



### CAIRO: URBAN PLANNING MODEL

FAST FACTS		Similar To
Metropolitan Area Population	17,600,000	Los Angeles, Osaka-Kobe-Kyoto, Mumbai
Urban Area Population	15,800,000	Manila, Mexico City, Osaka-Kobe-Kyoto
Urban Land Area: Square Miles	550	Milan, Kansas City, Manila
Urban Land Area: Square Kilometers	1,425	
Population per Square Mile	28,600	Manila, Harbin, Jakarta
Population per Square Kilometer	11,050	
*Continuously built up area		

13 May 2006

#### Land of Christians and Muslims

I was staying in a large hotel preparing for a lecture at a university. The bells of All Saints Cathedral (Anglican), located more than one block away, were calling worshippers to Easter services. This may not seem remarkable, but it seemed so for Cairo, capital of one of the world's largest predominantly Moslem nations.

Yet, my impression was of an astonishingly tolerant multi-religious nation. Approximately one-tenth of Egyptians are members of the Coptic Church --- the Church of Egypt and Ethiopia, which though a part of the Eastern Church, separated from the main church 600 years before the other eastern churches (450 A.D.). My contacts had graciously arranged for me to make a brief visit to an Easter eve service at one of the city's most impressive churches. Later I was to watch the balance of a mass celebrated by the Patriarch of the Church of Egypt and Ethiopia on the state owned television. The front page of Sunday morning's largest newspaper featured an Easter message of greeting from President Mubarak to the Patriarch. The main national press also showed front page pictures of the Muslim leaders from Al Azhar University greeting the Patriarch and other church leaders on this occasion when they visited the Coptic Cathedral in Cairo's Abbasya District on Easter. Al Azhar University is the oldest University in the world established in 969 in Al Azhar Mosque to teach Islamic Religion sciences and since 1960 has added modern schools as science, engineering, medicine and commerce.

Recent events have indicated the difficulty of preventing terror in Egypt as in other countries. Yet, the anti-terror efforts of the government are clear. There are tourist police who routinely check

traffic in an attempt to guarantee the security of travelers. My taxicab was stopped at least four times by the tourist police as I arrived near midnight and was on my way to the hotel. Thus far, the terrorist activities have been largely prevented in the Cairo area and others. The extent of religious tolerance is impressive.

It was my pleasure to be hosted by a university professor and his graduate students for a number of tours around the Cairo area. As a result, this is one of the few in this series that is not, strictly speaking, a rental car tour, but the essential elements and design are the same.

## **The Urban Form**

Much is remarkable about Cairo. Few of the world's urban areas face similar challenges.

It is estimated that the metropolitan area now has 16 million people, making it almost as large as Los Angeles or Osaka-Kobe-Kyoto. However, Cairo is growing much faster. In the past ten years, the metropolitan area has grown by as much as 3,000,000 people.

Cairo has a strong north-south orientation, along the River Nile. The municipality of Cairo itself is on the east bank of the Nile and includes two highly urbanized islands, Roda and Gezira. Metro Line #1, operating in this corridor, carries 60,000 passengers per peak hour in the peak direction. This means that a single two-way peak hour attracts the same volume as the Los Angeles Metro attracts all day.

Across the Nile to the west, the highly dense urbanization continues through Giza, to within a few hundred yards of the Sphinx and the Pyramids. Urbanization continues to the north in the governate of Qaliyubia. New towns and residential extensions radiate from the urban area itself. There are also areas of exurban development (below).

The tourist sites are among the most important in the world, such as the Egyptian Museum, Saladin's Citadel and Old Cairo. The most important tourist site is the Great Pyramids and the Sphinx, which are located in the suburbs to the west. The old pharonic capital of Memphis is located to the south, and not far from the urban area, as are the Saquarra stepped Pyramids.

Based upon a 2006 government estimate, it appears that the Greater Cairo area, core, suburbs and exurbs have a population of 17,600,000. This makes Greater Cairo about as large as greater Los Angeles and larger than Osaka-Kobe-Kyoto. Since the 1996 census, Greater Cairo has added nearly 3,000,000 people.

The city itself has a population of 7,800,000. Giza is on the west bank of the Nile and adds nearly 5,800,000 to the population. To the north, another 3,900,000 of Greater Cairo's residents live in Qaliyubia governate.

The urban area (area of continuous urbanization) itself is estimated to have 15,800,000 residents, which makes Cairo the seventh largest urban area in the world (<http://www.demographia.com/db-worldua.pdf>). The Cairo urban area is larger than Mumbai and Jakarta.

Cairo has very high urban densities. While the overall density of the urban area is far below that of Hong Kong or Dakar, at 28,600 per square mile, there are pockets of density that may be as high as

anywhere outside Hong Kong. District densities are reported as high as 500,000 per square mile, a figure exceeded by various Hong Kong districts and perhaps a few others elsewhere in the world. The somewhat lower urban area density is the result of new towns and urban extensions that have been built in recent decades. For example, the large new towns of 16<sup>th</sup> of October and 10<sup>th</sup> of Ramadan will have population densities below 4,000 per square mile when built out --- lower densities than the Los Angeles suburbs. If Cairo had continued to develop without the new towns and the urban extensions, its urban densities would rival those of Mumbai, Dakar and Hong Kong. The pre-new town urban area covers approximately 200 square miles and has a density of at least 70,000 per square mile.

### **Three Cairo's**

One of the principal purposes of this series is to broaden perspectives among in urban affairs to include the entire urban area, not just the core. It is hard to imagine a better example than Cairo. The core of Cairo is far different from the areas that surround it, so much so that it seems reasonable to think of "three Cairo's."

**The First Cairo:** The first Cairo includes "Old Cairo," with its narrow streets and handicraft shops. This is surrounded by newer areas of high density, plus the affluent modern urban developments of Heliopolis, Maady, Helwan and later Nasr City, along with a corridor stretching west into Giza city.

**The Second Cairo:** Like elsewhere around the world, Cairo has experienced a large influx of people from rural areas. The new residents have come with few financial resources and the available government programs have been insufficient to meet the need, as has been the case in virtually all developing world urban areas (developing world urban areas have faced similar difficulties).

The second Cairo borders the first on the north, south and west sides. It is typified by the "informal" housing is located. Informal housing was built principally from the 1960s through the 1980s and houses a large share of the population. It can be observed especially from northern part of the ring road on both sides of the Nile River. The informal housing is also obvious from the southern part of the ring road on the western side (Giza) of the river.

This informal housing, however, is considerably different from the favelas of Brazil or the shantytowns of other Latin American nations. Cairo's informal housing is generally high-rise --- illegal housing built of brick and concrete that may rise to five or more stories. Many buildings show evidence of partial construction even higher and others have not been completed. The streets are extremely narrow, at less than 10 feet wide. There are few, if any arterial streets and appear to be no published maps of these densely inhabited districts. Even the discontinued "Cairo A to Z" road Atlas largely excludes these areas, focusing instead on the "first Cairo."

The exterior construction of the informal housing appears to be very regular and certainly looks sturdier than informal housing in Latin America. However, these buildings can radiate an oppressive image. Perhaps it is the density, the narrow streets, the height of the buildings and the shortage of windows. But that is from the perspective of a westerner fortunate to live in comfortable surroundings.

In Cairo, as in Sao Paulo and Mexico City, people who live in these neighborhoods did not come here because conditions were better in their former rural homes. Favelas and the informal housing

(referred to as “random” housing in Cairo) are a step up. Thus, like Sao Paulo and Mexico City, for all their difficulties, Cairo is a city of hope.

**The Third Cairo:** The third Cairo consists of the newer planned urban extensions and new towns. The urban extensions and new towns are generally located in the eastern and western parts of the metropolitan area, in the desert that surrounds Cairo on most of three sides. These developments are a genuine success, despite considerable criticism. They are discussed below.

### **The New Towns and Urban Extensions**

Over the years, the national government has developed a system by which it makes large tracts of land available to developers and builders in urban extensions and new towns. The government provides the roads and other infrastructure, which is included in the purchase price of the land.

From there, it is up to the private companies to develop much of the housing. High-rise condominium buildings are built, with most of the units sold to the new residents. There are also lower rise buildings, along with semi-detached housing and detached housing.

This represents a new, market based approach, which has replaced the previous socialist model from before the 1970s. As is or has been the case in many market-oriented countries, the government continues to build low-income housing in the new towns and urban extensions.

The new towns are on or beyond the edge of the urbanization and some were intended to become “self-sufficient,” on the assumption that people who lived in the new towns would also work there. The self-sufficient new towns were to be 6<sup>th</sup> of October, 10<sup>th</sup> of Ramadan, Badr and Sadat City (55 miles north of Cairo, toward Alexandria).

The urban extensions radiate from the existing urbanization, such as New Cairo, El Rehab and Shorouk. These developments are mainly residential, with services such as universities and hospitals and some industries, but were not planned to be “self-sufficient.”

The Cairo area new towns include 6<sup>th</sup> of October, 10<sup>th</sup> of Ramadan, Badr, Sheikh Zayed, 15 May, Obour, New Cairo, Rehab and Shorouk cities. The government was particularly successful in the new towns of 6<sup>th</sup> of October and 10<sup>th</sup> of Ramadan in attracting businesses and it is indeed possible that there are enough jobs in those new towns to employ the local work force. The new towns have been successful in attracting employment and in drawing employees from a larger area. There are very large industrial estates in the new towns 6<sup>th</sup> of October and 10<sup>th</sup> of Ramadan, which contain manufacturing plants, warehouses and offices that would have been much more costly and even impossible to develop on the brownfield sites inside older Cairo. In addition to the new towns, the government has developed an information technology city (“Smart Village”) along the desert expressway to the north west of the urban area toward Alexandria very close to the Toll Plaza of the Cairo to Alexandria Desert Road.

**The Illusion of Self Sufficiency:** But, of course, the “self-sufficiency” objective was not reached, as many people from the new towns work in other parts of the metropolitan area while many others from elsewhere in the metropolitan area work in the new towns. Suffice it to say that within a labor market (metropolitan area), the logic of planners with respect to where people should work is a highly inaccurate predictor of where they will actually work. Given the opportunity to live and work

where they like, Egyptians will not be constrained by planner's preferences, any more than the English, the Swedes or Americans. Peter Hall (*Cities and Civilization*) has documented the failure of Swedish new towns to achieve self-sufficiency, while the average new town worker in the London area commutes a distance double that of the diameter of his or her residential new town (<http://www.demographia.com/db-seuknewtowns.htm>). The only way to make a new town self-sufficient is to place it so far from any other urbanization that residents have no choice but to work in the local area. Thus, it seems likely that Sadat City, located more than 50 miles from Cairo and outside the labor market, has a far greater chance for achieving that objective.

But, within a labor market, even with a numeric balance, commuting patterns tend toward the randomness of areas where no such objective was sought --- as people choose from the best opportunities throughout a metropolitan area.

Nonetheless, the strong employment centers that have grown up have resulted in better use of the transportation infrastructure, with commuters traveling in both directions on new town roadways --- toward the new town employment centers and toward the larger inventory of jobs that are found in the older sections of the urban area.

**General Design:** The new towns and urban extensions are provided with ample road infrastructure, such that it seems unlikely that traffic congestion will be a major problem in the foreseeable future. Generally, the arterial (major) street system is a grid and the larger roadways are multiple lane and often have separate service roads on each side. In each case, bus public transport systems were to have been established, but, in fact, there is little service. Even so, this far from the urban core, the automobile appears to be dominant. In an urban area as large as Cairo, effective mobility requires a car, as Cairo residents often reminded me.

Most of the residences are in multi-story, multi-family buildings. The middle and higher income buildings, which are built by the private sector, tend to be attractive. There are also many detached houses, often in guarded compounds. These tend to be very attractive. The lower income housing, however, gives visible evidence of less than quality construction, with in some cases watermarks from leaking pipes. This housing is built by private contractors for the government. However, the cost of flats is very low to suit the low-income households and in most cases, there is green space and vegetation between those residential buildings, which makes the environment more enjoyable.

The new towns and urban extensions are also attracting important urban institutions. There are large mosques, churches and a number of new universities. The large American University of Cairo is in the process of building a new campus in New Cairo, at the very edge of the present urbanization. Nearly all functions will be moved from the downtown campus within one year. New campuses for the Canadian and Russian universities are under construction. In recent years, new facilities have been opened for the British University the new town of Badr, the German in New Cairo and the French University in 10<sup>th</sup> of Ramadan. In sixth of October alone, six new private universities are opened during the last eight years.

**Assessment:** In short, the new towns and urban extensions are impressive. There is probably not a larger urban building site in the world today than that which surrounds Cairo in its new towns and urban extensions. It also seems likely that Cairo's new towns are the second most extensive in the world, trailing only Hong Kong.

Nonetheless, Cairo's urban extensions and new towns have encountered criticism. They are criticized because they have not attracted as many people as quickly as hoped. However, in a market economy, such as Egypt, people's preferences and the economic situation dictate such trends. Generally, Cairo residents who have lived in their units since before 1996 have very low rents, as a result of a now reformed rent control law. Thus, for many of these residents, a move to the market rents or purchase prices of the new development could mean a reduction in the standard of living. For the new developments to reach their ultimate potential will probably require stronger economic growth in the future. Certainly, Hong Kong would not have achieved its success in new town development if it had not experienced such spectacular economic growth.

It might be argued that the government could have been more aggressive in directly building more low-income units and moving people out of the informal housing. However, the resources required for such an effort would be extremely large for any nation. Moreover, the product of such a program would be unsatisfying, or even unsustainable, as the hundreds of thousands of empty flats in the former East Germany attest.

On balance, given the circumstances, it is unfair to consider Cairo's new towns and urban extensions anything but a success.

### **Cairo: A Model for Urban Planning**

Indeed, Cairo provides an important model for the rest of the world in urban planning. The government policy appears to consist of the following elements:

- A market oriented approach in which the private sector develops housing and home ownership is emphasized.
- Preservation of sensitive land.

(In the case of Cairo, this means preserving the scarce agricultural land principally to the north and along the river to the south.)

- Allowing comparatively free development elsewhere, with government supplying the essential infrastructure.

Cairo represents the good planning that stands between no planning and the destructive central planning that has been abandoned for economies but remains strong in urban planning.

- It is starkly different from the suburban development occurring in some parts of Eastern Europe (such as Warsaw, Istanbul and Bucharest), where public infrastructure is simply not provided.
- But even more importantly, the government plays a much less prescriptive role than in urban areas such as Portland, Sydney and London, where land rationing raises the price of housing and must lead to less economic growth and a transfer of wealth from lower and middle income households to higher income property owners (landlords). By contrast, Egypt's model rightly defines the government role as provision of infrastructure and sufficient

roadway capacity is a particularly useful model. That having been accomplished, the government allows the market to operate, with home ownership maximized. It is an approach that will lead to greater affluence and a better community. In the longer run, the emphasis on home ownership is likely to strengthen the economy and spread affluence to more Egyptians. Egypt's foresight is reminiscent of the visionary planners of Los Angeles, who drew a grid of wide arterials throughout the city before World War II, by which time it had become clear that there would be much more growth.

<http://www.rentalcartours.net>

<http://www.demographia.com>

<http://www.publicpurpose.com>



Church & Mosque: Cairo



2 Mosques: Right at Saladin's Citadel



Coptic Church (Church of Egypt & Ethiopia): Central Cairo



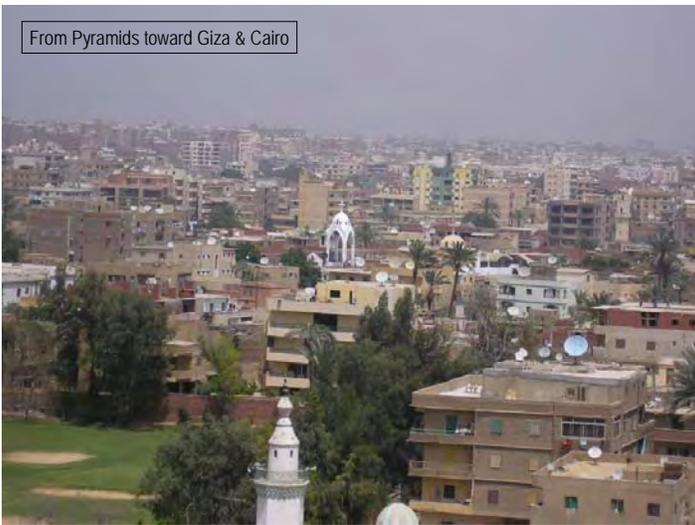
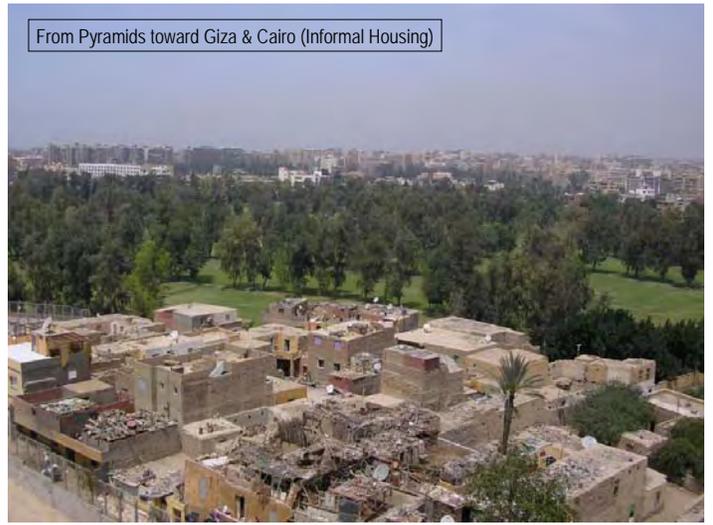
All Saints Cathedral (Anglican)



Informal Housing



Informal Housing





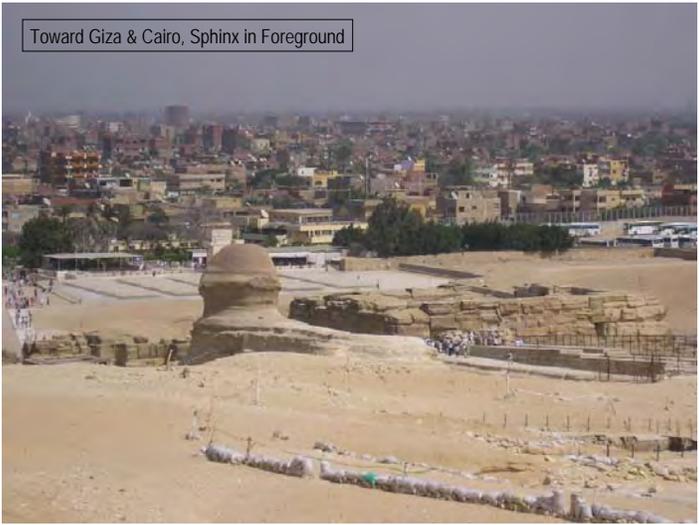
From Pyramids toward West



Pyramid #2



Great Pyramids



Toward Giza & Cairo, Sphinx in Foreground



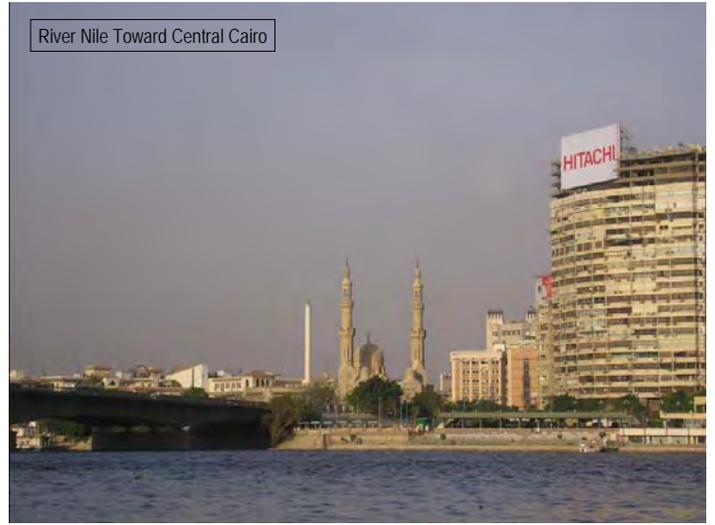
Sphinx & Pyramids 1 & 2



Central Cairo



Central Cairo



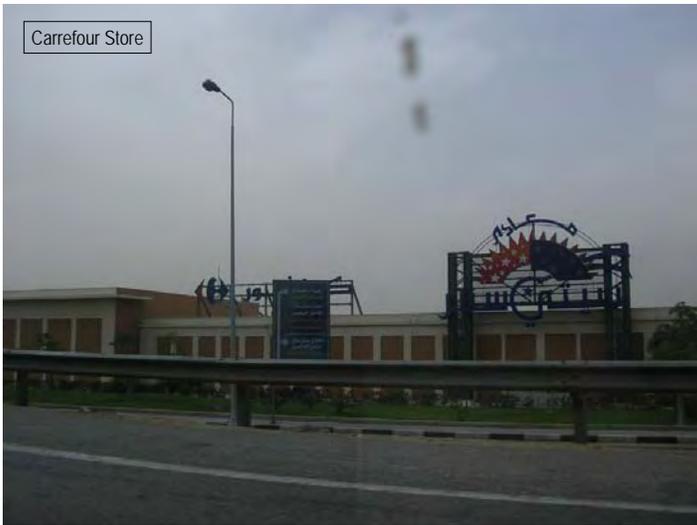
River Nile Toward Central Cairo



Cairo



Nile River, Cairo Tower to the Right



Carrefour Store

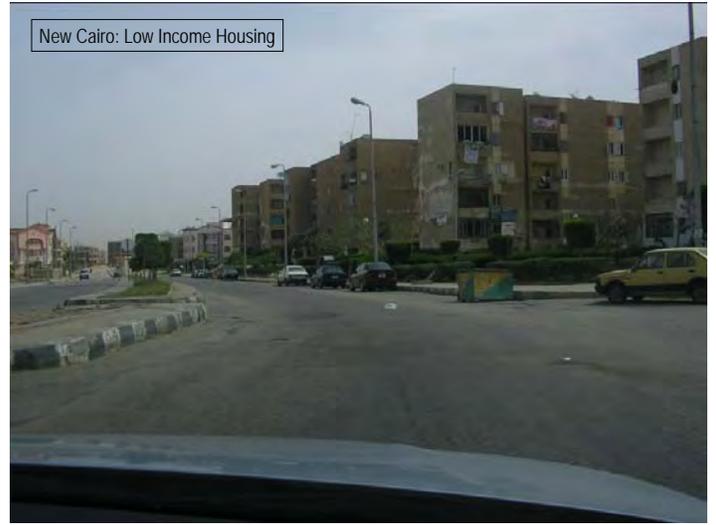


New Cairo: Middle Income Housing

New Cairo: Detached Housing



New Cairo: Low Income Housing



New Cairo: Construction



New Cairo: Commercial



New Cairo: Middle Income Housing



El Rehab: Detached Housing





El Rehab: Middle Income Housing



El Rehab: Shopping Mall



Badr: Construction



Badr: Detached Housing



Badr: British University



10th of Ramadan: Factory



10<sup>th</sup> of Ramadan: Commercial



10<sup>th</sup> of Ramadan: Middle Income Housing



10<sup>th</sup> of Ramadan: Low Income Housing



10<sup>th</sup> of Ramadan: Construction



Sheikh Zayed : Low Income Housing



Sheikh Zayed: Detached Housing

