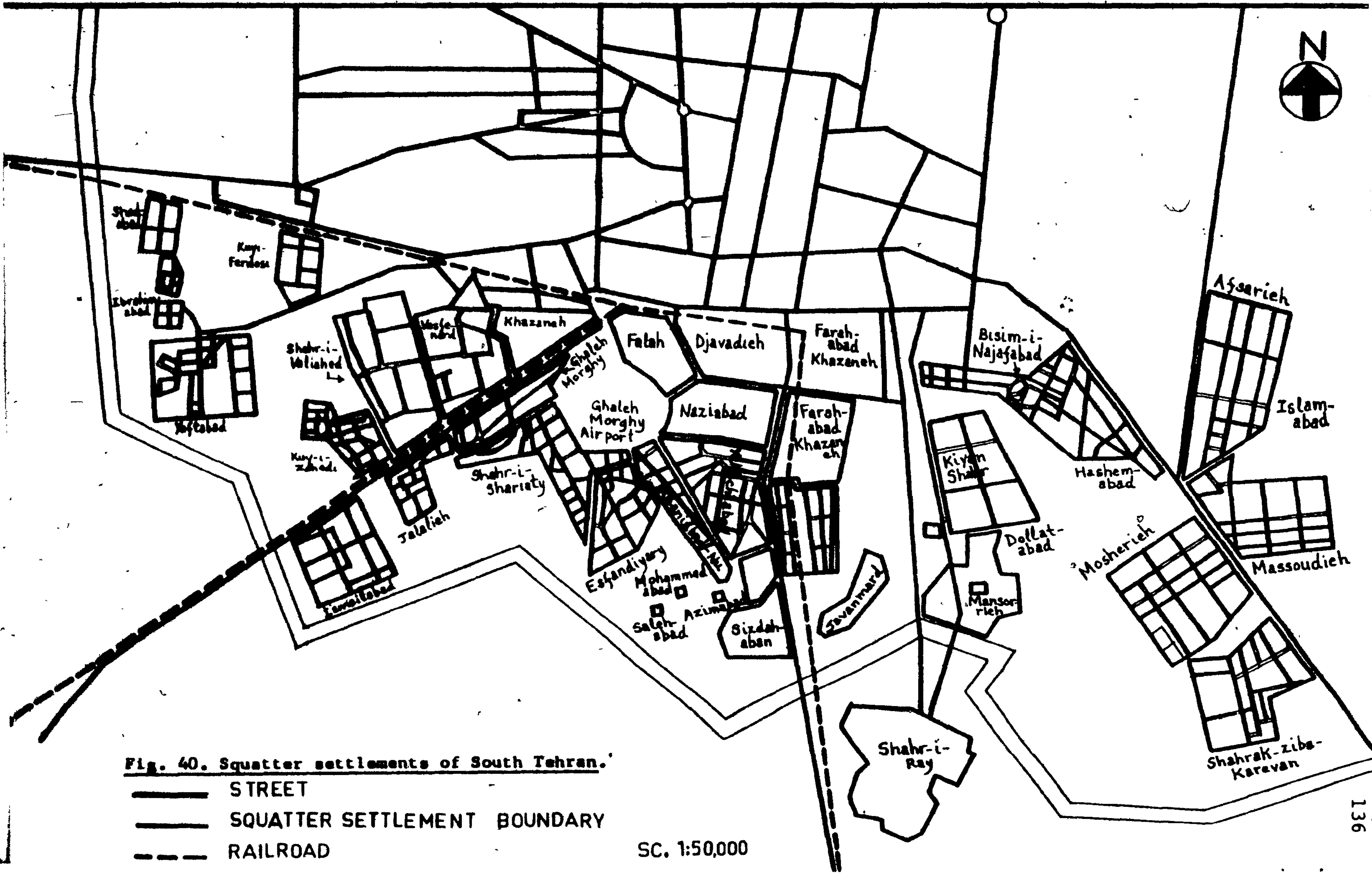

N
Shad-abad
Kuy-i-Ferdosi
Ebrahimabad
Shahr-i-Valiahad
Naftabad
Kuy-i-Zahedi
Jalalieh
Esmailabad
Khazaneh
Ghaleh Morghy
Shahr-i-Shariaty
Ghaleh Morghy Airport
Falah
Djavadieh
Nazisbad
Farah-abad Khazaneh
Farah-abad Khazaneh
Esfandiyary
Mohammed abad
Saleh-abad
Azimabad
Sizdah-aban
Javanmard
Shahr-i-Ray
Kiyan Shahr
Dollat-abad
Mansorieh
Bisim-i-Najafabad
Hashem-abad
Mosherieh
Afsarieh
Islam-abad
Massoudieh
Shahrak-ziba-Karevan
STREET
SQUATTER SETTLEMENT BOUNDARY
RAILROAD
SC. 1:50,000

Fig. 40. Squatter settlements of South Tehran.

4.1.1 Physical Attributes of the Settlements

TYPE AND MATERIAL OF UNITS:

Based on extensive research and study done by the School of Social Work at Tehran University (1976), and the author in 1978-79, the squatters live in shelters made of a wide variety of materials, which include, among others, tents (12.4%), makeshift rooms in the brick kilns (41.6%) and hovels (40.9%) (see Tables 17 and 18).

Brick kiln shelters are restricted to the squatters of south-east Tehran, due to the fact that the kilns are only available there and are not permitted to operate in the central and western sections of south Tehran. It may be difficult to grasp the fact that many of the squatters actually live in functioning kilns that are routinely manufacturing bricks.

WATER SUPPLY:

According to the 1981 census, among almost 200,000 squatter units in six districts of south Tehran, 36% have a water tap inside the units. Of the rest another 26% use public water standpipes, while the last 38% have no access to a public water network. They either buy water or use public sources such as rivers, springs, etc., (see Table 19).

It has to be noted that there are a number of ways in which squatters supply their water. These could be listed as private water storage, wells, ganats*, rivers, etc. (see Table 20). The majority of squatters use the water from private storage by paying a monthly subscription. They either have a water tap in their plots or have access to a water standpipe.

Due to the topography of Tehran, which has mountains in the northern part and is slanted towards the south, there are quite a few rivers and springs which squatters of certain

---

* Traditional Iranian irrigation system.

Table 17

Squatter Settlements of South Tehran by Dwelling Type

Dwelling Type	Total Percentage
Tent	12.4
Cave-like dwelling	2.3
Shack/Hovel	40.9
Burial site	0.2
Basement	0.5
Non-functioning brick kiln	6.8
Active and Inactive brick kiln	34.8
Other make-shift shack	1.6
Hut	0.5
Total	100.0

Table 18

Squatter Households of South Tehran by Dwelling Type

Dwelling Type	Total Percentage
Tent	9.8
Cave-like dwelling	0.3
Shack/Hovel	55.1
Burial site	0.3
Basement	0.05
Non-functioning brick kiln	7.3
Active and Inactive brick kiln	25.6
Other make-shift shack	1.5
Hut	0.05
Total	100.00

settlements have access to. When there is no water storage available and no river or spring, every few residents invest in digging a well which is not costly and provides water in a very simple way with a bucket from the well.

The last source of water supply, is called ganat or subterranean water system. In this case, the groundwater which collects after rain or snow falls is tapped through a borehole and conducted in slightly sloping, long underground

Table 19

Distribution of Water Supply Among the Squatter Settlements of South Tehran, 1981 Census

Municipality or District	Total No. of Units	With Public Network			Without Public Network
		Water Tap inside plot	Public Water Stand-pipe within 100 m	Public Water Stand-pipe more than 100 m	
#15	56,995	22,466	6,739	5,254	22,536
#16	19,732	7,396	2,356	1,659	8,321
#17	31,154	13,857	3,703	2,941	10,653
#18	29,758	8,547	5,314	3,401	12,496
#19	22,166	6,989	4,422	2,285	8,470
#20	39,686	12,792	7,445	5,381	14,068
Total	199,491	72,047	29,979	20,921	76,544

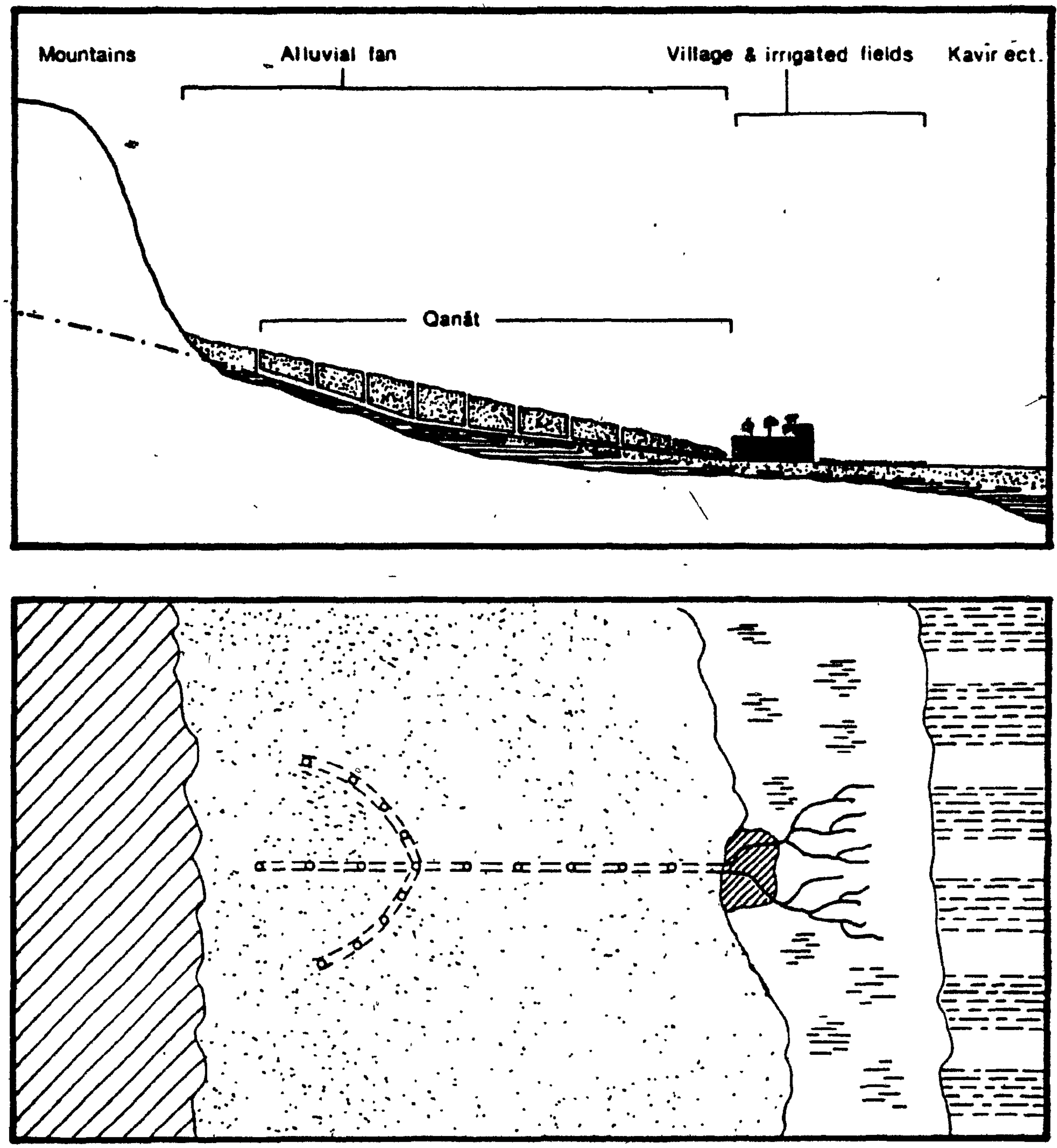
Table 20

Source of Water Supply for the Squatter Settlements of South Tehran, 1981 Census

Municipality or District	Total Units	Water Storage	Well	Subterranean Water System	River	Spring	Others
#15	56,995	45,080	8,529	0	10	0	3,376
#16	19,732	12,475	6,973	8	7	6	263
#17	31,154	24,112	5,809	4	12	8	1,209
#18	29,758	12,496	14,323	5	92	15	2,827
#19	22,166	3,253	18,874	0	0	10	29
#20	39,686	34,682	4,851	5	79	17	52

ducts from the north part to the south, where the water is brought to the surface. Since the site of south Tehran squatter settlements used to be old Tehran, there are a number of them available for use (see Fig. 41).

Fig. 41. Plan and section of a qanat.


Mountains
Alluvial fan
Village & irrigated fields
Kavir ect.
Qanât

Source: Iranian Cities (31).

ELECTRICITY:

Among the squatters of south Tehran, 68% have electricity either legally, with special permission, or illegally, by connecting a cord to public lamp posts anywhere it is possible or available (see Table 21). The squatters who live in brick kilns usually have electricity.

It is a widespread fact that the voltage of electricity is very low, to the point that they cannot have more than two lamps on at the same time or use the iron at night. Still, after the author's personal interviews in 1978-79 and 83, there were no complaints about the electricity while the squatters discussed their problems with other urban services.

Table 21
Distribution of Electricity Among the Squatter Settlements of South Tehran*, 1981 Census

Municipality or District	Total Units	Units With Electricity	Units Without Electricity	Percentage of Units with Electricity	Percentage of Units without Electricity
#15	56,995	46,032	10,963	81	19
#16	19,732	15,791	3,941	80	20
#17	31,154	24,359	6,795	78	22
#18	29,758	18,675	11,083	63	37
#19	22,166	13,998	8,168	63	37
#20	39,686	17,492	22,194	44	56
Total	199,491	136,347	63,144	68	32

*These figures include all the legal and illegal use of electricity in units.

SIZE OF SETTLEMENTS:

The squatter settlements of south Tehran vary a lot in size, among the identified settlements in south Tehran, the number ranges from 350 to 80,000 inhabitants (see Table 22).

Table 22

Identified Squatter Settlements of South Tehran According to Their Population Size, 1981 Census

No.	Name of Squatter Settlement	Population
1	Goadhay-i-Djonoub	80,000
2	Naziabad	78,000
3	Djavadieh	70,000
4	Afsarieh	64,000
5	Bistopanj-i-Shahrivar	57,000
6	Yakhchiabad	51,000
7	Shahr-i-Valiahed	48,000
8	Khaniabad-Nu	48,000
9	Yaftabad	42,000
10	Ghaleh Morghy	40,000
11	Aliabad	35,000
12	Sahbaz-i-Djonouby	32,000
13	Kuy-i-Ferdosi	31,000
14	Dolatkhan-i-Ismailabad	31,000
15	Neamatabad	27,000
16	Shahr-i-Shariaty	25,000
17	Kuy-i-Nuhum-i Aban	24,000
18	Hashemabad	24,000
19	Atabak	23,000
20	Massoudieh	23,000
21	Shahabad	18,000
22	Mosherieh	17,500
23	Khazaneh-i-Fallah	16,000
24	Kuy-i-Zahedi	16,000
25	Ghallamestan	14,000
26	Dollatabad	13,000
27	Shahraki-i-Shoush	11,000
28	Esfandiyari	9,000
29	Shadabad	7,000
30	Shahri-i-Ziba	6,000
31	Vasfenard	5,000
32	Ebrahimabad	3,000
33	Azimabad	1,000
34	Mansorrieh	700
35	Khazaneh-i-Farahabad	600
36	Dorahy-i-Ghapan	600
37	Bagh-Chaly	450
38	Darvazeh-Ghar	400
39	Bisim-i-Najafabad	380
40	Shotorkhan	380
41	Aminabad	350
42	Barootkoby	350

4.1.2 Security of Tenure

The squatters' security of tenure is no better than their living quarters. 78.9% of the households and 68.2% of the units have made no legal arrangements for their stay on the property and are thus potentially subject to the whims of those who own the land. It has to be noted that 74.8% of the units have invaded publicly (government) owned properties. Another 16.5% of the units have obtained either the owner's permission or the consent of the brick kiln supervisors for their stay. The remaining 8.7% are fighting with private landowners, which has caused quite a few deaths among the squatter heads of households.

Only 2.3% of the units could be classified as squatter tenancy. They are made up of households that do not own their shacks but pay rent to other squatters. Although no definitive figures can be given, it appears that squatter tenancy is on the rise in Tehran. In a recent report, some newly arrived migrant squatters frequently complained that, in addition to paying 17 dollars monthly rent to the owner, they had to pay 400 dollars for the right to live in a shack that was already constructed (12). It is apparent, however, that the predominant type of squatting in Tehran is, to use Charles Abrams's term, the owner-squatter. These are squatters who own their shacks or tents but have no legal title to the land.

Although illegal seizure of land is the most common form of squatting in Tehran, pre-arranged and organized large-scale land invasion is rarely practiced among the squatters. Invasion of land is done gradually in cooperation with a small group of family members and close friends. Participation in organized and massive land invasion, not so infrequent in Latin America, is generally uncommon among Tehran squatters; this may have important implications for later exploration in this study.

4.1.3 Age of Settlements

The most surprising fact about these squatter settlements is that 45% were built during the first half of 1970. In 1976 20.3% were added to Tehran's existing squatter settlements. The rapid growth of Tehran has apparently resulted in as rapid a growth in its squatter settlements. Of the rest, 28% were set up between 5 and 14 years ago and another 20% were built between 15 and 29 years ago. Only slightly over 3% date back 30 years or more (see Table 23).

Table 23

Length of Establishment for Units of Squatter Settlements in South Tehran as of 1977

Length of Stay	Total Percentage
less than 1 year	20.3
less than 2 years	6.3
less than 3 years	8.1
less than 4 years	7.7
less than 5 years	2.6
5-9 years	15.7
10-14 years	12.4
15-19 years	9.8
20-29 years	10.3
30 years or more	3.3
unspecified	3.5
Total	100.0

4.2 Socio-Economic Characteristics of Squatters

In a survey by the Institute for Social Research of Tehran University, the occupational breakdown of the male squatter heads of households pointed to a concentration of unskilled labourers in the squatter settlements. Although the format identified 34% as unskilled workers, most other occupational categories listed can be viewed as employment requiring no special skills (see Table 24). Very few held occupations with any degree of employment security. The

Table 24

Occupation of Male Squatter Heads of Households in Tehran

Occupation	% Percentage
Begger and Darvish	2.1
Agricultural labourer	2.9
Keeper of domesticated animals	4.0
Unskilled labourer	34.0
Semi-skilled and skilled labourer	35.2
Tradesman and Peddling Tradesman	3.3
Salesman, Peddler and Middleman	11.9
Minor Office employee	0.4
Unable to work	0.8
Unemployed	5.4
Total	100.0

unskilled labourers of the squatter settlements in Tehran have been characterized as: construction field workers, street vendors, and domestic servants, unskilled agricultural workers, load carriers and the declassé elements of thieves, beggars, gamblers and prostitutes.

No information exists about the employment of female squatters. However, unemployment among the female residents is a widespread fact in all squatter areas of Tehran (see Fig. 42). The few who find work are employed mainly in non-skilled and menial jobs on a temporary or part-time basis. This means that the earning of the male head of the household is usually the only source of income for the whole family.

William Mangin, in his comparative analysis of squatter settlements in Latin America, argues that small-business operations grow very rapidly within the settlements. Markets, repair shops, small industries, bars, restaurants, and other businesses proliferate in a short time (13). Mangin's arguments are well taken as far as Latin American squatter settlements are concerned, however, his points are not applicable to the Iranian case. Except for a very few small business

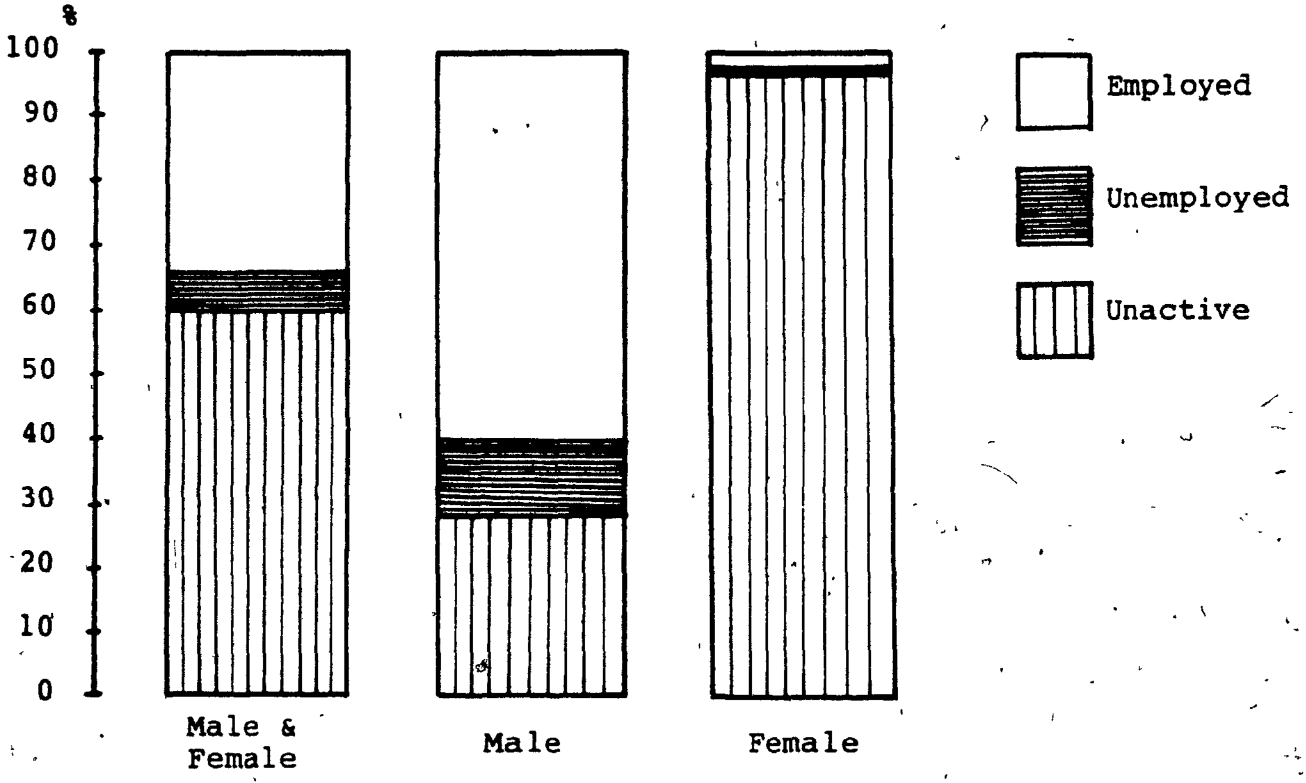


Fig. 42. Employment Situation of South Tehran Squatters 1981 Census.

operations, one would search in vain to find jobs and businesses created in the settlements.

Finally, owing to the requirements of some schooling and level of skill, entrance into the formal sector of the urban area is much more difficult for the squatters. Although the formal sector employs some unskilled and semi-skilled workers, its absorptive capacity is considerably lower than the job demands of the squatters. Hence, occupational mobility is highly limited for the squatters since they work mainly in informal sectors. They are bound to a life based on temporary and menial jobs with no realistic prospect for steady and regular employment. As a result, it is not surprising that an overwhelming number of the squatters of Tehran desire to make the transition and find employment in the formal sector.

For a clear view, a report on the living and employment conditions of the squatters in squatter settlements of south Tehran is worth noting:

> " At the southwest corner of Shush square, an unpaved dirty street leads to a pit, the first in an area known as the south city pits. This enormous hollow measures three hectares wide and ten meters deep. Dumped city trash, discarded scrap metal, parts of destroyed machinery, old cardboards, bones, and rotted refuse lie in the middle. Outside the pit a row of houses, loading areas, and tea-houses meet the eye. These tea-houses cater to mostly thieves, pick-pockets, drug pushers and smugglers. The area inside the pit appears uninhabitable. But in truth, cave-like dwellings have been dug into the surrounding walls. Used cardboard and paper cover the floors. The brightest corners have been set aside for addicts who come to pursue their habits undetected. Additional shacks for the addicts have been constructed in the pit out of discarded scrap metal. Nearby, similar pits and cave-like dwellings are the homes of many more people. In a separate section, another pit is geared to a different kind of activity. Here dwellings are constructed of discarded scrap metal and cardboard, or they have been dug into the ground itself and covered with the same materials. A steep path leads to the shack's entrances, which are occasionally adorned with hanging cloths. Ownership of these shacks and holes is fiercely defended by a group of resident prostitutes. They receive their own guests in these dwellings or rent their rooms to male customers for a specified time." (14)

AGE BREAKDOWN:

According to the 1981 census, the proportion of male to female squatters of south Tehran is 51.5% male to 48.5% female, which is almost equal. This indicates that migrants come as family units and not as single males, or that single male migrants live elsewhere. In fact, the number of inhabitants whose ages range between 20-29 is relatively small; they are most likely the single residents.

The youngsters up to 14 years old make up 50.9% of the total squatter population while the senior citizens (65 and over) account for 1.3%. The adult population make up the remaining 47.8% of the inhabitants (see Fig. 43).

LITERACY:

According to the 1981 census, 58.6% of the population, from 6 years old on, are literate. The percentage of male literate residents alone is 67.8% while for female inhabitants is 48.1% of the total population. Figure 44 presents the percentage of literacy among male and female squatters of south Tehran for different age groups.

FAMILY SIZE:

A study of family size in 1981 shows that 50% of the total inhabitants live in a family of 4 to 6. 20% live in a family of 7 to 10 and over, while 30% have 3 to 1 members per family. Only 4.3% of the total residents live alone and that is partially due to the fact that some migrants prefer to arrive in Tehran without their families in order to settle. After having established themselves, the single migrants send for their families. The low rate of single households among the squatters confirms that migrants usually come to the city as families (see Table 25).

Table 25

Percentage of Family Size vs. Total Population in Squatters of South Tehran 1981 Census

Municipality or District	Family Size									
	1	2	3	4	5	6	7	8	9	10 and over
				members						
#15	4.5	10.1	15.6	18.5	17.3	13.1	10.6	6.2	2.7	1.4
#16	3.4	9.6	14.8	19.2	16.9	14.1	10.2	6.9	3.1	1.8
#17	4.7	9.8	14.6	17.5	17.6	15.0	9.5	6.3	2.9	2.1
#18	3.1	10.7	13.8	18.1	17.7	14.6	10.3	6.7	3.6	1.4
#19	3.9	11.9	14.3	18.6	17.9	14.2	9.1	5.1	3.5	1.5
#20	6.6	12.6	15.8	17.0	16.8	12.6	8.6	4.6	3.8	1.6
Total	4.3	10.8	14.8	18.2	17.3	13.9	9.7	6.0	3.3	1.7

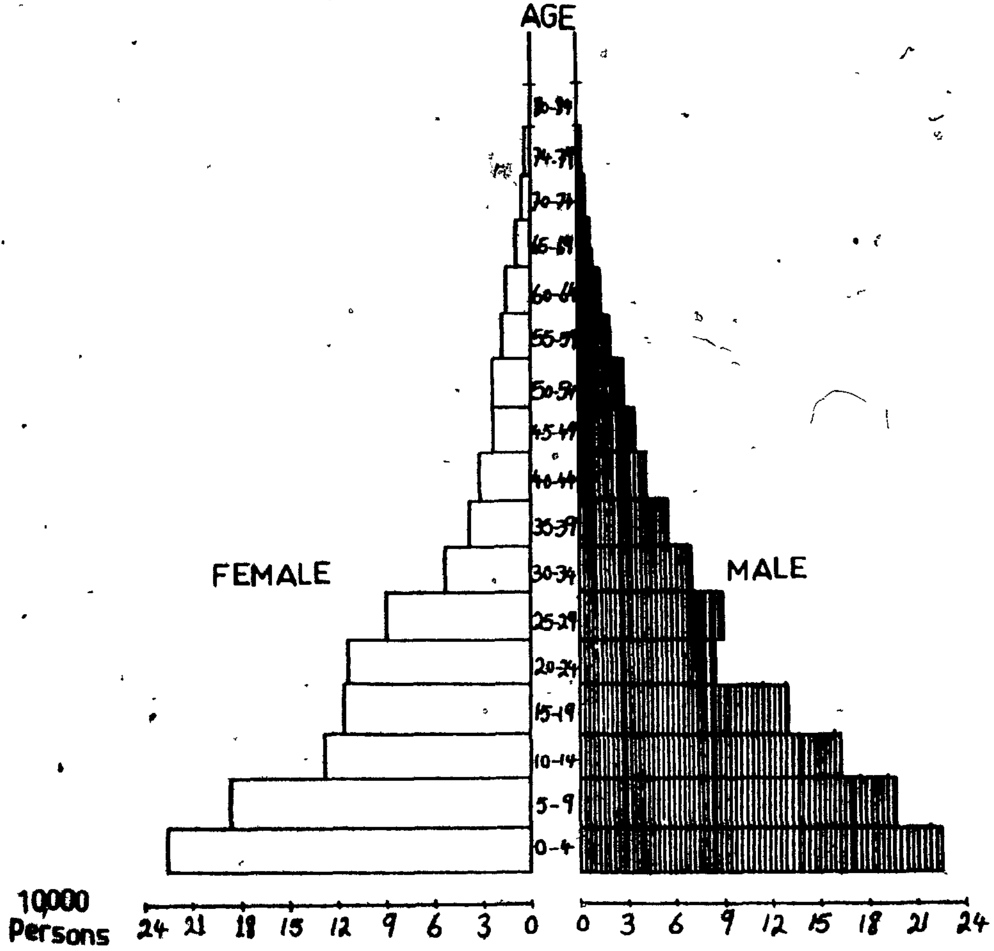


Fig. 43. Age breakdown of squatters in South Tehran, 1981 census.

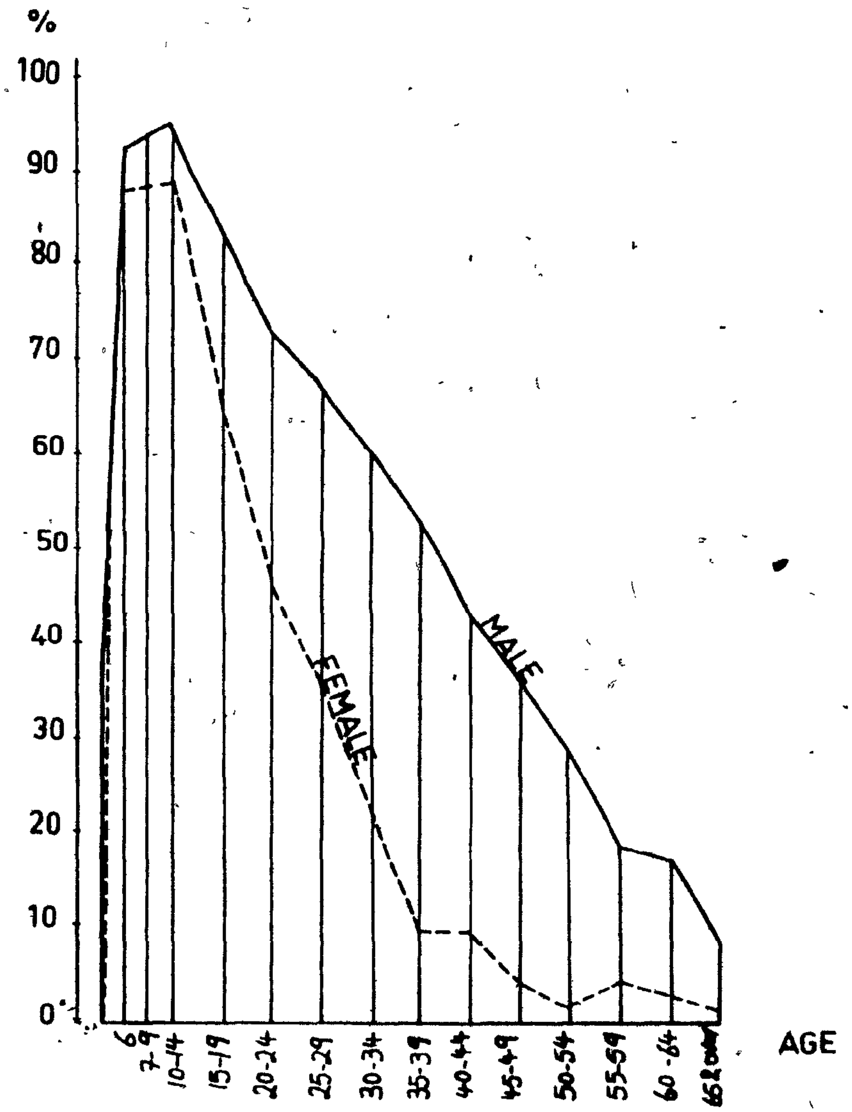


Fig. 44. Percentage of literate male and female squatters of South Tehran according to age, 1981 census.

FINANCIAL SITUATION:

In the squatter settlements of south Tehran, 82% of the male heads of the households are the only source of income supporting the family. 17.5% of the families are supported by both the head of the family (father) and another member of the family (2% of this support is by two members other than the father, the father being unable to work). Only 0.5% of families have three members who are supporting the family.

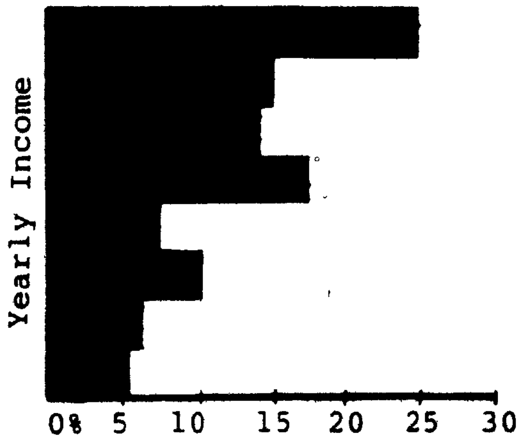
A study of family income among the squatters by the School of Social Work at Tehran University in 1978 indicates that, the family income per year ranges between 0 to 200,000 rials, or 0 to $2340 U.S. (1 rial is equal to $0.0117 U.S.). The average yearly income per family is less than 90,000 rials ($ 1053 U.S.),

Table 26 presents the eight income brackets among the squatters in 1978.

Table 26

Family Income Brackets of South Tehran Squatters in 1978

Family Income Per Year	%
less than 20,000 rials	25.04
20,000 to 40,000	14.28
40,000 to 60,000	13.73
60,000 to 90,000	17.52
90,000 to 120,000	7.48
120,000 to 140,000	10.24
140,000 to 200,000	6.65
unspecified	5.08



4.3 Existing Situation of Squatter Settlements in South Tehran

Based on the extensive research undertaken by the author in 1979 and 1983, the existing situations among the identified squatter settlements of South Tehran fall into the same category of poverty. These settlements are characterized mainly by overcrowding, lack of services, absence of public amenities and salvaged materials for the units.

Three settlements next to each other on the lower part of Ghaleh Morghy Airport have been chosen for a closer look at the situation and their poverty. A number of specifications such as population, area, density, water, electricity and public amenities will be examined.

4.3.1 Ghaleh Morghy Settlement

LOCATION:

This settlement is surrounded by Ghaleh Morghy Street and the boundary of Shahr-i-Shariaty settlement to the east, the main road of Tehran-Saveh to the south, Tehran-Khuramshahr railroad to the west and Djavadieh street to the north (see Fig. 45). The Tehran-Tabriz railroad is close to the north side of the settlement.

POPULATION:

There is no actual census of this settlement, however a population of 40,000 squatters, living in 5,800 shacks, has been estimated.

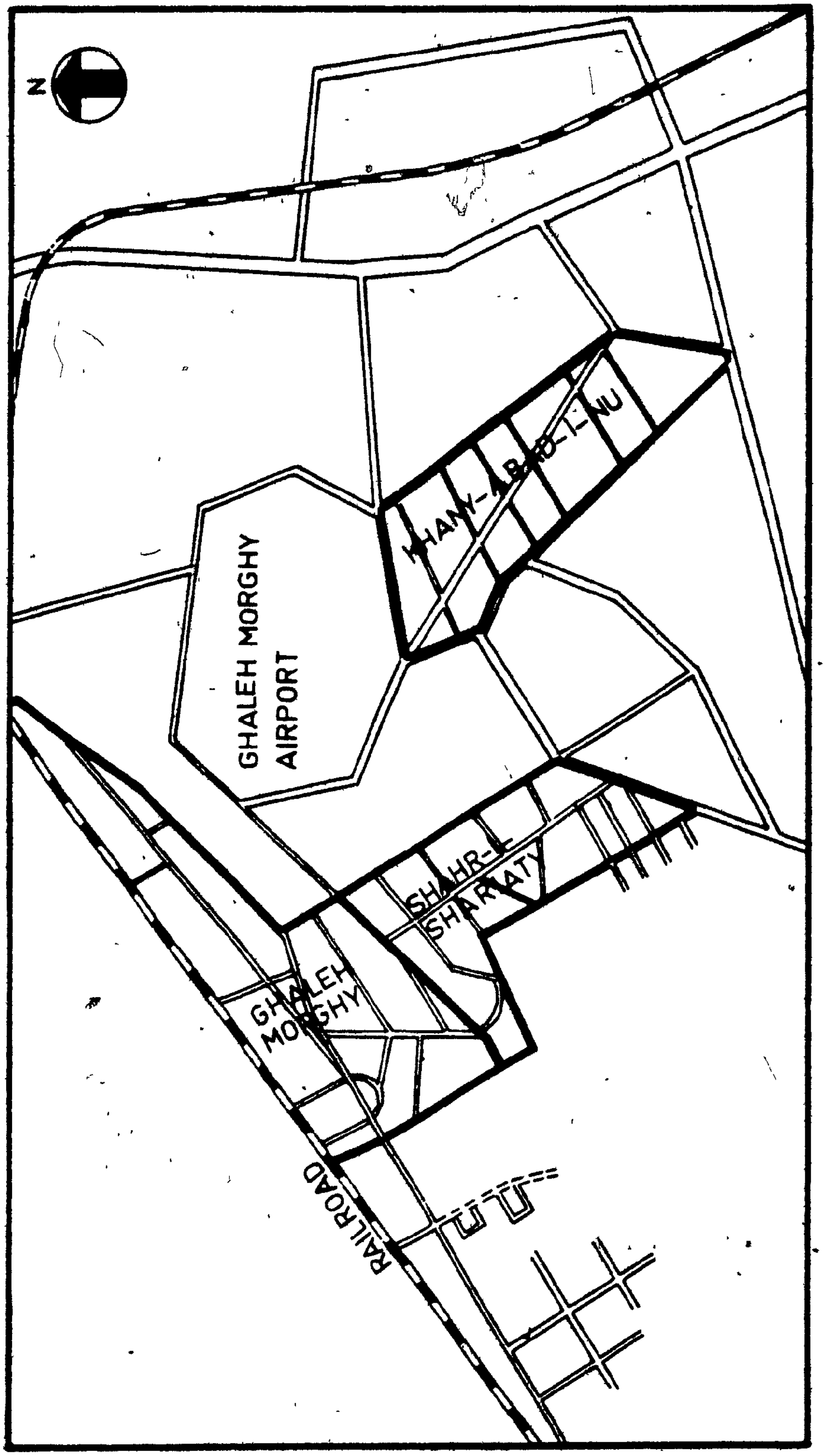
SIZE:

It covers an area of approximately 85 hectares.

DENSITY:

A density of 470 persons per hectare has been calculated. This settlement is one of the heavily populated squatter settlements of South Tehran.

Fig. 45. Locational plan of three chosen squatter settlements in South Tehran.


N
GHALEH MORGHY AIRPORT
KHANY-ABAD-I-NU
SHAHR-E SHARIATY
GHALEH MORGHY
RAILROAD

Source: Zone (84).

AGE:

Ghaleh Morghy is one of the early squatter settlements of South Tehran, with almost 21 years of existence.

FAMILY INCOME:

92% of the families have an income of less than 90,000 Rials ($1,053. U.S.) per year (15). The remaining 8% range between 90,000 to 140,000 Rials per year ($1,053. to $1,638. U.S.). This indicates that the inhabitants of this settlement, according to a family income study of 1978, are very poor (see page 150 for family income study).

PLOT SIZE:

The size of plots varies between 30 to 180 m^2. However, the majority of the plots are approximately 80 to 100 m^2.

UNIT:

The built area for most of the shacks is between 25 to 40 m^2 consisting of two or three rooms constructed with bricks and an outdoor kitchen. Some of the shacks have only one room made of makeshift materials. Figures 46 & 47 present the plan and perspective of two units.

WATER:

There is one privately owned unhygienic water tank which provides water for the inhabitants at a high price. Besides that, there are six public water standpipes installed by the municipality; these water standpipes work for a maximum of six hours per day.

ELECTRICITY:

Most the the squatters do not have electricity, however, it was observed by the author that some of the squatters have illegally connected a cord to the street lamppost and receive electricity from that source.

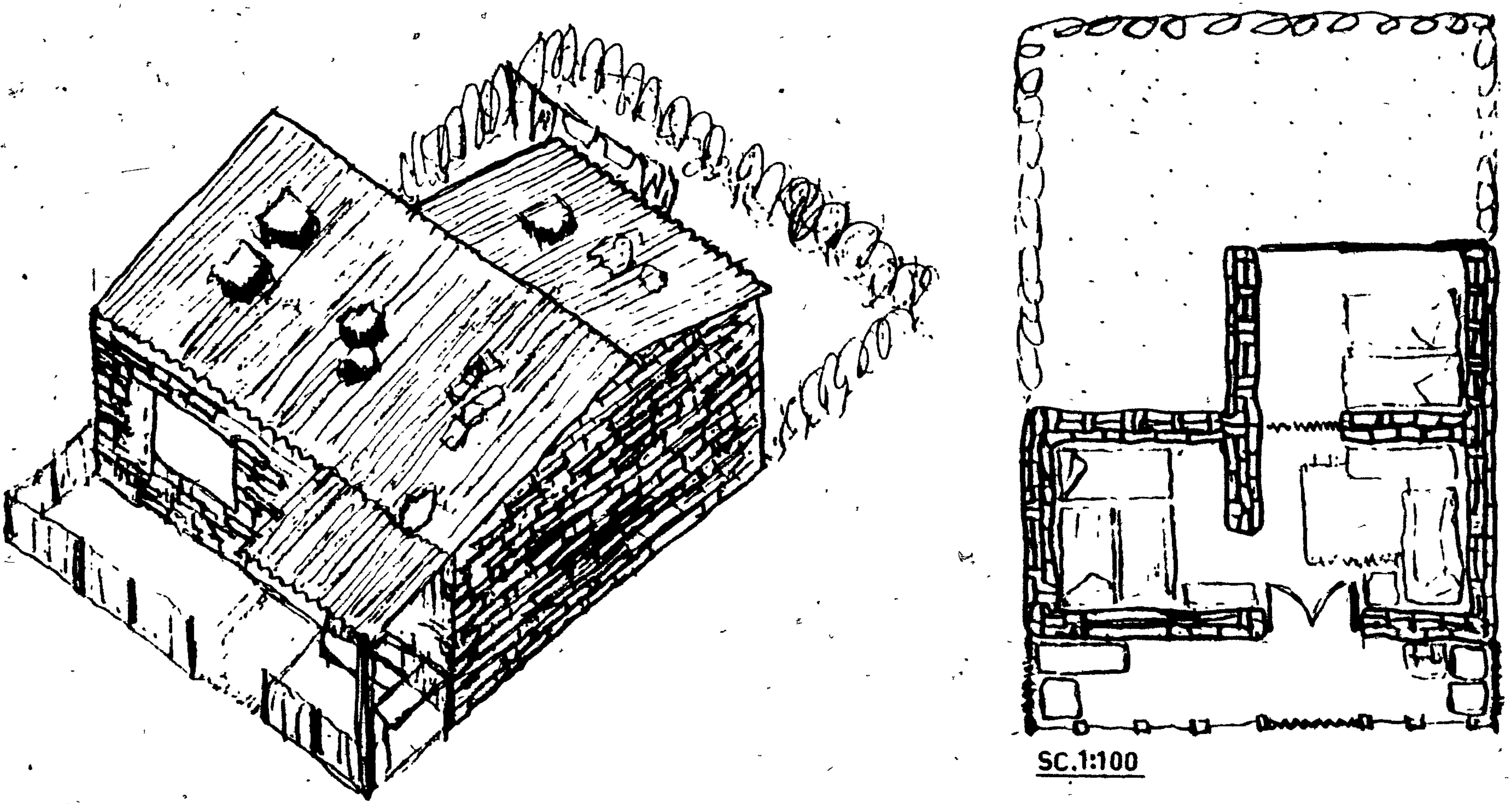


Fig. 46. Plan and perspective of a squatter unit in Ghaleh Morghy settlement.

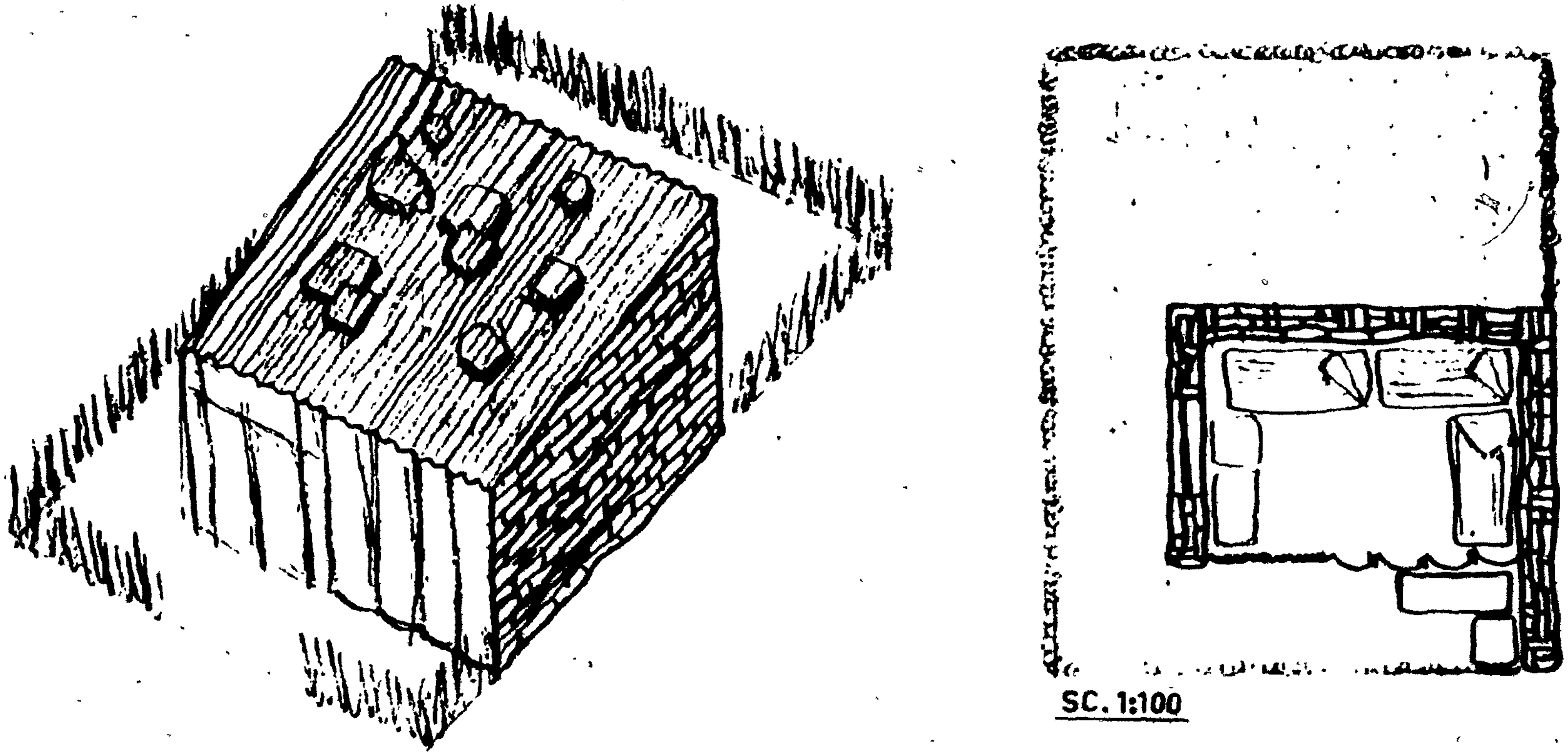


Fig. 47. Plan and perspective of a squatter unit in Ghaleh Morghy settlement.

SEWAGE SYSTEM:

A sewage system does not exist; the squatters utilize pit latrines from which wastes and sewage flow into open ditches, along streets and sidewalks. This creates very unsanitary conditions and is a prime cause of disease. Secondarily, these ditches are also a source of difficulties for pedestrian movement.

MEDICAL AND CLINICAL INSTITUTIONS:

This settlement does not have any clinics or medical centers. However, there is one private doctor who operates at the northern edge of the settlement.

EDUCATIONAL INSTITUTIONS:

The entire settlement has two primary schools and one high school which are used for boys in the morning and girls in the afternoon.

LAUNDRY:

There are no laundry facilities in the settlement, and as a result the inhabitants have to make long trips to the nearest stream to do their laundry.

PUBLIC BATH HOUSE:

There are two small bath houses which do not answer local demands. These bath houses are used alternatively, for women during the day and men at night.

POST OFFICE:

There is no post office in the entire settlement.

PUBLIC PHONE:

There is one public phone which most of the time is out of order and when it works, a big line is waiting to use it.

GARBAGE:

The municipality does not collect the garbage, and unfortunately the accumulation of garbage has brought many difficulties and diseases for the inhabitants.

OTHER INSTITUTIONS:

Due to the high crime rate there is one police station, which is always filled with people presenting a variety of complaints about each other.

TRAFFIC:

There is only one bus line with three buses which connects the settlement to the other parts of the city. Due to this shortage, people have to wait a long time to take the bus.

Since this settlement is located at the fringe of the city, on both sides of the main road going out of Tehran, there is very heavy truck traffic through the settlement. As a result, not only does this traffic pollute the air, but many children have been killed because of accidents.

4.3.2 Shahr-i-Shariaty Settlement

LOCATION:

This settlement is surrounded by the Ghaleh Morghy Airport to the north, Esfandiyari and Khany-Abad-i-Nu settlements to the east, vacant land to the south and Ghaleh Morghy settlement to the west. There are no major roads close to this settlement (see Fig. 45).

POPULATION:

Approximately 25,000 squatters live in this settlement. On the average, a household of 7 to 10 per shack is common.

SIZE:

The estimated area of this settlement is 70 hectares.

DENSITY:

Although there are more inhabitants per shack in this settlement than other settlements, the average density is

357 persons per hectare.

AGE:

This is a new settlement with 8 years history.

FAMILY INCOME:

48% of the families have an income of less than 60,000 Rials per year ($702. U.S.); 5% have a yearly income of 140,000 to 200,000 Rials ($1,638 to $2,340. U.S.); the remaining 47% have yearly incomes of 60,000 to 90,000 Rials ($702. to $1,053. U.S.).

PLOT SIZE:

The average plot size is 100 to 140 m^2, relatively bigger than Ghaleh Morghy settlement. They range from 50 to 200 m^2; there are few plots larger than 200 m^2. The built area for most of the shacks is between 30 to 45 m^2.

WATER:

Since the shacks do not have a public water network, people take water from the wells in the settlement. Each 30 to 40 shacks has a well to use for water supply, and many children have fallen into these wells and lost their lives. There are a few municipal water standpipes which some people use.

ELECTRICITY:

Most of the shacks have electricity, however, it is very low voltage and the municipality disconnects it for five to six hours every day.

SEWAGE SYSTEM:

A sewage system does not exist, so the discarded human wastes and sewage have created quite a few ditches throughout the settlement.

MEDICAL AND CLINICAL INSTITUTIONS:

In this settlement, medical or clinical centers do not exist, so the inhabitants use the medical center in the neighbouring squatter settlement of Nazi Abad.

EDUCATIONAL INSTITUTIONS:

There are two primary schools in this settlement. High school students have to go to other settlements' schools.

PUBLIC BATH HOUSE:

There are two public bath houses, but since they are far from the concentration of squatters, people prefer to boil water in their shacks and wash themselves.

GARBAGE:

The garbage is not picked up by the municipality. Therefore, at almost every corner, a pile of garbage can be seen. For amusement, children sometimes burn the garbage at night.

OTHER INSTITUTIONS:

No other institutions exist. Since this settlement is off the main road, there is no public network and all the so-called streets are unpaved back roads.

TRAFFIC:

There are no main roads to create traffic. No bus service exists; people use the bus service from the neighbouring settlements.

4.3.3 Khany-Abad-i-Nu Settlement

LOCATION:

This settlement is surrounded by the Ghaleh Morghy Airport to the north, Yakhchi Abad settlement to the east, Esfandiyari settlement to the west and a vacant lot to the south (see Fig. 45).

POPULATION:

A population of 45 to 50 thousand inhabitants live in approximately 8,200 shacks in this settlement.

SIZE:

The land within the boundaries of this settlement covers 87 hectares.

DENSITY:

This is one of the very heavily populated settlements of South Tehran with a density of 551 persons per hectare.

AGE:

Khany-Abad-i-Nu is one of the five earliest settlements of South Tehran, with 28 years history.

FAMILY INCOME:

Reported family income among the squatters indicates that 73% of the families have yearly incomes less than 90,000 Rials ($1,053. U.S.). 19% have an income of 90,000 to 140,000 Rials per year. The remaining 8% make more than 140,000 Rials per year.

PLOT SIZE:

Plots are smaller than other settlements. The most common size is between 30 to 60 m^2. Shacks are usually one or two rooms made of bricks for walls and light material for the roof.

WATER:

One privately owned water tank provides service for the squatters; about 2,130 familes have special permission to use it by paying a monthly subscription fee. Besides that, there are fifteen public water standpipes for the inhabitants who cannot afford to pay the monthly fee.

ELECTRICITY:

Almost all the houses use the city electricity network.

Nevertheless, they cannot use their irons at night, generally the only home appliance they have, because of low voltage.

SEWAGE SYSTEM:

Like other urban services, it does not exist, but like the other settlements, there is a flow of human disposal and sewage into open ditches throughout the entire settlement.

MEDICAL AND CLINICAL INSTITUTIONS:

Nothing exists in terms of medical and clinical services except one private doctor who works in a hospital during the day and services the squatters from 5 to 8 at night.

EDUCATIONAL INSTITUTIONS:

Two primary schools and one guidance school make up the whole educational service for the inhabitants. Schools have two different shifts: from 8:00 to 12:00 in the morning for the boys and from 13:00 to 16:30 in the afternoon for the girls.

LAUNDRY:

Laundry facilities do not exist.

PUBLIC BATH HOUSE:

The owner of the water tank has built five bath houses within the boundary of the settlement.

GARBAGE:

The city does not collect the garbage, but people dump their garbage with wheelbarrows on the adjacent vacant lot.

POST OFFICE:

Within the settlement, there is no post office. One mail box does exist, but the mail is never picked up. Children usually take the mail from the mail box and the letter, instead of going to the intended party, goes into the children's hands and amuses them for the whole day.

PUBLIC PHONE:

One public phone has been installed there, but serves only as urban decoration since it never works.

OTHER INSTITUTIONS:

As a result of the inhabitants' efforts, one mosque has been built, which is the active core of the settlement. The mosque is used by other settlements' inhabitants as well.

TRAFFIC:

The settlement is suffering very much because of the non-existent bus service. Fortunately, no accidents have been reported yet as a result of traffic.

5 review of the impact of government efforts

This chapter has been divided into two separate parts, because two different paths of development and strategies emerged from the governments before and after the 1979 revolution in Iran. Part one reviews and analyzes the actions taken during the Shah's regime regarding the housing demand of the lower class and squatters. Part two covers and analyzes the responses of the Islamic government towards these same demands.

5.1 Review and Analysis of Government Actions Before the Revolution

5.1.1 Socio-Economic Analysis

Under the Shah, the Iranian government's overall policy toward the housing demand of squatters can perhaps be described at its best, as one of benign neglect (i.e. laissez-faire). Little systematic attention was paid to the poor squatters, and they were left to themselves to eke out a subsistance life. The government's response reflected the belief that by ignoring the squatter's plight, the problems would disappear.

Nevertheless, it is not uncommon to find "legal" violence inflicted on the squatters by the agents of the state. Forceful removal and eradication of squatter settlements are among the most often committed "legal" actions in many cities of the world. Tehran's squatter settlements have had no better fate. There have been some examples of forceful eradication in Tehran during recent years. Two such episodes are worth recounting.

The first concerted act of squatter settlement eradication in Tehran took place in 1958, in an area known as the South City Pits. These pits consisted of enormous hollows dug into the ground in which the squatters had built shacks, hovels, and cave-like dwellings. According to the reports, 1,356 squatters lived in these pits at the time (16). On a cold night, a large group of government officials and workers forcefully evacuated the squatters and set fire to the entire settlement. The whole eradication took about four hours and the squatters were left in the streets.

The second example of squatter settlment eradication concerns a series of attempts by the officers of the Tehran municipality to evict squatters from their homes, on the pretext of illegal occupation and residence, in areas outside the South City limit. These sporadic acts of eviction took place on a few occasions in late 1977 and in 1978. In these two episodes, many of the squatters tried to physically prevent destruction of their homes and were consequently either forcibly detained by the officers or injured in the melee.

Apart from these inhumane attempts, some lip service has been paid officially to the housing plight of the poor. The only notable exception which dealt directly with the squatters was a housing project in South Tehran known as Kuyi-Nuhum-i-Aban, constructed over ten years ago. This endeavour was financed by the government through the Ministry of Housing for the occassion of the fifth birthday of the Shah's first son. The housing project was built on the former site of an extensive squatter settlement that was destroyed by the government in 1958, and after completion 16,000 residents were housed in its 3,000 units. Each unit cost 590,000 Rials ($6,926. U.S.), of which the prospective owner paid a downpayment of 100,000 Rials ($1,170. U.S.) and the balance paid by a loan with 6% interest, repayable in twenty years. Many former squatters were sheltered in these two-room houses and provided with both electricity and water (for project summary and architectural plans, see page 171 & 172).

Finally, in 1971, a major study was undertaken by the Ministry of Housing regarding the housing situation and shortage in Tehran. The results were reported to the government and a new housing policy was developed to fulfill the housing demands of the population in Tehran within a ten year period. According to the new policy, the population was divided into five income groups as follows (17):

Group 1:	families with a yearly income of less than 50,000 Rials ($587. U.S.)
Group 2:	families with a yearly income of 50,000 to 100,000 Rials ($587.-1,170. U.S.)
Group 3:	families with a yearly income of 100,000 to 200,000 Rials ($1,170.-2,340. U.S.)
Group 4:	families with a yearly income of 200,000 to 400,000 Rials ($2,340.-4,680. U.S.)
Group 5:	families with a yearly income of more than 400,000 Rials.

The housing demand of the first three income groups was calculated to be 85% of the total urban housing shortage in Tehran. The need arising from the last two groups, i.e. families with income of 200,000 Rials per year and more was 15% of the total (18). It was assumed that the last two groups did not need help from the government and should be able to fulfill their housing demands in a ten year period. But the first three groups presented a completely different picture, which required either direct or indirect help from the government in order to deal with the urban housing shortage in the city.

In response to this, there were two major strategies:

1) organizing a private housing bank which would provide housing construction loans for poor class residents with a regular income;
2) designing a series of low-cost houses and apartment buildings based on the different incomes of the first three groups.

A housing bank was organized for the people who wanted to construct their own units individually, or already had the land but no money for construction. Through this bank they could get a loan at a low interest of 6% and carry out the construction themselves. Since it was a private bank, shortly after its opening the management instituted very severe regulations for the security of payments. Even the second income group was not able to apply for a loan. The net result of this attempt was the flood of middle and upper-middle class applications for loans. The squatters, who had no money or job to begin with, and even the poor class, who had a piece of land, were left behind to their subsistance life or abject poverty.

Regarding the second attempt, the Ministry of Housing designed different prototypes of two, three and four bedroom houses, and apartment buildings with varying densities. These buildings were chosen to be constructed on government owned land in order to cut the expenses (see page 173 to 180 for architectural plans of some prototypes).

Originally, the units were designed as low-cost housing for the first three income groups. However, due to the mismanagement of the Housing Ministry and miscalculation of cost analysis, the units cost much more than was intended. It came to the point that downpayment for the least expensive and smallest apartment was 144,000 Rials ($1,690. U.S.) with a monthly payment of 3,840 Rials ($45. U.S.) for twenty years and 4,640 Rials ($54. U.S.) for fifteen year repayment.

Obviously, it was beyond the affordability of almost everyone within the first three income groups. Again this attempt failed even in terms of solving the housing plight of the poor class with regular incomes; squatters, with no income were left from the beginning to solve their housing problems by themselves. Table 27 presents financial data for the least expensive prototype in each category.

Table 27

Financial Data for the Least Expensive Unit of Each Category Designed by the Housing Ministry in 1973

Type of Unit	Total Cost Rials	Downpayment Rials	Monthly Pay-ment Rials	Interest Rate %	Repayment Year
Two bedroom apartment	720,000	144,000	3840 4640	6	20 15
Three bedroom apartment	880,000	176,000	4695 5670	6	20 15
Four bedroom apartment	1,040,000	208,000	5546 6702	6	20 15
Two bedroom house	1,200,000	240,000	6400 7733	6	20 15
Three bedroom house	1,400,000	280,000	7466 9022	6	20 15
Four bedroom house	1,800,000	360,000	9600 1,1600	6	20 15
Kuyi-Nuhum-i-Aban*	590,000	100,000	3260	6	20

*Although Kuyi-Nuhum-i-Aban was not part of the government project in 1973, it is included here to put the affordability of this project into perspective.

Bearing in mind that the population of Tehran in 1973 was 3,670,000, one quarter of the population consisted of squatters. Although they numbered approximately 900,000, only 6.5% or 58,500 of the squatters, the most affluent of their income group, could afford to take part in this government project; even those few required sufficient savings to cover the downpayment. For the remaining 93.5% (i.e. 841,500) of the squatters, a major portion of Tehran's population, the government project was simply not economically feasible.

5.1.2 Socio-Political Analysis

The absence of a direct commitment to housing construction and other responses from the Shah's government towards the squatters has sometimes been rationalized by government officials and others by pointing out the alleged existence of a "culture of poverty" among the very poor, as well as their resistance to living in anything but substandard shelters. Two examples of such thinking are worth reporting: The first case concerns the settlement of a group of poor Kurdish refugees from Iraq at the beginning of the 1970's who lived in a section of Kuyi-Nuhum-i-Aban; many of the refugees sold their homes at a price about equal to the cost of a tent. They subsequently purchased the tents and squatted in an area not far from their original homes.

The second case involves the image of squatters in Iran as presented in a government sponsored publication in which the squatters were often berated for their deceitfulness and preference for a life of squalor. In the 1971 resettlement of a group of squatters from central Tehran to Kuyi-Nuhum-i-Aban, it was discovered that 20 families among the new residents had previously been provided homes at the same housing project. They had apparently sold their homes at the project and returned to their former life of squatting in a different area of Tehran (19).

Effective arguments have been presented against the "culture of poverty" view of the Latin American squatters by Janice Perlman and Alejandro Ports (20). Perlman explains the squatter's desire to continue living in the "favelas" by pointing to several factors such as the settlement's sense of community, no rent, and proximity to job markets. Using

Turner's distinction between the semi-employed "bridgeheader" and the fully employed "consolidator" squatters, Ports maintains that it is the bridgeheaders who normally resist forced resettlement. Since the bridgeheaders are not fully employed, they naturally view occupations, not housing, as their primary concern. This is a perfectly rational position in light of the fact that they already have some form of shelter in the squatter settlements. By contrast, the consolidators with stable occupations "demand and often force development of suburban settlements appropriate for establishing permanent houses" (21).

The squatter settlements of South Tehran include practically no consolidators. Very few are fully employed in regular wage-earning occupations. The wage-earning poor people reside in non-squatter, low-income areas of the city.

Perhaps the two examples of resistance to government housing can be explained. In the first instance, the nomadic Kurdish refugees had opted for their accustomed life in the tent. From their perspective, it was probably a rational decision to exchange government houses for tents. In the second case, the residents became aware of the profits that could be gained from the sale of their homes. The income obtained from the transaction was most likely used to defray the costs of more urgently needed food and clothing as well as radios or T.V.'s for amusement. A survey of Kuyi-Nuhum-i-Aban in 1968 attests to high rates of unemployment, low income, and unskilled occupations of the residents (22). In other words, the majority were not fully employed wage-earners but rather semi-employed bridgeheaders for whom employment was the paramount concern.

In the end, considering the vast oil wealth of the country, the official performance in low-income housing was unsatisfactory. Those portions of oil revenues earmarked for public housing were generally used to construct massive modern housing complexes that were affordable only to the high and upper middle class groups. Moreover, any commitment to low-income housing for the poor class and squatters was overshadowed by the lack of information and concern for the affordability of the resulting residences. As previously discussed, this low-income housing was suitable for the lower-middle class income group but not for the poor or the squatters. Therefore, the regime's action amounted to no more than window dressing, futile and/minimal at best.

KUYI-NUHUM-I-ABAN

Project Summary:

Location: central-south of Tehran, next to the main highway going towards the south.

Project Name: Kuyi-Nuhum-i-Aban Resettlement

Brief Background:

This project was financed by the government through the Housing Ministry for the celebration of the fifth birthday of the Shah's first son.

Site Area: 100 (ha) 250 (acres)

Scheme Designed by: Housing Ministry, Architectural Department

Total No. of Plots: 3,000

Plot Dimensions: 115 (m^2), 6 (m') width, 19 (m') length.

Plot Density (Plots/ha): 37.2 (net), 30 (gross)

Land Utilization:

	ha	%
Private	70	70
Public	10	10
Circulation	20	20
Total	100	100 for 3,000 plots

Public Utilities:

Water	on plot
Sewage	on plot
Roads	paved, finished
Public Lighting	complete
Electricity Distribution	on plot

Plot Development (only one prototype):

No. of rooms	two
Services	kitchen, toilet, shower

House Building Materials: permanent materials 100%
brick, cement

Public Institutions:

In the actual project site there are no public institutions such as schools, clinics, etc. but since it is in the middle of a residential area, the inhabitants use the facilities from nearby neighbourhoods.

Financial Data:

Cost per Unit for Government:	590,000 Rials
Downpayment:	100,000 Rials
Balance:	20 years with 6% interest

Selection Process:

Squatters who could pay 100,000 Rials would get the applications, then through the lottery the prospective owners would be selected. It should be noted that 500 units were given to Kurdish refugees from Iraq without the process of the lottery.

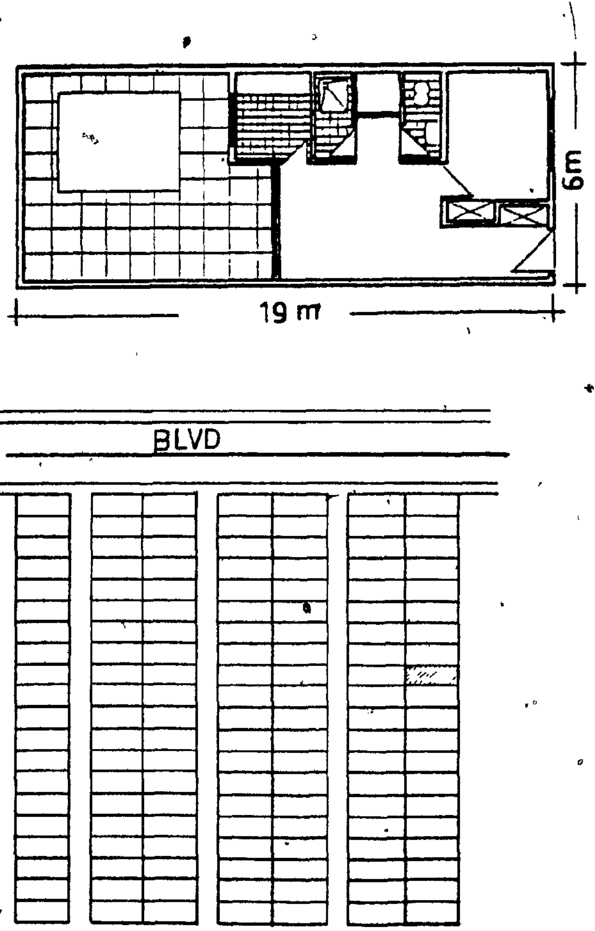
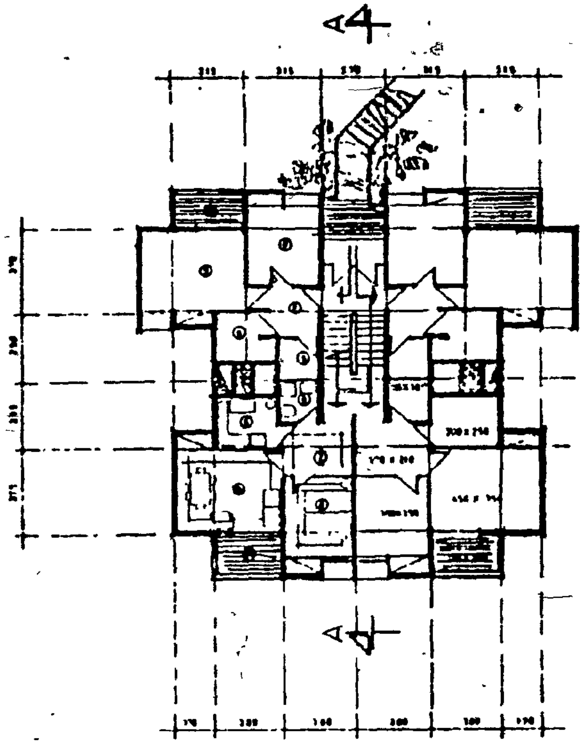
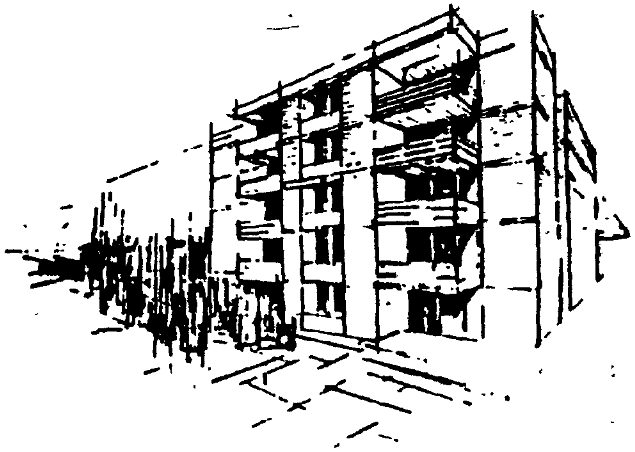


Fig. 48. Plan of One Unit and Part of the Site Plan in Kuyi-Nuhum-i-Aban Settlement.

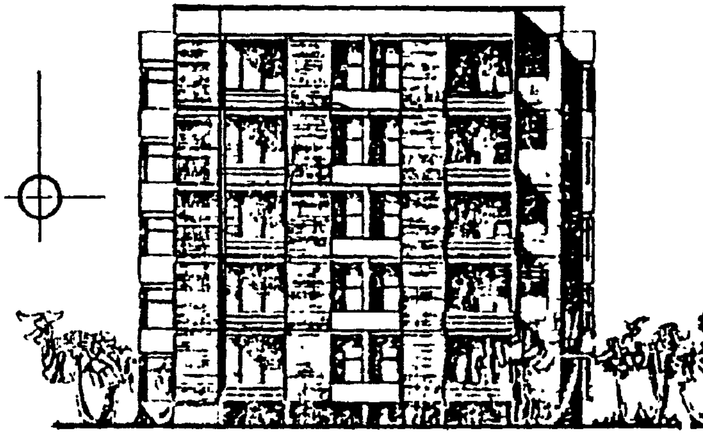


FLOOR PLAN

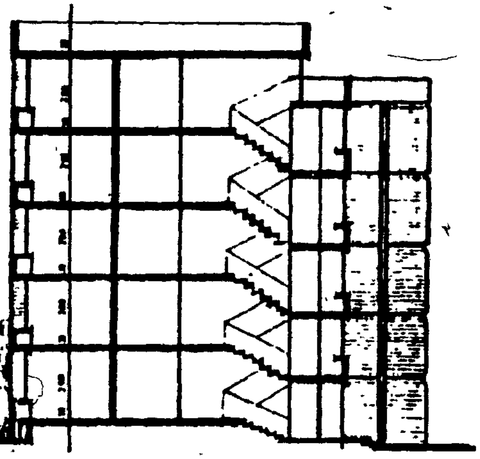
Fig. 49. Prototype of two room apartment in five story building designed by Housing Ministry in 1973.



Source: Maskan dar Manategh Shahry Iran,
Moshkelat Va Pishnahada (41).

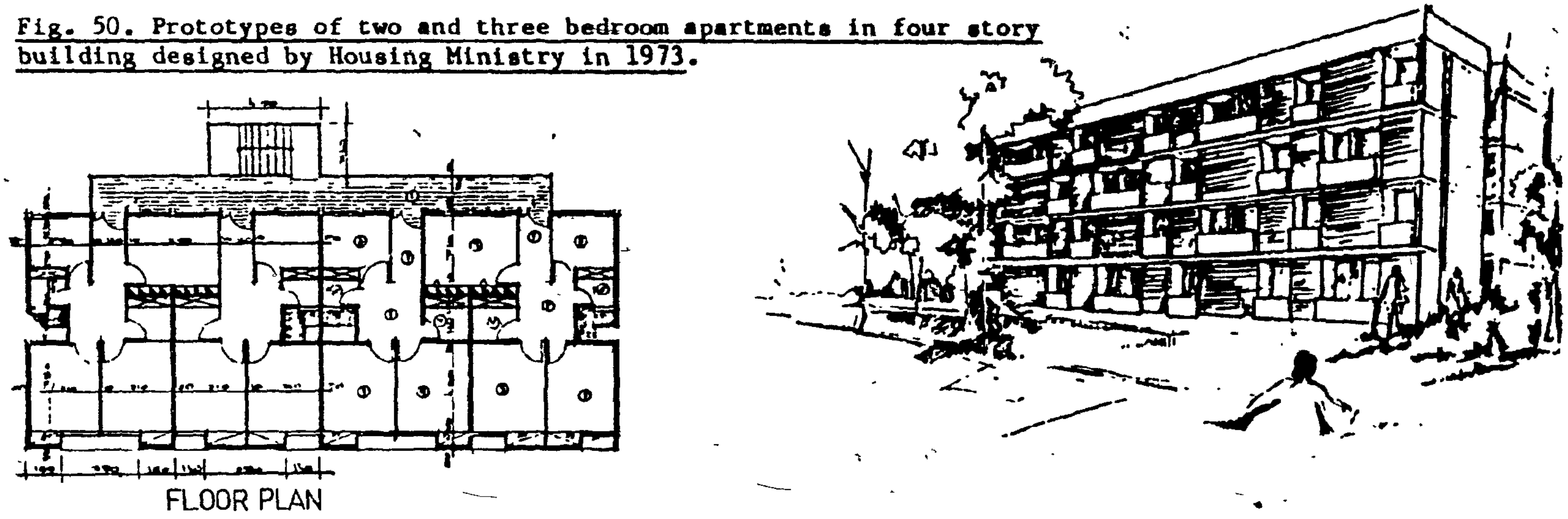


SOUTH ELEVATION



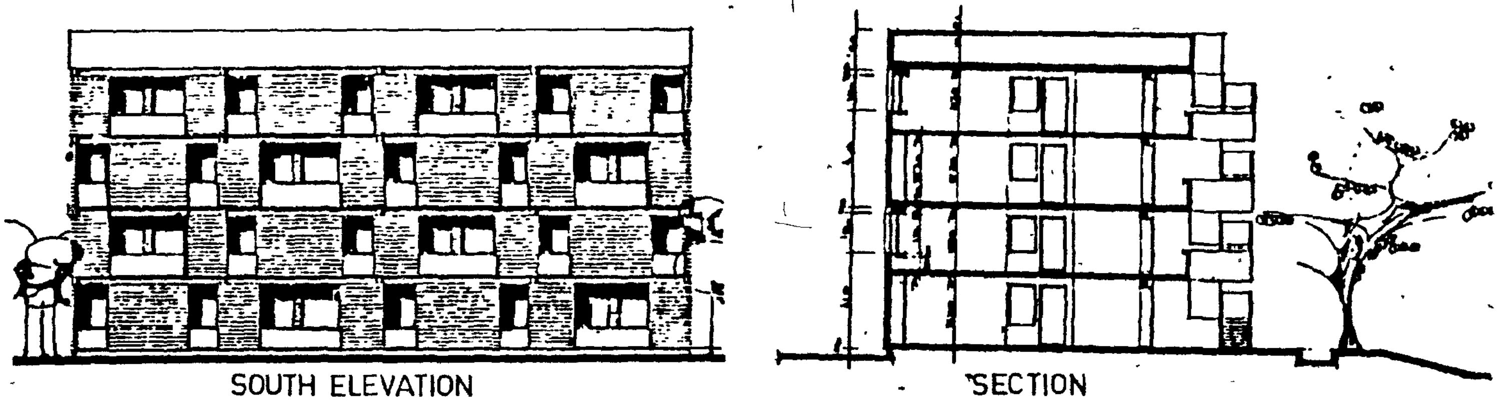
SECTION A.A.

Fig. 50. Prototypes of two and three bedroom apartments in four story building designed by Housing Ministry in 1973.



FLOOR PLAN

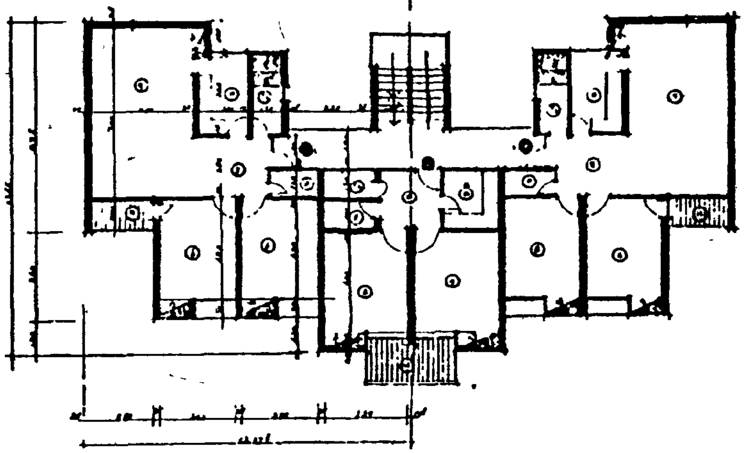
Source: Maskan dar Manategh Shahry Iran, Moshkelat Va Pishnshada (41).



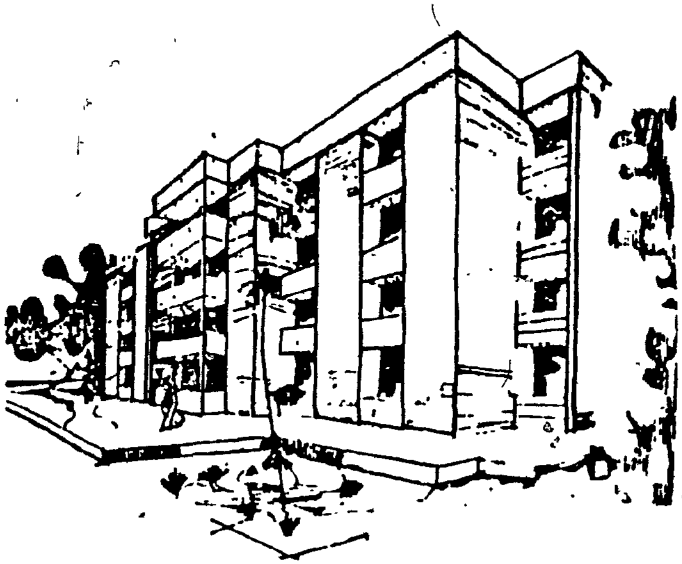
SOUTH ELEVATION

SECTION

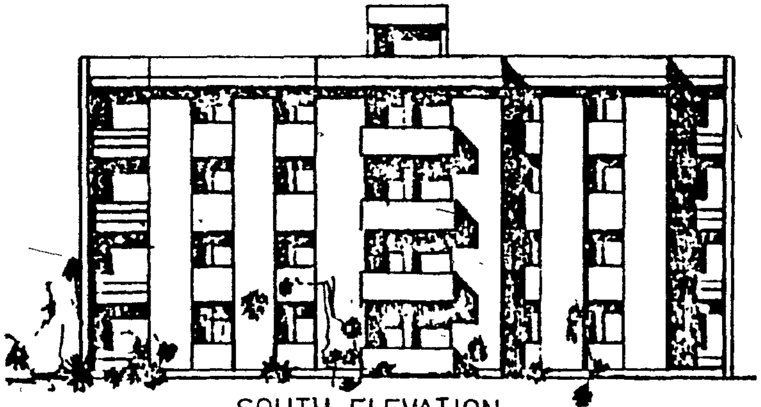
Fig. 51. Prototypes of two and four bedroom apartments in four story building designed by Housing Ministry in 1973.



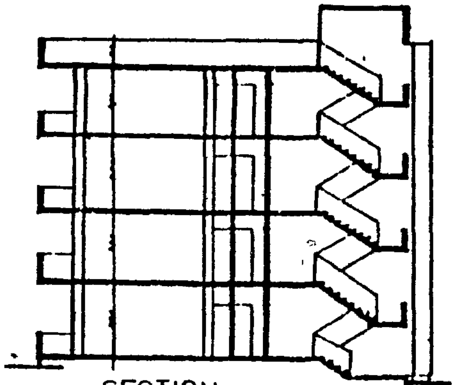
FLOOR PLAN



Source: Maskan dar Manategh Shahry Iran, Moshkelat Va Pishnahada (41).



SOUTH ELEVATION



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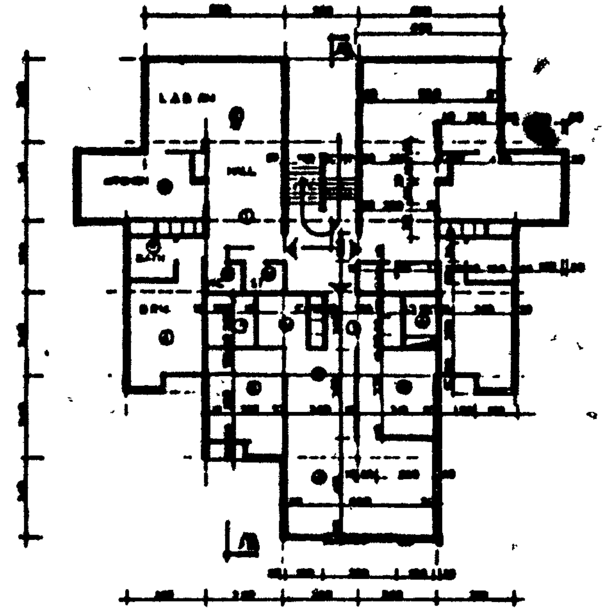


FLOOR PLAN

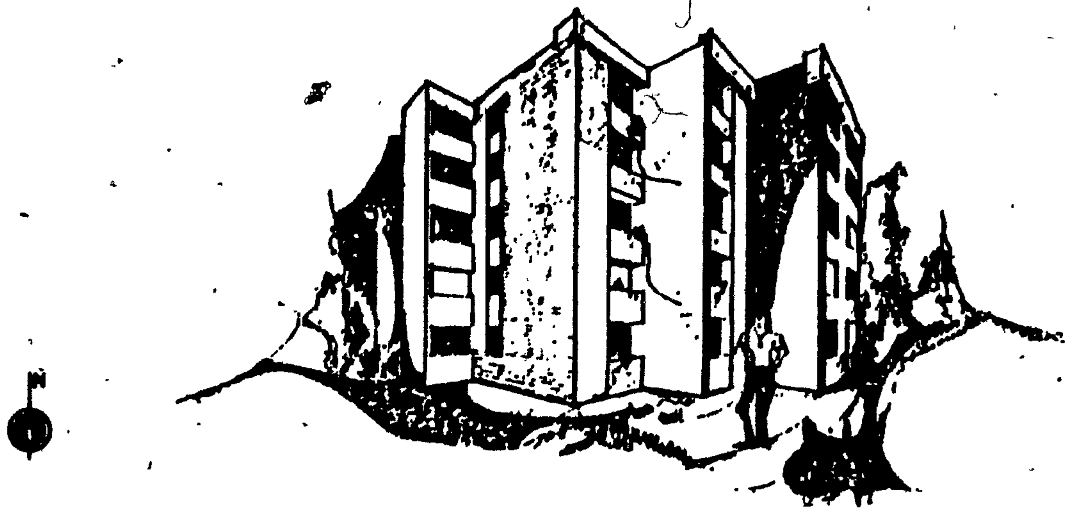
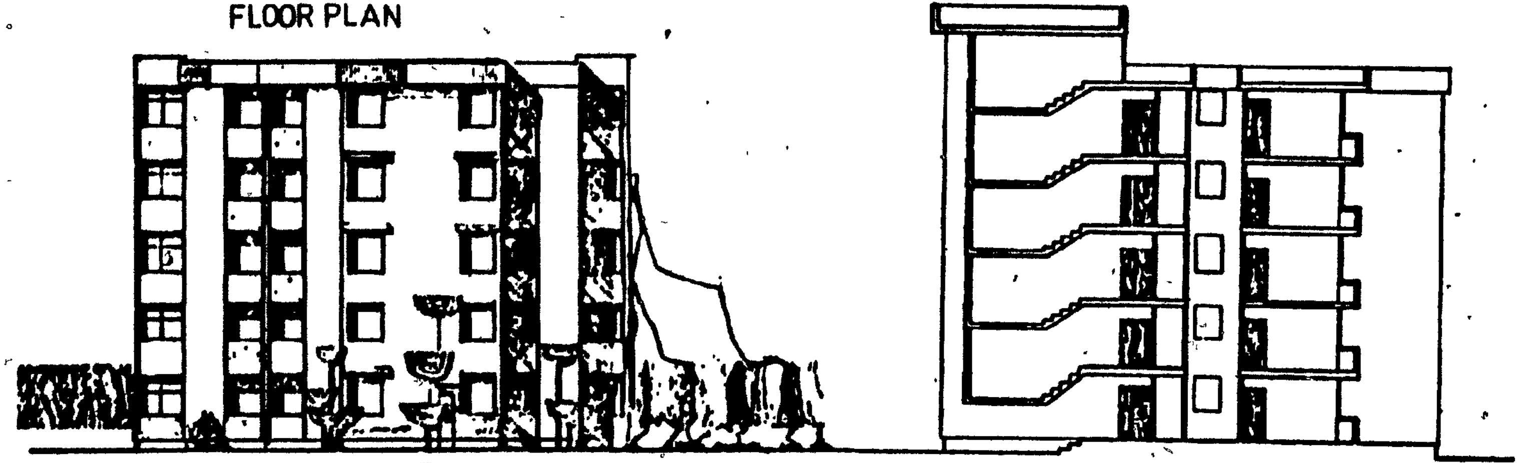


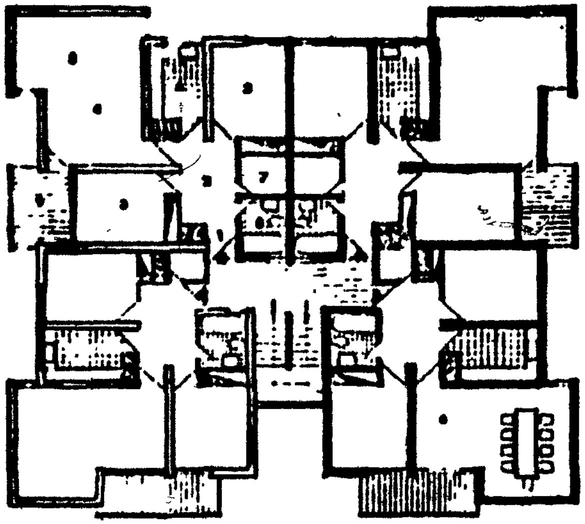
Fig. 52. Prototype of three room apartment in five story building designed by Housing Ministry in 1973.



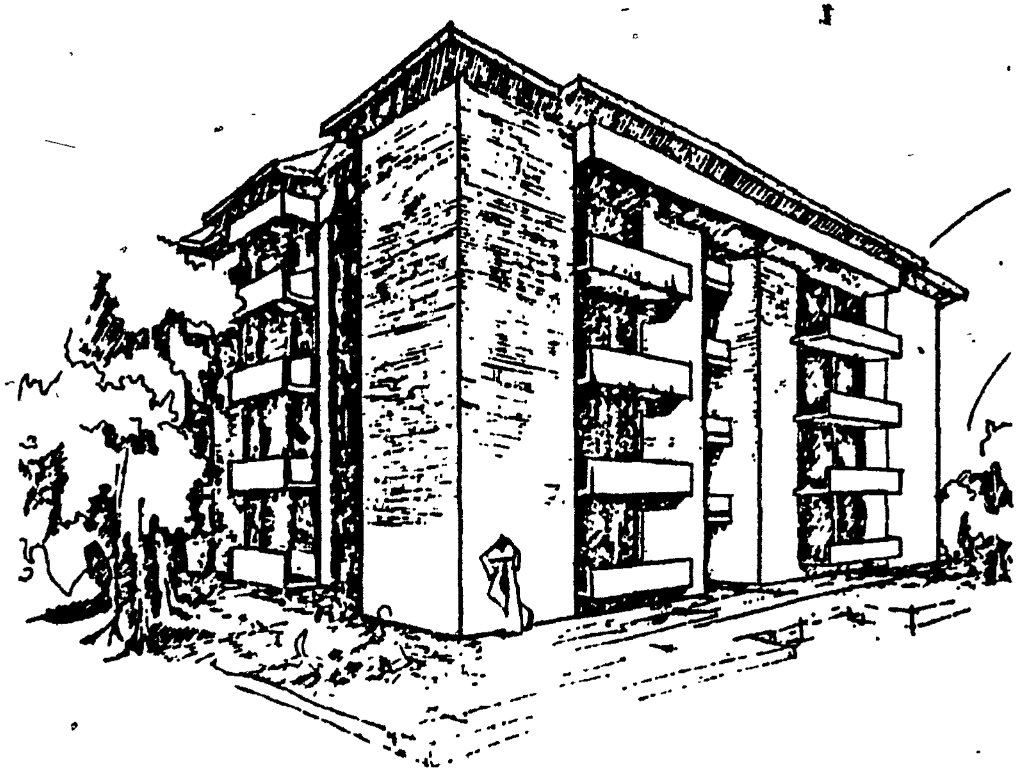
SOUTH ELEVATION

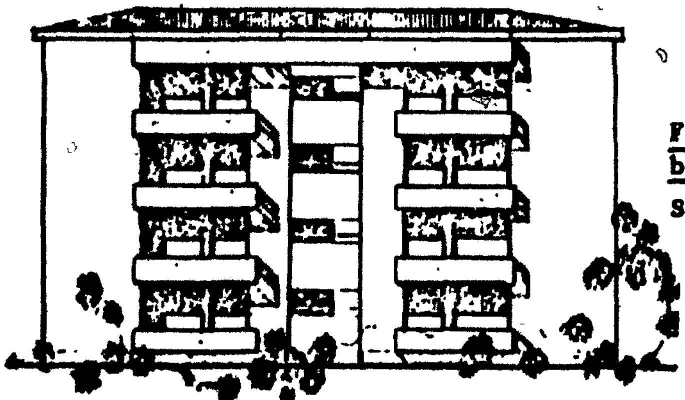
SECTION A.A.

Source: Maskan dar Manategh Shahry Iran, Moshkelat Va Pishnahada (41).



FLOOR PLAN





SOUTH ELEVATION

Fig. 53. Prototype of four room apartment in four story building designed by Housing Ministry in 1973.

Source: Maskan dar Manategh Shahry Iran,
Moshkelat Va Pishnahada (41).

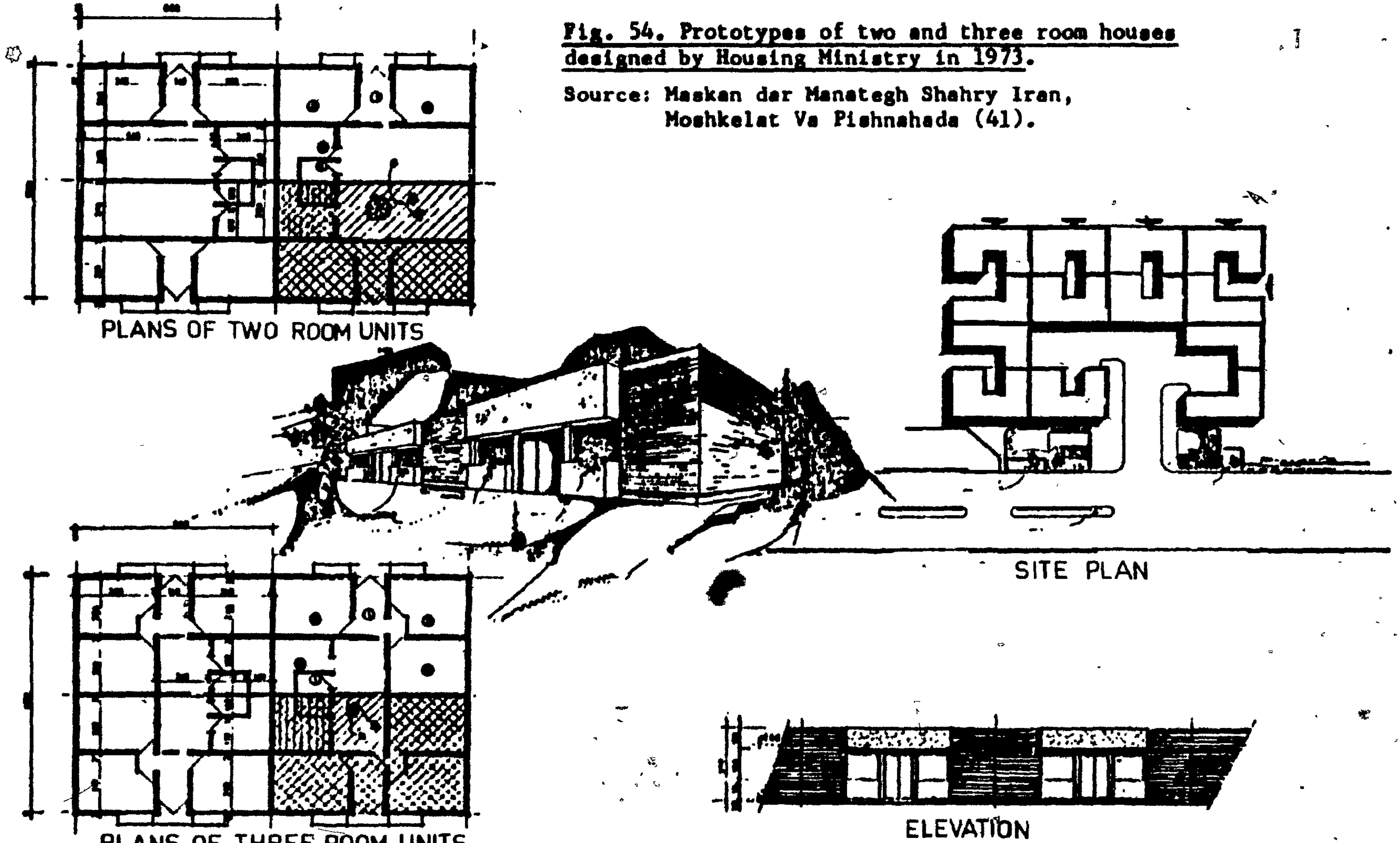


Fig. 54. Prototypes of two and three room houses designed by Housing Ministry in 1973.

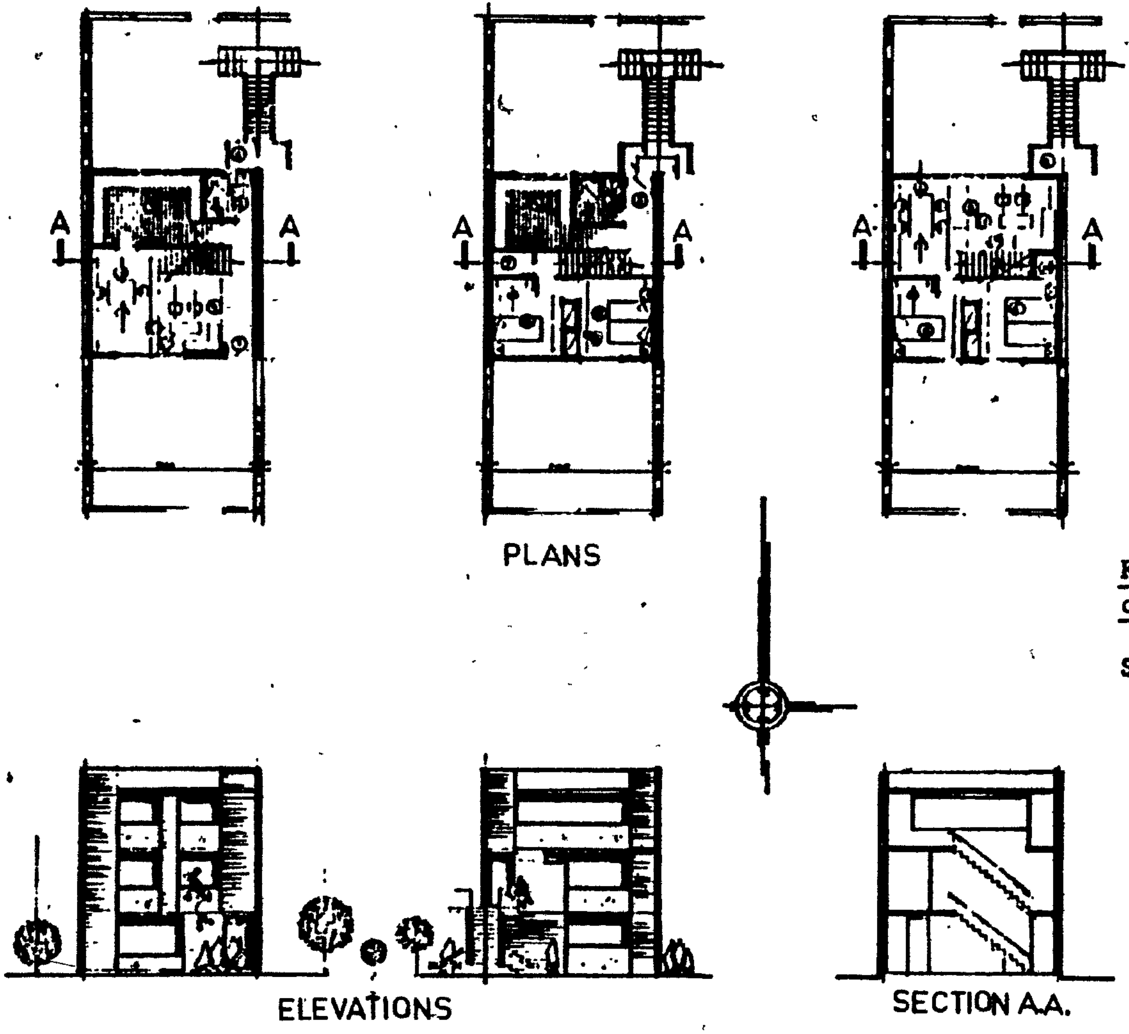
Source: Maskan dar Manategh Shahry Iran, Moshkelat Va Pishnahads (41).

PLANS OF TWO ROOM UNITS

SITE PLAN

PLANS OF THREE ROOM UNITS

ELEVATION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PLANS
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SECTION A.A.

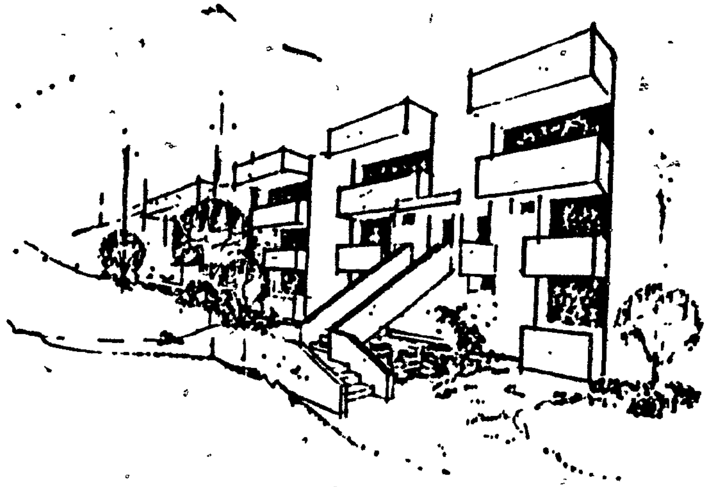
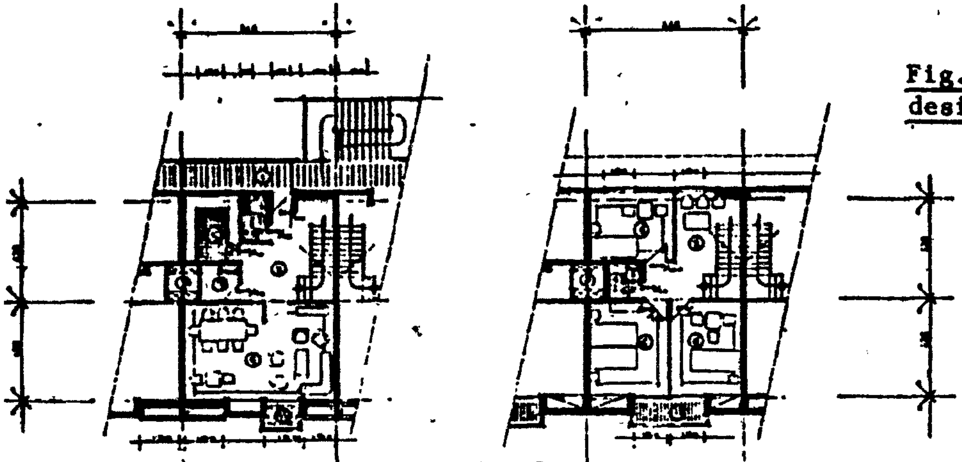


Fig. 55. Prototype of four room units designed by Housing Ministry in 1973.

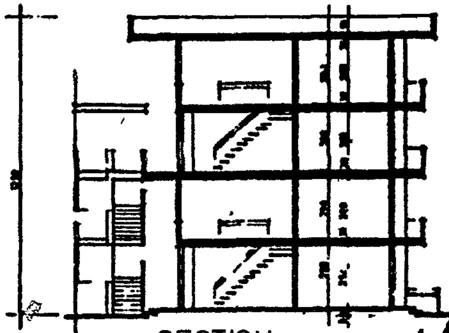
Source: Maskan dar Manategh Shahry Iran,
Moshkelat Va Pishnahada (41).

Fig. 56. Prototype of five room units designed by Housing Ministry in 1973.



FIRST FLOOR PLAN

SECOND FLOOR PLAN



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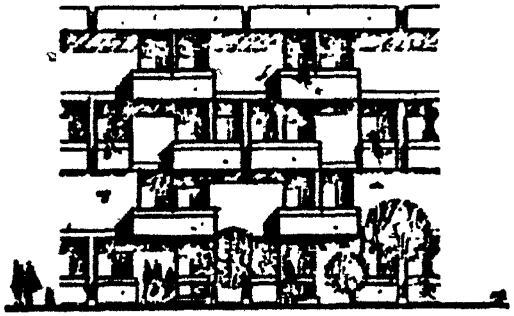
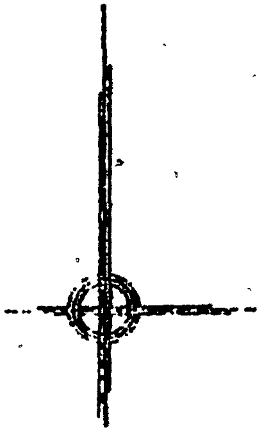
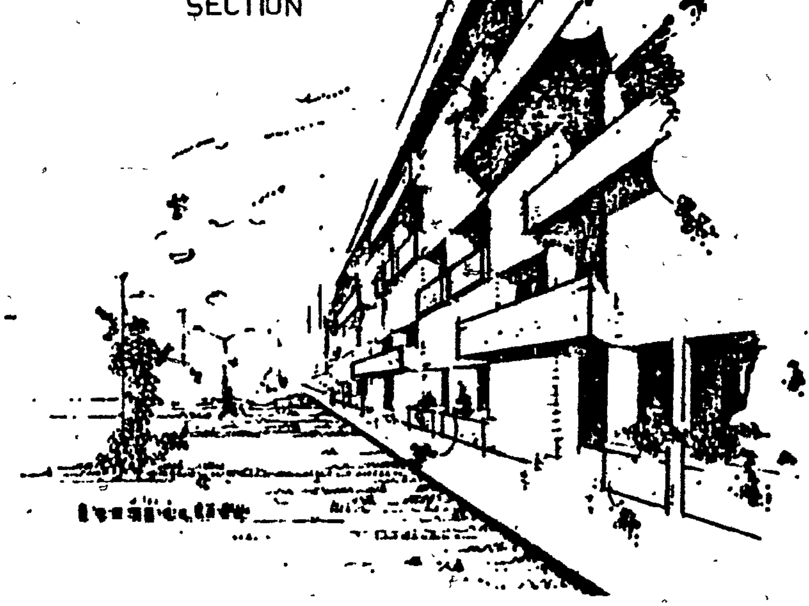


SOUTH ELEVATION





Source: Maskan dar Manategh Shahry Iran, Moshkelat Va Pishnahada (41).

5.2 Government Actions Since the Revolution

The success of the Iranian revolution in toppling the Shah's regime has not brought any immediate, major changes in the housing conditions of the squatters. However, the response of the Khomeini regime to the plight of the squatter settlements has focused on two related strategies. First, as a non-physical approach, the government has made strong ideological, religious-based appeals to the whole population emphasizing the long-term need for going back to the villages. Second, as a physical approach, a few concrete steps have been taken toward alleviating the poor's housing demands. Each of these strategies will be studied separately.

NON-PHYSICAL STRATEGY:

5.2.1 Rural Development

In response to the long-term, non-physical approach of low-income housing demands, there have been public announcements emphasizing rehabilitation of agriculture and assistance to rural residents. In other words, rural development has been widely advertised in order to reduce the density of urban dwellers and regain the self-sufficiency of agriculture, which was lost after the land reform program of the Shah's regime.

Although the extent of this back-to-village migration is not yet clear, it is apparent that substantial numbers of poor migrants continue to reside in South Tehran; at least, the speed in which rural residents were pouring into urban centers has decreased. This is considered an advancement towards alleviating the poor's housing problem in Iran.

PHYSICAL STRATEGY:

In terms of the physical response, the following attempts have been taken: 1) confiscating vacant buildings; 2) the Housing Development Foundation of the Islamic Revolution; 3) a National Housing Bank.

5.2.2 Confiscating Vacant Buildings

This approach was contingent on the events which followed the revolution, namely the abandonment of property by the owners who left the country. Under normal circumstances the confiscation of property is not a sound option in meeting the housing demands of the poor.

Shortly after the revolution, an organization was created for the purpose of identifying vacant buildings. A sizeable number of dwelling units belonging to those accused of collaborating with the Shah's regime, and other vacant properties, had been confiscated by the government and redistributed to the people. The squatters, however, have not been the principal beneficiaries of this policy, mainly because these luxury buildings are not affordable to them. A substantial majority of them still have to cope with inadequate or squatter housing as in the past. This situation has prompted a few of the squatters to occasionally invade a vacant building and claim it for themselves. In a recent episode, 100 squatter families invaded and occupied a vacant twelve storey luxury building and refused to move out. One of those involved in the invasion plan told a reporter that the building's owner was "an important agent of the old regime who disappeared after the revolution's victory". A supporter of the squatter action standing outside the building said: "when thousands of our brothers and sisters live in the damp and cold shacks of the squatter settlements, such fully equipped buildings, constructed from the people's blood, should not remain empty". (23)

5.2.3 The Housing Development Foundation of the Islamic Revolution

This foundation was organized by Khomeini in 1979 for two major purposes: 1) land nationalization for distribution among the poor people, 2) the provision of financial support for housing construction by the low-income people.

To achieve this, a public account was opened to raise money among the people for the poor, and at the same time some of Khomeini's agents were trying to identify vacant lands inside and outside of the city limits. By 1980, this approach was considered insufficient and brought some problems, mainly because there was no established system for dividing the lands among the squatters. Furthermore, some people took advantage of this approach by selling their houses and subsequently receiving free lands from the government. This foundation, eight months after its opening, was changed to the National Housing Bank.

5.2.4 National Housing Bank (NHB):

This bank was organized as the result of the failure of the Housing Development Foundation of the Islamic Revolution to deal with the housing demands of the poor residents. This bank is a combination of the Housing Bank organized during the Shah's regime with a few other private banks, collaborating with the Ministry of Housing at a national level. This bank administers two major functions; first, it provides loans and financial support at a very low interest of 4% to the low-income people for construction or renovation of their dwellings, and second, it finances low-income housing projects based on the future growth of units designed by the Ministry of Housing.

In the case of construction or renovation of a dwelling those residents who fulfill the following qualifications can apply for a loan up to 200,000 Rials ($2,348. U.S.). These are:

1) own a piece of land or a house
2) support the Islamic Revolution
3) belong to the Islamic faith
4) have no prior criminal record
5) have no involvement with or support for any anti-revolution groups.

Although squatters can easily meet the last four qualifications, the first will almost certainly disqualify them, since as squatters they do not own either their homes or their land. As a result, the squatters cannot participate in this approach.

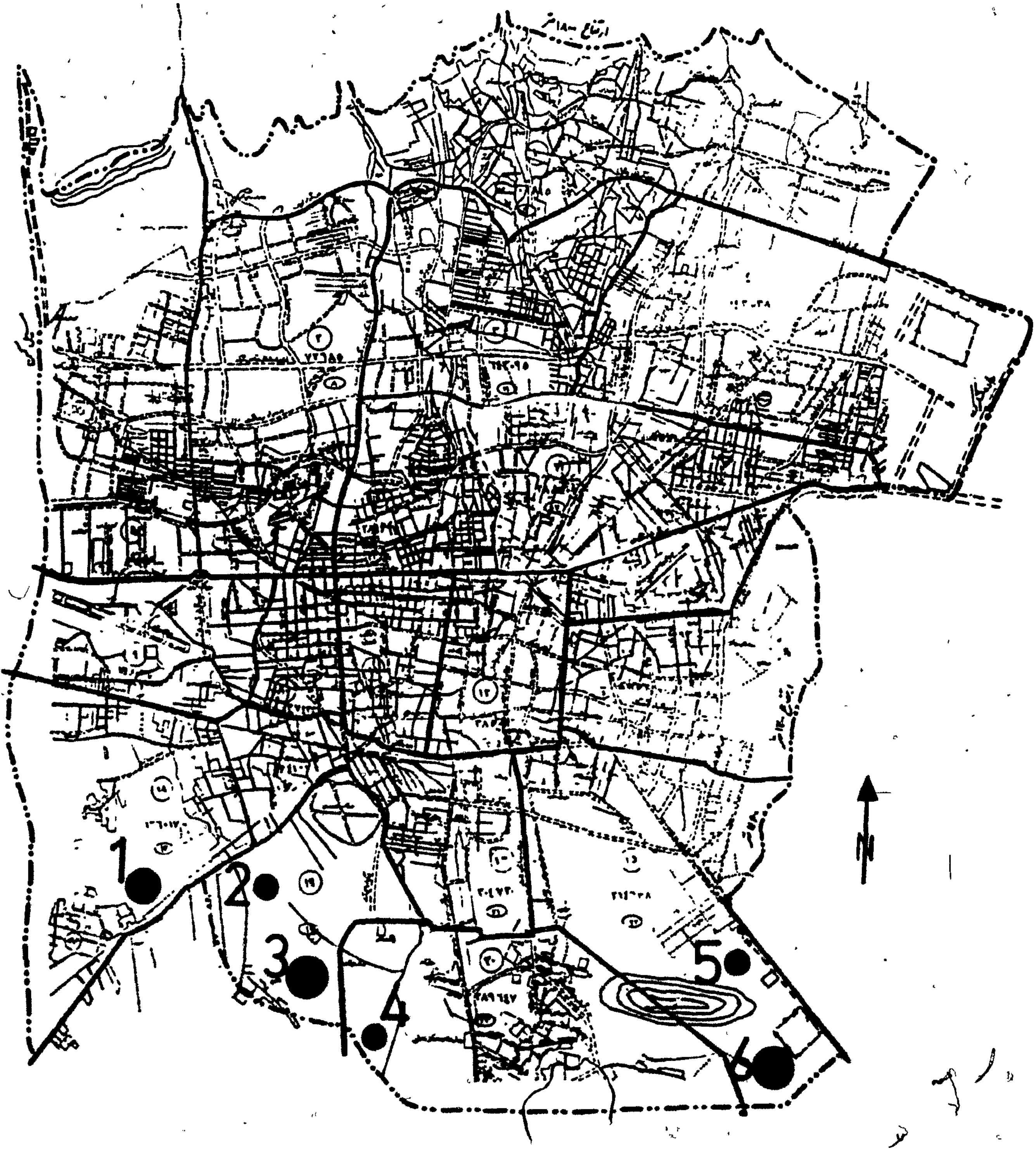
The second function, regarding the financing of low-income housing projects, involves resettlement based on future growth. At present, resettlement in unfinished houses based on their future expansion is the major policy of the Islamic government of Iran for spreading housing benefits to the squatters. The National Housing Bank, in collaboration with the Housing Ministry, has designed a few prototypes based on future expansion of the units. The following definition is presented for this approach:

> "These are projects in which residential plots of land are provided with basic services, i.e. water and sanitation, tarred or paved roads, water drainage, electricity, etc. The initial shelter includes shower, bath and kitchen according to the culture, climate, economy, etc. It is allocated to eligible applicants so that in the future they can expand their units either through self-help or contracting to a professional. These can initially be constructed to various standards or delivered at various stages in such a manner as to match the paying ability of low-income households".

This approach, in Tehran, has so far covered approximately six locations on different scales, and squatters of certain areas have been relocated to these new settlements (see Fig. 57). Only those squatters who fulfill the proper qualifications can participate in this resettlement. These are:

1. The applicant must be Moselm and a supporter of the Islamic Revolution of Iran.
2. The applicant should have no prior criminal record.
3. The applicant should be married or have at least one dependent. Families in which one or more members were killed or disabled in the war receive priority.

Fig. 57. Location of six projects designed by the Housing Ministry in South Tehran after the Revolution in 1979.



4. The applicant should not be a supporter of any anti-Revolution groups.
5. Only one member of the immediate family has the right to apply for one of these units.
6. The applicant or his/her dependent(s) should not own any houses or land since 1979.
7. The applicant should be a resident of South Tehran for at least five years.
8. The applicant should not have any outstanding loans from the government.
9. Two witnesses must verify all the qualifications.
10. The applicant should have an income of at least 100,000 Rials per year.

If the applicants meet all the requirements, the Committee of Shelter at the Housing Ministry will decide whether the person should be on the list for resettlement, which is based on the principle of 'first come, first serve'.

There are a few major considerations in designing the prototypes of these new settlements. Firstly, the intention is to use indigenous Persian architecture with adaptation for today's needs (see Fig. 58-60). Secondly, locally available materials are used to reduce costs and lessen dependency on other countries. Thirdly, cultural needs have been given a high priority in order to produce better results for residents.

At this point one of the prototypes will be studied in detail:

SHOHADAYI-HAFT-I-TIR PROJECT:

This prototype has been constructed in three different locations in South Tehran in various quantities. The one which will be studied here is the construction of 1,000 units in the south-west of Tehran.

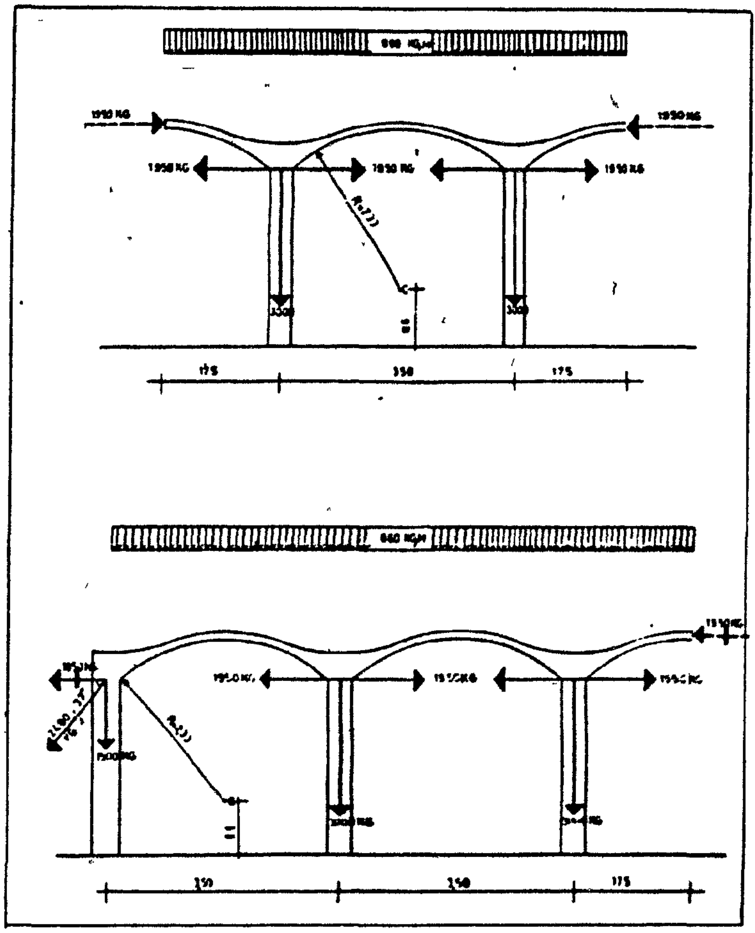

1950 KG
1950 KG
1950 KG
1950 KG
1950 KG
1950 KG
175
350
175
1950 KG
1950 KG
1950 KG
1950 KG
350
350
175

Fig. 58.
Indigenous Persian architecture for the construction of brick roofs.

Source: (58&59)
Bih Soyeh Yak Khanehsazi-Yi Arzan Ghaymat, Sonnati, Fanni. (54)

Fig. 59.(below)
Perspective of finished houses using Persian brick roof construction.

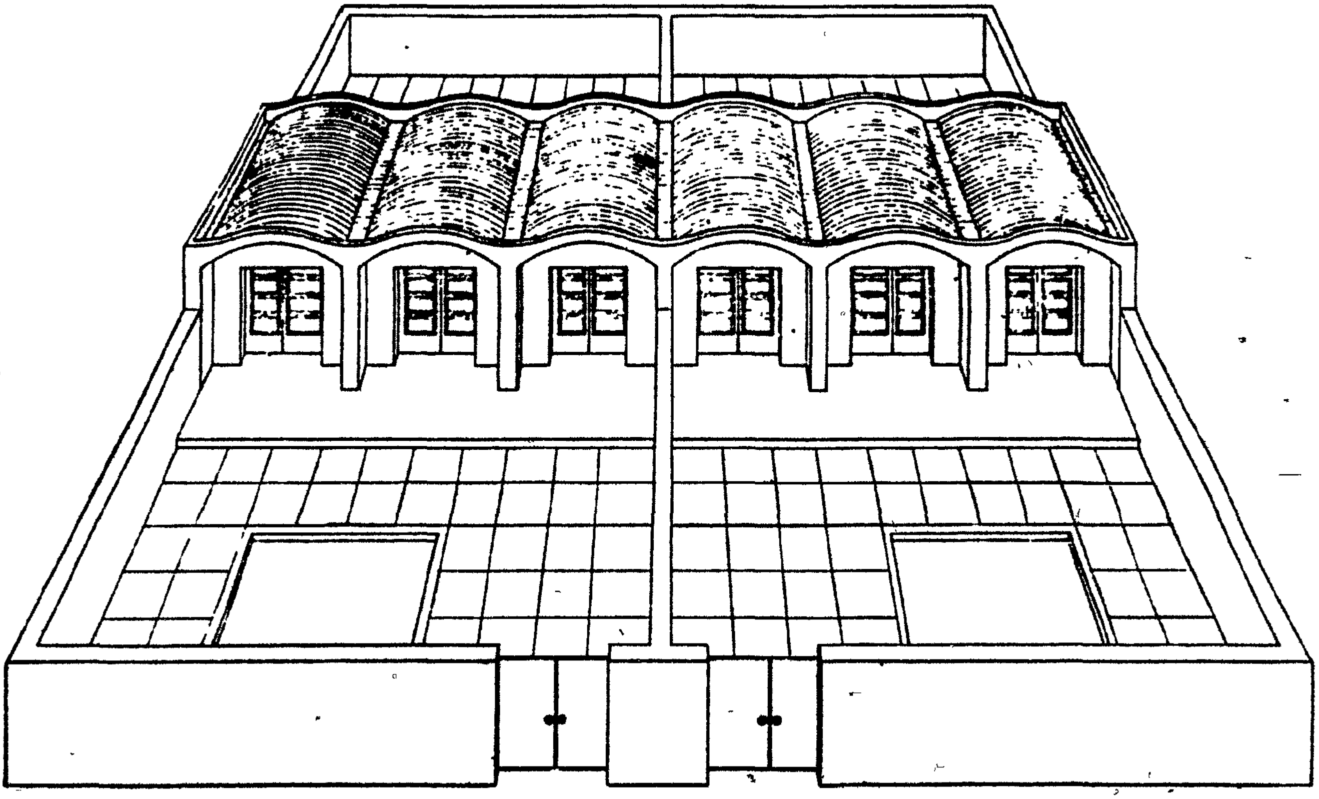
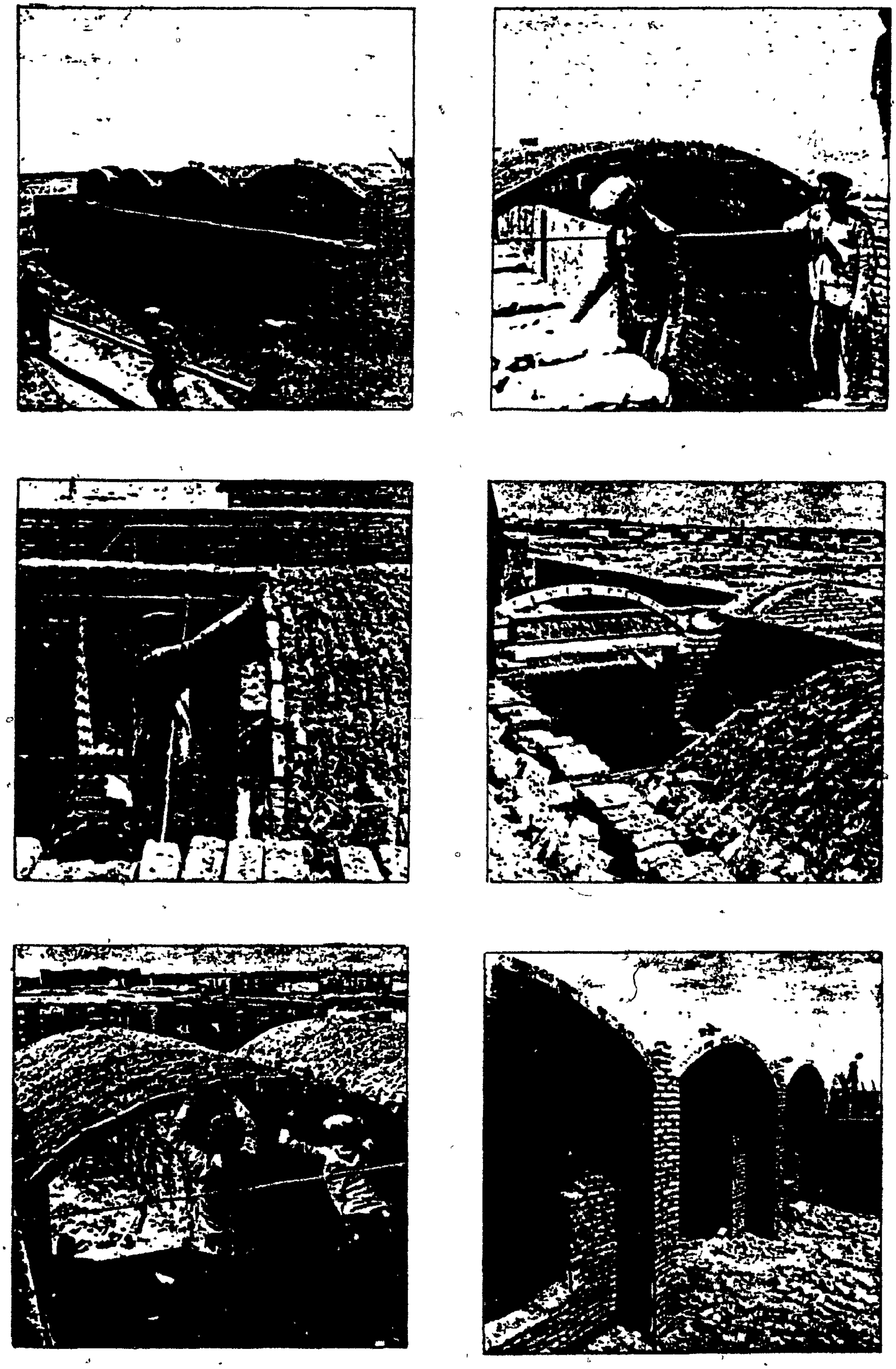


Fig. 60. Various stages of roof construction.
Source: Bih Soyeh Yak Khanehsazi-Yi Arzan Ghaymat, Sonnati, Fanni.



Project Summary:

Location: south-west of Tehran, close to the railroad going towards the south.

Project Name: Shohadayi-Haft-i-Tir

Brief Background:

This project was financed by the National Housing Bank of Iran.

Site Area: 40 (ha) 100 (acres)

Scheme Designed by: Ministry of Housing, Architectural Department

Total No. of Plots: 1,000

Plot Dimensions: Due to abundance of land each plot is 250 m^2, 10.50 m width and 24 m length.

Plot Ratio: width 1/2.28 length

Plot Density: 40 (net) 25 (gross)

Land Utilization:

private	62.5%	25 ha
public	12.5%	5 ha
circulation	25%	10 ha

Public Utilities:	on plot	on site	none
water	●	○	○
sewage	●	○	○
roads	○	●	○
public lighting	○	●	○
electricity dist.	●	●	○

Public Amenities: provision of one school and one mosque for every 200 units.

Technical Observation:

Type A Units with three step growth.

Initial Shelter first stage 58 m^2, including the service core

second stage 84 m^2

third stage 126 m^2

Type B and C Units with two step growth, Type B towards the one side of the plot and Type C towards the back.

Initial Shelter first stage 58 m^2, including service core

second stage 84 m^2

No. of Rooms

Type A	first stage	2 rooms with services
	second stage	3 rooms
	third stage	5 rooms
Type B and C	first stage	2 rooms with services
	second stage	4 rooms

House Building Material: Permanent material 100%

roof and walls are constructed with bricks

Due to religious purposes, the enclosure of each plot is completed.

Services are grouped and completed together in each unit as a core in order to avoid any unnecessary and extra cost in the future.

Financial Data:

Since the plot size and the initial first stage shelter are the same for all the three types of A, B and C, therefore there is one selling price for the three types. However, there are two other prices, first when the units are delivered at the second stage of expansion which is 84 m^2 shelter, second when the third stage is completed with 126 m^2 built area and are more expensive. Table 28 presents cost and conditions of payment for the different types.

TYPE A.

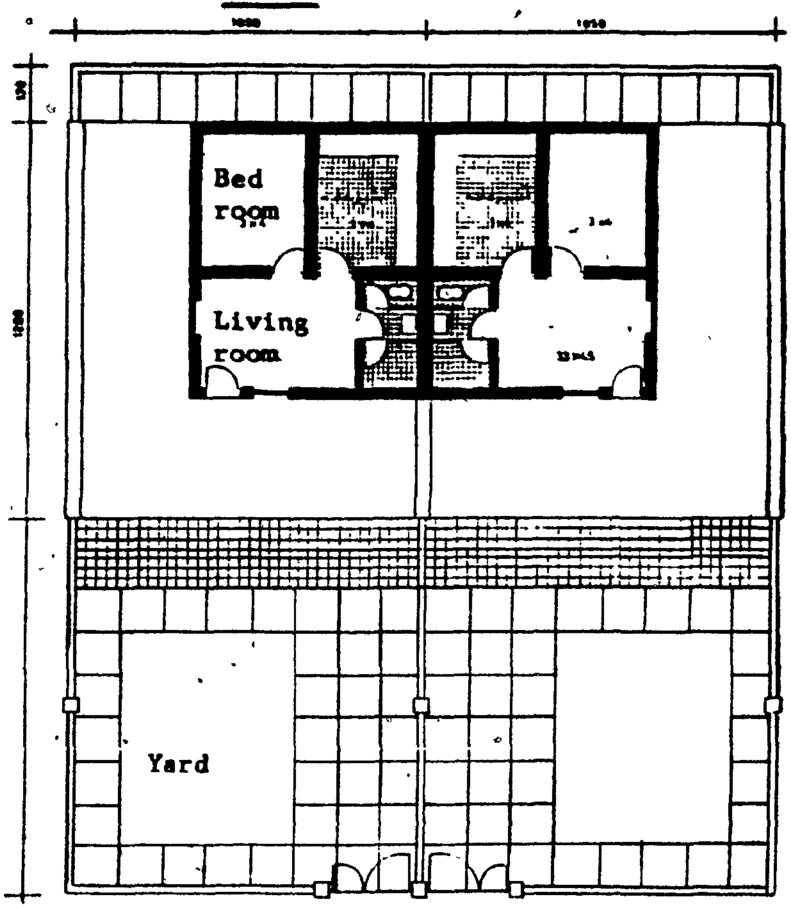

Bed room
Living room
Yard

Fig. 61. First stage, initial house unit.

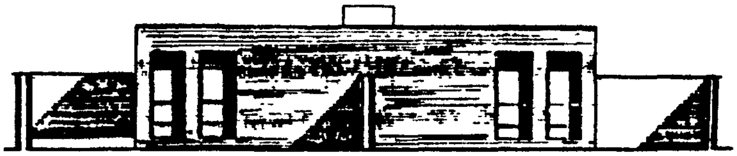


Fig. 62. Elevation at the first stage.

Fig. 63. Two views of construction site.

TYPE A.

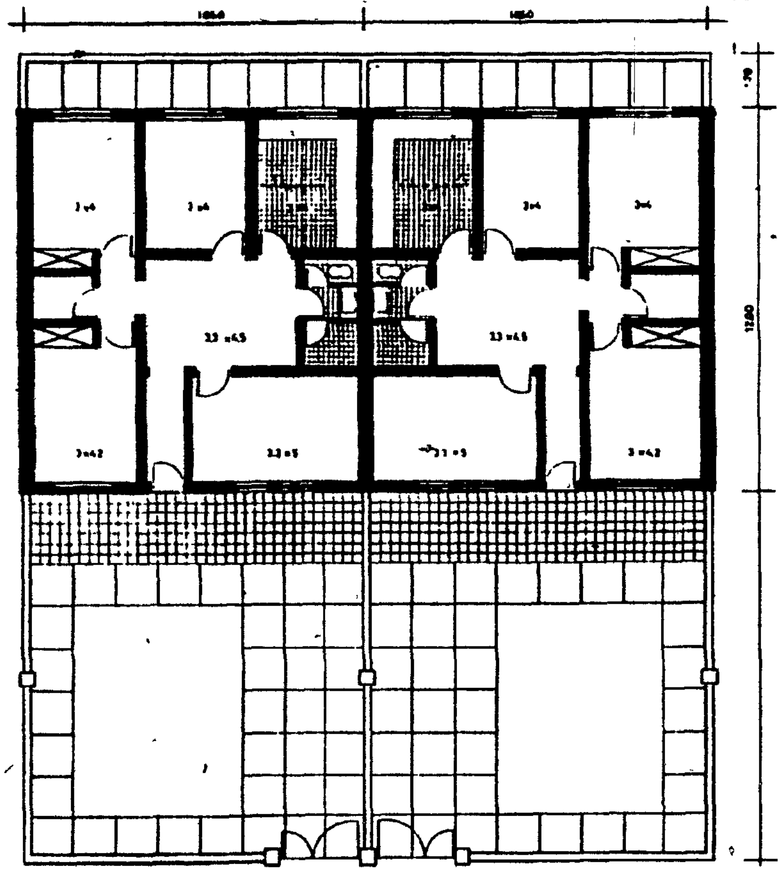

1050
1050
.90
1200
3x4
3x4
3x4
3x4
3.3x4.5
3.3x4.5
3x4.2
3.3x5
3.3x5
3x4.2

Fig. 66. Third stage, house is completed.

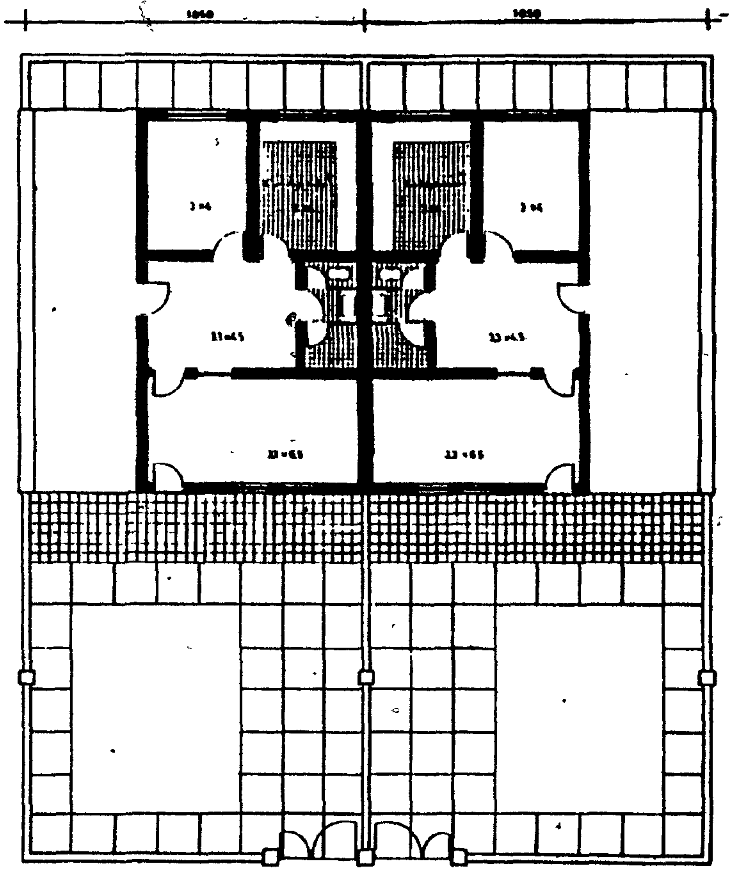

1050
1050
3x4
3x4
3.3x4.5
3.3x4.5
3.3x6.5
3.3x6.5

Fig. 64. Second stage of the unit.

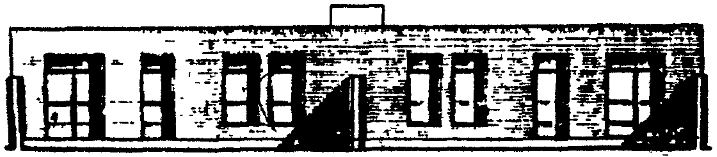


Fig. 67. Elevation at the third stage.

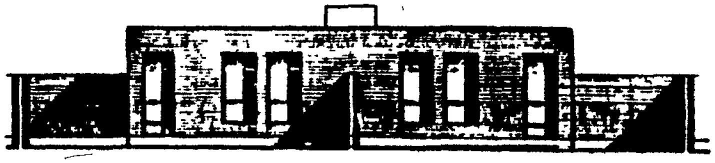


Fig. 65. Elevation at the second stage.

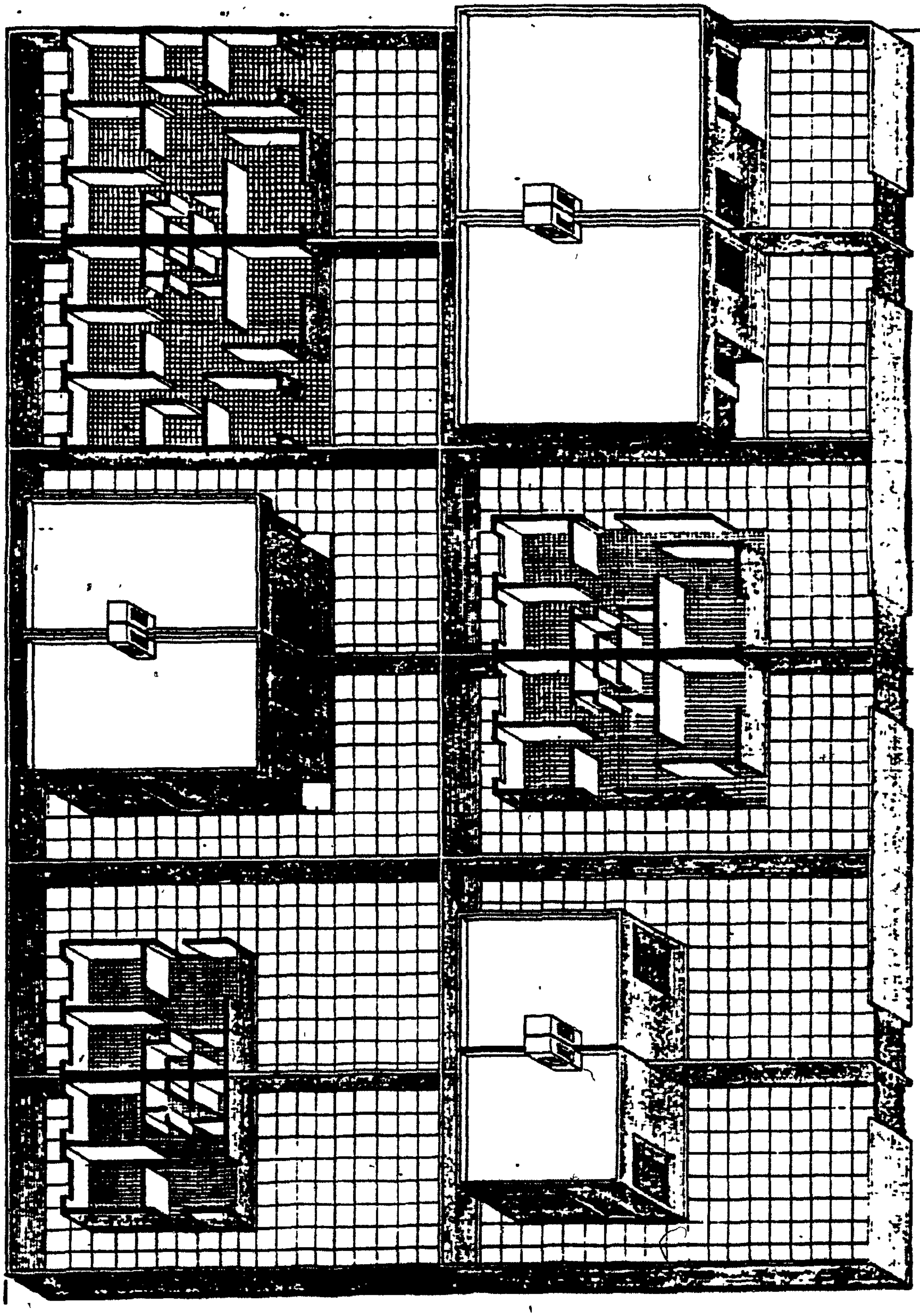


Fig. 68. Perspective of the three stages of growth.

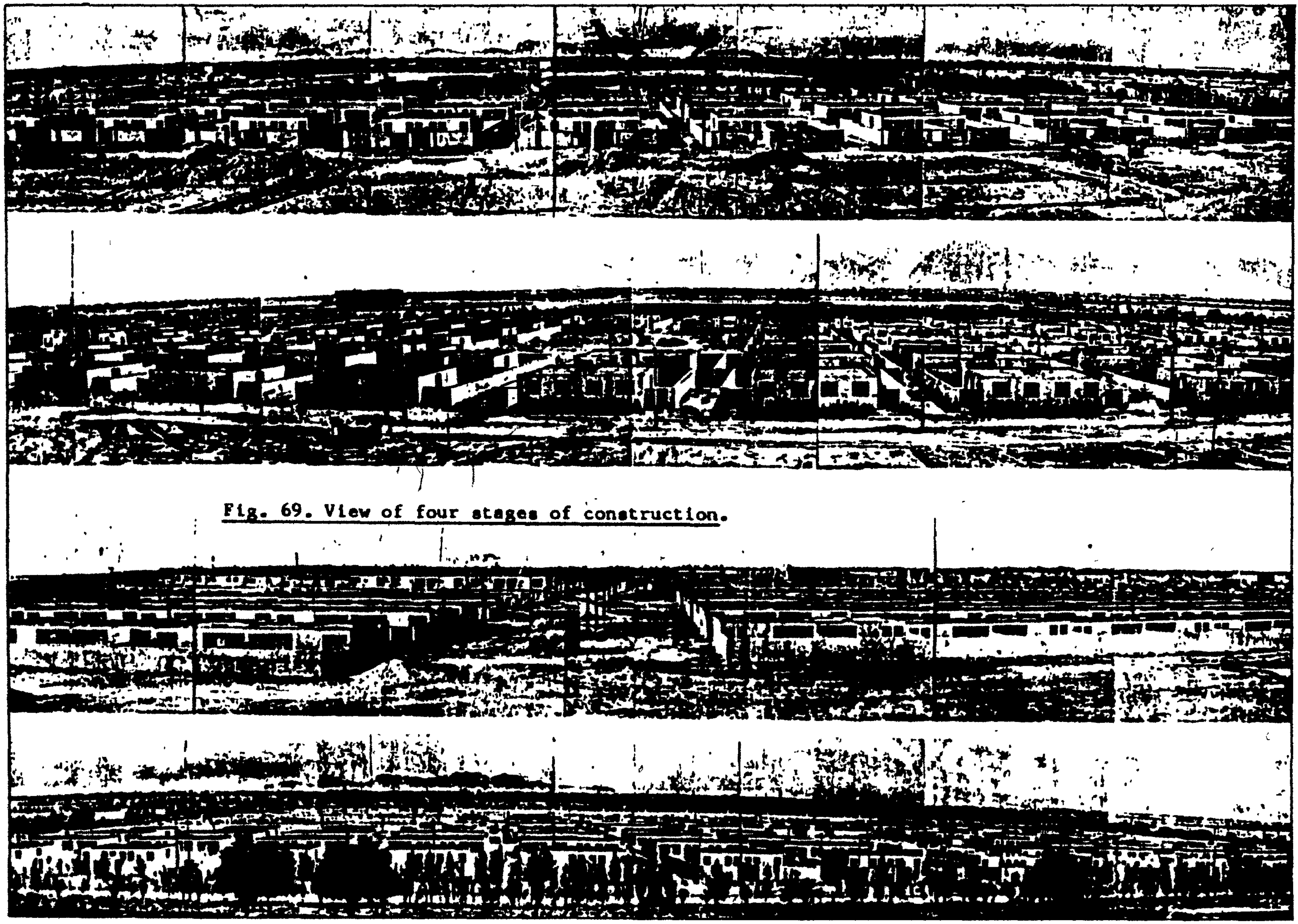
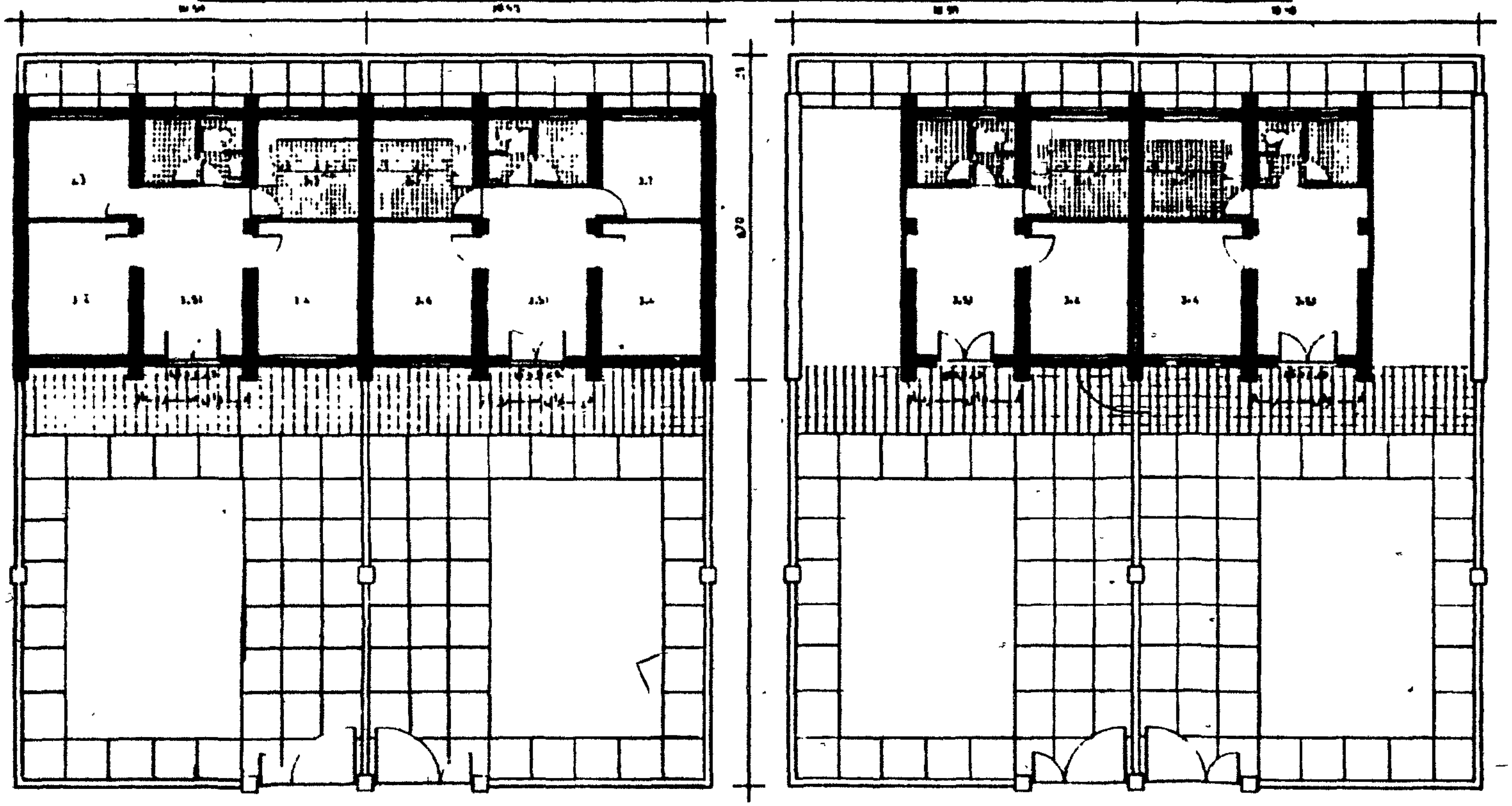


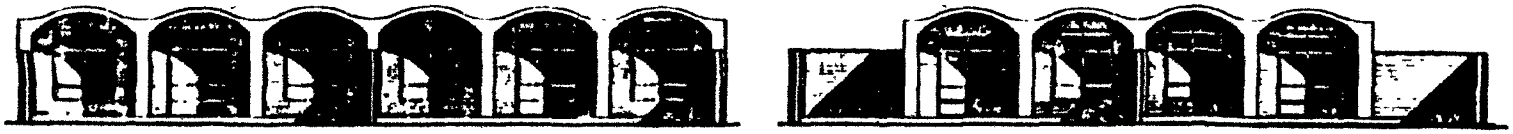
Fig. 69. View of four stages of construction.

Fig. 70. Type B unit with two step growth towards one side of the plot.



Plan, second stage.

Plan, first stage.

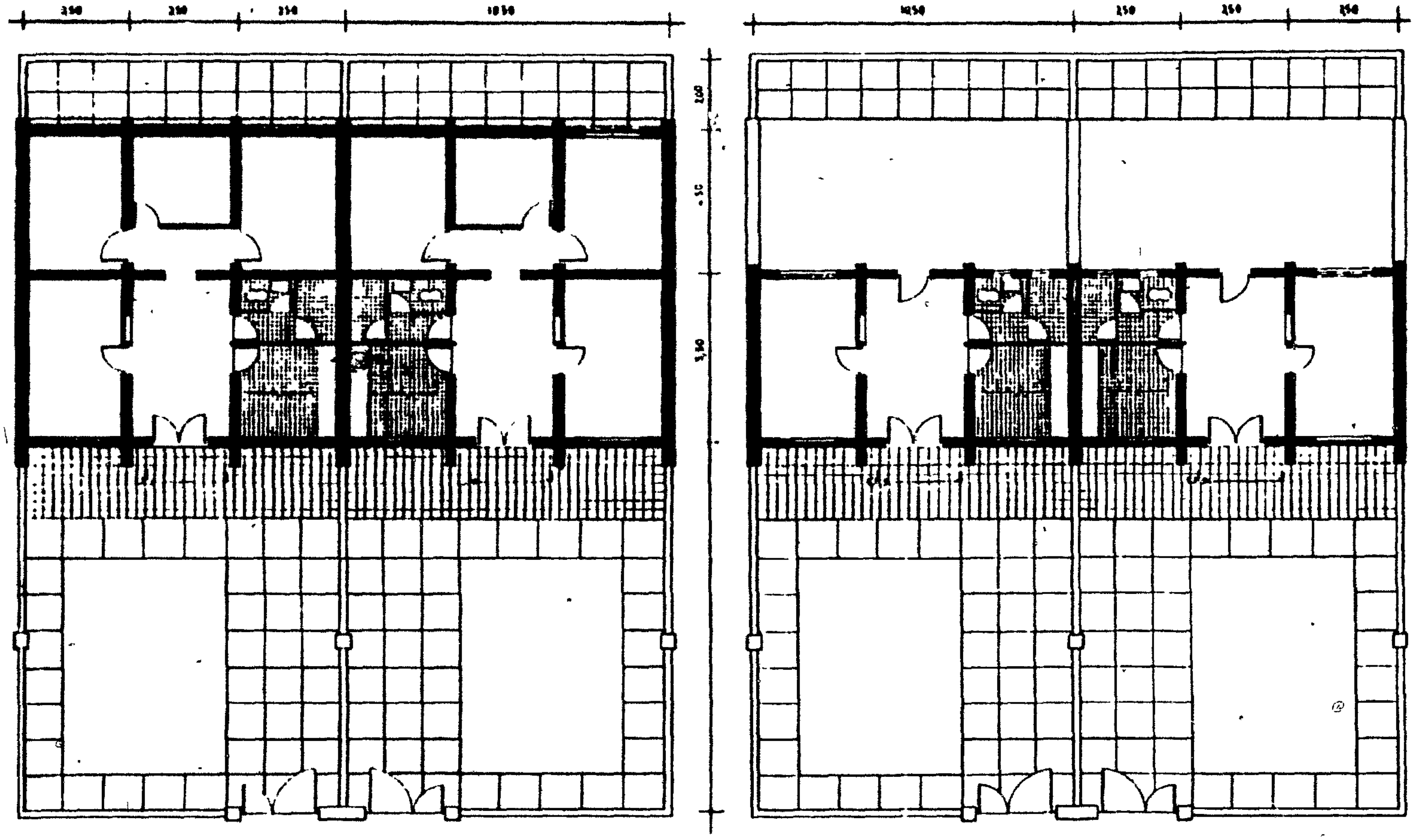


Elevation, second stage.

Elevation, first stage.

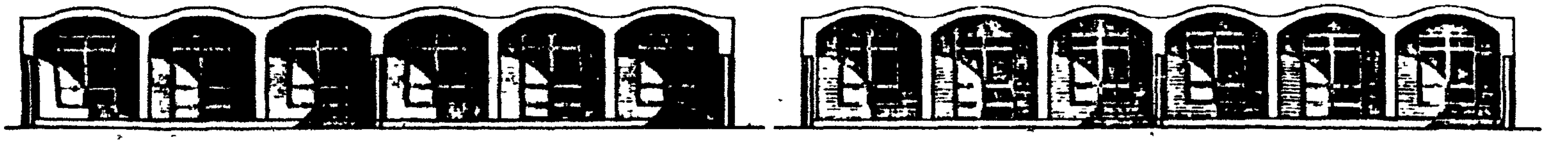
Source: (61 to 71) Bih Soyeh Yak Khanehsazi- Yi Arzan Ghaymat, Sonnati, Fanni (54)

Fig. 71. Type C unit with two step growth towards back of the plot.


350
350
350
1050
1050
350
350
350
2.00
3.50

Plan, second stage.

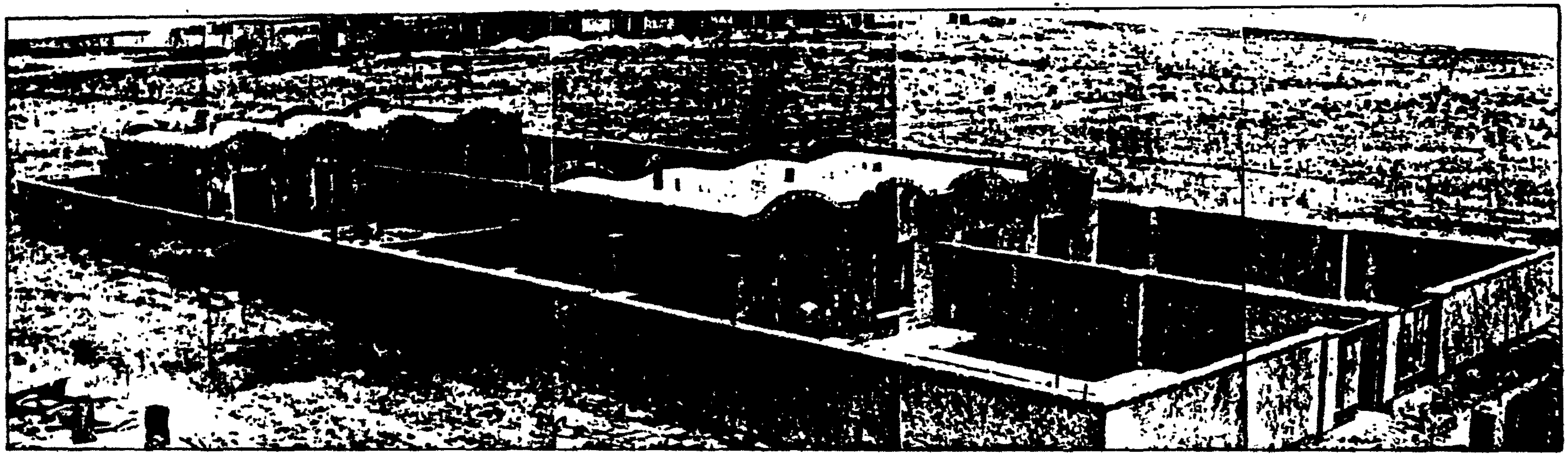
Plan, first stage.



Elevation, second stage.

Elevation, first stage.

Fig. 72 . Four finished houses using Persian brick roof construction for type B and C units.



Source: (72 &73) Bih Soyeh Yak Khanehsazi- Yi Arzan Ghaymat, Sonnati, Fanni (54)

Fig. 73 . Three stages of construction.

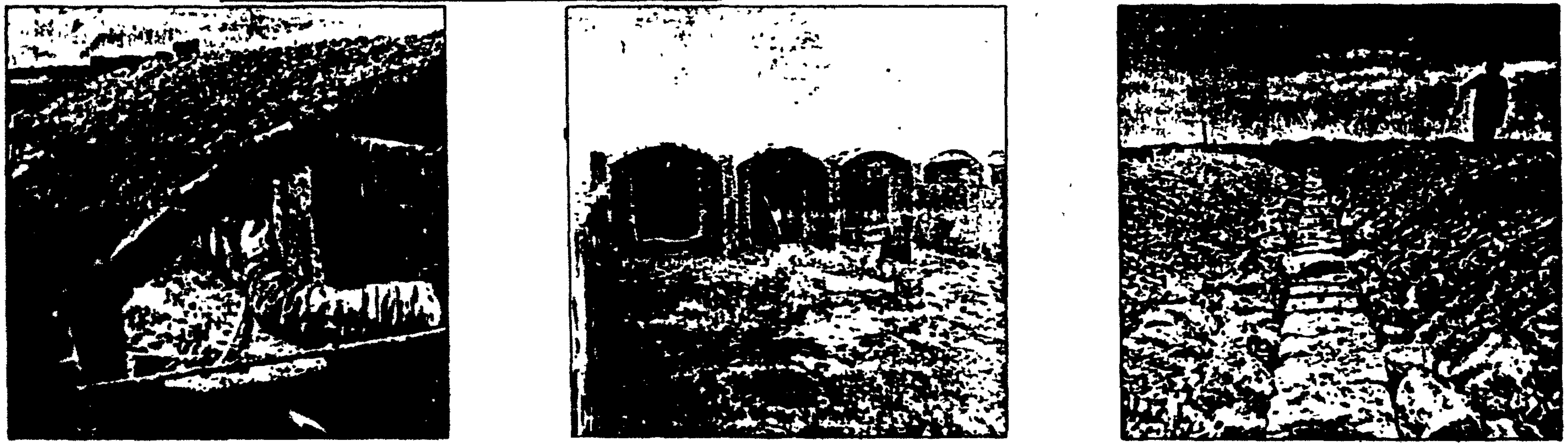


Fig. 74. Interior and exterior view of the units.
Source: Bih Soyeh Yak Khanehsazi-Yi Arzan Ghaymat, Sonnati, Fanni (54).

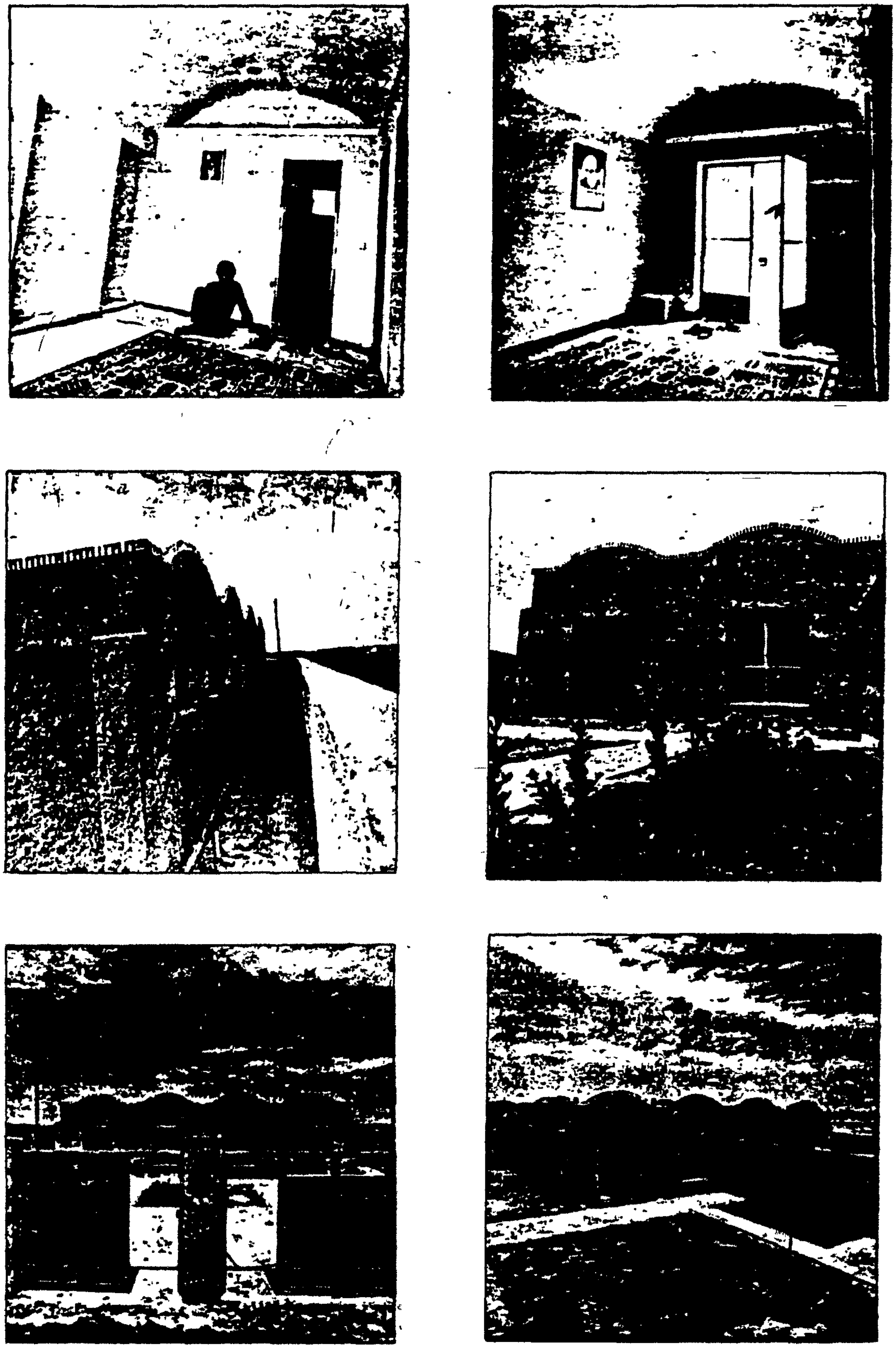


TABLE 28

Financial Data on Shohadayi-Haft-i-Tir Project 1983

	Cost	Down Payment	Interest Rate %	Monthly Payment	Repayment Years
Type A first stage	1,410,000	450,000 to 850,000	4	5,600 3,266	20
Type B,C first stage	1,410,000	450,000 to 850,000	4	5,600 3,266	20
Type A second stage	1,950,000	650,000 to 1,000,000	4	7,583 5,541	20
Type B,C second stage	1,950,000	650,000 to 1,000,000	4	7,583 5,541	20
Type A third stage	2,300,000	770,000 to 1,150,000	4	8,925 6,708	20

Based on the figures in Table 28, not considering any other factors involved such as the design or density, this project is completely unaffordable to the squatters.

5.3 An Analysis of the Government Actions Since the Revolution

Rural development is a highly admirable approach for the Iranian society. This non-physical strategy presents the long-term benefit of reviving the agricultural industry, which will improve the lot of the rural population, reduce migration and subsequently improve the urban squatter situation, not to mention the long-range economic benefits.

Apart from this successful approach, the National Housing Plan of Iran, by financing housing construction through the National Housing Bank, has not been able to achieve its objective of providing adequate housing for squatters. This is due, in part, to the fact that the basis of the plan has been the "need for new housing", which derives directly from the statistical concept of a housing deficit.

The National Housing Bank has financed over 10,000 units in the south part of Tehran since its opening in 1980. However, as previously explained, most of the resources in the National Housing Bank are being channeled into houses which are only affordable to lower-middle class families, not to squatters who have no regular income. Low-income or squatter families often overestimated their incomes in applying for new houses in resettlement projects, and had difficulty from the beginning to pay the mortgages, not to mention other debts.

As a result, the National Housing Bank has failed to create better housing conditions for the low-income population. It is increasingly becoming a source of funds and help for the lower-middle class and this is in conflict with the aims of the government. The government has stated that its primary housing resource allocations are for the eradication of squatter settlements and other sub-human dwellings, and resettlement of the inhabitants in new housing schemes. The inhabitants of this strata of the housing market are the very poor people who cannot afford any conventional type of housing. They "squat" because they cannot afford to rent or purchase housing. Now the government is asking them to pay up to 60% of their income for the "luxury" of having their own homes.

Government efforts regarding resettlement policy have met with many difficulties. This strategy was introduced not very long ago and people have been moved or removed to these new settlements. People have already started or are considering moving out and going back to their previous life style. Why? Most critical of all, the squatting if free. There is almost always no rent to pay, no mortgage payments to meet, no land taxes to pay, etc.

As mentioned before, Perlman discusses the social and cultural repercussions of relocation, which can best be understood in relation to the advantages of squatter living. Because individuals are scattered throughout new districts, on the basis of their economy rather than on the basis of their social or family ties, or the squatter settlement from which they came, the support structure of the squatter settlements does not survive relocation.

The physical ramifications of removal have been varied. There are some positive aspects to life in the new resettlement such as: 1) the houses are relatively sound and are served with water, light and sewage disposal; 2) the air is fresher and the environment is considerably cleaner than in many squatter settlements; and 3) the residents appreciate the paved streets and pedestrian walkways, where they exist. There are other positive aspects, discussed by Salmen, which could be included with the social and cultural ramifications. Residents could hope that their house and land would someday be legally and securely their own property. The residents also feel a security of tenure which is sorely lacking in the squatter settlements. In their new location, they are relieved of constant worry that one day the government would order them out of their homes.

In the removal, however, the squatters find themselves literally cast out of the city -- rejected and geographically isolated from the host of opportunities of urban life which had initially attracted them to the cities.

In this housing organization (NHB), there is a fundamental disagreement over how the squatter settlement problem should be solved. One side argues for destroying the squatter settlements and relocating residents in new low-cost housing construction in other, less developed areas. The author, and opponents of this policy, argue that when possible, the settlements should be "urbanized" or brought up to some medium standard rather than be destroyed.

After some conflict, the decision has now been made to attempt the relocation of the squatter settlements. The crucial question remains whether, in fact, this is what the government is presently doing and even more important, will do in the future. The principal policy of relocation, primarily to isolated locations, has proven inevitably disruptive and often destructive to the tenuous social and economic fabric of existence of the urban poor. They are the ones who have lost the most by a program designed to help them. Still to be answered are the haunting questions -- where will the squatter, who has been evicted from his settlement by default, go if there are no more squatter settlements left? Will the cycle start all over again? Is it inevitable? Somehow a program must be designed which will deal with these issues even before they are raised. There is still a program which produces a physical and financially affordable solution to a problem whose roots are a tangle of complex social, economic, political and cultural factors. The author as an architect, regarding the factors mentioned before, strongly proposes the physical upgrading of the squatter settlements simultaneous to non-physical approaches to the phenomenon (i.e. rural development, decentralization, family planning, etc.) which were concluded at the end of part one.

6 design guidelines for upgrading policy

Conventional methods of redevelopment are unfeasible for finding a solution to the serious problem of the housing demand of squatter dwellers in developing countries. The magnitude of economic problems places a heavy demand on government budgets. As previously emphasized in this study, the progressive upgrading of squatter settlements is socio-economically and culturally the best approach to solving housing problems.

This final chapter presents a policy-proposal for the improvement of squatter settlements in the city of Tehran, Iran. The physical aspects of this particular phenomenon are dealt with by first devising a set of planning regulations which would be essential for the upgrading process, and then applying these regulations to the development of a proposal for improvement. Furthermore, this proposal should be applicable, with minor changes, to similar conditions in other developing countries.

6.1 Planning Regulations

Facing the high demand for housing by very low income people in Iran, the government should review the following factors:

The policy for housing the very low income families should evolve with new solutions for improving the existing squatter settlements through progressive upgrading. At the sametime, those programs which have given relatively satisfactory results from the economic, technical and social points of view should be encouraged.

The government should participate in the self-help and progressive upgrading process by facilitating the use of all housing resources available to the community, such as technical assistance, financial support programs and pilot projects. The main focus of government intervention should be on the upgrading and legalizing of stable squatter settlements where economically and/or physically feasible.

Local governments can deal with the housing problem effectively by incorporating local research teams which will do the required studies of the economic and social aspects, and local agencies which will do the research about potential construction systems and local materials to be used. Both teams could interchange information to better understand the nature of the local housing situation, adapt solutions to future needs, and accommodate their present and future population.

The government has to provide charts and necessary information concerning the cost of construction at different stages, with the breakdown cost of services and materials. Also required is the classification of different income groups for the purpose of providing various options for upgrading. Progressive upgrading programs, in order to lower the effective demand for housing, must meet community priorities and be affordable to resident families.

Housing and infrastructure standards have to be provided in a way that would be affordable to the lowest income squatters as well as for progressive upgrading developments; for instance, the sanitation system could include upgrading stages which do not necessarily begin with conventional sewage.

The programs should be oriented to a community participation model in both the social organization of decision-making and its implications. This model is characterized by the participation of the following three levels: a) the state, which has an advisory service body and existing implementing agencies. The advisory service body provides support to neighbourhood associations, which belong to the next level. b) the community, which is organized into an assembly of neighbourhood associations which negotiates with the existing implementing agencies, and c) the family level which is understood as a locally organized group of families which participates with the assembly of the neighbourhood association.

6.2 Upgrading Policy Proposal

6.2.1 The Necessary Physical and Socio-Economic Input

From the foregoing discussion it can now be concluded that the input necessary to improve squatter settlements is of a dual nature; viz

1) physical input
2) socio-economic input

The physical input includes:

1) security of tenure
2) improvement of infrastructure
3) improvement of the houses retaining the existing profile
4) provision of community facilities

While the socio-economic input includes:

1) user participation
2) provision of employment
3) urban community development programs
4) provision of loan and mortgage

6.2.2 Criteria for Identifying Areas Suitable for Upgrading

Not all the squatter settlements are suitable for upgrading in view of the fact that it may not be possible to provide all the necessary input. Therefore, a set of criteria for selecting areas suitable for upgrading which are consistent with input are listed below: viz

1) Locational criteria of squatter settlements:
    - lies within areas designed for housing
    - is within access of employment
    - has amenities available in the area
    - environmental suitability
    - no alternate landuse
2) Economic criteria:
    - the land value of the area is less than 5000 Rials per sq. m ($65. U.S.)
3) Social criteria:
    - not breaking down an integrated society of over 10 years
4) Physical criteria: the land on which the settlement exists
    - has potential for provision of additional amenities
    - is suitable for renovation and repair
    - has at least 50 dwellings
    - is not subject to flooding
    - is physically isolated

These criteria can be used to develop a questionnaire, which could subsequently be used to evaluate all the squatter settlements within an urban area, thus indicating areas suitable for upgrading.

6.2.3 Upgrading of Squatter Settlements

A squatter settlement satisfying the aforementioned criteria can be upgraded using the technique described hereafter:

THE PHILOSOPHY:

A squatter settlement is basically on vacant land, particularly government-owned lands, consisting of structures built of make-shift materials together with a market deficiency in infrastructure. The squatter dweller's tenure is essentially insecure. Hence, the philosophy of squatter improvement should be based on assuring the dweller "security of tenure" and subseqeuntly offering these people options for improving their living environment.

In most squatter areas the tenants do not pay rents and taxes. Therefore, it is assumed at this stage, that once security of tenure is offered people will select options for improving their socio-economic levels.

The options to be offered should be progressively of better standards, which could be integrated with each other, so that any option selected and implemented could with time develop into the more advanced options. This will result in developing a living environment over a period of time which will be totally acceptable not only to the squatter dweller, but to all urban dwellers. The period of time would depend on the economic growth of the country. Hence, an improvement program should start with a given option at a given point in time, and the situation re-assessed in order to estimate the next point in time at which the subsequent option could be brought into operation. The options range from providing basic infrastructure, right up to re-organizing the settlement, providing additional infrastructure and community facilities together with an aided self-help housing scheme within the area.

THE TECHNIQUE

1) It will be necessary to carry out a physical survey indicating:

- the area of land

- the existing structures and infrastructure
- a contour survey

2) The survey questionnaire, developed according to the philosophy, should be used to carry out a 100% sample survey of the residents.

The physical features should first be plotted on a map, and subsequently used as a guide for carrying out the socio-economic house-to-house survey, using the questionnaire. Afterwards, this data should be collated and the option selected, both in terms of majority requirement and physical distribution of those selecting a particular option. The area should then be designed in such a way so that the option selected could be put into operation immediately; as socio-economic levels improve, the subsequent options could be implemented without disrupting the existing integrated settlement.

6.2.4 Main Components of the Upgrading Policy

The following services must be provided in any upgrading programs as the minimum services for improvement of the existing situation:

1. Water: a) one standpipe for every group of 22 houses, or the maximum distance to closest standpipe from any units should not be more than 100 metres. These waterpipes should be designed to meet future predictable demands up to one standpipe per household. b) in the case of providing water from wells, one public deep well for every group of 8 houses, or the maximum distance to the nearest well should not be more than 60 metres.

2. Roads: all the major roads should be tarred, while secondary roads should have gravel surfacing. These should provide access to nearly every group

or block of 25 houses. They should be adequate to meet the needs of public transport as well as private.

3. Street lighting along all the major roads: there should be one lamp post for every 20 families, or no more than 100 metres apart. Those residents who can afford it may apply for electrical connections to their houses.

4. Schools, pre-schools and community centres: these will enable the many children to have easy access to education facilities.

5. One health center is to be built for at least every three major upgraded areas, depending on the size of the settlement.

6. Markets and small business plots should be available to enable those residents wishing to engage in business to do so and to expand. The success of the squatter upgrading will greatly depend on the further development of such economic activities.

7. Public Showers: if there is a water network, one shower for a maximum of 12 families, or the provision of bath houses with water tanks.

8. Laundry basins: these should be close to public showers and at least one for every 12 families. These facilities should not be more than 150 metres from the units.

9. Washrooms: a minimum of 12 toilets for every 100 units should be provided.

10. Garbage Removal: the garbage has to be removed, primarily from each unit; if not, there has to be designated areas for garbage removal.

11. Resettlement: to facilitate the provision of roads, water and other major infrastructures in these areas, it becomes necessary to relocate a number of houses. To do this, a vacant land adjacent, or as near as possible, to each upgraded area is acquired to resettle the families affected by development.

12. Density: the following numbers do not specify the minimum or maximum, but they are useful as a guideline:

Plots	50 - 60%
Roads	20 - 30%
Private Use	10 - 50%
Public Use	10 - 20%

Population Density:

Number of families per hectare:	99 net (50-60 gross)
Number of people per hectare:	555 net (280-336 gross)

13. Mosque: since religion has a strong influence in the society, the provision of a mosque for every few adjacent settlements, depending on their size, should be considered.

14. Security of Tenure and Allocation of Land: usually, the granting of security of tenure is considered to be the key to a successful upgrading project, since it removes the fear of eviction and motivates public participation in terms of financial and labour contributions to the various upgrading tasks. Otherwise, if the problem of tenure is not dealt with in an upgrading program, the upgrading process may simply add to the wealth of absentee landlords.

This security of tenure can be done in the form of an occupancy certificate, which should be issued by the government to every homeowner.

6.2.5 Different Options For Upgrading

According to the different income groups, four major upgrading options can be developed:

1. Retain all houses as they are and improve infrastructure services by providing more water standpipes and better roads and street lighting. In general, provide all the minimum components mentioned previously.

2. Improve infrastructure and provide materials to upgrade the unit.

3. Reorganize settlement; provide infrastructure and community facilities such as play fields, community centers, and markets in the area, where the residents are expected to construct houses on allocated plots.

4. Reorganize settlement, provide infrastructure and community facilities, as well as materials to construct a permanent house on the allocated plot.

Three criteria are considered when assessing a prospective project, namely economic viability, democratic acceptability and physical applicability. The most important consideration is the economic one; the project must be affordable to the participants. The options resulting from the upgrading policy are very flexible and, according to the criteria, can accommodate virtually all the squatter settlements. Strategies, developed by combining and phasing different options, can be suited to the criteria of each settlement.

6.3 Final Conclusion

Building new houses in order to solve the problems of squatter settlements in Iran is totally inadequate. The government must understand the origins of the squatter phenomenon and take the necessary legislative measures to deal with the more pressing issues. These measures should involve:

1. financing for construction and/or improvement of existing dwellings within the budgetary capacity of both the government and the inhabitants;

2. developing and providing remunerative work for unskilled and semi-skilled labourers to enable them to afford improved housing;

3. providing social services that will assist the squatters' adjustment to life in an urban environment;

4. encouraging rural dwellers to remain on the land by raising their living standards;

5. including the squatters themselves in the application of immediate solutions to their problems of shelter.

The above recommendations are calculated to bring financial and demographic relief to the already grossly-overburdened major urban centers. By fostering compatible and simultaneous development in the areas of employment and better living standards, the government will not only solve housing, but social problems as well.

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