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Identifies potential locations and project components for proposed low-income housing demonstration projects to be built in Greater Cairo, Alexandria, and Minia. In addition to a brief summary of purposes and recommendations, the report features two principal sections. In the first, an extensive overview of major factors relevant to planning is presented through a background update. This encompasses social and economic conditions in low-income families, information on utilities, an historical perspective of Cairo's current severe housing shortage, and the problems and processes involved in construction. In the remaining major section, the proposed demonstration projects' components--neighborhoods, health care, employment, programs for women, and credit--are discussed, and specific project locations are described.

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HOUSING AND COMMUNITY UPGRADING FOR LOW-INCOME EGYPTIANS

Report of

THE JOINT HOUSING AND COMMUNITY UPGRADING TEAM

Ministry of Housing and Reconstruction
Ministry of Planning
Arab Republic of Egypt

with

Office of Housing
Agency for International Development
United States of America

AUGUST 1977



HOUSING AND COMMUNITY UPGRADING FOR LOW-INCOME EGYPTIANS

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**Ministry of Housing and Reconstruction
Ministry of Planning
Arab Republic of Egypt**

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**Office of Housing
Agency for International Development
United States of America**

and

**Foundation for Cooperative Housing
Washington, D.C.**

AUGUST 1977



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August 15, 1977

H. E. Hassan Mohamed Hassan
Minister for Housing and Reconstruction
Cairo, Egypt

Your Excellency:

We are pleased to present our report, Housing and Community Upgrading for Low-Income Egyptians, for your consideration.

The report was prepared by the joint Egyptian/American housing team during a three-week period in March and April 1977. We concentrated on the identification of locations for the demonstration projects and on fairly detailed descriptions of the areas to be upgraded, as well as on the lifestyles and the problems of the intended beneficiaries.

The joint team wishes to acknowledge the excellent support we received from all offices of the Ministry of Housing and Reconstruction and from the many individuals and agencies who provided information and suggestions.

We are hopeful that this effort will lead to actual implementation of the proposed demonstration projects.

The Joint Team

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HOUSING AND COMMUNITY UPGRADING FOR LOW-INCOME EGYPTIANS

JOINT REPORT - AUGUST 1977

I. INTRODUCTION AND PURPOSE

This report has been prepared jointly by the Egyptian Ministry of Housing and Reconstruction (MOHR) and the Foundation for Cooperative Housing (FCH) with support from the U.S. Agency for International Development (AID) Office of Housing. The main purpose of this activity was to identify potential demonstration projects which would illustrate new approaches to providing shelter and community services for low-income Egyptians in urban areas.

The joint teams met on a regular basis in Cairo during the period March 19 to April 6, 1977. Team members also conducted a number of visits to potential sites for demonstration projects in greater Cairo, Alexandria, and Minia. In addition, meetings were held with officials from a number of government agencies concerned with housing and community services. (See Attachment #1, List of Meetings.) Finally, team members worked with community leaders in several areas interviewing residents to gain more insight about their problems and aspirations.

The team reviewed actions taken toward implementation of the 1976 joint report and updated income, employment, and other data related to target groups. The main emphasis of the team's work, however, was to identify potential locations for demonstration projects and to suggest project components. The team's work stopped short of actual design of the demonstration projects, a step that will be taken after financing has been assured.

A preliminary report was prepared by the joint team on April 5, was reviewed by the Minister of Housing and Reconstruction, Hassan Mohamed Hassan, and was then presented to a number of high level officials at the final meeting of the joint teams on April 6, 1977.

The preliminary report was also reviewed by USAID/Cairo and by the AID Office of Housing in Washington.

II. BACKGROUND

A. Related Studies

Early in 1976 the MOHR requested technical assistance from AID in reviewing their housing policy and in developing proposals for new housing activities.

During March and April 1976 AID funded a group of U. S. housing consultants which visited Egypt and worked jointly with Egyptian housing officials from the MOHR producing a report published in June 1976 titled "Immediate Action Proposals for Housing in Egypt".

The report made major recommendations for shifting attention from middle and upper income housing to new programs directed at lower income groups. It was well received in Egypt and by AID. The major recommendations of the 1976 report included (1) reducing the average cost of housing units by reducing the average size and improving design and construction techniques; (2) increasing the recovery of housing funds from completed dwelling units and reducing subsidies; (3) encouraging the private sector to play a larger role in housing production including mobilization of finance for housing, increasing production of building materials, and phasing out rent controls; (4) developing new emergency programs to focus on the needs of lowest income families who cannot afford regular housing programs; (5) continuing emphasis on training of skilled labor; (6) developing an operational land policy and procedures to reduce speculation and control costs; (7) developing an overall housing policy setting the framework for future projects.

A basic theme of the 1976 report was the establishment of target groups according to an analysis of the national income distribution allowing the development of different levels of housing and shelter for different target income groups.

As a follow-up to the 1976 report, the MOHR requested additional technical assistance. Starting in early 1977 three teams of U. S. housing experts visited Egypt--a housing finance team from the National Savings and Loan League during January and February, a land policy team from Planning and Development Collaborative International (PADCO) during February and March, and a low-cost housing team from the Foundation for Cooperative Housing (FCH) in March and April.

All three teams continued the 1976 format of working with Egyptian counterparts forming joint teams to produce their respective reports and recommendations. The three 1977 reports will be presented as three coordinated volumes of an ongoing effort toward implementation of the recommendations in actual demonstration projects.

B. Summary of Problem

Various reports have indicated that the present need for housing in urban areas is about 1.5 million dwelling units and that it will double during the next ten years. Table #1 gives an estimated breakdown of the need in urban areas from the 1976 report.

The housing problem is especially severe in Cairo, which now has a population of almost eight million people representing one-half of the total urban population. Alexandria, with a population of 2.3 million, also has severe housing problems for lower income families, as do most of the smaller towns.

Large areas of the central city of Cairo are extremely crowded, with limited sanitary services and, due to rent control and other factors, at least thirty percent of the existing housing stock is rapidly deteriorating. An estimated 12,000 units nationally are lost each year through structural

failure. On the fringes of Cairo and other urban areas, large "informal settlements" have developed, especially during the past ten years, as young couples move out of the central city slums and as new migrants come in from the rural areas. The "informal settlements" take the form of "squatters" on government land or, in some cases, private landowners subdivide and sell small plots informally, avoiding official approval from municipal authorities. Many such areas lack water and sewer, proper drainage, or necessary community facilities, such as schools and health centers.

The past approach toward solving the housing program has been to construct traditional walk-up apartments in large projects which are rented at LE 1 per room per month to low and middle income families. Although thousands of Egyptians have benefited from these programs, there are problems which suggest the need for trying some new approaches.

The cost of traditional construction is increasing rapidly, and low income families cannot afford to pay the real cost of a standard apartment unit. The LE 1 per room rent does not even cover administrative costs and maintenance, so there is no recovery of construction costs which would allow financing of new projects.

There is simply not enough money available to construct heavily subsidized new apartments for seven million urban Egyptians who are now living in overcrowded inadequate housing. Clearly, new approaches are needed to make scarce resources serve more people and to produce housing which responds to the needs of the occupants and fits their traditional social and cultural patterns.

C. Recent Action

The government of Egypt has taken a number of important steps in the housing field during the past year. A number of these steps relate to recommendations which were presented in the 1976 joint report.

In the national budget for 1977 housing has been maintained at a high level, even though the overall national budget was revised and in many other areas reduced. This is a strong reflection of the high priority which housing has as part of the national development plan.

In September 1976 the national low-cost housing fund was established. The legislation creating the fund defines standards for low-cost housing limiting the size of individual dwelling units from a minimum of 20 to a maximum of 60 m². This is consistent with the recommendations of the 1976 report calling for smaller units to reduce cost and better fit the ability to pay of low-income families.

The MOHR has also initiated a program to convert rental public housing units to ownership on a lease-purchase condominium type arrangement which will allow residents of public housing to purchase their individual

apartment while paying approximately the same amount each month that they had previously paid for rent. It is hoped that the ownership situation will improve the attitude of the residents toward maintenance of their apartment.

Another important step was the amendment of the by-laws of the National Authority for Housing Cooperatives which permits the organization to let contracts and supervise the execution of projects for low and middle income cooperatives shifting from their previous higher income level of activities. The Cooperative Authority also has new power to provide loans for the repair and maintenance of existing buildings with a consequent ten percent increase in rents. This may be raised to 15% under a new law which is now being considered. This is the first indication of a change in the rent control situation which was criticized in the 1976 report. New legislation is being recommended which would exempt newly constructed upper income housing from rent control providing that any imported building materials are brought in at the developer's expense and with his foreign exchange. There has also been a change in the formula used to compute allowable rent on new construction which is still under rent control. The new formula allows a higher return on investments.

Another important action which has been taken during the past year is a revision of the building code aimed at improving design and allowing the use of new building materials and systems.

Finally, the composition of the Board of Directors of the Credit Foncier (real estate bank) has been changed to reflect the recommendations of the joint housing finance team to strengthen the institution and to link it more closely with other housing institutions such as the Cooperative Housing Authority and the Ministry of Housing and Reconstruction. The GOE is considering authorizing the Credit Foncier to undertake issuing of national housing fund bonds.

All of the above actions which have been taken in the past year indicate the importance attached to the housing problem by the Government of Egypt, and its willingness to move ahead with new approaches to solve the problem.

III. SUMMARY AND RECOMMENDATIONS

The joint team recommends the development of several demonstration projects directed at improving the shelter and general well-being of low-income families. The program would include upgrading of existing "informal (squatter) settlements" in the Greater Cairo area, upgrading and rehabilitation in central Cairo and the development of a "growth pole" project in Minia or Qena in upper Egypt.

The projects would be comprehensive in nature, including the provision of home improvement loans, water, sewer, electricity, schools, health centers, and other services of high priority to the residents. Vocational

training and employment generating activities would be included, along with programs to improve nutrition, child care, and family planning.

A complementary program to the demonstration projects would include increasing the production of building materials to reduce imports, such as cement and steel, create jobs, and help stabilize prices.

A technical exchange and training program would also be needed to strengthen the housing institutions while they are gaining experience in this new approach.

The recommendations of the joint housing finance team and the joint land policy team would be considered and incorporated into the demonstration project.

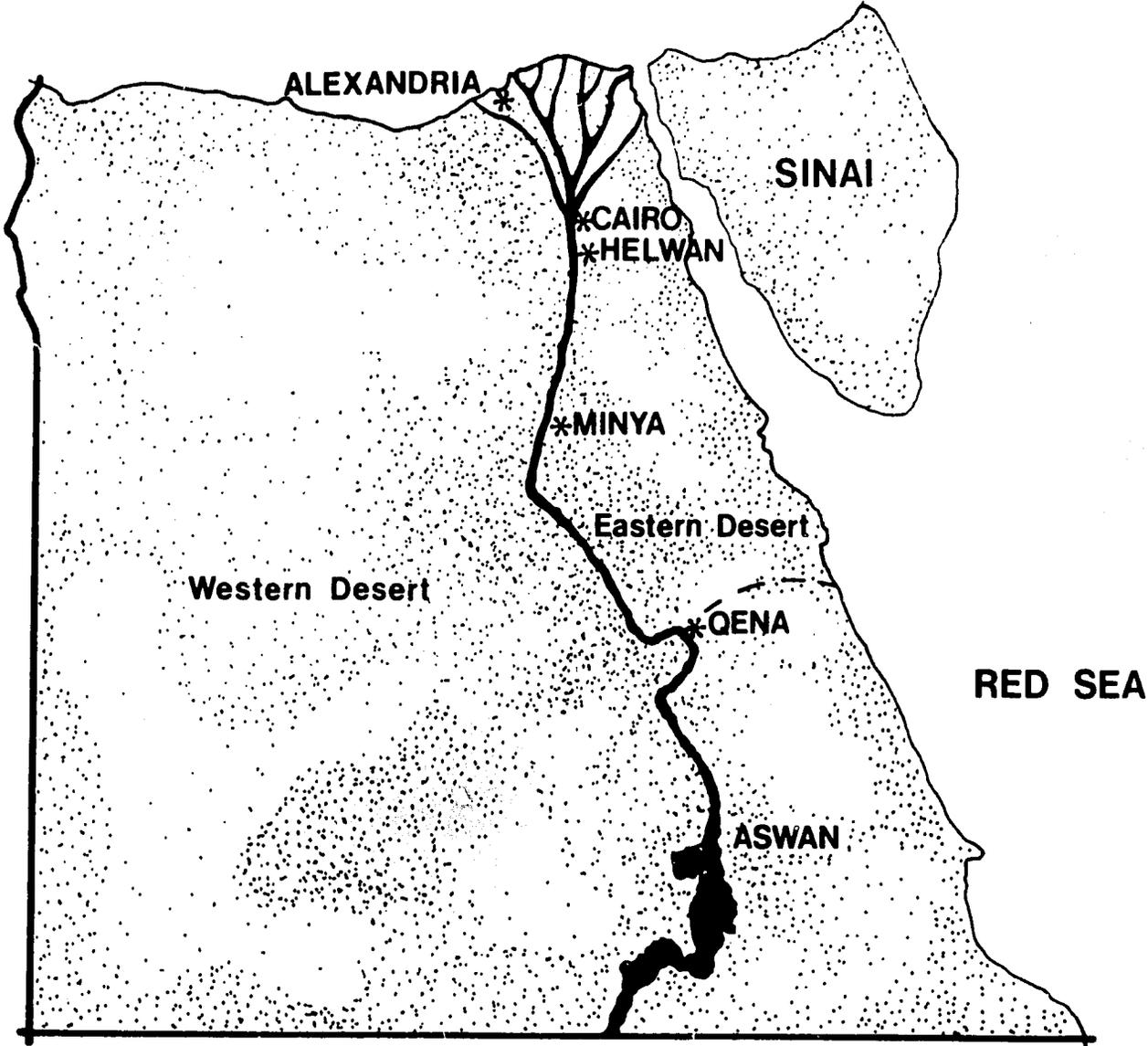
Successful completion of the demonstration projects should result in a shifting of national housing policy toward lower income groups while reducing the need for heavy government subsidies. By channeling a larger share of resources into upgrading projects instead of only constructing new standard apartment units, many more Egyptians should benefit from limited financial resources.

The following demonstration projects have been recommended:

- Helwan Upgrading Project to improve the housing, community services, and job opportunities for low-income families living in "informal settlements" near the industrial area of Helwan, south of Cairo.
- Helwan New Cooperative Community Project to provide new housing in the Helwan area for industrial workers who now commute daily from Cairo and to demonstrate new techniques in site planning, improved design and construction methods, and community organization.
- Old Cairo (Gamalia) Upgrading Project to rehabilitate existing housing, construct new housing, improve community services, job opportunities, and increase incomes in a selected area of old Cairo.
- Ain Shams Upgrading Project to provide home improvement and expansion loans, community services, employment opportunities in the Ain Shams "informal settlement" area on the northern edge of Greater Cairo.
- Minia-Qena "Growth Pole" Project to develop a comprehensive program including housing, community services, and jobs in a smaller town to support national planning objectives of reducing migration to Cairo.



MEDITERRANEAN SEA



**EGYPT
GENERAL LOCATIONS OF
PROPOSED DEMONSTRATION PROJECTS**

IV. HOUSING AND THE URBAN POOR IN EGYPT - UPDATE

The 1976 joint report and numerous other studies have described the housing and related problems in Egypt. Without duplicating these past efforts, the joint MOHR/FCH team made an effort to update data from the 1976 report and to seek a better understanding of what is happening now in the communities where low-income families are living. The team's work was concentrated in the Greater Cairo area because this is where the greatest problem exists, and it has been given high priority by the Government of Egypt. However, serious housing problems exist in Alexandria and other urban areas, and the approaches suggested in this report would have application throughout Egypt.

A. Target Groups

1. Overview, Social and Economic Conditions for Low-Income Families

The people of Egypt have experienced major advances in their living standards over the past fifteen years. Nevertheless, as is true in the majority of the countries of the world, many problems remain. Chief among them are a persistently high rate of population increase, rapid urbanization, and a low level of income among large numbers of the Egyptian people. The Egyptian economy has been sorely taxed by the costly military confrontations of the last decade and the constant state of preparedness necessitated by the continuing precarious balance in the Middle East. One of the major challenges which Egypt is now facing is the need to provide adequate shelter and opportunities for the advancement of its growing urban population.

Egypt's population is growing at a rate which makes it difficult for the country to meet the basic needs of its people; this is especially true of Egypt's cities, as they are growing faster than the country as a whole. The recent census of 1976 reveals that Egypt's population had risen to 38,228,180 by November of last year. Over the ten year period of 1966-76, the average rate of growth of Egypt's population was 2.31%. This represents a decrease from Egypt's high of 2.60% for the period of 1956-66. However, it is unlikely that Egypt's population growth rate will continue to decline over the next few years. The country's population is young; close to a third (31.0%) are under twelve years of age. And the next few years appear to hold promise for increasing economic prosperity--and peace, both traditionally associated with high birth rates.¹

Today roughly 44% of Egypt's population lives in urban areas. In 1907, the comparable figure was 19%. In 1960, 37.4% lived in cities. The Governorate of Cairo, by far the largest in the country, held 5.1 million people in 1976; Greater Cairo had a population of 8.0 million. Cairo's birth rate for the ten year span 1966-76 was 3.7%. Considering that birth rates are less in urban than in rural areas (30.8 vs 38.6 per thousand in 1970), a little less than half of Cairo's growth can be attributed to in-migration from the rural areas and smaller towns.

¹Ralph J. Watkins, "Egypt" JAMS, 10/10/76, pp. 2-3

As with many developing countries a minority of the population participate in the labor force. Less than a third of Egypt's total population (31.5%) make up the economically active population (over six years of age). While more than a half of the males (52.9%) fall into this category, only 9.2% of the females belong to the labor force. Even this latter figure, low as it is, represents a significant advance from times past; in 1960, only 4.8% of the women in Egypt worked for monetary remuneration.

While there is still considerable room for advancement, the educational attainments of the Egyptian people have improved dramatically over the last fifteen years. While in 1960, 70.5% of Egypt's population was illiterate, in 1976, this figure was reduced to 56.5%. Seventy-one percent of the females of the country were found to be illiterate in last year's census, compared to 43.2% of the males. Similarly, while a fifth of the males (20.4%) were graduates from high school, only 11.6% of the females had reached this category (see Table I-4, Appendix).

The median household income of Egypt's population is low: LE 395 or US \$634 p.a. in 1975-1976. The fact that a somewhat inflated estimate of median household expenditures in the same year was LE 479 (see Table II-1, Appendix), demonstrates the tightness of family budgeting and the scarcity of savings for the majority of the Egyptian people.

There is relatively little open unemployment in Egypt. It was estimated by the Ministry of Planning to be 7.8% in 1973. Those earning well below the median income (LE 170 or below) and part-time workers (who would like to work full-time), comprise over a third (37%) of the urban population, as noted in the first AID/MOHR joint report on housing in Egypt, last year.²

Taking Cairo, which along with Alexandria, is the best serviced urban population, as an example of the best of urban conditions, we see the following picture emerge. In 1970, only 44% of the buildings in the Greater Cairo region were connected to public or private systems of sewerage. Water serves 50% of the buildings in the region; over a quarter (26.7%) of the buildings in the regions were not connected to any source. Over a third of the buildings in the region (41.1%) were not connected to any electricity network. More recent figures for the Governorate of Cairo depict a somewhat better situation (see Tables III-3 and III-4, Appendix). The level of health services in Egypt is low, with one general clinic for every 180,000 persons, one child care center for every 166,000 persons, and 3.29 hospital beds per 1,000 population. Finally, returning to the Greater Cairo region, the amount of land for recreation is very scarce, a mere 1.6 m²/capita as compared to 16 to 40 m²/person in similar cities of the developing world.³

Related to the poverty of much of the population, the very high densities (950/km² for inhabited areas) in which they live, and inadequate services, are the sources of major health problems which affect the

² Immediate Action Proposals for Housing in Egypt, June 1976, p. ix

³ "A Report for the Preliminary Master Plan of the Greater Cairo Region", 1970, p. 27

Egyptian population. The foremost endemic disease in Egypt is schistosomiasis. As this is contracted from the water in streams, it is largely a rural disease, yet one-third of Cairo's population is in-migrant, and this very debilitating illness has been said to affect up to 80% of the entire population of the country. More directly tied to high density and poor urban services are the very prevalent gastrointestinal diseases, along with schistosomiasis, named the most critical diseases in Egypt.⁴ Also major health problems related to environmental conditions are children's diseases, measles and diphtheria in particular, and tuberculosis, which only a decade ago was a cause of over 2400 deaths a year.

Clearly the complex problems discussed above, ranging from illiteracy to low participation of females in the labor force, to insufficient urban services and poor health, are more than any one or several projects can hope to solve or even affect in any depth. Nevertheless, it is against this backdrop of social and economic conditions that any housing and urban development project must be seen and devised, and it is to be hoped that an indication of the "success" of any program emanating from this study would be its relevance to each of the major components of this broad panoply of societal needs, rather than its impact being restricted purely to one sector. The development problem is multi-dimensional; any approach which attempts to attack it must be comprehensive as well.

2. Income Distribution Related to Housing

The family budget surveys carried out by the Central Agency for Public Mobilization and Statistics provide an indicator of income distribution in the urban areas of Egypt. The publication of the 1974-1975 survey brought a badly needed update of material dating back to the 1960's.

As with previous surveys, the new sample is somewhat biased towards higher income groups, probably due to the failure to cover that segment of the urban population which does not hold regular employment and permanent dwellings. Thus, average household expenditure is shown to be LE 588.5 per year in urban areas and LE 510.5 in both rural and urban areas, while in 1975 it did not exceed LE 452 per year, according to national income accounts. This represents a per capita consumption of LE 86.9 per year and an average household size of 5.2.

Based on the research undertaken in conjunction with the previous 1976 joint study, household income levels are differentiated in accordance with earning capacities defined by the following illustrative occupations.

Category A: High Officials, business owners, managers of modern establishments, practitioners in the high earning professions, university professors.

Category B: Upper echelon government employees, professionals, business owners and managers.

⁴ Arthur Furnis, SYNCRISIS: The Dynamics of Health, An Analytic Series on the Interaction of Health and Socio-economic Development XVI: Egypt, HEW 9/73, p. 23.

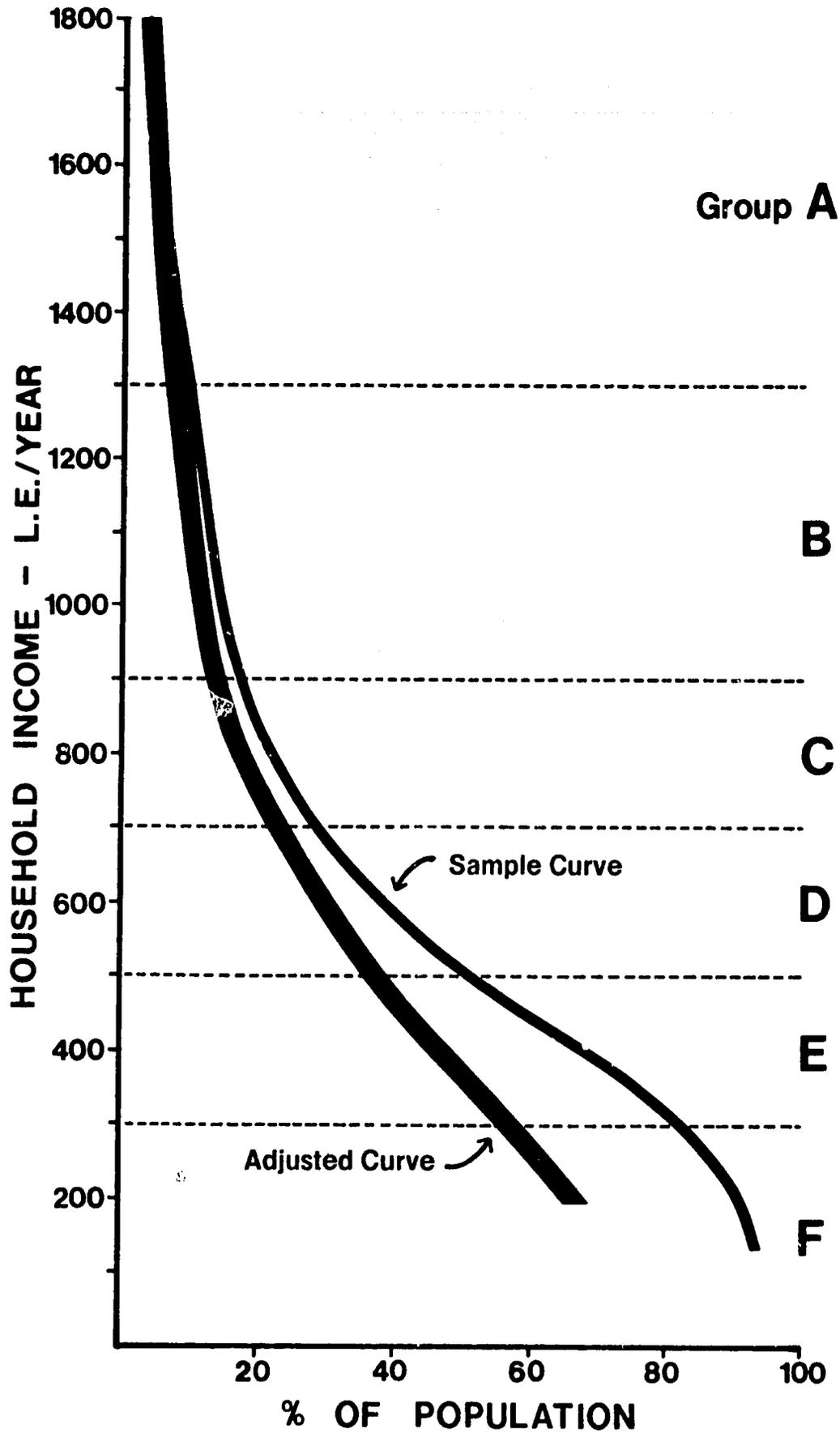
- Category C: High level trade and service employees, supervisors, technicians, higher level teaching staff, skilled craftsmen, factory workers, trade bosses, head machinists, qualified butlers and head cooks, etc.
- Category D: Semi-skilled labor in the construction trades, transport and manufacturing sectors, highly qualified clerical workers, experienced sales and service workers, middle level teachers.
- Category E: Low skill employment in industry, commerce, government, services and construction, including clerks, elementary school teachers, cooks, waiters, salesmen, etc.
- Category F: Unskilled labor of all types: household servants, office boys, janitors, apprentices, day laborers in construction, sales and services.

An adjusted income stratification was developed, taking into account the effects of:

- 1) households with more than one wage earner which, according to the 1974-1975 survey, represent 40% of all households;
- 2) multiple job holding; which is extremely widespread at all levels;
- 3) transfer payments;
- 4) non-earned income in all categories, irrespective of its origin. This adjusted distribution is given below:

<u>Income/Occupation Category</u>	<u>1974 Income in Category in I.E. per Year</u>	<u>Percent of Households in Category</u>
A	1,000 or more	10
B	700 - 1,000	14
C	550 - 700	11
D	400 - 550	14
E	250 - 400	17
F	250 or less	34

These incomes need to be adjusted upwards to account for wage and salary increase in the past three years. If it is assumed that incomes have somewhat kept up with the consumer price index, it would mean an upward adjustment by a factor of 30% yielding the following results:



ESTIMATED NATIONAL ANNUAL INCOME DISTRIBUTION EGYPT'S URBAN POPULATION, 1977

<u>Category</u>	<u>Income Bracket</u>
A	1,300 or more
B	900 - 1,300
C	700 - 900
D	500 - 700
E	300 - 500
F	300 or less

This would place current median income of households at about LE 550 per year, which amounts to a monthly salary of LE 45, a reasonable assumption in the urban context. See chart on page 11.

The results of the 1976 census, when they are released, will provide an accurate picture of socio-economic conditions in the country, and these preliminary estimates given above would have to be adjusted accordingly.

3. Household Income and Expenditure for Housing

The 1974-1975 sample survey offers significantly updated information on household income and expenditure patterns in the urban areas of Egypt.

A comparison between the expenditure patterns of the median income categories in the new survey and the survey taken a decade earlier in 1964-1965 is given below.

The proportion of income spent of food has remained relatively stable, indicating that, in general, incomes have kept up with food prices, taking into consideration, of course, the substantial subsidization of basic staples by the government.

Expenditures on housing have also remained stable, due to the balancing off of the increase in the cost of fuels by the control of rents at constant levels--therefore representing a declining proportion of income. This situation, which affects mostly middle and upper income groups, has resulted in the distortion of expenditure patterns towards other forms of consumption. Foremost among these are home furnishings, clothing, and personal care products. Although the prices of these items rose much faster than incomes, the growing proportion of expenditure allocated to them is significant.

<u>Expenditure Category</u>	<u>1964-1965</u>	<u>1974-1975</u>
Food	57.6	54.3
Housing		
Shelter	10.8	9.6
Fuels	3.5	4.1
Transport	2.5	2.1
Home Furnishings	0.9	2.6
Clothing	7.8	13.6
Personal Care Products	1.1	2.1
Health	2.1	1.4

<u>Expenditure Category (Cont.)</u>	<u>1964-1965</u>	<u>1974-1975</u>
Education	0.9	1.5
Tobacco, Alcohol, etc.	7.0	5.5
Miscellaneous	5.8	3.2
	-----	-----
Total (percent)	100.0	100.0
Average annual expenditure per household in L.E.	346.9	451.3
Consumer Price Index	100.0	149.4

These shifting characteristics prevail for all lower and middle income groups. It is only in the highest income group that a clear departure from these patterns is found, with an inordinate amount of income allocated to transport, probably reflecting air travel abroad.

As in previous surveys, expenditures on housing decrease sharply as income rises, with the poorest families surveyed spending close to 20% of their income in rent, twice the amount spent by middle income families. This characteristic would be even more striking if the floating urban population that is not covered by the survey is taken into consideration. Their shelter cost, on a per square meter basis, exceeds the rents paid by middle income families, notwithstanding the differential in the quality of the unit, in the availability of utilities and in the access to community services.

The survey could not fully reflect the inflation in prices which marked the past few years. Undoubtedly the increases recorded by foodstuffs, particularly by vegetables and fruits, must have influenced expenditure patterns and a resultant upward shift in the proportion of income allocated to food should be expected.

However, increased spending on home appliances has become a well established trend in major urban areas filtering down to the lower classes. At a time when the combined effect of absolute shortage, rapid inflation in construction costs, deterioration of the existing stock and congestion of transportation networks severely limits individual choice in housing, it is only natural that upgrading of the interior would acquire an added importance.

Furniture has traditionally held great importance, since it is acquired with the bride's dowry and usually listed in the marriage contract. The typical full bedroom for the 10 m² room now costs LE 250 to 300. However, it is the home appliances that have become unequivocal status symbols actively sought by households in all types of low and middle income areas: older slums, public housing, uncontrolled settlements, etc. These are, in decreasing order of popularity: radios and television sets, Butagaz cooking units, refrigerators, Butagaz water heaters.

4. Relationship of Employment Centers to Urban Poor Residential Areas

Industrial development in the Greater Cairo region is concentrated in three peripheral areas: Helwan, Shubra El Kheima, and Giza. This came about as a result of public and private decisions.

Prior to 1960, industrial expansion had been limited and the location of the few large factories, such as the Tourah cement, was directly related to the location of raw materials.

The 1958 Master Plan of Cairo recommended the development of industrial subcenters in satellite communities to absorb population growth and contain the size of the city proper at about 3.5 million. The 1960-65 National Development Plan concentrated industrial investment in Cairo and Alexandria where 40% of the new factories were located.

These actions spurred the growth of industrial areas at Helwan, Shubra, Giza, and Imbaba. The desired impact in terms of restricting the growth of Cairo proved futile, as urban development slowly stretched out to the subcenters, engulfing both agricultural and desert land.

By 1966, 33% of the manpower employed in the manufacturing sector in Egypt was located in Cairo. Since 1976 figures are not yet available, it is difficult to assess the success of later efforts to divert industrial growth elsewhere.

Heavy industry is almost exclusively confined to the south in the Helwan-Tibbin zone. On the other side of the Nile, at Giza, there are numerous light industries--pharmaceuticals, chemicals, cigarettes, breweries, bottled drinks, movie studios, etc. To the north, Shubra El Kheima was a natural extension to the industrial zone of Boulaq-Rod El Farag, where railroad yards, automotive repair shops, and warehousing had traditionally been located. Over the past 20 years it has evolved into Cairo's major industrial center, encompassing large, medium and small enterprises both public and private, particularly the latter.

Almost all types of industries are represented in Shubra El Kheima: textiles, garments, building materials, machinery, automotive repair, furniture, food processing, petroleum products, plastics, insecticides, etc. Despite restrictions on further expansion, since it encroaches on valuable agricultural land, Shubra El Kheima continues to grow.

Commercial and office employment is concentrated in the modern central business district which comprises Azbakia, Abdine, and Qasr El Nil, and in the traditional quarters on the Medieval city.

Government jobs are now almost equally divided between the old ministries district in the Abdine-Sayeda Zeinab area and the new district in Abbasia and Nasr City.

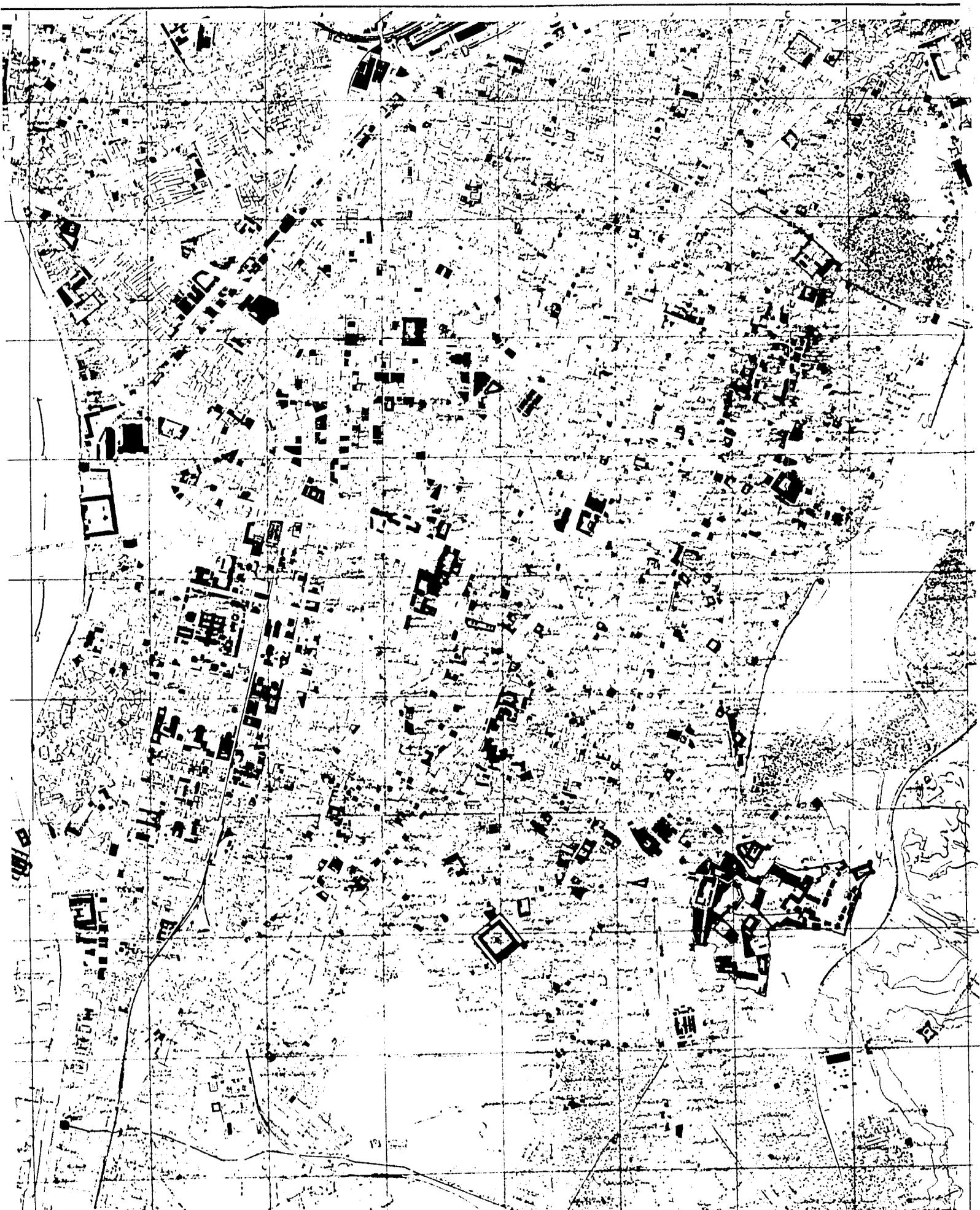
Commuting Patterns

While undoubtedly dated, the 1966 cross-commuting statistics for Cairo provide a good indication of the concentration of jobs and imbalances in the distribution of housing and employment. The 1976 census results will provide an updated picture.

<u>Area</u>	<u>Total Employed in the Area</u>	<u>Commuters to the Area</u>	<u>Percent of Workers Commuting to the Area</u>	<u>Percent of Area Residents Commuting to Work Elsewhere</u>
1) Qaliubiyah Governorate				
Shubra El Kheima	37,625	7,459	19.8	11.2
2) Cairo Governorate				
<u>North Cairo</u>				
El Sahe1	33,273	4,020	12.1	40.8
Rod El Farag	29,113	5,142	17.7	44.3
Shoubra	62,097	18,811	30.3	35.7
<u>East Cairo</u>				
Mataria	33,282	3,661	11.0	35.8
Zeitoun	15,455	3,935	25.5	37.5
Waily*	67,309	30,955	46.0	26.5
<u>Heliopolis</u>				
Heliopolis*	48,267	34,250	71.0	25.3
El Nouzha	515	456	88.5	83.5
<u>Central Cairo</u>				
El Zaher	11,375	5,181	45.6	49.7
Bab El Shaaria	18,523	4,362	23.6	38.2
El Gamalia	22,692	5,401	23.8	27.9
El Darb El Ahmar	23,272	7,779	33.4	36.0
<u>West Cairo</u>				
El Mouski	24,052	19,978	83.1	27.0
El Azbakia	35,335	28,852	81.7	36.5
Boulaq	44,466	18,262	41.1	24.3
Qasr El Nil	51,750	45,106	87.2	15.2
Abdine	31,302	21,263	67.9	33.7
<u>South Cairo</u>				
El Sayeda Zeinab	40,088	15,476	38.6	37.8
El Khalifa	20,071	2,759	13.8	40.3
Masr El Qadima	27,526	4,630	16.8	39.7
<u>Helwan</u>				
Maadi	19,880	6,950	35.0	30.2
Helwan	42,233	16,095	38.1	5.0
<u>Giza Governorate</u>				
Giza	30,023	9,741	32.4	21.2
Dokki	19,655	8,582	43.7	35.3
Al Ahram	2,238	1,935	85.5	35.7
Imbaba	17,642	1,489	8.4	41.5

*Included part of Nasr City.

Source: CAPMAS. 1966



CENTRAL CAIRO



B. Cairo - Historical Development and Current Situation

1. Historical Development

Since 641 A.D. when it was selected as the site of the first Islamic settlement in Egypt, Cairo has remained the capital city, overshadowing the other urban centers in the country.

Strategic location ensured its survival and dominance. Geographical features dictated the direction of its development. The Mokattam Hills on the southeast and the Nile on the west channelled growth in the northeast direction and in the western direction on lands left by the successive recessions of the river.

The first settlement of Al Fostat quickly evolved from a tribal garrison town into a major urban center with an official district where the ruling elite and the various elements of government were located.

Each new dynasty erected its own "madina" and thus successively developed Al Askar of the Abbasid Governors, Al Katai of the Tulumids and Al Qahira of the Fatimids in 969. Meanwhile, the former official district, gradually deserted, was taken over by the population. Courts and palaces were parcelled off and subdivided. Markets stretching along the main roads quickly reached the new Madina.

The last of the Madinas in Cairo was the citadel founded by Saladin. It remained in use as the official district until 1865. As a result, it displaced the focal center of the city from the northeast to the southeast, thereby loosely defining the boundaries for urban expansion. Gardens, open spaces, secondary residences were located to the north and the west. Athar al Nabi (between Maadi and Helwan) and Boulaq to the northwest were the two ports of the city, the latter acquiring increasing importance.

The city proper, outside of the official district, was divided into quarters called "Hara" which formed smaller communities within the urban area, where solidarity stemmed from diverse factors including kinship ties, religious or ethnic identity, common place of origin, sectarian affiliation, and occupational groups. As a result, the haras were characterized by mixed populations under the leadership of their administrative head and their most prominent residents.

Some quarters, because of their salubrious location to the north and the west or their proximity to the citadel, were often favored by the upper classes. At the other end of the spectrum, the more turbulent elements in the lower classes tended to be relegated to peripheral quarters preferably outside the city walls. Nevertheless, class heterogeneity prevailed in the residential settlement pattern until modern times.

Economic life concentrated in markets called "Suq" where sellers and craftsmen of the same trades gathered. Both industrial and commercial activity remained in Fustat until 1168 when it was burned during

the Crusades. It then shifted to Al Qahira where the major markets of the old city are concentrated to this day. The major streets, lined with rows of shops and workshops, merchant trading centers (khans and wikalas) and lodging places (funduq), thoroughly intermingled with mosques, schools, baths, fountains and other public facilities, offered--and still do--a bewildering array of activities, bustling with vitality.

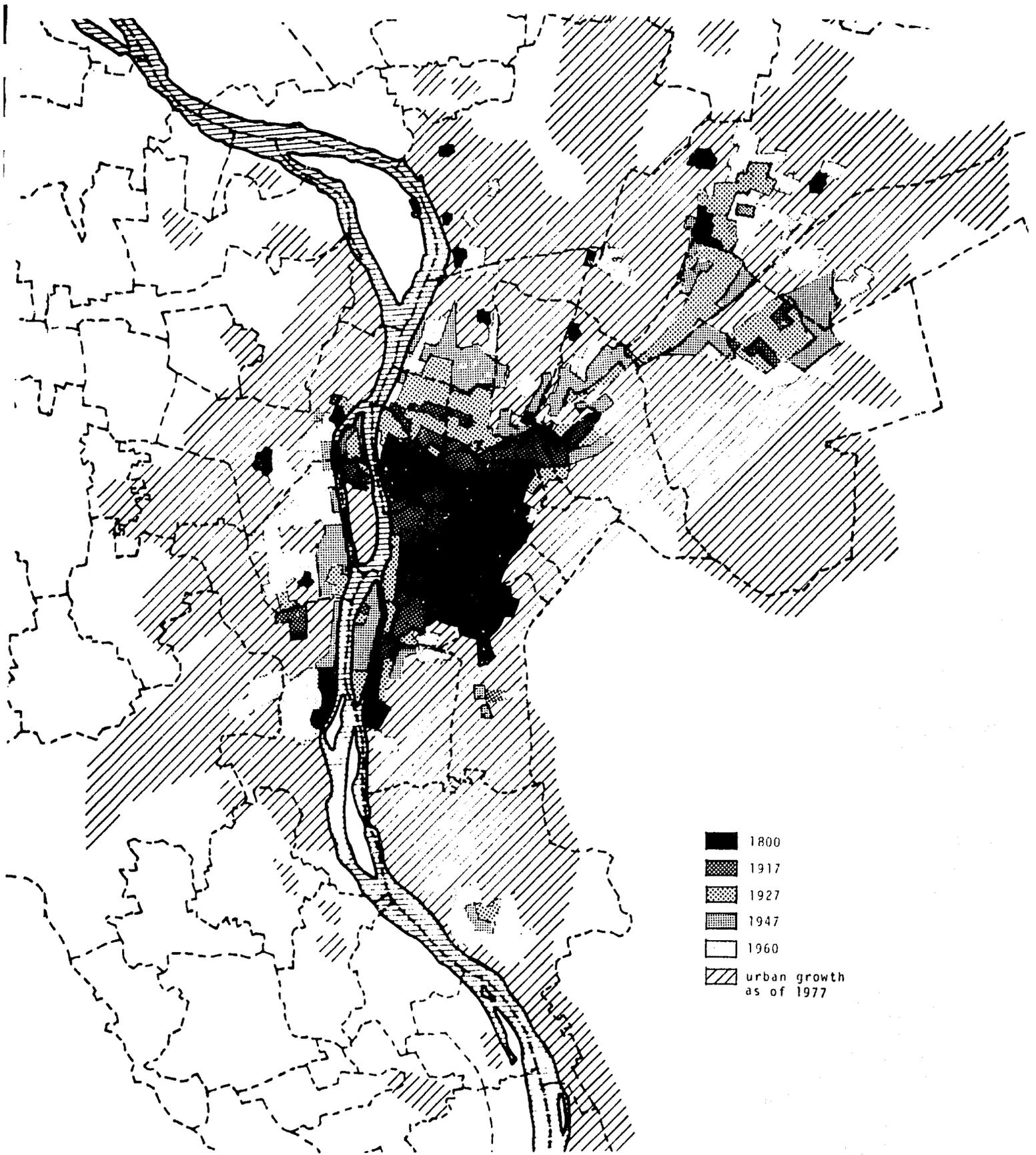
At the height of its glory, in the 13th and 14th centuries, Medieval Cairo reached 300,000 population. It was always described as a very dense, overcrowded city with congested streets. Successive generations of Mameluke emirs filled it with mosques, mausoleums, public facilities, and commercial buildings. Multi-storied houses with ground floor shops and workshops towered above the narrow streets.

A special feature of Cairo was the importance of its cemeteries, where funerary rituals and Saint Day celebrations gave rise to permanent markets and a resident population.

After three centuries of decline under Ottoman domination, the urbanized area of Cairo covered no more than five square miles and its population had fallen to 260,000.

The trend was reversed at the beginning of the 19th century when the Viceroy of Egypt managed to gain semi-independence and started to modernize the country. However, foreign intervention soon made Egypt part of the British Colonial system. The number of foreigners in Cairo increased rapidly from 5.7% in 1882 to 15.8% in 1907. Their political power reinforced by legal and fiscal privileges under the capitulations system, they soon dominated every field of urban economic activity. The emergence of a colonial structure with increasingly sharper differences between Egyptians and foreigners was paralleled by the growth of modern districts adjacent to the older quarters. Thus successively developed Ezbekia (1800's), Ismailia (1870's), Tewfikia and Qasr el Dubara (1890's), and Zamalek, Heliopolis, Garden City and Maadi in the early part of the 20th century.

In 1865, government functions were moved from the citadel to Abdine Palace and the various branches of the expanding administration were located in the vicinity. Businesses, offices, hotels, theaters, department stores, clubs, restaurants, and amusement places, including the first movie theater (1896), stretched westwards from Azbakia, constituting the nucleus of the modern C.B.D. Foreign franchises took over transport and the provision of utilities: water and gas in 1865, electricity and tramways in 1893, street lighting in 1898. Municipal services were confined to street paving and maintenance, and work on a sewage disposal system only started in 1909. These public utilities were directed to serve the new developments, while the majority of the city's population continued to live under medieval conditions. Modern "improvements" to the old city consisted of a few thoroughfares wide enough to accommodate carriages which were cut across its fabric and some water taps where user charges were levied.



- 1800
- ▨ 1917
- ▩ 1927
- ▧ 1947
- 1960
- ▨ urban growth as of 1977

CAIRO HISTORICAL DEVELOPMENT



The location of the railroad station reinforced the pattern of industrial concentration in the Boulaq zone. Sabita became the first industrial slum of Cairo, while further north in Shubra, mixed middle class residential areas developed.

Cairo Population

1882-1947

1882	350,000
1897	535,000
1907	683,000
1917	748,000
1927	1,078,000
1937	1,345,000
1947	2,075,000

The first half of the 20th century was marked by the movement of educated Egyptians out of the older quarters. The upper classes slowly infiltrated the foreign areas and mixed with middle class elements in new subdivisions, first adjacent to the older areas--Abbasia and Seyeda Zeinab--then expanding northwards to Manshia and Qubba and westwards across the Nile to Giza and Dokki.

The extent of the urbanized area which had doubled once in the course of the 19th century, doubled again in the first part of the 20th century. Motorized transport and the extension of the street and bridge network permitted the development of outlying zones. Services were already overloaded as the population passed the 1,000,000 mark in 1927. High rates of natural increase, sustained by declining mortality, were aggravated by accelerated migration since the turn of the century, when demographic pressure in the rural areas started to be felt. Migrants accounted for 31% of the city's population in 1907, 42% in 1927.

Physically unchanged except for the subdivision of palaces and the construction of tenements, the character of the older areas was profoundly altered. The exodus of the upper strata led to increasing socio-economic homogenization. Modernization undermined the traditional institutions: some were abolished (guilds); others disappeared, their functions taken over by the government; quarters lost their political significance, but somehow retained their social cohesion. Migrants with no institutions to absorb them recreated patterns of rural villages in the city.

Exclusive investment in the new urban areas resulted in a severe housing shortage in the older areas. Densities mounted and rents soared while the earnings of unskilled laborers were constantly depressed by the influx of rural migrants, such that their standard of living declined from 1870 to 1950. Peripheral slums and cemeteries sheltered the most disadvantaged elements.

2. The Current Situation

The past three decades witnessed the emergence of the demographic factor as the key issue in all aspects of planning in Egypt at the national and local levels. With independence came the implementation of commitments to education, industrial development, and a more equitable social order. However, agrarian reform could not stem the tide of rural-urban migration as per capita cropped area fell from 0.71 Feddan in 1897 to 0.39 in 1960. The first National Development Plan (1960-1965) fell short of its target due to the mounting costs of social services. State control of the local economy did not manage to generate enough employment in the industrial sector to absorb entrants in the labor force. Underemployment and disguised unemployment were widespread.

A 1962 study⁴ of migration to Cairo showed that 37.7% of migrants were unemployed before coming to Cairo and 57.2% unskilled. Most of them had selected Cairo as their destination before leaving their villages. They preferred to come to the city alone and bring their wives a year or so later. Their choice of housing was dictated by closeness to relatives since 61.6% sought assistance from them and almost all relied on relatives and friends to find jobs. This preference explains the location of migrant reception areas in informal settlements in Shubra, Rod El Faraq, Wayli, Giza, Embaba, etc., rather than within the confines of the older medieval areas. Close relations to the village of origin and its inhabitants--kin groups and others--were maintained, a fact reflected by the numerous village associations in the city. An overwhelming majority of migrants felt that their economic and social situation had improved. Despite the relatively high rents paid, they felt housing conditions were better as was their access to education and health, the services they cared for most.

Given the demographic pressure, there was little hope of slowing migration to the capital city. Between 1947 and 1960, Cairo's population grew by 1.5 million. The city had absorbed about 25% of the total population increase in Egypt and was growing at a rate of close to 5% of which 3% was attributable to natural increase and 2% to migration. This pattern continued through the 1960-1970 decade, due to high and stable fertility rates, declining mortality rates and an age structure emphasizing young adults, a pattern reinforced by migration. However, the preliminary results of the 1976 census substantiated the decline in birth rates reported by vital statistics since 1968. Cairo's population was recorded at 5.1 million and Greater Cairo at 8.0 million, almost 0.7 million lower than earlier estimates based on projections of 1960-1966 trends. Nevertheless, with a current built-up area estimated at 80 square miles, Greater Cairo accounts for 21% of the national population. At the current rate of expansion, this proportion will reach 25% by 1990. Official concern over the growth of the city has led to efforts at decentralization and the diversion of investment, particularly industrial plants, elsewhere. Yet the compelling reasons for Cairo's dominance still remains. It has been the seat of government for over 1,000 years. It is the most important cultural center of the Arab world, the center of the nation's financial and commercial activity and the largest market in the middle east.

⁴

Mohamed Aonda: Migration to Cairo: Its Causes, Its Methods and Its Effects.
The National Center for Criminological & Social Research, 1964 (in Arabic)



Cairo's extraordinary growth is reflected in this photo where an old rural settlement in the periphery of the city is being engulfed by urban sprawl. The disparity between the mud houses in the foreground and more modern, albeit informal structures in the background, is reflective of the socio-economic and cultural conflicts resulting from this rapid growth.

The duality that characterized the colonial city still exists, but it has become simultaneously more intermixed and spread out. Between 1947 and 1960 the older quarters had somehow to accommodate an additional 130,000 people, 50,000 of which could only find residence in the cemetery areas. The 1960-1970 period added another 40,000, mostly in the cemetery areas. Only the deterioration of the housing stock and the saturation of existing buildable space prevent densities from increasing any further.

The spill-over is rapidly spreading south in uncontrolled settlements extending 15 miles from Basatin to Helwan. Up to 1960, this southernmost sector had accounted for less than 3% of the city's population living in the two suburban developments at Maadi and Helwan and in widely scattered older settlements. The location of the industrial complexes between Masara and Tibbin changed its character through the influx of middle and lower income industrial workers. Population tripled from 177,000 in 1960 to 583,000 in 1976, partly accommodated in the largest concentration of public housing in the city and partly in the proliferating informal developments.

However, the most spectacular and sustained urban expansion occurred in the northern and western direction through sharply contrasting methods.

- 1) large-scale developments undertaken by private and public corporations on government-owned land (Nasr City, Heliopolis, Awqaf City, Engineers City, etc.);
- 2) small formal and informal developments growing haphazardly on private and public land, the latter acquiring increasing importance. The past ten years in particular have witnessed the proliferation of informal settlements on any available developable land.

The result is an incredible intermixture of socio-economic groups in distinct subcommunities. Upper income areas stretch along the Nile, and in Zamalek and Heliopolis. Various middle income groups live further inland on the west bank of the Nile, and to the northeast in a succession of orderly developments extending seven miles from Abbasia to Heliopolis. Shifting the government center to Nasr City further enhanced the advantages of this sector as a place of residence, particularly for government employees.

In both northern and western sectors there has been an intensification of land use through the replacement of older dwellings by high rise apartments and the heightening of existing structures. Inflation in land prices and limited extension of utility networks have reinforced this trend, which leads to the gradual but inexorable elimination of open space from the built-up area as well as mounting densities and overload of infrastructure systems.

In the northwest sector, the railroad station, the river port and the industrial establishments stretching from Bulaq to Shubra El Kheima



Informal settlements such as the one depicted in this photograph account for a substantial part of Cairo's growth. Although it represents a significant percentage of the new housing construction, they typically do not include adequate water and sewer services. In the photo above, overflow from cesspools can be seen on the streets.

have attracted a mixed population of middle and lower income blue collar workers. Simultaneously, the existence of villages engulfed by the expansion of the urbanized area as well as the geographic proximity to the lower Delta region, the main supplier of migrants to Cairo, have resulted in large concentrations of migrant groups and record densities. In the older industrial slums of Boulaq, Sharabia and Mahmasha, conversion of apartments to rooming houses is becoming widespread. Uncontrolled settlements are proliferating, capitalizing on easily developable agricultural land, the availability of building material and unrelenting demand pressure.

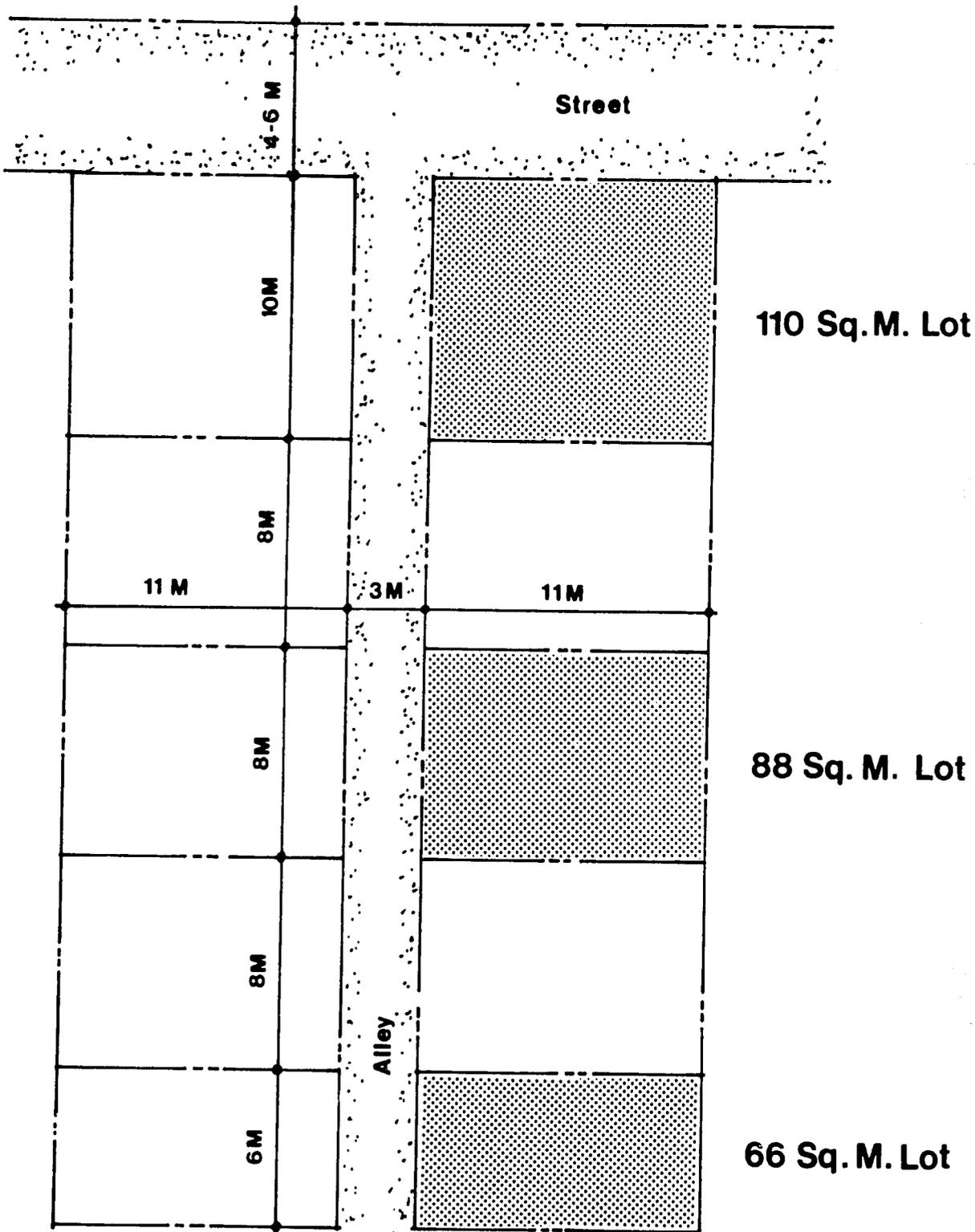
Similar conditions have led to similar features on the west side of the Nile at the edge of the built-up area in Inbaba and Giza, where Boulaq al Dakrour has grown from a mere village to an uncontrollable settlement housing over 300,000 people in less than 15 years. Thus, between 1947 and 1976, the population of Greater Cairo grew by five million people. Public authorities were totally unequipped to deal with this phenomenal expansion. The city, which did not have a separate municipal entity until 1949, could hardly control land development, particularly in peripheral areas.

The first Master Plan, published in 1958, called for the containment of Cairo at a target of 3.5 million people and the diversion of population growth to satellite communities. The 1960 census results proved the plan to be already obsolete. Furthermore, urbanization rapidly spilled over jurisdictional boundaries into the adjacent governorates of Giza and Qaliubiyah, complicating the planning and coordination of municipal functions. The Greater Cairo Planning Commission, created in 1965, was only an advisory body. The new Master Plan it produced reiterated the same objectives as the 1958 plan--containment and satellite cities--with an upward revision of target populations to reflect more realistic assumptions.

Over the past decade, the population of Cairo governorate grew by one million and that of Greater Cairo by three million. Budget limitations prevented utilities and transport networks from keeping up with urban expansion. The result has been rising land values, encroachment on agricultural land, imbalance in the distribution of housing and employment, traffic congestion and cross-commuting with passenger trips increasing at twice the rate of population growth. The supply of public housing and community facilities and services was far outstripped by demand. The worsening housing shortage resulted in mounting densities, overcrowding and the proliferation of uncontrolled settlements to accommodate an additional 300,000 persons every year. Densities reached over 500 persons per acre in the older areas and one-room dwellings accommodated families of over four persons. Schools working double sessions became the norm rather than the exception.

Recognizing its inability to meet the shelter needs of the population, the government, by Law 29 of 1966 legalized subdivisions and buildings in contravention with existing codes and proceeded to introduce utilities to these areas in accordance with priorities and budget limitations.

This law established the precedent which allowed the informal sector to flourish, feeling as secure as the formal sector, and uncontrolled settlements now cover much of the urban area. While the impact of the law in terms of providing housing for low income people is positive, its effect on the ability to enforce future developmental regulations and building codes is, at best, debatable.



Typical lot layout of an urban informal settlement. Normally the structures are built on a zero lot line arrangement. Commercial space normally occurs on the lower floors.

TYPICAL LOT LAYOUT OF INFORMAL DEVELOPMENT



C. Land and Utilities

1. Availability of Land

The 1977 report of the joint team on land policy provides an in-depth look at land questions. However, the joint housing team considered some general aspects of the problem in the selection of locations for demonstration projects.

The map on page 19 shows the historical development of Cairo, and the map on page 69 shows the current limits of the "urban sprawl" which has taken place at a rapid rate in recent years. Small rural villages near Cairo have been engulfed by informal settlements to the north, west and south of Cairo. Much of this encroachment has taken place on agricultural land. (See photo on page 22.)

Government policy is to restrict new development on agricultural land (north and west of Cairo) and promote new development on "desert land" to the northeast and southeast. For this reason, the demonstration projects are to be located in these areas (Helwan to the south and east and Ain Shams to the north and east).

Special land problems exist in Cairo because of the high densities. In discussing the old Cairo (Gamalia) demonstration project a key factor in its feasibility was the potential availability of government owned land and Awqaf land, and residential buildings which could be made available for construction of new apartments and rehabilitation. The following section provides more information on this important aspect of the land problem in old Cairo.

2. The Awqaf Lands

The land tenure system in Egypt is deeply rooted in Islamic and Ottoman traditions. Foremost among these inherited institutions is the Awqaf, originally a form of charitable endowments which evolved during the Medieval period.

Land could be designated as Waqf for the support of public facilities such as mosques, schools, hospitals, public drinking fountains, etc.--the capital was given to God (Mawquf Li Allah) and, hence, could neither be alienated nor repossessed and subdivided among heirs. The revenues provided first for the upkeep of the public facilities and the balance went to beneficiaries. The system soon evolved into a means of preserving property in perpetuity for heirs. Token shares were dedicated to charitable endowments, a necessary expedient to set up the Waqf.

With the advent of modernization starting in the 1800's, the state gradually took over the public service functions of the Awqaf. Line ministries were established to provide Education, Public Health, Public Works, etc. Even the maintenance of the historic buildings which were Medieval Waqfs was transferred to the Department of Antiquities.

Paradoxically, the Waqf revenues were not transferred to the public treasury. A special ministry was set up to administer Waqf property and although it did continue to build and maintain mosques, and until lately some schools, its public service functions were by and large over.

The abolition and liquidation of the Waqfs in the 1950's brought about the subdivision of the Waqf property among beneficiaries. Consequently, the Waqf Ministry became the holder of vast properties, particularly in the urban areas. A general organization for Awqaf was established for the purpose of administering these lands.

The significance of the Awqaf as a key factor in urban development is highlighted by the fact that some of the most valuable urban lands in Egypt are Waqf lands. It is estimated that the Awqaf currently hold 50,000 Feddans of vacant land within municipal boundaries. Table III-10 shows the vacant lots owned by Awqaf in Cairo Governorate.

It is worth noting that total ownership vacant and built-up in Medieval Cairo amounts to almost half the area involved. Centuries of property immobilization has resulted in deterioration and decay as revenues were diverted to other uses. Any development scheme which involves housing rehabilitation, street widening, establishment of community facilities and open spaces in the older areas will have to be closely coordinated with the Waqf authorities.

The activities of the Awqaf in the housing sector have been rather limited, mostly subdivision and building of middle and upper income housing. Yet the mounting demand on urban land and the growing housing shortage are creating great pressure to put these vast resources to better use in the provision of public facilities and services, including housing in low-income areas.



3. Public Utilities

a. Introduction

One of the most critical areas of concern to the joint housing team, in addition to the improvement and increase of housing stock, is the availability and quality of public utilities. This section will attempt to describe the overall utility situation in Cairo in some detail, and give general ideas on accessibility of utilities in other areas of the nation. The section dealing with the recommended areas for possible development/redevelopment will address the specific problems at a local level in those particular locations.

In general, it can be stated that the availability of adequate sanitary sewers is the largest single technical obstacle to new housing development in most areas in the country, and especially in the Greater Cairo and Alexandria areas.

receiving a discharge of 110,000 m³ per day by 1969. This system serves the districts of Giza, Embaba, and Dokki, in addition to four Cairo districts: El Sayeda Zeinab, Old Cairo, El Maadi and El Khalifa.

The Helwan system serves one of the faster growing areas of the region, and has received some attention from the government. A new system is under design for this area at present. Although the existing system is adequate for the town of Helwan, the new growth due to the industrial development in this area, as well as the inefficiency of the treatment plant, causes frequent back-ups at the site. Also, many of the semi-rural settlements around Helwan are not connected to the system.

d. Alexandria Sewerage System

Although numerically not as serious as Cairo, the Alexandria system is also overtaxed and in need of expansion to meet the growing demands, particularly in light of the planned expansion of the industrial areas of the city, particularly in southern Nouzha, Seyouf, Abu Kir and El Ras El Sauda.

The Alexandria sewer problem is exacerbated by the present methods of discharge. Untreated industrial sewage is presently being discharged into Lake Mariut and into the Mediterranean, creating potential health problems. Also, there is the danger of impacting tourism--one of the most important industries for the city.

e. Water Distribution System

Egypt's historic dependence on the Nile River for its water needs is well known. The extensive canal system developed over the centuries for irrigation purposes attests to this dependence, as well as the Egyptian ingenuity in maximizing the yield of this important resource. More recently, the construction of the Aswan High Dam has substantially increased the yield by regulating the water flow and eliminating floods. However, the rapid growth of Cairo and Alexandria has increased the demand for potable water beyond the capacity of the existing system. In Cairo and Alexandria the filtration plants are operating at up to 40% over capacity in order to partially meet this demand. The government has been increasing the capacity of filtration plants despite unexpected treatment difficulties apparently caused by the regulation of the Nile. Also, the government has been developing groundwater sources in order to supplement the surface water supplies. There is in operation in some parts of Cairo and Alexandria a non-potable water supply to furnish water for private and public lawns and gardens. However, residents in areas not served by the system use potable water for gardening purposes, thus placing an additional burden on the potable water supply system.

The MOHR is currently conducting several important studies to quantify the problem, make projections, and design new wastewater and water supply systems. The Master Plan of Greater Cairo and Alexandria waterworks and Final Design of Immediate Phase projects, both being financed

with USAID funds, are expected to be completed by the end of 1978. Also, several wastewater studies are under way both in Cairo and Alexandria. Both the potable water and wastewater studies are basing their projections to the year 2000.

The following statistics, based on preliminary releases of the 1976 census, give the reader an idea of the general availability of filtered water in Egypt (see Statistical Appendix, Table III-3).

- 1) 69.2% of the urban population has either individual or common filtered water supply, either in the dwelling or in the structure; 12.3% do not have supply close by.
- 2) Only 5.5% of the rural population has filtered water either in the house or in the structure; 58.2% have access to a common supply near their house, and 26.3% have no supply near the house.

The services vary considerably from area to area even in the same Governorate. In Cairo, a comparison between two of the areas recommended by the Joint Housing Team for development shows this disparity; in the Al Gamalia area of Medieval Cairo, where we recommend an urban upgrading/construction program 77% of the units have individual water supply, 15% have supplies within the structure, and only 8% have their water supply outside the structure. By comparison, in the Helwan district, only 44% of the units have domestic potable water, 36% of the units have to use a common supply outside of the building, and 5% have no supply nearby.

f. Utilities in the Rural Areas

There are no sewerage systems in most rural villages of Egypt. The GOE has been studying the best way to service the rural settlements. Potable water is available to \pm 65% of the rural population as a result of a water purification plant program started in 1938 in the Fayoum Governorate. The Governorates typically build small filter plants in villages where underground water is not available. The rural houses do not have water due to lack of a drainage system and the danger of structural damage caused by water in houses which are built typically of mud or mud brick with minimum foundations.

Normally there is a public spigot located in the center of the village. In some villages the governorate has also built public baths and washroom units.

Many rural villages do not have electricity. In those that do, the power is used initially for water pumps and lighting of public spaces but typically not for domestic lighting. According to the preliminary results of the 1976 census, only 18.6% of the rural households had electricity.

D. Residential Construction Process

1. The Informal Sector

The informal sector accounts for over half the current construction activity. Yet there is little available documentation on this important component of the housing market.

a. Securing the Land

The informal sector is most active along the urban periphery where vacant land is readily available.

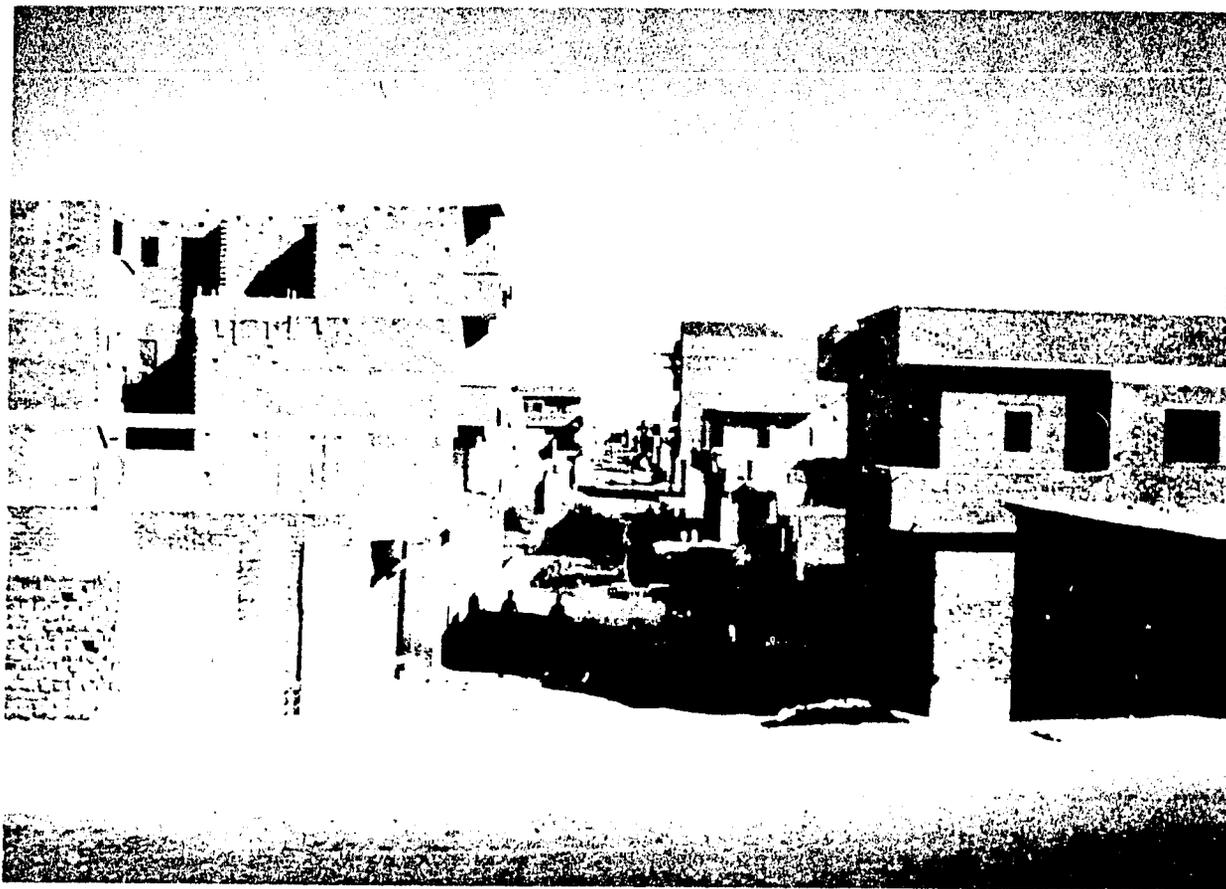
Private owners find it quite lucrative to subdivide their land in contravention with existing regulations. A typical private subdivision is shown on Diagram 1. On the average, lot sizes are about 80 m². Rarely do they exceed 120 m² or fall below 65 m². See photo page 36.

Prices vary between LE 5 and LE 15/m². Where access to water and electricity is possible or visibly forthcoming in the near future, prices are never less than LE 10/m². This is the case in both Helwan and Ain Shams where, in well established informal developments, land currently sells for LE 10-12/m². In the outer fringe areas, where there are no utilities and little hope of being serviced over the next eight to ten years, land currently sells for LE 4-5/m².

A convenient alternative to buying is found through squatting on government land with the hope of ultimately obtaining title, if not evicted during 15 years. Uncontrolled urban expansion on desert land, which is government owned, falls in this category. Where uncontrolled settlements grew, land value doubled in less than a decade. Agricultural land, which is easier to develop than desert, experienced even greater increases in value. For illustrative purposes, current land values in selected uncontrolled growth areas are given below:

Masara	7 - 8
Hadaiq Helwan	10 - 12
Zahret Helwan	8 - 12
Ain Shams	8 - 15
Mataria	5 - 8
Boulaq Al Dakroul	15 - 20
Al Ahram	20 - 30

In recent years, squatters on government land have been relatively secure. The major problem with land arises from the laxity in the laws governing the registration of titles. Land can change hands any number of times with only a civil contract, whereby the buyer pays the seller an amount equivalent to his equity and assumes the responsibility for the payment of due installments. Lack of official registration of the successive changes in ownership has created confused situations and



Construction in the informal sector accounts for over half of the current construction activities. It should be noted that the information presented on the informal construction projects is based on a limited number of cases in the Greater Cairo Area and therefore cannot be generalized. It is presented to provide a preliminary picture of an important sector of the housing market for which existing documentation is sorely lacking. Specifically, the figures given are based on divergent contractor and client statements as well as on the team's own estimates of real costs. As such, they should only be regarded as indicative of an order of magnitude most probably subject to substantial geographic variability. More accurate findings will have to await extensive surveys in various target areas.

endless litigations. Numerous persons who bought plots from other private parties without adequate verification of title could end up having to face eviction or paying the rightful owner(s) the compensation due to them in accordance with court rulings.

b. Constructing the Houses

There are two types of construction activities going on in the informal settlement areas:

(1) Larger structures, three- to five-story walk-ups, built by local entrepreneurs, for the most part contractors. They buy or otherwise gain control of the larger lots fronting on the main streets early in the development process when land is still quite cheap. They can then hold onto these choice locations until such time as the settlement has grown to the point when demand pressure has become a self-generating process and provision with utilities a matter of laying out a few pipes and wires. It is then time to erect the apartment building and to start collecting rental income. Because of the various methods used to circumvent rent control laws, this type of investment can prove very lucrative--witness the proliferation of such buildings along the main streets of informal settlements in the major urban areas.

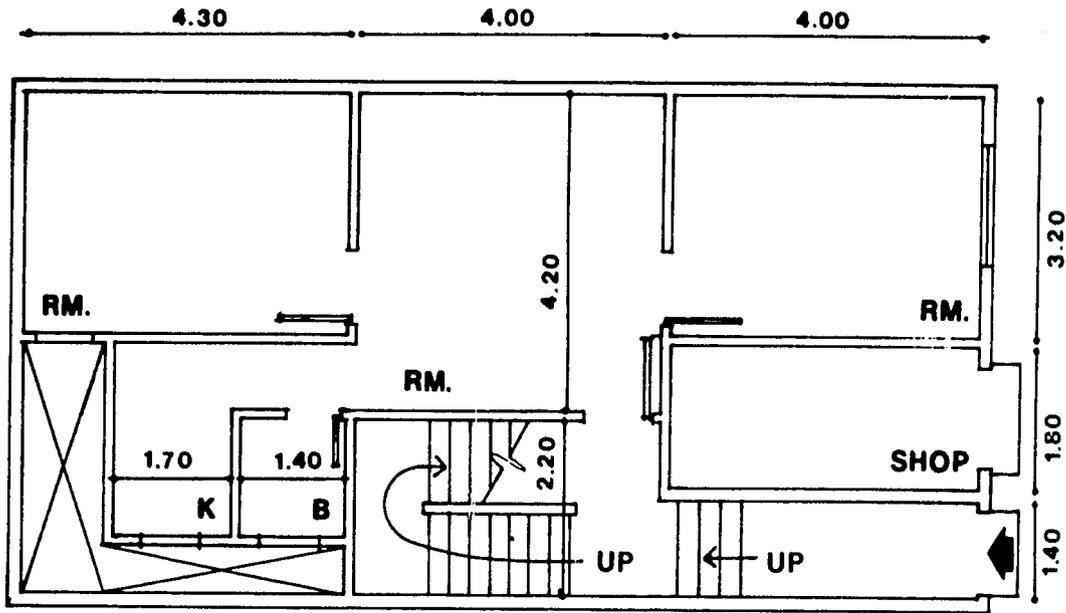
These entrepreneurial activities should not be ignored, since they do make significant contributions to the existing housing stock in specific areas.

(2) Smaller structures, two- to three stories, at various stages of completion, built by individuals for their own shelter need. Although rental income can be, and often is, generated at later stages through vertical and/or horizontal expansion, the primary purpose is to provide housing for the individual and his family. It is this type of development that is of major concern in this study. As such, an important segment of the study team's research focused on this sector.

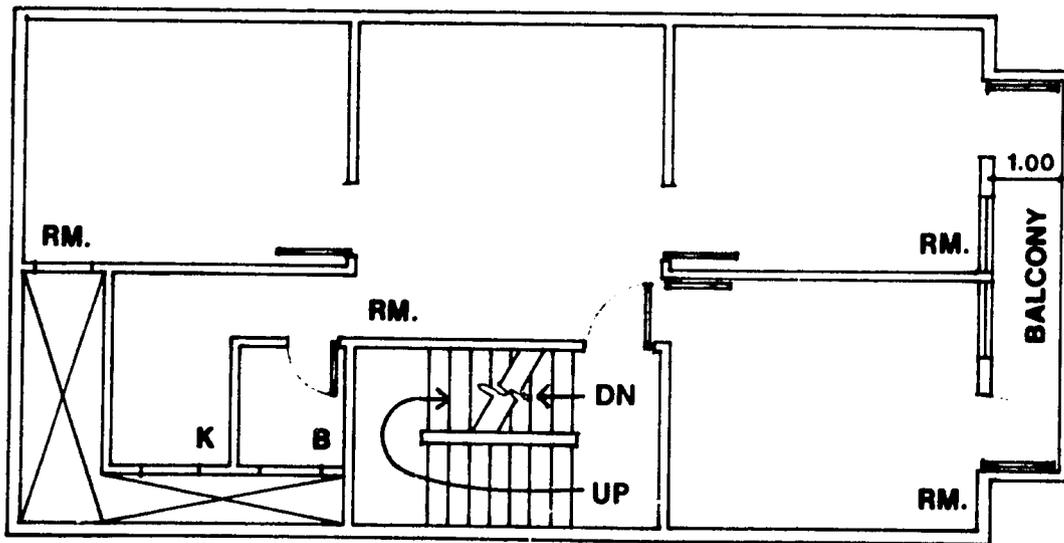
The method of construction is as follows:

(1) First, an agreement is made with a local mason to build the masonry shell for two or three rooms, a cooking area, and a bathroom. The foundations for the load-bearing walls are ordinary concrete made from cement and old brick pieces. For the walls, new bricks are bought or sometimes old bricks salvaged from demolitions. In general, bricks are brought by loads of 3,000, which is sufficient for one room and its dependencies and would require a mason two days to build. At prevailing prices, the total investment would be on the order of LE 100-200, according to the number of rooms erected in this first stage.

(2) While putting up walls is a relatively simple proposition in terms of skill and expense, roofing is another matter. To cover an area of 60 m² with a reinforced concrete roof, homeowners are charged LE 400-500 by local contractors. Yet, as far as unit price goes, they are offered an attractive bid, being charged LE 35-40/m³ instead of LE 50-55, the rate in the formal private sector.



1ST FLOOR



TYPICAL FLOOR

TYPICAL PLAN,
INFORMAL CONSTRUCTION SECTOR



It is obvious, then, that structural standards have to suffer. Steel reinforcement does not exceed 40 kg/m³. The reinforcement bars are reused material salvaged from demolitions and often rusty from open air storage. Furthermore, unscrupulous contractors may cheat on the depth of beams and on the volume of concrete actually poured.

Because of the magnitude of the investment involved, reinforced concrete roofs are often delayed for one or two years and alternative roofing systems adopted in the interim. These temporary systems rely on wood joists covered with a variety of materials: Palm, straw mats, canvas, and asbestos panels. The latter have become very popular lately, particularly in the Helwan areas, most probably due to the proximity to the Sigwart plant. Roofing 60 m² by this method costs between LE 60 and 70. Given the Egyptian climate, it is not surprising that reinforced concrete roofs are hardly ever poured before the homeowner is ready to add a second floor to his structure. Similarly, the new story will have a temporary roof until such time as a third floor is added. This vertical expansion usually occurs at a rate of an additional story every two years.

Most dwellings built in this manner can hardly go above three stories. Greater heights would require a reinforced concrete skeleton which few can afford and only the more enterprising owners venture to use it.

(3) The finishing of the dwelling is the only field where the owner really has much choice. Typically, he opts for the cheapest solution. The outside of the structure is left unplastered, and the inside is given a brown coat and whitewashed. Stairs are made from stone and concrete slabs, and flooring is in lower grade cement tiles. Plumbing fixtures consist of a water closet and a sink of cast terrazzo which sell for LE 0.5 to 1.0 each.

(4) Connection to utilities varies according to the location of the settlement. Generally, electricity can be secured in all but the very remote fringe areas.

Water connection to a nearby main is provided by local contractors at a cost of LE 70 to 110, depending on the length of the connection. Asbestos pipes are commonly used. In most uncontrolled growth zones, there are still no public sewers close by. As a result, the drainage system relies on cesspools which are not pumped out as often as they should be.

Waste water pipes are glazed clay pipes, sometimes chipped and wrapped in jute. Cesspools are built of limestone and red brick. The system is provided by local contractors at a cost of about LE 100.

A typical house plan is shown on page 27.

c. Financing the Dwelling

Two methods of financing are available to the prospective homeowner in an uncontrolled growth zone: the accumulation of savings,

and the credit offered by local landowners and contractors.

Torn between their own income limitations and the cost of credit, homeowners usually resort to both methods according to need, urgency, and the total expenditure involved. The cost of the average 60-80 m² dwelling is about LE 1500-2500, itemized as follows:

Land	LE 500 - 900
Structure	200 - 400
Roofing	400 - 500
Utilities	200 - 400
Flooring and finishes*	200 - 300

It is apparent that few owners can finance the whole house out of savings, unless it is built in stages over an extended period of time.

For those who need to complete any part of it urgently, as for instance, when a son is getting married and needs a dwelling, financing is available for each item independently.

Landowners normally require a 20-25% downpayment on the lot and extend monthly installments of LE 5-10 as necessary over five to six years, with a proportionate adjustment in the total to be reimbursed, so that an effective interest rate of about 12% per annum is actually being charged.

The building itself, including temporary roofing, is usually carried out in stages--a room and dependencies first, then additional rooms, one or two at a time, each stage being paid for in cash from savings. A certain amount of self-help is feasible in completing interior finishes.

Next to land, the reinforced concrete roof is the major investment that a homeowner has to contemplate. Contractors offer financing under the following terms: 20-25% downpayment and installments of LE 10 per month over a maximum of four to five years.

Since 50% of the cost to the contractor--including labor--is actually covered by the downpayment, the installments have to cover the remainder of the cost: overhead, profit, interest, and risk. If an allowance of 20% is made for overhead and profit, then the effective interest rate charged is on the order of 20-25% per year. The larger the amount to be financed, the lower the rate.

Even in the case of utilities, local contractors offer financing requiring a 25% downpayment and installments of LE 4-5 per month over 12 to 18 months at an effective rate of interest close to 30% per year.

It is thus apparent that LE 450-550 is the minimum seed capital needed to allow prospective homeowners to enter the informal housing market. Given prevailing earning capacities, this represents about one year's income, implying savings that have to be accumulated over a period of 5-10 years.

*exclusive of doors and windows

Homeowners who have recourse to financing seem to plan their housing expenditure so as to carry an average of LE 15 in monthly installments, which is a sizeable sum of money, even when there is more than one wage earner in the family. Default is rare. However, the time frame of five years is usually stretched to close to six as installments due on feast months and school month opening are skipped and rescheduled.

It is not surprising, then, to find many homeowners eager to rent a room in their dwellings for LE 2-3 per month. If they are fortunate enough to front on a main street, they can rent a room as a shop for LE 5 per month; then, as soon as they manage to add a second floor, they start earning income by renting apartments for LE 6-10 per month, depending on location, size, and facilities.

Although theoretically subject to rent control, evasion is the rule, rather than the exception. Owners could not economically rent for less than LE 3 per room, while rent regulation committees would fix rent at LE 3-4 per apartment.

At any rate, given the housing shortage, tenants in uncontrolled settlements expect to pay both key money and unregulated rents.* Unofficially, they might complain bitterly about their unfortunate situation, but hardly ever report it to the authorities.

d. Building Materials

As stated earlier, the informal sector utilizes a mix of building materials, relying as much as possible on used or recycled materials which are cheaper and easier to obtain. This is particularly the case with steel reinforcement and wood for doors and windows, which are invariably secured from demolition and salvaging contractors.

To a certain extent, old bricks are commonly utilized by the lowest income groups as well as for fencing. Brick chippings are widely used in concrete mixes for floors and foundations for load-bearing walls. However, for the superstructure, all those who can afford to, prefer to buy new bricks. Since the price of red bricks is not regulated by government, it is set by supply and demand factors. In the past six months, the price has gone from LE 17/thousand bricks to LE 21.

Stone, quarried from the Mokattam hills, is popular in uncontrolled settlements stretching along its foothills.

Cement, however, is another matter altogether. It is controlled by government in terms of both distribution and price. Allocations are made in accordance with the magnitude of the project, as stated in the building permit, and disbursed on a monthly basis over the construction period, payable in advance and currently delivered four to six months late. This raises the question as to the means by which the informal sector can procure the enormous quantities of cement needed to sustain the growth of uncontrolled settlements at the rate at which they have been expanding in recent years. This issue has not been satisfactorily solved. However, it

*Given rents of LE 3 per room, key money ranges from LD 50-200. In public housing, which rents for LE 1 per room, key money varies between LE 150-300.

seems that the most reasonable explanation is that official allocations of ten tons of cement per LE 1,000 construction were excessive--except for some types of projects, so that the excess could profitably be diverted to the informal sector, sustaining a thriving black market. The MOHR is presently considering a recalculation according to the area of construction instead of the per square meter costs. It is estimated that one or two tons of cement could be set aside and resold from the official allocation for an average low-cost dwelling unit.

If this is indeed a factor, then it is to be expected that, as the gap between official and real construction costs widens, the excess supply of cement to the formal sector will decline. Consequently, the price on the black market will increase. Thus, the current record price of LE 60 per ton might be attributed to:

- absolute shortage at the national level, leading to the need to import 20-30% of total cement requirements. This adds to the demand in the informal sector by forcing private builders to buy from the black market to avoid undue delays and sell their own allocations whenever these are finally delivered.

- the slowdown in the activities of the local formal housing sector.

- the growing discrepancy between official and real construction costs in housing.

The combined effect of the latter two factors would be to decrease the supply available to the informal sector.

2. Formal Sector

The Egyptian building industry has been traditionally labor-intensive, self-sufficient, and as reflected in its many monuments, capable of producing work requiring high levels of skill and craftsmanship. However, in the past decade, the industry had a series of domestic and international forces, primarily the 1967 War, the war of attrition of the following 6 years, and the 1973 War, which diverted the national resources to war and defense related efforts. In the pre-war 5-year period between 1960-61 and 1965-66, the value of net output of the construction sector, at constant factor prices, grew from LE 44.2 million to 94.9 million, an increase of over 100%. In 1973, it was estimated to be only LE 113.4 million, a 19% increase over a 7-year period.

a. Reconstruction and Development Goals

The government's present aims are directed at a fast economic recovery and growth through a massive reconstruction and development program. This program has five goals, as follow:

(1) Rapid recovery from the physical damages sustained in the Suez Canal region during the 1967 and 1973 wars.

(2) The diversion of population settlements from the crowded cities of Cairo and Alexandria, the arrest of encroachment of urban growth into agricultural lands by developments in the Suez Canal area, the coastal zones of the western and eastern deserts, the Sinai Peninsula, and the development of up to five satellite cities around Cairo.

(3) The development of massive desert land reclamation projects for agro-industrial operations.

(4) The upgrading of the long-neglected infrastructure system, particularly in the cities of Cairo and Alexandria.

(5) The development of the construction industry, through industrialization of the building sector and development of the construction materials industry to meet the increasing demands of the domestic market, and eventually to produce surplus material for export.

The fifth goal is an acknowledgment by the government of the enormous demands which the other goals will have on the construction industry, and the present inability of the industry to meet those demands.

b. Factors Affecting the Construction Industry

This chapter attempts to define some of the more salient elements of the industry at the present time, particularly as is related to housing production. It will briefly reemphasize some of the issues identified in the 1976 Joint Housing Team report and update some of the information, particularly in the areas of construction costs.

(1) Labor

The labor problems in the construction industry are both quantitative and qualitative. The industry has historically been labor-intensive due to both economic forces and government policies directed at maintaining a low level of unemployment, particularly among rural migrants to urban areas. In recent years, there have been three factors which have created a serious shortage of skilled and semi-skilled workers in the industry: the availability of higher paying jobs in neighboring oil rich Arab countries; the breakdown of the traditional apprenticeship system; and the new educational opportunities which develop expectations of higher wages and easier work among the youth.

The GOE has embarked on a five-year training plan which is expected to yield 50,000 trainees annually from 65 training centers in the different Governorates. The program is being organized by the Supreme Committee for Training, organized by MOHR, under Decree #146 of 1974, and a total investment of more than LE 45 million is expected by 1980. However, the demands on the labor market, both domestically and foreign, are expected to continue at an increasing pace, and additional efforts both by the private and public sector will be required. In addition to the training program, the GOE has also directed their resources at industrializing the construction industry in an effort to make it less dependent on skilled labor. In 1975 contracts were signed with ten industrialized housing firms from France, Switzerland, Denmark and East and West Germany to install their systems in Egypt.

Although the above facts contrast with the rather high unemployment rate in the country, it must be kept in mind that the percentage of the labor force engaged in the construction industry is quite low (around 4%), as compared to the traditional main source of employment-agriculture.

(2) Construction Materials

Egypt's production of building materials has traditionally been sufficient to meet most of its domestic demand, with the exception of lumber. Egypt produces cement, gypsum, marble and limestone, bricks, glass, some reinforcing steel, and timber, china/porcelain products, and cement-asbestos pipes and boards.

The production of building materials is primarily by the public sector under the direction of the General Egyptian Organization for Building Materials and Ceramics, which supervises and regulates the



Egypt's building construction industry is labor-intensive in both its formal and informal sectors. The photograph above shows a construction site where one of Cairo's largest hotels is building a major expansion. The construction crew is in the process of excavating manually for the foundation. The excess dirt is removed in baskets carried by the workers.

production, the prices and the allocation of all nationally produced building products. (See the 1976 Joint Housing Team report for further details on problems related to the regulation of building materials.) The private sector is concentrated in the production of red bricks, lime and marble, cement tiles, and baked clay products.

The red brick is the primary building material in the country. It has traditionally been produced by a number of small factories located along the banks of the Nile. The raw material for the red brick is the mud which was deposited annually on the river banks and agricultural land during the flood months. Since the building of the Aswan High Dam, this yearly siltation process does not occur; thus any clay removed from land results in the reduction of fertility of the scarce agricultural land. As a result, the government has taken two actions: the issue of a ministerial decree prohibiting the use of red clay bricks in Cairo and its adjacent governorates and establishment of new projects for the production of sand bricks and desert clay bricks.

Whereas the private sector has a capacity to produce between 700 and 1000 million bricks per year, the first sand brick factory in Nasr City has the capacity of 200 million sand, lime and cellular concrete bricks per year.⁵ The second factory, under construction in the Qena area, will have a capacity of 170 million bricks per year. The third one, to be located in the Abbassia area will have also an annual capacity of 170 million bricks, and will primarily serve the reconstruction program in the Suez Canal and Sinai.

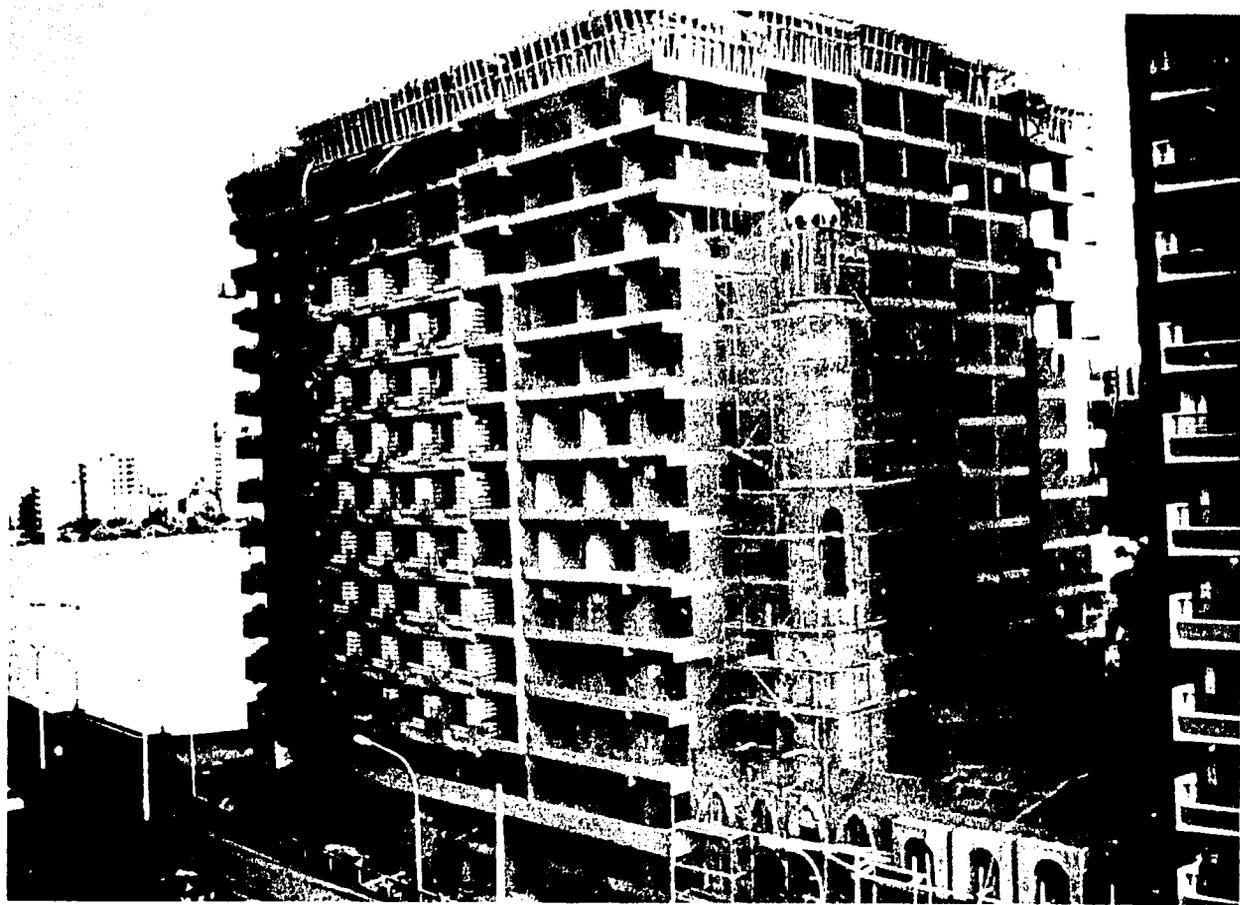
It is expected that the production of red brick will be stopped by 1982. By that year, the production capacity of the industry will be around one billion sand or clay bricks, but the expected demand will be up to 2.8 billion bricks per year. The production of clay shale brick, and the modernization of the existing private red brick factories to produce clay shale or sand brick will cut down this deficit.

The production of cement is primarily by the public sector, with a capacity of production of just over 3.35 million tons/year. In 1975, about one million tons of cement had to be imported on account of the heavy reconstruction activities. Cement consumption in 1976 was approximately 4.5 million tons. By 1981 the demand is anticipated to be 7.8 million tons, and by 1984, 10 million tons, according to a feasibility study conducted under AID sponsorship.

In order to meet the anticipated increase in demand, the GOE has started an eight-year (1974-1982) development plan oriented at increasing the production capacity of the industry, by expanding the existing four cement companies and establishing five new plants in Assiut, Suez, Maadi, Alexandria, and Nagah Hammedi. The total capacity of the industry by that time is expected to be 10.5 million tons/year. Egypt has very adequate deposits of limestone and clay to meet the new levels of production.

The country is also expanding the production of manufactured cement and cement asbestos products, such as sheets, pipes,

5. MOHR - Program of Reconstruction and Development, March 1977



The typical construction system for middle- and upper-income housing by the formal construction sector is reflected in this luxury apartment building presently under construction along the Nile. The structure is a poured-in-place reinforced concrete frame. The walls are non-bearing brick in-fills.

tiles, plates, concrete light poles, and prestressed sleepers used in railways. Also, as mentioned earlier, Egypt is embarking on an industrialized housing program which will be producing pre-cast cement walls and slabs as the main structural components.

The following table gives the MOHR's expected demand on cement/cement asbestos components for the period of 1976-82:

Year	Asbestos Cement Products 1000 tons	Concrete Products 1000 tons	Clay Pipes 1000 tons	Railway Sleepers 1000 pcs.	Cement Tiles 1000 m ³
1976	134	68.4	32	159.8	5319
1977	162	82.2	36	190.3	6283
1978	197	100.3	41	230.-	7535
1979	233	118.6	45	296.6	8787
1980	266	134.8	51	305.-	9914
1981	308	154.8	56	349.-	11291
1982	347	176.-	62	396.-	12752

The present total capacity of the combined industries is 63,000 tons per annum, which reflects a serious deficit unless new production levels are reached. The new expansion projects will raise the production of the industry by twice the present production capacity, to 126,000 tons, but as can be seen from the above table, this is inadequate for the present demands.

In general, the problems afflicting the building materials industry continue to be those of shortage and of the regulatory mechanisms. The continued activity in the black market acknowledges both of these problems. Table IV-1 of the Statistical Appendix illustrates the increase in cost of some of those materials in the past year. At present the most inflationary of the building materials is the red brick which is increasing in cost at close to LE 1/thousand per month, due to the increasing shortage of the material.



Public housing construction is also mainly concrete frame with brick or block in-fills. The above project shows two public housing buildings in different stages of construction: The one in the foreground being painted, and the one in the background still showing scaffolding used for the external plaster work.



New construction and upgrading of existing structures is but one of the many components of the proposed demonstration projects. The joint team proposed a multi-disciplinary and multi-sectoral approach directed at the strengthening of the neighborhoods through improvements in the areas of health, education, employment, social programs and others.

V. DEMONSTRATION PROJECTS

A. Need for New Approaches

The sheer arithmetic of the housing problem in Egypt, as in most countries, indicates the need for new approaches to helping low-income families improve their shelter situation. Governments simply don't have the resources to build new standard housing units for all those in need.

In search of better ways to use the resources that are available, many governments are now taking a closer look at the positive aspects of the unauthorized self-help construction taking place in marginal areas. It is recognized that many of the houses constructed by families in marginal areas without outside help do meet the minimum standards of their occupants. Even the worst shack of scrap lumber and tin represents some investment of money and labor on the part of its owners and provides some shelter. The total number of dwelling units produced in this way far surpasses those produced by government housing programs. In several countries, programs are now being developed which seek to capitalize on the initiative of these families in trying to solve their own housing problems. Priorities are shifting from the construction of traditional standard housing with relatively high standards, serving only a few, to programs of encouraging and controlling the private construction efforts of families living in marginal areas. There is also a growing interest in site-and-service programs to prevent the development of new uncontrolled settlements.

There is a feeling that government efforts should be concentrated on things that cannot be done by private individuals and groups, such as land acquisition, overall planning and control, provision of community services, assistance in providing credit for housing and encouragement of job training and job-producing activities.

The demonstration projects described in this chapter would allow testing of a number of ideas developed by the joint teams. The informal construction process described in Chapter IV-D is already making an important contribution in housing thousands of low and middle income Egyptians. The demonstration upgrading projects would seek to control and improve this process which already involves a maximum self-help effort by the residents and requires a minimum input of government financial and technical resources.

The new community project in the Helwan area would demonstrate techniques for the construction of new housing designed to fit the economic capacity of lower income families while allowing for gradual expansion and improvement over time, and as their incomes increase.

The upgrading project in old (Gamalia) Cairo could lead to a city-wide rehabilitation program in the future. The purpose would be to demonstrate that the upgrading process is a better approach to problem solving in older areas of Cairo than the demolition and reconstruction approach. The upgrading process should retain and enhance the positive, traditional character of the area while correcting the negative aspects, such as overcrowding, deterioration, congestion and poor sanitation.

Following is a listing of various components which should be considered for inclusion in the demonstration projects. All components would probably not be included in all projects, but each would be considered. During the project design phase each area would be studied in detail to determine real needs and priorities of the residents. Cost estimates would be prepared, and time phased implementation plans would be developed.

B. Project Components

1. Social and Economic

It has been mentioned elsewhere in this report that investment in housing should be integrated with other development activities. The goal should be the creation of an environment wherein men and women can best help themselves widen their range of opportunities for their advancement. To gain this potential for self-determination, people need the basic foundation of good health, practical skills for which there is a demand, and the opportunity for participation in decisions which affect their lives. The following, then, are a number of components which should be part of an urban development program, in addition to housing and infrastructure dealt with elsewhere. These are mentioned here as suggested areas for elaboration in the demonstration project.

2. The Neighborhood

In much of the literature on urban conditions in Egypt, there is reference to the neighborhood as the key unit around which planning and development should take place. The neighborhood is especially important for women, who are typically very home-based in the Egyptian culture, and for migrants into the city. One observer stated that after the family the neighborhood was the "most important informal social institution for migrants in the city".⁶ Another writer on Egypt's cities calls neighborhoods the "division most crucial to a healthy city".⁷ This latter writer gave the ideal neighborhood the following characteristics: It

"...is well defined on all sides by arterial streets or by other physical barriers, none of which penetrate the area;
- has a population small enough to promote close interaction, yet large enough to support needed daily services for about 5 to 10 thousand inhabitants;

This joint team is of the opinion that the neighborhood concept should be reinforced in areas to be upgraded and in areas planned for new housing.

⁶ Janet Abu Jughod, "Migrant Adjustment to City Life; The Egyptian Case", *American Journal of Sociology*, 67 (July 1961), p. 27.

⁷ Ministry of Housing and Reconstruction, Advisory Committee for Reconstruction, The Planning of Sadat City, Status Report 1, Preliminary Investigation, Sept. 1976, pp. 5-6.

3. Health

Two of the goals in the Egyptian Government's health plan are to attack endemic diseases -including bilharziasis (schistosomiasis), and nutritional and gastrointestinal diseases and the control of communicable diseases. Two ways to help meet these goals are the provision of infrastructure and the reduction of density through the construction of new housing. Another complementary approach to the health problem is the creation or, where present, the improvement of health centers.

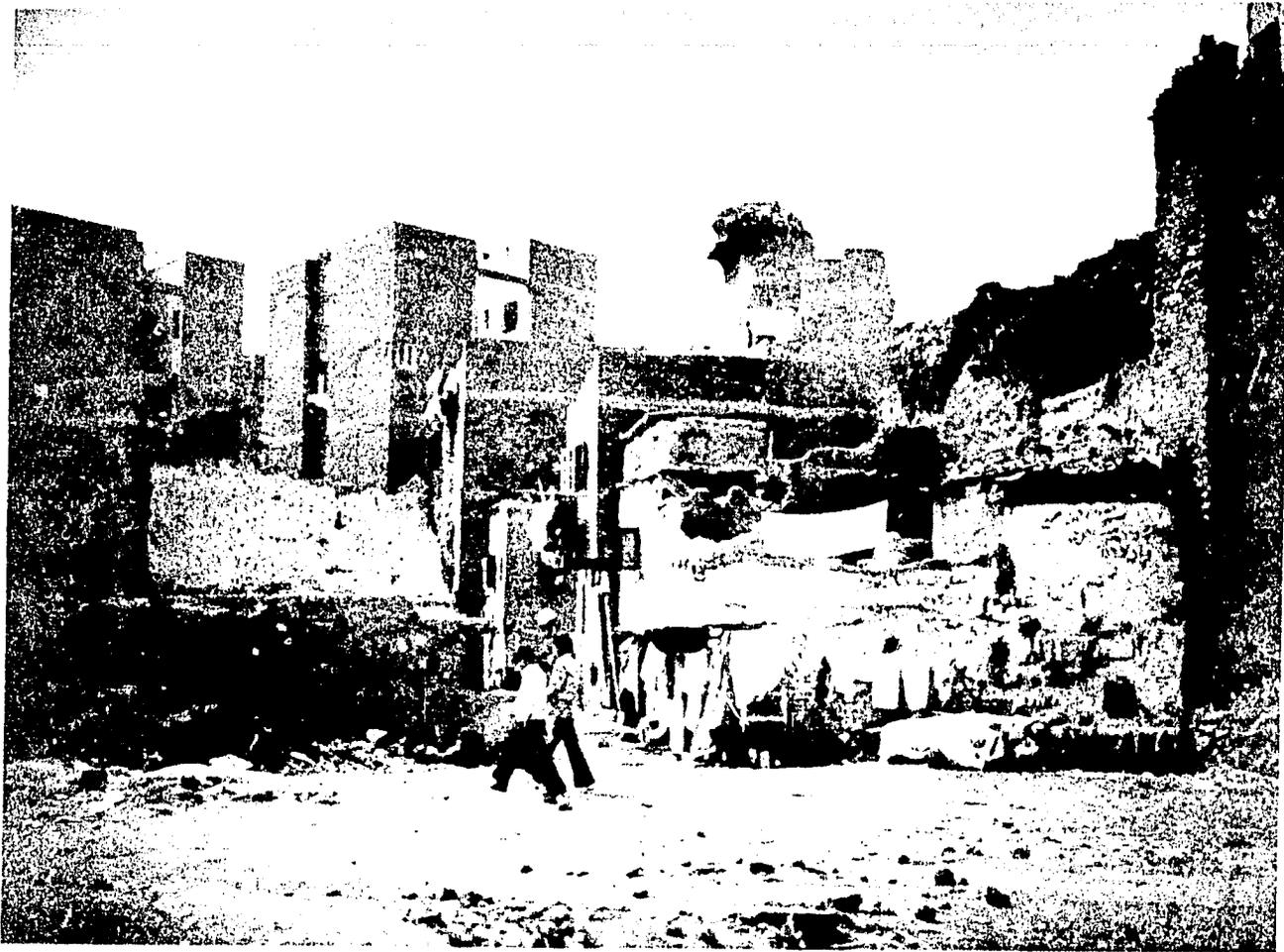
At present, there are major areas of Cairo that are without medical services of any kind, or are very inadequately serviced. This is true for two of the areas selected as sites for projects, Al Gamalia and Ain Shams. The health centers that do exist are often lacking in personnel and do not perform any outreach into the homes or community associations of the poor. The demonstration projects should include multi-service health units which would incorporate family planning clinics, maternity-child care units, and day care centers along with the core health center. The attempt would be made to (a) train and utilize Paramedics from the community who could get out to persons in need, and (b) to institute an approach to health employing preventative over curative medicine. This might entail giving courses in preventative health and nutrition for mothers at the time they leave their children at the day care center or some other approach. Details of execution must be spelled out on the basis of further study.

4. Employment

As discussed in Section IV A., above, the problem of under-employment is serious in the urban areas of Egypt. At the same time there is a shortage of skilled workers and technicians which is compounded by the export of many trained Egyptians to nearby Arab countries. There is a need to increase the amount of training for the poor, especially at intermediate skill levels for which there are needs throughout the city (i.e., plumbers, electricians, masons, etc.).

Vocational training programs should be an integral part of every project recommended in this report. While the physical structure of these could be built as part of the MOHR demonstration program, the training itself would most likely fall within the purview of the Ministry of Industry. The kinds of training offered would vary according to the employment opportunities in each area.

In Al Gamalia, training would be oriented to existing commerce and small artisan production centers as well as to the rehabilitation/construction work planned for the area (which will require an expertise distinct from new building construction). The hypothesis is that development in Old Cairo will take place in an upward spiral-like process whereby an improvement in the area will increase tourism which will increase the demand for the locally-sold goods of the Bazaar and shops which will, in turn, create additional employment, and ultimately income, which will finance additional physical improvements in the area, attracting more tourists, and so on.



In this photo the need for physical improvement of residential structures in the informal settlement is obvious. There is also a need for improved employment opportunities, health services, schools, water, sewer, trash removal, and other community services.

In the two other areas of Cairo, Ain Shams and Helwan, and in the secondary cities of Minia and Qena, the training that is offered would be more oriented to factory, industrial demands than in Al Gamalia. Another boost to employment in these areas, which are recipients of large numbers of immigrants from town and country, might be to upgrade the job placement services traditionally offered by the village associations and other community groups by encouraging open flows of information between these organizations and the local employers.

5. Programs for Women

As has been indicated in other sections of this report, the educational level attained by women and their rate of participation on the labor force are far lower than for the men.* Granted that cultural forces underlie these statistics to some degree, there is presently a determination at the higher levels of the Egyptian Government to improve this situation. While no firm proposals may be made without further investigation, the team recommends a number of programs aimed particularly at bettering the social and economic conditions of the women who are now or will be residing in the project sites:

(1) Day care centers for mothers who work. These should not be mere deposits for children, but should offer pre-school education, perhaps with the help of "para-teachers" (girls who have graduated from intermediate high school) drawn from the community;

(2) training and credit for cottage industry which can utilize skills of women, such as sewing, embroidery and other handicrafts (now being supported by UNICEF);

(3) expansion of facilities for clerical and para-medical training for women, through universities where feasible;

(4) literacy training, which could be part of (2) above, and/or a separate activity carried out in community centers.

6. Credit

At present there are no major credit facilities accessible to the basic needs of the poor. Credit is needed for a wide range of goods from roofs for housing to major consumer durables and loans to small businesses. The prevalence of the gamiya, pooled group savings for minor financial outlays, demonstrates that credit is not alien to the way of life of the Egyptian poor. What is needed is some institutional mechanism whereby credit may be made accessible to poor families on a regular basis. One possibility would be to establish rotating loan funds to be run through community associations or the locally-elected Community Council. These funds would give small low-interest loans for the wide range of needs referred to above, using the interest for administrative costs and, if sufficient, works benefitting the entire community (e.g., improvement of recreational areas, library, purchase of sports equipment for community team, etc.). Another idea would be to establish community based cooperative

* 71% vs 43% illiteracy and 9% vs 53% economically active for women and men, respectively ('76 census).



New campus of Minia University under construction. Several Egyptian universities such as Minia are looking into ways of expanding their role into community development activities. Their potential as a development catalyst should be taken into consideration in any regional or sectoral development programs

credit unions. The objective would be to help strengthen the neighborhood, as recommended in Section V.B. 2., above.

7. The University and Community Development

Four of the five areas that have been identified for demonstration projects contain universities which are all potential catalysts for the development of the communities of which they are a part; Ain Shams University (in Ain Shams), Al-Azhar University (near Al Gamalia, in old Cairo), Helwan University (in Helwan), and Minia University (in Minia). Two of these institutions for higher learning, Minia and Helwan, have approached AID for support for their work in and for the poor population of Minia and Helwan.

Realizing that certain intrinsic difficulties exist between reconciling the goals of community development and higher education*, nevertheless the team recommends that to the degree possible, the services of the Universities, both as regards personnel and physical plant, be made available to the benefit of the communities where they are located. Specifically the idea of a sociocultural center at Helwan University which would provide vocational training for the people of the area to work in the many factories of Helwan and other community development activities and the broader-ranged goals of the University-community integration project at Minia are worthy of serious consideration. This catalytic developmental role of a university in a poor region such as Minia could be most important. The potential for the culturally-oriented Al Azhar University to contribute to the revitalization of a part of the most significant cultural center of the city, Fatamid Cairo, is especially worthy of exploration.

The Ministry of Local Government has demonstrated keen interest in pursuing the potential role of the university as a community developer. In coordination with the MOHR and the Ministry of Higher Education, this ministry would most likely have a key role in any decisions to be made in this area.

8. Community Participation

The more that the citizens of a community can help themselves and work together to realize common goals, the less need for government assistance and ultimately the more self-sustaining is any program of development. Whenever possible opportunities should be provided for the citizens of the proposed projects to participate in the decisions which affect them and their community.

The representative form of public administration of Egypt, operating through various levels of popular councils under the Ministry of Local Government, should be strengthened in whatever way possible. In addition, there are four other areas where we feel that citizen and community participation can be encouraged:

- a. The provision of social and economic services to the community. Much of the effect of the education and job-related activities

*Witness the experience of Ford Foundation Grant to Columbia University for work in Harlem in the late '60's.

proposed in section V.B.1., above would be to increase the beneficiaries' participation in the labor force. As people's earnings increase, they often gain self-confidence which may well lead to a greater desire to participate in community life.

b. Strengthening existing community institutions. Wherever local institutions exist, (see list, Attachments 3, 4, and 5), these should be reinforced with the assistance of technicians and social workers and the extension of credit for community-related programs. These institutions are natural meeting places where issues of common concern may be discussed.

c. Creation of new institutions. In addition to whatever institutions may exist in the community, there may be a need for introducing new organizations for special purposes such as production cooperatives, day-care centers, credit unions and housing cooperatives. In some countries successful multi-purpose cooperatives are offering citizens an opportunity to participate in a wide variety of communal activities, from the pooling of savings for credit needs to the construction of communal facilities.

d. Community organization. As mentioned in Section V.B.2., above, the team proposed reinforcing the role of the neighborhood as a central planning concept and a catalyst for citizen participation. This is not an imposed concept. On the contrary, as one observer of the Egyptian urban scene reports:

The neighborhood idea is no alien to Egypt, but is indeed indigenous. Originally based on the extended family unit, the concept of close neighborhood cooperation remains an important value in Egyptian society.⁸

The major need is for community workers to build upon this neighborhood tradition by encouraging citizens to join together to resolve common problems, which will vary from one community to another. In each of the projects proposed the team suggests community organizers be present to work with local institutions, assist in the effective provision of services, and in whatever other ways possible facilitate the process of popular participation.

9. Design and Construction Considerations

The 1976 joint report included a section on the potential to improve site planning and dwelling design and to reduce costs. The demonstration projects would test new techniques while also borrowing the best from traditional Egyptian design.

There are striking similarities between what are now considered the most up-to-date site planning approaches and traditional Egyptian neighborhood patterns. Older urban neighborhoods and rural villages grew naturally over many years with irregular street patterns, clustered high density housing, a variety of street widths and pedestrian walkways. Open spaces and courtyards were small and therefore often in the shade. Narrow

⁸ MOHR, "The Planning of Sadat City", op cit, p. 5

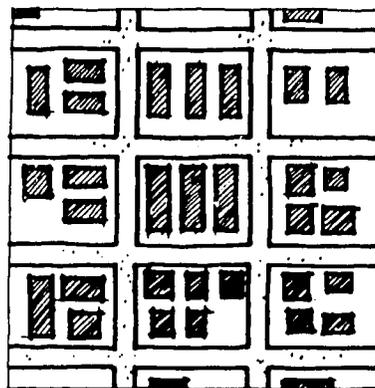
walkways led from main streets to individual dwellings restricting large vehicles and also created cool shady areas for neighbors to chat and small children to play close to their mother's doorway. This is still true in older areas and villages.

In contrast, many newer areas of residential construction have followed the "grid" system developed in western countries during the later part of the last century and the first part of the present century. The grid system was developed for convenience in laying out utilities, surveying and for slow moving light vehicular traffic. It was not designed to fit human needs, and it is now seen as obsolete in most countries.

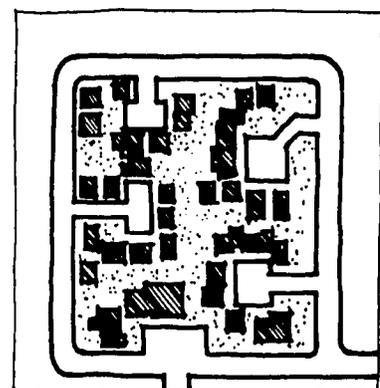
Instead, site planners around the world are returning to "clustered" high density dwellings grouped around usable outdoor open spaces. Vehicles are separated from pedestrians. Costs in this type of planning are 20% lower than the typical grid system, since street area is reduced and corresponding savings can be made in shorter utility lines.



**TYPICAL OLD
EGYPTIAN
NEIGHBORHOOD**



**GRID
SYSTEM**



**CLUSTER
PLANNING**



The Ministry of Housing and Reconstruction (MOHR) has produced thousands of new housing units for low and middle income Egyptians using a standard design approach (similar to that shown above). Recognizing the high cost per unit and the rigidity of this approach, the MOHR is now seeking new solutions which better fit Egyptian traditional life styles and climate.

Public housing, built by the public authorities, either national through the MOHR, or local, through housing authorities of the Governorates, is a relatively new housing form in Egypt. The government started sponsoring public housing projects in the early 1960's. Since then, it has become a salient feature in most urbanized areas. In the Cairo Governorate alone, the public housing construction between 1955 and 1975 has totalled 38,757 units. (See Table II-8, Statistical Appendix)

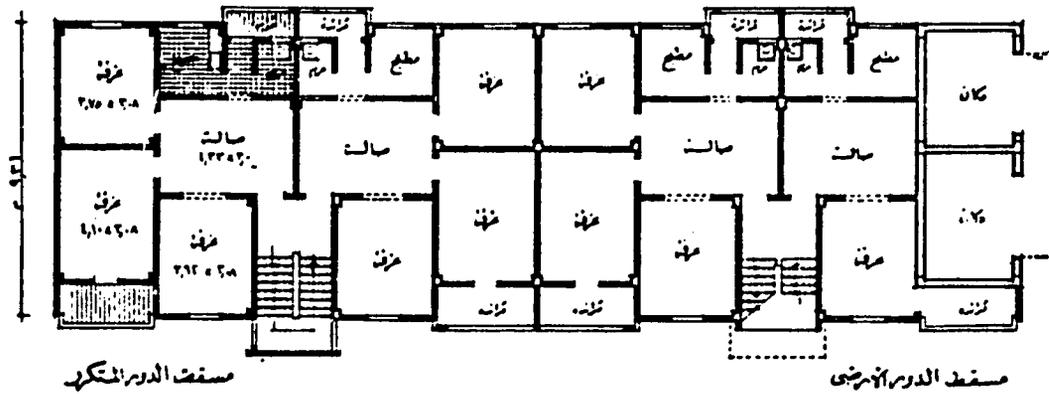
Public housing buildings are typically five-story walk-up structures built of poured-in-place reinforced concrete frames and slabs with brick or block in-fills. The buildings throughout the country are usually variations on a MOHR design developed in 1965. The local architect will make minor facade changes and may alter the building materials if there is a predominance or familiarity with other materials, such as stone, in the locality.

The units range in size from 28 to 80 m² and from one to four habitable rooms, plus kitchen and bathroom. In addition, they have either private or public balconies, or a combination of both. In the case where there is a public balcony, its primary purpose is to give access to the unit from the public stair. However, it supports many unit-tended activities, such as clothes washing/drying, children's play area, and normal social interaction between neighbors. Their typical width (1.20 m) is too narrow to support all these activities. In some cases, the residents of the units at the end of the hallways take possession of the hallway fronting their units and expand their living spaces by erecting walls in the public areas.

The residents of the ground floor units at times build chicken coops and other additions in front of their units. Animals are common in most units, even on upper floors, including chickens, ducks, pigeons, and even goats and occasionally a burro. In some cases, small shops built out of cardboard and other similar materials are attached to the ground level apartments.

All units have utilities and the ventilation/light standards are relatively high (8% of room area or a minimum of 1 m² in habitable rooms, and 10% or 5 M² in kitchen and bathrooms required by code). However, due to the inability of local authorities to maintain the units (because of the artificially low rent collected), the clogging of the sanitary drainage system is common, and when the WC of the lower units overflows from the discharges of the upper units, some residents break the exterior drainage pipes, causing raw sewage to discharge into the common ground. In those extreme cases, the appropriate authorities send repair crews to fix the broken pipes, but only after considerable human waste has discharged into the open spaces between buildings. According to MOHR officials, the fixing of potable water lines has higher priority than the repair of sanitary sewer lines due to the scarcity of water.

The inadequate site planning of public housing plus the lack of site development features such as walks, vegetation, play equipment, etc., make the spaces between buildings quite inhospitable, and they



نموذج ٦ معدل

Prototypical public housing projects. Design may vary slightly in different projects to account for local materials and minor design alterations. (Source: MOHR)

are seldom used by adults for other than the minimal pedestrian circulation and as a common depository of trash. Children's play often occurs here, but the condition of many of the spaces, due to the often present trash and at times raw sewage, creates serious health problems. The above conditions occur more often in Cairo, and to some extent in Alexandria, than in smaller towns.

There are exceptions, and several public housing projects in towns between Cairo and Minia have evidence of good maintenance, or perhaps of concern by the residents. Several had abundant vegetation in their surroundings. It is difficult to say whether this was a result of higher degree of maintenance by the locality, higher user satisfaction due to their smaller size, or other factors.

In all cases, many of the public housing projects are quite foreign to the visual environment of the Egyptian towns, and show no evidence of utilizing any of the rich design "vocabulary" evident in the traditional urbanized areas, from the somewhat primitive mud houses to the sophisticated Islamic structures. They follow the "international" non-descript, often dehumanizing style in government-sponsored low-income housing projects of many developing and developed countries.

In addition to absence of spatial hierarchies in the site planning and the aforementioned absence of traditional design elements many projects are built using a particular unit size, say three-room units, throughout the building, thus creating a homogeneous neighborhood with respect to family size. This tends to segregate young families from the older ones, contrary to Egyptian tradition where the fundamental social unit is the "clan" and the extended family.

The public housing neighborhoods are in many ways the reverse of the rural villages. The development of the Egyptian village follows an organic, sporadic process. Its form and size is dictated by human considerations and limitations. In comparison, the neighborhoods created by the construction of public housing projects are rigid, forced, and the physical environment is the product of non-human forces and criteria. It is a contrived environment in human terms. On the other hand, the public housing unit has the accessibility to utilities, as compared to the almost total absence of them in the villages.

From a design point of view, their main problem is primarily related to socio-cultural issues, some of which will be difficult, if not impossible to correct. On the other hand, the units unquestionably represent a significant improvement over the living conditions of the majority of the Egyptians, if socio-cultural considerations are excluded, and the production of such large quantities of units under the program acknowledges both the GOE's serious intent to solving Egypt's serious housing shortage and the Egyptians' ability to mobilize massive technical resources to solve the problem.

The housing team's recommendation with regard to the public housing program is primarily directed at future production, rather than

modifications to the existing stock. We believe that comparable densities can be achieved at comparable or lower costs/unit while retaining the elements of Egypt's residential architecture. A design-oriented study by several Egyptian and foreign firms with the purpose of developing more adequate housing prototypes should be sponsored by the MOHR. The end product of the several studies should be both a design manual and actual housing projects developed by the different participating firms. These studies should stress the importance of cultural heritage, social patterns, both at a family level and at a communal level, and climatological considerations, in addition to innovative materials, construction and development techniques. The MOHR should strive to find ways in which self-help techniques can be incorporated in the public housing program.

The raba'a is a form of urban, low-rent multifamily housing structure. It typically consists of a number of flats, containing one, two or three rooms, arranged around an open courtyard. The flats may front on a covered, or open, common passageway where many of the communal activities and social interaction occurs. In the older areas of Cairo, particularly in Medieval (Fatimid) section, the housing units are on the second, and sometimes third and fourth levels, of multi-story structures. The first level houses workshops, cafes, and similar small commercial/industrial establishments. In other urban areas outside of Cairo, the raba'as may be one-story structures of similar arrangements, devoid of commercial facilities.

Typically, the units of the raba'as do not have water or sewer service. There may be a common water tap which would have been paid by one of the residents, and accessible to all for a small fee. Otherwise, the residents have to walk to public water taps outside of the building. The raba'as have common latrines. Some of the more prosperous tenants and the owner-resident, if there is one, have both water and sanitary facilities in their units.

Cooking is done inside the unit. The stove is typically located in the first room outside of the open hallway. This room functions as living room, kitchen and bedroom. The rear room(s) is used as a bedroom, but due to the fact that it may be better furnished than the first (front) room, it is common to receive visitors there. If the unit is facing the harah (alleyway), the back room(s) had windows. If it is facing adjacent properties, it may not have windows, and the only ventilation would be from the front of the house.

The construction material varies according to the locality. In Medieval Cairo they were usually built of masonry with wood roof. In other localities they were built of mud brick, red clay brick, sand or cement blocks, or concrete.

As it could be anticipated, there seems to be an inverse relationship between family income and crowding: the lower the income, the higher the number of persons per room. The raba'as, being primarily a low-income housing form, are typically overcrowded. In a study conducted



in the town of Ismailia, the occupancy rate for rabaas is over four persons per room. Visits by the joint team seem to support this level of overcrowding in rabaas in Cairo.

Studies conducted by either individuals pursuing academic degrees, or institutions, primarily the National Institute for Social Research and Criminology and the Institute of Social Research of the American University in Cairo, indicate a pattern of high user satisfaction. The main elements of dissatisfaction are overcrowding and filth. The elements identified as positive are the strong sense of community location.

The families in the Cairo rabaas fall in the D and E categories of the income chart.

The rabaas represent a significant portion of the urban housing stock. The building design is centripetal in form (center-oriented) and thus generates a strong sense of community which in turn supports neighborhood stability and social interaction. This is particularly important among groups where family income levels are so low that communal sharing is a fundamental survival mechanism. In the Fatimid Cairo areas, some of the rabaas date back several centuries, and represent a valuable historic element of the city, many times visually, if not structurally integrated to important historic public structures, such as mosques, city walls, and sabils (public water taps typically housed in beautiful, usually unused Islamic structures).

We are including under this category the wikalas, which is a building similar in form and design to the rabaas, but originally intended to serve the transient merchants coming to Cairo to sell their merchandise. In its original function, the merchants would rent a space in the bottom floor to store and exhibit their goods, and rent an apartment in the floors above. In one of the most successful historic restoration projects carried out in Cairo, wikala el Ghairi, a wikala was converted into a series of workshops for young craftsmen training in the traditional Islamic crafts. Although not converted to housing, this particular building is an excellent example of the potential of this building type, both as multifamily housing structures and as important historic elements.

The problems associated with the existing rabaas are overcrowding, lack of utilities and/or deficient roofs and ventilation. In some cases, the overcrowding can be alleviated by expanding either vertically or horizontally, as shown on page 97. In the horizontal expansion, the original apartment would be expanded to the existing corridor, and a new corridor would be added parallel to the original building line. The central courtyard may be reduced by two to four meters. In the vertical expansion alternative, a new level could be added to the structure. It should be noted that in some cases the structures were originally higher than they are at present, and due to structural decay, they have been reduced to two levels.

In any restorative effort, it is strongly recommended that, in addition to the obvious objectives of structural soundness, ventilation,



Despite their present conditions due to lack of maintenance, the rabaas offer interesting possibilities for upgrading. They are normally well located and their residents express high degree of user-satisfaction. Many are close to important Islamic monuments (see sketch of rabaat on page).

fire protection, and other similar considerations of a building code nature, the restoration follows as much as possible the original design in terms of massing, detailing, arrangement of fenestration, and other design elements of Islamic tradition.

10. Evaluation

The demonstration projects described in this report are designed to illustrate approaches to the problems of urban poverty as regards shelter, infrastructure and related socio-economic amenities. By themselves, these projects would only make a small contribution given the magnitude of the problems, of the challenge, facing the Egyptian people. However, if lessons may be derived from these projects about methods of reaching the poor such that they may eventually help themselves improve their own situation, then the benefits of these projects will be felt by far larger numbers of people. One way to assure that learning does, in fact, take place is to conduct evaluations of each project.

The ultimate aim of the project evaluations should be whether and how the goal and objectives of each project are being met. Audiences for the evaluations should include the communities of the beneficiaries, the government agencies involved (MOHR, Ministries of Health, Education, Social Affairs, Municipalities, etc.), AID and other interested bilateral and multilateral funding agencies. The methodology to be followed would depend on the degree of interest in the funding agencies and may vary for each project. Ideally, a base-line survey would be done to assess social and economic conditions of the target population (beneficiaries) at the time of commencement of project execution. Key variables (health, employment, income, etc.) would be followed over time with surveys at regular intervals of perhaps 18 months. Specific housing-related items such as cost data, time of construction, repayment rates, etc., would be a part of a continuous, parallel monitoring activity. A third component of the learning exercise would focus on changes which take place within the executing agencies themselves re: re-organization, staffing pattern, budgetary needs, coordination with other agencies, and similar issues. Wherever possible, the local universities and research centers should be involved in the evaluations, both for their expertise in social sciences which may be utilized, and to give them an additional opportunity to blend their theory with on-going action programs in the hopes that all concerned will benefit.

Further elaboration of evaluations should come after site selection and project design.

C. Project Locations and Descriptions

1. Helwan Area Description

In the 1950's Helwan was still a winter resort area capitalizing on mineral water springs and dry climate. The major drive to industrialize Egypt drastically altered this tranquil character.

During the first Five Year Plan, 1960-1965, over 50% of new industrial investment was concentrated in Cairo and Alexandria to save on infrastructure costs. Greater Cairo was chosen as the location for the iron and steel plants and a large complex producing military equipment and durable goods.

The nature of these heavy industries and the prevailing north-west wind direction dictated their location to the South of the Cairo urban agglomeration. Helwan seemed an ideal location, since development in that area could occur on desert land. Furthermore it was one of the sites suggested in the 1956 Master Plan for the creation of industrial sub-centers. Based upon this decision, Helwan has become the major industrial area of Cairo.

It is not surprising, then, to note that some areas of Helwan suffer from serious pollution. The area Tourah-Masara is particularly bad because of the proximity to cement and asbestos plants.

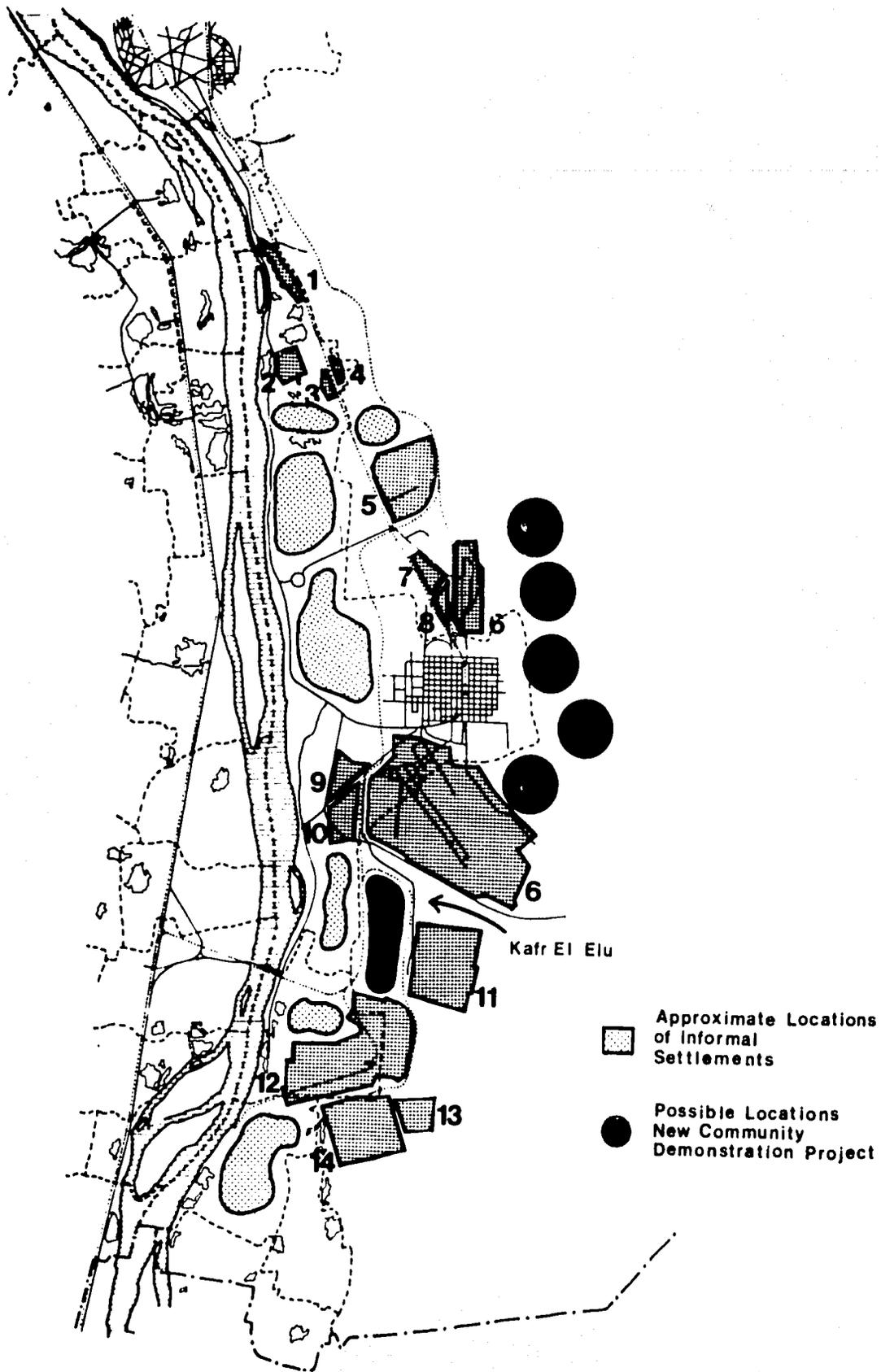
To alleviate the problem, new plants were located further to the South at Tibbin, at the very fringe of the municipal boundary. In addition, studies are under way to investigate the feasibility of alternative abatement measures.

The major industries in Helwan are shown on page 71, and listed below:

1. Tourah Portland Cement Co.
2. Masara Manufacturing Co.
3. Sigwart Co.
4. Tourah Cement Co. warehouses
5. Nasr Automobile Co.
6. The Egyptian General Organization for Factories
7. Nasr Co. for the manufacturing of pipes
8. Fertilizer plant
9. Egypt Co. for the manufacture of spinning and weaving equipment
10. Helway Portland Cement Co.
11. National Cement Co.
12. Egyptian Iron and Steel Co.
13. Nasr Co. for the manufacture of wrought iron works
14. Nasr Co. for the manufacture of coke and basic chemicals

As factories were built, work started on a workers' housing community, adjacent to old Helwan. However, the rate at which housing construction proceeded lagged far behind industrial expansion. Although 7,320 public housing units were built in Helwan proper and another 2,100 at Tibbin to the south; fewer than 50% of those working in the area managed to find living accommodations in them.

Consequently, close to 60,000 workers now commute daily from various districts of Cairo to Helwan, overloading the single rapid transit line to the point where passengers have to crouch on the roof of the cars during rush hours.



**LOCATION OF MAJOR INDUSTRIES
HELWAN AREA, 1977**



Another consequence was the growth of uncontrolled settlements which spread on almost any developable land, private and government owned. To provide for controlled growth, the Master Plan for Helwan calls for the development of four new communities which will provide more than 50,000 new dwelling units; one of the three new communities has already been planned in detail and is ready for construction. At the same time, the government wants to improve and upgrade the existing informal settlements.

Comparative statistics for Helwan are difficult to assess because of the changes introduced in the boundaries of quarters over the past decade as a result of population growth and movements which led to sub-division or aggregation as the case may be:

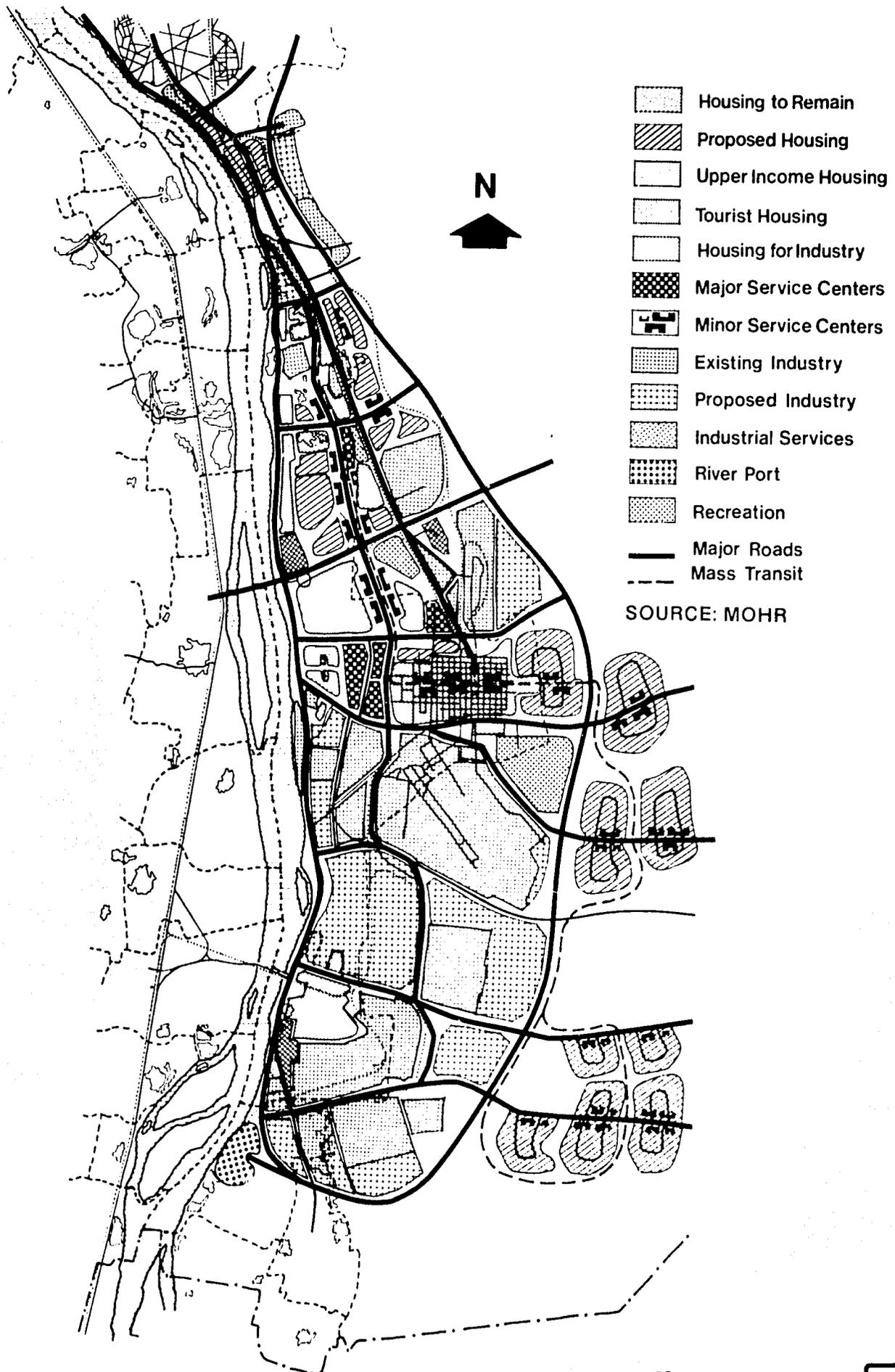
Helwan Quarters (Shiakhas)

1966	1976
Masara El Balad	El Masaratein
Masara El Mahata	Munshat Naser
Helwan El Balad	Helwan El Balad
North Helwan	El Ezbetein
South Helwan	El Masaken
East Helwan	East Helwan
West Helwan	West Helwan
Kafr El Elu	Kafr El Elu

However, it is apparent that as the pollution in the Tourah-Masara area increased, development activities, formal and informal, shifted to the South to Hadaiq Helwan, Zahret Helwan, and Exbet Sidqi. These areas, which were part of Helwan El Balad in 1966, now form a separate Shiakha: Munshat Nasser--sometimes also referred to as Manishiyat Nasser--not to be confused with the settlement bearing a similar name at the foot-hills of the Mokattam near the Citadel.

Similar to many recent developments, these areas comprise some middle income formal subdivisions along the transportation axis and lower income informal housing to the back. Expansion has been impressive and it is estimated that the number of households in the area more than doubled over the 1966-1976 decade. This development occurred at a time when the utility networks in Helwan were totally unable to absorb it. As a result, most dwellings are not sewerred and have to rely on cesspools if drainage is at all provided. However, less than 50% have access to filtered water in the structure where they live and about 10% do not have access to water supply close by and have to carry water to their homes in a variety of containers from the nearest public fountain. Close to 40% of the households still do not have electricity in their dwellings.

Yet conditions in this area are slightly better than in Kafr El Elu, stretching to the South between Helwan and Tibbin. This series of old Bedouin settlements on government desert land now house low income workers employed in the factories nearby. Here, houses are different from the typical informal settlements and still conserve the rural character.



HELWAN AREA MASTER PLAN



However, the change to brick and concrete is bound to occur in the near future. Forty percent of the households do not have electricity in their dwellings, 40% do not have a filtered water supply in the structure where they live, and another 15% do not have access to filtered water close by.

Although these conditions do not compare unfavorably with the uncontrolled settlements to the north, the relative isolation of Kafr El Elu and the lack of transportation services are a clear disadvantage and constitute major factors preventing the sprouting of informal developments. There are only two primary schools in the area and no other social or health service centers.

In the Hadaiq Helwan-Exbet Sidqi-Zahret Helwan zone, there are two primary schools, one preparatory school, a social center, and a private association. There are no health services, but transportation lines make access to the health unit in Masara and the hospital in Helwan easier than for the inhabitants of Kafr El Elu.

Following is a more detailed description of the Helwan communities of Kafr El Elu and Hadaiq-Helwan.

Kafr El Elu - Helwan

The community of Kafr El Elu on the outskirts of Helwan is populated by a group that calls itself the "Bedouins of Abou Beshir". They are one of five clans which have settled in this desert region and claim to have moved there from the Arabian peninsula around eighty years ago.

They have built their homes in this sandy and hilly region, out of baked mud brick which is produced locally. The houses look comparatively new due to the fact that they require rehabilitation every ten years. The one story dwellings have an inward turning quality and consist of small rooms built around a central usually uncovered space. Windows are small for the sake of the stability of the structure and to keep the heat out. The heat and dust of the streets discourage activity from being centered outside the doorways of the houses which are invariably kept closed.

Initially, the Bedouins of Abou Beshir worked as small scale farmers on nearby agricultural land which some of them still tend. Over the years, however, the majority has turned from agrarian to industrial occupations as these employment opportunities have increased in the Helwan area.

The community retains its clannishness and kinship ties are still strong. As a matter of tradition, marriages take place with only one or two of the other clans in the district since there is a strong preference for marrying the daughters into families with whom some association already exists. As is common in patriarchal societies, paternal family ties are closely identified with, and there is a strong distinction made between the "hassayeb" (paternal relatives) and the "nassayeb" (those merely related by marriage).

The people of Abou Beshir have a highly developed and frequently articulated sense of their own history and heritage. They refer to



Street scene in Kafr El Elu. The houses are built out of mud brick and many roofs are designed around an interior courtyard. They do not have private water or sewer service. The only source of water being a public tap for the entire community. The streets are unpaved and the only community service facility is a small mosque.

themselves as "Arabs" and wear their traditional costumes on festive occasions. Leadership has been handed down through the family of the original chief of the clan. The streets are named after members of that family and its descendants continue to play an influential role in the community. The form of political leadership has changed to accommodate national political institutions in which many of the traditional leaders participate.

It should be noted that the area settled by the Bedouins of Abou Beshir is no longer as homogenous as it once was, nor is it as insular as it once must have been. A third of the residents come from various parts of Egypt and are mainly factory workers. These were "invited" by their fellow-workers, the Bedouins, to live among them. They have bought rather than rented their homes from the original owners. The Bedouins expressed a strong preference for this arrangement for it kept the essential character of their community unchanged.

The women of the community maintain traditional Arab ways. Most occupy themselves with housekeeping and childbearing chores which include taking care of whatever livestock the family owns.

Over the years, the education of children has begun to receive more emphasis, although there is only one school in the immediate area. Secondary schools require transportation by bus or taxi at considerable daily expense. However, the people interviewed emphasized the importance of formal training to their children's future. A preference is given to the Azhari schools which combine both religious and formal forms of education. Young boys are also sent off to vocational schools run by the factories in Helwan. The community boasts four college graduates who still maintain an active interest and participation in community affairs. It should be observed, however, that while people stressed the importance of education and the need for more schools in the area, only an estimated third of the residents attempt to have their children complete their education beyond the compulsory level.

Religion plays an important role in the community. Some of the houses are decorated with scenes of the pilgrimage to Mecca to commemorate the owner's status as a "Hag" (pilgrim). The building and completion of a mosque was a focal community concern. More importantly, the need for having a water line linked to the mosque was stressed. The only available source of water is a public tap which is located at some distance from the cluster of homes. Providing the mosque with water would serve to make water accessible to the residents for their needs as well as making it available for the pre-prayer ablution rites.

Recreational facilities do not exist in the area. Some of the members of the community attempted to build a club but there was not enough interest in keeping it as a community recreational center. Social life, instead, is largely family-centered and revolves around the few feasts which are celebrated, or it may be occasioned by troops of travelling entertainers. For the men, however, there are the neighborhood "cafes" where they congregate.

What is most noticeable in a brief visit to this community is the manner in which its members have managed to provide themselves with housing that is attractive and suited to their needs using rather humble materials. Their lives still retain a "rural" quality to them in spite of the transition to industrial occupations. The area, however, lacks educational and health services as well as sanitation and water facilities. With the growth of the Helwan area and the need for housing for the workers, this settlement may eventually be absorbed by the town.

Hadaiq Helwan

Hadaiq Helwan is essentially a "dormitory" settlement located in the outlying desert region of Helwan. The land is physically quite similar to that settled by the Arabs of Abou Beshir in Kafr El Elu. However, the housing pattern is typical of the many "informal" or unorganized developments that have become a common part of Cairo's urban landscape. These sites are characterized by gradually constructed red brick units that start with a basic one story structure--usually not more than one or two rooms--covered by a makeshift roof.

Various types of dwelling units exist in Hadaqi Helwan, along with structures that can best be described as unfinished, but which are nevertheless occupied. In the particular neighborhood visited by team members there was an absence of buildings higher than one story and the housetops were covered by asbestos sheets or metal sheets.

Most dwelling units in the neighborhood lack basic utilities, though electricity is more prevalent than water and sewerage facilities.

A surprising proportion of the dwellings are rental units. Rent for a 2 room unit (roughly 40 m²) ranges from 3.5-5 L.E. per month.

The short supply of low-cost housing in Helwan has spurred the growth of Hadaiq Helwan over the past 10-15 years. For the factory workers the area's prime attractions are its proximity to Helwan, its accessibility to transport lines and the relatively cheap housing it offers. It has also drawn its share of rural migrants who have moved there to gain access to housing, and to employment opportunities nearby.

A majority of the male residents earns its livelihood as workers in Helwan--in factories, or in the lower echelons of the civil service, or in service occupations in the area. Thus commuting distances to and from work are manageable, not much longer than 15 minutes according to the respondents. The prime means of transportation are the train and bicycle. In this respect, the residents of Hadaiq Helwan are more fortunate than thousands of their fellow workers who daily crowd the commuter trains which run between Bab El Elu station in downtown Cairo and Helwan.

Reported average monthly income ranged between 15-20 L.E.'s among respondents' families where the wage earner worked in the factories or the civil service. More exhaustive social surveys indicate that this reported figure may under-represent actual income by a factor of as much as 2½.

The neighborhood is poorly serviced by consumer cooperatives which offer an inadequate supply of goods due to what seems to be a malfunctioning distribution system. A major complaint expressed by the women was the difficulty involved in shopping for food and other items since there are no markets within walking distance.

The rather limited income of the residents interviewed has not forced a significant proportion of the women to seek employment. Those that do undertake jobs usually work as domestics or as seamstresses. The others are prevented from joining the labor force by their lack of vocational skills and their childbearing responsibilities.*

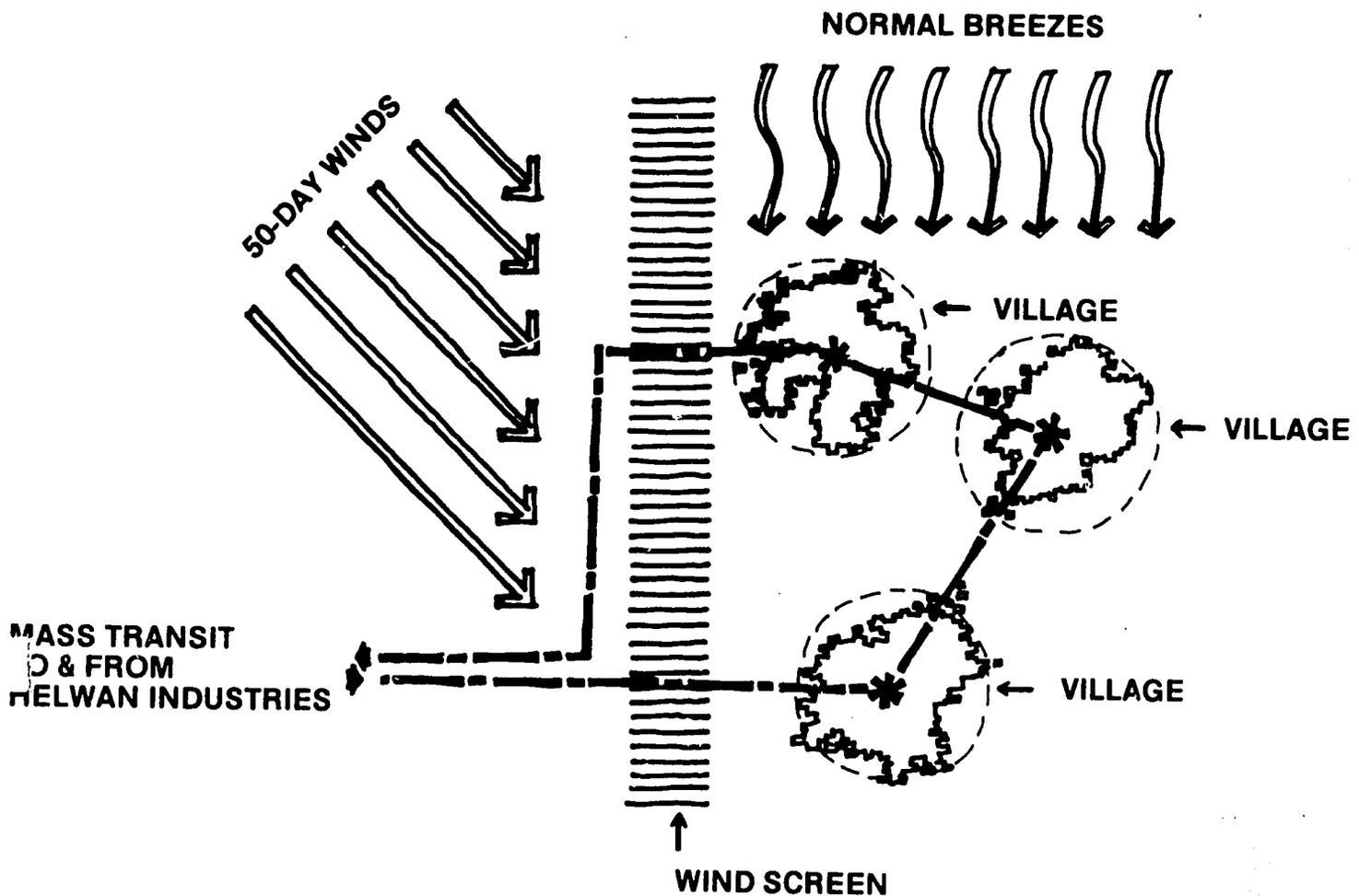
The homes are sparsely furnished and it is not uncommon to find that the sole item of furniture that the family possesses is a bed. In many instances, the furniture which is normally part of the bridal dowry is sold off to help pay for the house. Separate kitchen space is rare, as is separate washing space. The families (which average 7-8 members/household) tend to sleep, eat, cook, wash and receive guests in the one or two rooms which they occupy without there being much differentiation in the use of space.

Services of all types, apart from transport, in and out of the area, have not grown apace with the community, nor its needs. To a certain extent the residents have attempted to provide for their own needs whether in the form of a self-help process of building shelter, pooling resources for a playground, or assisting the more indigent members of their community. However, virtually unanimous concern was expressed over the lack of water and sewage facilities, health centers, adequate consumer cooperatives, and post-primary level schools in the area. The problem of access to intermediate and secondary schooling compounds the generally low level of education attainment among adults by perpetuating it among their children.

2. Helwan New Community Cooperative Demonstration Project

The master plan for Helwan includes the development of four new communities on desert land east of Helwan. (See map page 83.) One of the four areas could be used for a new community cooperative demonstration project which would provide homes for about 12,000 families. The purpose of this project would be to substantially add to the housing stock of the Helwan area for low and middle income families of industrial workers. It would reduce the strain on the transportation system from Cairo and the northern suburbs and would be designed in such a way as to demonstrate new approaches to responding to the needs and lifestyles of the inhabitants.

*The households visited may be unrepresentative in this respect, for roughly 10% of the industrial labor force is female, the majority of which are single women.



The "siting" of the new cooperative communities would take into account such elements as its relationship with main sources of employment, mass transportation, microclimatic considerations such as winds and breezes, sources of industrial pollution, and others. The new communities would be designed integrating modern site and architectural planning techniques with the successful traditional Islamic elements, developed over the centuries, which respond to the population, lifestyles and aspirations as well as local climatological and construction circumstances.

It would be developed in sections, and cooperative ownership would be encouraged as opposed to past rental projects with their inherent maintenance and administrative problems.

The communities would be virtually self-contained and self-sufficient, with the exception that the main sources of employment would be in the nearby Helwan industrial areas. The project would include market and commercial areas, schools, health centers with maternal and child care services, as well as family planning and nutritional programs. Vocational training programs would be developed in cooperation with existing programs operated by local industries and government. Sports and recreational areas would also be provided.

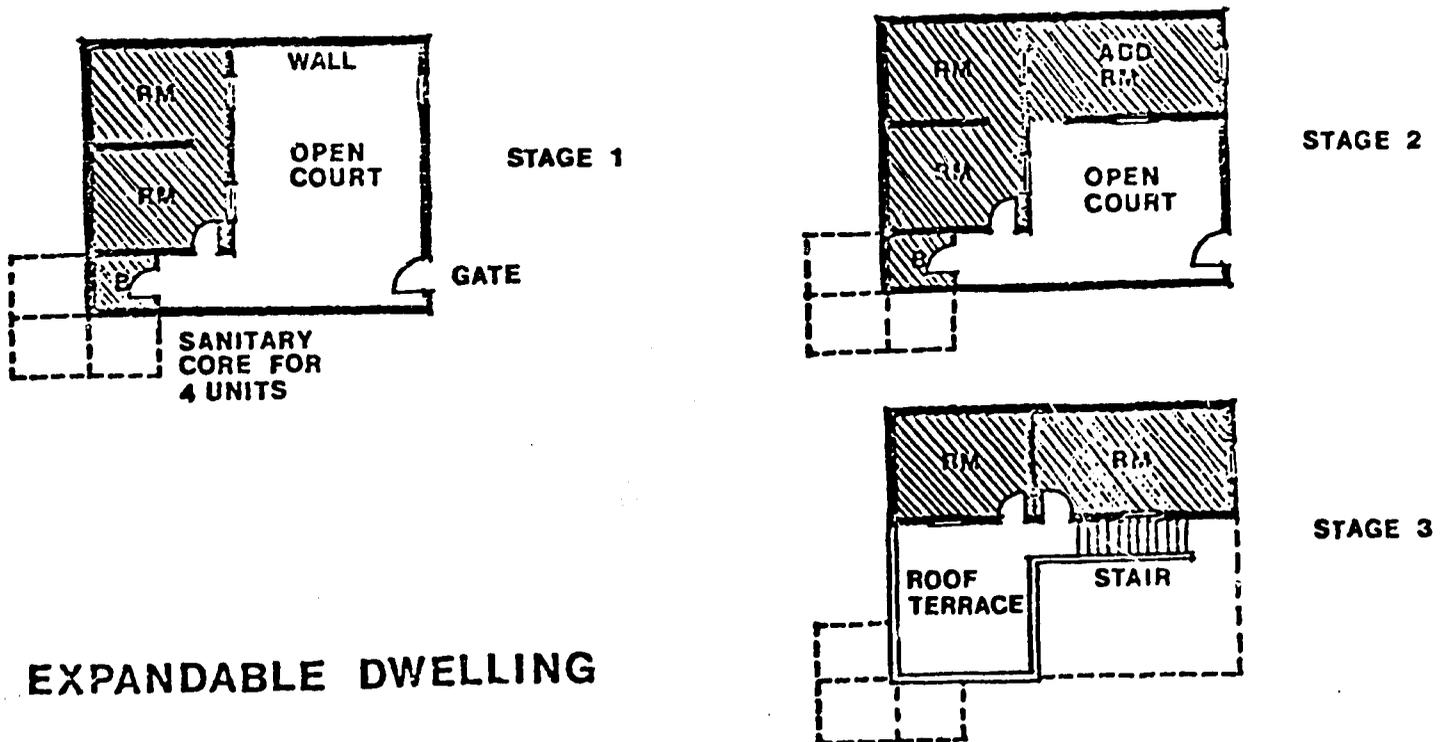
A "mix" of housing types would be developed with most designed for future expansion and improvement by the owners as their incomes increase in the future.

Community organizations and cooperatives would be encouraged to help the residents solve their own problems to the extent possible.

New forms of cooperative land tenure would be considered to help prevent speculation and to provide for better maintenance of open spaces and community facilities.

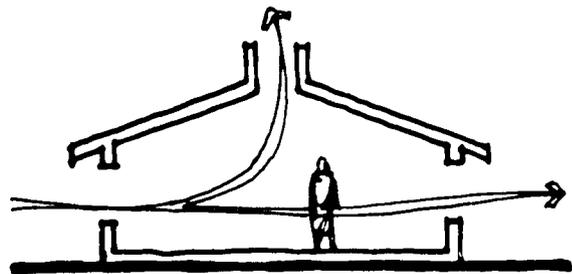
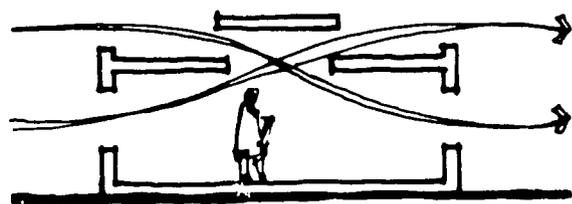
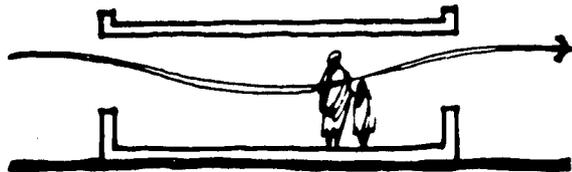
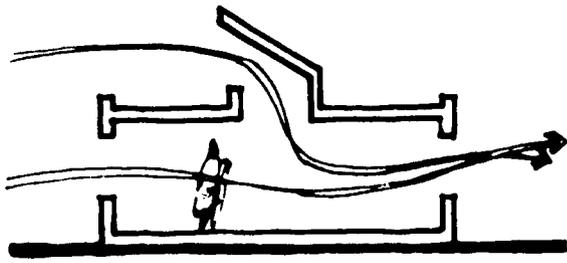
Community level savings/credit programs would be developed to help accumulate local capital and provide credit at reasonable rates.

The overall approach would be to provide these components in increments over a period of time as the residents indicate their priorities through their cooperatives and as they are able to make financial and other contributions to minimize subsidies.

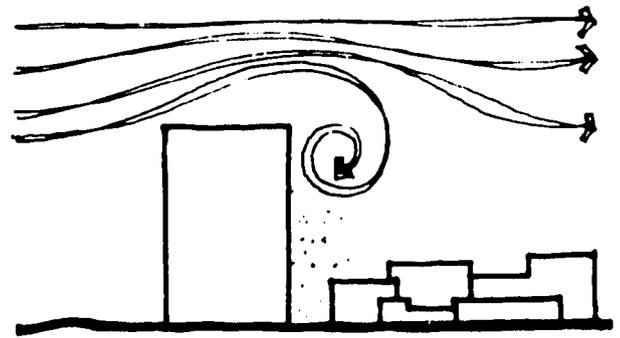


EXPANDABLE DWELLING

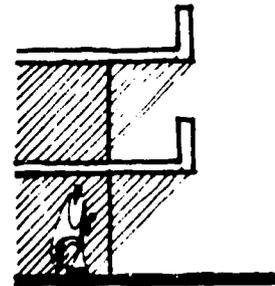
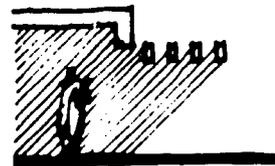
**2ND FLOOR
ADDED**



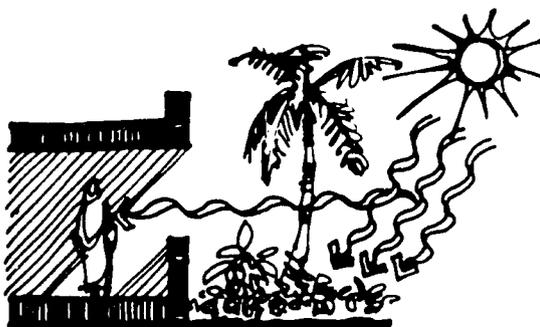
**USE DEVICES TO
BRING BREEZES
INSIDE THE HOUSES**



**AVOID BLOCKING BREEZES
WITH TALL BUILDINGS**



**USE SUN-SHADING
DEVICES**



**USE VEGETATION TO
SCREEN AND COOL AIR**

**CLIMATOLOGICAL CONSIDERATIONS
IN DESIGN OF HOUSING**



3. Helwan Upgrading Demonstration Project

Recognizing the need for improving the living conditions of the 283,000 people now living in the Helwan area, a demonstration community upgrading project is proposed which would include loans for home improvement and expansion, water and sewer services, and other community services such as schools, health centers, vocational training and adult education programs including family planning and nutrition.

A community of approximately 5,000 families within the Helwan area would be selected for detailed study and development. The purpose would be to develop new techniques which could be applied in similar areas on a national scale in the future. The component of the project would include the broad areas described above and mentioned previously in Chapter V.B.

The basic idea would be to help people do better what they are already trying to do without help and to provide those community-wide services which are normally provided by the government in other areas.

Main water, sewer and electric lines would be installed, allowing individual "hook-ups" on a pay-back basis as individual families request them. Home improvement loans would provide credit for adding interior sanitary services and water as well as "roof loans" and loans to add rooms.

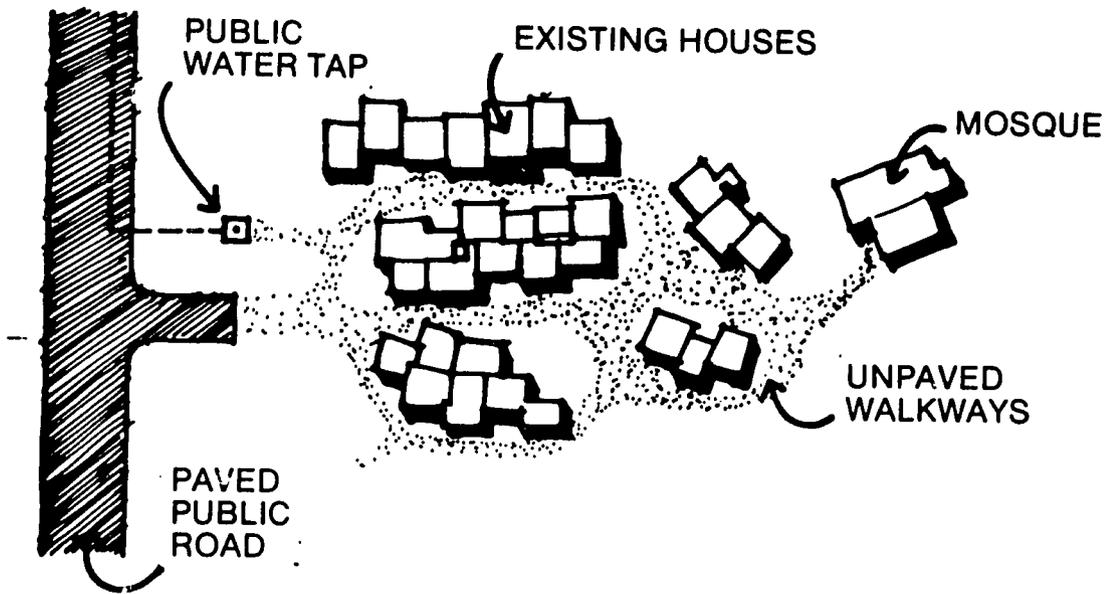
Community based savings and credit systems would be encouraged.

Assistance would be provided to organize cooperative community services such as day care centers, consumer and production cooperatives.

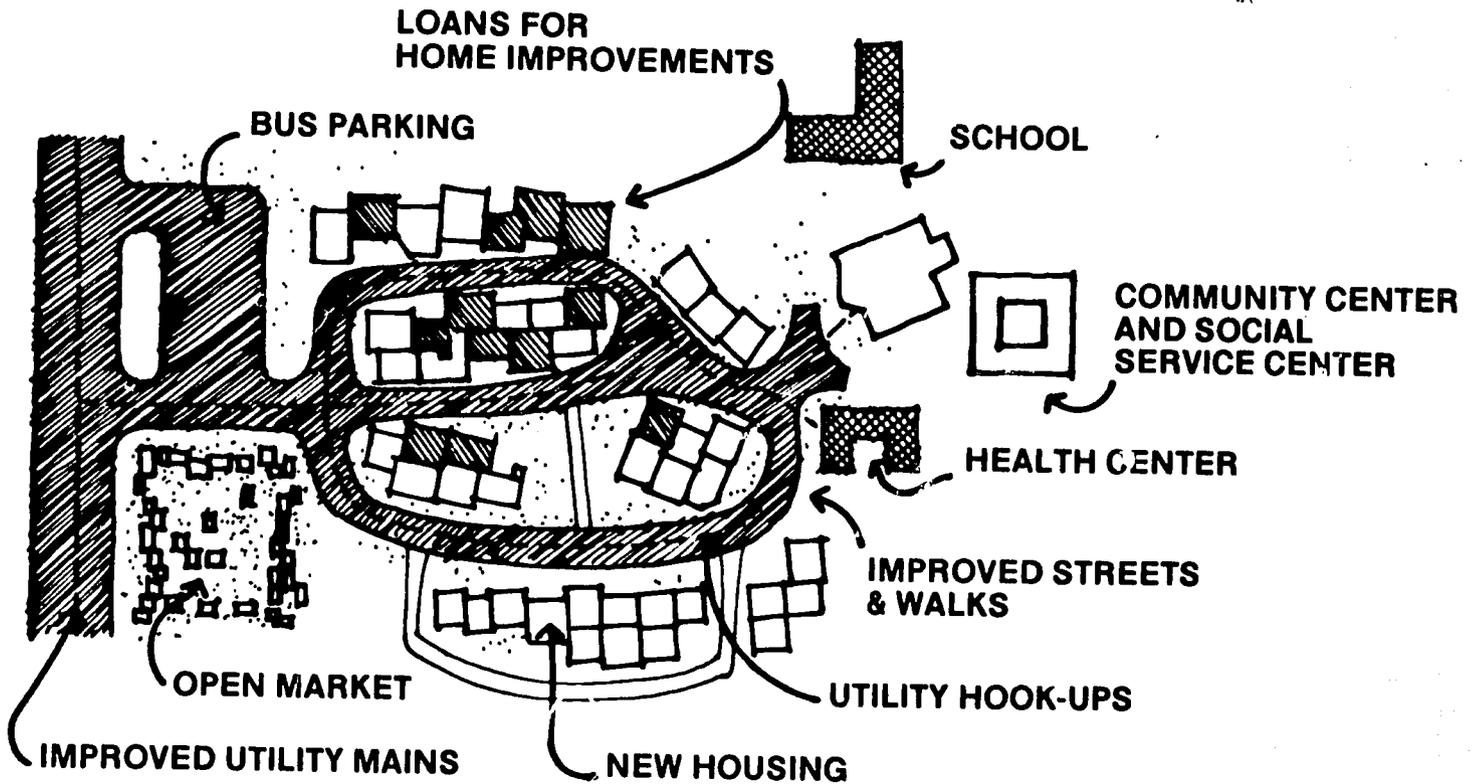
The total process of project development would include a built in evaluation system, allow for modification and improvements on the approach during implementation and documentation of the project, for future use of the techniques in other areas.

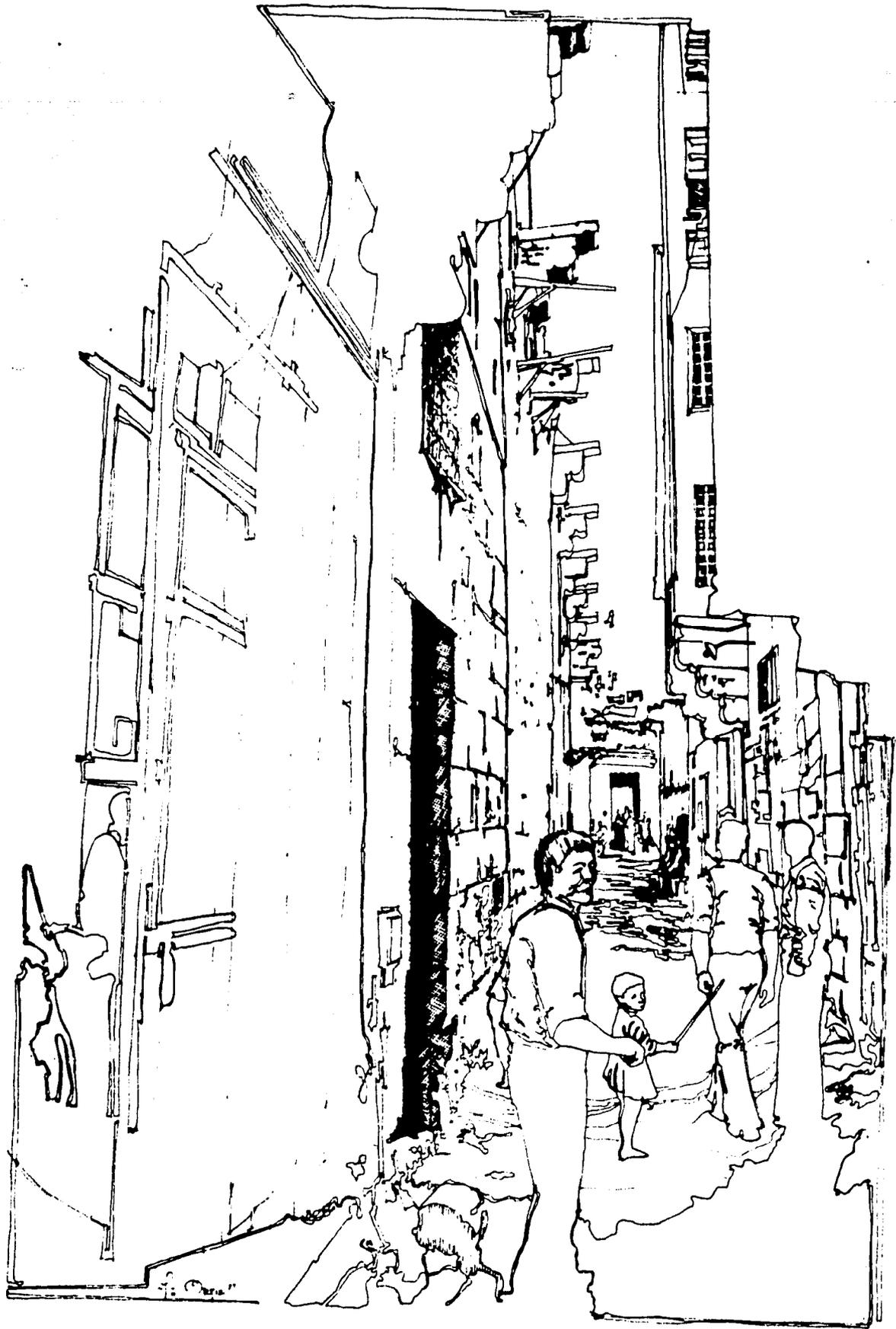
The diagram on the next page illustrates graphically the proposed improvements on a hypothetical community. The village layout and relationships is similar to that of Kafr El Elu.

TYPICAL VILLAGE/EXISTING CONDITIONS



ILLUSTRATIVE COMMUNITY IMPROVEMENTS





4. Medieval Cairo (Gamalia and Bab El Nasr Area Description)

Medieval Cairo is a unique area of the city which is unsurpassed in terms of historic significance. It encompasses some of the most beautiful monuments of the Islamic world. Social, cultural, and legal factors combined in preserving its urban fabric of winding streets and intermixed land uses. It offers all types of skilled crafts, popular commercial activities and touristic bazaars. (See photo page 87.)

Since 1960, official concern was voiced at the environmental deterioration which had affected that area. Special committees were set up to study possibilities for preservation, and rehabilitation of the area.

The Ministry of Housing and the Ministry of Culture were instrumental in preventing the implementation of a 1964 urban renewal project for the area. The major objections to the project--of which only the widening of the Mashad Al Husayni square was completed--were that the straightening and widening of the streets and the restructuring of spaces called for in the plan would in effect destroy the character of the area. Consequently a joint committee was established in 1967 to review and amend the proposed plan.

In 1969 the matter was referred to the Greater Cairo Planning Commission. The Commission carried out housing and socio-economic surveys in the area and came up with a series of recommendations. However, the stringent budgetary constraints of the early 1970's prevented their implementation. In 1973 the Commission became the General Organization for Physical Planning. It redirected its efforts towards regional matters, relegating local planning functions to the municipalities which had neither the budget nor the technical capability to assume this responsibility. As a result, projects were shelved, including the Medieval Cairo project, and the area was left to survive as best it could, under increasingly untenable conditions.

The historical monuments which abound in Medieval Cairo are listed in the Registry of the Department of Antiquities. However, lack of preservation and restoration, misuse of public and semi-public authorities as well as private concerns, and abuse by the poorest segments of the population who look upon them as convenient supplies of building materials, have led to the disappearance of many monuments. Furthermore, the surrounding environmental deterioration defeats conservation efforts.

Traditionally, the built-up area has been very dense and the structures have housed a mix of commercial and residential uses as well as small crafts and workshops.

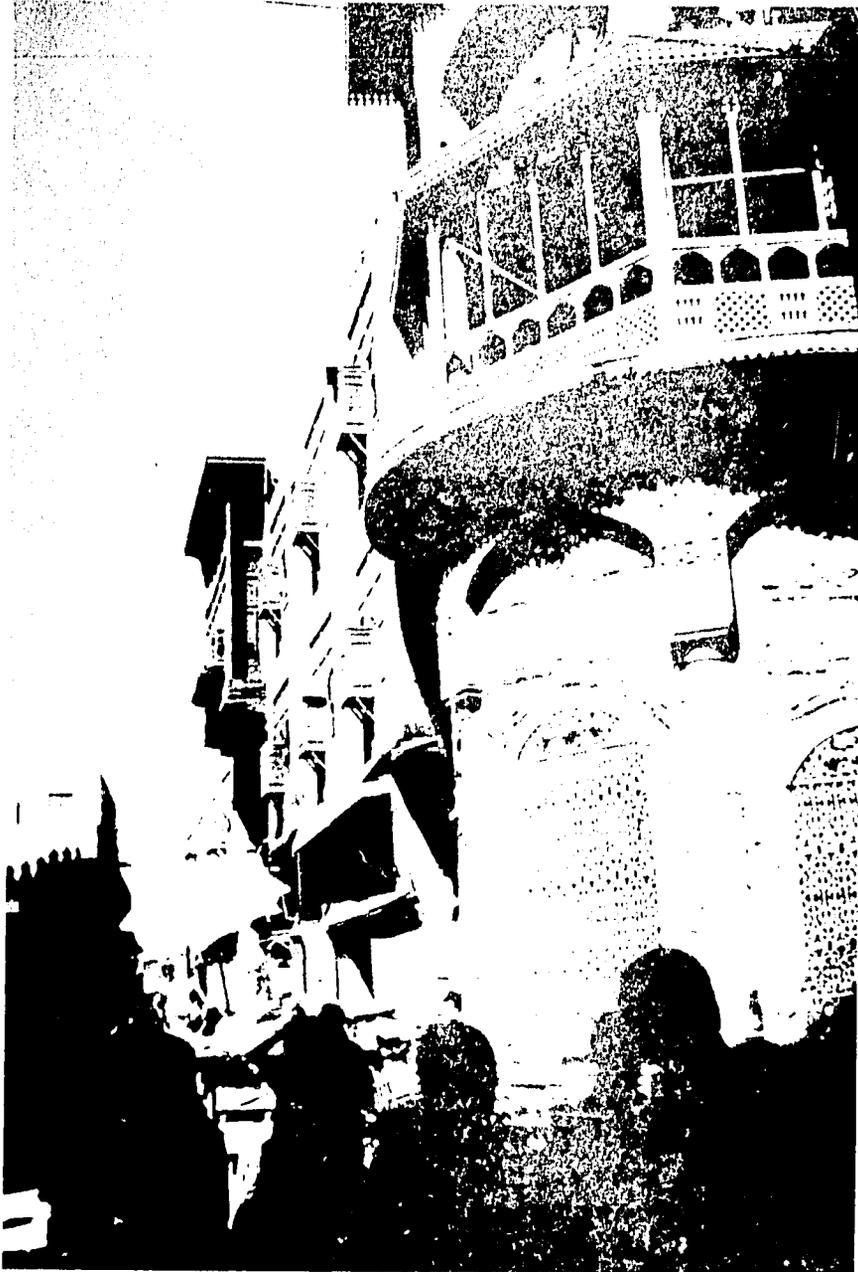
Over 80% of the structures do not exceed four stories in height and 45% were classified by the Greater Cairo Planning Commission survey⁸ as dilapidated. The same survey recorded that 85.4% of residential structures had access to filtered water, 84.4% were sewered, and 70.4 had electricity. These proportions were much lower in the eastern quarters.

Dwelling unit sizes in the area are small: 40.4% consisted of one room, 27.6% of two rooms, 22.8% of three rooms, and 9.2% of four rooms and over. In addition, the socio-economic survey showed that 12% of the families shared their dwelling with another family, while 9.5% shared it with more than one family.

There are few recreational facilities in the area except coffee shops. Community services are notoriously deficient. Existing facilities are obsolete and overloaded. This is particularly the case with primary schools which have to work double sessions. Secondary schools are few and vocational training centers non-existent. Health facilities are defective. There are no hospitals, and health centers are inadequate. The private organizations that exist provide some form of social assistance. Most of them charge modest fees for the services they offer.

Despite adverse environmental conditions, the area has highly stable neighborhoods. The socio-economic survey revealed that 73.3% of the families surveyed lived in the same neighborhood before moving to their current dwellings, and 57% of the wives were from the same neighborhood, too. Furthermore, 61% of wage earners also worked in the immediate vicinity. It is not that surprising, therefore, to find 84% of those interviewed stated that they would not want to leave this area. The 16% that preferred to live elsewhere said that they disliked the overcrowding, the dirtiness and the lack of services in the area.

Sixty-one percent of those interviewed stated that they did not wish to move from their present dwelling. The reasons given were as follows:



In medieval Cairo it is common to find irreplaceable monuments such as the one shown above in an advanced stage of deterioration due to lack of maintenance.

Proximity to work	17%
Cheap rent	10%
Closeness to family	13%
Other reasons	21%

The 39% that preferred to find other housing said that what they disliked about their present dwelling was:

Small size of unit	14%
Distance from work	4%
High rent	3%
Other	18%

Despite the desirability of the area as a place to live, and the shortage of housing relative to demand, rent control has kept the rents at very low levels. In 1966, 61% of the units rented for less than 3 L.E./month. Given the age of the housing stock, such rents could not even cover minimal repair costs. Small wonder, then, deterioration is progressing at an alarming rate.

The poorest and most deprived section of Medieval Cairo is the northwest section of the Gamalia district consisting of the quarters of Bab El Futah, Qasr El Shawq and Al Gamalia where, according to the 1976 census, 24,444 people lived in 4,921 households. This represents a decline of about 1,000 people over the past decade since in 1966 these quarters housed 25,307 people.

The economically active represent 31% of the population, and of these 6.5% are classified as unemployed. The true figure would be substantially higher particularly if disguised unemployment is taken into consideration.

Of the households, 6.7% have to get filtered water from public fountains and 14.8% live in dwelling units without electricity. Overcrowding and doubling up are still widespread. It is undeniable that the area has suffered from environmental deterioration over the past decade. Overloaded utilities can no longer cope with population pressure. Water does not reach above the third floor of buildings. Sewer back-up and overflow onto the street is a commonplace occurrence, given the capacity that an obsolete network of 7" pipes can be expected to accommodate. The lack of motorized equipment hampers rubbish disposal. Garbage piles up in the streets where it constitutes fire hazards as the non-reusable leftovers often have to be burned locally. Structures have collapsed, dotting the area with rubble mounds, and the inhabitants have sought refuge in tombs, mosques and historic monuments, and in makeshift shacks amid the rubble and on rooftops of structures still standing. Some neighborhoods have also experienced population movements with infiltration of students and migrants. However, by and large, the major findings of the survey still hold. There are notoriously few inhabitants of the area who want to move out of it, even when they have an opportunity to do so.

The Bab El Nasr neighborhood is a high density, very low income neighborhood in the Bab El Futah quarter. The neighborhood's name is that



Site of totally dilapidated structure where goats can be seen grazing in the rubble. The total collapse of structures in medieval Cairo is primarily due to lack of maintenance which is in turn generated by the inability of owners to collect adequate rents due to government controls. Part of this report's recommendation includes the utilization of these vacant lots for new housing structures, parks and other neighborhood facilities.

of one of the two northern gates leading to the Fatimide medina and separating it from the adjacent cemetery. Like much of the medieval city, this neighborhood is densely populated, its streets burgeoning with movement and its housing decaying from age, overuse and abuse. Standing at the base of the gate, it is possible to witness a variety of scenes taking place: street vendors peddling their wares; housewives at the market; local craftsmen working in their small shops; professional mourners waiting in a huddled black mass around a public water fountain; children playing amid rubble, and narrow streets through which flow pedestrians, animal-drawn carts, and even motorized traffic. Perched above this bustle of activity are countless roof dwellers with their equally impressive number of livestock.

The neighborhood is to a large extent a self-contained community with its markets, local artisans industry, shops, mosques, and neighborhood cafes. For at least half its employed population, it is both a place of residence and work. The amount of activity, however, does not detract from the general level of poverty which exists--Bab El Nasr is reputed to be the poorest section of Gamalia. It should be emphasized that the physical appearance of a neighborhood, particularly in the old sectors of Cairo, is not the most reliable indicator of its residents' incomes which, as a rule, are mixed, or, at least, combine a significant range of levels. To a certain extent, this observation applies in Bab El Nasr.

Paralleling the variation in income levels is the range of the residents' occupations. They include small shopkeepers, artisans, tradesmen, craftsmen, factory workers, lower-level civil servants, garbage collectors, light-transport workers, among others. What binds these diverse groups is an identification with the neighborhood.

The types of housing which can be found in Bab El Nasr include tin shacks (both on roofs and on the ground), largely "Awqaf" owned rental apartment buildings --(some of which are graceful, if threatened, examples of Islamic architecture)--and even a historical monument. The latter is a Mameluke merchants inn (wekalaa") which over the past ten years has become a squatter settlement. The squatters are people whose houses have collapsed and who were placed, or allowed to remain in the inn until other housing could be found for them. Sixty families (averaging 7 members/family) occupy the inn's two floors. Its courtyard functions as a playground for the children, a social gathering place, laundry and cooking space, and even as a workshop for some of the residents. The inn dwellers are generally among the poorest residents of the neighborhood. Their educational level is low - many have relapsed into illiteracy after receiving their compulsory primary schooling. The men work in basically unskilled or semi-skilled forms of labor. The inn, being over 600 years old and intended for quite different purposes, lacks water and electricity and its toilet facilities are inadequate. Despite these conditions, the residents are reluctant to move to more suitable housing outside the district.

A significant proportion of the residents interviewed in the neighborhood have always lived there or other areas of Medieval Cairo and their relatives are located close by. They expressed a strong desire to

remain, listing work and social reasons as major factors. Even those who commuted out of the area to work showed the same preference.

The housing standards, however, are such that they cannot continue to withstand the densities to which they are subjected. There is both poor maintenance and repair, as is evident from the number of houses which reportedly collapse each year. In the sixties, a ban on building permits was imposed to restrict new construction, while a new plan was to be developed. However, this ban seems to have been ignored, for as one moves further from the gate, relatively new buildings can be seen, as well as a few instances of rehabilitation. These dwellings house the more affluent members of the community. Their homes are more likely to have furniture and appliances; their children complete their schooling and they buy them membership in the local community club.

The people of the neighborhood commented on the fact that building activity has picked up and quoted 50 L.E. as the going price for a square meter of land in the area. Among the poorer residents there was some concern over what such developments might entail for them. In fact, one of the most common reactions to the interviewer in lower income areas is suspicion that the interviewer is interested in violations whether they be in the form of delinquency in rent payment or building unauthorized structures. In the Bab El Nasr neighborhood, the physical precariousness of the housing situation contributed to these suspicions, especially among squatters who had already lost one form of dwelling.

Some of the squatters had built a row of one room structures on vacant land. These rather small units which barely accommodate a bed, house as many as 7 people, mostly families of small tradesmen. The women of the households tended to use their doorsteps for cooking and washing. This gave them the opportunity both to chat with their neighbors and passers-by, as well as break the confinement of their dwelling spaces. The use of spaces outside the immediate living areas duplicates the patterns in many of the "haras" in the older sections of Bab El Nasr, which function as communal extensions of living space.

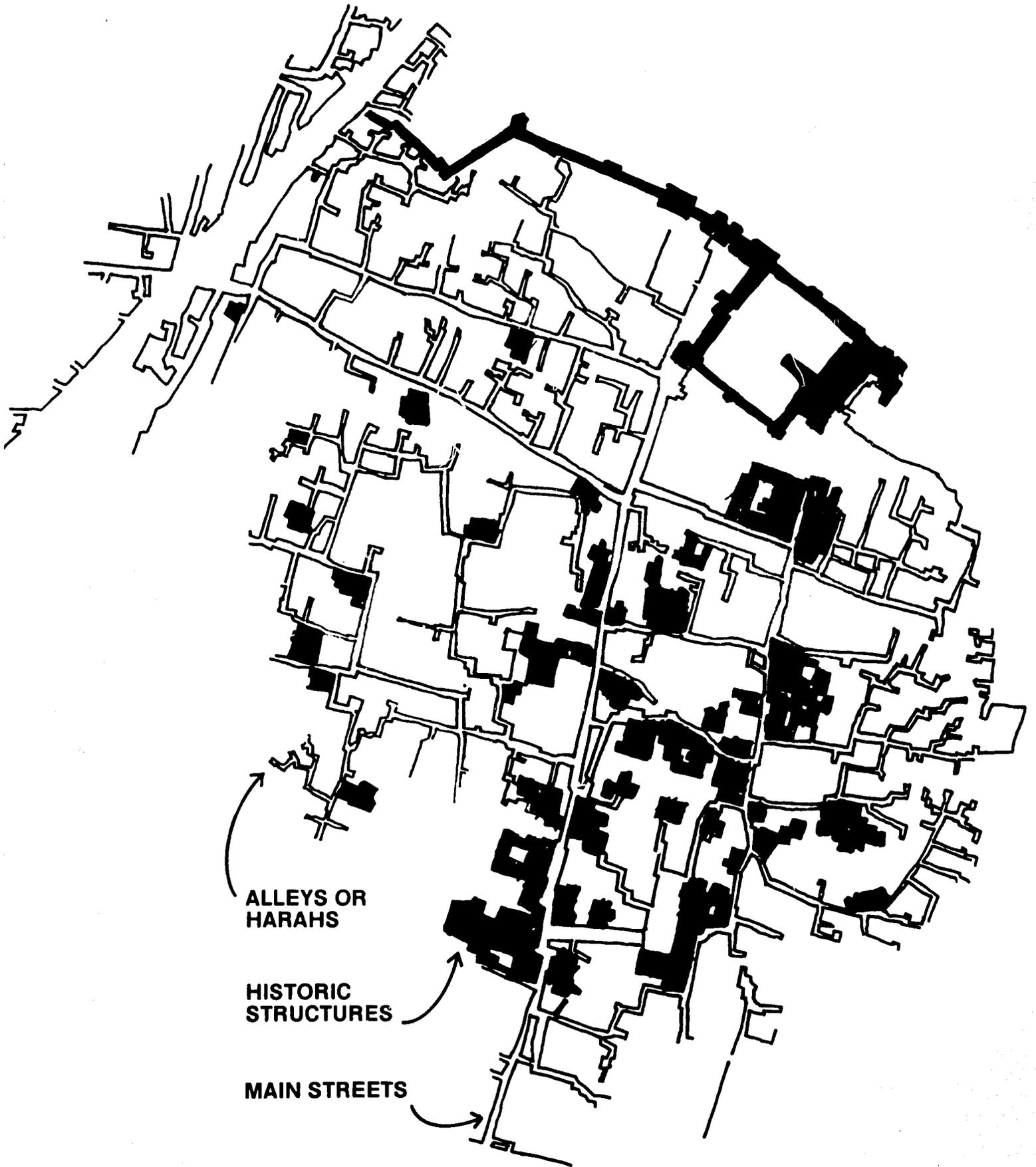
The amount of social interaction which the crowded spaces impose upon the residents contributes to a certain amount of community spirit. Despite their numbers, the people are quick to spot strangers in their midst. They are aware of the historical and artistic significance of their neighborhood without necessarily being able to recount the details of its history. However, they are used to seeing tourists and others roam through the streets and are helpful in pointing out directions to various sites, and the caretaker of the monuments is a local personality who sometimes acts as an intermediary for the poorer residents.



The Gamalia area includes, side-by-side, some of the poorest areas of the city as well as Khan el Khalili bazaar -- one of the most active shopping areas of the city. Both extremes co-existing as elements of an intensively human, dense urban fabric, amidst valuable historic monuments.

5. Cairo (Gamalia) Upgrading Project

Major constraints to any improvement in the older areas of Cairo are rent control laws, high cost of land, lack of vacant land, and generally low incomes of the residents. In an effort to find some possible answers to the problems, the joint team selected the Gamalia area for this preliminary study which indicates that it may be possible to begin an



ALLEYS OR HARAHS

HISTORIC STRUCTURES

MAIN STREETS

upgrading activity, which, if successful, could be repeated throughout the older areas of the city.

The Gamalia quarter of Medieval Cairo includes some of the poorest families and highest density areas in the city. It also includes many of the most important monuments, thriving commercial and market areas. It has the potential to become an attractive, more productive area providing a better quality of life for its residents, if a successful upgrading program could be implemented.

The proposed demonstration project would include the following components: water and sewer improvement, loans for repair and expansion of residential structures, construction of new multi-family dwelling units, additional community services--health, family planning, nutrition, improved circulation for vehicles and pedestrians, restoration of monuments, small scale tourist facilities--restaurants and rest areas. There should also be a program of vocational training, local and technical help to small business enterprises to help produce more jobs and increase incomes. A community based savings credit system would also make a major contribution to the upgrading process.

There is no easy answer to the rent control problem which inhibits landlords from making repairs and improvements. However, several possibilities should be considered.

A number of old residential buildings are owned by the Awqaf and these could be rehabilitated and sold to the residents as cooperatives or condominiums, allowing recuperation of the investment of long-term mortgages.

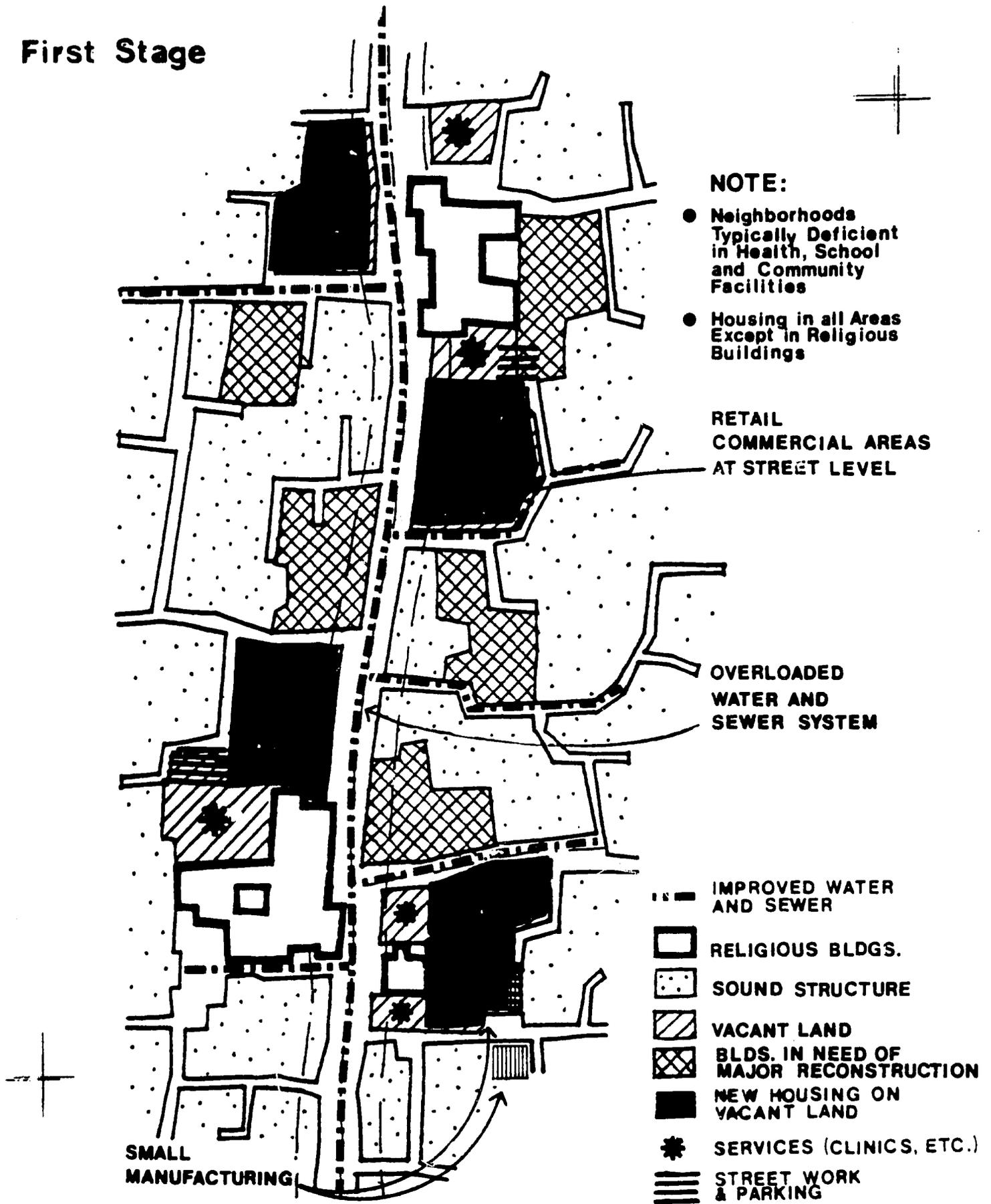
The mortgage could be on the property only, with the government retaining title to the land, making it available on a long-term lease to the cooperative. This would help prevent speculation on unearned profit to the cooperative, since land values would increase dramatically as the upgrading program progresses. It would also reduce the monthly payments on individual apartments.

Another possibility which should be considered to reduce monthly charges would be the use of very long-term mortgages, perhaps 30 years. This is not uncommon in developed countries and might work in Cairo. The security is in the building and the certain appreciation of the land. Monthly payments could also be stepped for younger families to increase as their income increases.

The Awqaf also owns vacant lots in the area which would allow for new construction of cooperative and condominiums which would also be sold with a land-lease arrangement, avoiding rent control problems.

In both new and rehabilitated units the street level space would be reserved for commercial shops in the front and small "factories" in the rear, following the traditional pattern of the area. These areas could be sold and the income could help subsidize low income families.

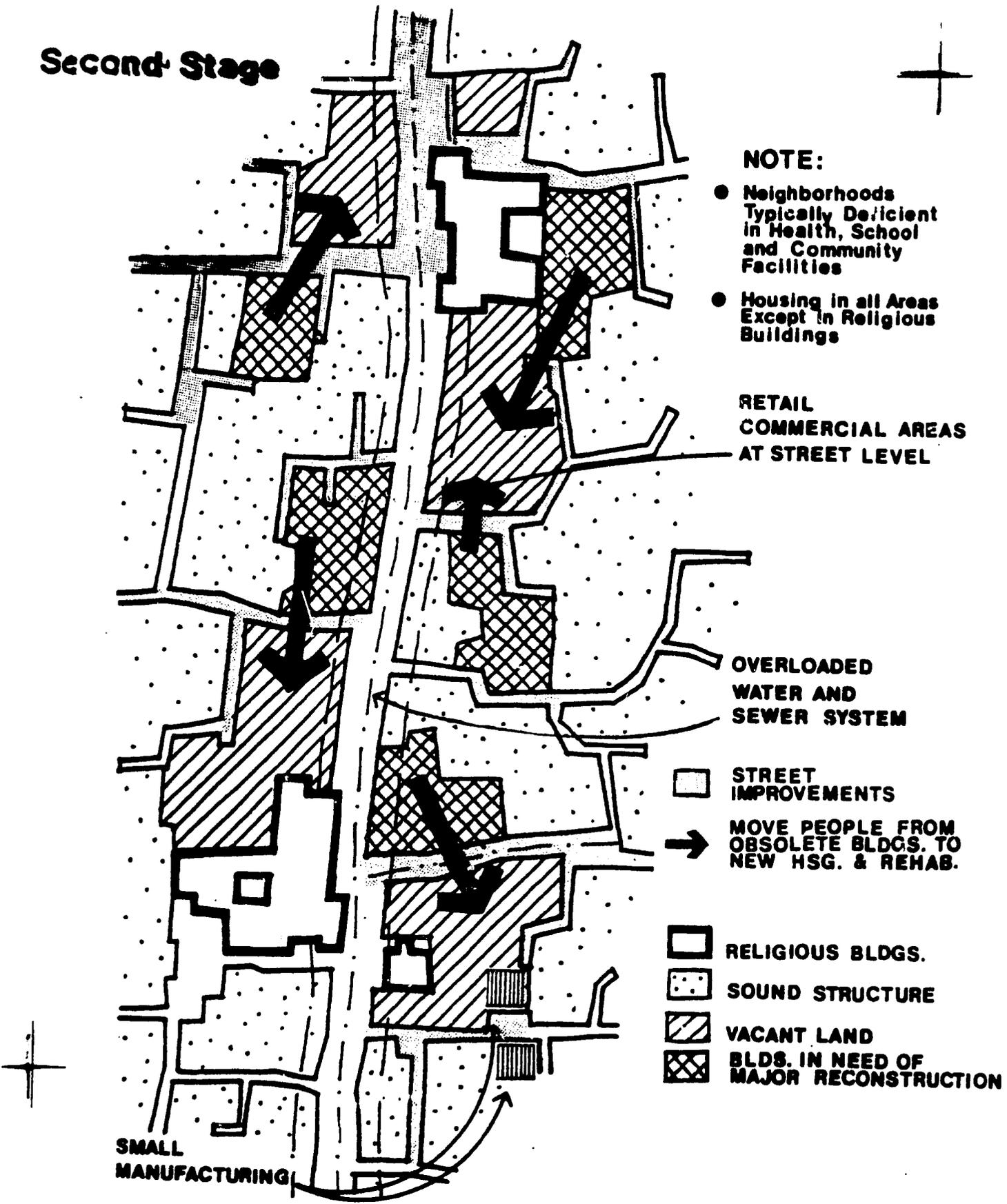
First Stage



**DIAGRAMMATIC ILLUSTRATION
PROPOSED UPGRADING IN NEIGHBORHOOD
EXISTING CONDITIONS
EL GAMALIA AREA**



Second Stage



**DIAGRAMMATIC ILLUSTRATION
PROPOSED UPGRADING IN NEIGHBORHOOD
EXISTING CONDITIONS
EL GAMALIA AREA**



Both new construction and rehabilitation work would be done by private contractors, with encouragement to use small contractors who already do much of the repair work and small new construction jobs. There would be a need for helping them to upgrade their management capabilities and to improve the quality of their work through training and apprentice programs. They would be encouraged to hire from the community.

The overall approach to the physical aspects of the upgrading program would be to enhance the traditional character of the area while at the same time improving vehicular and pedestrian circulation, utilities and services, residential and commercial areas. Some streets would be widened; others would be blocked off for pedestrians to expand on the bazaar type shopping mall extending from the Khan Al Kalili Bazaar toward the Al Muizz El Din Allah Street.

Improved access and improved garbage collection, along with some new, small "tourist class" eating places, would bring more tourist money into the area for shopping and to visit the monuments which are presently inaccessible. This, in turn, would produce a greater demand for the items produced in the "back alley" factories and help increase incomes of the residents.

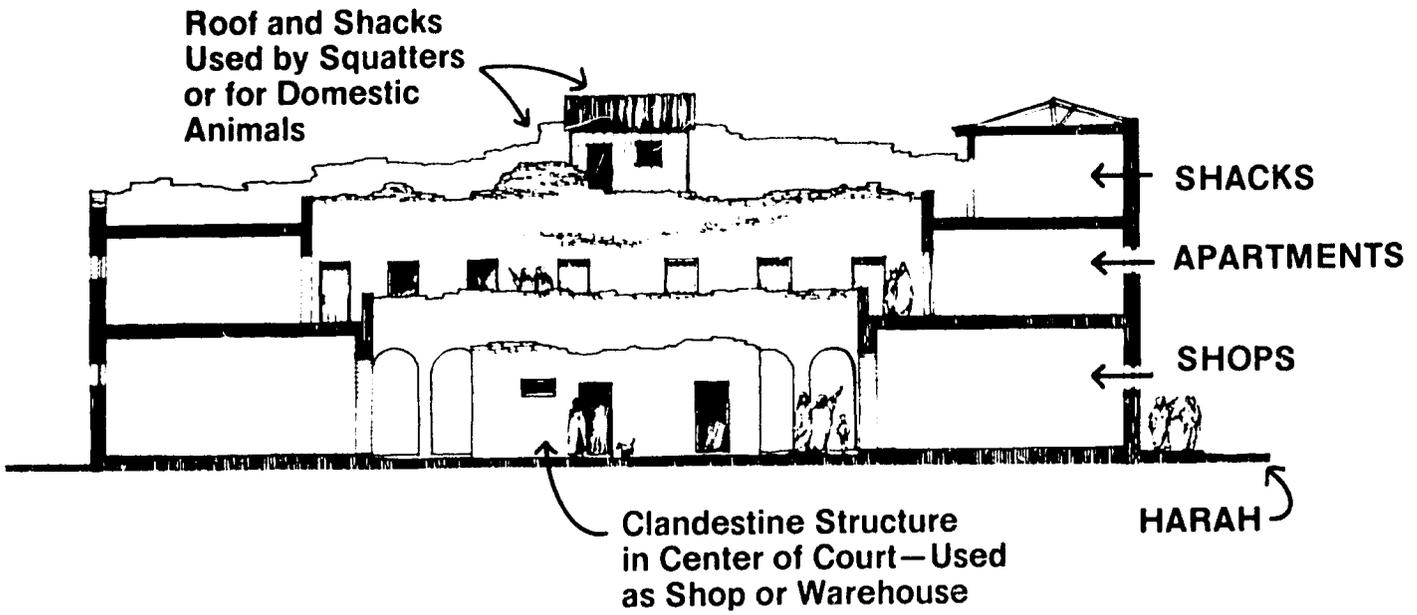
Improved health, education, vocational training and childcare centers would also contribute to increased incomes as residents benefitting from these services would be better able to find meaningful employment outside the project area.

Assistance would be given to the existing community organizations to build upon their experience in the area. (See Attachment 3.)

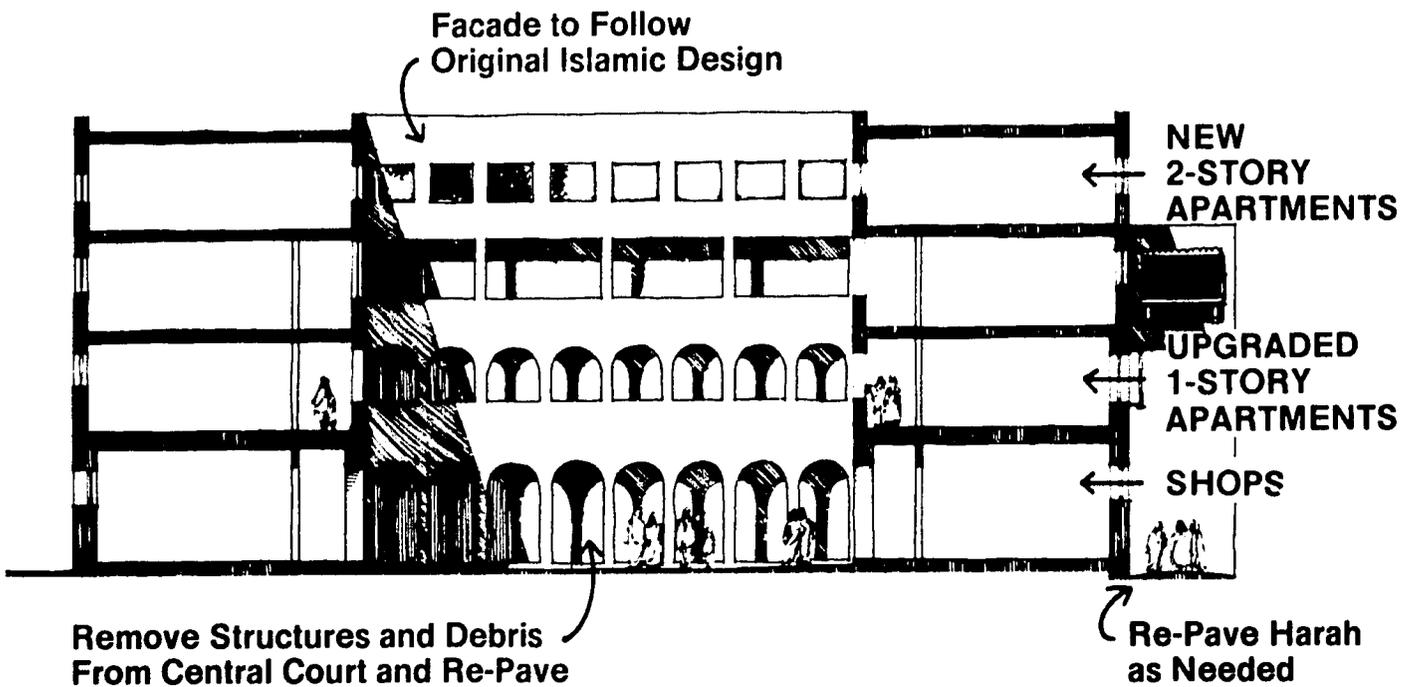
Clearly there would be many difficulties in attempting an upgrading program of this type, and there are many reasons why not to try it. The alternative is to allow the stagnation and deterioration to continue which is costly in financial, cultural and human terms. Even if such an upgrading project falls short of all stated goals, it would serve as an important learning experience upon which new efforts could be based.

The drawings on the right represent the existing condition of a rabaa in Gamalia (upper drawing), and the possible improvements through upgrading (lower drawing). In addition to the improvements and additions to the local housing stock, this type of upgrading would attract tourism and commercial activities to the poorest area of Gamalia, which in turn would generate employment and higher living standards for the residents.

EXISTING CONSTRUCTION



NEW CONSTRUCTION



RABAA UPGRADING



6. Ain Shams - Area Description

Ain Shams was one of the oldest settlements in the greater Cairo region dating back to pharaonic times. However, the area remained largely rural until the 1950's when the success of Heliopolis as a satellite community prompted developers to think of replicating the venture in Ain Shams. Tracts of land were subdivided into large lots about 100 m² each, and lot sales started.

New laws in 1961-62 brought the venture to a grinding halt. The unsold land reverted to the government and remained vacant until demographic spill-over from Mataria to the west and Walyi to the south led to its takeover by the informal sector and the development of uncontrolled settlements housing a mixed population of low echelon white collar workers employed in Heliopolis, Nasr City and Abbasia, and blue collar workers employed in industries in Mataria and, to a lesser extent at Shubra El Kheima.

Between 1966 and 1976 the population of the area tripled from 46,000 to 142,000. Average household size is 4.73 and one-third of the population is economically active, slightly higher than city average.

Housing construction is similar to other informal settlements but the inherited layout from the former planning has resulted in a rectilinear grid street pattern as 1000 m² lots were simply divided into 10 lots of about 100 m² each. This has greatly simplified the problem of extension of utilities to the area and in some sections these utilities are being introduced.

According to the 1976 census, 70% of the households in the districts of Al Zahra and East Ain Shams had individual water supply in their dwelling unit. This proportion fell to 30% in the adjacent district of Tolombat Ain Shams where 62% of the households had to fetch filtered water from common taps outside the structure. Similarly, while 80% of the households in the former two districts had electricity in their dwellings only 55% of the households in Tolombat Ain Shams did.

Sewerage in the area presents fewer problems than in informal settlements elsewhere because of the proximity of the large collectors and pumping stations and the rectilinear street pattern.

Due to the extension of convenience transport lines and the availability of land, it is expected that Ain Shams will continue to attract both rural and urban migrants. Informal settlements in the farmlands to the north of Mataria have already developed over the past twenty years.

Ain Shams, however, is mainly on desert land. The project area is located on the land which was subdivided and initially sold in large lots. After the nationalization of the development firm, poor record keeping made clear title to the land by the purchasers difficult to prove. Various means to gain title to the lots have been used by those who have settled in the area. The subsequent lower-income development of the site has discouraged the original purchasers from building luxury units, so they have either subdivided the lots and sold them, or intend to do so eventually.

The most striking difference in the pattern of settlement between Ain Shams and other "informally" developed regions, are the wide, clearly delineated, if unpaved, streets which were marked out when the site was originally subdivided. It resembles these settlements in most other respects, however. The land is relatively cheap, averaging between 10-15 L.E., and the provision of public utilities lags behind community needs--at least a third of the houses are without water and sewerage facilities. The houses differ in size and standards and include rental apartment buildings of modest scale, owner-occupied unfinished houses in various stages of completion, and even mud huts. Indeed, it is possible to find the various extremes standing adjacent to one another. The mud huts house families who were formerly farm laborers, but are now forced to seek their living

in unskilled work as day laborers due to the loss of employment opportunities on nearby farmlands. The children of those families lack basic education. Some have been withdrawn from schools due to the burden that school expenses impose on their rather uncertain incomes.

The small-scale owners of farm lands who dwell in the area have in many instances changed their rural lifestyles, to the extent that the houses they have built are frequently equipped with appliances, chrome and plastic dinette sets rather than the traditional "tabliya" (a round, slightly elevated wooden board), and new rather than second-hand furniture. Most of their children are college trained, so while they are expected to live in the area and the houses are built with the intention of providing space for the children and their families, they are not to follow in their fathers' occupations. Among these relatively more prosperous residents of rural origin is the former "umda" (mayor), who accompanied the interviewers on one field trip. The homes he showed them were for the most part reasonably well apportioned. When asked to introduce them to the residents whose living standards were visibly lower, he consented with the disclaimer that he had only introduced them to those with whom he was well acquainted.

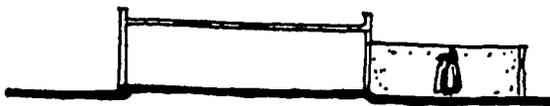
The social network of the "umda" was not necessarily representative, particularly with respect to its homogeneity. The area combines residents from both rural and urban origins, as well as an influx of "refugees" from the canal zone area. Many of those interviewed had moved from other more densely populated lower middle-income sections of Cairo. These include families of skilled craftsmen, factory workers, lower-level civil servants, primary school teachers among other occupational categories. However, the residents of both rural and urban origins were likely to keep their chickens and ducks within their living spaces. In some instances where the houses were enclosed by a wall, the animals were maintained outside the living quarters.

Like many other "informal" settlements, Ain Shams suffers from a lack of social and community services. Secondary schools do not exist within the project area, nor do health centers. While transportation links have contributed to the growth of the area, commuting distances are still long and inconvenient for many of those who are not employed within the district of Mataria or nearby areas.

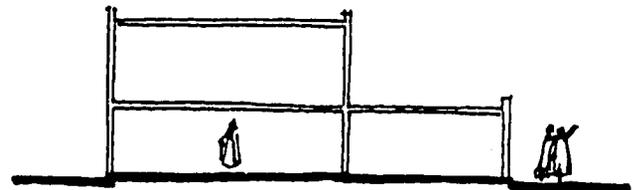
7. Ain Shams - Upgrading Demonstration Project

Although the general incomes in the Ain Shams area are higher than the Helwan area, it is predominantly populated by low and middle income families. It is typical of many areas around greater Cairo where the informal construction process described in Chapter IV.D. is taking place. If the proposed upgrading project can encourage and accelerate the positive aspects of this informal process while controlling and discouraging negative aspects, then the experience could be used in upgrading similar areas in greater Cairo and in other urban areas.

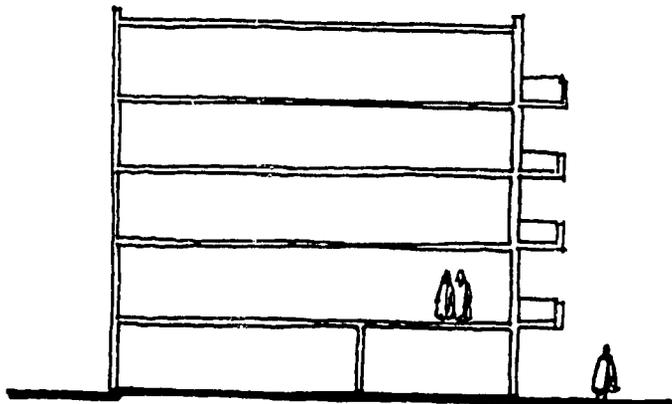
The components would be similar to the Helwan upgrading project, including installation of water, sewer, and electric lines, loans for home expansion and improvement, "roof loans" community services, and employment generation and training. There would also be a need for a community credit system and adult education programs in health, nutrition and family planning.



Stage 1



Stage 2



Stage 3

**EXPANDABLE
URBAN HOUSING**

8. Growth Pole Projects - Minia - Qena

Under the most optimistic forecasts, Egypt has to face a doubling of its population over the next 30 years. The implications in terms of the rate of economic growth needed to sustain this population are staggering. Budgetary constraints rather dictate that investments have to be confined to sectors where they are most productive and most urgently needed.

This realization underlies the focus in the National Development Plan on the opening up of new regions. The criteria for the selection of these regions are: capacity to accommodate sizeable populations, possibility for multi-sectoral development which can justify the cost of the infrastructure needed to support this development, and possibility to channel future expansion on desert land.

Five regions seemed to offer the greatest potential:

(1) The Canal Zone, where the reconstruction effort since 1973 has been concentrated.

(2) The northern coast of the western desert, where two million inhabitants could be accommodated. The economic base would rely on:

- industry, using power generated by the Qattara Depression Project and port facilities on the Mediterranean
- tourism
- agriculture and associated plans for Bedouin sedentarization

(3) The new valley in the southern part of the western desert. About two million Feddans can be irrigated from Lake Nasser and ground water wells. The area is also rich in phosphates and other mineral resources.

(4) The Lake Nasser region. This lake, which covers an area 6,000 km², provides immediate possibilities for:

- fisheries
- irrigation and land reclamation projects
- tourism at Abu Simbel and other sites
- mineral resource exploitation

(5) The Sinai region. This is the most promising region in the nation. Its absorptive capability is vast, and its resources rich and varied.

Concomitantly, in an immediate attempt to control population growth in the overcrowded Delta where urban expansion can only occur on valuable agricultural land, the 1976-1980 Plan has placed great emphasis on revitalizing Upper Egypt and on creating growth poles in selected towns stretching from Minia to Aswan.

a. Minia

A few years ago Minia could hardly be thought of as a potential growth pole. Attention was focused on Assiut, the traditional regional center, and on Aswan where the power generated by the High Dam could support an important industrial base.

The location of industry, as well as a new university at Minia, is expected to change the character of this traditional provincial town. This is not to claim that it will rival Assiut, but it will certainly be the dominant center of Middle Egypt.

According to the 1976 census, the population of Minia Governorate was 2.06 million, of which close to 21% was urban. Figures for the city proper were not yet available at this time, but were estimated 147,700 inhabitants.

There are several existing industrial plants in the city: a bottling plant, a cotton spinning factory, a cotton ginning factory, a pharmaceutical plant, an ice factory, a food processing plant (pasta), a mechanical grain mill. There is potential for further industrial expansion including: shale, clay brick, sugar pulp products, cement.

The construction of the new university and industrial growth are expected to produce a growing housing shortage. The Governorate estimates that 20,000 additional dwelling units will have to be produced over the next 25 years to meet this demand. Furthermore, utility networks will have to be upgraded in order to support the projected urban expansion.

The Governorate estimates that the capacity of the filtered water plant would have to be doubled from 320 to 600 l/sec., and an additional pumping station with a capacity of 300 l/sec. would have to be built in order to allow water to reach the upper floors of new structures. Also, the pipes in parts of the distribution networks need to be replaced.

Similarly, the capacity of the existing sewer station will have to be doubled from 200 to 400 l/sec. Furthermore, public sewers will also have to be extended to currently unsewered areas, such as Mahatat Shahin.

The cost of the proposed projects is estimated at LE 1.2 million for water works and LE 2.1 million for sewerage.



Street scene in Minia. Like Qena, Minia is less congested and more rural than Cairo or Alexandria, but with similar problems of lack of utilities and overcrowded housing. Their designation as "growth poles" to divert growth from Cairo will require special emphasis on the improvement of their housing, employment opportunities and community services.

b. Qena

Another city which may have great growth potential in the near future is the city of Qena at the bend of the Nile between Assiut and Aswan.

It is located in the growth region which encompasses the four governorates of Aswan, Qena, the New Valley and the Red Sea. As stated earlier, this region can support multisectoral developments. First, it can draw on the water reservoir of the High Dam for irrigation and land reclamation. Second, its industrial potential is enhanced by the mineral resources: phosphates in large quantities; iron ore at Al Qosseir and Aswan; lead and zinc on the coast of the Red Sea; other minerals in smaller quantities, such as copper and tin, kaolin, granite, marble; shale clay, limestone. Third, electric power is supplied by the High Dam, and some oil fields are located along the shores of the Red Sea. Fourth, it is linked by road to the Red Sea port of Safaga and could become a significant link in future export-import trade of Upper Egypt.

The Joint Housing Team recommends the further consideration of the development of "growth pole" projects in Minia and/or Qena which would help attract migration to these areas instead of Cairo.

Various studies have shown that people leave rural areas in search of better jobs, better access to schools, health facilities, and what they perceive to be a generally brighter future.

"Growth pole" demonstration projects in Minia or Qena would be comprehensive in nature, including most of the same components listed in the other demonstration projects.

In Minia, the new university is interested in an outreach program to assist in various community activities in the Minia area. They have proposed a type of multi-service community development center which would be operated by the university providing health services, child care and a number of other services to low-income families. They are also interested in vocational training activities. If a demonstration project was developed in Minia, the university could play an important role in project implementations.

9. Other Potential Projects

a. Alexandria

With a population of 2.32 million, Alexandria is the second largest city in Egypt, its major port, and its most famous summer resort. Although the city did grow by 520,000 people in the past decade, it did not experience the demographic pressure that Cairo had to sustain as a result of the combined effect of natural increase and migration.

This is not to imply that Alexandria does not suffer from a housing problem. Indeed, it exhibits the very same problems that Cairo has, but on a much smaller scale.

It is not the magnet for rural-urban migration that Cairo is, but nevertheless receives migrants from all over Egypt.

Older overcrowded sections of Karmouz and Labban are in need of upgrading and better community facilities and services.

Uncontrolled settlements stretch out on the periphery of the city on low marshland unfit for development, making it difficult and expensive for the Governorate to extend utilities to them, particularly sewerage systems.

Migrant reception areas are particularly depressed. The poorer neighborhoods--Victoria, Al Labban, Al Qabari, and especially Al Hadra--suffer from substandard housing, overcrowding, lack of utilities, and a serious deficiency of community facilities and services.

Industry in Alexandria is located at both ends of the city, east and west, especially in the newly annexed district of Amiriyah where expansion can occur on desert land. A major effort is currently under way to channel industrial growth to this area, which is away from the shore and well served by transportation networks.

b. Village Improvement Program

The MOHR is also concerned with the living conditions of the more than 20 million Egyptians living in small towns and villages in rural areas. There is a great need for improved services including village water and waste disposal systems and for home improvement projects. Many rural families are already improving these houses by replacing deteriorating sun dried mud brick walls with fired brick. A small research and demonstration project in three selected villages could be developed to help find more effective ways to improve the quality of life in rural areas.

VI. RELATED ACTIVITIES

A. Building Materials Production

The 1976 joint report commented on the building materials situation in Egypt, and other studies are under way on this subject. The Joint Housing Team did not attempt to cover this complex subject in detail, but did reach some general conclusions based on MOHR experience and concerns in this area.

The basic problems are: (1) general shortages, especially of bricks and cement, (2) rising costs and a "dual" market system (legal and black market), (3) excessive imports of items which are also produced in Egypt.

At the same time there is good potential for increasing production of building materials, including bricks and cement, which would help solve the problem. The MOHR has identified a number of projects which could be started immediately if financing was available. (See Table IV-8, page 45.)

The new and expanded plants would have an important impact on the shortage problem and also provide new employment opportunities.

There is also a need for specific research and testing of "intermediate" technology in brickmaking which could be used in Egypt. New techniques using asphalt emulsion for stabilizing soil (sand and clay mix) for sun dried bricks have been developed by the International Institute of Housing Technology of the California State University at Fresno which should be tested in Egypt as substitutes for red brick.

Further study is also needed to identify building material products which could be produced in Egypt for export to nearby Arab countries.

B. Technical Collaboration

The Joint Housing Team agreed that a technical exchange and training program would be an important part of the development of the demonstration projects. The objective would be to learn from experience in other countries where upgrading and site and service programs are under way or complete and to develop training programs for housing technicians, construction managers, and skilled workmen. There is also a need for a series of seminars and workshops on site planning, expandable dwelling design, self-help housing, cooperative conversions, housing finance, and land policy. Additional subjects for seminars and workshops would be identified as the program develops.



EGYPT REPORT

List of Meetings

H. E. Hassan Mohamed Hassan, Minister of Housing & Reconstruction
Eng. Salah Fahmy, First Undersecretary, Ministry of Housing & Reconstruction
Dr. Mohamed El Masry, Undersecretary for Construction, Ministry of
Housing & Reconstruction
Dr. Zaki Abu El Nasr, Deputy Chairman, Board of Directors, Real Estate Bank
Dr. Saad El Din El Hanafi, Undersecretary, Ministry of Planning
Dr. Samir Tobar, Advisor to the Minister, Ministry of Finance

The General Organization for Building & Housing Cooperatives

Eng. Adb El Rahaman Labib, Chairman
Eng. Fouad El Gohary, General Director
Eng. Fouad Shafik

Cairo Sewerage Authority

Eng. Mohamed Abd El Moneim Ashmawi, Chairman
Eng. Atallah Safwat
Eng. Mikaa'il Salid
Eng. Helmi Basyouni

Cairo Water Authority

Eng. Ezz Eldin Farag, Chairman
Eng. Abd El Latif Abul Ata
Eng. Ahmed El Hamawi

National Center for Criminological & Sociological Research.

Dr. Noha Fahmy, Director, Urbanization & Housing Division
Dr. Yehia Abdallah, Consultant on Architecture

Helwan District Authorities

Eng. Gamal Eldin Fahim, Chairman, Board of Directors, Maadi Development
Company & Chairman, Services Council, Helwan District
Mr. Taher El Asmar, Head of Helwan District
Eng. Munir Ahmad Saleh, Director, planning and follow-up, Helwan District
Council

Minia Government

Mr. Hishmat Gado, Governor
Eng. Adly Sami Rifaat, General Director, Housing & Reconstruction Directorate
Dr. Abd El Moneim Hassas Kamel, President, Minia University

Alexandria Governorate

Eng. Fouad Abd El Meguid, Undersecretary for Housing & Reconstruction

Mr. Fouad Al Lithi

Eng. Ahmed Seif

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10. Natural Resources, Mineral Resources and Related Industries - (Working Paper #150 - ECO)
11. Impact of the Regional Plan on the Construction Industry - (Working Paper #154 - ECO)
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(T.A.M.S. = Tippetts, Abbott, McCarthy & Stratton)

GAMALIA DISTRICT

LIST OF PRIVATE ORGANIZATIONS*

A. Social Service Organizations

- 1) Gamaliz Social Organization
Function: - Mother and child welfare
 - Community development
Services: - 2 youth homes
 - 2 sewing and needlework centers
 - 2 day care centers
 1 vocational training center
- 2) Amir al Shuhada Coptic Orthodox Organization
Function: Cultural and religious services
- 3) Charitable Organization for Assistance to Gamalia Poor
Function: Assistance to poor families.
- 4) Gamalia Health Organization
Function: Social assistance
Services: - 3 health centers
- 5) Gamalia Organization for Women
Function: Mother and child welfare
Services: - 2 day care centers
 - 2 vocational training centers
 - 1 family planning center
- 6) Qaitbay Hospital Organization
Function: Social assistance
- 7) Qalaum Eye Hospital Services Council Organization
Function: Social assistance
- 8) Qaitbay Coptic Orthodox Karma Organization
Function: -Cultural and religious services
 -Social assistance
Services: 1 Health Center for Mother and child care
- 9) Mabarrat Tibq Al Talib
Function: Social assistance
Services: 1 school - Khoronfish religious school.
- 10) Al Ishtirakiyah Wal Iman Organization
Function: Social assistance
- 11) Asdiqa al Talib Organization
Function: Social assistance

B. Professional and Workers Associations

None in Gamalia District

*Source: Regional Association of Organizations in Cairo - Directory of Private Social Service Organizations in Cairo, 1970 (in Arabic)

C. Village Associations

Eleven in Gamalia District:

- Al Amera, Menufia
- Sahargat al Kubra
- Sanafin, Sharqia
- Al Kharga
- Dalhamu, Menufia
- Shubra Bakhum, Menufia
- Beltan, Qaliubia
- Al Hanadi, Esna
- Al Fsyum
- Ikhmin,
- Al Zawatna, Girga

D. Other Organizations.

The Cooperative Organization for Haj Pilgrimage

Function: Religious services

Services: Assistance for Haj Pilgrimage

HELWAN DISTRICT

LIST OF PRIVATE ORGANIZATIONS

A. Social Service Organizations

- 1) Pilgrimage;(Hajj) and visits
(Ziyara) Organization in New Helwan
Functions: - Cultural, educational and religious services
- 2) Al Huda Wal Ihsan Organization for Helwan Ladies
Functions: - Mother and child welfare
- social assistance
Services: - 1 Health Clinic
- 1 Family Planning Center
- 1 Needlework Center
- 3) North Masara Charitable Organization
Functions: Cultural, religious & educational services
Services: - 1 Mosque
- 1 Qoranic Teaching Center
- 4) Masara Charitable Organization for assistance to the poor
Function: Social assistance
Services: 1 Health Center
- 5) Abna al Mahaba, Coptic Orthodox Organization
Function: Family and Welfare
Services: - 1 Sewing and Needlework Center
- 1 Day Care Center
- 6) Organization for Welfare Assistance to those afflicted with incurable diseases in Helwan
Functions: - Assistance to special groups
- Social assistance to patients in Helwan Hospital for incurable diseases
- 7) Al Izba al Bahariya Charitable Organization in Helwan
Function: Cultural and religious services
- 8) Al Tadamun al Islami Organization in New Helwan
Functions: - Cultural and religious services
- Social assistance
- 9) Community Development Organization in Helwan Public Housing
Function: Local Community Development
Services: 1 Day Care Center
- 1 Sewing and Needlework Center
- 1 Social Club
- 1 Library

- 10) **Social Organization for Public Services in Munshat Nasser**
Functions: - Social assistance
- Cultural and Religious services
- 11) **Al Mabarat al Islamiya Organization in Helwan**
Functions: - Social assistance
- Cultural and religious services
Services: 1 Health Clinic
- 12) **Al Sayeda Nafisa Organization for Blind Women**
Function: Assistance to special groups
Services: 1 home for blind girls
- 13) **Al Muhafaza Ala al Quran al Karim Organization in Helwan**
Function: Cultural and religious services
- 14) **Al Amilin Bil Kitab Wal Sana al Muhamadiya Cooperative Organization, Helwan al Hamamat Branch Office**
Functions: - Cultural and religious services
- Social assistance
Services: 1 Mosque
- 15) **Evangelical General Charitable Organization**
Functions: - Child welfare
- Social assistance
Services: - 1 Day Care Center
- 1 Home and Vocational Training Center for girls
- 16) **Family Welfare Organization in New Helwan**
Function: Family welfare
- 17) **Electric Station Public Housing Charitable Organization**
Functions: - Community development
- Social assistance
Services: - 1 Sewing and Needlework Center
- 1 Day Care Center
- 18) **Abna al Manshiya al Gadida Organization in Helwan**
Function: Social Assistance
Services: - 1 Health Clinic
- Remedial classes for elementary school pupils
- 19) **Coptic Orthodox Ladies Organization in Helwan**
Function: Child Welfare
Services: 1 Home for girls
- 20) **Coptic Orthodox Organization for Social Assistance**
Function: Social assistance
- 21) **Services Council for Helwan Orthopedic Hospital**
Function: Social assistance to patients in Helwan Orthopedic Hospital

- 22) Wadi al Nil, Coptic Orthodox Organization
Function: Cultural and religious services
- 23) Social Services Council for Helwan Hospital for communicable diseases
Function: Social assistance to patients in Helwan Hospital for communicable diseases
- 24) Thamarat al Mahaba Coptic Organization for Ladies in Helwan
Function: Family welfare
Services: 1 Sewing and Needlework center
- 25) Shams al Bir Coptic Orthodox Organization
Functions: - Social assistance
- Cultural, religious and educational services

B. Professional and Workers Associations

- 1) Social Assistance Fund Organization Wadi Hof Metal Center
Function: Social assistance to students in vocational training center

C. Village Associations

- Four (4) in Helwan District
- Banga, Sohag
 - Sharqia
 - Menufia
 - Shanshour

D. Other Organizations

None in Helwan District

AL MATARIA DISTRICT
(includes Ain Shams)
LIST OF PRIVATE ORGANIZATIONS

A. Social Service Organizations

- 1) Coptic Organization and Its Charitable Health Clinic
Functions: - Social assistance
 - Family welfare
Services: - 1 Health Clinic
 - 1 Family Planning Clinic

- 2) Al Amiriya Housing Social Unit Organization
Function: Community development
Services: - 1 Day Care Center
 - 1 Sewing and Needlework Center
 - Literacy Classes
 - Cultural Center

- 3) Al Marg Social Center Organization
Function: Community development
Services: - 1 Day Care Center
 - 1 Palm Products Training Center
 - 1 Carpet Weaving Training Center

- 4) Islamic Welfare Organization for the Khalawaitya Mohamadiya of Mataria
Functions: - Cultural, religious and educational services
 - Social assistance
Services: - 1 Qoran Learning Class
 - 1 Mosque
 - 1 Health Clinic

- 5) Ezbet al Wabur Charitable Organization
Function: Cultural, religious and educational services

- 6) The Charitable Organization for the construction and repair of Arab al Hisn Mosque
Function: Cultural, religious and educational services

- 7) The Charitable Islamic Organization of Abna Al Izab al Wusta
Function: Social assistance

- 8) Al Ahsraf Charitable Organization in East Kafr al Shurafa
Function: Social assistance

- 9) Khalid Ibn al Walid Charitable Organizations
Functions: - Social assistance
 - Cultural, religious and educational services

- Services: - 1 Medical Unit
 - 1 Family Planning Center
 - 1 Mosque
 - 1 Qoran Learning Center
 - Remedial classes for elementary school pupils
 - 1 Sports Club
- 10) Al Matboul Charitable Organization
 Function: Social assistance
- 11) Ain Shams Mosque Charitable Organization
 Function: Social assistance
 Services: - 1 Health Clinic
 - 1 Mosque
- 12) Al Sinnari Charitable Organization
 Function: Cultural and religious services
- 13) Nashr al Mahaba
 Function: Cultural, religious and educational services
- 14) Omar Iba Al Khattab Charitable Organization
 Function: Child Welfare
 Services: - 1 Day Care Center
- 15) Gawharat al Islam Mosque Charitable Organization
 Function: Cultural and religious services
- 16) Sayidina Bilal Charitable Organization
 Function: Cultural and religious services
- 17) Shaykh Ali Hamida Mosque Charitable Organization
 Function: Cultural and Religious services
- 18) Arab Abi Tawila Mosque Charitable Organization
 Function: Social assistance
 Services: - 1 Mosque
 - 1 Qoran Learning Office
- 19) Mari Guirguis Youth Organization
 Function: Social assistance
 Services: 1 Health Clinic
- 20) The Islamic Charitable Organization in East Ain Shams and its suburbs
 Function: Social assistance
 Services: - 2 Mosques
 - 1 Qoran Learning Office
- 21) Hilmiyat al Zeitoum Organization for the upkeep of Mosques
 Function: Cultural, religious and educational services
 Services: 2 Mosques

- 22) **Virgin Mary Coptic Organization**
Functions: - Cultural, religious and educational services
- Social assistance
- 23) **Charitable Organization for the upkeep of Mosques and provision of burials in Al Marg**
Function: Religious, cultural and educational services
Services: 3 Mosques
- 24) **Al Amilin Bil Kitab wal Sana al Muhamadiya Cooperative Organization**
Functions: - Religious, cultural and educational services
- Social assistance
- Family welfare
Services: - 15 Mosques
- Qoran Learning Offices
- 1 Vocational Training Center for Girls
- 25) **Social Welfare Organization in Mataria**
Functions: - Religious, cultural and educational services
- Social assistance
- Family welfare
- 26) **Islamic Charitable Organization in West Aim Shams**
Functions: - Religious and cultural services
- Social assistance
- 27) **Al Iman Ali Charitable Organization in Al Zahra**
Functions: - Religious, cultural and educational services
- Social assistance
- 28) **Muslim Youths Organization, Ain Shams Branch**
Functions: - Social assistance
- Religious, cultural and educational services
- 29) **Al Sada Awlad Inan Organization for Qoran Learning in Ain Shams**
Function: Religious, cultural and educational services
Services: 1 School
- 30) **Rabitat al Ikhwa al Islamiya**
Functions: - Social assistance
- Religious services
Services: - 1 Mosque
- Literacy classes
- 31) **Manshiyat alZahra Charitable Organization**
Functions: - Social assistance
- Religious, cultural and educational services
Services: - 1 Mosque
- 1 Health Clinic

- 32) Al Mahda al Igtimaiya Organization in Zeitoun
Function: Family Welfare
Services: - 1 Sewing and Needlework Center
- 1 Day Care Center
- 33) Sayidina Al Khalil Ibrahim Charitable Organization
Functions: - Social assistance
- Cultural and religious services
- Family welfare
Services: - 1 Mosque
- 1 Health Clinic

B. Professional and Workers Associations

- 1) Al Mutafawiqin Secondary School Alumni Organization
Functions: - Social assistance
- Cultural and educational services
- 2) Social Association of Ain Shams Police Training Center
Function: Social assistance

C. Village Associations

- Six in Mataria
- Mit Kanana, Qaliubia
- Fao Qibli
- East Salmant
- Mit El Ezz, Daqahlia
- Bani Mazar, Sohag
- Amaniya, Sharqia

D. Other Organizations

- 1) The Cooperative Organization for Hajj Pilgrimage
Function: Religious services
Services: Assistance for Hajj Pilgrimage
- 2) Sudan Youth Charitable Organization
Function: Social assistance
- 3) The General Association for Homeowners in Manshiyat Al Tahrir
Function: Social assistance
- 4) The General Sudanese Club
Functions: - Social assistance
- Cultural and educational services

THE LOCAL GOVERNMENT SYSTEM

The local administration system introduced in 1960 aimed at decentralization of government functions in order to promote local participation in the administrative process.

Councils were set up at three levels: Governorates, cities and villages with defined administration and supervision responsibilities.

These councils brought together executive authority and citizen representation with membership composed of the administrative head of the locality, officials from central ministries providing services in the locality and a combination of appointed and elected citizens.

The new local government law enacted in 1975 sought to redefine and clarify the roles of the executive authorities and the citizen representatives in the administration of local affairs.

Based on the existing system of centralized planning, it carried the principles of decentralized administration much further by providing a more flexible framework and by strengthening active citizen participation and involvement.

It created a twin hierarchy of interacting bodies at all levels of local government: Governorates, provinces, cities, villages and urban districts.

1) Executive committees responsible for the implementation of national policies at the local level and the administration of government services and projects, within the locality. The committees' membership consists of the head of the locality, officials from the various departments of local administration and ex officio members from the Popular Council, namely the chairmen of the different subcommittees.

2) Popular Councils having defined supervision privileges in the administration of government activities including health, education and social services, housing, transportation and utilities projects, and investments to increase productive capacity and employment. Other responsibilities include review of annual budgets, administration of municipal property owned by the locality, and undertaking limited financial transactions: - funding, borrowing and giving loans and grants.

Council membership is composed of elected citizens from the various subareas of the locality.

At the central level, the Minister Committee for Local Government sets general policies and guidelines in accordance with national development plans and coordinates between the activities of local government units and central ministries.

Thus, although still subject to review and approval of central authorities, local government units do have delegated powers to run local affairs within the framework set by national plans and policies.
(See next page for diagram.)

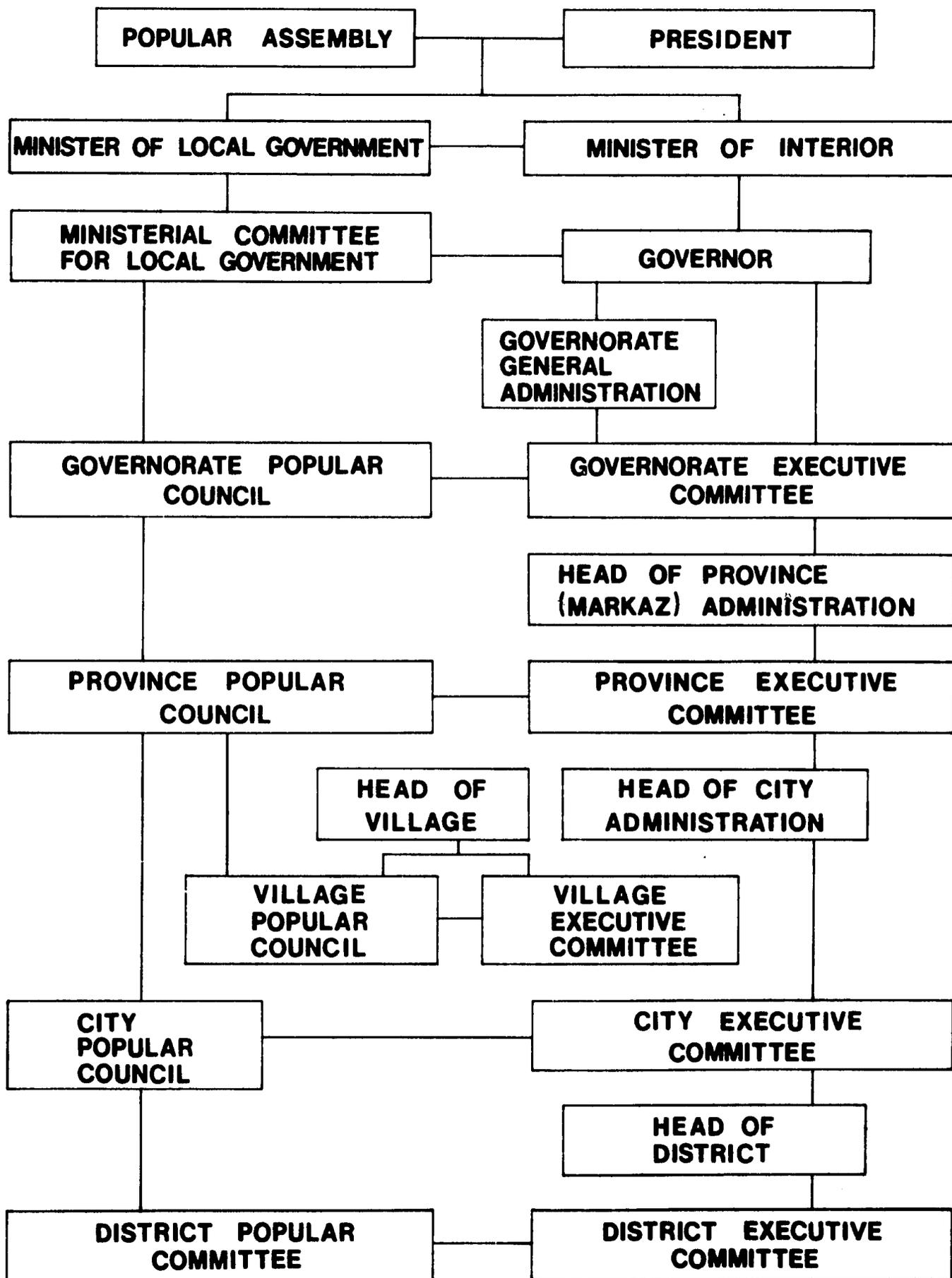


DIAGRAM OF LOCAL GOVERNMENT UNITS



STATISTICAL APPENDIX

HOUSING AND COMMUNITY

UPGRADING FOR
LOW-INCOME EGYPTIANS

AUGUST 1977

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SECTION I

POPULATION AND LABOR FORCE

The preliminary results of the complete census of population and housing taken in November 1976, were released in April 1977 by the Central Agency for Public Mobilization and Statistics.

For both Cairo and Alexandria district (Qism) level data are also available. However, due to some adjustments in boundaries, comparisons with earlier census figures (1960 and 1966) are difficult to ascertain. These ambiguities will be resolved when statistics at the level of the quarter (Shiakha) become available later on in April and May 1977.

The most striking findings of the 1976 census are:

(1) For the first time in the history of Egypt, there was a significant number of Egyptians living and working outside Egypt, 1.425 million representing 3.7% of the population.

(2) The average annual rate of population growth over the 66-76 decade was recorded at 2.31%. Although this represents a definite decline from the 2.54% rate recorded for the 1960-66 period, it is still high and implies that on the average the past decade witnessed a net growth in population amounting to one person every 41 seconds.

(3) The decline in the birth rate has affected the age structure as the proportion of the population below the age of 12 fell from 35.5% in 1960 to 31.6% in 1976.

(4) The changes recorded in the marital structure of the population are the most difficult to explain because of the array of socioeconomic factors that affect marriage decisions. The substantial increase in the number of single individuals represents a clear break from traditional patterns and seems to be confined to urban areas.

Since the publication of the census, many theories have been advanced to explain this phenomenon, foremost among which is the housing shortage. Undeniably, other factors such as the importance given to education, do contribute to increase the average age at marriage. However, the fact remains that there is a large number of young people who are forced to delay marriage decisions for many years until they are able to accumulate the savings necessary to secure a dwelling.

While the impact in terms of a lower birth rate may be ultimately beneficial for the nation, the detrimental impact--social and psychological--on the young people themselves should not be overlooked.

Table I-1
Population - Selected Governorates -
1960, 1966, 1976

	Egypt	Cairo	Alexandria	Minia	Qena
1976 population in millions	38.23	5.08	2.32	2.06	1.71
Percent of National Population					
1960	-	12.85	5.81	5.98	5.18
1966	-	14.03	5.99	5.67	4.89
1976	-	13.87	6.33	5.61	4.65
Governorate Rank Order					
1960	-	1	8	7	10
1966	-	1	6	7	10
1976	-	1	6	8	11
Percent Urban	43.91	100.00	100.00	20.96	22.94

Source: Central Agency for Public Mobilization and Statistics,
Preliminary Results of the 1976 Census of Population and
Housing, Cairo, April 1977, Tables 12 & 13.

Table I-2
Age Distribution - Selected Governorates - 1976

Age Group	Egypt	Cairo	Alexandria	Minia	Qena
Under 12	31.61	27.27	27.65	32.98	32.49
12 - 65	65.46	70.39	70.03	63.53	63.57
65 & Over	2.92	2.34	2.32	3.49	3.94
Total	100.0	100.0	100.0	100.0	100.0
Population in Millions	38.23	5.08	2.32	2.06	1.71

Source: Central Agency for Public Mobilization and Statistics,
Preliminary Results of the 1976 Census of Population and
Housing, Cairo, April 1977, Tables 1 3, 16.

Table I-3

Economically Active Population - Selected Governorates - 1976
(Population Age 6 & Over)

	Egypt		Cairo		Alexandria		Minia		Qena	
	Number in Thousands	Percent								
Male	9882.8	52.9	1306.4	50.1	617.4	51.8	603.7	56.9	437.9	51.1
Female	1660.2	9.2	273.6	11.0	120.2	10.7	57.9	5.8	26.7	3.2
Total	11543.0	31.5	1580.0	31.1	737.6	31.8	661.6	32.2	464.6	27.2

Source: Central Agency for Public Mobilization and Statistics, Preliminary Results of the 1976 Census of Population and Housing, Cairo, April 1977, Tables 17 and 18.

Table I-4

Egypt - Educational Level - 1960, 1976
(Population Age 10 & Above)

Educational Level	1960			1976		
	Male	Female	Total	Male	Female	Total
Illiterate ⁽¹⁾	56.9	84.0	70.5	43.2	71.0	56.5
Able to Read & Write ⁽²⁾	32.6	12.4	22.5	33.2	16.2	25.1
School Graduate	9.0	3.4	6.2	20.4	11.6	16.2
University Graduate	1.5	0.2	0.8	3.2	1.2	2.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Central Agency for Public Mobilization & Statistics, Preliminary Results of the 1976 Census of Population and Housing, Cairo, April 1977, Table 8.

NOTES: (1) Includes the unspecified category.
(2) Includes those able to read only.

Table I-5

Educational Level - Selected Governorates - 1976
(Population Age 10 & Above)

Educational Level	Cairo			Alexandria			Minia			Qena		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Illiterate ⁽¹⁾	24.25	42.55	34.57	27.59	48.18	37.45	58.37	84.88	70.94	57.45	85.89	71.18
Able to Read & Write ⁽²⁾	33.66	22.90	29.28	37.58	26.44	32.25	28.14	9.90	19.49	29.61	10.58	20.42
School Graduate	34.08	24.61	30.38	29.39	22.96	26.31	12.29	4.86	8.77	11.97	3.33	7.80
University Graduate	8.01	3.14	5.77	5.44	2.42	3.99	1.20	0.36	0.80	0.97	0.20	0.60
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number in Thousands	2085.5	1943.5	4029.0	951.2	875.0	1826.2	792.6	714.5	1507.1	660.2	616.1	1276.3

Source: Central Agency for Public Mobilization and Statistics, Preliminary Results of the 1976 Census of Population and Housing, Cairo, April 1977, Table 19.

NOTES: (1) Includes the unspecified category.
(2) Includes those able to read only.

Table I-6

Egypt - Marital Status - 1960, 1976
 (Population of Marrying Age⁽¹⁾
 Percent Distribution)

Marital Status	Sex	1960	1976
Single	Male	24.3	30.5
	Female	12.1	19.7
	Total	17.9	24.9
Married	Male	72.0	66.9
	Female	67.5	64.7
	Total	69.6	65.7
Divorced or Widowed ⁽²⁾	Male	3.7	2.6
	Female	20.4	15.7
	Total	12.5	9.4
Total	Male	100.0	100.0
	Female	100.0	100.0
	Total	100.0	100.0

Source: Central Agency for Public Mobilization and Statistics,
 Preliminary Results of the 1976 Census of Population and
 Housing, Cairo, April 1977, Table 9.

NOTES: (1) Males age 18 & above; Females age 16 & above.
 (2) Includes the unspecified category.

Table I-7
 Marital Status - Selected Governorates - 1976
 (Population of Marrying Age⁽¹⁾
 Percent Distribution)

Marital Status	Sex	Cairo	Alexandria	Minia	Qena
Single	Male	36.95	38.13	23.90	25.42
	Female	26.95	28.33	11.75	13.01
	Total	31.87	33.20	17.52	18.85
Married	Male	60.51	59.45	73.27	71.73
	Female	60.35	59.71	69.02	69.04
	Total	60.43	59.58	71.04	70.30
Divorced or Widowed ⁽²⁾	Male	2.54	2.42	2.83	2.85
	Female	12.70	11.96	19.23	17.95
	Total	7.70	7.22	11.44	10.85
Total	Male	100.0	100.0	100.0	100.0
	Female	100.0	100.0	100.0	100.0
	Total	100.0	100.0	100.0	100.0
Number in Thousands	Male	1473.7	680.7	538.1	436.2
	Female	1522.1	688.2	595.2	491.4
	Total	2995.8	1368.9	1133.3	927.6

Source: Central Agency for Public Mobilization and Statistics,
 Preliminary Results of the 1976 Census of Population and
 Housing, Cairo, April 1977, Table 21.

NOTES: (1) Males Age 18 & Above; Females Age 16 & Above.
 (2) Includes the unspecified category.

Table I-8
Greater Cairo Population, 1947 - 1976
(in thousands)

Year	Total	Cairo	Giza	Qaliubiyah
1947	2,963	2,080	574	309
1960	4,820	3,353	1,002	465
1966	6,113	4,220	1,293	600
1976	8,000	5,084	1,978	938

Source: Central Agency for Public Mobilization and Statistics.

Table I-9
 Greater Cairo Population - 1976
 By Administrative Subareas
 (in thousands)

Locality	Male	Female	Total
<u>Cities</u>			
Cairo	2,607	2,477	5,084
Giza	639	607	1,246
Shoubra El-Kheima	205	189	394
<u>Provinces</u>			
Giza	48	46	94
Embaba	210	197	407
El Badrashin	103	95	198
El Saaf	17	16	32
El Qanater	74	68	141
El Khankah	81	72	153
Shebeen-el-Qanater	34	31	65
Qaliub	96	89	185
Total	4,113	3,887	8,000

Source: Central Agency for Public Mobilization and Statistics.
 Preliminary Results of the 1976 Census of Population and
 Housing, Cairo, April 1977, Table (14a).

Table I-10
Giza Governorate - Population - 1976
By Administrative Subareas
(in thousands)

District	Male	Female	Total	Gross Density Person/Sq. Km.
El Giza	108	101	209	17
El Ahram	68	62	130	4
El Dokki	51	50	102	14
El Agouza ⁽¹⁾	76	71	147	--
Embaba	165	158	323	38
Boulaq El-Dakrour	166	157	322	19
Total	633	600	1233	16

Source: Central Agency for Public Mobilization and Statistics.
Preliminary Results of the 1976 Census of Population and
Housing, Cairo, April 1977, Table (14g).

NOTE: (1) Agouza district is a newly created district incorporating
quarters (Shiakhas) formerly part of Dokki and Embaba.

Table I-11

Cairo Governorate - Population, Households and Densities
by District - 1960, 1966, 1976

District	Population 1976	Households 1976	Household Size			Gross Density Thousand Persons/Km ²			Area Km ²
			1960	1966	1976	1960	1966	1976	
<u>North Cairo</u>									
El Sahel	438,703	88,477	4.9	5.1	5.0	49	61	68	6.5
Rod El Farag	272,448	56,059	5.0	5.2	4.9	98	105	101	2.7
Shoubra	128,782	27,597	4.7	5.0	4.7	41	56	80	7.2
El Sharabiyah	443,741	90,113			4.9				
<u>East Cairo</u>									
El Mataria	534,612	111,632	4.9	5.0	4.8	2	5	8	67.8
El Zeitoun	267,662	53,518	4.8	4.9	5.0	24	31	64	4.2
El Waily	142,208	28,688	4.8	5.0	5.0	19	22	28	16.5
Hadaiq El Qubba	314,705	65,692			4.8				
<u>Heliopolis</u>									
Heliopolis	127,131	29,411			4.3				
El Nouzha	101,625	24,448	4.7	4.5	4.2	4	5	9	32.3
Nasr City	65,347	13,327			4.9				
<u>Central Cairo</u>									
El Zaher	104,153	21,326	5.1	5.3	4.9	52	55	52	2.0
Bab El Shaaria	110,247	22,403	4.9	5.3	4.9	139	136	100	1.1
El Gamalia	166,699	34,820	4.8	5.0	4.8	30	30	35	4.8
El Darb El Ahmar	146,589	29,438	5.1	5.3	5.0	53	54	52	2.8

(Continued)

Table I-11 (continued)

District	Population 1976	Households 1976	Household Size			Gross Density Thousand Persons/Km ²			Area Km ²
			1960	1966	1976	1960	1966	1976	
West Cairo									
El Mouski	58,402	11,682	4.8	5.3	5.0	64	60	97	0.6
El Azbakia	59,667	12,419	4.3	4.6	4.8	38	37	35	1.7
Boulaq	177,929	38,502	4.5	4.9	4.6	75	75	66	2.7
Qasr El Nil	39,342	9,880	3.7	4.0	4.0	7	7	7	6.0
Abdine	88,282	19,744	4.6	4.6	4.5	56	58	55	1.6
South Cairo									
El Sayeda Zeinab	252,260	53,108	5.0	5.2	4.7	72	78	72	3.5
El Khalifa	186,963	40,002	4.8	4.9	4.7	19	27	22	8.6
Masr El Qadima	273,670	56,588	4.9	5.0	4.8	21	25	27	10.1
Helwan									
El Maadi	267,056	58,160	4.7	4.8	4.6	2	6	11	25.1
Helwan	282,597	61,021	4.9	4.8	4.6	15	31	49	6.4
El Tibbin	33,593	7,299			4.6				
Total	5,084,463	1,065,354	4.8	4.9	4.8	17	20	24	214.2

Source: Central Agency for Public Mobilization and Statistics.

Table I-12
Cairo Governorate - Literacy by District

District	Population in thousands			Percent Literate		
	Male	Female	Total	Male	Female	Total
<u>North Cairo</u>						
El Sahel	225	214	439	64.7	48.0	56.5
Rod El Farag	139	134	272	64.1	48.6	56.5
Shoubra	65	63	129	66.8	51.8	59.4
El Sharabiyah	230	214	444	53.6	31.8	43.1
<u>East Cairo</u>						
El Mataria	275	259	535	54.1	36.3	45.5
El Zeitoun	137	131	268	65.0	46.5	56.0
El Waily	74	68	142	69.8	53.8	62.2
Hadaiq El Qubba	162	153	315	59.0	39.2	49.4
<u>Heliopolis</u>						
Heliopolis	63	64	127	77.2	68.0	72.5
El Nouzha	50	52	102	74.4	66.2	70.2
Nasr City	33	33	65	65.6	58.6	62.1
<u>Central Cairo</u>						
El Zaher	53	51	104	73.0	60.3	66.7
Bab El Shaaria	56	54	110	58.0	43.0	50.7
El Gamalia	86	81	167	44.7	30.2	37.7
El Darb El Ahmar	75	72	147	56.9	43.7	50.4
<u>West Cairo</u>						
El Mouski	31	28	58	55.6	40.1	48.2
El Azbakia	32	28	60	66.1	48.6	58.0
Boulaq	91	87	178	53.9	32.9	43.7
Qasr El Nil	20	19	39	79.2	71.9	75.7
Abdine	45	43	88	73.0	54.0	63.7
<u>South Cairo</u>						
El Sayeda Zeinab	128	124	252	65.0	48.9	57.0
El Khalifa	94	93	187	55.3	40.8	48.1
Masr El Qadima	139	134	274	59.3	44.5	52.0
<u>Helwan</u>						
El Maadi	138	129	267	53.5	33.6	43.9
Helwan	148	134	283	57.2	35.1	46.7
El Tibbin	18	16	34	46.8	23.1	35.6
Total	2,607	2,477	5,084	60.1	43.2	51.8

Source: Central Agency for Public Mobilization and Statistics. Preliminary Results of the 1976 Census of Population & Housing, Cairo, April 1977.

Table I-13
Cairo - Population Characteristics - Selected Areas -
1966, 1976

District (Qiyah)	Quarter (Shiakha)	1966			1976		
		Male	Female	Total	Male	Female	Total
Al Gamalia	Al Azhar	1635	1185	2820	1350	1059	2409
	Al Gamalia	4233	4159	8392	4714	4520	9234
	Al Khoronfish	3353	3288	6641	1288	1268	2556
	Al Mashad Al Husayni	3044	2628	5672	1895	1640	3535
	Bab El Futuh	2713	2706	5419	2624	2556	5180
	Qasr El Shawq	5901	5595	11496	5156	4874	10030
	Khan El Khalili	2091	1788	3879	1811	1602	3413
Helwan	Helwan El Balad	17726	16660	34386	27987	24743	52730
	East Helwan	15080	13396	28476	12049	10534	22583
	West Helwan	19672	17040	36712	9960	9367	19327
	Kafr el Elu	9749	8801	18550	7480	6894	14374
Al Mataria	Al Zahra	13852	13522	27374	24467	23217	47684
	Tolombat Ain - Shams ⁽¹⁾	--	--	--	22804	21863	44667
	East Ain - Shams	9696	9090	18786	25587	24124	49711

Source: Central Agency for Public Mobilization and Statistics, Communication to the Ministry of Housing and Reconstruction, dated April 13th, 1977, and the 1966 Census.

NOTE: (1) This Shiakha did not exist as a separate entity in 1966.

Table I-14
Cairo - Households
1966 - 1976

District (Qism)	Quarter (Shiakha)	1966	1976
Al Gamalia	Al Azhar	463	484
	Al Gamalia	1608	1812
	Al Khoronfish	1181	497
	Al Mashad Al Husayni	1048	688
	Bab El Futuh	949	995
	Qasr El Shawq	2364	2005
	Khan El Khalili	694	615
Helwan	Helwan El Balad	7347	11645
	East Helwan	5477	4738
	West Helwan	6871	4024
	Kafr El Elu	4007	3049
Al Mataria	Al Zahra	5499	10363
	Tolombat Ain-Shams	--	9522
	East Ain-Shams	3712	10763

Source: Central Agency for Public Mobilization and Statistics,
Communication to The Ministry of Housing and Reconstruction,
dated April 13th, 1977.

Table I-15
Cairo - Economically Active Population - Selected Areas - 1976

District (Qism)	Quarter (Shiakha)	Employed			Unemployed ⁽¹⁾			Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Al Gamalia	Al Azhar	721	82	803	56	13	69	777	95	872
	Al Gamalia	2623	177	2800	106	35	141	2729	212	2941
	Al Khoronfish	543	88	631	43	25	68	586	113	699
	Al Mashad Al Husayni	1005	97	1102	64	25	89	1069	122	1191
	Bab El Futuh	1366	180	1546	67	37	104	1433	217	1650
	Qasr El Shawq	2455	293	2748	158	90	248	2613	383	2996
	Khan El Khalili	975	116	1091	40	48	88	1015	164	1179
Helwan	Helwan El Balad	13009	267	13276	1117	439	1556	14126	706	14832
	East Helwan	5664	1943	7607	482	468	950	6146	2411	8557
	West Helwan	4375	1164	5539	251	229	480	4626	1393	6019
	Kafr El Elu	3260	66	3326	430	4	434	3690	70	3760
Al Mataria	Al Zahra	11059	2902	13961	778	1034	1812	11837	3936	15773
	Tolombat Ain-Shams	12151	1412	13563	1584	802	2386	13735	2214	15949
	East Ain-Shams	11288	2366	13654	783	577	1360	12071	2943	15014

Source: Central Agency for Public Mobilization and Statistics, Communication to the Ministry of Housing and Reconstruction, dated April 13th, 1977.

NOTE: (1) Unemployed is defined as those actively seeking employment for which they are qualified.

Table I-16
Alexandria Governorate - Population, Household and Densities
By District - 1976

District	Population 1976	Households 1976	Households Size 1976	Gross Density Thousand Person/ Km ²	Area Km ²
East Alexandria					
Al Muntazah	310,054	62,284	5.0	3	108.6
Al Raml	446,155	94,316	4.7	44	10.03
Sidi Gaber	134,516	29,185	4.6	24	1--(2)
Central Alexandria					
Al Attarin	75,062	15,016	5.0	37	2.02
Al Manshiya	44,843	8,655	5.2	79	0.57
Moharam Bey	336,228	64,537	5.2	88	3.84
Bab Sharqi	215,639	45,512	4.7	24	--(2)
West Alexandria					
Al Gumruk	142,806	28,567	5.0	133	1.07
Al Labban	78,496	14,903	5.3	45	1.73
Karmouz	213,737	40,779	5.2	65	3.3
The Port Area	--	--	--	--	1.12
Al Amiriyah					
Al Amiriyah	47,025	7,961	6.0	--(1)	2365.0
Al Dakhila	45,868	9,032	5.1	2	29.0
Mina El Basal	227,725	45,296	5.0	14	16.77
Total	2,318,655	466,043	5.0	0.9	2679.36

Source: Central Agency for Public Mobilization and Statistics, Preliminary Results of 1976 Census of Population and Housing, Cairo, April 1977, Table (14d).

NOTES: (1) Density 20 Persons/Km²
(2) Combined area of these two Districts is 14.79 Km²

Table I-17
Alexandria Governorate - Literacy by District

District	Population in thousands			Percent Literate		
	Male	Female	Total	Male	Female	Total
<u>East Alexandria</u>						
Al Muntazah	158	152	310	56.2	37.8	47.2
Al Raml	229	217	446	55.5	35.0	45.5
Sidi Gaber	69	65	135	72.5	57.9	65.4
<u>Central Alexandria</u>						
Al Attarin	39	36	75	65.8	51.7	59.0
Al Manshiya	23	22	45	59.2	44.5	52.1
Moharam Bey	172	164	336	57.5	46.3	52.1
Bab Sharqi	110	106	216	67.4	51.5	59.6
<u>West Alexandria</u>						
Al Gumruk	73	70	143	60.7	45.8	53.3
Al Labban	40	38	78	51.0	34.9	43.1
Karmouz	111	103	214	53.2	36.5	45.1
The Port Area	---	---	---	---	---	---
<u>Al Amiriyah</u>						
Al Amiriyah	24	23	47	22.5	7.0	15.0
Al Dakhila	24	22	46	54.3	29.8	42.5
Mina El Basal	118	110	228	53.4	33.8	43.9
Total	1191	1128	2319	57.4	40.6	49.2

Source: Central Agency for Public Mobilization and Statistics.
Preliminary Results of the 1976 Census of Population & Housing,
Cairo, April 1977.

SECTION II

HOUSEHOLD INCOME AND EXPENDITURES

In December 1976, the Central Agency for Public Mobilization and Statistics published the Household Budget Survey taken in 1974-1975. This document provides the most recent data on income and expenditure.

As in the previous surveys carried out in 1958-1959 and 1964-1965, the 1974-1975 survey is also biased towards higher income groups and larger households. Consequently, the results have to be adjusted to take into consideration that portion of the urban population which is normally not covered by the survey; namely, the floating population which consists of laborers without fixed occupation, newly arrived migrants, illegal occupants on roofs, in tombs and in other non-residential structures, squatters, etc.

Table II-1

Egypt Urban Areas - Household Distribution by Expenditure Class
1974-1975 Sample Survey

Annual Household Expenditure in L.E.	50 or Less	50-75	75-100	100-150	150-200	200-250	250-300	300-350	350-400	400-500	500-600	600-800	800-1000	1000-1400	1400-2000	2000+	Total	
																	Number	Percent
A. - Household Size																		
1	3	12	12	16	6	5	-	2	1	2	1	6	-	1	-	-	67	3.36
2	-	2	7	23	18	28	13	17	16	18	14	12	8	2	1	-	179	8.97
3	1	1	1	8	16	15	30	17	17	25	17	19	13	6	4	1	191	9.57
4	-	-	1	6	20	30	25	20	18	39	24	44	13	25	8	4	277	13.88
5	-	-	-	5	10	24	25	28	35	52	28	42	30	21	10	4	314	15.74
6	-	-	-	1	2	12	16	28	32	44	47	60	25	17	11	3	298	14.94
7	-	-	-	-	4	12	19	21	21	50	49	51	24	25	10	3	289	14.50
8	-	-	-	-	1	6	6	12	12	31	27	35	13	7	7	4	161	8.07
9	-	-	-	-	1	1	1	2	9	19	18	30	7	15	6	5	114	5.71
10+	-	-	-	1	-	-	2	5	2	17	11	27	16	15	7	2	105	5.26
Total	4	15	21	60	78	133	137	152	163	297	236	326	149	134	64	26	1995	100.0
Percent Distribution	0.20	0.75	1.05	3.00	3.91	6.67	6.87	7.62	8.17	14.89	11.83	16.34	7.4	6.72	3.21	1.3	100.0	
Cumulative Percentage	0.20	0.95	2.01	5.01	8.92	15.59	22.46	30.08	38.25	53.13	64.96	81.30	88.77	95.49	98.67	100.00		
B. - Wage Earners																		
1	3	12	18	51	61	102	98	106	110	166	126	159	71	50	18	4	1155	57.90
2	-	1	3	6	14	20	32	34	43	86	72	108	54	41	21	15	550	27.57
3	-	-	-	-	2	7	6	10	8	37	32	38	11	25	14	3	193	9.67
4+	1	2	-	3	1	4	1	2	2	8	6	21	13	18	11	4	97	4.86
Total	4	15	21	60	78	133	137	152	163	297	236	326	149	134	64	26	1995	100.0
Percent Distribution	0.20	0.75	1.05	3.00	3.91	6.67	6.87	7.62	8.17	14.89	11.83	16.34	7.4	6.72	3.21	1.3	100.0	

Source: Central Agency for Public Mobilization and Statistics, Household Budget Survey - 1974-1975, Cairo, December 1976, Document No. 0819/AA/76.

Table II-2
Egypt, Urban Areas, Household Characteristics, 1974-1975
Sample Survey

Household Composition	Single	Married Couple Without Children	Married Couple With Children	Married Couples With Parents	Married Couples With Children and Parents	Other Family Groupings	Unrelated Individuals	Total	
								Number	Percent
A. Household Size									
1	67	-	-	-	-	-	-	67	3.36
2		116	38	-	-	-	-	179	8.97
3		16	163	2	4	23	2	191	9.57
4		4	263	3	2	6	-	277	13.88
5		2	290	7	9	5	-	314	15.74
6		2	268	12	16	6	-	298	14.94
7		1	256	5	22	2	-	289	14.50
8		-	147	2	7	5	-	161	8.07
9		-	104	6	3	5	-	114	5.71
10+		-	68	7	25	1	-	105	5.26
Total	67	139	1597	44	88	58	2	1995	100.0
Percent Distribution	3.36	6.97	80.05	2.21	4.41	2.9	0.1	100.0	
B. - Wage Earners									
1	63	113	914	14	28	22	1	1155	57.90
2	-	23	443	19	37	27	1	550	27.57
3	-	3	161	6	16	7	-	193	9.67
4+	4	-	79	5	7	2	-	97	4.86
Total	67	139	1597	44	88	58	2	1995	100.0
Percent Distribution	3.36	6.97	80.05	2.21	4.41	2.9	0.1	100.0	

Source: Central Agency for Public Mobilization and Statistics, Household Budget Survey - 1974-1975, Cairo, December 1976, Document No. 0819/AA/76

Table II-3

Egypt, Urban Areas, Household Distribution according to Per Capita Expenditure Class, 1974-1975
Sample Survey

Annual Per Capita Expenditure in L.E.	10- 20	20- 30	30- 40	40- 50	50- 60	60- 80	80- 100	100- 150	150- 200	200- 250	250- 300	300 & Over	Total	
													Number	Percent
A. - Household Size														
1	-	-	3	-	7	6	11	16	6	5	-	13	67	3.36
2	-	-	2	7	8	22	11	41	33	18	14	23	179	8.97
3	1	1	2	7	9	19	33	50	26	14	11	18	191	9.57
4	-	3	5	19	25	37	31	63	44	13	18	19	277	13.88
5	-	5	10	24	24	64	52	61	39	16	8	11	314	15.74
6	1	1	11	18	32	60	59	75	23	4	9	5	298	14.94
7	-	4	22	30	25	76	53	49	17	7	3	3	289	14.50
8	-	6	10	21	19	46	28	15	8	4	1	3	161	8.07
9	1	1	6	17	14	31	13	19	6	1	3	2	114	5.71
10+	-	4	11	15	12	28	12	18	3	1	-	1	105	5.26
Total	3	25	82	158	175	389	303	407	205	83	67	98	1995	100.0
Percent Distribution	0.15	1.25	4.11	7.92	8.77	19.50	15.20	20.40	10.27	4.16	3.36	4.91	100.0	
B. - Wage Earners														
1	2	17	57	93	109	224	193	236	106	41	35	42	1155	57.90
2	-	6	16	47	49	106	64	109	65	27	20	41	550	27.57
3	1	2	4	12	13	43	23	39	21	8	6	11	193	9.67
4+	-	-	5	6	4	16	13	23	13	7	6	4	97	4.86
Total	3	25	82	158	175	389	303	407	205	83	67	98	1995	100.0
Percent Distribution	0.15	1.25	4.11	7.92	8.77	19.50	15.20	20.40	10.27	4.16	3.36	4.91	100.0	

Source: Central Agency for Public Mobilization and Statistics, Household Budget Survey - 1974-1975, Cairo, December 1976, Document No. 0819/AA/76.

Table II-4
Egypt, Urban Areas, Household Expenditure Patterns by Expenditure Class, 1974-1975
Sample Survey

Annual Household Expenditure in L.E.	50 or Less	50-75	75-100	100-150	150-200	200-250	250-300	300-350	350-400	400-500	500-600	600-800	800-1000	1000-1400	1400-2000	2000+	Total
Items																	
A.-Food & Beverages	56.45	66.31	68.19	63.65	61.38	58.40	57.88	57.35	56.92	54.29	51.98	51.22	47.85	44.09	43.33	27.93	49.07
B.-Clothing	18.55	7.44	4.85	7.58	9.83	10.17	10.49	11.71	12.18	13.63	14.25	14.95	15.49	16.29	15.11	11.00	14.00
C.-Housing	22.58	20.62	18.81	18.17	16.17	16.41	14.55	15.31	14.52	13.77	13.20	11.94	12.65	10.78	11.03	6.59	12.23
Shelter	18.55	16.15	14.17	13.71	11.73	12.05	10.54	11.16	10.45	9.62	9.26	8.33	9.15	7.6	7.15	4.92	8.70
Fuel	4.03	4.46	4.64	4.46	4.45	4.36	4.01	4.15	4.06	4.11	3.94	3.61	3.50	3.22	2.98	1.67	3.53
D.-Home Furnishings	1.61	3.29	2.61	2.41	2.71	2.48	2.70	2.75	2.79	2.6	2.94	3.38	4.03	4.08	5.55	4.59	3.58
Furniture & Eqpt.	-	0.53	0.37	0.53	0.64	0.71	0.80	0.83	1.02	0.89	1.20	1.64	1.90	1.64	2.69	1.14	1.45
Home Products	1.61	2.76	2.24	1.84	2.07	1.77	1.90	1.92	1.72	1.64	1.58	1.43	1.34	1.28	1.11	0.67	1.43
Household Services	-	-	-	0.04	-	-	-	-	0.05	0.07	0.15	0.31	0.79	1.16	1.76	2.79	0.70
E.-Health Care	-	1.17	2.08	2.24	1.29	0.98	1.14	1.15	1.62	1.44	1.69	1.54	1.76	2.40	2.98	1.03	1.74
F.-Transport	0.81	0.11	0.53	0.54	1.03	1.70	1.51	1.88	1.92	2.10	2.44	2.32	2.93	4.27	4.74	34.34	5.15
Private	-	-	-	-	-	-	-	0.01	0.01	0.05	0.01	0.06	-	0.23	0.24	6.52	0.56
Public	0.81	0.11	0.53	0.54	1.03	1.70	1.50	1.87	1.91	2.05	2.43	2.25	2.93	4.04	4.50	27.81	4.59
G.-Education	-	0.21	-	0.12	0.31	0.68	1.36	0.82	0.83	1.47	1.68	1.86	2.21	3.03	3.34	2.94	2.03
H.-Culture & Entertainmt.	-	-	0.48	-	0.24	0.27	0.19	0.41	0.64	0.71	1.18	1.40	1.64	1.82	1.54	1.64	0.96
I.-Miscellaneous	-	0.85	2.34	5.23	6.92	8.66	7.39	8.42	8.07	9.57	9.71	9.75	10.33	10.74	11.59	6.65	9.60
Personal Goods	-	-	-	0.01	0.01	0.01	0.03	0.05	0.06	0.05	0.11	0.12	0.27	0.19	0.19	0.02	0.13
Personal Care Prdts	-	0.74	1.60	1.65	2.20	1.90	2.02	2.21	1.85	2.14	2.18	2.11	2.42	2.50	2.59	1.69	2.20
Tobacco	-	-	0.16	3.36	4.03	5.58	6.81	4.97	4.83	5.46	5.26	4.98	5.04	4.75	4.27	2.37	4.81
Other Gds. & Servs.	-	0.11	0.59	0.20	0.67	1.16	1.17	1.18	1.33	1.92	2.16	2.49	2.60	3.30	4.54	2.57	2.46
J. - Transfer Paymts.	-	-	0.11	0.05	0.12	0.22	0.13	0.17	0.46	0.38	0.66	1.11	0.85	2.27	1.54	2.70	1.10
K. - Down Paymts.	-	-	-	-	0.01	0.02	0.02	0.03	0.05	0.08	0.28	0.53	0.28	0.23	0.24	0.58	0.27
Average Number of Persons Per Household	1.5	1.3	1.6	2.4	3.5	4.2	4.7	5.2	5.3	5.9	6.1	6.3	6.2	6.4	6.6	6.8	5.5
Average Expenditure per Household in L.E.	31.0	62.7	89.4	125.9	178.7	225.0	276.1	326.2	376.5	451.3	549.2	692.4	893.1	1161.0	1630.6	3407.8	588.5
Average Expenditure per Capita in L.E.	20.7	49.5	56.9	53.2	50.9	53.71	58.4	63.32	70.8	76.9	89.6	110.5	144.8	181.1	249.1	503.4	107.4

Source: Central Agency for Public Mobilization and Statistics, Household Budget Survey, 1974-1975, Cairo, December 1976, Document No. 0819/AA/76.

SECTION III

HOUSING PRODUCTION AND HOUSING USE CONDITIONS

The 1976 Census of Housing will provide an accurate picture of the housing situation in Egypt. Only preliminary results are available at this time. This segmental information is given here since it provides the best data currently available.

For survey purposes a dwelling unit was defined as any structure intended for human habitation irrespective of type of construction or building materials utilized. The dwelling unit count does not, therefore, embody indications as to housing standards. Provision with various utilities is documented, but structural conditions are not covered.

In accordance with the guidelines set in the 1976-1980 National Development Plan, the 1977 Housing Plan places heavy reliance on the private sector to achieve its ambitious objective of 100,000 dwelling units.

Special emphasis is given to attracting the savings accumulated by Egyptians working abroad and to tap sources of foreign investment.

Simultaneously, as shown in the following section, high priority is given in the plan to increasing the capacity of the construction industry by expanding the production of building materials and by importing new contractor's equipment.

Table III-1

Cairo Governorate - Dwelling Units, (1) 1976

District	Number of Structures	Number of Units	Apartments						Rooms (2)					
			Total	Private Resi- dence	Group Quar- ters	Busi- ness Use	Mixed Use	Vacant	Total	Private Resi- dence	Group Quar- ters	Busi- ness Use	Mixed Use	Vacant
North Cairo														
El Sahel	17,389	89,562	69,746	66,484	10	516	94	2,642	19,816	18,688	1	135	61	931
Rod El Farag	9,966	40,178	30,513	29,578	17	359	45	514	9,665	9,198	10	74	24	359
Shoubra	4,875	27,341	18,901	18,173	20	278	42	388	8,440	7,834	9	129	43	425
El Sharabiyah	20,947	83,084	64,607	60,728	6	399	122	3,352	18,477	17,825	1	175	86	390
East Cairo														
El Mataria	50,547	121,777	92,004	85,753	33	525	102	5,511	29,773	28,081	3	189	95	1,405
El Zeitoun	14,692	58,233	47,383	44,668	38	207	71	2,399	10,850	10,505	9	33	6	297
El Wally	5,954	31,160	20,026	19,026	42	168	30	760	10,527	10,527	4	75	39	489
Hadaiq El Qubba	15,426	62,837	47,625	45,296	2	290	431	1,606	15,207	14,645	-	119	79	364
Heliopolis														
Heliopolis	5,388	36,600	32,005	29,680	44	406	60	1,815	4,595	3,394	20	245	8	928
El Nouzha	4,325	30,619	28,779	26,263	12	200	48	2,256	1,840	1,411	-	41	45	343
Nasr City	3,675	17,828	16,818	13,947	89	164	46	2,572	1,010	720	9	27	43	211
Central Cairo														
El Zaher	2,658	23,232	20,417	19,554	30	301	30	502	2,815	2,460	1	58	26	270
Bah El Shaaria	4,155	22,129	16,045	15,545	5	189	22	284	6,084	5,539	-	134	13	398
El Gamalia	15,318	40,628	17,732	16,558	15	684	31	444	22,896	19,300	3	1,134	50	2,409
El Darb El Ahmar	9,739	32,054	19,384	18,343	-	273	635	133	12,670	8,954	3	749	1,669	1,295
West Cairo														
El Mouski	3,094	13,663	9,575	8,333	49	959	38	196	4,088	2,857	55	964	19	193
El Azbakia	2,309	16,962	12,001	9,327	312	2,049	58	255	4,961	3,256	262	894	32	517
Roulaq	9,109	41,126	19,539	18,962	1	231	40	305	21,587	20,466	2	311	21	787
Qasr El Nil	1,760	16,142	14,414	11,290	246	1,580	50	1,248	1,728	1,328	49	248	-	103
Abdine	3,711	26,903	21,440	16,404	152	4,222	103	559	5,463	3,441	10	1,577	23	412
South Cairo														
El Sayeda Zelnab	11,439	55,400	38,852	36,986	39	648	63	1,116	16,548	15,039	6	395	60	1,048
El Khalifa	30,433	44,920	24,524	23,429	6	104	23	962	20,396	17,319	6	218	80	2,773
Masr El Qadima	13,770	63,362	38,835	37,587	45	208	81	914	24,527	22,873	5	252	88	1,309
Helwan														
El Maadi	28,224	67,041	48,613	45,295	18	223	54	3,023	18,428	17,330	-	169	19	910
Helwan	24,840	70,489	41,747	39,583	28	237	62	1,837	28,742	27,743	1	97	69	832
El Tibbin	3,120	8,735	7,609	6,877	56	68	8	600	1,126	876	-	101	12	137
Total	316,863	1,142,000	819,134	763,669	1,315	15,488	2,469	36,193	322,866	291,609	469	8,543	2,710	19,535

Source: Central Agency for Public Mobilization and Statistics, Preliminary Results of the 1976 Census of Population and Housing, Cairo, April 1977, Table 27.

- NOTES: (1) The dwelling unit is defined as any structure that is intended for human habitation, irrespective of type of construction or building material utilized.
(2) A Room is defined as a unit that is independently built and serves as a separate dwelling unit.

Table III-2
Alexandria Governorate - Dwelling Units, ⁽¹⁾ 1976

District	Number of Structures	Number of Units	Apartments						Rooms ⁽²⁾					
			Total	Private Residence	Group Quarters	Business Use	Mixed Use	Vacant	Total	Private Residence	Group Quarters	Business Use	Mixed Use	Vacant
East Alexandria														
Al Muntazah	37,909	85,476	77,230	69,339	265	261	157	7,208	8,246	7,717	3	67	11	448
Al Raml	31,052	95,905	62,499	59,612	5	317	35	2,530	33,406	31,986	-	162	33	1,225
Sidi Gaber	6,947	30,851	26,163	25,168	55	96	23	821	4,688	4,119	8	49	25	487
Central Alexandria														
Al Attarin	2,932	21,671	15,468	12,931	159	2,045	106	227	6,203	4,891	27	677	6	602
Al Manshiyah	1,861	10,687	6,471	5,736	151	479	22	83	4,216	2,899	254	916	16	131
Bab Sharqi	8,806	49,160	37,714	34,544	79	218	37	2,836	11,446	9,600	59	69	27	1,691
Moharam Bey	15,779	49,784	37,659	36,474	177	205	25	778	12,125	11,480	4	41	53	547
West Alexandria														
Al Gumruk	5,403	28,726	18,972	18,462	45	85	23	357	9,754	9,163	-	52	23	516
Al Labban	3,337	12,769	8,480	8,225	4	74	13	164	4,289	4,117	-	33	16	123
Karmuz	8,603	36,150	20,693	20,176	4	81	11	421	15,457	14,989	1	58	20	389
The Port Area	527	--	--	--	--	--	--	--	--	--	--	--	--	--
Al Amiriyah														
Al Amiriyah	2,551	2,289	2,172	2,153	--	15	3	1	117	117	-	--	--	--
Al Dikhela	8,300	11,281	9,554	8,616	12	28	2	896	1,727	1,397	236	9	1	84
Mina el Basal	14,256	44,063	30,453	29,441	1	104	31	876	13,610	13,102	1	158	65	284
Total	148,263	478,812	353,528	330,877	957	4,008	488	17,198	125,284	115,577	593	2,291	296	6,527

Source: Central Agency for Public Mobilization and Statistics, Preliminary Results of the 1976 Census of Population and Housing, Cairo, April 1977, Table 28.

- NOTES: (1) The dwelling unit is defined as any structure that is intended for human habitation, irrespective of type of construction or building material utilized.
(2) A Room is defined as a unit that is independently built and serves as a separate dwelling unit.

Table III-3
Households with Access to Filtered Water Supply

Governorate	Individual Supply in the Dwelling Unit			Common Supply in the Structure			Common Supply Outside the Structure			No Supply Close by			Total Number of Households in Thousands		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Cairo	70.1	-	70.1	10.6	-	10.6	17.7	-	17.7	1.6	-	1.6	1,065	-	1,065
Alexandria	77.8	-	77.8	11.8	-	11.8	9.2	-	9.2	1.2	-	1.2	466	-	466
Minia	38.7	1.1	9.0	8.2	0.9	2.4	19.9	55.7	48.2	33.2	42.3	40.4	87	329	416
Qena	35.7	2.4	9.9	5.6	1.4	2.4	24.7	39.2	35.9	34.0	57.0	51.8	76	264	342
Egypt	60.6	3.7	30.2	8.6	1.8	4.9	18.5	58.2	39.7	12.3	36.3	25.2	3,248	3,738	6,985

Source: Central Agency for Public Mobilization and Statistics, Preliminary Results of the 1976 Census of Population and Housing, Cairo, April 1977, Table 25.

Table III-4
Households in Dwelling Units with Electricity - 1976

Governorate	Percent with Electricity			Total Number of Households (in Thousands)		
	Urban	Rural	Total	Urban	Rural	Total
Cairo	82.1	-	82.1	1,065	-	1,065
Alexandria	89.6	-	89.6	466	-	466
Minia	60.0	9.2	19.8	87	329	416
Qena	52.7	10.7	20.2	76	264	342
Egypt	77.0	18.6	45.7	3,248	3,738	6,985

Source: Central Agency for Public Mobilization and Statistics, Preliminary Results of the 1976 Census of Population and Housing, Cairo, April 1977, Table 23.

Table III-5

Cairo - Households with Access to Filtered Water Supply - Selected Areas
1976

District (Qism)	Quarter (Shiakha)	Individual Supply in the Dwelling Unit	Common Supply in the Structure	Common Supply Outside the Structure	No Supply Close By	Total Number of House- holds
Al Gamalia	Al Azhar	343	78	63	-	484
	Al Gamalia	1,426	243	143	-	1,812
	Al Khoronfish	222	220	55	-	497
	Al Mashad Al Husayni	640	12	36	-	688
	Bab El Futuh	866	108	21	-	995
	Qasr El Shawq	1,496	345	166	-	2,007
	Khan El Khalili	492	60	63	-	615
Helwan	Helwan El Balad	2,176	2,524	6,200	745	11,645
	East Helwan	3,687	118	909	24	4,738
	West Helwan	3,712	225	75	12	4,024
	Kafr El Elu	781	614	1,198	456	3,049
Al Mataria	Al Zahra	7,675	2,080	537	71	10,363
	Tolombat Ain-Shams	2,891	754	5,041	836	9,522
	East Ain-Shams	7,601	633	1,894	635	10,763

Source: Central Agency for Public Mobilization and Statistics,
Communication to the Ministry of Housing and Reconstruction
dated April 13th, 1977.

Table III-6

Cairo - Households in Dwellings with Electricity
Selected Areas - 1976

District (Qism)	Quarter (Shiakha)	Dwellings with Electricity	Dwellings with- out Electricity	Total Number of Households
Al Gamalia	Al Azhar	427	57	484
	Al Gamalia	1,484	328	1,812
	Al Khoronfish	455	42	497
	Al Mashad Al Husayni	633	55	688
	Bab El futuh	923	72	995
	Qasr El Shawq	1,678	329	2,007
	Khan El Khalili	564	51	615
Helwan	Helwan El Balad	7,271	4,374	11,645
	East Helwan	4,370	368	4,738
	West Helwan	3,862	162	4,024
	Kafr El Elu	1,932	1,117	3,049
Al Mataria	Al Zahra	8,322	2,041	10,363
	Tolombat Ain-Shams	5,239	4,283	9,522
	East Ain-Shams	8,700	2,063	10,763

Source: Central Agency for Public Mobilization and Statistics,
Communication to the Ministry of Housing and Reconstruction
dated April 13, 1977.

Table III-7
Cairo - Housing Characteristics
Selected Areas - 1966

District (Qism)	District (Shiakha)	Number of Struc- tures	Number of Dwelling Units	Number of Households	Number of Group Quarters	Population in Group Quarters
Al Gamalia	Al Azhar	213	697	463	6	356
	Al Gamalia	235	1,297	1,608	--	--
	Al Khoronfish	214	1,181	1,181	--	--
	Al Mashad Al Husayni	232	918	1,048	11	363
	Bab El futuh	140	767	949	--	--
	Qasr El Shawq	374	2,174	2,364	--	--
	Khan El Khalili	245	720	694	10	510
	Helwan	Helwan El Balad	4,335	7,771	7,347	--
East Helwan		1,581	3,204	5,477	9	405
West Helwan		2,750	9,673	6,871	7	1,412
Kafr el Elu		1,437	2,491	4,007	1	--
Al Mataria	Al Zahra	3,951	5,727	5,499	--	--
	Tolombat Ain- Shams	--	--	--	--	--
	East Ain-Shams	2,636	3,974	3,712	--	--

Source: Central Agency for Public Mobilization and Statistics.

Table III-8
Cairo - Public Housing Units
(December 1975)

District	Number of Units	District	Number of Units
<u>East Cairo</u>		<u>Central Cairo</u>	
Al Amiriyah	5,626	El Darrasa	200
El Qubba	906	Ahmed Maher	32
El Waily	970	El Hussein	24
El Mataria	2,124	Hosh Atta	122
El Helmiya	48	El Khoronfish	30
Ghamra	200	El Mansouria	80
Total	9,874	Total	488
<u>North Cairo</u>		<u>Heliopolis</u>	
Shoubra	1,124	Nasr City	3,560
Geziret Badran	410	Heliopolis	150
Ahmed Badawi	448	Almaza	120
Gisr El Bahr	40	Total	3,830
El Attar	40		
Rod El farag	210	<u>Helwan</u>	
Ezbet Wahby	90	Helwan	7,320
Ezbet Mohy	740	El Tibbin	2,030
East of the Railroad	2,504	Other	76
El Sharabia	2,926	Total	9,426
El Zawia El Hamra	5,220		
Total	13,752		
<u>West Cairo</u>		-----	
Ramlet Boulaq	888	GRAND TOTAL	38,757
El Qolaly	186		
Maarouf	256		
Rahbet Abdin	57		
Total	1,387		

Source: Ministry of Housing and Reconstruction.

Table III-9
Housing Plan - Investments, for 1977

	Number of Dwelling Units	Planned Investments in Thousands L.E.	Additional Investments Needed in Thousands L.E.
<u>Public Sector:</u>			
A. - Ministry of Housing			
Governorates Programs	15,000	13,000	8,000
Reconstruction Zones	10,000	16,000	--
Housing & Reconstruction Companies	1,000	4,580	--
Subtotal	26,000	33,580	8,000
B. - Other Organizations			
Student Housing	3,500	3,312	--
Industrial Worker Housing	3,000	5,435	--
Awqaf Housing	1,500	9,383	--
Armed Forces	--	30	--
Subtotal	8,000	18,160	--
Total Public Sector	34,000	51,740	--
<u>Private Sector:</u>			
A. - Local Private Sector			
Cooperatives	22,000	50,000	--
Private Individuals	20,000	52,617	--
Subtotal	42,000	102,617	---
B. - Private Sector Outside Plan Framework			
Egyptians Working Abroad	8,000	--	40,000
Arab and other Foreign Investors	16,000	--	80,000
Subtotal	24,000	--	120,000
Total Private Sector	66,000	102,617	
<u>GRAND TOTAL</u>	100,000	154,357	

Source: Ministry of Planning.

Table III-10

Cairo Governorate - Awqaf Vacant Land, 1977

District (Qism)	Area in m ²	Site Condition
El Sayeda Zeinab		
lot 1)	584	Vacant
2)	154	Vacant
3)	600	Some Existing Shacks
4)	300	Vacant
5)	400	Some Existing Shacks
El Darb El Ahmar		
lot 1)	180	Vacant
2)	180	Vacant
3)	175	Vacant
Boulaq	1,000	Vacant
El Gamalia		
lot 1)	700	Some Existing Shacks
2)	2,900	Rubble & Rubbish Mounds
3)	500	Some One-Story Structures
4)	500	Vacant
5)	900	Vacant
6)	--	Rubble Mounds from Fallen Structure
Helwan		
lot 1)	600	Vacant
2)	1,300	Vacant
El Zeitoun	700	Vacant
Abdin	200	Vacant
El Khalifa		
lot 1)	70	Vacant
2)	300	Vacant
3)	300	Some Rubble Mounds
El Mataria		
lot 1)	250	Vacant
2)	16,000	Agricultural
3)	6,000	Agricultural
4)	4,800	Vacant
5)	1,600	Some Structures
El Waily		
lot 1)	2,700	Some Structures
2)	900	Some Structures

Source: General Organization for Awqaf.

CONSTRUCTION COSTS

Construction costs continued the upward spiral which started in 1973.

The tapering off of the reconstruction effort after the 1975 peak was felt more in the wages of labor rather than in the cost of materials and equipment since the latter reflect world inflationary trends.

1. Materials

The official cost for the four basic materials regulated by the government have changed little over the past years. Black market prices continue to fluctuate widely in accordance with the severity of the shortage.

At present, cement is in such short supply that the delay in deliveries is between four to six months. Given the need for cement in the informal sector, it is not surprising to find that black market prices have skyrocketed to a record high over the past six months.

The cement shortage has eased the demand for reinforcement bars, stabilizing the price of steel.

In contrast, red bricks, in great demand in the thriving informal sector, registered a sharp increase as prices rose by about 1 L.E. per month over the past six months.

Similarly, the price of plumbing and electrical fixtures almost doubled over the past year.

2. Labor

Sharp increases in the wages of labor were registered at both ends of the skill structure with a relative stabilization of wages in the intermediate level.

The wages of unskilled laborers reflect essentially the necessities of subsistence under prevailing conditions of 25 to 29% annual inflation in the cost of living.

At the other end of the spectrum, the wages of highly skilled workers reflect the worsening shortage in particular skill levels and specific trades.

3. Land Costs

Uncertainty regarding the new housing laws has led to a general slowdown in the formal private building sector and, consequently, to a

Table IV-1
 Official and Unofficial Market Prices of Building Materials
 (in L.E.)

Material	Unit	Official Price	Unofficial Market (LE)		
			Price		Highest Price Reached in the Past Three Years
			1976 (April)	1977 (April)	
Sand	m ³	--	2.0	2.0	--
Gravel	m ³	--	4.0	4.0	--
Cement	ton	15.0	30.0	60.0	60.0
Steel	ton	165.0	180.0	190.0	220.0
Lumber	m ³	165.0	180.0	200.0	204.0
Glass (3mm)	m ²	0.85	2.0	2.0	3.0
Red Brick	1000	--	17.0	22.0	--
Sand Brick	1000	22.0	--	--	--

Source: Interviews with private contractors, March 1977.

Table IV-2
 Daily Wages of Workers in the Construction Industry - Public Sector
 1976 - 1977
 (in L.E., including Social Security)

Index	1976	1977 (Jan.)
Earthwork Laborer	1.250	1.500
Concrete Pourer	1.750	1.800
Reinforcement Shaper	3.250	3.250
Reinforcement Installer	3.250	3.250
Concrete Carrier	1.750	1.800
Material Carrier	1.750	1.750
Water Sprinkler	1.200	1.500
Concrete Mixer	1.750	1.800
Concrete Emptier	1.750	1.800
Mason	4.500	5.000
Stone Worker	4.500	5.000
Manual Vibration Worker	2.500	2.500
Formwork Carpenter	4.250	5.000
Carpenter	4.000	4.500
Rough Carpentry Worker	3.250	3.250
Concrete Facing Worker	4.000	4.000
Stone Facing Worker	3.250	3.250
Plasterer	4.250	4.250
Mortar Mixer	1.750	1.800
Stair Builder	1.750	1.800
Flooring Builder	4.000	5.000
Plumber	4.500	4.500
Electrician	4.000	4.000
Mechanic	3.250	3.250
Watchman	1.250	1.500
Foreman	2.500	3.000

Source: Ministry of Housing and Reconstruction.

Table IV-3
 Official and Market Construction Costs for Residential Buildings, 1977
 (in L.E. Per Square Meter)

	Housing ⁽¹⁾ Budget Allocation Percent	Official ⁽¹⁾ Control Cost L.E.	Public ⁽¹⁾ Sector Cost L.E.	Private ⁽²⁾ Sector Cost L.E.
Low Cost Housing	70	8 - 12	55 - 65	45 - 55
Middle Income Housing	25	12 - 16	---	65
Upper Income Housing	4	16 - 20	---	85
Luxury Housing	1	---	---	110
Informal Sector	--	---	---	20 - 25

Source:

- (1) Ministry of Housing and Reconstruction.
- (2) Interviews with private contractors.

Table IV-4
Construction Cost of a 10-Unit-5-Story Walk-Up Building
Low Cost Housing - Cairo 1977
(in L.E.)

	Public Sector ⁽¹⁾ January 1977	Private Sector ⁽²⁾ April 1977
Excavations	288.0	360.0
Grading	120.0	120.0
Concrete	1066.5	940.5
Reinforced Concrete	10485.0	6421.80
Masonry	2395.0	2423.3
Damproofing	265.6	199.2
Stairs	540.0	648.0
Flooring	1326.0	1347.2
Plastering and Painting	5416.0	6134.4
Metal Work	21.3	10.5
Carpentry	3676.0	4544.5
Plumbing	2520.2	3354.9
Electrical	645.0	573.75
Total	28764.6	27078.05
Overhead and Profit (Percent)	30.0	20.0
Grand Total	37393.9	32493.66
COST PER SQUARE METER	55.4	48.1

Source:

- (1) Ministry of Housing and Reconstruction.
(2) Interviews with private contractors.

Table IV-5
 Foreign Exchange Component of
 Low Cost Housing Construction
 10-Unit, 5-Story, Walk-Up Building

	Unit	Quantity	Official Price	Percent Imported	Price of Imports	
Materials						
Steel	ton	18.5	165	50.0	1526.0	L.E.
Lumber	m ³	9.5	160	100.0	1520.0	L.E.
Cement	ton	110.0	15	25.0	410.0	L.E.
Contractor's Equipment Depreciation ⁽¹⁾					2000.0	L.E.
Total					5456.0	L.E.
Percent of Building Cost					14.59	

Source: Housing Team Member Calculations.

NOTE: (1) Includes Lumber for scaffolding and formwork.

Table IV-6
Cement Production - 1976-1980 Plan
Proposed Investments

Project	Production Capacity in Thousand Tons	Cost in Thousands L.E.	
		Total Cost	Foreign Exchange Component
A.- Completions, Replacement & Renovation Projects			
1) National Cement Co., Helwan			
Second Expansion	850	27,400	16,400
Third Expansion	1,000	30,000	20,000
Replacement & Renovation	--	4,000	2,500
2) Alexandria Portland Cement Co.			
Third Expansion	300	16,000	7,800
Sack Factory	--	700	500
Replacement & Renovation	--	1,930	1,750
3) Tourah Portland Cement Co.			
Second Expansion	700	40,000	28,000
Replacement & Renovation	--	8,800	6,800
Third Expansion	1,000	60,000	40,000
4) Helwan Portland Cement Co.			
Conversion of Plant 7 from wet to dry process	1,000	45,000	33,000
Replacement & Renovation	--	4,700	3,300
Conversion of Plant 3 from wet to dry process	360	15,000	10,000
First Expansion	1,000	50,000	35,000
B. - New Projects			
West Alexandria Cement Factory	700	70,000	50,000
East Maadi Cement Factory	1,000	96,000	75,000
Suez Cement Factory	1,000	96,000	75,000
Assiout Cement Factory	530	40,000	18,000

Source: Ministry of Planning.

Table IV-7
Shale Clay Brick Production - 1976-1980 Plan
Proposed Investments

Project	Production Capacity in Million Bricks	Project Cost in Thousands L.E.	
		Total Cost	Foreign Exchange Component
Digla Factory, Maadi	100	6,120	4,300
Suez Factory	100	9,000	6,000
Fayoum Factory	100	9,000	6,000
South Helwan (2 Factories)	60	8,000	4,000
Assiout Factory	50	6,000	4,000
Qena Factory	30	4,000	2,000
Wadi Natrun Factory	30	4,000	2,000
5 Experimental Factories (small scale)	50	5,000	2,000
Conversion of Private Plants from Red Brick to Shale Clay Brick Production	400	32,000	16,000
6 Quarries to Extract Shale Clay Raw Material for 600 Million Bricks	--	3,600	3,000

Source: Ministry of Planning.

**HIGH PRIORITY PROJECTS FOR INCREASING
THE PRODUCTION OF BUILDING MATERIALS**

(Source: MOHR)

Type of Project and Location	Production Capacity	Millions of L.É.			Project Execution Time
		Total Cost	Local Currency	Foreign Exchange	
New Cement Factory, East Maadi	1,000,000 T	96	21	75	4 years
New Cement Factory West Alexandria	7,000,000 T	70	20	50	4 years
3rd Expansion, National Cement Co., Helwan	1,000,000 T	30	10	20	2 years
3rd Expansion, Portland Tourah Co., Tourah	1,000,000 T	60	20	40	3 years
Expansion, Helwan Cement Co., Helwan	1,000,000 T	50	15	35	3 years
Conversion of Plant #7 from wet to dry process, Helwan Cement Co., Helwan	1,000,000 T	45	12	33	18 months
Conversion of Plant #3 from wet to dry process, National Cement Co., Helwan	360,000 T	15	5	10	18 months
Gypsum Factory, El Barkau	500,000 T	50	20	30	3 years
Conversion of Red Brick to Clay Shale Brick for private plants	400 million brick	32	16	16	1-4 years
New Shale Clay Brick Factory, Assivi	50 million brick	6	2	4	2 years
New Shale Clay Brick Factory, Qena	30 million brick	4	2	2	2 years
New Shale Clay Brick Factory, Wadi El Natrun	30 million brick	4	2	2	2 years

Type of Project and Location	Production Capacity	Millions of L.E.			Project Execution Time
		Total Cost	Local Currency	Foreign Exchange	
Contractor's Equipment needed for the current 5-year development plan (1976-1980) to increase the capacity of public sector contracting firms from 500 million LE of construction in 1975 to 1200 million LE in 1980					
1977	650 M.L.E.	40	8	32	-
1978	800 M.L.E.	64	16	48	-
1979	1000 M.L.E.	72	16	56	-
1980	1200 M.L.E.	80	16	64	-

NOTES:

Cost Prices are 1975 constant prices

Foreign exchange component computed according to official rate of exchange