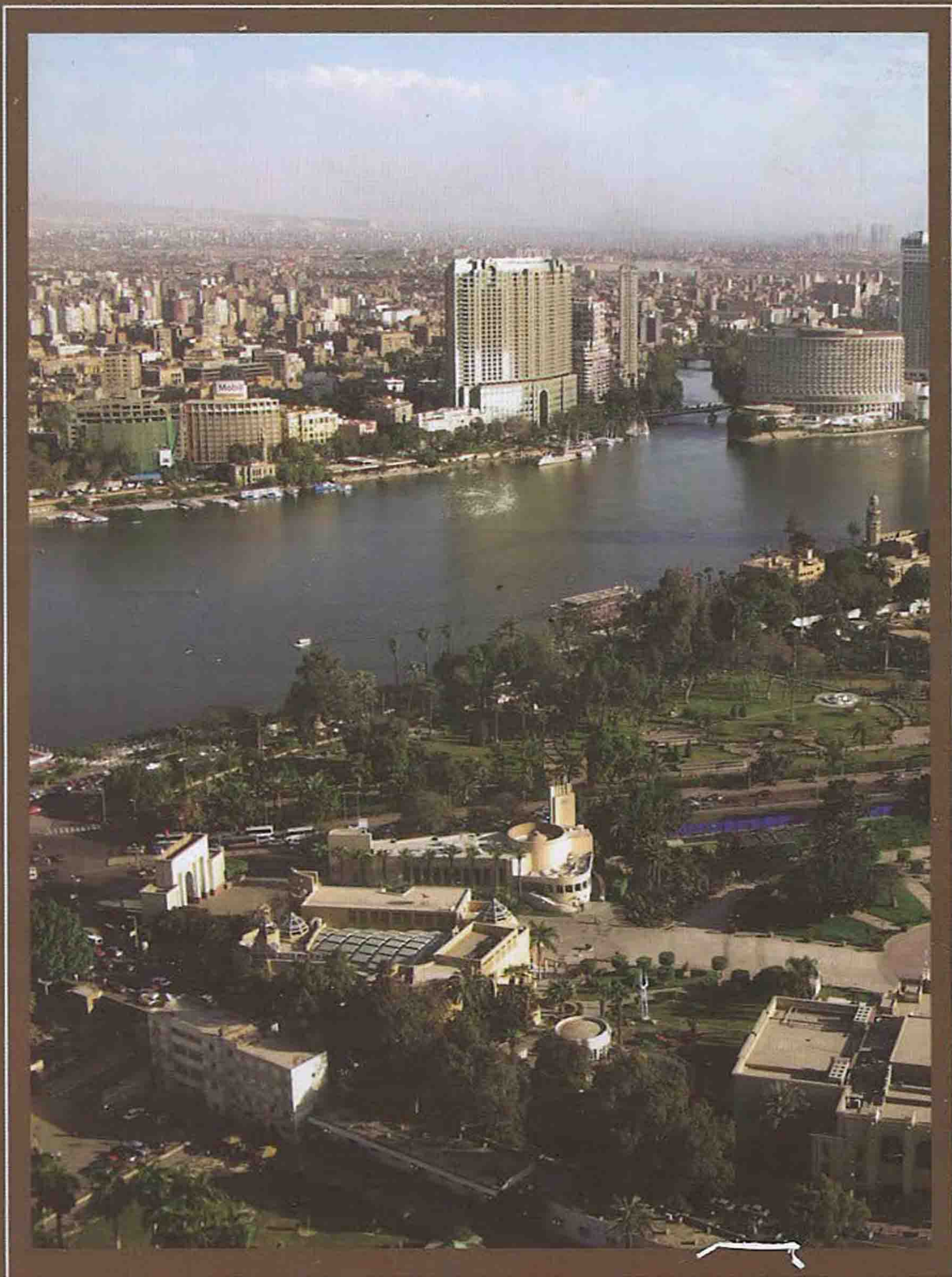




National Council for Women

CAIRO LIVING HISTORY





CAIRO LIVING HISTORY



EGYPT

FOREWORD

I take pleasure in presenting to the World Urban Forum 7 (WUF7) in Medellin, Colombia, the views and ideas of Egyptian greatest architects and environmentalists, social scientists, reporters and residents regarding Cairo, the city immortal who survived millennia, yet with all the pains that come with aging in an unscrupulous world.

This special edition of Cairo Living History is presented by the National Council for Women (NCW) based on work by members of the Association of International Civil Servants in Egypt (AFICS-Egypt)

Those who produced this special edition, are women of Egypt, who, for the love of Egypt, wish to offer to the world forum a vivid picture of urbanization the way it is lived, enjoyed, more than often endured, but, at all times, with a way forward. Though Cairo Living History is not necessarily about women, the National Council for Women takes pride in sponsoring a valuable contribution to the developmental debate, this time with relation to urban development. This is because of our staunch belief that sustainable development and sustainable cities are crucial to women's welfare and safety, and that sustainable development cannot be achieved if women remain marginal to the mainstream development process.

It is hoped that the concerned international readership will find in it some echoes and solutions to their own urban problems especially those affecting metropolises, where great divides exist.

Mervat Tallawy

President, National Council for Women
Chair, The Association of International Civil Servants
in Egypt

CAIRO
LIVING HISTORY

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The content of this publication does not necessarily reflect the views of the National Council for Women (NCW) of Egypt, the Association of International Civil Servants in Egypt (AFICS-Egypt), Al Ahram Weekly, where first version of most of the papers first appeared in its supplement 'Beyond' between 2005 and 2010 and in the book "Daring to Care: Reflections on Egypt and the Way forward" or of the United Nations Development Programme (UNDP) and the UN Resident Coordinator's system, that supported the production of the earlier and larger editions. The papers in this volume were contributed by the authors in their personal capacities and they are solely responsible for their views. They are March 2014 versions and or updates by the authors, expressly for the UN HABITAT World Urban Forum7 (WYF7), April 2004, Medellin , Colombia.

CAIRO LIVING HISTORY

Thinkers, experts, reporters and residents of Cairo address the metropolis' problems from urban, social, environmental, crowding perspectives, and, ways out.

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PREFACE

Compiling some articles of a book already on the market may not appear to carry appeal, even though revisited by the authors, for update, change of mood, or simply confirming what they had said before. Yet, the value of this publication rests in targeting a special readership.

Conceived for the UN HABITAT World Urban Forum 7 (WUF7), Medellin, Colombia, 2014, it pulls together some of the best being said about Cairo's long journey to what it has become today, as seen with the eyes of its renown architects, its social scientists, its environmentalists, its journalists, its artists, its residents spanning millennia of splendour, disgrace, and thoughts for a better future. It is written by those who live it and by those who left it thinking that one more is too many in a maddening crowd, yet with a look back.

Acknowledgement is due to those who participated in the larger edition, namely Amina Abdel Aziz, Hoda Sharkawi, Samia Farid Shihata, and to Mahmoud Nour who have all volunteered with their time to provide a quality production. Acknowledgement is also due to the National Council for Women (NCW), publisher of this special edition, to the United Nations Development Programme (UNDP) and the UN Resident Coordinator's system who supported the earlier edition, and, to Al Ahram Weekly who was first to carry earlier versions of the messages compiled in this work. Above all, acknowledgement is due to all those eminent residents of Cairo who gracefully shared their knowledge, their impressions and thoughts for the glorious metropolis.

The Editor

Introduction

Dividing the book in four parts was not easy as all subjects intertwine. Yet for clarity purposes, it was found more appropriate to group articles in a way that can offer the readership a more comprehensive view of the points discussed, whether converging or diverging.

The first part brings an architectural perspective. In fact, it deals with the cement and mortar element turned housing, palaces, or slums. Cairo of yesteryears and beyond provides an account of three eras of history, the formation of old and new matrices. It talks about what Cairo once had and is now missing and what city planners aspire to achieve for urban harmony and to preserve its impressive cultural heritage; but, more than often, they are confronted with lack of public awareness of the value of conservation and no incentives that can induce people to forego material profit.

The second part conveys the social perspective, where dichotomies in ways of life and values have intensified due to greater divides, policies that were often misconceived or misused by authorities without a grasp of the factor of inequity such policies embody, nor an understanding of the cultural heritage they tread on. It even touches on democracy which does not stop at the ballot, but is to transpire in every decision that affects people's life, and here comes the duty of municipalities to respect their communities and take their opinion before execution, when it becomes too late for remedy. Finally this second part gives a glimpse of what dark future awaits youth if left to live in slums and the ordeal of life on the street by its unfortunate tenants: street children and street vendors.

The third part brings us to environmental and sustainability concerns which are very much on the international agenda, but that also very much require to gain priority on the national agenda. Here, the Minister of State for the Environment offers a new paradigm coined 'inclusive environment' through which she proposes to play a role in achieving socio-economic justice. Experts also propose solutions to the ever growing waste management problems that are bound to affect a metropolis whose population was 2 millions by mid 20th century, and

that has now reached the alarming figure of 16 million inhabitants. The issue of neglect or killing of trees and what this means to quality life in urban neighbourhoods is brought up by civil society struggling with an administration blind to the wellbeing of humans and the environment. Finally, part three ends with innovative thinking by the eminent scientist and first executive director of the United Nations Environment Programme (UNEP) who proposes to shift production from the material to the virtual for a cleaner environment and for sustainability.

The fourth and last part, leads us to the only way for Cairo to survive the burden of overcrowding and noise, and that is to stop rural-urban migration into the metropolis. Options are not always attractive, nor easy to adopt. A Cairo born poet laments estrangement from the roots. A scientist of international renown offers a mega scheme to move into the Sahara. Cautionary lessons from past experience are also exposed for informed decision.

The Editor

Part I

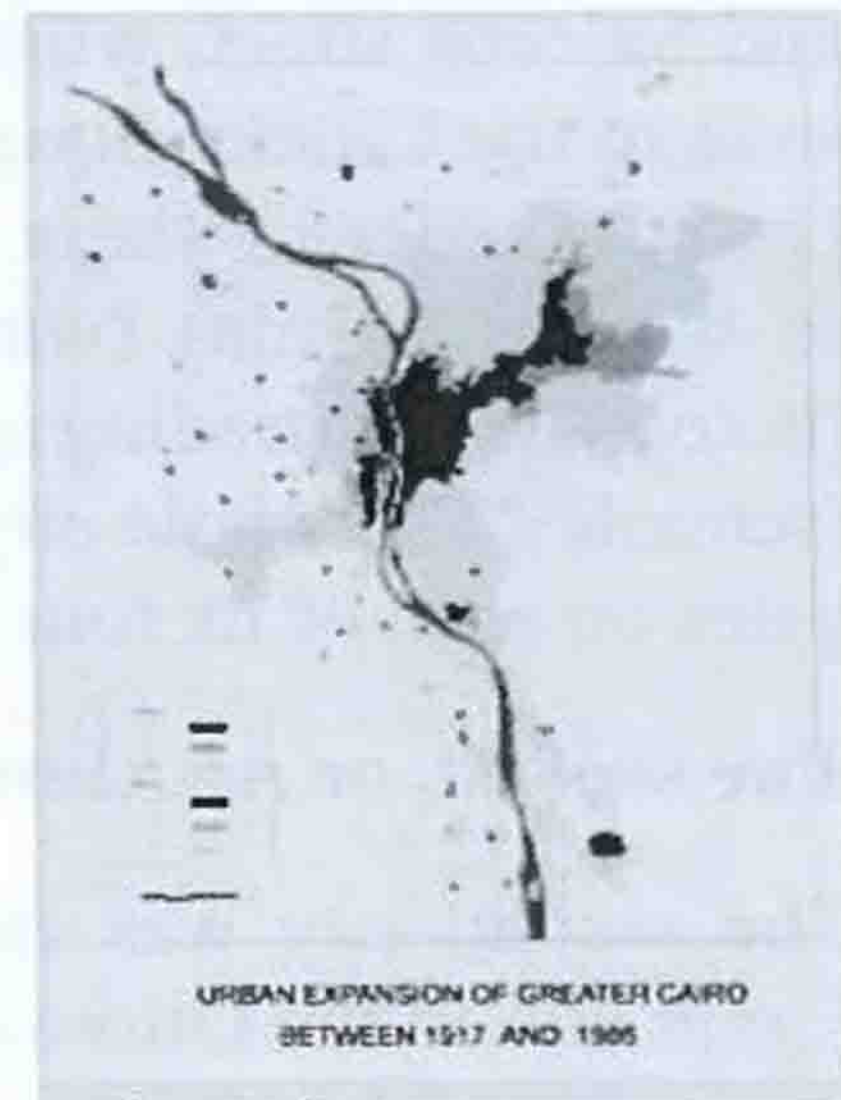
Cairo of yesteryears and beyond

A tale of three cities

Cairo is a city where three eras of history, and their urban formations, cohabitate, not always in harmony

Abou Zeid Rageh

Cairo is not one city; in reality, it consists of three successive cities clearly separated from one another. The first city is the «heritage city» built during the Islamic eras prior to the 19th century. The second city was built in the 19th and first half of the 20th century, during the rule of the Mohamed Ali dynasty. It can be called the «Alaweyad city», and is sometimes known as the «Khedive city». The great expansions around the city in all directions that took place recently, in the second half of the 20th century marks the emergence of the third, or «informal city».



Each one of these three cities carries the distinct architectural and urban characteristics -- and even lifestyle -- of the historical epoch to which it belongs. Moving from one city to another is like moving from one historical era to another. A walk through Cairo is indeed a walk through history.

The first, or medieval city

This city was built over the period of about 13 centuries, by the Tolounians, the Fatimids, the Ayyoubis, the Mameluks, and the Ottoman dynasties. Each dynasty added to the city great buildings and monuments that made Cairo the largest and the greatest open museum of Islamic architecture in the world.

The urban fabric still has the characteristic of a medieval Islamic town: narrow and covered crooked streets, houses with inner courts and neighbourhoods set closely together. Members of each craft guild lived and worked in a neighbourhood of their own, usually named after them. It was a socio-economic entity, forming with other neighbourhoods the general urban and social pattern of the city.

The city has two main arteries: Al-Moezz Street, which extends from Bab Zeweila in the south to Bab Al-Foutouh to the north, and Marssina and Saleeba street, which runs from Al-Sayyeda Zeinab Square in the west to the Citadel Square in the east, passing by Ibn Tuloon Mosque. On both sides of these two main streets lie world famous mosques, as well as wikalas (warehouses and lodgings for merchants), khans (hotels), souqs (trading centres), sibeels (water fountains) and medrassas (schools). The whole city was surrounded by a high stonewall with two gates on each of its four sides.

The second, or Al-Alaweyad city

The second city was established by the Mohamed Ali dynasty after Egypt closed the Ottoman-Mamlouk chapter and started new era at the beginning of the 19th century. From that time onwards, Egypt adopted an open door policy to Western culture and civilisation; Western influence gradually increased to cover almost all walks of life. Large foreign communities -- Greeks, Italians, Armenians and others -- became integral part of the Cairene social fabric.

Khedive Ismail played a leading role in the construction of this cosmopolitan city. He spent part of his youth in Vienna and Paris, where he saw Haussman planning the «city of light» as we know it today. When he was named as Wali of Egypt, he made his policy clear: to make Egypt part of Europe. He summoned one of Haussman's assistants to help him in the planning of new Cairo. He moved the seat of power to Abdeen Palace after it had remained for 1,000 years in the Citadel. He established the ministries district beside his palace, constructed Mohamed Ali Avenue with its famous arcades to connect old Cairo with

his new capital and planned the downtown district to be the business centre of the city. The city centre, indeed, looks almost like a Parisian quarter; it has a French character in its planning and distinguished Western styles in its buildings.

After building Aswan Dam at the beginning of the 20th century, the Nile took its final stable course and it became possible for urban development to move westward. Garden City and Zamalek were built in the west. Maadi was built in the south and Heliopolis in the north. Urban expansion continued and over passed the river to the Giza side. These neighbourhoods were inhabited by the upper class of Egyptian society and also by the wealthy foreign community at that time. They had different European architectural styles. Al-Maadi was built in English countryside cottage style, while in Zamalek and Garden City distinguished villas were built in French and Italian styles. Such an excellent neo-classical architectural collection -- before many were demolished -- was rarely found in any other city outside Cairo. In Heliopolis, there was an attempt to give its buildings an Islamic look, despite the fact that it has a Western urban layout.

These neighbourhoods were well planned according to European standards at the time: wide streets, large green areas and low population density. Both the planning and the design expressed the lifestyle of the district's dwellers.

The middle classes, particularly governmental employees, have their own neighbourhoods: Abbassia, Shoubra, Al-Rodah and others. The planning of these neighbourhoods was linear in character. A main single wide street in the middle, acting like a backbone for the neighbourhood, with a network of narrow streets stretching out on both sides. The main street was the shopping and entertainment centre of the area. Also here, urban planning and architectural character expressed the life pattern and cultural values of the inhabitants of these districts.

The old city has a genuine Islamic character in architecture and urban setting, while the Alaweyad city has its obvious European form and

style. Yet both have great historical value. The planning of each represents a cohesive culture and unity of thought, and expresses a stable and harmonious social order. But both cities were two separate closed communities. They were two different worlds living side-by-side without much human or cultural contact.

This was a story of two cities; the old and the new, before they were faced with radical changes in the second half of the 20th century that undermined their social and urban systems, and let two great civilisations to go with the wind.

Winds of change

The change that took place in the Egyptian society, particularly in cities within the second half of the 20th century was deep and complex. It has more than one aspect. First, is the general trend in Third World societies towards industrialisation and urbanisation; second, is the high rate of increase of population. Mid-20th century, Egypt had a population of about 20 million inhabitants. Now it has about 90 million. Cairo then had two million inhabitants. Presently its population reaches over 16 million. The third change is the huge migration from rural areas to cities, particularly to big urban centres as Cairo and Alexandria. Most of these migrants are of limited income groups without any handicraft or vocational skills, and they work mostly in marginal activities. They brought with them to the cities the rural way of life that they were used to back in their villages.

There was no national or regional or local planning to manage these changes or direct their course. Thus the door was wide open for the huge expansion of informal settlements around the city that we may call the third or «informal city».

The third, or informal city

The vast expansion that took place during the last 50 years resembles a fast and sudden urban explosion extended outward from the nucleus of the city toward its outside edges. Nasr City was built in the east, Al-

Mohandiseen in the west, and large extensions were added to existing districts such as Maadi in the south and Heliopolis in the north. Huge informal neighbourhoods were built, outside the official supervision of the government, surrounding the city from all directions.

The urban quality of life in these informal neighbourhoods is extremely low. They lack proper living conditions: high population density, shortage in utilities and a lack of social services. Streets are narrow -- not wide enough, sometimes, to allow the passing of ambulances, police and fire-fighting trucks. Natural lighting and ventilation are not sufficiently available. Buildings were poorly constructed and without any architectural merits. In brief, they are merely part of the urban chaos. While the other two cities represent cultural values, this third city represents nothing of the sort.

The third city was built in a revolutionary era. Harmony, beauty and high standard of urban life were not a priority for all decision makers. Different channels were opened between the three cities that led to a mixing of diversified activities, a clash of behaviours and attitudes, and general architectural distortion in all of these three cities. It should be noted that the last city was built in only 50 years, yet its area is about six times the area of the other two, which took more than 1,000 years to build together.

The diagrammatic shape of Cairo is like three consecutive circles; the old city is located in the centre of the first circle, followed by the Alaweyyad in the second circle, then the informal city in the outer circle.

Cairo today

A special study of the quality of urban life in the largest 100 cities of the world was recently undertaken. The study included numerous indicators such as population density, share of green area per individual, level of noise, pollution, and the quality of living environments, etc. The city of Melbourne in Australia occupied first place, while the city of Cairo was down at 84th. Population density, for instance, reaches an average

of 42,000 persons per square kilometer -- reaching 100,000 in some neighbourhoods -- while density in large Western cities does not exceed 8,000. The share of each individual in green space areas is only 60 square centimetres for Cairo, while in Western capitals it amounts to 18 square metres on average. Meanwhile, Cairo's air pollution almost reaches the highest level globally.

The total number of inhabitants living in informal areas in Greater Cairo is estimated to be six millions. Informal settlements have spread quickly and widely with the housing crisis during the late decades. About 60 per cent of units built during this era were informal units.

While informal neighbourhoods are surrounding the city from the outside, besieging it from all directions, marginal housing, huts and single-room living, are concentrated in the old city and its neighbouring districts.

Single-room living is when a whole family, males and females of different ages, are jammed in one sole room without any utilities. They share with other families a single toilet. Twenty per cent of families in Cairo dwell in one room. This rate increases in some districts; for instance, it is over 40 per cent in Bab Al-Shaareyya and Al-Khalifa. It is worth mentioning that the number of people living in the City of the Dead amounts to 600,000 persons. Informal housing outside, and marginal housing inside, are suitable incubators for all sorts of social distortion.

The Alaweyad city has its share of urban distortion. Commercial, financial and tourist activities crept into residential areas like Zamalek and Garden City. This creeping business led to the demolishing of many villas with large gardens, replaced by high towers and massive concrete constructions. Commercialism and business investments have not much regard for aesthetics. Consequently, these neighbourhoods have lost a great deal of their architectural wealth and urban harmony.

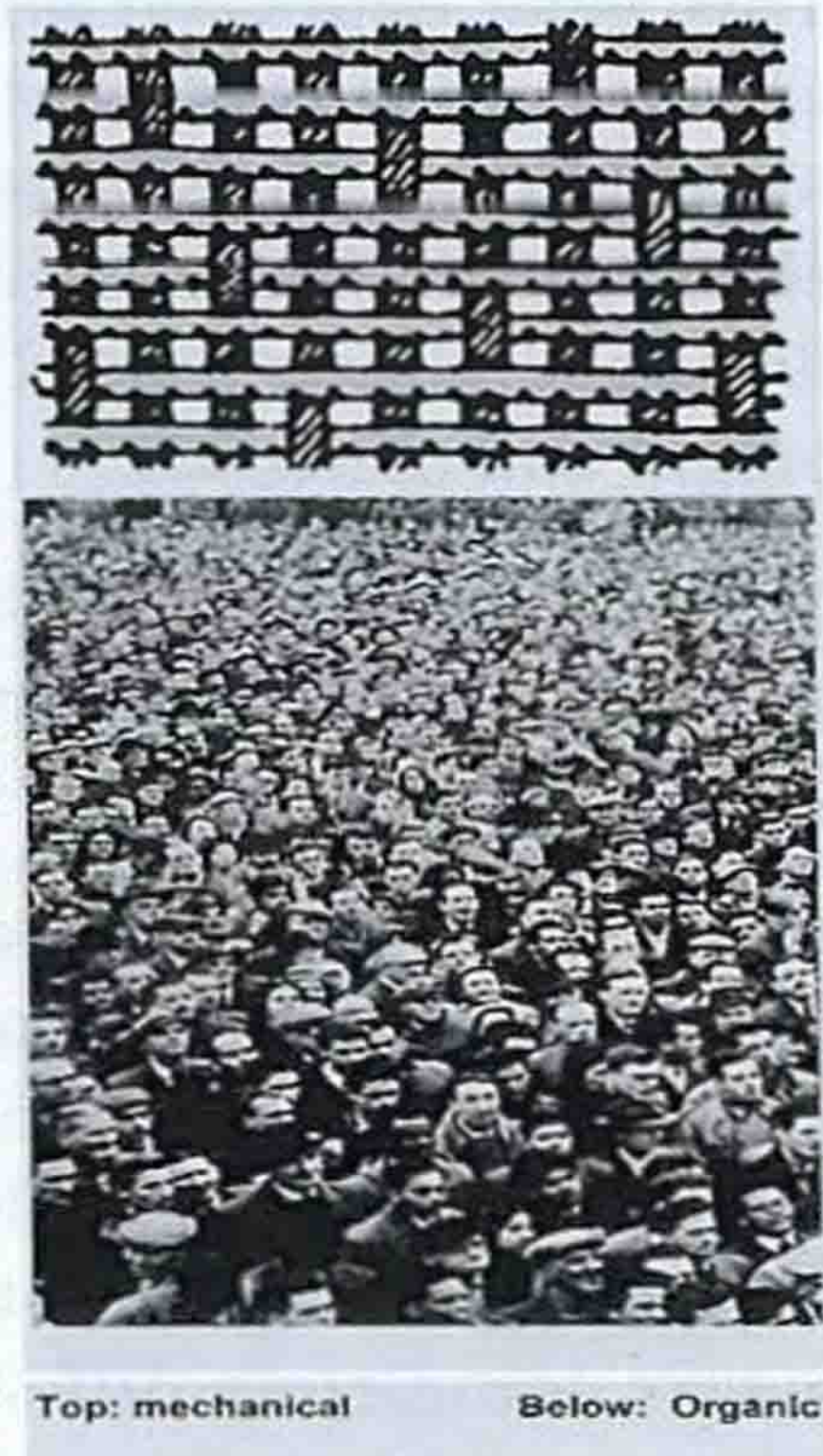
Old and New Matrices

There is a matrix for every organized place, even diversity has a matrix

Aly Raafat

Carpets, Chinese or Iranian, have different matrixes. Cotton carpets are different from silk ones. A flower or fruit garden has a different matrix than cloth. Each matrix has parallel or intersecting lines in two or three or more directions. A matrix can be of vertical lines as in matrix of flowers or trees or planting crops. It can be a matrix of dots or slots or geometric shapes, or circles or triangles. Even human beings walking in a parade as soldiers or students each has a matrix of its own.

On an urban scale the unit of a matrix can be a villa or a walk up or elevated building or towers. The matrix can be in constant, upward or downward, or irregular rhythm in thickness, height, spacing, color, texture or unit. It can be complex with several matrixes mixed together making it one general complex matrix. In any case the intention of the designer of the matrix whether steady or diversified should be comprehended by the viewer. Otherwise the result can be hazardous.



In old Cairo, the matrix was perfectly homogeneous. Narrow broken traffic streets with an important building on each break, be it a mosque, sabil, or madrassa. Such streets were lined by shops with residences above and interrupted by squares where the main mosque or important palaces stood on each of its sides (eg. Bein ElQasrain).

From these streets, branched narrow harras lined by houses and Rabaa's (group of houses around a court). Lots had broken irregular, boundaries, and geometric inner courts. They also branched into covered souks.

All these matrixes were homogenous, functional and sensible for carriages camels and donkeys as main means of transportation. They have , of course, been spoiled by motor traffic emitting gases in the faces of passersby on the sidewalks. Shops have been extended to the streets thus increasing traffic jams. In case of demolition of some of these units, they are being replaced by catastrophic new buildings spoiling the matrix in height, construction, color and age. Just one building out of the matrix destroys the whole harmony of the place. This what happened all over old Fatimid Cairo. It can be stopped in case law 144, 2006 that protects single buildings of value, is extended to declare all valued districts as national heritage. These should be kept and maintained as they are. Any building that is demolished because of its bad condition should be replaced by one with the same old elevation, height and materials.

New Cairo started with the French expedition (1798- 1801) which demolished old harras around Azbakia Lake (transformed to become a Garden).

Straight wide roads were started to connect Azbakia with Boulaq (26th July street). Mohamed Ali started a road connecting Azbakia to the Citadel (Kalaa). Another road was constructed from Azbakia to Azhar (El-Seka El-Gadida). Planning was started for a new district between Azbakia and the Nile. This was executed with a western matrix completely different from that of the east. Straight wide streets intersected in circular squares with high bulddngs on both sides with very strict building regulations for form and content. Even the cost of building was restricted to a minimum E.P 2000, which was much at that time. This secured a matrix of western urban design with streets anticipating the future multifaceted means of transportation, unknown at that time. The result, during Khedive Ismail and Tawfik's rule were the most homogenous collection of architectural energy at a time of western eclecticism. The building groups came out as a collection of different western styles (New Baroque, High Victorian, Romanesque, Art Nouveau, and later Art Deco) all mixed with Islamic details that

went along western eclectic tendencies of the turn of 19th century. All buildings were of the same heights, richness, materials and details in balconies, entrances toppings in Mansard roofs or domes ... etc.

Since then we have witnessed catastrophic interference with this matrix. Towers started to appear, and modern buildings, with glass curtain walls and matchboxes with strip balconies replaced those with 'fer forge' and decorated stone parapets.

We now find shapes with different colors, displays with large protruding signage, side walks completely interrupted by street peddlers and beggars, with no place for pedestrians. Cars are lined on both sides in pairs. Signage for doctors, tailors, and companies occupy the whole elevations in a very confusing matrix.

Heritage Committees have to get to work as fast as possible in declaring untouched homogeneous street matrixes as urban heritage. All interferences with the original matrix should be removed by force of law.

Special building codes should be declared for such urban heritage districts. Committees should be sure that these codes are imposed on old existing building and in new ones that replace any possible future demolitions.

In Europe old elevations are preserved untouched while the whole buildings behind are either repaired or demolished.

Maadi, Helwan, Garden City, Zamalek, Helmeia and Abbasiya all have special early 20c matrixes that should be preserved. For example, Maadi is famous for its matrix of colored gabled roof villas, Garden City for its English winding streets with Art Deco four story apartment buildings, etc... . They all have richness in handcrafts, materials and decorative historical forms. They are now under destruction by greedy unappreciative investors. Preservation of urban heritage interested to 10 years old National Organization of Urban Harmony (NOUH) should have teeth to stop spoiling our urban matrixes.

Missing public space

Cairo's public space is almost nonexistent and traffic is admittedly bad, but common sense

John Harris

Cairo is abundance. It overflows on so many levels: noise, dirt and people on the one hand, discoveries, history and charm on the other. One thing sorrowfully lacking, however, is public space.

Public space refers to space that is truly open, accessible to all, regardless of background, identity, gender, age or social class. Public spaces are maintained for the good of communities as a service of the state. No fees are levied for entry. Malls do not qualify, as they exist to promote commerce; neither do sporting clubs, as they by definition cater to an exclusive membership; likewise religious spaces. Public space most often refers to parks, gardens, boardwalks and public squares. But not all public spaces need to be outdoors: public libraries are a good example of indoor public space.

Cairo is somewhat unique in its lack of public space. Around the world, public spaces are woven into the very fabric of successful urban centers. Those who have witnessed the inauguration of an American president will have noticed the millions of citizens who are accommodated into one of Washington DC's main axes of public space, the National Mall. European cities are full of gardens and parks; in America, cities are ranked by the amount of public space they maintain per citizen, and city administrators vie to do well by this account. Nor is commitment to public space restricted to the first world: New Delhi, India, and Havana, Cuba, as two examples, maintain extensive public space within the urban core, and have a similar socio-economic -- and in the case of India, a similar demographic -- profile to Egypt.

Public spaces play an important role in the successful functioning of society. They provide citizens a social outlet, and the ability to interact with others in their community outside of the home. They relieve the tension of cramped living quarters, and provide urban apartment dwellers with the space needed to connect, pursue recreation, and relieve stress. Public spaces, in which everyone is equal, bring communities together. In a sense, they act as the soul of a society. Public space, as it is a shared resource, maintained for all and enjoyed by all, brings out the best in us and connects us to one another.

Egypt in general, and Cairo in particular, has very little that can truly be considered public space. A privileged minority of the population fills the need for community space via private sporting clubs. While some public spaces still remain in Cairo, many in Zamalek, entry fees cordon these spaces off to many. And Egypt's coastlines are rapidly moving in the same direction: to find a public beach between Agami and Marsa Matrouh on Egypt's north coast is increasingly challenging. Access to Egypt's iconic public space – Tahrir Square – is increasingly controlled. In any case, most of the time it is filled with traffic.

This was not always the case. Cairo in its not-too-distant past maintained admirable amounts of public space. The Azbakiyya Gardens, for example, which shared the same architect as Paris's Bois de Boulogne, was only recently paved over and used to provide Cairo's population with an urban lake. Cairo's Mamluk rulers sought to ensure their legacy by building elaborate funerary complexes that resemble today's community centers, including a school, a hospital and a mosque. Likewise, the grand Mamluk avenue, Bayn Al-Qasrayn, provided ample space for thousands to gather and to enjoy a variety of public spectacles. Cairo's shrinking commitment to urban public space is a new -- and disturbing -- phenomenon.

To be sure, maintaining public space in crowded urban cores, with many competing demands for real estate and investment, is difficult. Public space is expensive and difficult to maintain. In this way Egypt

is no different from many comparable countries. In the face of intense competition for limited governmental budget, open spaces often get knocked down the priority list. Similarly, public spaces inherited from prior generations, particularly those in urban areas, often fall prey to greed and administrative corruption as a result of the financial value potentially derived from their development. Because public spaces exist for the good of citizens, they are more commonly found in societies governed by highly participatory democracies. Societies where leaders are less accountable to the people naturally exhibit less of a commitment to public space.

But there are also some more uniquely Egyptian obstacles to public space. One of these is a lack of awareness of the role of public space in societies. In the new residential communities springing up around Cairo, developers are quite sensibly restricted in the number of homes they can build by the requirement to maintain a certain amount of open space. Rather than develop parks or community land, however, the most common way to fulfil this requirement is by developing golf courses. These certainly look nice on marketing materials for the compound, but they hardly provide an egalitarian gathering place for the community as a whole. Likewise, during the debate several years ago about a proposal to transform some of the Gezira Club and Reaayet Al-Shabab in Zamalek into a shopping center, some of the well-connected proponents of the scheme made the case that this would be a much better use of space than the current «wasted» space provided by these clubs.

Similarly, Egypt suffers from a fear of the truly public. The rush towards gated communities on Cairo's outskirts is fuelled in part by the wish to select one's neighbours, and by definition exclude certain elements of society. It is assumed, perhaps with good reason, that public space would become immediately overrun on account of the sheer demographic pressure that it would attract. Similarly, also for good reason, women assume they cannot freely access public space on account of the harassment they might encounter. As a result, the sense

of shared obligation towards community has broken down. In the place of community, every family fends for itself. Watch how Cairenes litter from their cars, or allow their apartment building to decay in spite of the orderliness of each individual unit. These are signs of a decline in importance of the communal at the expense of the personal.

These obstacles can surely be overcome. India's urban centers are often more impoverished and more crowded than Egypt's, yet they have maintained much more extensive public space. A famous joke during the time Sadat ended with the derisive punch line, «What, do you think I'm an Indian?» If India can do it, Egypt surely can as well.

There are many signs for hope. The Aga Khan Foundation is spearheading impressive redevelopment efforts in the Darb Al-Ahmar district at the foot of the Citadel. In these communities, public spaces are being developed into the fabric of communities with the assent of those communities. The Cairo Governorate has signaled a commitment to public libraries, and several beautiful libraries exist around the city. The streets around the stock exchange downtown have been restricted to pedestrians, and Cairo's master plan calls for the development of many more pedestrian only zones. Alexandria and Marsa Matrouh, likewise, have developed superb corniche boardwalks in recent years. In light of this, the future role for Midan Tahrir should be seen as an exciting opportunity.

Open spaces are a critical component of successfully functioning societies. There is clearly the need for public space in Cairo; as proof, just watch the evening crowds strolling along one of Cairo's downtown bridges, or the families picnicking on the median strip of Orouba Street on the way to the airport. (As an aside, what does it say about a society in which the median strip of the airport road is more beautiful than any public space that most of the population has access to?) What is needed is for Egypt to reaffirm its commitment to its existing public spaces, and build public spaces into its ongoing development.

Getting going

Cairo's roads suffer from a bad reputation. Yes, traffic is bad. Yes, road conditions aren't great. Yes, the behavior of Cairo's drivers is erratic. But it could be much worse.

I travelled through Southeast Asia several years ago, and if you ever have the chance to experience traffic there, you'll come home thinking that Cairo traffic is a blessing. For in Cairo, bad traffic means adding 15 minutes, maximum half an hour, onto your travel time, assuming that the delay has not been caused by the entourage of a travelling dignitary, at which point I hope you brought a picnic basket.

But in Bangkok, for example, bad traffic means not moving for several hours. It means never travelling without water, because your thirst may not survive the wait. It means switching off your engine during delays to make sure you don't run out of gas before your wheels have a chance to spin again. Bangkok traffic police are trained in assisting with childbirth, in case an expectant mother happens to get stuck at the wrong time. In Bangkok, traffic is stacked up on several different levels, thus leaving downtown more of an ugly tribute to the automobile, rather than a graceful gathering of civilized humans.

However, the fact that others have it worse is no reason to rest on one's laurels and do nothing. And in fact much is being done. Or, this being Cairo, it would be more accurate to say that much that could be done is being studied. A recent study, for example, identified the significant investment required to keep Cairo's downtown traffic moving at a stately 15 kilometers per hour. While the required size of this investment may be daunting, and the solutions proposed might be difficult to imagine, Cairenes can take solace in the fact that their traffic is in fact moving. Speak to a commuter in southern California, and they will tell you that 15 kilometers per hour sounds like paradise.

However, many of the solutions being proposed for Cairo's traffic ailments involve infrastructure-based approaches. In recent months, I've

heard dizzying accounts of the number of new mehwars, or linking roads, that are due to be constructed parallel to the 26th July Corridor linking Mohandiseen with the Cairo Ring Road and the Alexandria Desert Road. However, an overwhelming amount of international evidence points to the fact that new roads are just another space of tarmac cars can fill. It's like opening up another lane at a crowded passport control. For a moment things fly, until the reality of congestion sets in once again.

While up to date infrastructure is important to any city, seeking its rightful place in a progressive universe, infrastructure must be accompanied by common sense. Implementing common sense is invariably considerably cheaper than infrastructure, and it's often much more effective. With this in mind, I would like to make three suggestions to Cairo's road planners:

1. Get buses and taxis off the roads during pickups and drop-offs. I lived in New Delhi a while ago during a period when people were talking about traffic much in the same way as Cairenes discuss their own traffic. Delays were growing, new infrastructure was immediately inundated, and tempers were rising. A particularly smart traffic planner instituted a radical innovation. Instead of building new roads, he simply built bus lay-bys on existing roads. Furthermore, he imposed stiff fines on buses that chose to pick up or drop off passengers in normal travel lanes. In Cairo, buses and taxis picking up or dropping off passengers in travel lanes create massive gridlock behind them. Road planners will tell you that a single delay can send massive repercussions throughout a traffic system. A bus stopping removes one, if not two, lanes from the flow of traffic. Building lay-bys would be a simple to implement and affordable way to massively ease congestion.

2. Build breakdown lay-bys on enclosed highways. How many seemingly interminable delays on the 6th October Bridge are the result of a single stalled vehicle? Building frequent lay-bys on restricted roadways, especially on raised highways, where broken down vehicles can be pushed to get them out of the travel lanes, would remove one

major cause of congestion. Checking up on the health of cars a bit more diligently, to remove from the streets those crumbling Eastern European relics that cannot hope to make it through a Cairo summer, wouldn't hurt either.

3. Build adequate pedestrian crossing infrastructure and enforce pedestrian rules. By pedestrian infrastructure, I don't just mean over or underpasses. These are expensive and tend to go unused. A simple crosswalk, with electronic crossing indicators tied into the traffic light system, will suffice. But infrastructure without enforcement is useless. Whenever I suggest this to a Cairene, they roll their eyes, as if to ask if I've learned nothing in my years in Cairo. This is Cairo, and this is how it operates. But there isn't a single city in the world where traffic flows and pedestrians wander (or scramble) at will. A commitment to improved traffic in Cairo requires a new approach to the relationship between cars and pedestrians.

Cairo's traffic is bad, but many places have it much worse. The next time you're stuck in traffic, just ponder this and you may feel a bit less stress. Much is being done, or considered, to address Cairo's serious traffic challenge in the future. But a little common sense sometime equals or exceeds a lot of infrastructure.

Architectural Preservation

Can the crimes of demolition and destruction of our historic neighborhoods be stopped?

Samir Raafat

To date, laws and regulations defining a historic building or landmark remain equivocal, which makes it all the easier for developers to pursue their mission to fill up the city with concrete structures. Moreover, the absence of a Commission for Historical and Architectural Preservation (CHAP) is translated into the accelerated disappearance of historic neighborhoods and sites across the nation. Which is why many are demanding that our government-appointed city mayors actively intervene to preserve our historic neighborhoods before it's too late!

Take the neighborhood of Garden City for example, or what's left of it. Here's a story that can be told elsewhere in Cairo. It is the simple narrative of how a rising elite sought to balance their middle-class sensitivities with their patriotic political convictions. The last Ottomans in Egypt nicknamed it Beyoglou (sons of beys) a reminder of a comparable Istanbul district on the shores of the Bosphorous, where an evolving privileged class dreamt of a modern independent Turkey. But while Beyoglou's landmarks are still around today, Garden City's are disappearing.

Cairo's Garden City was also the story of a state in the making. Architects, musicians, politicians, educators, ideologues, judges and many of the most prominent figures of the pre-republican era lived there, leaving their ephemeral mark on Egyptian society as they walked along its shady winding streets admiring the district's eclectic architecture. These were also the days when 'elected' state administrators determined municipal zones, commercial areas, density of construction, use of materials and height of buildings.

Garden City was designed just as new ideas were spreading, influenced by non-traditional town planners. It was shaped by turn of the century architects whose outlook was consciously modern. This is why the term 'heritage' in Garden City is intimately linked with both history and architecture.

But over the past four decades, Garden City has not been preserved. Property owners, along with a corrupt municipality, discovered that there are big bucks to be made. In the absence of any forms of regional planning boards or CHAPS protecting landmark buildings and villas, 80-year-old homes built in the art deco or international style, were transformed into primitive dwellings, their gardens giving way to ugly, multistory, high-priced residential structures.

Numerous homes, of great historical and architectural value were razed. The palatial home of Adly Yeken Pasha, a leading political figure and sometime prime minister, was removed to make way for the Four Seasons Hotel complex which stands like a giant barrier forever separating the rest of Garden City from the Nile.

The home of Youssef Cattoui Pasha built in the 1920s with gothic turrets in the Victorian-folly style at the corner of Ibrahim Pasha Street and al-Saraya al Kobra, succumbed to the bulldozer, with an eyesore 15 story building replacing it.

Doctor Naguib Mafouz Pasha's villa on Tolombat Street, with its spacious balconies set back from what was once a very quiet tree-lined street, was taken over by a bank which immediately corrupted its structure so that it is unrecognizable today. The palazzo across from it, built by a princess and leased to America's ambassador during WW2, was replaced with fourteen unsavory buildings surrounded by the tiniest of sidewalks, thus taking full advantage of building percentages while the municipality looks the other way.

The list is long, the crimes far too abundant. Architectural terrorism is alive and well in our historic neighborhoods. But in light of the

demolitions that have already taken place, can the destruction be stopped?

Apparently, growing community awareness and effective use of media has yet to produce results. Things are moving very slowly. The question now **URGENTLY** stands: Will this be yet another example where we have to wait for overseas protests so that we get our act together? Or are we expected to solicit the assistance of some multinational citizens group? It was, after all, an eleventh hour intervention by the UNESCO that saved our Giza plateau from having a four lane highway zigzagging between the pyramids.

Preserving heritage value

The problem is what to do after approving the list of heritage buildings and structures, since their owners for real estate investment intentionally destroy many of these buildings

Salah Zaki

Due to rising public awareness of the need to protect urban heritage, the Ministry of Culture cooperated with the Ministry of Housing in issuing Law #144 / 2006, which regulates demolition licenses and the conservation of buildings and structures of heritage value. Egypt's prime minister promptly ordered governors to create a list of buildings of heritage value in every region in Egypt.

The initial function of the Committee for Buildings and Areas of Heritage Value, or Central Heritage Committee, was to help set the norms and standards that define buildings to be conserved in Egypt. The term «sites of heritage value» includes gardens, but does not include archaeological structures that are considered monuments and hence the responsibility of the Supreme Council for Antiquities. The committee started by writing a manual to be used by governorates and local committees in the selection procedure. The National Centre for Urban Amelioration has signed protocols of cooperation with many governorates in this regard.

The future task of the Central Heritage Committee will be to offer technical assistance to governorates, both in the area of listing heritage value buildings as well as in pilot projects for conservation. Members of the Central Heritage Committee are currently heading the local specialized committees in Cairo, Alexandria, Menia, Kafr El-Sheik, Behiera, Aswan, Port Said and Mansoura, for the listing of buildings, structures and gardens of heritage value. It is expected this task will be completed within six months, to be approved later by the prime minister and to form the basis of the national list of heritage sites. In Cairo,

the number of listed buildings is around 5,690; in Menia around 340 buildings; while in Alexandria the figure is around 2,000.

Local committees, headed by professors of architecture, are using uniform standards for evaluating buildings based on their history and architectural and urban value, and social and traditional backgrounds. The committees are also asked to put the buildings in categories, A to C, according to their value and priority for restoration. Establishing local archives for governorates and a central archive of buildings and structures of heritage value is an important task the committees are also instructed to assist in.

Currently, the main problem facing governorates and the central state is what to do after approving the list of heritage buildings and structures, since their owners for real estate investment intentionally destroy many of these buildings. One of the Central Heritage Committee's functions is to propose fair compensation as well as other incentives to convince landlords to keep and conserve their buildings of value. Future work of the committee includes raising public awareness on the value of Egypt's heritage and conserving what remains of it.

Note from the Editor: With such mechanisms established more than seven years ago, the problem of demolishing high heritage value constructions is still at its best. Case in point: historically significant sites were recently destroyed in Alexandria 2014. People are blind to public awareness calls for preservation. They are not ready to forego profit for stones. No law enforcement, no incentives.

Downtown today, yesterday and tomorrow

The culture of a capital flows from its architecture, which must be preserved

Sami Serageldin

In a small gathering made possible by the British Council, a few years ago, urban landscaping experts, academic and practising architects, intellectuals, and architectural students discussed the future of the Cairo's beautiful downtown district -- what is known also as Khedivian Cairo -- established, planned and developed in the era of Muhammad Ali . (Egypt celebrated the bicentennial of his reign).

It was noted in this gathering that throughout the 19th and early 20th century politicians and the Egyptian intellectual class had in common a futuristic vision for the creation of a new Egypt with a capital city comparable to the greatest European cities of that time. Khedive Ismail wanted to make Cairo the Paris of the region. This motivated him to enlist the greatest European architectural and artistic expertise in developing Egypt's ancient capital city.

«If Paris was the capital of enlightenment in the West, the Cairo that we are dreaming of today has been the capital of enlightenment in the East: So what next for Cairo?» This was the question posed to attendees in the recent May meeting.

The answer: We all want Cairo to be a centre that radiates culture; to become a major financial capital for the surrounding region; to enjoy broad and clean streets with areas for pedestrians only, and with wide-open plazas and squares that can become venues for cultural discussions, where we can listen to poets, discover artistic talents and hold open exhibitions and international festivals throughout the year. We want

to make Cairo a great open-air museum for tourists to experience the greatness of new Egypt.

While the discussion was enriched with varying opinions and viewpoints on how to achieve this, everyone agreed that they wanted to bring back Cairo's glory and to overcome the prevalent culture that is distorting this once great city. National institutions, including the Egyptian parliament, honourable businessmen, charities and the inhabitants of the capital's downtown district were also called upon to help save the Cairo's magnificent buildings and its downtown architectural glory from further decay.

In the good old days

In the late 19th and early 20th century, Cairo was a beacon of knowledge and enlightenment in the East. Highly educated people and great intellectual thinkers such as Jamalluddin Al-Afghan and his followers, Sheikh Muhammad Abdo, Rashid Rida, Sheikh Abdul Rahman Al-Kawakbi and others, used to meet freely to discuss the issues of their time. Animated open discussions attended by pillars of the Egyptian national movement, such as Mustafa Kamel Pasha, Mohammed Farid and Saad Zaghloul Pasha, were regular occurrences.

Cultural meetings were held at the Palace of Princess Nazly Fadel that included Egypt's great thinkers and leaders of the enlightenment movement such as Lotfi Al-Sayed and many others. Mai Zeyada's salon grouped modernisers and leaders of the cultural enlightenment of that time.

It was a beautiful time when cultural nourishment could be found in the music kiosks in Al-Azbakeya Garden, and when the Yusuf Bey Wahbi, El-Raihani, and Ali El-Kasar theatres in Imad Eddin Street competed for people's enjoyment. The charming nights of Cairo entertained Arab audiences throughout the region with the concerts of the legendary «Star of the East» Umm Kulthoum, along with Mohammad Abdul Wahab and Farid Al-Atrash.

This Cairo with its clean streets and beautiful buildings designed by the greatest European architects was ranked in the 1940s and early 1950s amongst the most beautiful capitals of the world.

Man and place

There is a great bond between the inherited culture and our current situation. Who of us does not miss the beautiful Cairo -- the Khedivian Cairo? The name reminds us of the age of glory whose features we seem to be forgetting today.

Downtown buildings are deteriorating, left un-maintained or replaced by ugly buildings unrelated to our culture or identity. Age old shops, banks, cafes, cinemas and theatres are quickly disappearing. Gone are the Cairo department stores that were proud of displaying new fashions, even before Paris.

Disappearing are the cafes where Naguib Mahfouz, our Nobel Prize-winning author, sat. Egypt's modern revival started from the downtown streets whose names have been changed. It blossomed around the landmarks and historical buildings being purchased by wealthy buyers eager to demolish or to modify them according to whim.

The architectural forms that we are trying to document are vanishing before our eyes. We are losing our identity and history. Leaving Cairo in this current situation is no less tragic than the theft of Iraqi heritage during the American attack in 2003. Both represent deliberate action aimed at effacing Arab history.

Cairo for all

It is time to raise the banner of «Cairo for all».

We want to revive Egypt, the capital of enlightenment and culture; Egypt of the poems of Ahmed Shawqy; Egypt that contains the different international building styles that are a joy for all people around the

world. We must assert our right to preserve our identity and to protect the culture that resulted from the greatest positive and peaceful interaction between Egypt and the West.

Khedivian Cairo is an open international museum that contains the most beautiful output of the great artists and architects of Europe and the input of the Mohammed Ali Pasha family across 200 years. This great heritage is the patrimony of all Egyptians. We must join forces to preserve it.

Towards urban harmony

Good urban design can bring a sense of belonging and togetherness

Mahmoud Yousry

Our urban environment has been degrading rapidly. The signs of this degradation are evident in visual and environmental pollution, ugliness, congestion, and lowered quality of life. Human behaviour in our cities has become characterized by carelessness, aggression and anonymity: a lost feeling of belonging to or appreciation of the urban environment. If the quality of the urban environment is a measure of human development, we are in urgent need of an upgrade -- man and place alike.

The visual form of the city

Urban experts have been concerned with various aspects of the city. Planners are concerned with land use and development, engineers with traffic and utility systems, architects with buildings, social scientists with people and communities, and historians with the history of urban formations. It is high time to examine the visual aspects of the city: how it looks and how its residents, visitors and observers appreciate it. It is also important to familiarize the layman with the meaning and components of urban visual forms -- components he sees daily but perhaps does not feel or appreciate.

From a visual point of view, the city is composed of several districts, some of which have a vivid character that is differentiated from neighbouring areas. Examples of such districts in Cairo include the historic area of Fatimid Cairo, the downtown area, Zamalek, Maadi, or even lower-end districts like Meit Okba.

Another important feature is what can be labelled as landmarks. These are point elements (buildings or structures) that give us the sense of place and orientation, such as the pyramids, the Cairo Tower, the Citadel, the Egyptian Museum, religious buildings, and the like.

A third element of the visual form is paths. These are major streets and pathways from which we experience the city. They are the main sources of information and, therefore, are the skeleton on which we build our image of the city. Related to paths are nodes : points of concentration where people or traffic are concentrated. These are the city squares, plazas, or even smaller meeting places.

Other components include edges and gateways. Edges are visual boundaries that hinder development (like a river or seashore) or cut across the city (like a railroad or an elevated highway). Gateways are entrances or places where one feels he has reached the city.

These are the elements that the urban designer can manipulate, design, or control to achieve urban harmony, seeking clarity, beauty, visuality, flexibility and sensual satisfaction from the urban environment.

The National Organisation of Urban Harmony

The National Organisation of Urban Harmony (NOUH) was established in 2001 by presidential decree. It has a special section in the Building and Planning Law concerned with both the urban and rural domains. Its responsibilities include the following:

- Formulating a statement of objectives and policies of urban harmony, and translating these objectives and policies into plans and programmes for development and the upgrading of urban areas and spaces
- Establishing principles, standards and urban design manuals for various components of the city to help guide and control private and public urban development
- Undertaking research and conducting studies in relevant fields
- Carrying out pilot projects to demonstrate and apply urban harmony principles and standards

The concerns of NOUH, however, surpass those established by legislation. Our ambition covers not only upgrading the urban environment, but

also human development and upgrading human behaviour through mass media, education, refining public taste, and similar measures.

Urban design manuals

One of the important action areas of NOUH was to formulate the principles and standards of urban design, and issue them in the form of manuals to guide and control urban development. Once issued and circulated to concerned organisations and local government bodies, they are considered as binding regulations.

The Supreme Scientific Committee for Preparing Urban Design Manuals has been formed within the NOUH. The committee includes around 17 urban design experts and university professors. Each member of the committee leads a team of researchers to carry out studies in a given field. Serious deliberations and painstaking efforts that involved about 70 experts and professionals working for about two years have led to the production and issuing of 13 urban design manuals covering various aspects of the urban environment, namely:

- Urban streets and pedestrian pathways
- Heritage districts
- The city centre
- City entrances
- Coastal zones
- Open and green spaces
- Informal areas
- Environmental protection
- Protection areas
- Rural areas

- Signs and billboards
- City lighting
- Quality engineering and control

The principles and standards proposed in these manuals were not only derived from international standards, but were also guided by local characteristics and constraints. The manuals were designed for immediate application, allowing for continuous revisions and improvements over time.

In addition to the manuals, there have been other accomplishments made by NOUH. Most important of these was the organisation's persistence to include and revise the «Urban Design» section in the new Planning and Building Law. Another concern has been confronting several urban development issues that have been considered harmful to the urban environment. Last, but not least, are NOUH's efforts to spread a «culture of urban harmony» through mass media channels, conferences and symposiums, in addition to offering technical advice to several governmental institutions.

Part II

The Social perspective: Who counts?

Dichotomy of values

Societal values as a subject used to be a main concern to those in the fields of sociology, psychology and social work

Hoda Badran

The subject has recently become of interest to others including economists, intellectuals, business men and political scientists. Tarek Heggy, for example, who used to manage Shell Petroleum Company, addressed societal values in his paper published in the Middle East Media Research Institute in June 2004. He argued that the progress of nations is mostly the product of a value system, and he listed six basic values that characterize such a system.

The economist, Galal Amin, has also tried to show in his book, «Whatever happened to the Egyptians?», the changes that have recently occurred in the Egyptians' behavior as a result of a changing value system. Amin resorted to his childhood memories to illustrate the changes and concluded «everything is gradually being turned into a commodity, the object of a commercial transaction, including man's very soul». Others underlined the role of globalization in universalizing certain cultural aspects and bringing about changes in the value systems of different countries throughout the whole world. The emerging neo-social Darwinism ideology justified the increased gap between the rich and the poor brought by the transnational economy, allowing policies that keep some groups in poverty despite the possession of the means and methods to prevent that .

The gap between the rich and the poor in Egypt has not only become wide economically, but the two groups have also become widely segregated from each other in terms of their sets of values and styles of life. Values are developed by a process of learning from others with whom one associates. The home is the great teacher of human values together with the school, the mosque, the movies, the club and other social institutions. Everyone and every group has a system of values

which is determined by the interaction of these institutions in the home environment. What follows is a discussion of the difference in value systems between the rich and the poor in relation to the home environment, the family and the school, casting light on certain changes that occurred over time within these values.

Some time ago, rich urban Egyptians used to select their homes in communities close to the Nile, with wide streets and a quiet atmosphere. They preferred to live in their own villas with enough space, green yards and privacy. Increasing congestion in the cities has led to the development of new communities on the outskirts of the big cities. These communities are surrounded by high walls that, together with their prohibitively high prices, segregate them from others. In this home environment privacy is a value on all levels. No intruders can enter these compounds without previous notice. A private garden surrounds each villa, and children have their own rooms for study and for sleeping. Sports is another important value for the rich. Therefore, private and public swimming pools are available as well as variety of other sports facilities. Part of the value system of the rich is to spend the summer in an owned villa in one of the new resorts built on the northern coast of Egypt. Another villa on the Red Sea is used during the winter. Spending part of the summer outside Egypt has also become also part of the value system of the rich who sometimes have their own properties in different parts of Europe.

The poor live in a completely different home environment with a different set of values. They find a place to live either in the downtown disadvantaged neighborhood or in an unplanned shantytown, often established without official permission. Space is limited and privacy is not a value, and the narrow streets are an extension of the home. The noises coming out of the small repair workshops and the factories spreading in these areas, plus the shouting of the neighbors fighting teach the poor the value of speaking in a loud voice. Whether in the urban disadvantaged areas or in the villages, the poor can hardly include cleanliness in their value system. To them the garbage, the polluted water and pools of standing sewage are parts of a normal dirty

living conditions. While in the past many rich families used to be big landowners with country houses in their villages, the land is no longer of a high value either to the «old» nor to the «newly» rich. On the other hand, the poor villagers who emigrated as laborers to the Gulf countries are buying land upon their return to gain esteem in their villages.

The family is a great teacher of human values of both the rich and the poor, but it teaches a different set for each.. Rich families no longer yearn for a large number of children. They have a low infant and children mortality rate due to their awareness of the value of health and their use of health services. Rich families usually represent the traditional model with the father as a provider, the mother as the home keeper and the children to be taken care of until they finish schooling. While the rich always had servants to help with housework, it is becoming part of their value system nowadays to import helpers usually from Asian countries. Children from rich families interact with the outside world and with outside values very early in life through the internet, where they can make friends, buy commodities and services, and get information.

On the other hand poor families still value large number of children, have a higher child mortality rate and are less aware of the value of health. They will only seek health services when they get very sick.

Discrimination against girls of poor families starts very early in life where boys are more valued and feel superior than their sisters. Both sexes, however, may enter the labor market during their childhood. Work instead of schooling has its own value. The traditional model of the family is changing, where it is estimated that about 20 percent of the poor families are headed and provided by the women. This change in roles has created a great tension in the family, and the value of the patriarchal system is being threatened. Certain family values such as the great respect for the aged, particularly parents, are changing. Recently violence and crimes undertaken by members of the family against each other including siblings, parents and grandparents are on the increase.

Schools are important official agencies for passing on prevailing values, and education has its own value for the Egyptians particularly for the

poor who consider it the means for upwards social mobility. However, the types of schools which the children of the poor attend are different from the ones attended by the rich. The difference is not only in the terms of buildings and facilities or text books, but also in terms of values transmitted by the teachers and the prevailing relationships inside and outside the class. Unfortunately education as a value has been recently affected by the rising rate of unemployment among university graduates. As already mentioned, some poor families are sending their children to work instead of sending them to school. Girls are usually the first to forgo education.

In addition to the difference between the sets of values mentioned above, the very rich, particularly those living in great extravaganza, convinced themselves that the poor deserve their living conditions because they are lazy, they are not putting sufficient effort to improve their conditions, and they do not want to be better. This is on the one hand. On the other hand, the poor were deprived of any effective tool for improvement and did not see any window of opportunity opened for them. To tolerate their situation they turned to religion believing that they will be rewarded in heaven. Religious rituals became a great value for the poor and a means to go to a promised paradise instead of fighting oppression on earth. The political Islamic groups took advantage of the situation and nurtured such value among the poor, while many among the rich found in the same rituals a useful value to appease their conscious. In paradox, both the oppressed and the oppressor adopted the same value.

This was the situation just before January 25th revolution when several groups of the population could not tolerate the injustice, the corruption of the system and the uneven distribution of resources. The revolution was spearheaded by the youth of the middle class, joined by other segments of the population. They all shared the view that Egypt had to become one country again with one set of values to include freedom, democracy and social justice. But bridging the gap between the rich and the poor and their having a common set of value require a strategy with the system of education as the key point of entry for change.

A desert Taj Mahal

Unless historical palaces are turned into museums, average Egyptians will never gain access to them

Samir Raafat

Heliopolis Palace Hotel turned into Kasr Al-Ittihadiya, or the Federation of Arab Republic's headquarters, in 1972. Much later it became an executive presidential palace during Mubarak's 30 year rule.

Sixty years after Nassers Free Officers vowed to turn this nation into a «by the people and for the people» democracy, Egypt's citizens remain as isolated from the temples of power just as they had been millenniums ago when Pharaohs ruled the land and high priests prohibited access inside holy sanctuaries reserved exclusively for the ruling caste. Today, except for a very few halls in Abdeen Palace, few Egyptians if any have seen the gilded interiors of the former royal palaces of Tahra, Koubbeh and Ras Al-Tin, and unless deferred plans to turn them into public historic are realized fat chance they ever will.

Not so Kasr Al-Ittihadiya, now perhaps the most august and restricted of them all. Save for national and international leaders and a sprinkle of accredited journalists who have restricted access, there are nevertheless some aging Egyptians who remember having frequented the building when it was the then-famous Heliopolis Palace Hotel.

The oldies will tell you how international conferences, weddings and honeymoons took place there, as did the coveted apres courses celebrations for the races at the nearby Heliopolis Sporting Club were second to none. Although veterans are probably not around anymore to remind us, during the First World War the hotel was requisitioned and turned into a British military hospital.

Just like Heliopolis itself, the grandiose Palace Hotel rose out of the

desert wastes in 1908-10- in the days when lengthy sojourns in Egypt were a social ritual and Cairo hotel registers resembled pages from Burke's Peerage.

The Heliopolis Palace Hotel proprietor was a Monsieur Marquet from France or perhaps Belgium. As for its inaugural director Herr Doerhoefer, he had heretofore been with the Mena House overlooking the Giza Pyramids. The hotel's first food and beverage manager meanwhile was Monsieur Bedard, assisted by Chef Gouin. They had come from the Paillard Restaurant in Paris.

On 1 December 1910, all four were on hand to greet Egypt's best. They had come to celebrate the official launch of Africa's most luxurious hotel. Conceived by Belgian architect Ernest Jaspar, the hotel boasted 400 rooms including 55 private apartments. Its banquet halls were amongst the biggest anywhere. The utilities were the most modern of their day. All were constructed by the firms of Leon Rolin & Co and Padova, Dentamaro & Ferro, two leading civil contractors. As for the hotel's web of electric cables and installations, these were fitted and put together by Messrs Siemens & Schuepert of Berlin.

As though intentional the severe almost forbidding, hotel exterior contrasted sharply with the sumptuousness of the interior. A 1912 visitor recounts: «Beyond the reception offices are two lavishly decorated rooms in Louis XIV and Louis XV styles respectively, and then comes the central hall, which is a dream of beauty and symmetry. Here the architecture, which is responsible for so many wonderful effects in Heliopolis, reaches its artistic zenith. From every nook and cranny hang, suspended like stalactite pendants, Damascus-made Oriental lamps of fantastic loveliness.»

To give us a sense of the central hall's monumental dimensions the overwhelmed visitor continues: «Above soars the dome rising upward in a bold scheme of frolicsome fancy with all the involved convulsions of Oriental ornamentation. No photograph or description could do justice to the wondrous and elusive loveliness of the scene, which is baffling to the language as it is to the lens.»

«C'est une merveille!» exclaimed the King of Belgium in 1911 when he entered the main hall accompanied by his consort. The royal couple spent an entire month at the Heliopolis Palace Hotel, during which time Queen Elizabeth, who was recovering from typhoid, slowly regained her health. The dry air of Heliopolis had been strongly recommended by her doctors in Brussels.

Another king was equally taken by the hotel, so much so that before his wife died in 1915 she urged him to build a hotel «Like the great Heliopolis Hotel in Cairo.» As Milton S Hershey finally prepared to construct his hotel in Pennsylvania, he contacted the architect of the Heliopolis Hotel and arranged to purchase his plans. But when it was estimated that the cost of duplicating the structure would be \$5 million, America's chocolate king abandoned the idea.

A regular visitor to Egypt of that period, who couldn't believe his eyes upon visiting Heliopolis, was John Pierpont Morgan. Never before had the legendary tycoon seen architectural cross-fertilization of such magnitude. The overall scene was so phantasmic he exclaimed in zest that the Heliopolis Company directors should be arrested for having conceived such a mind-boggling endeavor! And that Taj Mahal by the desert ... was it real? JP Morgan was in a tizzy!

The Heliopolis Palace Hotel's main dome that was so awe inspiring to monarchs and tycoons alike measured 55 meters from floor to ceiling. The 589 square meter hall, designed by Alexander Marcel of the French Institute and decorated by Georges-Louis Claude, was carpeted with the finest oriental rugs and fitted with large floor-to-ceiling mirrors, draperies and a large marble fireplace. Twenty-two Italian marble columns connect the parquet to the ceiling. To one side of the hall there was the grillroom, which seated 150 guests, and to the other was the billiard hall with two full-sized Thurston tables, as well as a priceless French one.

The mahogany furniture was ordered from Maple's of London. The upper gallery contained oak-paneled reading and card rooms furnished

by Krieger of Paris. The basement and staff area was so large that a narrow gauge railway was installed running the length of the hotel, passing by offices, kitchens, pantries, refrigerators, storerooms and the staff mess.

Two wars interrupted the hotel's hospitality activities, and on both occasions the Heliopolis Palace Hotel was transformed into a hospital for British and Dominion soldiers. They had become the largest single category of tourists to visit Egypt.

Following the Second World War, air travel reduced the average tourist stay to a few days. Mass consumption introduced the era of the camera-clicking crowds. As tourism became a mega-industry, massive vertical hotels cropped up along the Nile with interiors calculated on the basis of return per square meter. Unable to compete, the Heliopolis Palace became a dinosaur.

In the 1960s, the abandoned hotel was the home to various government departments and in January 1972 it turned into the sorry headquarters of a stillborn political union between Libya, Egypt and Syria (the Federation of Arab Republics), hence the current name of Kasr Al-Ittihadiya (Unity Palace).

As government and regional institutions swapped places at the former Heliopolis Palace its inimitable artefacts were chipped away. It was all over for the Desert Palazzo. The dustbin of history was waiting. The bulldozers and a demolition ball were around the corner.

We shall never know whether it was divine or temporal intervention, but miraculously the historic edifice was granted a new lease on life! Situated within earshot of where former President Mubarak used to live, the old hotel was given a thorough facelift in the 1980s and declared the headquarters of the presidential administration. Once again, the Taj Mahal of the desert had become the focus of international attention. The questions however remains, will we lesser mortals ever get a virtual gape at its eye-popping interiors?

Don,t hold your breath.

The right to know

Engaged citizenship starts by letting communities have a say on decisions that affect them. Making a point.

Samia Zeitoun

A model living space set amidst architectural and natural landmarks, the suburb of Maadi has been called the «gem in the crown of the capital city of Cairo». Since founded, almost 100 years ago, this community has represented the best of city living without compromising its unique natural setting.

Maadi's citizens have been continuously and actively involved in its protection and enhancement to ensure the continuity of its special features. With the strengthening role of civil society in recent years, and the government's call for participation by the private sector in national development, increased efforts have been exerted by Maadi's citizens, both individually and collectively, through NGOs, to contribute to the balanced development of their beloved community.

Against the backdrop of the community's strong civic commitment and the model citizenship of its members, the news announcing Maadi's removal from the Cairo Governorate and its annexation to the new Governorate of Helwan was received with anger and disbelief. How could such a serious decision affecting the livelihood of Maadi's residents be taken without debate or consultation?

Elected local council members vowed to take the government to court on the grounds that they had been ignored in the decision-making process and that the government had violated the Egyptian Constitution, which states that the «right to know» is a major human right. Human rights law stipulates that elected representatives be informed «on major issues

concerning the agenda, planning and policies of their polity.» Why were locally elected councils not even briefed through the usual channels and networks that are designed to facilitate the flow of information to them? Veteran Maadi council member Karima Nabarawy has repeatedly maintained that the decree is unconstitutional, holding Maadi parliamentary representatives responsible for not consulting with or seeking consensus among constituents on such an important issue.

Local NGOs also expressed their anger at being left out by organising and holding meetings, collecting signatures, appearing on public television, radio programmes and making statements to media outlets. Petitions were submitted after conferring with legal counsellors and prominent urban planners. The petitions were sent to several government authorities, including the presidency. Ministers were also met in person in an attempt to change the unpopular decree.

Confused by the decree, citizens asked who was responsible for making the decision it announced, and on what basis? Where were the maps that marked out the new boundaries? How was it possible to redraw the boundaries of the new governorate when those responsible belatedly discovered that according to the constitution the Supreme Court -- located in Maadi -- had to legally reside in the capital?

Urban planning experts expressing their views on Maadi's geographical boundaries note that Maadi is a natural continuation of Cairo that ends at the flash flood line where a man made duct separates it from Torah to the south. This line is only three kilometres away from the Supreme Court. The Autostrade and Wadi Degla Protectorate mark Maadi's eastern border and to the west is the River Nile. The basics of urban planning would presume that the borders of Maadi would follow these ground lines.

A glance at the satellite photo of Maadi shows these demarcations clearly. As it stands now, with the new boundaries, some streets are oddly divided between the two governorates, posing administrative and security issues that could lead to more problems.

Notable urban planners were equally angered by the decree in not being included in consultations leading to the decision. They state that the move was not in the approved 2020 or 2050 Greater Cairo Plans. They also refer to Law No 3 of 1987 and Law 119, Article 11, of 2008 for urban planning that necessitates the participation of specialised groups from civil society and local council members with the executive branch in studying the needs of communities and in setting the priorities of their constituencies.

Renowned architect and urban planner, Abu Zeid Rageli told the Voice of Maadi newspaper that this was a hasty decree that was not properly researched. Such complex decisions should have been carefully studied for a length of time, covering all the different angles and the logistics of zoning, infrastructure, carrying capacity, and the ratio of green areas to built-up areas.

Architect Salah Hegab, honorary head of the Urban Planning Institute and resident of Maadi, also said he had been unaware that this decree was being considered. He agrees with the decision to decentralise the capital, but believes the land division concerning Maadi was not based on proper data, in terms of homogenous population, resources, and budget, etc. On the contrary, it appears the result of a closed group of officials who chose not to broaden the circle of discussion or decision, hence the swiftness of the decree.

In the search for answers, talk has been circulating about land barons who would be allowed to bend building laws upheld by the Supreme Court in 1977. The Court's ruling empowered NGOs to fiercely defend restrictions imposed on the licensing of high buildings to preserve the unique character of Maadi as set out 100 years ago. With Maadi's removal to another governorate, strict building codes would be annulled. Profit-seeking development could quickly overwhelm the infrastructure of the suburb that was not designed for high-density living.

It is also common knowledge that Helwan City, to whose governorate Maadi has been appended, is in need of major expenditure to overhaul

its extensive informal shantytowns and to upgrade its infrastructure that has deteriorated as a result of years of neglect. Naturally, meeting these needs will mean diverting a large part of the services and administrative budget to Helwan, to the detriment of Maadi. The media, notably Egypt Today, picked up this issue and reported on the problems of waste disposal that afflicted the streets of Maadi since the decree was announced. It questioned the sufficiency of the budget allotted to this task. Local NGOs working in the field of cleanliness rose up and organised cleaning campaigns in an effort to push authorities to do their job.

As a self-organizing society, Maadi is fortunate to have citizens who have consistently served its best interests, cooperating with local authorities to maintain law and order, cleanliness and a green environment. This social fabric has drawn to it over 15 diplomatic missions that have chosen to locate there, assured by Maadi's law-abiding residents who share their same ideals and standards of living.

The spirit that has kept Maadi alive must be allowed to continue as a shining example of truly engaged citizenship. Engaged citizens should be rewarded with support and recognition and, most of all, inclusion in the development of policy strategies and reforms.

Lost in the slums

Social policy failure has been deepening inequality, particularly among Egypt's youth

Sarah Sabry

According to the Egyptian government, there are 1,133 slums in Egypt of which 171 are in Greater Cairo. UN-Habitat defines slums as overcrowded areas with poor or informal housing, inadequate access to safe water and sanitation and insecurity of tenure. In 1996, a conservative estimate reported that 34 per cent of Egypt's urban population was living in slums (*ashwaiyyat*). More recent estimates are closer to 60 per cent of Greater Cairo's residents. You can see the scale of informal settlements in Greater Cairo for yourself: try flying over Cairo using Google Earth. Despite the great diversity between and within Egypt's informal settlements, they house the vast majority of Egypt's urban poor as well as many members of the lower-middle classes who cannot afford housing outside these areas.

Egypt is currently experiencing a demographic youth expansion characterised by a large proportion of youth in relation to other age groups. Given that the poor in Egypt generally have more children, a large proportion of Egypt's urban youth live in slums. Moreover, many migrant labourers, many of whom are youth, move to large cities in search for work. Many of those end up living in slums, particularly those of Greater Cairo. This means that a sizeable proportion of slum populations are young people.

Young people who grow up in slums are born into a world of terrible inequality of opportunity. If you are born into a family where means are available you will be adequately nourished in your childhood, will go to a private school, have access to private healthcare and have the potential for a bright future available to you -- just because your family has the

means, independent of what your talents are in life. On the other hand if born in one of Cairo's ashwaiyyat, there is a great chance your family will be poor. You will probably be inadequately nourished growing up, which already places you at a huge disadvantage. Most likely you will be forced to drop out of school either to help supplement family income or to avoid the extremely expensive costs of majmuat -- an almost compulsory after school parallel education system of private tutoring. At best, if you are not forced out of school you will probably go to some of the worst public schools in Egypt. While it is widely acknowledged that the public education system's quality has severely deteriorated, the limited numbers of public schools located in Cairo's ashwaiyyat are the worst of the lot.

Youth who drop out of school early will probably end up in low paying dead-end jobs. Some luckier ones will manage to learn a skill or craft through an apprenticeship, for example with a mechanic or a carpenter. The vast majority will end up as arzuiya or casual daily wage labourers who gather in the early morning in various locations to be picked up for physically demanding jobs that pay pitiful wages. Moreover, these jobs are irregular: one day there is work and on another there isn't. Often workers go home without an income.

Young women face even worse prospects. They usually leave school before their brothers, stay at home to help their mothers with the housework, or do all the housework so that their mothers can go out and work. They mostly remain confined to their homes. If they work without an education, it is mostly as domestic servants. That is, they will remain stuck in dead-end jobs where their potential to escape poverty is almost non-existent given current social policies.

The luckiest young people will be those who actually managed to stay in school and completed their education. Young people finish their education with the hope of finding decent jobs that pay good salaries. Unfortunately though, Egypt's current public education system produces people with limited skills, skills that are not those required in the «good jobs» available -- if at all -- in the labour market.

Remaining healthy and getting adequate healthcare are yet further challenges for young people from poor families. They are exposed to greater health risks due to overcrowded living conditions, lack of clean water and sanitation, lack of solid waste disposal services and overall appalling environmental conditions. As infants, this increases their vulnerability to becoming ill and increases infant mortality rates. The only affordable option is the public healthcare system. Today though, it is overused and under-funded; doctors are rarely available, equipment is lacking or faulty, hospitals are severely unhygienic, medication and nursing are rarely available, so people have to provide for themselves and if they cannot afford it then they simply don't get healthcare.

Beyond basic necessities, young people need safe spaces to play, to develop and pursue hobbies and to spend leisure time. They need to play sports, learn how to use computers and generally do the things young people do. Such spaces and activities are almost non-existent in Egypt's slums.

Social policy today is providing very little opportunity for young people who grow up in poverty to escape it. Thus, poverty continues to be transmitted from one generation to the next. The World Bank's poverty assessment report published in 2007 stated that in 2005, 40 per cent of Egypt's population lived in poverty. In 2008, this is probably a gross underestimation. The recent hike in inflation rates, particularly the increase in costs of basic foods, will have had a great impact in increasing the number of poor people in Egypt today. Indeed, as one observer put it, there seems to be two stories in Egypt today. One story is that of economic growth that has benefited a small percentage of Egyptians. The second story is that of increased hardship for the vast majority of Egypt's population.

Social policy in Egypt needs urgent and immediate revision. One crucial element of this social policy must be to create equal opportunities for all young Egyptians. Government policies today do not provide equal opportunity to Egypt's young people.

Living on the edge

The problems street children face, particularly girls, must be taken seriously, with comprehensive efforts made to understand their predicament, and to help

Hanna Abulghar

To be a child on the street is hard enough, to be a little girl on the street is even harder. Growing up on the street has a lot of meaning, the background that forces these children to leave their families often full of aggression, physical abuse, forced labour, psychological pressure, neglect, family breakdown, and sexual abuse in some cases. For a child to take the decision to leave «home», even if this home is not paradise, has meaning -- they are already starting off on the wrong foot. They already carry a psychological load too heavy for their age. So why are girls on the street so difficult to deal with? Why are they less likely to adapt to a rehabilitation programme?

For girls, life on the street is dangerous. The street is a wonderfully free place, full of opportunity, friends, more money than any of these children's parents could ever dream of providing them with, freedom of movement, of experimentation, no timetable to follow, no chores to do, no school to go to, no grown up to report to. But then it is also a place of great risk; on the street you are all alone, you learn by trial and error, something that at home might be educative on the street could be fatal. The hazards of traffic, the dangers of getting caught by the police, the mere fact that if you get sick or are hurt you'll just have to handle it yourself (bearing in mind that your age can be anywhere between five and 18 years). Not to forget that these children are outcasts of society, they are dirty, they have no manners, they are seen as a menace, and so they are treated as such in shops, pharmacies, hospitals, etc.

These are children who like all children have a need to develop their skills, to learn from adults; they need to grow up knowing someone will help them out if they need it. But street girls and boys don't have this luxury. They learn about math through counting money collected from begging; they learn about safety through accidents; they learn about sex through rape, about biology through pregnancy. By the time they meet someone to help them (a rising number of NGOs are now working on the rehabilitation of street children), these children have already lost precious time needed for development of their personalities, a loss that might be difficult to make up for. They have will also have developed a number of psychological problems related to the abuse they are exposed to on the street.

For girls, this abuse is often unnecessarily brutal. The aggression that street children are exposed to is mostly from their peers. Often they live in fairly closed communities within the street, trying to solve their problems within the gangs they hang out with. They defend each other, they fight with each other, they force each other into sexual relationships, into crime, and they feed each other. A complicated relationship explains the famous crimes allegedly committed by the «torbini» and his gang, exposed two years ago as committed by street children against street children, a fact that has delayed society's interest in seeing the seriousness of the situation. The fact that these children will surely one day start expressing their anger at society instead of within their own community, and that there might be great difficulty controlling them, is ignored.

The incidence of psychiatric illness among street girls is very high. In a 2006 study on 80 sexually active street girls in Egypt, the incidence of overall stress, emotional turmoil and behavioural difficulties was high -- most probably an effect of negative experiences on the street. The predictors for psychiatric illness in general were high, as for emotional disorders, behavioural disorders, hyperactivity and concentration disorders, meaning that these children even when helped off the street are much more likely to suffer psychologically than peers of the same age from a more stable background.

The study also showed that the age at which girls left home was largely below 15 years, reflecting the independent personality of these girls in taking brave decisions at a relatively young age. The level of the girls' education and that of their parents was very low: 70 per cent of the girls had never gone to school. It might be argued that educated parents are better able to identify and handle their child's problems before they seek to solve them outside their homes. It is also probable that a girl who regularly receives some form of schooling might find psychological support among teachers and friends, something that would not be available to a child who has never received any schooling; hence the role that the failing education system in Egypt has played in the spread of the problem of street children.

Aggression was placed by the girls in the study as their first cause for leaving home -- largely physical, although there were reports of sexual abuse also. On the street, the girls were better able to avoid physical aggression than boys, but their exposure to sexual abuse nearly tripled. They reported a high incidence of physical and sexual abuse, even at police stations and other detaining institutions, in spite of new legislation that aims at separating adults and children, an alarming sign that more needs to be done to protect children in custody.

The girls were exposed to a very high incidence of physical trauma on the street. Over 50 per cent of girls in the study had suffered a major accident, many of which were car accidents, stressing the danger of leaving children to fend for themselves in Cairo's traffic. They were also exposed to accidental falls and stab wounds, and one girl included in the study reported a failed suicide attempt.

Sexual abuse of girls on the street often involves the use of force, such as beating, kidnapping, prolonged unlawful detention, and gang rape. NGOs working with street girls have reported receiving girls in very bad shape following weeks of being locked up, with very little food, and repeatedly raped, sometimes by more than one person at a time. This is usually done by their peers on the street, increasing their sense

of insecurity and low self-esteem. Anyone who works with street girls must notice the facial scars so common among them. These are often marks made by the rapist -- often a street boy -- on the face of his victim to show to others that 'he was the first to have her».

This kind of cruelty is difficult to understand, but it explains the apathy and indifference often encountered when dealing with street girls. It also enforces the psychiatric risks involved in street life -- both for attacker and victim -- making rehabilitation difficult. This kind of regular, repetitive sexual violence often results in pregnancy, for some girls more than once. The violent means and the young age at which pregnancy occurs, and the fact that the pregnant girl is alone in dealing with the situation, often in the presence of an abusive partner on the street, is an important cause of medical problems later observed following childbirth, together with the social and legal problems encountered, making mother- child relations complicated, and greatly increasing the incidence of disease and death amongst street babies.

The high incidence of disease, often chronic, sometimes life threatening, often with very little or no medical care, is another cause for alarm.

Street children in general, and street girls in particular, cannot be dealt with as we do orphans. It is not enough to provide food and loggings and some care. They need a more complex, integrated approach, taking into consideration their psychiatric problems, social background, and their insecurity and difficulty in trusting others. Most of all, life off the street must appear more attractive than life on the street. The longer the girls have been on the street, the harder this task is.

Chased off the street

Harangued and hounded, street vendors are simply poor people, often with families, trying to make a living. They should be protected, not persecuted

Nawal Hassan

The first time I felt the plight of street sellers occurred during a visit to the courtyard of the Qalaun Mosque, a jewel in 13th century Mameluk architecture that was sheltering 14 evicted families. These families, part of over 7,000 victims of speculators who were buying and demolishing beautiful buildings in historic Cairo during the 1960s, 1970s and early 1980s, had been placed there by the Arab Socialist Union, prior to a massive construction programme to re-house them.

That day in 1979, I witnessed a police officer confiscate the identity card of an elderly man attempting to sell cucumbers on the street. The officer proceeded to confiscate the identity cards of all the vendors who were selling mehalabeyya, batata and other typical food of the poor. The vendors, who were simply trying to earn their daily livelihood, would have to pay heavy fines to retrieve their cards from the police station.

Later, I would witness more of the same; heart-rending sights, including trucks in front of the Cairo municipality loaded with the broken carts of mobile vendors, their merchandise thrown everywhere or destroyed. These itinerant vendors were often referred to the courts where fines of up to LE1200 could be imposed on them.

Women vendors are not exempt. Often divorced or widowed, the sole supporters of their families and living in makeshift shelters, these women are most in need of community and government support. Our organisation -- the Organisation for the Urban Development of Islamic

Cairo -- paid the fine for a woman who was selling lemons on a street corner. She would have faced imprisonment for non-payment, leaving her five children destitute.

Some years ago, shortet al-marafek, a special police force, was created whose main task was to remove vendors and other «obstructions» from the street and to forcibly remove tenants from buildings whose owners have demolition permits. Among many cases documented by our organisation, one was in Doueka, where the government built temporary shelters to house families who had been evicted from their homes. Mr Assefa Bequele of the International Labour Organisation and I witnessed an officer shouting instructions to bulldoze a few wooden kiosks selling much needed vegetables and consumer goods in this desolate area. Mr Bequele and I rushed to help the vendors remove their goods that were being smashed by the relentless bulldozer. There was no justification for such drastic action, especially as there was no obstruction to the street that was entirely devoid of cars. One woman said: «It is as if there is a vendetta between the government and the poor.»

Cairenes are used to seeing vendors of clothing and other goods on the streets of downtown Cairo dash into side streets as soon as they are alerted that the shortet al-marafek are coming. These are but unemployed youths -- some even university graduates -- trying to earn an honest living. A high official in the governorate, sitting at his desk with a huge poster of New York's skyscrapers behind him, actually told me that in «in London, Paris and New York» you do not see vendors on the street. It seems that he had driven around these cities in a limousine and never saw the various open-air markets or weekend pedestrian walkways where all kinds of goods are sold. Nor had he seen the young Egyptians selling hot dogs on mobile carts throughout New York City.

Another high governorate official summed up the official attitude when he said that street vendors were all «crooks, dope peddlers or criminals». Thus there is usually no support for this class of itinerant poor vendors, either from the governorate or other government agencies. Development

banks are only willing to assist people in «productive» occupations and consider these vendors «parasitic». So what is being done to help these poor in informal sector occupations survive economically?

Studies show that in all the major cities of South America, Africa and Asia, between 40 to 60 per cent work in the informal sector, a large portion of whom are vendors. And government policies are often responsible for pushing productive workers into the category of «parasitic», non-productive occupations.

A case in point: When the evicted residents of Gamalia were moved to the new housing projects in Madinet Al-Salam, there was no plan to incorporate small workshops or shops for this low income community. Am Ismail, who was a shoemaker, had to put his tools away and resort to selling cigarettes since the contract of his flat stipulated he could not engage in production. Overnight all those self-employed in services became unemployed -- the ironers, grocers, tailors, shoe makers, fruit vendors, pastry makers, carpenters, hairdressers, haberdashers, stationary-cum-sweet shops for school children -- because no provision was made to create space for these activities. Most workers continued to commute to workshops in central Cairo at great transportation expense. They would bring home bread and other provisions with them since they could not buy them in their new community. Itinerant vendors were chased away with a vengeance as they were considered a blemish on this urban plan that, with its wide boulevards, was congenial for the visits of dignitaries in limousines but not for the poor residents living there.

Hassan Fathy, the late renowned architect, used to ask: «Are cities designed for human beings or for something else?» It appears, sometimes, that the governorate believes that streets are designed for cars only.

In sum, the right to work is a basic human right. Vendors should be legally protected.

Our association has been trying to prevent demolition and evictions,

to provide temporary shelters (tents, food), to lobby for alternate government subsidized housing and more appropriate urban design for new settlements, as well as freedom for the urban poor to operate in the informal sector. We hope to change the attitudes of the Government towards the informal sector as well as urban planning for the poor in Cairo.

Part III

Environmental and sustainability concerns

Inclusive environment

Can environmental justice lead to economic and social justice?

Laila Iskandar

Egypt is at a dynamic and critical juncture in its history - one that is transformational, both from its geopolitical position and from its readiness to spring from a new political road map in the making. In order to achieve wellbeing, dignity and prosperity for all, Egypt needs to adopt inclusive environmental justice as the foundational principle for all other principles. To date we have not done that.

The waste management sector is but one place which illustrates this. Sixty years ago, Egypt's poor people moved from the oases (waahat) and from Upper Egypt (Assiut) to seek their livelihoods in Cairo. They managed to survive on the crumbs of urban residents – that is on the trash which the rich discarded in their municipal waste system. Over sixty years they endured their sub human existence by diligently and relentlessly collecting the waste from the doorsteps of the rich. They traded and processed it all the way to final manufacturing. They created an industry which generated seven jobs from every ton of waste they collected. They increased the housing stock of Egypt by building their own homes. They mechanized their industry moving away from an entirely manual system to a semi automated one. When Egypt's corporate recycling sector emerged they provided it with the feedstock for its formal enterprise. They did not receive subsidized energy the way multinationals did. They were not protected by international contracts which kept them secure by holding the government hostage to potential international arbitration. They did not acquire land at preferential rates. They were not able to operate their businesses in industrial zones which were equipped with the requisite infrastructure to provide health and

safety to their workers or environmental standards for their businesses. They were forced to set up their businesses in their place of residence and thus operated under sub standard environmental, health and safety standards. They waited thirty years to see the first sewage pipe installed in their sub-human slums. They were not able to access banks and acquire credit to expand their businesses. They were not protected by a health care system which attended to their industrial injuries or road accidents, let alone cover the prohibitive costs of surgery or chronic illness. They were not able to send their children to public schools, let alone private schools. In short, they lived a horror story while the rich slipped into wasteful consumption patterns, tossing out what their lifestyles produced so that the growing numbers of Egypt's poor could survive on the trash which Egypt's rich graciously provided.

This case is but one of many such stories in Egypt. So now we are at a juncture. Where do we want to go from here? Why did Egyptians take to the streets on January 25th? Why were so many precious lives sacrificed? Many believe that it was so that we might live and that we might all live a better life.

Apart from the diatribe on social justice and human dignity, how does that revolution translate in very concrete terms? Is it about social safety nets? Is it about minimum wages? Or is it about pension funds? Indeed it is but that is only the surface of it. The true meaning of that uprising is that Egypt's people will no longer stand by and watch its resources being dished out to a minority privileged group or accept to suffer the inhumanity of poverty.

The recent debate on coal is a case in point. Egyptian and multinational companies, facing energy shortages which affect their production, are demanding that coal be imported into Egypt. They argue that there are not enough alternative energy sources and that clean, renewable energy sources are expensive and will take time to be commercially developed. They state that they can provide the infrastructure to do so at no cost to the Egyptian government. They pledge to abide by European environmental standards. They point to the imminent economic

boom expected in Egypt and the number of direct and indirect jobs created by their industry. And they remind us of their corporate social responsibility in tree planting projects, literacy classes, mobile health clinics and sponsorship of various community initiatives.

What they do not mention is the true story of environmental injustice and inequitable distribution of natural resources which their industry, and others, illustrates. They fail to remind us of the years they received subsidized energy or their access to municipal water while the poor had to fetch it from stand posts and pay ten times as much for it. They fail to remind us of their access to natural resources which abounded in Egypt as inputs into their industry at ridiculously low prices. They deny their lack of compliance with environmental standards ranging from air emissions to dumping of toxic wastes into waterways, or unmanaged/uncontrolled, non engineered dumps rather than safe landfills, etc.

And now they are proposing to introduce a fuel source which will place Egypt's economy, environment and productivity at risk. We all know that an environmentally sick Egypt is a sick economy. We also know that a sick Egyptian environment is sick Egyptians. And sick Egyptians are unproductive Egyptians. Unproductive Egyptians are poor Egyptians. Poor Egyptians have decided that they will no longer accept a situation which places them at risk of poverty, indignity and inhumanity. They also know firsthand that Egypt cannot afford to burden a near collapsing healthcare system with a greater burden of disease.

And that is the juncture we are at. It is in that nexus that decisions related to the environment have become central to the debate on Egypt's development road map. Not enough discussion around that road map has taken place but hasty decisions in this interim period risk jeopardizing Egypt's prospects of equitably sharing clean air, clean water, clean energy, clean soil and clean neighborhoods.

The old assumptions that economic reform and development are about economic objectives and GDP figures, and that pro-poor, social issues can be dealt with as an 'externality' are changing. As Egypt decides on

how to distribute its natural resources – clean air, clean water, clean energy, clean soil – it must ask this pivotal question: who is gaining and who is losing from each decision, and how these decisions will lead to narrowing the gap between rich and poor? Unless we do that we will continue to allocate natural resources to the rich and leave only the crumbs for the poor.

If we do not understand this truth right now, Egyptian women, children and youth will continue to live in abject poverty, and their poverty will be perpetuated through further generations of Egyptians.

All Egyptians need to shape their future. All Egyptians must share in the natural resources of their country. Until and unless we do that, we will continue to sow seeds of social unrest and increase the political divide among us. It is time to establish the principles of justice in sharing our environment, and to ground the notions of entitlement of the poor in investing in their country for the sake of personal and national development, rather than perceive the poor as a burden for which services have to be provided and social safety nets have to be instated.

Accountability, the Roman way

As with many other public services issues in Egypt, solidarity should not be viewed as just a virtue but as an absolute necessity

Herve Pourcines

In many countries recent rapid urbanization has led to fundamental socio-economic change, often at a high social and environmental cost. Among the consequences of such major development is the fact that, with people and business activities concentrated in specific areas, solid waste production increases dramatically. The way these wastes are handled, stored, collected and disposed of can pose risks to the environment and to public health, and this has become a major challenge for society.

Egypt is no exception to these global trends of urbanization and rising solid waste generation. More than 25,000 tons of solid wastes are generated in the country every day with Cairo accounting for about 50 percent of the total. (1) Consequently, the problems and issues of Municipal Solid Waste Management (MSWM) in large and crowded urban areas are of immediate importance.

This has been acknowledged by the Egyptian government, which enacted the 1994 Environmental Conservation Law and which implemented a 10-year action plan to promote efficient use of the country's natural resources, to improve land, water and air quality standards, to develop effective solid waste management techniques and to preserve the country's heritage. (2) However, rapid and unchecked population growth has overwhelmed the capacity of authorities to provide even the most basic services. Typically less than 70 percent of the waste produced in Egypt is managed by some form of public or private sector collection, disposal or recycling operations. (3) As a result, the uncollected waste,

which is often also mixed with human and animal excreta, is dumped indiscriminately in the streets and in drains, so contributing to flooding, breeding of insect and rodents and the spread of diseases. Furthermore, even collected waste is often disposed of in uncontrolled dumpsites or burnt, polluting water resources and air. (4)

While urbanization in developing countries has contributed to wealth accumulation, it has also been accompanied by an alarming growth in the incidence of poverty. Today, one out of four people in cities of the developing world lives in «absolute poverty,» while another one in four is classified as «relatively poor». (5) Throughout Egypt, it is traditionally these urban poor that suffer most from the life-threatening conditions deriving from deficient MSWM. This is because authorities tend to allocate their limited financial resources to the richer areas of higher tax yields where citizens with more political pressure reside. However, today, even privileged neighborhoods in Cairo are suffering from severe environmental degradation due to a city-wide deficient SWM. And, unsurprisingly, it seems that it is these new dangers posed by rising levels of uncollected solid wastes in richer areas that have led to more assertive calls for further legislative intervention and reforms in MSWM to safeguard social interests such as public health, the environment and even the aesthetics of Egyptian cities.

However, perhaps more important than adding one more layer of legislation or implementing any new SWM plan is the need for ordinary Egyptians and authorities alike to acknowledge publicly the fact that the two most central issues to the SWM problem are that of its financing and that of accountability for results.

Over 90% of the costs of SWM are operating expenses involving the collection, the transport, the storage and the disposal of waste into controlled dumpsites or sanitary landfills. (6) Once these controlled dumpsites are full, they need to be foreclosed in a way that will prevent any contamination of soil, air or water resources. The alternative, leaving dumpsites open and un-managed -- which is the situation in the

majority of dumpsites in Egypt today (7) -- is tantamount to creating environmental time bombs. In the end, all these necessary activities have costs that need to be comprehensively financed by either a fee or a tax.

If one accepts this principle, then the question is who should pay this fee and how should it be collected? In my opinion, the most obvious answer is that the person or entity responsible for producing solid waste should be the person or entity paying for the disposal of that solid waste. This requires that the disposal fee should be actually paid by households and corporates, whether owning or renting their residence or premise. Moreover, such fee should be collected as part of a larger municipal tax to cover other urban and environmental expenses, such as maintenance of roads and sidewalks, maintenance and upgrade of the underground sewage and of the power and various utility grids or the development of public recreational areas, among many other municipal public services that are in dire need of development. Each of these costs should be borne directly by the beneficiaries of the services and should be collected directly by municipal authorities and/or governorates.

To estimate the amount of SWM funds that need to be collected, one can use the Philippines as a benchmark because it has a GDP per capita and a population relatively comparable to Egypt (8). There, the average annual cost of disposing waste in 2002 was \$23 per ton (9) and it is expected to reach an average of \$30 per ton in 2009.

In Cairo, where each household is thought to produce an average of 1.5 tons of waste per year (10), if one takes an annual disposal cost per ton of \$30 (similar to the Philippines), then the average cost per household should be \$45 per year or about 245 Egyptian Pounds. With an estimated 3 million households in the Greater Cairo area, the city's total annual budget for solid waste disposal should be approximately 735 million Egyptian Pounds or about USD 135 million. (11) If one includes all other urban and rural areas of Egypt -- with rural areas producing 46% less waste per capita per day (12) -- the total annual

SWM budget of Egypt should be around USD 520 million per year. This would represent a very substantial improvement over past budgets considering that annual public SWM expenditure for the whole of Egypt for 2003- 2008 has been estimated at USD 182 million only. (13)

Considering the sheer magnitude of the SWM problem in Egypt, the amount of EGP 245 per household appears at first reasonable and within reach in terms of fee or tax collection per household. However, since at least 50 percent of households in urban areas are suffering from either absolute or relative poverty (14), it is hardly conceivable that these households could afford the EGP 245 annual fee for waste disposal. Consequently, it will be necessary to request that the richer 50 percent of households supports and pays for the poorer 50 percent; thus bringing the annual disposal cost per paying household to EGP 490. It is important to acknowledge that with regards to the SWM issue, as with many other public services issues in Egypt, solidarity should not be viewed as just a virtue but as an absolute necessity.

In the end, whatever the final correct amount of SWM financing needed in Egypt, the pre-requisite for the creation of a SWM municipal tax - or other needed taxes that are «local» in nature - is the decentralization of power, budgets and competencies from the State and Ministries to the Governorates and to the Municipalities. Indeed, problems of solid waste management vary per neighborhood and even per city and so do solutions and budgets needed to solve these problems. Therefore, local authorities should be best suited to define budgets, collect fees and implement efficient and tailored SWM programs. Provided, of course, that such local authorities are accountable for their management of the solid waste disposal and are sanctioned and replaced in case they are not doing a job satisfactory to their constituents. That, in turn, should require that local municipal authorities are actually elected by a true popular vote for a fixed term mandate, which according to UNDP has not been the case (15).

The ancient Romans had a tradition: whenever one of their engineers

constructed an arch, as the capstone was hoisted into place, the engineer assumed accountability for his work in the most profound way possible: he stood under the arch. To transpose this would be to ask government officials to stand in the middle of the garbage until it is gone. Somehow I have the feeling that a lot of people would be actually willing to pay to witness this.

Sources: (1), (2), (3) American Chamber of Commerce in Egypt's website: Environment Section, 2009; (4), (5) EAWAG-SANDEC: «Solid Waste Management in Developing Countries», by Chris Zurbrugg, 2003; (6) Economy and Environment Program for Southeast Asia -- Research Report No. 2005-RR1 -- «Implementation and Financing of Solid Waste Management in the Philippines» by Zeinada Sumalde, 2005; (7) Mediterranean Technical Assistance Program -- Summary Report on Solid Waste Management in Egypt, 2008; (8) CIA Website, The World Factbook, 2009; (9) Economy and Environment Program for Southeast Asia -- Research Report No. 2005-RR1 -- «Implementation and Financing of Solid Waste Management in the Philippines» by Zeinada Sumalde, 2005; (10) Mediterranean Technical Assistance Program -- Summary Report on Solid Waste Management in Egypt, 2008; (11) Note: this amount includes upfront costs: depreciation of vehicle and equipment, depreciation of landfill, and operating costs: salaries, wages & benefits, maintenance, power & fuel, supplies, travel, contract service/rental, oversight & support services, back-end costs, others; (12, 13) Mediterranean Technical Assistance Program -- Summary Report on Solid Waste Management in Egypt, 2008; (14) EAWAG-SANDEC: «Solid Waste Management in Developing Countries», by Chris Zurbrugg, 2003; (15) UNDP Website -- Program of Governance in the Arab World -- Egypt: Local Elections, 2009

Conversion of Cellulosic Solid Wastes into Ethanol

This process is deemed to be the appropriate way to solve the domestic solid waste problems

Essam Mitwally

The domestic solid waste in Egypt, a.k.a. garbage, is rich in organic composition due mainly to leftover food waste. It is estimated that solid waste in Egypt's large cities is produced at the rate of 1 kg per person per day. In other words, Greater Cairo, with 17 million people, will produce daily 17,000 metric tons of solid waste, including street sweepings and construction debris. The average composition of this solid waste in Cairo is as follows: Food wastes 63.5%; Paper 14.0%; Metal 1.9%; Glass 2.0%; Plastics 2.9%; and Other 15.7%.

Garbage collection in Egypt was practiced by an army of garbage collectors, a.k.a. the Zabaleen. This practice has proven very profitable and well organized over the years. In addition to selling recycled items like metals, glass and paper, the food contents were sold to pig farms for pigs to feed on. The proceeds from this trade provided the bulk of the incentive to sustain this profession. The patrons of this organized profession became wealthy and powerful in their own domains. Unfortunately, with the demise of Cairo's pig population (following the spread of the H1N1 virus, a.k.a. Swine Flu), the source of this arrangement is gone and so is the incentive to collect the garbage from households.

Extent of the problem

Even if the Zabbaleen went back to work as before, their practice, though claimed by some to be the most thorough recycling method in the world, relies on primitive methods which do not correspond to the quantities of garbage produced daily in Egypt's large cities. This old way may have been sufficient for Cairo, for example, of the past 20-

30 years, but it cannot, with its ancient methods and limited manpower, cater for the city's present needs.

Furthermore, if garbage could be collected, it cannot be disposed of completely without considerable effort, let alone cost. The old advice of Reduce, Reuse and Recycle has proven ineffective and the practice of disposing waste in landfills, even if it could be done, is not sanitary because it does not follow environmental good practice of lining the landfills. Composting, on the other hand, produces carbon dioxide and is against good environmental practice.

The available solution that is argued to be both sustainable and profitable, while at the same time having other positive side-effects like keeping streets clean is to convert these solid wastes which are rich in organic matters (cellulosic and hemi-cellulosic) into Ethyl Alcohol, a.k.a. Ethanol.

Ethanol production has been going on for years in countries like Brazil where it is produced from soy beans, mixed with gasoline and sold under the name Gasohol. In Canada, ethanol is produced using woodchips, and in the United States, it is produced using corn. Very recently the United States began experimenting using agricultural waste to produce Ethanol and the first two bio-refineries in California are expected to begin operation later this year. A few months back, Sudan, with Brazilian support, commissioned an Ethanol production bio-refinery using sugar cane molasses as the primary feedstock.

A Proposal for Egypt

The proposed project suggests converting the bulk of the collected refuse into Ethanol. This process is called «The Biomass Process». It is a unique hydrolysis technology designed to operate with distinct competitive advantages in an arena where there are few competing technologies. Hydrolysis is a chemical reaction in which a substance reacts with water and is changed into one or more basic substances. Chemically speaking, cellulose, hemi-cellulose, starch and sugars

hydrolyze (i.e. break down) primarily into glucose, a simple sugar, and lignin. The sugars can then be processed to produce any of the 400,000 products of the plastic and petrochemical industries.

Presently, the most profitable product appears to be Ethanol. The process involves continuous hydrolysis and fermentation using chemicals and biological catalysts, and is protected by patents and trade secrets. The simple sugars are fermented into Ethanol, which is the primary economic product. One ton of raw unsorted solid waste, with 75% organic composition, will yield around 50 gallons of Ethanol.

The lignin, along with any un-reacted celluloid material, is sent for pyrolysis. Pyrolysis is a chemical reaction in which a substance is decomposed by heat, in the absence of oxygen, into basic products such as methane and other gaseous fuels, diesel fuel, bunker fuel, carbon black, charcoal and other products. For example, plastics will typically pyrolyze about 85% by weight into diesel fuel.

Properties of Ethanol

Ethanol is a non-polluting oxygenated fuel that can be used as an additive to gasoline to increase its octane composition and to lower pollution from vehicles. Using the Biomass Process, Ethanol will be refined quickly and easily from solid waste materials anywhere and can be stored for indefinite periods of time without deterioration. Ethanol has been referred to, by some, as «Nature's Perfect Fuel.» When added to gasoline, Ethanol:

- Ñ Extends motor fuel supplies;
- Ñ Replaces lead as an octane enhancer and suppressor of engine knock;
- Ñ Causes a major reduction in hydrocarbons, carbon monoxide and other pollutants emitted from vehicle exhaust; and
- Ñ May help avert a future motor fuel shortage.

Other advantages

The Biomass Process can permit Ethanol production at a significantly lower price than do other comparable processes, and is thus competitive in the motor fuel market. This could signal one of the great technological and economic shifts of the modern age - a massive movement towards the use of renewable resources and recyclable products. In summary, this would result in some of the following benefits:

- 1- Major reduction in airborne and in groundwater pollutants;
- 2- Revolution in the disposal of municipal garbage and other solid waste.
- 3- materials;
- 4- Employment of thousands in rural and urban centers;
- 5- Slowing of the «Greenhouse Effect»;
- 6- Produce viable byproducts that meet or exceed all EPA requirements in Egypt; and
- 7- Provide incalculable social benefits eliminating waste's harmful effects.
- 8- on the population, particularly small children.

Financial requirements

The present project proposes the establishment in Greater Cairo of a 500 ton/day solid waste conversion facility using the Biomass Process (Greater Cairo would ultimately need more than 30 such facilities). This would be the first phase of the overall process, and would serve as a pilot project, and its experience could lead to establishing additional centers, each of which could handle up to 1500 ton/day. The largest conventional recycling facility in the world currently handles 2100 ton/day in Southern California.

The cost of the license transfer, the equipment, the site and infrastructure, and training of operators, in addition to the needed collection and tipping trucks, constitute the bulk of required funding. A pre-feasibility study for a 500 ton per day facility shows that if a loan is requested for \$60 million at 10% interest over five years, annual bank payment plus salaries will be just over \$16 million. This means that every year for five years, the refinery would break even. After that, it will net over \$16 million annually. By World Bank standards, the project is technically and economically viable. Using these proceeds, the next facility could be built, and so on until the entire country is covered by facilities.

Such a proposal would bring a host of financial and administrative benefits to the government, the private sector, and communities, while providing sustainable and environment' friendly solutions to solid waste management. The generated Ethanol will also ease up the pressure on imported gasoline. It would free the current crude oil to produce 'Petro-chemical' products besides other socio-economic benefits.

Saving the Trees

Despite burgeoning pollution, trees are often neglected or even deliberately destroyed in our cities

Sohailah El-Sawy

The ever-increasing problem of pollution is common to all large cities. Cairo is certainly no exception. Our streets have become open garages, jam-packed with cars. Gas emissions from bumper-to-bumper traffic fill our lungs.

Trees are the most cost effective way of fighting pollution -- they clean the air by absorbing odours and pollutant gases, and filter particulates out of the air by trapping them on their leaves and bark. Trees combat the greenhouse effect. They absorb carbon dioxide and release oxygen back into the air. They provide natural air conditioning by releasing water vapour into the air through their leaves.

Other benefits include shade, fruits and a great sound damper effect on noise pollution. Less bullying and less misbehaviour is reported in schools with green areas. Trees have a taming effect on human behaviour. Trees are not just decorative element.

Another important fact is a life expectancy that can span hundreds of years: the best example of sustainability. So why are we losing so many of our street trees at a time when we so badly need them? The answer is tree abuse.

Every day trees are being deliberately or unknowingly destroyed. Shop owners wanting to show their window display will consistently chop off

branches from one side of any tree that bothers them. The amputated tree soon loses its balance and over time can collapse. Tree strangulation is also very common. Every tree needs breathing space. The soil area around it, approximately three metres-square, should be free of debris. Paving often removes this space.

Also, every time a new construction goes up, surrounding trees are downed. When pavements are narrowed or disappear to allow for more traffic, trees are the first to go. They are sacrificed so that an advert box or billboard can be erected instead. Or they themselves are used as billboards. Practically all our street trees have notices nailed to them. These nail injuries cause diseases and an eventual slow death to the tree.

The Association to which I belong has an ongoing programme aimed to address this situation: 'Save Our Trees: We Owe it to Our Children'.

Every month we organise a Tree Day. During walkabouts, in conjunction with the authorities, we prune and maintain existing trees. New trees are planted, always bearing in mind an important concept: the right tree in the right place. Larger trees are usually planted in middle isles dividing streets, where they can easily flourish.

Each month, people born in that particular month contribute to planting a tree in their name. The tree is theirs to look after. School children are encouraged to take part.

Once a year, tree walks are organised, each time in a different area. People are invited to get to know more about trees: their type, names, country of origin, benefits, etc, making for a true bonding experience with nature.

"Trees are the best monuments that a man can erect to his own memory.

They speak his praises without flattery, and they are blessings to children yet unborn." -- Lord Oney (1707-1762-).

Overcoming limits to growth

Sustainability depends on shifting production from the material to the virtual

Mostafa K Tolba

I am often asked the question, «Are there limits to growth?» My answer is a qualified yes. There are limits to growth, if we continue to heedlessly squander the natural resources available to us, including energy, land and water, to meet the needs and greed of a growing global population. However, if we behave, growth can continue everywhere, north and south, east and west.

When the term «sustainable development» was coined more than 30 years ago, it clearly meant that the patterns of development being pursued were unsustainable. We had to refocus our attention and adopt serious plans for achieving development. Agenda 21, adopted at the 1992 Earth Summit at Rio de Janeiro, charted the general path in this direction. We all now agree that the answer to our sustainability problems lies in distinguishing growth from development, where growth is mere accumulation of wealth while development is improvement in the quality of life.

A large body of research on the issue of sustainability considers that the root cause of our sustainability problems is the persistent imbalance between growth and dematerialisation rates, leading to growth's runaway demands on the earth's natural resources. There are, theoretically, two kinds of things we could do to rein in runaway growth. One is to stop growth, and the other is to change the way we grow so that the accumulation of environmental damage stops.

Can growth be stopped? The answer is certainly no. If we cannot do away with growth, then the only way to make development sustainable is to have growth with minimal negative environmental impact. How do we do this? Essentially, by dematerialising as fast as we grow.

What is dematerialisation?

Dematerialisation denotes acts that reduce the consumption of materials (energy, water, land, forests, minerals, etc) in each unit of economic output. The dematerialisation rate is measured as the rate of decrease of material intensity, which in turn is defined as units of a certain material consumed (like a kilolitre oil equivalent in the case of energy), per unit of economic output (euros or dollars) or per unit of GDP.

Dematerialisation is not a new thing. A part of our evolution has always been to become more efficient, to use less and less energy and materials to produce more and more goods and services. However, dematerialisation needs to be looked at with considerably more care and rigor than in the past.

Dematerialisation should always be measured against growth. So if in a given year the energy intensity of a certain country is one kilolitre oil equivalent per euro or dollar, and in the next year the figure went down to 0.97, the dematerialisation rate for that country in that year would be three per cent per year. This is not a measure of achieving sustainability in itself.

The dematerialisation deficit (which is the growth rate minus dematerialisation rate), rather than dematerialisation itself, is the important parameter. It is the size of the deficit that measures how close or far away we are from sustainability. We are better off getting a one per cent dematerialisation rate when the growth rate is three per cent with a deficit of two per cent, than having two per cent dematerialisation when the growth rate is five per cent giving a deficit of three per cent.

Technology always dematerialises. Historically, each new generation of technologies has almost always been more efficient and less material intensive. So technology by itself is not bad. The trouble is that it has always done a lot more for the growth side of the equation than for the dematerialisation side.

When we talk about dematerialisation, we usually associate it with

pollution prevention, efficiency improvements, renewable energy, industrial ecology, and other such familiar matters. They are all usually grouped together under the term «cleaner production». Unlike pollution control, which draws on technologies developed for its specific purposes, cleaner production relies to a large extent on pushing harder the dematerialisation attributes of mainstream technologies. But the development of these mainstream technologies is driven mainly by competition and growth purposes. They can become cleaner, for sure, but it is not realistic to expect that these technologies, created for growth reasons, would do more for dematerialisation than for growth.

Bits-for-atoms

We can see that from the fact that we did not bridge the energy dematerialisation gap even during the energy crisis years. So to bridge the dematerialisation gap we need something outside the realm of the industrial age when cleaner production was spawned. That something is most likely to be found in the information age.

Bits are the fundamental units of digitised information, while atoms are the fundamental units of materials. The phrase «bits-for-atoms» is now used to mean the substitution of information for material. It is an obvious fact that our struggle to reach sustainability will take place largely during the information age. Given this fact, sustainable development efforts should move away from the distant position it has taken till now from information, which is surely going to dominate human development for the foreseeable future.

What will truly transform our lives will actually be «connection power». At the year 2000 we had about 200 million computers that were connected together through the Internet and other networks. By 2005 the number swelled to 500 million. Non-computer chips, which are already permeating all kinds of products and equipment, totalling six billion today and growing faster than computer processors, are also being increasingly interconnected through wired or wireless means.

Available data shows that while heavy industries consume 34 per cent of energy and material, they contribute less than seven per cent to GDP. The present information industry energy intensity is approximately one-eighth of all industry averages, and its water use intensity is in the order of one-fifth compared to industrial age counterparts.

If the bits-for-atoms transition in growth doesn't happen, then our only weapon would be cleaner production in the broad sense. If future growth were three per cent a year, cleaner production would have to deliver three per cent dematerialisation a year to achieve the sustainability balance. That's a 20 times improvement in 100 years, and 400 times in 200 years. The general feeling is that cleaner production cannot keep delivering these kinds of improvements. We all know that the cleaner the production process becomes, the tougher and costlier it is to become cleaner. Sooner or later, further improvements in cleaner production will run out. How soon we would come to this kind of dead-end depends on how fast we dematerialise.

Even if we dematerialise at close to the current rate of growth, we will run into a dead-end, most probably in the next 3050- years. Bits-for-atoms must build up steam by then because it is likely to be the only solution left. We are already quite a number of years into the information age and the bits-for-atoms shift has not even made a dent on the material content of our growth. If there is one thing that rapidly advancing information age technologies have brought it is increase in our productivity, and therefore greater acceleration in growth, not dematerialisation.

What is essential is that information power should become so potent as to be able to make growth so scarcely material dependent that it begins to promote dematerialisation faster than it does growth, until finally it erases our dematerialisation deficits.

From idea to application

Two examples of where we can apply dematerialisation come to mind: first, the North/South issue is one of the most complex and politically charged issues in sustainable development. It boils down to this: How

much extra responsibility should the North bear so that the South may be given enough room to grow? For decades, we have been mired in international wrangling over the famous 0.7 per cent of GDP aid given by the North to the South. The debate has been conducted often without common grounds or metrics, which are prerequisites for meaningful negotiations.

For the dialogue to be meaningful it must be based on a scientific approach. Can we put a number on how much extra the North should do? If we cannot put a precise number, quantitatively meaningful answers are difficult.

To start, we can divide the world into two -- a North bloc representing economies that have per capita incomes above \$10,000 per year and a South bloc below that level. Both are growing now at approximately three per cent a year. Sustainability is achieved when dematerialisation equals growth that is three per cent per year. If the North can dematerialise at one per cent beyond its minimum requirements (three per cent), the South would gain approximately two per cent of extra growth. How much difference would this two per cent growth surplus make?

Recent studies show that the South would be able to expand its 50-year growth from 4.4 times under the baseline scenario to 11 times. At this rate, North/South income disparity at the end of the 50-year period would be reduced from approximately 4:1 to 1.5:1. Human ills far beyond sustainability problems would be greatly relieved if this would actually occur.

This demonstration, while simplified, should give us a quantitatively meaningful feel for the size of the North/South issue of sustainable development. The answer to the question I raised, «Can we put a number on how much the North should give?» is yes, we can. The answer is one per cent extra dematerialisation beyond meeting its own minimum requirements for sustainability. This is an ambitious goal but attainable.

Second, another major problem facing the future of our planet is climate change and global warming. We all know the potential catastrophic impact of such change. Current policy for the reduction of greenhouse gases causing climate change is mainly concerned with energy saving, shifting to the use of low-carbon fuels and the implementation of sustainable energy technologies. Recent studies show that a strategy directed at dematerialisation could make a considerable contribution to reducing carbon dioxide emissions. Moreover, these studies show that the costs to society as a whole of such a measure appear to be very low.

Such an approach was considered as a positive means to achieving a reduction of carbon dioxide emissions in European countries. The Dutch government has made a start. It incorporated efficient materials management as a theme to be expanded upon in new long-term agreements between the government and business community in the quest to meet the reduction targets for greenhouse gases set by the Kyoto Protocol.

Towards a sustainable future

If we start now, dematerialisation rates could reach a sustainability balance in 30- 50 years. Cleaner production began quickly but slowed down, running into increasingly higher costs and diminishing returns. Bits- for-atoms started more slowly but began to accelerate as people's wellbeing is increasingly derived from virtual things. At the same time, as underdevelopment is gradually disappearing due to stimulated globalisation and to development in the developing world, growth rates across the globe are expected to slow down. Those who advocate dematerialisation claim that sometime during this century the contribution by cleaner production will have run out and bits-for-atoms will take over. Growth will no longer be materially dependent. Dematerialisation deficits will be automatically erased and sustainable development achieved.

2000 GHG Emission by country (MMT CO₂e) source WRI

Country	Mt CO ₂ e	Rank	% of World Total	Tons CO ₂ Per Person	Rank
US	6855	1	20.38%	24.3	7
China	4963	2	14.72%	3.9	100
EU (25)	4742	3	14.07%	10.5	38
Russian Fed.	1916	4	5.68%	13.1	22
India	1889	5	5.60%	1.9	147
Japan	1352	6	4.01%	10.7	35
Germany	1013	7	3.01%	12.3	26
Brazil	850	8	2.52%	4.9	88
Canada	684	9	2.03%	22.2	9
UK	659	10	1.95%	11	34
Italy	532	11	1.58%	9.2	48
Mexico	526	12	1.56%	5.4	81
Korea (South)	519	13	1.54%	11	32
Franco	518	14	1.54%	8.8	49
Indonesia	505	15	1.50%	2.4	124
Australia	491	16	1.46%	25.6	5
Ukraine	482	17	1.43%	9.8	43
Iran	476	18	1.41%	7.5	58
South Africa	418	19	1.24%	9.5	46
Spain	382	20	1.13%	9.4	47

What does CO₂ eq mean?

The standard method of counting greenhouse gas emissions is defined by the Intergovernmental Panel on Climate Change (IPCC) with 6 types of greenhouse gases.

Each gas is assigned a 100-year Global Warming Potential (GWP) that says how much warming the gas produces compared to carbon dioxide;

the bigger the number, the greater the warming. The following are the most important of the global warming gases. They are listed by name and chemical symbol or acronym, along with their GWP.

Carbon dioxide (CO₂), GWP = 1

Methane (CH₄), GWP = 21

Nitrous oxide (N₂O), GWP = 310

Perfluorocarbons (PFC), GWP = 6,500 to 9,200

Hydrofluorocarbons (HFC), GWP = 140 to 11,700

Sulfur hexafluoride (SF₆), GWP = 23,900

The emissions of each gas are multiplied by their GWP to give the carbon dioxide equivalent emissions, or CO₂ Eq.

Part IV

Overcrowding and the way out

No strength in numbers

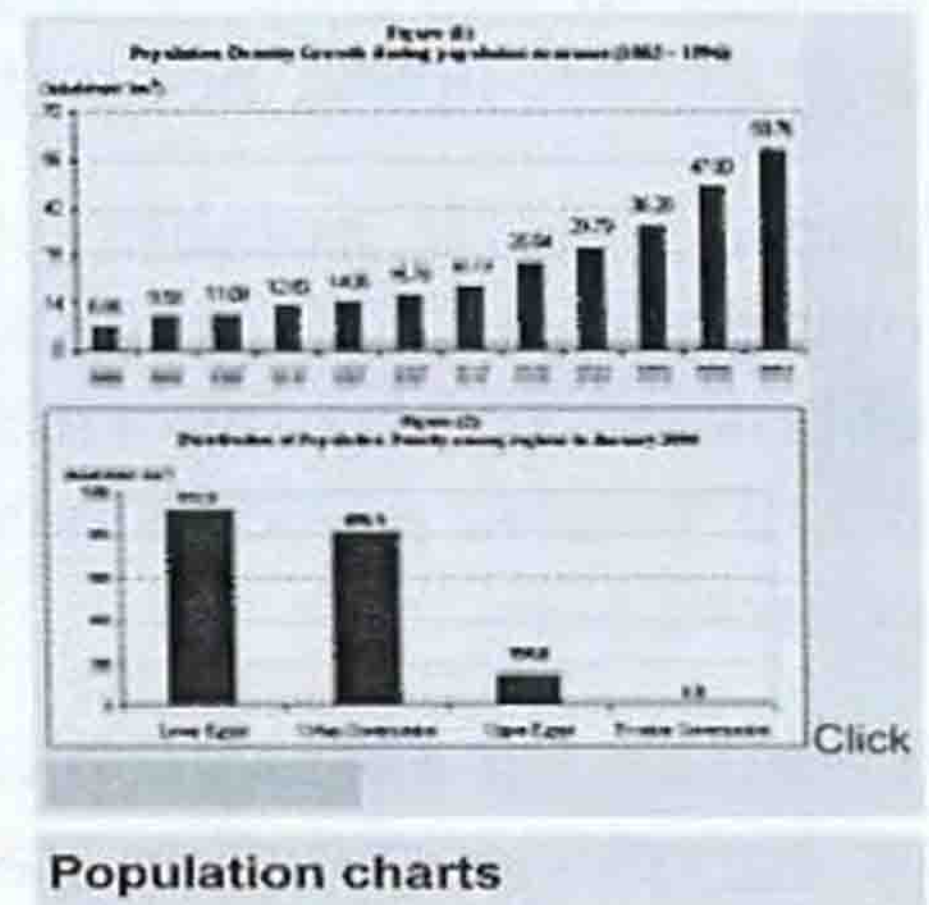
Egypt's rapid population growth is crowding out development

Magued Osman

What happens when economic development can't keep up with population growth? Economists agree that social and economic development requires a national income growth rate three times more than the population growth rate. Hence, it is difficult to overemphasize the importance of controlling population growth in Egypt.

The most obvious feature of Egypt's population problem is the continued increase in the population growth rate. In the beginning of the 20th century, the population of Egypt was 10 million inhabitants. It took Egypt 50 years to add another 10 million. The pace of increase started to increase and the additional 10 million was achieved in only 16 years. Subsequent additional increase took 12 years and then 10 years, and Egypt's population reached 50 million in 1988. Recently, the country needed only 6 years to move from 70 to 80 million in 2011. After a decade of plateauing in total fertility rate, the absolute number of births jumped from 1.85 million births in 2006 to 2.6 million births in 2012, an increase of 40% in only 6 years.

Accordingly, the main challenge currently facing the government is how to control this population growth rate. The growth rate reached 2.52 per cent during the period 1960 -1966. From 1966-1976- it dropped to 1.92 per cent, only to rise again to its highest level of 2.75 per cent during 1976- 1986. Subsequently, from 1986 -1996, the growth rate dropped to 2.08 per cent, and continued to stabilize during the following decade



Population charts

at 2.02. The alarming recent increase in the number of births suggests that the growth rate is on the rise, which poses additional pressure on the economy that suffers from increasing unemployment in a turbulent time of post revolution.

This population explosion has, furthermore, been accompanied by uncontrolled internal migration, negatively impacting economic and industrial development and resulting in increased population density and excess labor, not to mention the inevitable creation of new slums.

There was a notable absence throughout of any real urbanization management. Regrettably, urban development policy in Egypt is characterized by favoritism, a fact that is obvious considering that most development projects have been set up in a few select urban and capital centers.

Then there is also a problem of geographical distribution. A characteristic of Egypt's population growth is that it is coupled by high population density. Egyptians continue to inhabit a narrow piece of land which constitutes less than 5.5 per cent of the total area of Egypt. This fact has resulted in a population density that had reached 70.7 inhabitants/km² by January 2006. During the time when population growth rates were characterized by instability in the second half of the last century, population density continued to increase, recording 36.28 inhabitants/km² in 1976, 47.8 inhabitants /km² in 1986, and increasing once again to 58.76 inhabitants/ km² in 1996. By 2000 population density had reached 64.05 inhabitants/km², increasing to 70.7 inhabitants /km² today.

Despite the overall increase in population density, it is notable that some governorates suffer from low population density as a result of the concentration of most of the population in the Nile valley. According to population estimates in January 2006, population density was highest in lower Egypt governorates which recorded 914.9 inhabitants/km², followed by the urban governorates which recorded 815.1 inhabitants/km². It is lower in upper Egypt's governorates, where it reached 151.8 inhabitants/ km². The lowest population density is in the frontier

governorates which recorded 1.3 inhabitants/ km².

The high levels of population density naturally led to fierce competition over the usage of land for agriculture and for housing. These facts highlight the danger posed by population density to Egypt's ongoing development efforts.

Other negative consequences caused by the population problem and the rising population growth rates are the decreasing per capita shares of public utilities, such as the per capita share of potable water, electricity, health, education and transportation. Furthermore, it obviously affects unemployment and illiteracy rates, and food shortages as well.

The UN Population Division projects that the population of Egypt will reach according to the low fertility scenario 97 million in 2030 and 105 million in 2050. According to the high fertility scenario – which is more likely to happen – the population will reach 109 million in 2030 and 140 million in 2050.

High population density along the Nile valley, especially in lower Egypt and the urban governorates, will constitute a huge threat to the per capita share of public utilities, infrastructure, health, education and public services. For example, we must assume that investments in the water sector would keep up with the increasing population numbers if we are to maintain a constant level for the per capita share of potable water during the coming 15 years. If investments in water utilities infrastructure did not meet the requirements of the predicted population growth, it will clearly negatively affect the individual needs of water sources. This is particularly worrying considering the fact Egypt's share of Nile river waters is fixed at 55 billion m³. Based on that, the per capita share of water sources will decrease as the population grows. Per capita water share amounted to 927 m³ in 1995, then decreased to 850 m³ in 2000, decreased again in 2005 to 771 m³. It is expected to decrease to 590 m³ by 2026.

The following relates to Dr. Magued Osman's article in Part IV: as Per document received it was on Page 104 last Line and Page 105 in final prepress Please check and correct dates as per following Paras:

In conclusion, a three-pronged approach is necessary to address the population problem in Egypt: decreasing population growth rate, enhancing population characteristics, and, finally, seeking a better geographic distribution of our population.

To solve the population density and the overpopulation problem in Egypt, we need a carefully planned strategy for new urban communities that would provide different housing alternatives outside the valley and Delta. The prerequisite for success is a realization by the Egyptian government that it will be impossible to attain and sustain higher economic growth within the confines of the narrow Nile valley while leaving about 95 per cent of Egypt's total land area neglected and unused.

Asserting our right to silence

Contemporary culture appears alternately suspicious or outright contemptuous of silence

Yahia Lababidi

Living as we do, in the busyness of this modern world, hooked up, beeping and under the false imperative of needing to keep in touch with everything, we find ourselves in the unhealthy situation of losing our silences and the sustenance that comes with them. So we desperately rush, hurling ourselves from one activity to the next, without ever pausing to process what it is we've learned.

The erosion of silence in our lives is unmistakably connected with our increased stress levels as well as increasingly shortened attention spans. This, in turn, negatively affects our ability to both think and feel deeply, in order to sift through the deluge of stimuli that informs our hurried and harried days.

Culture of noise

With the culture of reading imperiled (previously a portal to silence) in favour of «information snacking» to accommodate our hectic schedules, coupled with the media's shrill and insistent competition for our attention, it becomes necessary to guard our silences even more vigilantly. In this context, for example, we can more closely examine how the internet affects our concentration and capacity for critical thinking.

If French philosopher Blaise Pascal is right that «all of humanity's problems stem from man's inability to sit quietly in a room alone,» then the proliferation of talk and reality shows may be seen as symptomatic of our cultural malaise. Reality shows, which actually serve to distract us from reality, or being present to ourselves, are precisely a reflection of our collective «inability to sit quietly in a room alone».

Just like silence, noise too can be the absence of sound. Noise is also the silent invasion of our inner spaces by the clutter of undigested information and unsorted emotions that pile up throughout the days and weeks. With our private spaces thus encroached upon, we risk becoming alienated from ourselves until our lives are something foreign to us.

Rather than allow ourselves to be shoved into the bathroom, perhaps the last sanctuary of personal space and reflection, we should instead question the necessity or merit of amusing and multitasking ourselves to death. Against the odds of what at times appears to be a conspiracy of noise, we must try to assert our birthright to retreat, reflect and regenerate.

The many silences

In this pursuit of quietude, cultivating silence can also mean cultivating attention, so that we are present to ourselves and the deeper life that is continually unfolding within and around us.

We may begin to do so by investigating the silences available to all of us, knowing them better as well their judicious uses. Three categories we can explore in some depth are: silence as language (wordless communication), as entity (physical presence in nature), and as a kind of metaphysical portal (for contemplation, meditation, transcendence).

As a language, it can be the thing and its opposite: eloquent or clumsy, despairing or serene, polite or impolite, communicating empathy or resentment. Which is to say, as means of wordless communication, silence is as fluid and protean as the emotions that inform it, often transmitting what words cannot. As poet Rainer Maria Rilke confesses: «Things aren't so tangible and sayable as people would usually have us believe; most experiences are unsayable, they happen in a space that no word has ever entered.»

As an entity too, silence can be difficult to define. For it is not merely the absence of sound, but may be perceived as an actual physical presence as well. The elemental silence found in the natural world is a case in

point: whether it is relative (forest, underwater) or absolute (desert, before a storm, or outer space). Such experiences of silence as entity may be said to represent a kind of auditory equivalent to stillness.

Another category of silence, as portal, is very much like a state that we are said to «enter» and «emerge» from. Reading can act as a springboard to access this region of the soul, where one is transported and «lost in thought». Contemplation and meditation are two further examples. Prayer is yet another, especially in the inclusive definition of Ralph Waldo Emerson: «the soliloquy of a beholding and jubilant soul.»

In fact, various spiritual traditions agree on the importance of observing silence as a tool for inner growth/self-transformation. Moreover, based on scans of Buddhist monks' brains, the young science of Neuroplasticity indicates that meditation actually alters the structure and functioning of the brain. In other words, our thoughts and silences can, in effect, change our minds and even our lives: the ultimate goal of philosophy or religion.

Returning to being

It may seem like a betrayal to speak of silence, to break an unspoken pact. And yet it is there, inextricably woven into the fabric of our lives -- whether we are conscious of it or not. It exists in the gaps between our words, interactions, as well as encounters with the natural world. Whether we know it or not, silence is a platform from which we observe and interrogate our selves and the world. As Sufi poet Rumi puts it, «a person does not speak with words. Truth and affinity draws people. Words are only a pretext.» What's more, silence is a prerequisite for certain vital solitary activities, such as reading, thinking, daydreaming, healing, and praying.

But ubiquity does not ensure intimacy. Or as Hegel put it: «what is well known is not necessarily known merely because it is well known.» Thus, silence is both under considered and undervalued. Perhaps by learning to recognise our silences in their many guises we can partly demystify them and become more intimate with them.

Whether longed for or reviled, summoned or thrust upon us, silence is an inescapable force in our lives. Yet curiously, as a discipline, philosophy seems not to have deeply investigated this constant presence, leaving it up to spirituality, poetry and psychology to explore these mysterious spaces. Nonetheless, it remains a slippery subject to pin down.

Rather than being defined negatively, as the absence or perhaps failure of words, silence may instead be viewed positively as somehow existing before and beyond representation, a primordial essence that lurks beneath our constructed world. In the immortal words of the Tao Te Ching : «Returning to the root is silence. Silence is returning to being.»

It is in silence that things patiently unfold, open up and trust us with their secrets or reveal their hidden nature -- be they shy ideas or creatures, daybreak or a work of art. In this fundamental and seemingly privileged state, what seems to elude the world of words and sound may otherwise dawn on us; perhaps because we are now in the position to overhear ourselves and tell ourselves what we already know.

It is no surprise then that realisations and revelations are forged in this realm. Silence is, after all, the best response and conduit for our most profound experiences: awe, love and death.

That said; silence, like any controlled substance, must be handled with care. It is up to each person to determine how much is desirable or useful; as too much of this good thing might be counterproductive for some, even dangerous. «Social intercourse seduces one into self-contemplation,» muses writer Franz Kafka. The aim, then, is to try to find that healthy balance between silent fasts and noise feasts on the slippery road to moderation.

Note from the editor: Though essay is philosophical, it challenges the right to silence that Cairo residents, unable to adjust to the culture of noise, are longing for. Something the municipality could control

CAIRO

I buried your face, someplace
by the side of the new road
so I would not trip over it
every morning or on evening strolls

still, I am helplessly drawn
to the scene of this crime
for fear of forgetting
the sum of your splendor

then there's also the rain
that loosens the soil
to reveal a bewitching feature
awash with emotion

an eye, perhaps tender or
a pale, becalmed cheek
a mouth tight with reproach or
lips pursed in a deathless smile

other times you are inscrutable
worse, is when I seem to lose you
and pick at the earth like a scab
frantic, and faithful, like a dog.

Yahia Lababidi

Exiled in suburbia

For those who can afford it, gated communities springing up around the edges of Egypt's noisy capital offer a different kind of life. But is it better?

Hazem Zohny

Perhaps better described as the City Cacophonous, Cairo, the fabled City Victorious, has reached chaotic extremes with its bustling rhythm sounding much like a full size orchestra hopelessly out of sync.

Add onto that disturbing pollution levels, so-bad-you-have-to-laugh city planning, and the sort of traffic jams where one can empty a fully charged phone battery just trying to kill time, and the bitter Cairene cocktail experience is almost set. Topping it off is perhaps what worries most: to be a young, modern Egyptian woman is to suffer incessant staring or worse, each time you venture for a walk in your own streets.

The result? The last few years have seen a mass exodus of those who can afford it, packing up and leaving the centre for the suburban serenity to be found in their newly enclosed, gated-communities on the outskirts.

Just how repulsed Cairo has left these former inhabitants is only too evident in the tens of security men monitoring the «borders» of their exclusive compounds. But, undoubtedly, these residential bouncers are there for good reason. Though some are a mere dozen kilometres from Cairo's innards, one step inside these lavish havens reveals a hidden -- and bizarrely contrasting -- world of green grass, with children laughing and running, thoroughly bred dogs guarding magnificent villas, freely dressed women, and of course, one too many BMWs.

The message is clear: We have worked hard to earn this piece of heaven

and now we want to raise our children somewhere safe and free from all the hazards of Cairo. Indeed, as one who has partaken in this very exodus, I can attest to the fact that life on the outskirts certainly has an element of «extended vacation» to it. Even leaving the relative tranquillity of Zamalek, having the option to merely sit in a garden at any time, to take a deep breath and not feel lightheaded, to be free from hearing a car horn every second in the distance -- yes, life seems good.

Yet there is something sinister lurking behind the laughter of the merry children here; there is something amiss in the SUVs stuffed with groceries and flat screen TVs; indeed, at times it feels like there is a dead body in the middle of the road that no one seems to notice.

The reference here is to an all-too-dismissible, yet undeniable, ambience of segregation. Egyptian society, for a long time now, has been such that the gap between the haves and the have-nots is one of enormous extent, bridged only in fleeting commercial transactions, or through a nod to the bawab, or doorman, or perhaps a two minute superficial conversation about politics between a taxi driver and the passenger whose Mercedes was in maintenance that particular day. Otherwise, the haves have done a pretty good job at closing themselves off in their own luxurious, quasi-liberal world.

The worry now is that this tiny group of people, which (incidentally) also hoards the vast majority of the nation's wealth, has found an even better way to close itself off in its own domain -- «gated communities». It seems like a win- win situation: the rich happily hide behind high fences and the not so rich don't have to suffer seeing what they can't have. In reality, however, this is a recipe for a dangerous clash of cultures.

The first -- and most disturbing -- symptom of this clash presents itself in the children of these communities: walking through a Christmas carnival in one of these compounds where children take turns sitting on Santa's lap to receive their toy (without the slightest thought of cultural imperialism seeming to cross any of the parents' minds), what language would one expect to hear? It's certainly not Arabic. These

Egyptian children are being raised with English as their first language, and it comes at the cost that many of them are growing up inadvertently learning to perceive Arabic «as that language the lady who comes to clean uses.»

Moreover, many of these children go to schools equally cut off from the reality of Cairo -- for them, the only real time they get to engage with the city, and the culture therein, is as they drive through it. And, of course, shopping is done in colossal malls where beggars aren't allowed, and there is inevitably no appreciation for the cultural spice that can only be found in small, personal shops in which customers may grow to share some affinity towards the owners.

The real problem behind growing up in such a bubble becomes particularly evident when one considers that it is these very children that, like their parents, will most likely grow up to direct the course of this country. Yet if one is to be raised utterly alienated from the reality of the situation, if one is to grow up with broken Arabic and the idea that they are inherently different from (or, worse, better than) the «commoners» whom they rarely interact with, how will they possibly relate to the people that make up over 95 per cent of this country -- regular, everyday Egyptians?

Of course, one may argue that this escape from Cairo is a necessary evil. In one sense, the staggering number of children in the capital suffering from respiratory problems due to pollution almost leaves able parents morally obliged to raise their children outside the city. In a similar sense, parents who do not wish to cover their daughters in drapes and who want to give them the freedom to walk around and play without suffering accusing stares (and the serious identity crises they often lead to) are also obliged to run for the gates. But more than anything, perhaps, Cairo is in dire need of dispersion -- its infrastructure is creaking with the pressure. Often literally.

Crucially, however, this exodus, though a necessity, needs not be an evil per se. The danger of further alienation between the classes exists even

in the heart of Cairo, with some Egyptian children raised in the middle of Mohandiseen with poor Arabic and a general obliviousness to the human condition around the corner. They might be exceptions, but let us not raise an entire generation like them. For once in our modern history, let us plan ahead -- let's not buy up land in the middle of nowhere, place a flag by the entrance, and become forgetful of everything outside that cocoon. Let's not spend half our days commuting in gas-guzzling vehicles because the government knows that even if it did miraculously provide decent public transport it wouldn't be made use of. And critically, let's not raise a generation of khawagat, or foreigners, but let us teach our children that they are entitled to their own -- perhaps different -- sense of identity, while still giving them the skills and awareness necessary to engage with their surrounding culture when need be.

Ultimately, it is in the hands of parents to ensure that their children are educated about the dangers of classism, and about the importance of having the ability to effectively interact with any segment of society in a non-discriminatory manner, and that is something parents can succeed or fail in doing regardless of where they live.

Egypt's Development Corridor:

Into the Sahara

Expanding livable areas along the Nile and its Delta

Farouk El-Baz

This proposal concerns the expansion of the living area in Egypt parallel to the Nile Delta in the north and all along the Nile river in the south. It would provide numerous opportunities for the development of new communities, agriculture, industry, trade and tourism around a 2,000 km strip of the Western Desert. This is particularly timely because the country is presently facing insurmountable problems of overcrowding in all major cities combined with the lack of opportunities for younger generations. Because of the financial difficulties facing the government of Egypt, it is envisioned that such a project would be led by the private sector - local, Arab and international investors.

The first requirement for expansion outside of the Nile banks and the Delta is the provision of adequate transportation. From the time of establishing the Egyptian State over 5,000 years ago, the Nile served as a mechanism to transport people, news, products, armies and tax collector - all aspects of a unified, sustainable state. Similarly, the Greek, Roman and Arab Civilization assured the ease and security of travel within the boundaries of their vast territories. More recently, European development was greatly assisted by the ease of transportation at the rise of Western Civilizations. It is also clear that superb transportation systems allowed the United States to better utilize its vast natural resources to reach the present position of prominence.

In the meantime, it is not possible to foresee establishment of a modern network of transportation systems within the confines of the Nile Valley

and its Delta, because that would reduce agricultural land that is not sufficient for food production. Furthermore, the fertile soil within the inhabited strip of Egypt was deposited by the Nile River over millions of years, and it is irreplaceable. In the meantime, the growth of population negates the potential of continuing to live on and utilize only five per cent of the land area of Egypt. Thus, it is imperative to open new vistas for expansion outside of the inhabited strip. This proposal provides an innovative solution to the numerous problems that face Egypt today.

To facilitating transport throughout Egypt, it is proposed to plan a superhighway along a strip of land just to the west of the inhabited area in Egypt to limit urban encroachment over agricultural land and open myriad opportunities for new communities close to overpopulated towns. It also affords unlimited potential for new schools and training centers, industrial zones, trade centers, tourism; providing virgin territory for development initiatives in every field. This in itself gives hope to the new generations of Egyptians for a better future. It represents the best possible use of one of Egypt's natural resources - the strip of the Western Desert that parallels the Nile and is close to its high-density population centers.

This particular strip of land was chosen because of its unique natural characteristics. It is basically flat with a gentle northward slope from west of Aswan to the coast of the Mediterranean Sea; the lack of topographic prominences makes it easy to pave. This strip is also devoid of east-west crossing valleys that are prone to flashfloods as in the case of the Eastern Desert. It passes close to vast tracts of fertile soils that are amenable to reclamation; most of such regions have potential for groundwater resources. The strip is also comparatively free of sandy areas; it is not crossed by lines of shifting dunes as in the case of regions in the west. Furthermore, the area is endowed with plentiful sunlight and persistent northerly wind. These conditions allow the use of renewable solar and wind energy in the future.

The proposed project includes the establishment of the following:

- 1- A superhighway with the highest international standards, 1,200 km in length, from west of Alexandria to the southern border of Egypt,
- 2 - Twelve to fifteen east-west branches, total length of approximately 800 km, to connect the highway to high-density population centers along the way,
- 3- A railroad for fast transport parallel to the superhighway,
- 4- A water pipeline from Toshka Canal for human use of freshwater, and
- 5- An electricity line to supply energy during the early phases of development.

1- NORTH-SOUTH HIGHWAY

The superhighway runs parallel to the Nile River from Egypt's Mediterranean Sea coastline to its border with Sudan. Its distance from the Western scarp of the Nile Valley varies from 10 to 80 kilometers, based on the nature of the crossed land. It begins at a point between Alexandria and El-Alamein, perhaps near El-Hamman, to be selected for the establishment of a new international port. Egypt requires a technologically advanced port to serve future needs of import and export as well as increased trade with Europe and the expansion of maritime transport worldwide. In the meantime, the northern branch of the superhighway extends to Alexandria and its present port and airport and eastward through the Nile Delta coastal highway to Rosetta and Damietta.

The superhighway ends near the border with Sudan to allow a future extension to better link the two neighboring countries. Better ground links between Egypt and Sudan would have a positive impact on the economies of both countries. Near the terminal point, branches extend to Lake Nasser, Abu Simbel, and the Toshka depression -- all regions

that have promise in development of fisheries, tourism and agriculture, respectively.

The aforementioned characteristics of the superhighway require the establishment of a private sector organization to manage the road and its maintenance. It would be responsible for manning the toll stations, providing emergency services, and maintaining the utility of the superhighway. Naturally, such an organization requires a specific mandate and clear laws and regulations by the Egyptian Parliament to assure the safety and utility of the highway while placing limits on excessive government regulations or company profits.

2- EAST-WEST CONNECTORS

Branches of the main highway oriented in a roughly east-west direction are envisioned to be established first to allow timely urban expansion. They are designed to connect the north/south highway to the main centers of population. They assure easy transport between the main cities of Egypt and between the main production areas and the outside world. Such branches may include the following:

Alexandria Branch: This branch connects the main north-south highway to the road leading to Alexandria, its port and airport. The eastern terminus of this branch would connect with roads leading to the northern cities and towns of the Nile Delta coastal zone including Rosetta and Damietta and eastward to Port Said along the Suez Canal.

Delta Branch: This connects the superhighway with the heart of the Nile Delta, particularly, at the city of Tanta. The branch would best be an elevated new road within the Delta to limit encroachment on the fertile land. It also might require a new bridge over the Rosetta Branch of the Nile River. From its terminal point at Tanta, it links with presently existing roads leading to all major cities and towns of the Nile Delta. This would assure better links between the Delta and the rest of Egypt and the outside world.

Cairo Branch: This branch connects the superhighway with the Cairo-

Alexandria road. It also link with upgraded roads leading to the densely populated Helwan and Maadi and eastward to Suez. This would allow the use of cargo land transport between Alexandria and Suez (the Mediterranean Sea and the Red Sea) as an alternative to the Suez Canal when the need arises.

Faiyum Branch: This connector would be ideal for future generation of solar energy along a flat plain that is sand free. It is equivalent to the region that is proposed by a European consortium for the generation of solar energy from a region 50X50 kilometers in the Western Sahara. It also would allow an extension to the west of the depression for establishment of industries such as cement production.

Bahariya Branch: This branch improves the existing road to the Bahariya Oasis as a northern link to the New Valley Province to the south. It would also allow further development of the natural resources of the Bahariya depression including the iron ore deposits.

Minya Branch: The city of Minya has been one of the major population centers from ancient times. However, little development has reached its shores because of the centralization of projects in and near Cairo. Minya has a university and can generate numerous avenues for local and regional development if it is better connected to the national market.

Assiut Branch: This case is identical to that of Minya in all aspects. In addition, Assiut has an airport that could be upgraded for international transport. It is also the end point of the road from Kharga, the capital of the New Valley Governorate. This road is paved over the ancient Darb El-Arbain, the track of camel caravans connecting the Nile Valley and the oases of Darfur in northwestern Sudan, which can be upgraded and revitalized.

Qena Branch: This connector would open for agricultural development an area south of the Nile from the Qena Bend in the east to Nag Hammadi to the west. This plain represents fan deposits of streams that were more active during wetter climates in the past; therefore,

groundwater resources would potentially underlie it. A westward road could also connect it with the existing road to the Kharga Oases to link the superhighway with the southern part of the New Valley Province.

Luxor Branch: This branch would allow unlimited growth of tourism and recreation on the plateau that overlooks the largest concentration of ancient Egyptian archaeological sites. Thus it would allow the erection of hotels and resorts on top of a magnificent plateau overlooking the Nile Valley.

Kom Ombu-Aswan Branch: Like the Qena Branch, the Kom Ombu segment opens up a vast tract of fertile land west of the Nile for reclamation. The region once hosted channels that fed water from Eastern Desert valleys; segments of their ancient courses were revealed by radar images from space. Therefore, the nearly one million feddans of land includes fertile soil - an excellent location for the expansion of agriculture west of the Nile.

Toshka Branch: The superhighway goes through the northeastern edge of the Toshka depression, where a canal from Lake Nasser has created several lakes. It is presently devoid of an adequate transportation infrastructure. The superhighway would provide all necessary mechanisms to transport people, material and products to and from the region.

Lake Nasser Branch: This connector is to be selected at a site that is amenable to the development of a major fishing port along the shores of Lake Nasser to the north (downstream) of Abu Simbel. Plentiful fish from the lake could be transported via the railroad to distribution centers throughout Egypt. The branch might also increase the potential use of Lake Nasser for eco-tourism.

3- MODERN RAILWAY

Egypt's railroads are very old and their tracks are laid on relatively soft soils that do not allow fast movement by heavy loads. Thus, the

need exists for an advanced railroad system to serve present and future requirements of development. A rail-track parallel to the superhighway would serve that purpose. If deemed necessary, connecting tracks could be established along some of the east-west road branches in the future.

The superhighway ends at the southern border of Egypt along the Selima-Edfu camel caravan route. At this point, a short segment of road would connect it to the shores of Lake Nasser across from the town of Wadi Halfa, near the northern border of Sudan. There is a railroad that connects Wadi Halfa to the rest of eastern Sudan. Thus, it would facilitate transport between Egypt and the main cities and towns of Sudan.

4- WATER PIPELINE

No development could be assured without the presence of freshwater. Even though several areas along the path of the east-west connectors promise the existence of groundwater, a pipeline of fresh water from the Toshka Canal is required to run the length of the superhighway for human consumption. It is envisioned that a pipe of about one meter in diameter would provide the necessary resources. Agricultural and industrial development along the east-west connectors would be supplied either by groundwater resources or subsidiary canals from the Nile.

The length of the required pipeline is about 1,100 km. This is less than half that of the Great Man-Made River system in Libya. In the latter case, the main pipeline is four meters in diameter, is buried under seven meters of soil, and carries water from numerous wells in the south to the coastal zone with a total length of more than 2,000 km. Feeder pipelines with a diameter of 1.6 meters carry the water to the main pipeline. Within each of the well fields numerous pipelines carry the water from hundreds of wells to the feeder pipelines. In comparison, the proposed pipeline is neither technically difficult nor economically taxing to accomplish.

After pumping the water from the Toshka canal up to the plateau

for approximately 300 meters, it would flow northward along the topographic gradient without any need for energy. It is even possible to imagine that the water flow down-gradient might be usable to produce mechanical energy that can be converted to electricity.

5- ELECTRICITY LINE

Initial phases of the proposed project require energy for lighting, and refrigeration. Therefore, a line to supply electricity is one of the requirements of the project. The required power can be supplied by any one of the generation plants along the Nile Valley as deemed appropriate. In later phases, the Faiyum project would supply the Corridor as well as the national network with solar-generated power.

Urban communities, industrial plants and agricultural farms to be initiated along the east- west branches should be encouraged to utilize solar and/or wind energy resources as much as possible. This encouragement can be in the form of tax breaks or grants from the Egyptian Government or international environmental agencies.

Project Benefits

It is important to evaluate the pros and cons of any proposed project. In the case of the present proposal, it is difficult to think of any drawbacks from the environmental or socioeconomic points of view. The only question that comes to mind is how long it takes to secure a return on the investment of such an elaborate infrastructure. This question can only be answered by feasibility studies.

In the meantime, it is possible to list the benefits of the proposed project as follows:

- Arresting urban encroachment on agricultural land in the Valley and Delta
- Opening new land for desert reclamation and the production of food
- Establishing new areas for urban and industrial growth near large cities

- Creating over 500,000 job opportunities in its initial phase
- Reducing environmental deterioration throughout the Nile Valley
- Relieving the existing road network from heavy and dangerous transport
- Initiating new ventures in tourism and eco-tourism in the Western Desert
- Connecting the Toshka region and its projects with the rest of the country
- Creating a physical environment for economic projects by the private sector
- Involving the population at large in the development of the country
- Offering an opportunity for Egypt's youth to excel and innovate
- Focusing people's energy on productive and everlasting things to do

Method of Execution

Since it was first proposed the Development Corridor has been particularly supported by Egyptian youth. Therefore it would also be advisable to involve the young in the process. University students could compete for prizes in recommending projects on either side of the connectors along the superhighway. High school students could be given opportunities to compete for other prizes for naming the east-west branches and the new towns and villages to be established along these branches. If a large number of people become involved in the project, it would have a better chance for being considered a «national project,» one that the society as a whole owns and protects.

Concluding Remarks

When my granddaughter Yasmeeen was 10 years, she returned from her Washington DC school to tell her mother that the teacher mentioned

Egypt in the first lesson in history. She added that the teacher said that history repeats itself and asked if it were true. When her mother answered positively, she excitedly asked: «Does this mean that Egypt can be great again?»

We need to answer the question of this youngster who lives far away, but keeps Egypt in her heart and mind. The answer requires deep thinking and hard work by a generation or two. Egypt has lived through many great episodes when its people were focused on their work, supportive of each other, and aimed at the common good. Once in a while, Egyptians fall into a quietude, hermitically sealing their minds, and receding from the world around them. But, stagnation episodes are usually short, and Egyptians spring back into action leading the way to civilized life. Is it fair then to ask: «When will Egyptians return to holding the banner of civilization?»

From the earliest time of recorded history, civilization blossomed among groups of people who were collectively able to achieve the following:

1. Production of excess of food, for the growth of their bodies and minds
2. Division of labor among the society, in a fair and well organized manner
3. Easy living in urban areas, where some of them could create and innovate

Therefore, Egypt needs to satisfy these three conditions before paving the road for the re-spread of civilization along the banks of the Nile River. It is my belief that the proposed superhighway would go a long way toward achieving these goals. This needs strong faith in the resilience of the descendants of the energetic builders of the Pyramids. It would require a mere generation or two for this development initiative to bear fruit. This is not a long time in the 8,000- year history of Egypt, which deserves a distinguished position among great nations now and in the future.

Learning from past mistakes

Desert reclamation projects must cater to the needs of average Egyptians

Rushdi Said

The history of the land use of the Egyptian desert has been closely related to the problem of overcrowding in the Nile Valley, a matter which has haunted concerned Egyptians since the beginning of the 20th century when the population began to increase at rates far beyond what the limited land of the Nile Valley could offer.

Until the early 1950's, the idea of expanding into the vast and underpopulated areas of the Sudan seemed to offer a solution to that problem. Until that time, the Sudan had been considered an integral part of Egypt. That solution was no longer possible when the Sudan declared its independence from Egypt in a plebiscite in 1956. Since then, Egyptians have been attempting to expand their living space by spreading out into the surrounding deserts to make room for the burgeoning population. Unfortunately, these attempts were not part of a long-range and well-researched plan and they all failed in reducing population pressure on the Nile Valley.

After a spurt of reclamation projects aimed at developing the long-neglected alluvial lands of the Nile Valley during the first half of the 20th century, Egypt turned its effort to expanding its agricultural lands into the deserts that fringe the valley by extending to them canals from the river. This phase, which started from the mid-20th century, extended until the present day despite overwhelming evidence that this effort was costly relative to gains. As recently as the late 1990's, Egypt was still clinging to the idea that it could wrest agricultural lands from the desert by supplying them with water from the Nile. The recently-dug canals

of El-Hamam along the Mediterranean coast, El-Salam in Sinai and Toshka in Nubia are but some examples of this effort. All are facing difficulties and none have attracted a substantial number of people to live in the lands they were supposed to reclaim.

Projects to reclaim agricultural lands from the desert were also attempted by the use of ground water that is known to exist under many stretches of the deserts of Egypt. The most important experiment in this regard was the New Valley Project that aimed at reclaiming new lands in the Western Desert Oases. The experiment was well run and devoted a large part of its effort to conducting systematic scientific research on the many aspects of desert agriculture. The nature of the ground water reservoir received particular attention and was proved to be limited and non-replenishing. The project lasted for about 15 years from 1959 until the mid-1970s after having failed in achieving its initial goals of reclaiming substantial areas of agricultural land. In addition to dwindling water resources, there were the problems of drainage and desalination, as well as the encroachment of sand dunes.

The second desert reclamation experiment was along the Cairo-Alexandria desert road in the 1970s, but it is starting to suffer from the lowering of the water table and the consequent added expense of tapping water from greater depths, which usually carries more salinity. In both the New Valley and Cairo-Alexandria desert road experiments, no sizeable body of people moved to settle in the newly reclaimed areas. Desert agriculture is a capital-intensive endeavour.

Projects to make use of the Egyptian desert then turned into a building spree of second homes for the wealthy along the Mediterranean coast to the west of Alexandria. This was followed by another spree of hotel building along the Red Sea and the Gulf of Suez for the benefit of the tourist sector. Both endeavours did not attract large numbers of people to settle down along both coasts. Mediterranean coastal residences are used during the summer season and left deserted the rest of the year while those along the Red Sea are intended for tourists; they do not

have the infrastructure -- the schools or affordable housing -- that could attract Egyptians to settle there. A glance at the national census shows that the number of inhabitants of desert governorates has not increased substantially during the past 10 years.

Another spree of expansion into the desert occurred around the major cities of Egypt. Satellite towns sprang up, many of which were intended to be the site of industrial zones or commercial centres. All failed to attract a substantial number of people to settle in them for lack of transportation and of suitable housing for the average Egyptian whose income cannot, by any stretch of the imagination, afford the prices prevailing in today's housing market.

It is clear from this quick survey that none of the aforementioned projects has succeeded in alleviating population pressures on the Nile Valley and Delta. The projects did not attract any sizeable number of people to leave the valley and settle in them. They were all improvised projects that did not form part of an overall plan for the development of the desert. They all failed to satisfy the two conditions that are essential to building viable living centres in the deserts of Egypt, namely the creation of job opportunities in the planned new extensions and the building of affordable housing...

The desert of Egypt needs an overall plan to be executed over the years to make use of its space for industrial development. The little groundwater that it holds should be preserved for use in this endeavour and not in agriculture. Agriculture should be restricted to the fertile lands of the Nile Valley and the Delta, which should be administered as an environmentally managed domain. All the industrial centres that exist at present in this domain should be moved, over the years, to the newly planned desert industrial centres. The centres should be built one by one and should be planned to offer affordable and attractive housing. They should be built to make use of the groundwater potential of the area as well as the energy resources that have been recently discovered in northern Egypt. Once the centres are developed and are ready to be

inhabited they can be connected by road. Roads, after all, are not ends in themselves.

Note from the Editor: Written in May 2006 for an earlier version of this work Late Dr. Rushdi Said's sobering and cautionary remarks are recalled for checks and balances with relation to the desert expansion option

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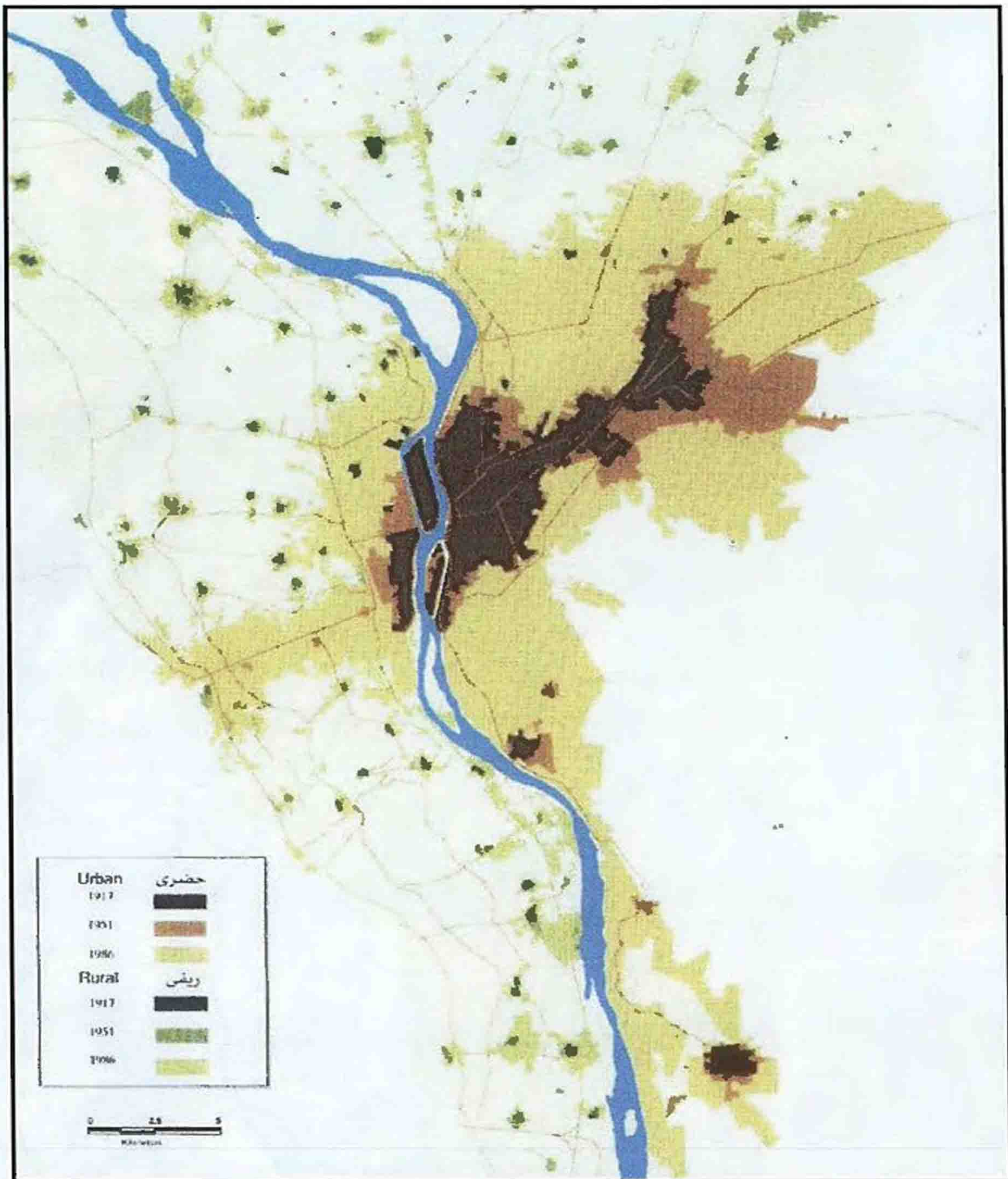
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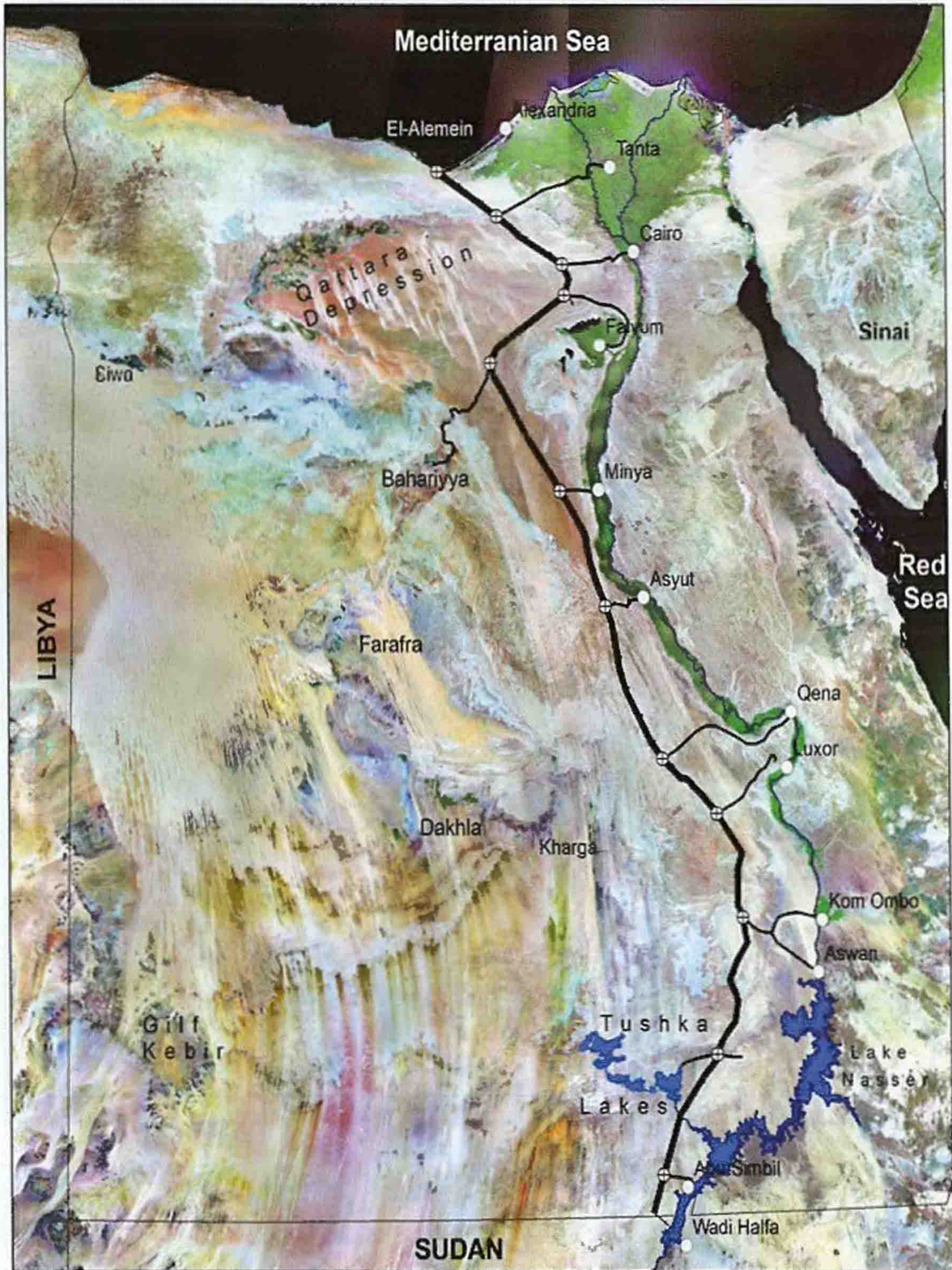
Annex : Maps

A tale of Three Cities

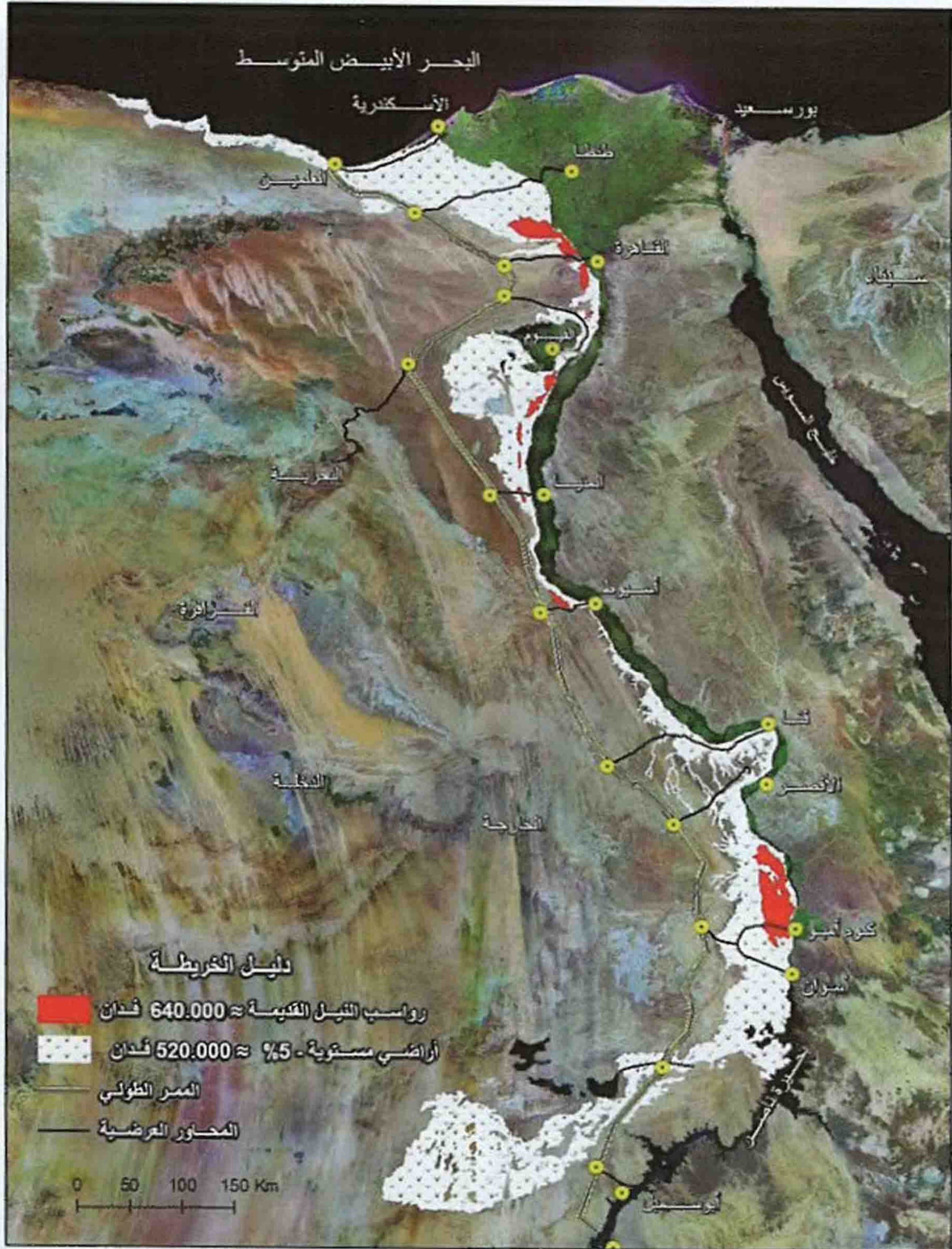


التطور العمرانى لإقليم القاهرة الكبرى
بين عامى ١٩١٧ و ١٩٨٦

Into The Sahara (1)

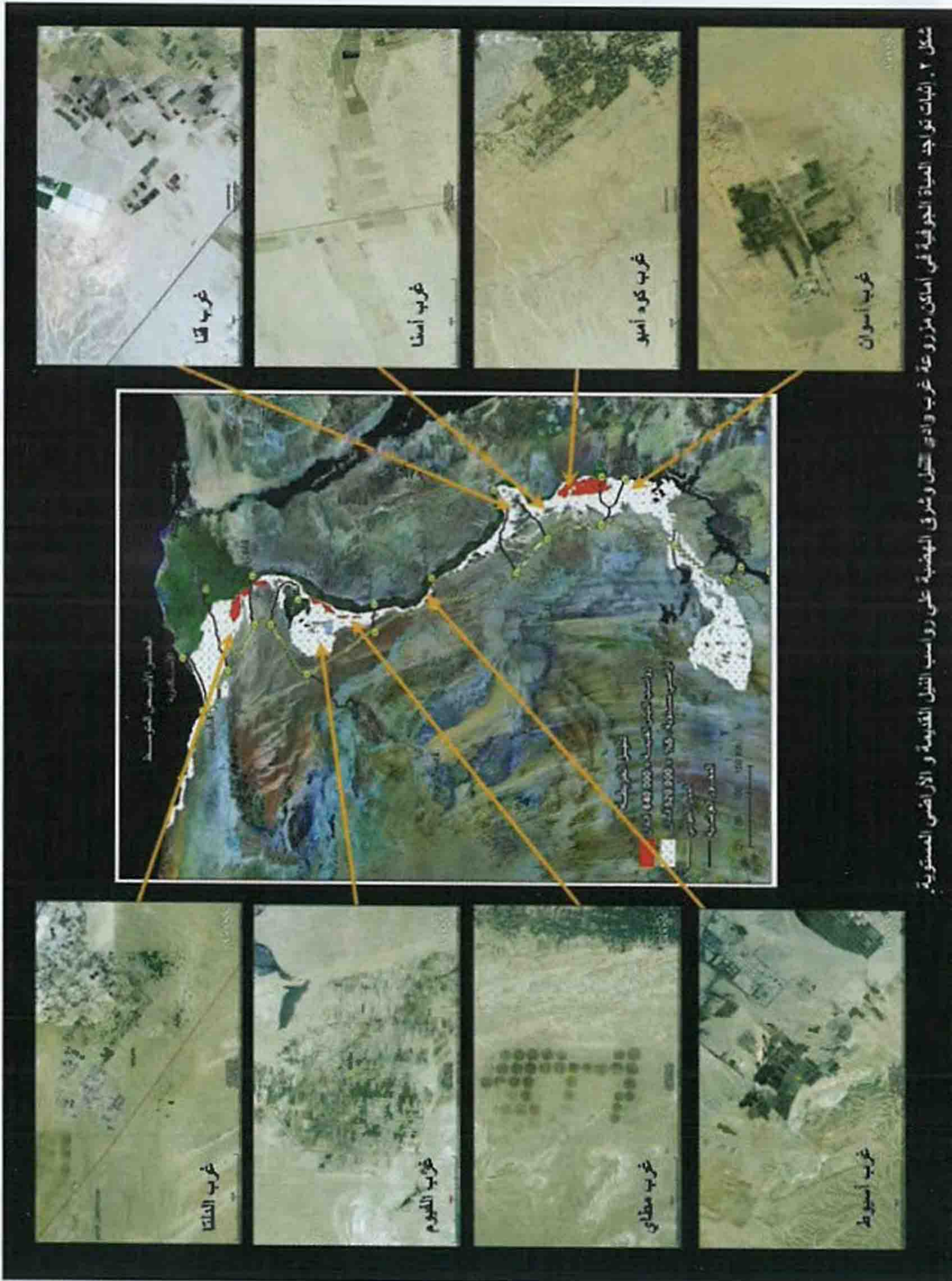


Into The Sahara (2)



شكل 1. يوضح رواسب النيل القديمة باللون الأحمر (640.000 فدان)، و الأراضي المستوية شرق الهضبة وغرب وادي النيل و الدلتا (10.5 مليون فدان) 5% منها علي الأقل صالحة للزراعة بمساحة 520.000 فدان

Into The Sahara (3)



شكل ٢. آبار تواج الحياة الجوفية في أماكن مزرعة غرب وادي النيل وشرق الهضبة على رواسب التل القديمة و الأراضي المستوية.



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Conceived for the UN HABITAT World Urban Forum 7 (WUF7), Medellin, Colombia, 2014, this volume pulls together some of the best being said about Cairo's long journey to what it has become today, as seen with the eyes of its renown architects, its social scientists, its environmentalists, its journalists, its residents, spanning millennia of splendour, disgrace, and thoughts for a better future.

It is written by those who live it and by those who left it thinking that one more is too many in a maddening crowd, yet with a look back.

Those who produced this book are women of Egypt, who, for the love of Egypt, wish to offer to the world forum a vivid picture of urbanization the way it is lived, enjoyed, more than often endured, but, at all times, with a way forward.

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