THE HOUSING PROBLEM IN EGYPT

By

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CONTENTS

I. INTRODUCTION

A. Summary

Housing problems in Egypt are serious and severe. Limited agricultural land and a dramatic increase in population along with economic and political problems are among some of the causes of the housing problem.

Arable lands are subdivided now to an average holding of only 2 Feddans (one Feddan equals 1.04 acres), causing severe pressure for migration from rural to urban areas. As a result, urban areas have experienced explosive growth. Approximately two-thirds of the urban population is concentrated in just two cities: Greater Cairo, the capital, near the beginning of the Delta, and Alexandria the major port on the north coast. Cairo's population, almost half of which is under the age of 15, grows by one million every four years. By the year 2000 there will be need for an additional 1.9 million dwellingunits. Total annual production is now less than 80,000 units, and the vast majority are illegal, constructed without licenses or permits. Most of it is on agricultural land, resulting in the permanent loss each year of thousands of acres of scarce arable land. Some of it consists of adding floors to existing buildings.

While one-third of households now in Cairo have no sewerage or water supply, half of Cairo's water is lost to leakage from deteriorating pipes or illegal hookups. As a result of water leakage, the water table has risen to levels threatening the structural integrity of buildings.[1]

1. Architecture, American Institute of Architects. January,1985

Solving the housing problem is part of Egypt's strategy to save agricultural land, to further economic growth, and to provide jobs and housing away from the overcrowded cities of Cairo and Alexandria. Many alternatives have been applied to ease the problem, as discussed later in this paper.

B. Background

Egypt is located in the north - east corner of the African continent. It has one of the world's most ancient urban traditions. Its earliest settlements date from 3000 B.C. Throughout its prehistory and history, all major population centers were based in the Nile Valley and Delta with the deserts on each side providing some defense against aggressors.

The River Nile has formed the great nourishing spine of Egypt. The country has 400,000 square miles, but more than 95 percent of the land is desert. Just about four percent is arable, and so the communities of ancient Egypt and of modern Egypt came to life on the banks of this great river. More than 90 percent of the population lives in the Nile Delta in the North and in a thin strip along the Nile Valley. The average population denisities exceed 1000 persons per square kilometer for the Valley and the Delta which represent some 3.6 percent of the national territory. Settlement elsewhere is constrained by the lack of water. Since Egypt lies in the North African desert belt, rainfall is very low and decreases as one goes south. In Alexandria, the annual - average rainfall is about 180 mm, in Cairo it is around 100 mm,

in Asyut in Central Egypt it is about 7 mm, and in Aswan in the south is 1 mm. The climate is thus hot and dry with mild winters in which what little rainfall there tends to be concentrated. There are three major desert regions in Egypt: the vast Western Desert covering more than three-fifths of the nation, the Eastern Desert between the Nile and the Red Sea covering one-fifth, and Sinai which is to the east covering six percent. In the 1966 census, these deserts contained little more than one percent of the national population.[2]

Rapid population growth has resulted in about eight million new residents over the past decade, bringing the population of Egypt to an estimated 40 million in 1978. The country's population continues to grow at the rate of nearly 2.6 percent annually, and the existing population is distributed unevenly around the country so that there are now about 5 persons per habitable acre (compared with 3.5 per acre in China which has a far larger land area). There is an expected sharp population increase if the year 2000 population projection of 60 to 75 million occurs. As a result of such growth, housing is overcrowded and traffic congestion is severe.[3]

Rural migration to urban areas is high, especially to Greater Cairo and Alexandria. The rural migrants are of two major types, one represented by the bright youth migranting in search of more education or wider opportunities and the other

2. Hardoy and Satterthwaite, Shelter: Need and Response, John Wiley & Sons Ltd, New York, 1981.

3. A New Industrial Center for Egypt, 1977. P#3.

represented by the have-nots of the villages. The latter are by far numerically dominant, and are driven to the city largely by shortage of land and lack of rural opportunity.[4]

C. Purpose

The purpose of this paper is to discuss and analyze the housing situation in Egypt and to look from different perspectives at the circumstances that caused the problem. Moreover, it is to discuss some of the alternatives that have been applied in the country to solve the problem.

To fulfill the purpose of writing this paper, one should state the objectives that are needed to be accomplished. The objectives of writing this paper include the identification of impacts of existing conditions, population growth; rural migration; limited arble land; economy; politics; etc., on the housing problem in Egypt, as well as, housing policies that created the problem and/or helped to ease it. And finally, some of the concepts that should be applied to insure a balanced housing policy.

D. Structure

The paper starts with a brief introduction, which gives a summary of the entire paper, preceding the background information before discussing the specifics of the case. Following is a methodology which describes the method of research in this paper,

4. Dwyer, D.J. People and Housing in Third World Cities. Longman, London, 1979.

followed by the data in which an in-depth look at the events and details of the case will be discussed. Finally an analytical conclusion which will look at the outputs that one learns from this specific case and other reasearch which should be pursued in the future.

II. METHODOLOGY

In this paper various research methods have been applied and different kind of sources have been used. First are library methods. Through the library research, one could collect data and find information about the housing problem and its relevant issues through textbooks, reference books, encyclopedias, etc. The library research has been mainly used in this paper to collect information, relevant census data, and housing policies in Egypt.

Second, past magazine articles are other sources of information in this research, in which one might find an observation of new developments in the problem. That might give the reader an idea about the responses and the feelings evoked by citizens, architects, planners, and observers.

Third, personal experience from working for three years as an architect in two different types of housing will be used. The first experience was with Hassan Fathy who discovered the benefits of indigenous materials and techniques in Egypt, and the traditional mud bricks, vaulted roofs, and domes. Second, the author worked with P.B. Sabbour, an Egyptian-American

architectural consultant firm, which was designing a new city in Egypt, Sadat City.

However, personal experience might carry personal or professional bias according to he person's background. Therefore, it would be considered, in this research, as means to check and cross-check development in the problem rather than collecting facts and evidences about the housing problem.

III. FINDINGS

If the Nile is the great giver and sustainer of life in Egypt, it is also the cause of the country's present-day blight of overpopulation. Cities and towns on the fertile bands are densely packed, and while the country's population of 40 million might not otherwise seem unduly large for Egypt's area, the fact of present day Egypt is that 95 percent of this population lives in communities straddling the Nile: the fertile belt on either side of the river is often only about 8.7 miles wide. Not a single new city has been established in Egypt since the opening of the Suez Canal and the construction of its three cities in 1869.[5]

In 1980, 45 percent of the population lived in settlements defined by the government as "urban". The term urban does not imply a minimum number of inhabitants, and some villages have larger population than settlements designated as towns. The number of people living in urban settlements has grown relatively slowly in the last decade compared to most other Third World nations, averaging three percent a year between 1970 and 1980. An estimate for 1979 puts metropolitan Cairo's population at 8.5 million, making it the largest city in Africa. Alexandria's population was 2.32 million in 1976. These two cities, and the areas around them, have monopolized much of Egypt's rapidly growing industrial sector.

5. A New Industrial Center for Egypt, 1977.

Virtually all of Egypt's agriculture is carried out on the banks of the 960-mile-long Nile. Encouraging the attraction of residents to communities by the Nile is the fact that, since 1966, the river no longer overflows each year. In that year, the High Dam at Aswan was opened, and now the flow of the river is regulated, where once torrential floods terrorized residents and villages in the path of the river.[6]

Agriculture remains the most important economic sector. In 1978, half of the labor force was employed in this sector which accounted for 29 percent of GNP in this same year. It also accounted for around half of all export earnings in 1976, with cotton being the major export crop. Annual growth in agricultural production averaged some three percent between 1960 and 1978. Since almost all agricultural production is concentrated in the Nile Valley and Delta, rural population densities there are very high. Egypt has one of the world's highest ratios of rural people to agricultural land with one hectare of land supporting more than six people. Egypt's food production has not kept up with growing demands; twenty-three percent of its merchandise imports in 1977 were food. Despite considerable economic progress since the 1950's, per capita income remains low, especially when compared to oil-rich-Arab states. Per capita GNP was $ 390 in 1978.[7]

6. Egypt: Population Profiles, 1981.

7. Hardoy, 1981, p#11.

Most rural settlements lack basic infrastructure and services. In 1976, more than one third of rural households had no supply of filtered water near to them. Health and educational services are inadequate. Bilharzia and gastrointestinal diseases remain epidemic throughout rural areas. There is comparable lack of basic services in urban areas. Unemployment and underemployment are high in both rural and urban areas and many Egyptians have migrated to neighbouring oil-rich states. At the same time, Egypt's "open door" policy had removed political obstacles to movement of labor for Egyptians. Egyptians have become the major source of exports of all skills. For example, in 1962 there were 100,000 Egyptians abroad, mostly permanent migrants; in 1983 there were close to two million Egyptians in the Middle East, most of these being away only temporarily. These migrant workers constitute about 10-15 percent of the country's labor force. Data problems aside, such magnitudes represent qualitative changes in both the structure and the composition of the labor force. Over time this massive outflow of labor created bottlenecks in Egypt's own development projects. Popular support for the opportunity to migrate prevented the government from taking any regulatory action.[8]

Most urban land is privately owned, and all agricultural landis owned by private individuals or groups. All other land, which is mostly desert and represents about 96 percent of the country, is owned by the state.

8. Middle East Review, Winter 1983/84.

In urban areas, public authorities have the right of expropriation for community or national purposes, with compensation. However, there is no effective legal framework which gives public authorities the power to enforce zoning and land use controls. Private owners continue to subdivide their land as they desire, with no official permits. Indeed, in doing so, they meet much of the demand for sites on which housing for lower income groups is built. This means that urban areas are growing haphazardly. Basic infrastructure and services are not provided to new communities on the periphery, and urban growth is encroaching on Egypt's very limited agricultural land base. One estimate put the yearly loss of agricultural land to urban growth as high as 16,800 hectares.[9]

There are no controls on land speculation. In urban areas, land prices rose 20-50 percent annually between 1973 and 1975, although such rapid annual rises have probably not been sustained. Urban land, however, still represents a valuable speculative investment.[10]

A comprehensive Planning Law has been under discussion for many years and still has not been enacted; this law would require the preparation of urban and rural master plans to ensure that specific projects and local development programs conform with city or area-wide plans. It would also give government and local authorities more power to control subdivisions and protect agricultural land.

9. Hardoy, 1981, P # 33.
10. Ibd. P #34.

In 1975, the quantitative housing deficit was put at more than 1.5 million units in urban areas and 110,000 units in rural areas. In Cairo alone, the housing deficit was put at 750,000 units.[11]

Still an other form of informal housing is in the "City of Dead", where an estimated 250,000 to one million people live mostly in tombs that traditionally have included a grave, one or two adjacent rooms for visiting relatives of the deceased, and an open yard, all surrounded by a fence. Squatters are people who have illegally occupied the edifices in the City of Dead because there was no housing for them in Cairo. This area has become a reservoir for the overflow of both rural newcomers and the urban poor displaced from the center. Most of these men, women and children are recent immigrants from Egypt's villages, and they have come to Cairo for better jobs and for better shelter. There are more who keep coming every month. Newcomers are either relatives and friends of original settlers or immigants.[12]

Overcrowding, lack of basic services such as sewage connections and piped water, and deteriorated housing stock characterize many parts of Cairo. Although urban areas are also ill-served, rural areas are generally worse.

11. Hordoy, 1980, p# 39.

12. Ekistics, Jan./Feb. 1981.

Public housing construction, usually five-story walk-ups, has been the policy for many years. These are built by the national government or by government housing authorities. The Cairo government built 38,757 units between 1955 and 1975. These units have heavily subsidized rents, and seem to have gone mainly to middle and lower-income groups, many of whom are government employees. However, actual urban needs probably grow by more than 150,000 dwelling units annually. The shortfall will show itself in increased overcrowding and illegal subdivisions on urban peripheries. Such subdivisions are common practice on the fringes of Egyptian urban areas. One estimate suggests that the informal sector, in this case houses built without permits, usually on illegally occupied to subdivided land, accounts for over half of the curent construction activity in urban areas. A law in 1966 legalized subdivisions and buildings that contravened existing codes and allowed public authorities to provide them with utilities. Although the law established a precedent that allowed this sector to expand, the public authorities rarely support this sector, guide its development, or support the settlements it constructs with basic infrastructure such as drainage, piped water, or basic sanitations and basic community facilities such as schools. The result is unplanned haphazard urban growth, very often at the expense of valuable agricultural land. Regulations such as those governing subdivisions continue to make legally sold plots too expensive for lower income groups to afford, while the cost of a building permit and the standard it demands also put legal housing construction byond their means.

Another major constraint on the expansion of urban housing construction is rent control. These controls have been in effect over the last three decades and have inhibited the construction of lower and middle income housing for rent. They have also discouraged landlords from maintaining and repairing their properties.

Despite some new initiatives, there are no signs of urban housing conditions changing, and conditions in Cairo continue to deteriorate. Despite stiff penalties set on the practice of charging tenants or subtenants key money if they wish to rent a housing unit, the practice still continues. Key money payments are rising rapidly as housing shortages increase. Although the public housing program has benefited thousands of families, when viewed in national terms, it has monopolized government housing funds to provide subsidized housing for only a very small portion of those in need. Cairo Government's construction of nearly 39,000 units in the two decades after 1955 sounds impressive until one considers that its population grew by more than two million in that period. In 1975, the combined efforts of public and private enterprises in the formal sector was some 61,700 units, less than a half of the growth in need. Furthermore, as in so many other public housing programs around the world, there appear to be major problems of maintenance in public housing developments. In rural areas, little has been done to improve housing conditions other than the construction of some model villages. However, this has meant no more than a universal provision of water. Basic sanitation, electricity, health care

centers, and schools should be the priority .[13]

The informal sector remains responsible for virtually all housing construction in rural areas and for a large portion of that in urban areas. Egypt's building industry has lost a lot of skilled and unskilled labor to neighboring oil-rich states. It is the government's intention to replace the labor-intensive building industry with partial or complete prefabricated building systems. The government claims that only this can meet the enormous demands for new housing construction, especially in new development areas. These claims might be true within urban areas, but using local materials and techniques has been successful in rural areas where poor peasants can not afford paying for prefabricated building systems.

Gourna, a small village across the river from Luxor in Upper Egypt, is a good example of using local materials and techniques. The entire village was built from mud brick, which is available along the Nile River. Mud brick is one of the cheapest materials which does not conduct heat; moreover, it is suitable for the entire house including vaults and domes forthe roof.

Another benefit of using mud brick is that the Egyptian peasants can use their own traditional crafts which do not need certain types of equipment. The entire village was built in a cooperative system in which the peasants participated without

13. Hardoy, 1981, p.# 40.

paying money; the only condition was that they do the same to the people who had given them help. The cost ratio of a mud brick house, to a prefabricated house at that time was 1:7.[14]

The government's role in housing has been taking several complementary directions: subsidizing housing for low income groups, ensuring the continuous availability of building materials, undertaking research that will help lower building costs, selling urban land at cost price, and encouraging individuals to save and invest savings in housing. A long-term national development strategy is to save agricultural land, to further the nation's economic growth, and to provide jobs and housing away from the overcrowded cities of Cairo and Alexandria.[15]

The settlement policy seeks to steer the growth to normal and undeveloped areas while saturated areas are not to receive a net population increase. The first catagory is saturated cities. Port Said, at the northern end of the Suez Canal, Cairo and Gitza have been designated overcongested. For Cairo, several new satellite cities are being built. Sadat City, between Cairo and Alexandria, Tenth of Ramadan, between Cairo and Ismaillia and, King Khaled City, to the southwest of Cairo, are to be major industrial cities all between 50 and 65 kilometers from Cairo center. They are far enough from Cairo to discourage commuting

14. Fathy, Hassan. Architecture for the Poor, University of Chicago, Chicago, U.S.A. 1973.

15. The Development of Sadat City, Ministry of Housing and Reconstruction, Cairo, Egypt.

while still benefiting from Cairo's proximity. Other new towns close to Cairo include May Fifteen City, Al-Ubur, October Six and Salam. Second, Areas Such as the Delta provinces of Minufiya and Gharbia have been designated to be saturated, without any further space for population growth. The third category, normal, allows for some increase in population over time. Alexandria, the Canal Zone and Al-Fayyum are all in this category.

Sadat City is a good example of national development strategy to save agricultural land, to further the nation's economic growth, and to provide jobs and housing away from the overcrowded cities of Cairo and Alexandria. It is planned as self contained city with full services and facilities. The strategic location of Sadat City, midway between the main two cities, Cairo and Alexandria, on desert land adjacent to Delta, suggests that it could become the third or fourth city in Egypt. There are some other physical locational determinats that have a strong influence on the city's location and plan, such as water supply, power, wind, grid orientation, and drainage basins.

> The plan of Sadat City is more than numbers and projections and more than a two-dimensional plan of colored land uses. It reaches to a concept of urban space concerned with size, hierarchy and interconnection of space within an overall design structure that gives order to urban growth while setting the city apart from other cities. All of this is based on fundamental analyses of social, economic, engineering and urban planning concerns, but in the end this concern for space has become the means by which the plan has been made specific, imaginable and translatable into actual construction now underway.[16]

16. Kise, James. Urban Design International, "Sadat City". Volume 1, No. 1. November/December 1979.

The city includes a variety of house types and sizes to meet the needs and preferences of a broad range of residents. The economics of low-rise construction and the constraints of desert environment influence dwelling design to be low in height and dense with respect to ground coverage in order to provide shade and minimize unirrigated open space. Mortgage financing systems are established to provide long-term loans with low interest rates to facilitate home ownership.[17]

The undeveloped areas are hardly populated at present. These include the Red Sea Coast, the Sinai, the New Valley in the south of the Western Desert, and this desert's northern coast with Mirsa Matruh as its center. Each development zone is intended to have a deversified economic base. For instance, the New Valley is to have about 2 million feddans, 840,000 hectares, of land irrigated from ground water wells and from Lake Nasser. The area is also rich in phosphates and other mineral resources. The northern coast around Mirsa Matruh is to have tourism, industry, expanded port facilities, and agriculture as its economic base. There are plans to divert sea-water to Qattara Depression, using the very considerable drop to generate electricity in hydroelectric installations to power the region's new industrial plants. The Lake Nasser region is to have fisheries, tourism, irrigation, industry, and mineral resources.

17. The Development of Sadat City, p# 14.

IV. CONCLUSION

In looking back over the conditions of Egypt's housing problems, one might see that the problems are complicated and interrelated.

One of the main problems is population growth, aided by large families which are still valued as cheap labor and old age insurance. Population control directions should be implemented within a comprehensive settlements policy.

Controlling immigration into larger cities from impoverished rural areas, which accounts for about one third of Cairo's annual growth for example, would probably require enforcement mechanisms that are antidemocratic and easily subverted. Previous attempts to divert Cairo's population growth to satellite communities have met with little success. Cairo's first master plan, published in 1958, suggested such a strategy with Cairo's population to be kept to 3.5 million. It has grown by more than 1.5 million since.[18]

Upgrading existing slum areas, such as the City of Dead, should concentrate more on the provision of affordable infrastructure and facilities rather than improving houses. Physical improvements to slum areas should be supported by innovative social and economic development, including job creation; training programs; small business loans and other programs aimed essentially at some degree of income redistribution. Local materials and building-techneques should be encourages, as in the

18. Hardoy, p.# 27.

case of Gourna. Research and development would often improve local building methods without radically changing them or substituting new materials.

Egypt's long-term settlement policies have had many affermative aspects in terms of balanced housing polices. The main strategy is to steer future growth in population and urbanization away from overcongested rural and urban areas. Building new cities away from crowded cities and limited arable land, would provide an adequate supply of land for the new settlements on desert land owned by the government which has no other potential use. Almost all new cities are based on economic and social bases for residents and adjecent regions. There are a mortgage financing systems to provide long-term loans with low interest rates to insure financial access for low-income families.

The absence of private participation in new cities has put more burden on the government. Most of the work, research, construction, and finance have been done by the government. Egypt faces major economic problems and has to service massive foreign debts and and maintain a large and expensive army. Building new cities from the begining is too expensive, especially for a developing country like Egypt. Great wide developments make it difficult for governments to recycle funds and to repeat such projects.

The current plans to include undeveloped areas, such as the Sinai and the New Valley, within the national settlement policies are essential to have comprehensive housing policies. However,

there have been complaints that some of the proposed developments may not have been adequately studied. The reclamation of land from the lake near Port Said, for instance, may have environmental side-effects that are more costly than the gain the development brings.

Most developing countries need to draft new appropriate legislations to handle housing problems and that in itself is a difficult and time consuming task. Public land use controls and the legislative base are much needed in Egypt. New legislations should be practical and easy to apply ,otherwise, they would be unused.

Egypt's settlement policy and its inclusion in development plans, with long-term aims reaching to the year 2000, looks impressive on paper. Indeed, it represents a considerable step forward when one considers that in the late 1960's settlement policy was almost non-existent. However, Policy formulation and planning remain very centralized and more consideration should be given to involving the regions, towns and villages in drawing up and modifying plans that affect them. There is little doubt that Egypt needs an explicit and comprehensive settlement policy of this type to give a clear spatial framework to socioeconomic development policy.

The new strategy appears to be the first step, but its effective implementation is the real test of such a policy. Nevertheless, attention must be given to many settlements in the Nile Valley

and Delta which are not included in these plans. These house more than half of the present population, and desperately need improved infra-structure, services, and development plans themselves.

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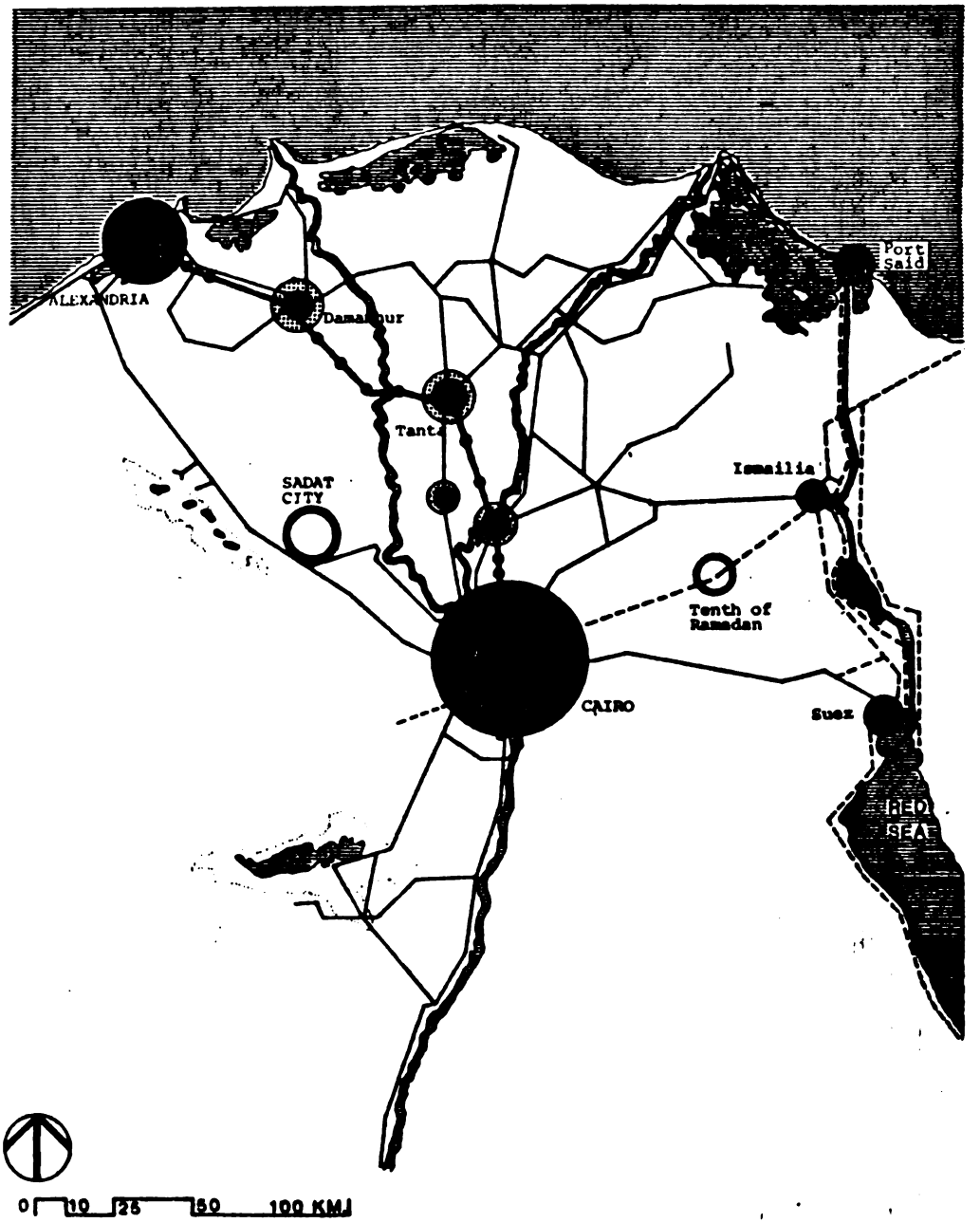
Urban Centers in Egypt



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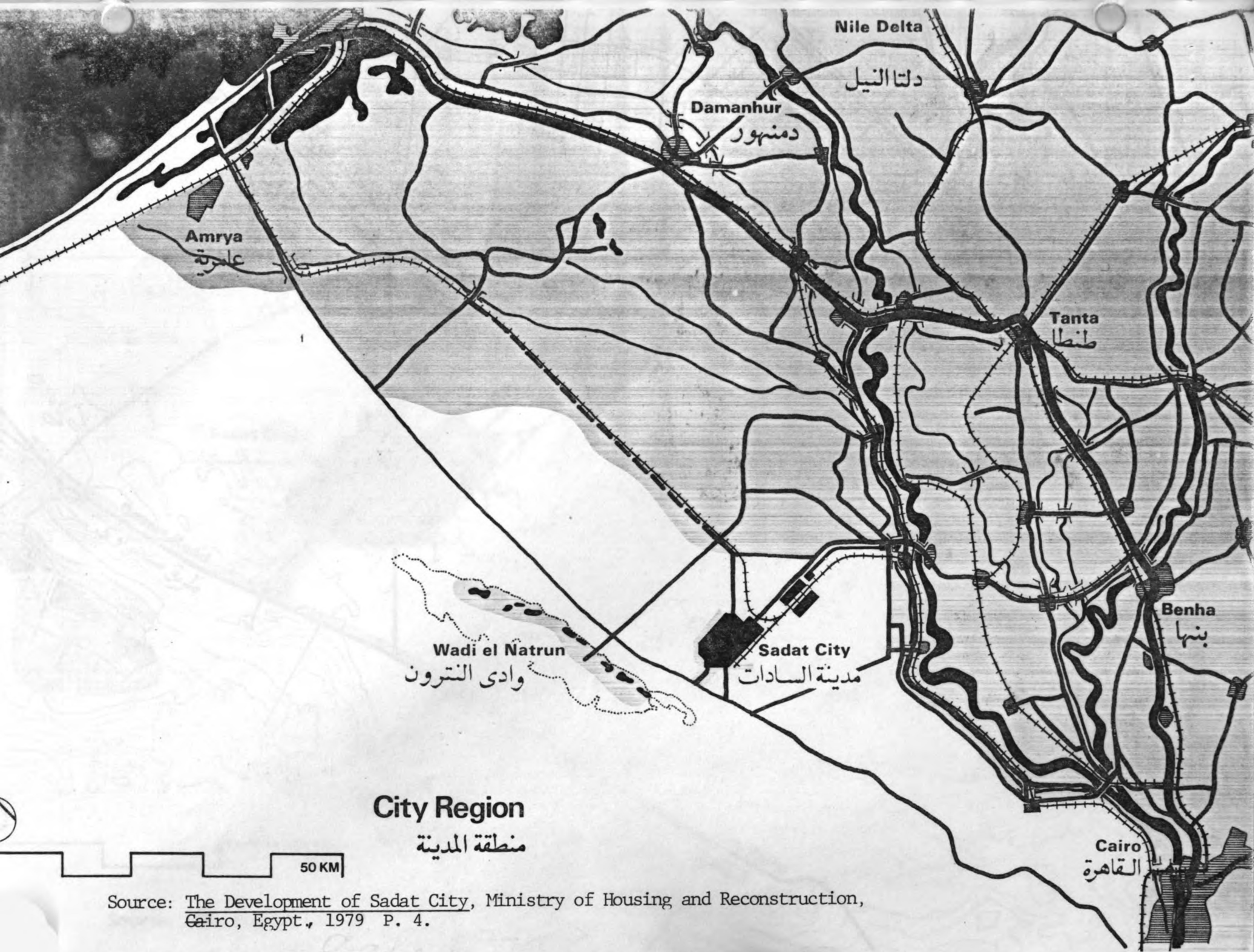
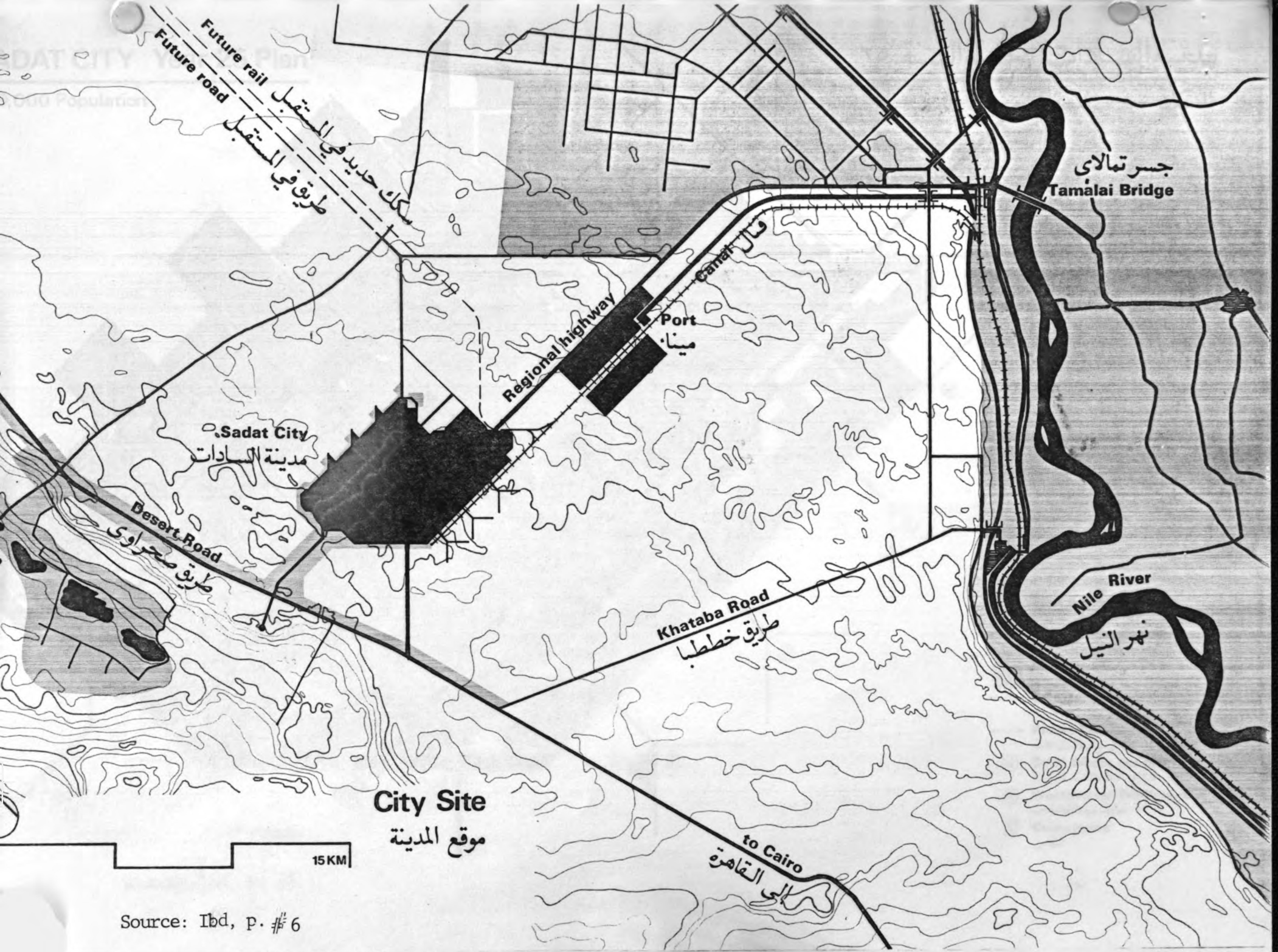
Source: A New Industrial Center for Egypt, 1977.



City Region
منطقة المدينة

Source: The Development of Sadat City, Ministry of Housing and Reconstruction, Cairo, Egypt., 1979 P. 4.



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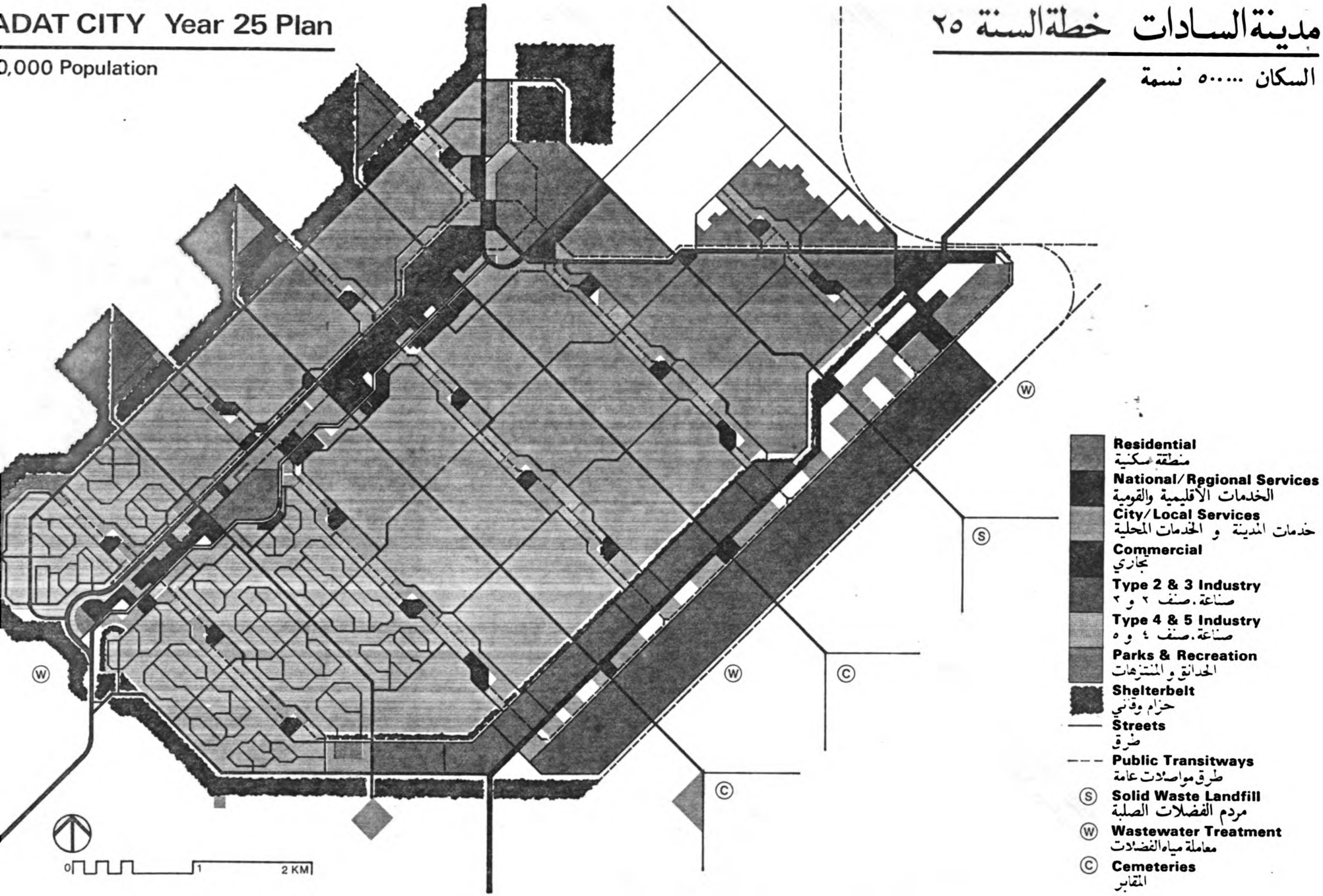

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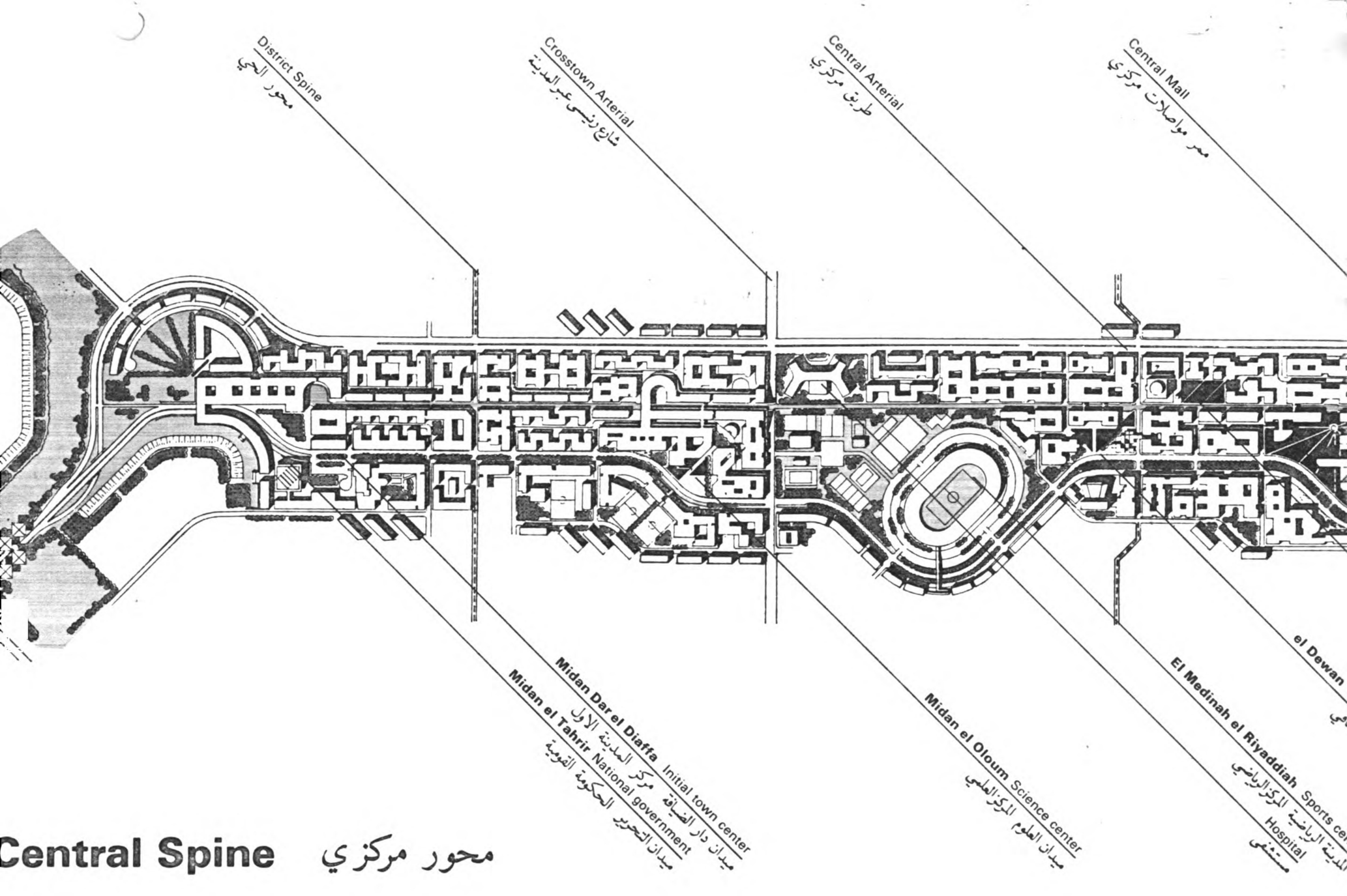

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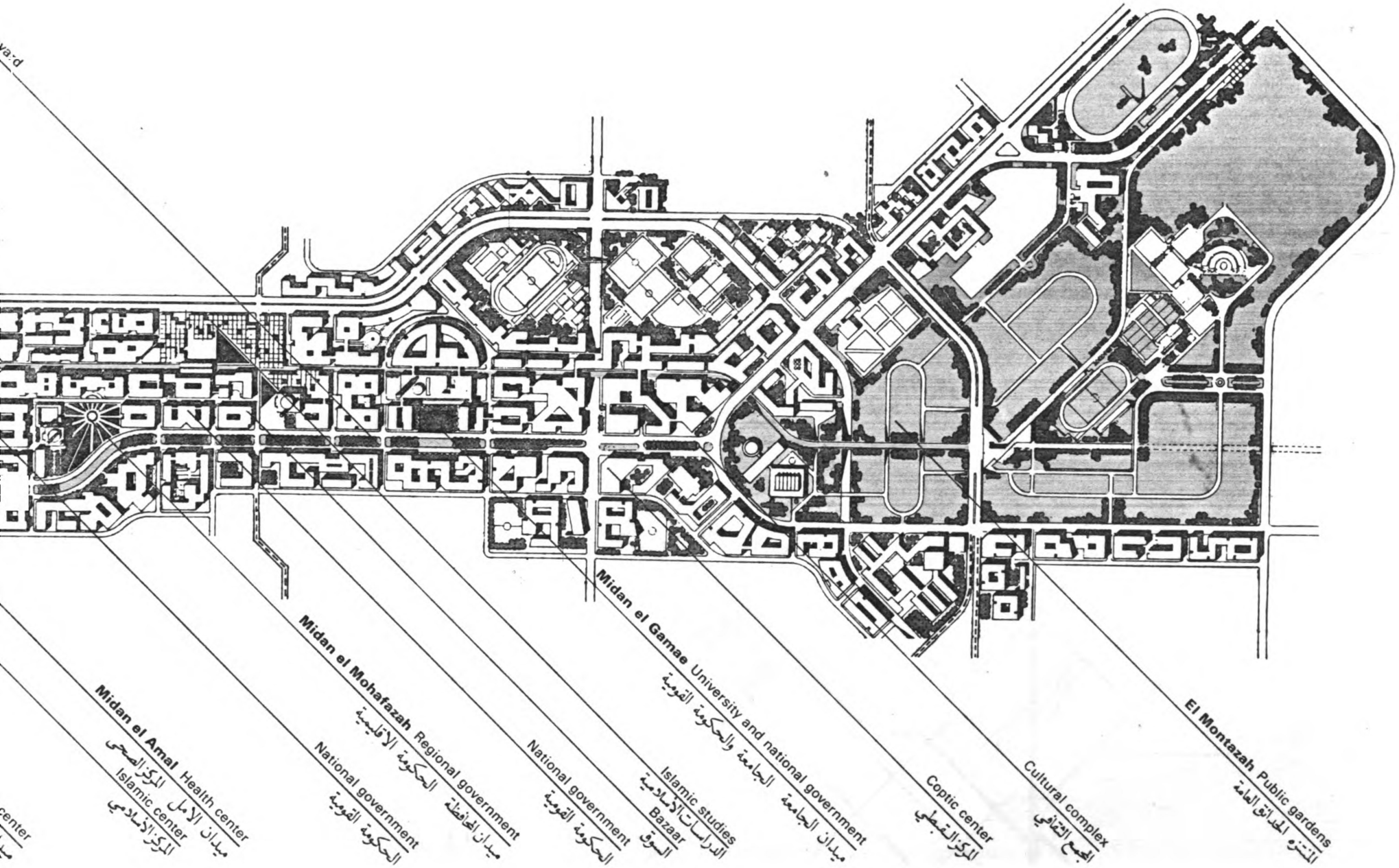

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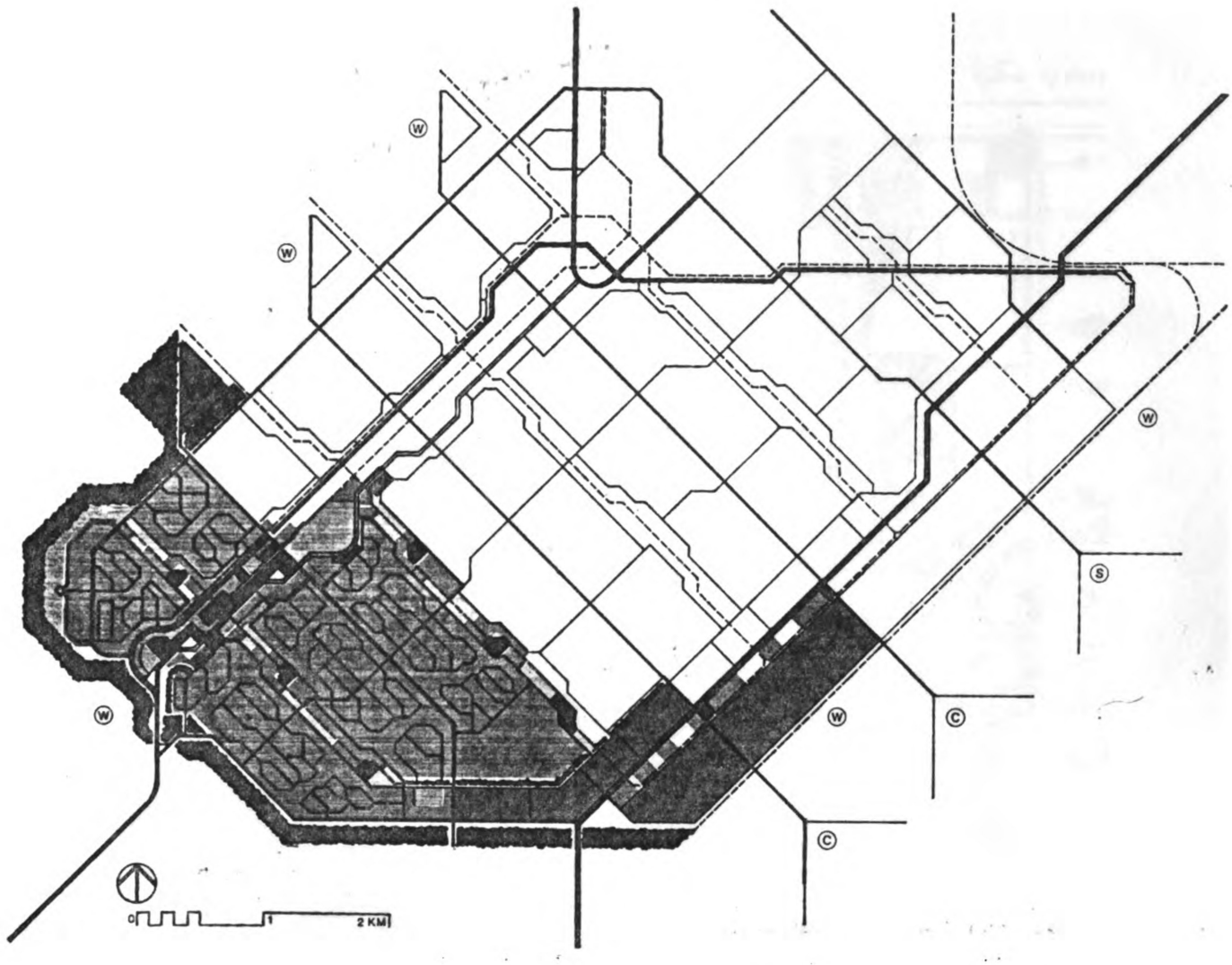


SADAT CITY Year 10 Plan
150,000 Population

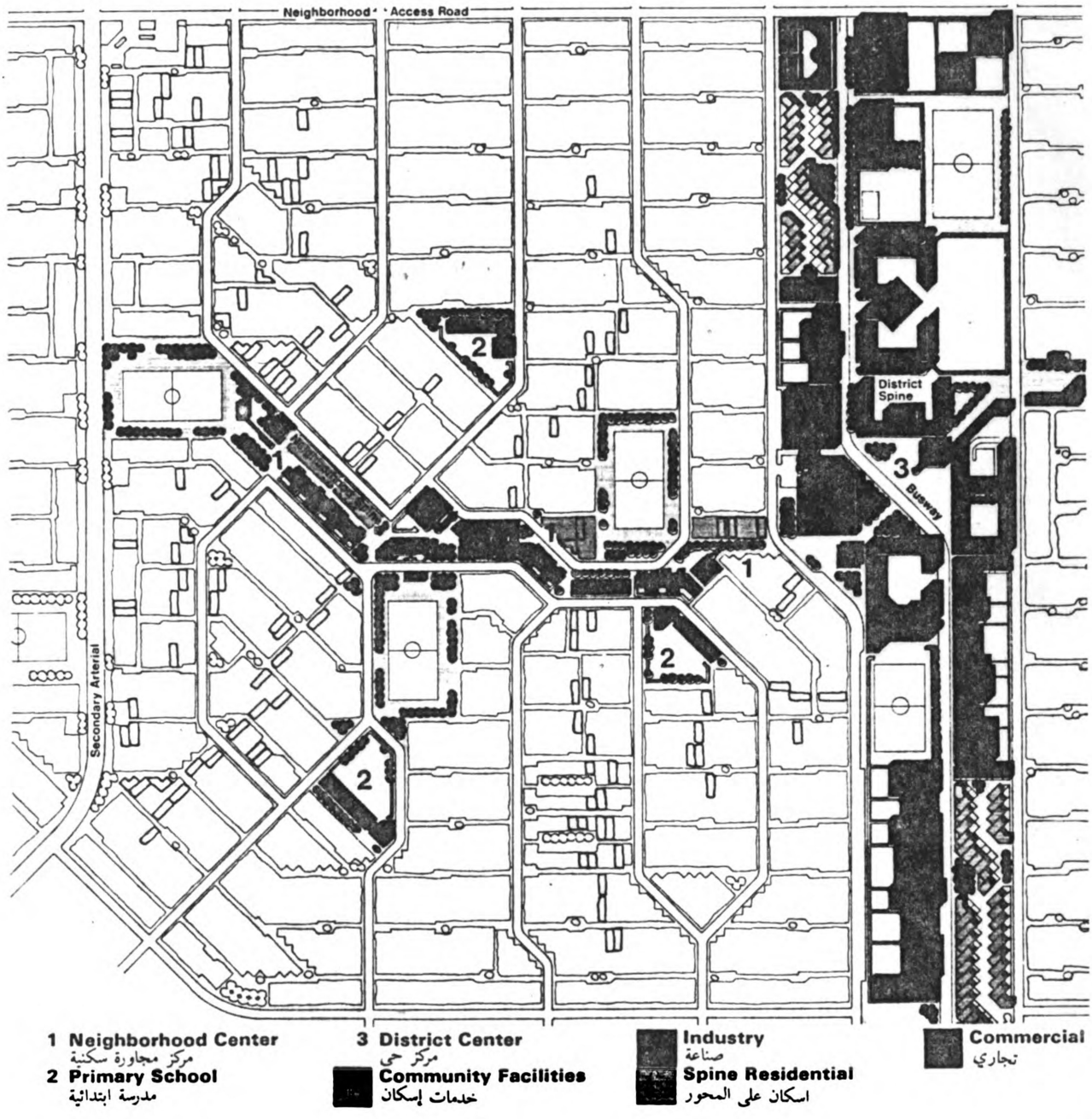
مدينة السادات خطة السنة ١٠
السكان ١٥٠٠٠ نسمة

- **Residential** منطقة سكنية
- **National/Regional Services** الخدمات الأقليمية والقومية
- **City/Local Services** خدمات المدينة و الخدمات المحلية
- **Commercial** تجاري
- **Type 2 & 3 Industry** صناعة. صنف ٢ و ٣
- **Type 4 & 5 Industry** صناعة. صنف ٤ و ٥
- **Parks & Recreation** الحدائق و المنتزهات
- **Shelterbelt** حزام وقائي
- **Public Transitways** طرق مواصلات عامة
- (S) **Solid Waste Landfill** مردم القضلات الصلبة
- (W) **Wastewater Treatment** معاملة مياه القضلات
- (C) **Cemeteries** المقابر

Source: Ibd, p. # 22.

Neighborhoods

مجاورة سكنية



Source: Ibd, p. # 15.