



THE PARALLEL CITY

A Proposal for the Re-connecting the Formal and Informal cities - The Case of Greater Cairo

Polytechnic of Milan University
Architectural and Urban Design Doctoral Program-DiAP
Coordinator : Pierfranco Galliani

PhD Candidate -25th Cycle
Noheir Elgendy

Under the Supervision of:
Mentor:Professor Guya Bertelli
Co-Mentor:Professor Marco Bovati

Examiner: Professor Ed Wall

THE PARALLEL CITY

A Proposal for the Re-connecting the Formal and Informal cities - The Case of Greater Cairo

Noheir Elgendy

INDEX

Prologue	01
Abstract (in Italian).....	03
Abstract	05
Problem Definition.....	06
Thesis Aim.....	06
Hypothesis.....	06
Methodology.....	07
Thesis Structure.....	07
Part 01: The City and the Anticity	11
Chapter 01: TRANSFORMATIONS IN THE FORM AND STRUCTURE OF THE CITY	15
1.1 The City.....	18
The Heirarchical City.....	18
The Modern City.....	21
The Contemporary City.....	22
1.2 The City Models.....	24
The Metropolitan Model.....	25
The Megalopolis.....	26
The Fragmented Metropolis.....	27
The Megacity.....	28
1.3 The City Elements.....	30
The Enclave.....	31
The Armature.....	32
The Heterotopia.....	32
1.4 The Parallel City.....	33
Confronting Mega-scale.....	33
The Utopia and the Heteropia.....	35
The Creation of parallel cities.....	40
Conclusion.....	42
Chapter 02: THREE PARALEL CITIES: THE CASE OF CAIRO	49
2.1 The Formal City.....	53
Modern Cairo.....	53
The Open Door Policy.....	53
Decentralization of formal Cairo.....	55
2.2 The Informal City.....	58
Emergence of the phenomenon.....	58
Controlling the Informal city.....	59
The Informal City Exposed.....	61

2.3	The Desert City	64
	Manufacturing the desert city.....	64
	New Towns.....	65
	The Gated Communities.....	67
	Conclusion.....	72
	Part 02: The Formal and the Informal.....	77
	Chapter 03: UNDERSTANDING THE INFORMALITIES PHENOMENON.-THE CASE OF CAIRO.....	81
3.1	Defining the Informal.....	83
	The Informal.....	83
	The Informality.....	86
	The Informal City.....	88
3.2	Imaging Informal Cairo.....	90
	Perception of Informal Cairo.....	93
	Physical Informal Cairo	93
	Residents of Informalities.....	94
3.3	Cairo's Informalities Patterns.....	95
	Types of Informal Areas.....	96
	Informalities Patterns on Agricultural land.....	97
	Informalities Patterns on Desert land.....	100
3.4	The Process of Cairo Informalization.....	101
	Informal Development of Neighbourhoods.....	101
	Governmental policy towards Informalities.....	103
	Amenities in Informal Neighbourhoods.....	106
	Conclusion.....	107
	Chapter 04: INVESTIGATING THE CITY SCALE RE-CONNECTING THE PARALLEL CITIES.....	117
4.1	The Parallel Cities Spatial Configuration	119
	Cairo's modes of Expansion.....	119
	The Informal city Expansion Process.....	120
	The Informal City Spatial Structure.....	120
	Stratifying the city layers.....	121
4.2	The Parallel Cities Interrelationship.....	132
	Neglecton.....	132
	Segregation.....	133
	Migration.....	133
	Exposure.....	135
	Dominance.....	135

4.3	The City Scale Strategy.....	137
	The City Fabric.....	137
	The City Edges.....	140
	The Open Spaces as City 'Thresholds'.....	140
	Conclusion.....	152
	Chapter 05: INVESTIGATING THE URBAN SCALE ARD AL-LIWA NEIGHBOURHOOD.....	159
5.1	The Informal Neighbourhoods.....	162
	Self Sufficiency.....	163
	Proximity.....	163
	Participation.....	163
	Privacy.....	165
	Safety.....	165
5.2	The Informal Neighbourhoods Typomorphological patterns.....	166
	Informal Settlements on former Agricultural Land.....	168
	Informal Settlements on former State-owned Land.....	169
	Deteriorated Urban Pockets.....	169
5.3	The Parallel Neighborhoods Interrelationship.....	172
	Division.....	172
	Interchange.....	173
	Formalization.....	173
	Competition.....	173
5.4	The Urban Strategy: Ard al-Liwa' and Muhandessin Neighborhoods, Cairo.....	174
	The Urban Context.....	176
	Stratifying the parallel neighbourhoods.....	176
	Re-connecting the parallel neighbourhoods.....	184
	Conclusion.....	185
	Chapter 06: INVESTIGATING THE PROJECT SCALE ARD AL-LIWA' PARK PROJECT.....	191
6.1	The Parallel Cities Margin.....	193
	The Ard al-Liwa' Park Site.....	193
	The Project Initiative.....	193
	The Project Concept.....	195
6.2	The Margins Typo-Morphological Patterns.....	196
	Stratifying the project site layers.....	196
	The site context.....	197
6.3	The Project - Architectural Language and landscape Strategy.....	200
	The Masterplan Concept.....	201
	The Built Up.....	201
	The Pixel Concept.....	203

The Open Spaces Sem.....	203
The Infrastructural System.....	204
Conclusion.....	228
Part 03: Theory and Practice.....	233
Chapter 07: THEORIZING THE PARALLEL CITY.....	237
7.1 Governing the Parallel City.....	239
The Government Approach.....	239
The Logic of Neglecton.....	240
Demolishing the Informal City	241
The Futuristic Vision: Cairo 2050.....	243
7.2 Formalizing the Parallel City.....	248
Lino's Cafe' Initiative.....	249
Al Mi'timdiya Exit Initiative.....	250
Ard al-Liwa' Park Initiative.....	251
7.3 Negotiating New Modes of Practice.....	251
Learning from Ard al-Liwa Project.....	255
Conclusion.....	259
Chapter 08: CONCLUDING THE PARALLEL CITY.....	267
8.1 Summarizing the Parallel City Discourses, Methodology and Findings.....	269
The City and the Anti-city discourse.....	269
The Formal and the Informal Discourse.....	270
Theory and Practice Discourse.....	271
8.2 Re-visiting the Thesis Hypothesis.....	272
Hypothesis Aim	272
Hypothesis Applicability.....	272
Hypothesis Verification.....	273
8.3 Further Research on the Parallel Cities.....	274
Epilogue.....	279
Bibliography.....	245
Appendices.....	297
Appendix 01: Similar Projects- Regenerating the City Periphery.....	299
Appendix 02:Cairo 2050 Report.....	319
Appendix 03:Ard al-Liwa Report.....	353

MAPS

Map	<i>Page</i>
2.1	Cairo Map 15th century.....50
2.2	Built-up area of Cairo 1950 compared to 2009.....54
2.3	Informal areas of Greater Cairo by typology in 2000.....60
2.4	Greater Cairo new towns boundaries in 2009.....66
4.1	Cairo- Built Up Areas 2012.....123
4.2	The Formal City 2012.....124
4.3	The Informal City 2012.....125
4.4	The Desert Edge 2012.....126
4.5	The Contour Lines 2012.....127
4.6	The Agricultural Fringe 2012.....128
4.7	The Irrigation Network 2012.....129
4.8	Existing Open Spaces Network 2012130
4.9	Existing Infrastructural Network 2012.....131
5.1	Cairo Informalities Typo-Morphological Distribution 2012.....167
5.2	Context-Formal -Built up-Fabric.....177
5.3	Context-Informal -Built up-Fabric.....178
5.4	Context-Formal Open Spaces Network.....179
5.5	Context-Informal Open Spaces Network.....180
5.6	Context-Street Network.....181
5.7	Context-Water Network.....182
5.8	Context-Core Villages.....183
6.1	The project site.....197
6.2	The project site as a margin of the formal city.....198
6.3	The project site as a margin of the Informal city198
6.4	The project site in relation to the Infrastructural Network.....199
6.5	The project site in relation to the water Irrigation Network.....199
6.6	The project site map in the 1960s.....205

ILLUSTRATIONS

Figure	<i>Page</i>
1.1	A wall- painting reconstructed from a shrine at Catal Huyuk (Turkey)13
1.2	Plan of Imola (Italy) by Leonardo da Vinci, ca. 1503.....17
1.3	Van Pelt's 'fivesquare city' visualized.....18
1.4	Hippodamus' plan for Milete (reconstruction).....19
1.5	The Heirarchical City Diagram.....20
1.6	Palmanova (Italy), as first designed in 1593.....20
1.7	Development from the Heirarchical city to the Modern City Model.....21
1.8	Le Corbusier: "The Age of the Automobile".....22
1.9	Fragmenation of the Contemporary city fabric.....23
1.10	Plug in City.....23
1.11	Urban Design Ecology Models.....24
1.12	The Metropolitan Model Diagram.....25
1.13	The Megalopolis Model Diagram.....26
1.14	The Naked City.....26
1.15	The Fragmented Metropolis Diagram.....27
1.16	The Megacity Model Diagram.....28
1.17	The Four City models timeline and diagram.....29
1.18	Grahame Shane: Feild Analysis of Central London 1971.....30
1.19	The Enclave.....31
1.20	London City Enclaves.....32
1.21	The Armature.....32
1.22	The Heterotopia.....33
1.23	Sir Thomas More: Frontspiece from Utopia, 1516.....35
1.24	The Forbidden City, Beijing.....36
1.25	Development of Walled city of Kowloon- Hong Kong.....37
1.26	Development of the heterotopic enclaves into a parallel city structure.....40
1.27	Development from the city model to the parallel cities model.....43
2.1	Cairo Satelite Image 2012.....46
2.2	Deterioration of Downtown Fabric.....55
2.3	Aerial view of Formal Cairo along the Nile.....56
2.4	The process of informalization of Saft al-Laban neighborhood from agricultural land to and informal settlement.....61
2.5	Aerial view of Informal Cairo along the city periphery - developing on private owned agricultural land.....62
2.6	Aerial view of Madinaty Gated Community in New Cairo 2012.....71
2.7	The three parallel cities of Cairo.....72
3.1	Ras el-Bar - Damietta Satelite Image.....79
3.2	Boxes.....84
3.3	The Informal Walls.....92
3.4	Development of Informalities.....95
3.5	Informalities on Agricultural land plot subdivision and street network97
3.6	Informalities Patterns on Agricultural land in different informal settlements on the city periphery.....98
3.7	Informal Settlements on the agricultural periphery.....99

3.8	Informalities on desert land.....	100
3.9	Informalities Patterns on desert land in different informal along the Muqattam ridge.....	101
3.10	Telal Zeinhom squatter settlement before upgrading.....	104
3.11	Telal Zeinhom squatter settlement after upgrading.....	104
3.12	Imbaba airport park project proposal.....	104
3.13	Contrasting urban fabrics over nine hundred years.	109
4.1	Ramlet Bulaq, Cairo.....	115
4.2	The Expansion Process.....	119
4.3	Neglection between the parallel cities.....	133
4.4	Segregation between Segregation between the formal and informal sectors.....	133
4.5	Migration of the informal city residents to the formal city.....	133
4.6	Daily migaration of the informal neighborhoods residents.....	134
4.7	Exposure between the parallel cities.....	135
4.8	Exposure of the informal city.....	136
4.9	Dominance of the informal city.....	137
4.10	Cairo Margins.....	140
4.11	City Section sketch exploring the margins.....	141
4.12	City Section Diagram.....	142
4.13	City Scale Strategy - Points of threshold.....	143
4.14	City Scale Strategy - Park System.....	144
4.15	Point 01: Ard al- Liwa' and Mohandessin Threshold.....	145
4.16	Point 02 -Imbaba Nile Corniche.....	146
4.17	Point 03 - Shubra al-Khayma.....	147
4.18	Point 04 - Madinat Nasr and l'zbit al Haggana Threshold.....	148
4.19	Point 05 - Salah Salem Parks.....	149
4.20	Point 06 - Ain al-Seira Parks.....	150
4.21	Point 07 - Al- Moneeb Park.....	151
5.1	The Informal City and the Rural Periphery.....	157
5.2	Crossing the rail road	160
5.3	A typical urban street in the informal neighbourhood of Ard al-Liwa'.....	164
5.4	Ard al-Liwa' neighbourhood Fabric.....	168
5.5	Type A: Informal Settlements on Former Agricultural Land.....	170
5.6	Type B: Informal Settlements on Former Desert State Land.....	170
5.7	Type C: Deteriorated Urban Pockets.....	170
5.8	The Margin as a divider between two parallel neighborhoods.....	172
5.9	Interchange between the parallel neighborhoods.....	173
5.10	Formalization of the informal neighborhoods.....	173
5.11	Competition between the parallel neighborhoods.....	173
5.12	The Typical Section of the city edges.....	175
5.13	The In-between threshold space.....	184
5.14	The connecting chain of spaces.....	184
6.1	The Rail Road Line along the city margin.....	189
6.2	The The Ministry of Endownmwnt proposal for the site.....	193
6.3	The Project site at the "threshold" between Ard al-Liwa and al - Muhandessin Neighbeirhoods.....	194
6.4	Al-Muhandessin Urban Facade.....	198
6.5	Ard al-Liwa' Urban Facade.....	199
6.6	The Pixels of the Informal City Fabric- Ard al-Liwa' Neighborhood.....	202

6.7	The Informal unit as a Pixel that grows.....	202
6.8	The pixel and the grid.....	203
6.9	The Infrastructural System.....	204
6.10	The Built Up Grid.....	206
6.11	The Open Spaces System	207
6.12	Preliminary physical model of the project	208
6.13	The project as a continuation of the agriculture grid.....	209
6.14	The grid based on the pixels concept.....	210
6.15	The project connecting links and bridges.....	211
6.16	The project Infrastructural network.....	212
6.17	The project chains of spaces.....	213
6.18	The Shaded spaces.....	214
6.19	The Recreational areas.....	215
6.20	The Site Configuration.....	216
6.21	The project masterplan proposal.....	217
6.22	Link 01: The Entrance Piazza and the Connection to the station.....	218
6.23	Link 02: The Azharite School and Training Center.....	219
6.24	Link 03: The Municipal Buildings, Cultural and Sports Center and Health Care Connectio.....	220
6.25	Link 04: The Connection between the Formal and Informal means of transportation.....	221
6.26	The project contextual section.....	221
6.27	The Project Model - Bird's eye overlooking the project.....	222
6.28	The Link 02 Shot.....	224
6.29	The Project Link 02 Massing Study.....	224
6.30	The Connections.....	225
6.31	Shot Under the Bridge.....	225
6.32	Photomontage of the connection in relation to the rapid transit.....	226
6.33	The cultural center below the 26th of July bridge.....	226
6.34	A photomontage of the cultural piazza.....	227
7.1	Practicing the informality.....	235
7.2	Cairo 2050 vision of al-Haram street.....	244
7.3	Decentralization of Cairo.....	245
7.4	Protection and preservation of planned areas in Cairo and Giza.....	245
7.5	Controlling the extension of the informal unplanned areas.....	245
7.6	Strategy for Controlling the informal growth.....	246
7.7	Lino's Cafe built on the sidewalk of the ring road.....	249
7.8	The Structure of the Cafe.....	249
7.9	Using the official format for making signposts for al-Mi'timdiya exit.....	250
7.10	Al Mi'timdiya ring road exit	250
7.11	Community activists protesting against Awqaf project.....	251
7.12	Meeting with Prime Minister Kamal al Ganzoury and approving the project.....	251
7.13	Detailed Plan for Rail way Crossing	253
7.14	The Organizational Structure of the Project.....	257
7.15	The Classic Organizational Model versus the Proposed Model.....	258
8.1	The Informal city and the agricultural land.....	265

To my father..

you have been the inspiration and the support..

PROLOGUE

Astratto (Abstract in Italian)

“... ci sono molte Cairo, e molte altre Cairo nella stessa città metropolitana. Infatti c'è Cairo, la città dei lavoratori migranti; Cairo, la città informale, che occupa molto del suo spazio; Cairo, la città delle parti urbane i cui residenti hanno la sensazione di vivere altrove; Cairo, la città delle gated communities e dei centri commerciali esclusivi che trasportano i loro utenti in un altro mondo; e Cairo, la città degli espatriati e degli esperti che hanno speso le proprie vite nel tentativo di comprenderla”.

Nezar Alsayyad, 2006

Le basi sulle quali la città è stata progettata e costruita possono essere individuate con grande fatica nella città contemporanea. La chiara divisione tra interno ed esterno, pubblico e privato, religioso e profano, non sussiste più. La continua espansione e l'incessante crescita della città ha trasformato la sua struttura e mutato la sua forma. Queste trasformazioni non interessano una sola scala di riferimento, e questo determina una inversione dei codici nella città. Attori e spazi urbani precedentemente invisibili sono diventati visibili. Ci sono periodi ed epoche in cui la città cessa di lavorare, come una necessaria controparte agli impulsi aggregativi che fanno avanzare la società urbana; scompare quella necessaria pausa dalla natura omogenea dello spazio urbano (Boeri, 2011). In questi periodi, il tessuto urbano è trasformato in un tessuto collettivo costituito da recinti isolati.

Il processo di frammentazione, attraverso numerose piccole attività, diluisce il valore delle relazioni umane e costruisce questi recinti dove non c'è varietà né sociale né culturale. Questi crescono l'uno parallelamente all'altro determinando eterotopie (Foucault, 1967), ciascuna delle quale definisce i suoi propri margini, all'interno dei quali sono contenute una certa vita e una certa natura. Queste eterotopie agiscono in qualità di banchi di prova per futuri cambiamenti. Si tratta di luoghi in cui nuove ideologie sono sperimentate e sviluppate sotto forma di norme e leggi tali da essere praticate sull'intera città. Le loro diverse caratteristiche tipologiche e morfologiche riflettono il loro isolamento economico, sociale e culturale. Esse ospitano comunità di razze ed etnie omogenee, che posseggono le proprie tradizioni e le osservano all'interno dell'ambiente urbano contemporaneo, determinando “una città nella città”. Questo indebolisce le relazioni tra le differenti comunità e trasforma le differenze, identitarie e culturali, in barriere fisiche. Infine, questi recinti frammentati concorrono alla definizione di una Città Parallela. Questa Città Parallela non si oppone alle città in cui essa si definisce, ma allo stesso tempo questa tende a eroderla dal suo stesso interno. Senza intervenire attraverso grandi gesti, agisce silenziosamente e spesso in maniera invisibile all'interno dei meccanismi di riproduzione degli spazi urbani contemporanei; interrompe connessioni, e scioglie nodi, compromettendo il funzionamento della città (Boeri, 2011).

Una delle città in grado di esemplificare l'evoluzione delle città parallele è il Cairo. La città del Cairo, come tutte le megalopoli globali, è interessata da consolidati processi di globalizzazione: flussi di lavoro, capitale e informazione stanno ri-definendo i suoi contorni fisici, così come la struttura complessiva della città. La città ha quadruplicato la propria estensione negli ultimi 50 anni, e attraverso continue e veloci trasformazioni, il paesaggio urbano è stato completamente alterato.

La definizione della città è piuttosto ambigua al Cairo oggi. La crescita della città è stata associata alla emergenza di questi recinti eterotopici, raggiungendo nuove forme di esclusione e segregazione, attraverso la creazione di nuovi quartieri per accogliere i poveri e altri per i ricchi, soddisfacendo i bisogni indotti dall'adozione dell'economia neo-liberale. Queste eterotopie sono cresciute nel tempo a tal punto da diventare la norma, non l'eccezione, definendo città parallele completamente indipendenti.

Il Cairo è oggi composta da tre città parallele, ciascuna identificabile con un sistema isolato, con una differente struttura sociale, culturale ed economica. La prima, la città Formale, può essere identificata con l'originale capitale caratterizzata da successivi strati sovrapposti lungo la valle del Nilo, con i suoi tessuti eterogenei e le sue diverse comunità. La seconda, la città Informale, è composta sostanzialmente da aggregati urbani diffusi attorno alla periferia della città formale, al fine di contenere le abitazioni per i poveri e per gli immigranti provenienti dalle campagne, che non possono permettersi un luogo alternativo all'interno della capitale. Si tratta di una entità molto strutturata, sebbene edificata illegalmente su terreni agricoli o di proprietà dello stato. Infine, la Città Deserto (o la città deserta?), che è stata originariamente costruita quale soluzione governativa all'incremento di popolazione, nella forma delle New Towns, nel deserto attorno alla capitale, ma che è stata, in un successivo momento, trasformata in una serie di gated communities per le elites della città. Queste tre città parallele hanno contribuito alla segregazione della città e all'incremento del divario socio-economico tra le differenti comunità. Tuttavia, l'investigazione delle trame, dei processi, e delle logiche di ciascuna delle città parallele è essenziale al fine di sviluppare una comprensione complessiva delle trasformazioni, fisiche e spaziali, in atto nella città, e quindi di proporre metodologie di intervento.

La tesi intende esplorare il tema della città parallela con una particolare attenzione al fenomeno della città informale dal momento che presenta una esperienza unica e gioca un ruolo essenziale nei processi di trasformazione urbana. La città informale occupa all'incirca un terzo del territorio del Cairo (escludendo le New Towns situate nel deserto) e ospita due terzi della popolazione del Cairo. La relazione tra la città formale e quella informale rappresenta la maggior parte del conflitto dell'esperienza urbana specialmente con il sopraggiungere dei cambiamenti a cui stiamo assistendo negli equilibri di potere, con la rivoluzione del 25 di gennaio. Questa atmosfera di continuo cambiamento permette l'emergenza di nuovi ordini urbani, che richiedono una più approfondita comprensione del fenomeno della città parallela e un ripensamento delle pratiche correnti.

Abstract

“... there are many Cairos, and many other Cairos in metropolitan Cairo itself. Indeed there is Cairo, the city of migrant workers; Cairo, the city of informals, who occupy much of its space; Cairo, the city of unique urban pockets whose residents feel that they live elsewhere; Cairo, the city of gated communities and exclusive urban malls that transport their visitors to another world; and Cairo, the city of expatriates and experts who spend lifetimes trying to figure it out.”

Nezar Alsayyad, 2006

The basis on which the city has been designed and formed can hardly be traced within the contemporary city. The clear division between; the outside and the inside; the public and the private; and the religious and the secular, no longer exists. The continuous expansion and growth of the city has transformed its structure and mutated its form. These transformations are not just about a scale jump; it is also about reversing codes in the city. Previously invisible urban actors and spaces became visible. There are periods and epochs when the City stops working as a necessary counterpart to the aggregative pulses which push forward urban society; it stops being a necessary break from the over homogenous nature of ordinary urban space (Boeri, 2011). In these periods, the city fabric is turned into a collective tissue of isolated enclaves.

The processes of fragmentation, through numerous small activities, dilute the value of human relationships and construct these enclaves where there is no social or cultural variety. They grow parallel to each other forming heterotopias (Foucault, 1967), each one identifying its own borders, and containing a certain life and nature. These heterotopias act as test beds for change. They are the places in which new ideologies are experimented and developed into norms and laws to be then practiced across the entire city. Their diverse typo-morphological characteristics reflect economical, social and cultural isolation. They house communities of homogenous race and ethnic backgrounds holding their traditions and performing them within a contemporary urban environment, forming ‘a city within the city’. This weakens the relationships between different communities and transforms differences of identity and culture into physical barriers. Eventually, these fragmented enclaves interconnect to create a Parallel City. This Parallel city does not oppose itself to the cities where they evolve; it tends, on the other hand, to erode it from within. Without making big gestures, it moves quietly and often invisibly within the mechanisms of reproduction of contemporary urban space; it breaks down connections, and unties knots, it compromises the very workings of the city.(Boeri, 2011)

One of the cities, which exemplify the evolution of parallel cities, is Cairo. The city of Cairo, like all global-megacities, is entrenched in processes of globalization where flows of labor, capital and information are re-shaping its physical boundaries as well as the structure of the city. The city has quadrupled in size in the last 50 years, and with continuous and expeditious forces of transformation, the city landscape has been completely altered.

The very definition of the city is quite ambivalent in Cairo today. The growth, of the city has been associated with the emergence of these heterotopic enclaves, addressing new forms of exclusion and segregation, through the creation of new neighborhoods to house the poor and others to house the rich, fulfilling the needs forced by the adopted neo-liberal economy. These heterotopias have grown overtime to be the norm, not the exception, creating complete independent parallel cities.

Cairo is now composed of three parallel cities, each representing an isolated system, with a different social, cultural and economic structure. First, the Formal city, it can be identified as the original multi-layered capital, along the Nile valley, with its heterogeneous fabric and diverse communities. Second, the Informal city, which is basically composed of urban aggregates that sprawled along the formal city periphery, to contain the housing needs of the poor and the immigrants from the countryside, who could not afford an alternative place at the capital. It is a very structured entity, yet illegally built on agricultural and state-owned lands. Finally, the Desert City – which was originally constructed as the government solution for the extensive increase in population in the form of New Towns in the deserts around the capital, but eventually it was turned into a collection of gated communities for the city elites. These three parallel cities have worked on further segregation of the city and deepening the socio-economic gaps between the different communities. However, the investigation of the patterns, processes and logics of each of the parallel cities is essential to develop a comprehensive understanding of the physical and spatial transformations in the city and thus propose methodologies for intervention.

The thesis is meant to explore the theme of the parallel city with a special focus on the phenomenon of the informal parallel city, as it presents a unique experience, and played an essential role in the city transformation processes. The informal city occupies around a third of Cairo's territory (excluding the desert New Towns) and houses two thirds of Cairo's population. The relation between the formal and the informal cities represents the majority of the conflict the city experiences, especially with current changes in the balance of powers, with the 25th of January Revolution. This continuously changing atmosphere allowed the emergence of new urban orders, which requires a deeper understanding of the phenomenon of the parallel city and a re-thinking of the current practices.

Problem Definition

The creation of the parallel cities as independent entities, each hosting certain social, economic, and political beliefs and practices, have cut the city into parts. The processes of segregation and exclusion have kept the interrelationships between the parallel cities to the minimum, constructing physical borders and deconstructing the notions on which the cities were created.

Thesis Aim

The thesis aims at developing an understanding of the phenomenon of the parallel cities within the contemporary megacities, providing a methodology for investigation and a strategy for intervention, in an attempt to regenerate the city through re-stitching the city fabric and redeveloping the relationships between the segregated city parts and inhabitants.

Hypothesis

Through the investigation of the city fabric, the parallel city edges were observed to be ,not only , physical borders , but also the margins for social, cultural and economic exclusion. The thesis hypothesis, assumes that on breaking these physical edges, and developing spaces of 'threshold' along the parallel cities margins, this would also help break the non-physical borders and allow a potentiality for interaction and integration, that was not possible before. Applying a methodology of insertions and infill rather than vast urban and planning visions, that did not suit a city with the size and complexity of Cairo.

Methodology

The hypothesis is investigated through the stratification of the city layers providing a multi-scalar study of the process of transformation and fragmentation of Cairo city fabric due to the creation of parallel cities, with a specific focus on the informal city phenomenon. Identifying the processes, patterns and logic of informalities and the possible strategic approaches to reconfigure the boundaries between the formal and the informal parts of the city. Proposing a strategy that works from the macro to the micro scale, on stitching and reconnection as well as developing a model, which ensures structural flexibility. Then, experimenting it through a project to create grounding for this collective study in real spaces. In an attempt, to verify the hypothesis and investigate the potentialities for the redefinition of the relations between the segregated parts through the reconfiguration of the city edges.

Thesis Structure

The thesis is composed of three main parts that investigate the thesis topic through three meta-discourses. The first part evolves around the meta-discourse of the City and the Anticity, and it discusses the transformations in the city and the evolution of the parallel city, followed by the investigation of the phenomenon in Cairo. The second part, is based on the meta-discourse of the Formal and the Informal, and deals with the topic of the informalities and how they evolved to create one of Cairo's parallel cities, investigating its different scales and patterns through a project on the Formal / Informal city margin, between Ard al-Liwa' and Muhandessin neighborhoods as a model to be then generalized in similar situations. The third part discusses the meta-discourse of Theory and Practice, rethinking the current practices and the emerging urban orders in relation to the adopted theoretical frames and governmental policies.

Part 01: The City and the Anticity meta-discourse

Chapter 01: Introduction to the Topic / Focused Literature Review

The topic of this chapter is based on the changes and transformations in the city notion, from its origins to the formation of the contemporary city. Identifying the city elements, models and the transformation of the public realm into a set of private segregated entities, reaching formulation of parallel cities that interconnected to compete with the original city

Chapter 02: Core Set up / the Case of Cairo Introduction

Introducing the components of the city and identifying the parallel cities of Cairo. Starting from the formation of modern Cairo and the evolution of the formal city and how the excluded urban heterotopias have developed within the city fabric to create the three competing parallel cities.

Part 02: The Formal and the Informal meta-discourse

Chapter 03: The Core / Introduction of the Argument

This part of the thesis includes a practical investigation of the informal city in Cairo as a typology of the parallel city. Through the project we will study the transformations in the relation between the formal and the informal parts of the

city. Starting by, the definition of the informal and then understanding the patterns and logics of informalities in Cairo.

Chapter 04: *The Core- Scale 01 / Investigating the City Scale*

This chapter analyses of the process of informalization on the scale of the city. The modes of growth of the informal city in relation to the infrastructure, water network, topographical, and environmental conditions. Then, developing a city scale strategy that attempts at reconnecting the parallel cities of the formal and the informal, through a system of parks that act as points of threshold.

Chapter 05: *The Core- Scale 02 / Investigating the Urban Scale*

This chapter discusses the process of informalization on the urban scale. Defining the role of the formal and informal parts of the city and their interrelationship. Developing an urban strategy using residual spaces on the edges to connect the parallel neighborhoods

Chapter 06: *The Core- Scale 03 / Investigating the Project Scale*

This chapter experiments the proposed city scale and urban scale strategies on a real project as a model that can be generalized. Developing new relations between the parallel formal and informal neighborhoods, and concluding guidelines and approaches for transforming the city edges into spaces of 'threshold'.

Part 03: Theory and Practice

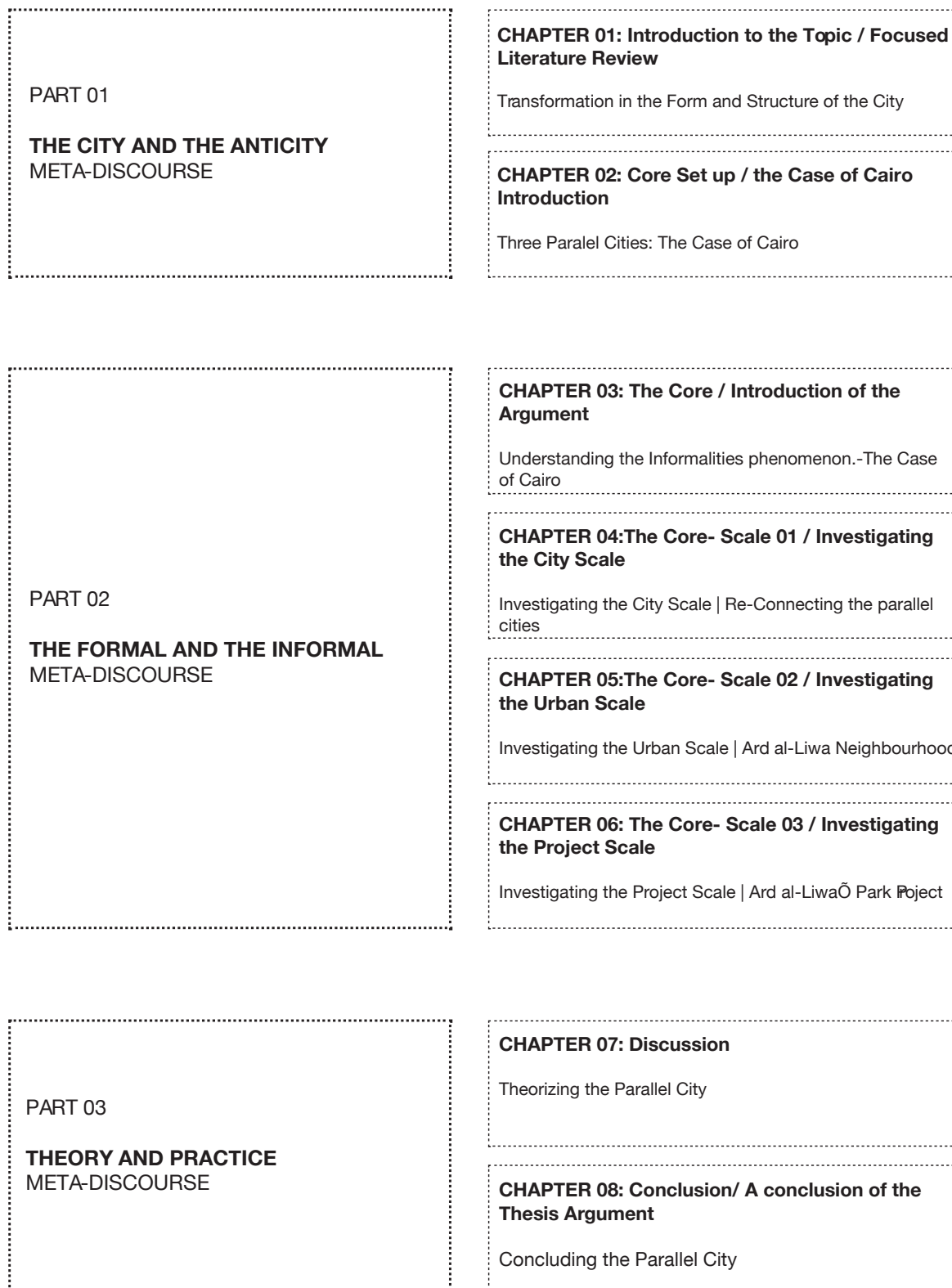
Chapter 07: *Discussion / Theorizing the Parallel City*

This chapter attempts to highlight the governmental approaches dealing with the informal sector, in relation to the formalization initiatives that is currently practiced on ground, by the informal city inhabitants, and inspired by the 25th of January revolution. Addressing and questioning the role of the urban planner, within the discourses of theory and practice, in dealing with the formal and informal cities, that are continuously changing the city landscape.

Chapter 08: *Conclusion/ A conclusion of the Thesis Argument*

This chapter intends to conclude the main discourses discussed within the thesis narrative, summarizing the main topics and findings of the thesis. Through the meta-discourses of the city and the anti-city, the formal and the informal, and theory and practice, the thesis theoretical background, analysis, interpretations, and strategies have been addressed. So, in this chapter we will summarize the thesis narrative, in addition to, revisiting the thesis hypothesis, and assessing its strategy and verifying its compatibility to be generalized. This chapter also includes suggestions and recommendations for further research in the topic, highlighting areas in the research that could be further developed or topics and issues that were raised and needs to be explored.

Thesis Structure Diagram



Part 01

THE CITY | ANTICITY

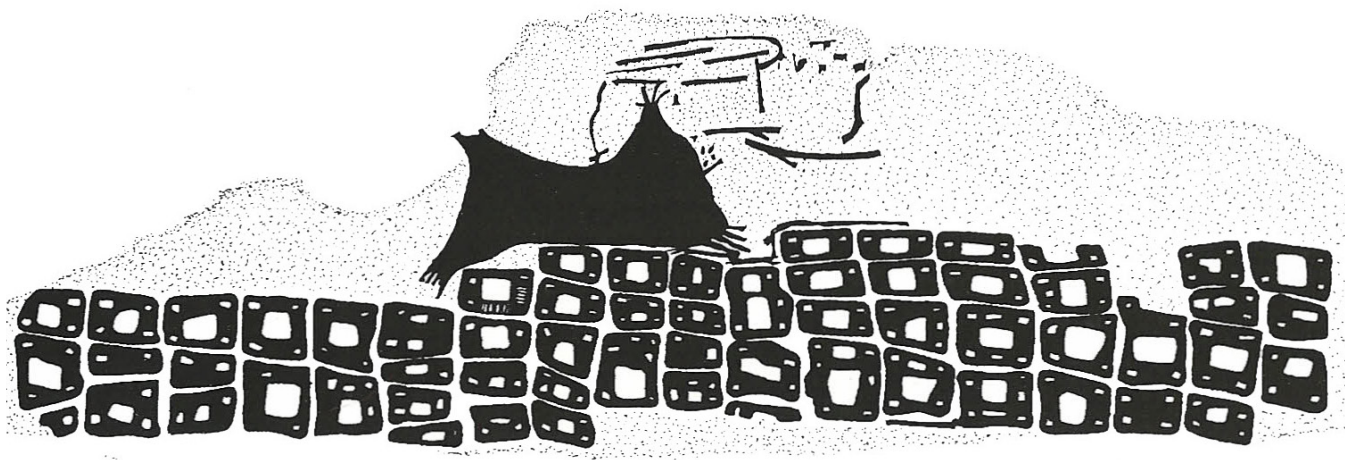


Figure 1.1. A wall-painting reconstructed from a shrine at Catal Huyuk (Turkey) may be the oldest extant graphic representation of a town plan. The closely spaced rows of houses beneath a figure thought to represent an erupting volcano suggest the patterns of dwellings in this Neolithic settlement founded around 6500 BC.

Chapter 01

1.0 TRANSFORMATIONS IN THE FORM AND STRUCTURE OF THE CITY

1.1 The City
The Heirarchical City
The Modern City
The Contemporary City

1.2 The Contemporary City Models
The Metropolitan Model
The Megalopolis
The Fragmented Metropolis
The Megacity

1.3 The City Elements
The Enclave
The Armature
The Heterotopia

1.4 The Parallel City
Confronting Mega-scale
The Utopia and the Heteropia
The Creation of parallel cities.

Conclusion

“Cities are amalgams of buildings and people. They are inhabited settings from which daily rituals- the mundane and the extraordinary, the random and the stage - derive their validity. In the urban artifact and its mutations are condensed continuities of time and place. The city is the ultimate memorial of our struggle and glories: it is where the pride of the past is set on display... Sometimes cities are laid out by fiat, as perfect shapes and for premeditated ends. They may aim to reflect a cosmic rule or an ideal society, be cast as a machine of war, or have no higher purpose than to generate profit for the founder. A myth of propitiousness and high density may come to surround the act of founding. Or this act may be nothing more than a routinized and repetitive event. But whether born under divine guidance or the speculative urge, the pattern will dry up, and even die, unless the people forge within it a special, self-sustaining life that can survive adversity and the turns of fortune.”

Spiro Kostof, 1991

The city is an overall artifact constructed by many factors overtime (Rossi, 1984). This artifact, with the unpredictable modes of expansion became more and more complex with time that it became hard to trace or comprehend. The city modes and patterns of transformation are associated by the drastic changes in the size of the city, as well as reversing codes (Boeri, 2011). The concepts on which the city was originated are now being questioned. The values and meanings on which the city was created can hardly be traced within the contemporary city. The contemporary city undergoes continuous changes that requires a redefinition of the concept of the city. The holistic view which we used to understand the city can no longer suit the contemporary city.

This chapter aims at tracing the processes of transformation of the contemporary city, starting from the single unified walled city to the extensively fragmented megacity. Through investigating the contemporary city models, we can develop an understanding of the resultant mutations in the form, structure and meaning of the city. This chapter also highlights the elements of the contemporary city, and exploring their evolution and their role in reversing the city codes, turning it into a set of private entities rather than a unified public sphere. The investigation of the contemporary city models, elements and codes is an attempt to reach a comprehensive understanding of the creation of the parallel city phenomenon.



Figure 1.2. Plan of Imola (Italy) by Leonardo da Vinci, ca. 1503. This, the earliest iconographic plan of the Renaissance, is set within a large circle divided into a wedge-shaped sectors. The circle's spokes are labeled with the names of the eight winds. These clues reveal the secrets of how the plan was produced.

1.1 The City

Tracing the transformations in the contemporary city requires comparing it to its origins. The Greek polis can be considered one of the bases of the city theory. The notions and the basic organization of the Greek city were the basis, on which, the contemporary city was created. In his *Politeia* Aristotle, briefly comments on the theories of Hippodamus, the godfather of urbanism:

'His system was for a city with a population of ten thousand, divided into three classes; for he made one class of artisans, one of farmers, and the third class fought for the state in war and was the armed class. He divided the land into three parts, one sacred, one public and one private: sacred land [hieran] to supply the customary offerings to the gods, common land [koinen] to provide the warrior class with food, and private land [idian] to be owned by the farmers.'

Aristotle 2005: 1267 b 30–b 40

The Hierarchical City

In Hippodamus' division of space into sacred, public and private space, he introduced the sacred space [hieratic space], which is neither political nor economical, but another space a third space. This third category- which was mostly secularized- appears to resemble what we describe in the contemporary city as "the cultural sphere"; the space of religion, arts, sports and leisure. This space covers that realm between the private space of the hidden and the public space of appearance.

In Hippodamus division we can also recognize Robert Jan Van Pelt's description of the polis as 'the fivesquare city'. Van Pelt claimed that, the constitution of the Greek polis can be represented by five fields or squares (Van Pelt & Westfall, 1991). First is the emporium – the wall or interface between inside and outside –represented as a big square that circumscribes the other four squares contained within it. Within the emporium one finds the oikos, or private house, the agora with the stoa, the acropolis with the temple or shrine, and the necropolis (cemetery) with the stoa. On closer inspection, however, this division into five squares boils down to a tripartite division similar to that of Hippodamus. When we link the acropolis and the necropolis, we see an oblique zone in between the oikos and the agora – a diagonal bar in the scheme of 'the fivesquare city' between the economical and the political. It gives space to everything that has no place either in the public or the private sphere. It is the sacred space were the remainder rests. (De Caeter & Deheane, 2008)



Figure 1.3. Van Pelt's 'fivesquare city' visualized.

Courtesy of Lieven De Caeter and Michiel Dehaene

This clear division of the city spaces into public, private, and sacred has been translated in the form and structure of the city in different ways, adapting the environmental, social and political conditions. This typology of ancient cities were based on agriculture, seafaring or trade, and they have almost maintained these simple divisions of the three spheres of the city. In the classic book, *The Architecture of the City*, Aldo Rossi describes these cities as regionally self-sufficient.



“‘Polis’ is the Greek word which we translate as ‘city-state’. It is a bad translation, because the normal polis was not much like a city, and was very much more than a state. But translation, like politics, is the art of the possible; since we have not got the thing which the Greeks called ‘the polis’, we do not possess an equivalent word... ‘Polis’, then originally ‘citadel’, may mean as much as ‘the whole communal life of the people, political, cultural, moral’-even ‘economic’.”

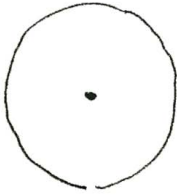
Kitto, 1951

Figure 1.4. Hippodamus' plan for Miletus (reconstruction)

1. Markets, 2. Agora, 3. Sanctuaries. This triad of precincts structures the polis; the grid structures the oikia (neighborhoods).

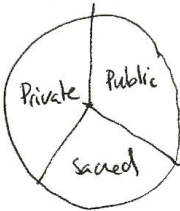
Courtesy of De Caeter & Deheane, 2008

Central



Three Separated Spheres of :

Public
Private
Sacred



Defined Walls and Borders

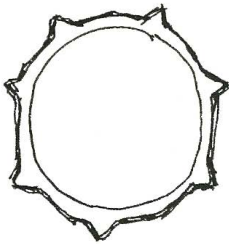


Figure 1.5. The Hierarchical City Diagram
Courtesy of Noheir Elgendy



Figure 1.6. Palmanova (Italy), as first designed in 1593, from Braun and Hogenberg's *Civitates Orbis Terrarum*

(Rossi, 1984) They are compact urban habitats built in response to the need for food, water and human security. They demonstrate remarkable ingenuity about energy conservation and the creation of artificial microclimates and legible social coherence, all of which are evident in the hierarchy and order of building forms and types. Cities of this type are situated within an integrated city region, connected yet set apart from the essential support life support systems of agricultural, forestlands and water systems that dominate and surround them, thus allowing the production of an interdependent model of the city.

Through all Greek and Roman cities, this idea of a monumental spine forming the central lifeline of a city persisted. Byzantine Jerusalem, as described in the Madaba mosaic plan, is a vivid illustration of the principle. The walled city is punctuated by the city gates, which are the points of principal entry, and the *Cardo Maximus*, a sixty-five-foot-wide colonnaded street, stretches north-south, between two main gates. The *Decumanus* crosses at a ninety-degree angle from gate to temple in the east-west direction. The Holy Sepulcher, the palaces, the markets, and places of culture are all located along the *Cardo*. To this day, even with layer after layer of the city rebuilt over seventeen centuries, the same organization remains.

In the centuries preceding our own, from Pope Sixtus V's sixteenth-century axial plan for Rome to the grand nineteenth-century schemes for Vienna and Paris, the public domain was the combination of principal streets or boulevards designated as important ceremonial and commercial axes, and piazzas and public buildings as focal points or formal enclosures. This model of a hierarchical city, in which the public domain and its public buildings form spines or districts through the general fabric of urban development, has produced vital places with a clear sense of orientation and legibility.

Urban historian Spiro Kostof defines pre-automobile cities as "places where a certain energized crowding of people" took place. (Kostof, 1991) Historical cities provided intense and active meeting places for commerce, the exchange of ideas, work, and recreation. Even dictatorships produced a wide variety of spaces for formal and informal public gathering. People of diverse backgrounds came to, and lived in, the city, knowing that this conglomeration of people and the interaction offered by it would enrich their lives.

However, this clearly divided model of the city has undergone a series of drastic transformations, since the industrial revolution and the emergence of the modern city, producing new city models ranging from the metropolitan model to the megacity. And while these models present a scale jump in the size of the city, yet the three spheres of the public, the private and the sacred remain the main categories of the different city models. Additionally, while the relationship between the public and private has developed and changed significantly, one could argue that the third sphere has served as a test bed for changes, allowing the introduction of new concepts and values and subsequently the transformation of the city from one model to the other.

The Modern City

At the turn of the twentieth century, during a period of unprecedented urban population growth, industrialization, and then crowding and filth, now familiar faults of industrial cities, there occurred a breakdown of many of the traditional urban systems of hierarchy and scale. At the moment, it seemed to those contemplating the future that the advent of automobiles, highways, and high-rise construction would provide an escape from the limitations and some of the oppressions of the old compact city. Greater speeds and heights held out the promise of breaking boundaries of all sorts, and, throughout the early decades of the century, inspired numerous explorations for a new kind of city.

Turn-of-the-century visionaries offered divergent recipes for the future city, and their attitudes toward density and urbanity varied enormously. Ebenezer Howard's influential "Garden City" proposal of 1898 suggested a city of dispersed low-density residential settlements. With parks at their center and agriculture at their periphery, the communities of Howard's vision appealed to those in England who still associated urban concentration with the "dark Satanic mills" (in William Blake's famous words) of the Industrial Revolution. And for the many Americans who were troubled by the influx into cities of unskilled labor from the South and new immigrants from Europe, and thus eager to distance their family lives from the hub of economic activity, the idea of living in a distant house set in nature was alluring - and, in hindsight, was a clear, early spark to the later suburban explosion.

Three decades later, Frank Lloyd Wright also resisted the idea of dense and concentrated cities. In fact, "to decentralize," he believed, was one of "several inherently just rights of man." His proposal for Broadacre City, a theoretical American suburban-regional city first exhibited in 1935, presented a uniform scattering of buildings across the land to satisfy this "inherent right." Small, decentralized commercial town centers - each one spatially distinct - would stand adjacent to every residential neighborhood. Like Ebenezer Howard before him, Wright assumed that these suburban cities would generate primarily local traffic, and would remain relatively autonomous and self-sufficient as communities.

In both North America and Europe, however, there were also those who explored ways to adapt the existing intense, interactive, and dense city to the modern era. To this end, the multi-level transportation networks and stacked streets drawn by Harvey Wiley Corbett (1913), the dramatic and elegant New York cityscapes of Hugh Ferriss (1930s), as well as the many set designs for Fritz Lang film, *Metropolis* (1927), remain even today vividly persuasive. In a spirit and mood of radical restructuring, the answer for the more socially idealistic architects and planners was a reinterpretation of urbanity itself. Many European urban visions, in particular, appreciated both the opportunity and the necessity for concentration, from Camillo Sittes humane and idiosyncratic cities in *Der Städtebau* (City Building, 1889) to Antonio Sant'Elia's energetic, mixed-use city, the *Città Nuova* (New City, 1914),

"It is architecture which creates the modification, the change, the transformation, the mutation from one reality to the other. Architecture is the means for this transformation. Architecture as means to transform reality, different places, different references, processes and also historical events is a process of modification in an ontological sense. This process affects not only all the conditions of a concrete given situation (without providing an ideological evaluation), but also the conditions of the place with its history. The new forms are born out of these conditions and in connection to the existing reality"

Oswald Mathias Ungers, 1984



Figure 1.7. Development from the Hierarchical city to the Modern City Model. Courtesy of Noheir Elgendy

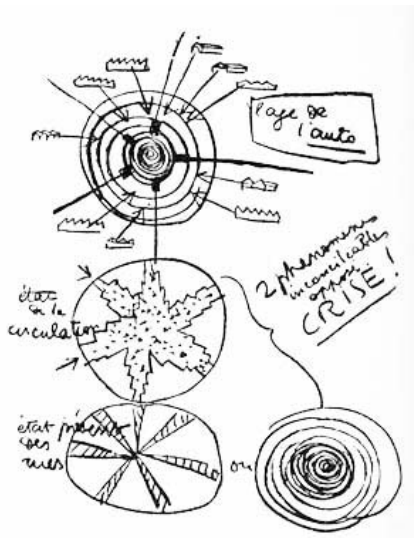


Figure 1.8. Le Corbusier: "The Age of the Automobile", from *Precisions*.

and Le Corbusier's expansive, towering Ville Radieuse (Radiating City, 1930). But each of these visions differed from the form concentration might take - and from them we inherited theories of both low- and high-rise concentration and low- and high-rise dispersal.

Le Corbusier, for example, imagined a city set free in greenery - ordered towers served by vast highways, but standing in a park. While seeking to erase the ills of the compact city, Le Corbusier valued the density achieved by skyscrapers. His Cite de Trois Mille (1922), and its adaptation to central Paris, the Plan Voisin (1925), replace the traditional seven-story urban fabric of Paris with a grid of giant towers that are "deconcentrated" across the open landscape. On one side of his drawings for the Plan Voisin stands traditional Paris with its medieval streets and grand boulevards; on the other, undifferentiated open space marked by identical freestanding office towers and mid-rise apartment buildings. The high-rise, ordered sprawl in Le Corbusier's schemes was such a radical break from traditional urbanity, and differs so strongly from the eventual dispersed low-rise suburbs, that it suggests an environment it is tempting to call "dis-urbanized."

In *The City of Tomorrow* (1929) Le Corbusier wrote, "The center of the great city is like a funnel into which every street shoots its traffic . . .," and concluded that "wide avenues must be driven through the centers of our towns," presaging countless downtown highway projects carved right out of the historic meeting places of busy streets, commerce, and civic institutions. "We must create vast and sheltered public parking places where cars can be left during working hours (Le Corbusier, 1987) he suggested, enthusiastically describing one of the most widespread and drastic influences on the shape of cities for years to come.

Le Corbusier's vision is commonplace in every contemporary city today. Yet, ironically, we can see that even Le Corbusier and his colleagues underestimated and misunderstood the impact that the automobile would have on urban form. Even with the original modernist emphasis on grand networks of highways, roads, parking lots, and parking structures, the effect of all this automobile infrastructure was simply beyond anyone's frame of vision at the time. It is as if the modernists allowed the city to be designed by the will of the car, only to discover, decades later, that its will was rather different from what they had anticipated.

The Contemporary City

The enormous European reconstruction effort after the Second World War, large-scale development in the post-colonial world, and American affluence assured that modernist urbanism was built around the globe, and both architects and the public were affected profoundly. For their part, the public (as well as politicians) began to suspect the Brave New World design solutions that had promised to improve the welfare of humanity. Not only were these places often disappointing, but their importance seemed diminished by the reality of poverty, hunger, and loss around them. In this context, it became only natural for the design professions to retreat

from megalomania and recognize the limits on their own ability to influence and change the way people lived.

By the 1970s, the role of architects in creating a vision for cities had entirely shifted, and the retreat in mainstream architectural thinking became institutionalized in academia. At Harvard, following decades of close association between environmental, political, and architectural issues under Walter Gropius and Josep Louis Sert, the university decided that study and training in architecture and urban policy did not belong together. City planning, now understood primarily as the making of policy, was incorporated into the Kennedy School of Government. Architecture, landscape architecture, and urban design (now understood as the physical design of urban districts, with limited consideration of political, social, and economic factors), remained in the Design School, “purified” of the mundane and “dented” to the status of Art. Within a decade, the isolated pursuit of architectural form had become both plausible and respectable in schools and in practice. Architects had withdrawn from the “vision of the city business” and retreated to the simpler world of form-making at the scale of the building alone. And a climate developed in which the expression and comment of an individual architect became more important in the design of buildings than perceiving the city as a whole and architecture as collective, connective, or shared.

At the opposite end of the spectrum, and at times even dismissed as science fiction, are the radical visions of the city that might be. In the 1960s these were manifested in proposals of complex, three-dimensional high-rise arrangements served by a network of connecting tubes, as in the work of the Archigram group. More recently, there have been proposals of urbanistic “landscapes.” Architect Michael Sorkin, for example, has developed intricate three-dimensional proposals in which building-like forms extend vertically and horizontally inclined and cantilevered, their shapes inspired by bridges or aqueducts. Transportation corridors at ground level and building masses in the air are generated by either multiple geometries, or no perceptible order at all. Inventive, exciting, and full of energy, these proposals in general completely displace the car as the primary mode of transportation in form of a varied or somewhat mysterious system. Here we see not the rejection of density and intensity, but its celebration - not exactly ignoring the existence of the car, but leaping forward to its obsolescence, envisioning a society whose interactive needs are amplified and expanded as compared with today.

Of all those speculating on the future of urban form, architect Rem Koolhaas has emerged as a most acute observer and supporter of cities, driven by his conviction that we are heading toward “a definitive, global ‘triumph’ of the urban condition.” In his writings, he indicts the Modern movement’s abstract architectural goals and repetitive, simplistic urbanism for causing decades of urban destruction. Further, he recognizes the depth of the public’s distrust of these failed mechanisms for endowing cities with cohesiveness, order, and harmony. Yet Koolhaas believes the chaotic assemblages of building, infrastructure, transportation, unbuilt land, and landscape that represent much of our current environment are inevitable- an expression of

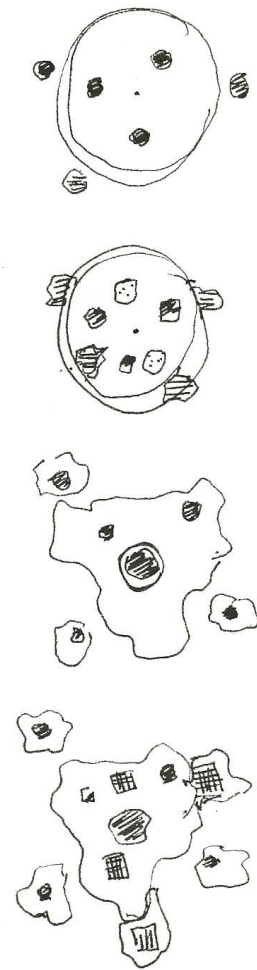


Figure 1.9. Fragmentation of the Contemporary city fabric.
Courtesy of Noheir Elgendy

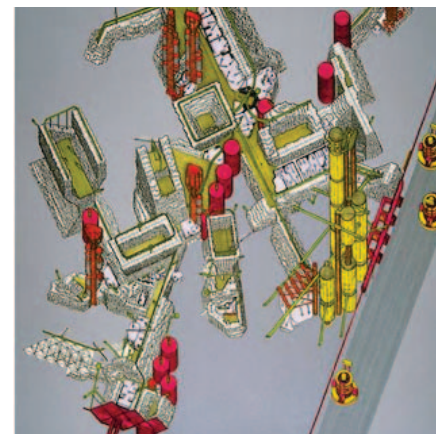


Figure 1.10. Plug in City- Courtesy of ARCHIGRAM

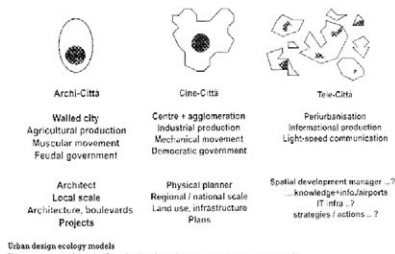


Figure 1.11. Urban design ecology models
Urban actors combine the three basic urban elements: the enclave, the armature, and the heterotopia – to build different city models. ISO-CARP identified the city types in 2001 (archi-, cine- and tele citta models). (Diagram courtesy of ISOCARP, 2009)

society’s needs and desires. A new urbanism, he believes, should abandon “pretensions of harmony and overall coherence” entirely. Following his own advice, Koolhaas has described a set of his urban projects in general as “celebrat[ing] the end of sentimentality,” and specifically, as dealing with “nothingness.”

In the spectrum of proposals for the city, there are thus the “humanists” at one end, with a desire to preserve, or in most cases to replicate, traditionally “comfortable” formal values in the environment; a sense of personal identity; and the gentility of life in a small town. At the other end, there are those who believe we face a new kind of reality that requires architectural expression, precludes looking backward, or renders traditional communities entirely obsolete and thus, irrelevant to society today.

At both ends of this spectrum, there are thought-provoking answers to important problems. We must, with the conservatives, strive to reestablish qualities of scale and space that relate to the human body. With the more radical, we must recognize that we cannot solve today’s challenges as we did yesterday. But we cannot “go with the flow.” There is a wide gap between what we see when we look at our cities, and what we get when we try to accept any of the current proposals as a comprehensive solution. As we move into the twenty-first century, we see changes in the technology of communications and information transfer that threaten to replace the very necessity for personal contact. The shift in jobs over several decades from manufacturing toward service and the more recent growth of entrepreneurial cybernetics continue to lure workplaces from downtowns to regional locations accessible only by car. The deepening spatial segregation of the poor and the affluent has had drastic consequences upon the opportunities and education available to vast numbers of people. Our natural resources have been so burdened and damaged by the prevailing urban patterns that we have witnessed a global cry of alarm.

1.2 The City Models

All the city models -including the metropolis, the megalopolis, the fragmented metropolis and the megacity- are separate but related patterns of urban development (Shane, 2011). In fact, they are all simultaneously present as patches in most cities, forming a network of interrelated fragments that have symbiotic relations with each other. These cities can also be viewed as archipelagos, or clusters of urban islands, with privileged links between their islands and the sea separating or connecting them. In the archipelago city, all models are simultaneously co-presented in an arrangement where people have the ability to live together with all their differences. (Shane, 2011) These patches are complicated entities which have developed in both space and time.

As soon as we address questions about the individuality and structure of a specific sphere a series of issues are raised which in their totality, seem to constitute a system that enables us to analyze it. In order to understand their role, form and

typologies within the fragmented city fabric, we need to take a closer look on the different contemporary city models and how these patches appeared and their patterns in transforming the city.

The Metropolitan Model

The first model to examine in studying the transformation in the city is the metropolis, an ancient, model often associated with imperial systems throughout the ages. In the metropolitan system there is one privileged, central, mother city at the heart of a surrounding spider's web of towns, villages and hamlets that form an agricultural hinterland to this imperial capital. The highly structured hierarchical organisation of Beijing, for example, with its enclaves within enclaves as in the Forbidden City and axial approach armature, exemplifies the archaic form of metropolitan urban design. The hierarchical urban design system of grid cities with imperial compounds at the centre matched the social and bureaucratic organisation represented by this model and survived until the Communist Revolution of 1949. (Haw, 2006)

In 1945, most of the world's urban population lived in large European capital cities such as Berlin, Brussels, London, Madrid, Paris, Rome, and Vienna, which have served as metropolitan capitals of their respective global empires during the 19th-century. The coal-fired industrial bases of these empires enabled them to operate at a new scale, with improved communications and transportation links, and new social organisation based on the factory and on mass consumption of mass-produced goods. The governmental shift from monarch of European nation state to Emperor of a global colonial system was often accompanied by grandiose urban design projects to transform the national capital, with great Beaux-Arts axial approaches to palaces, networks of urban boulevards, railways linking to ports and ships to empires. Similarly, in 1945, New York represented the modern metropolis for many Europeans. According to many urban designers the skyscraper city - combined with Robert Moses' parks, parkway system and public housing blocks - provided a new vision of the modern American metropolis free of the imperial armatures and palatial enclaves of the past. Here the repetitious, fractal pattern of skyscraper centres, inner-city urban renewal and satellite new towns whether private or publicly planned, created a powerful, iterative fractal system. (Shane, 2011)

The metropolitan model proved to be very powerful and adaptable. It produced a new form of enclaves containing clusters of skyscrapers. Highways lead to these new clusters at the centre of the city which replaced the imperial boulevards, yet the centers as a central business district still dominated. This pattern created a new form of urban enclaves that introduced a new lifestyle and new character to the city. Le Corbusier's 1950s design at Chandigarh in and Oscar Niemeyer's 1960 design for Brasilia, both demonstrates the continuity of Beaux-Arts imperial planning moves, including huge axes and giant palaces within the modernist movement. The giant constructions of such clusters lead to the increased emergence of

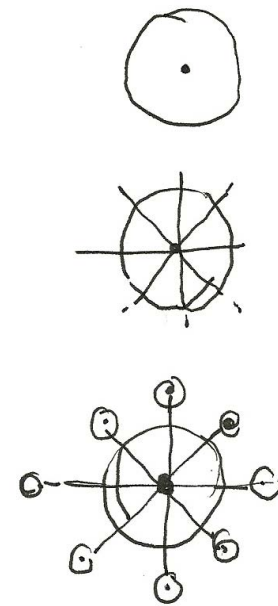


Figure 1.12. The Metropolitan Model is based on hierarchy of centers and connecting axis. Courtesy of Noheir Elgendy

pockets within city in the form of shantytowns. These informal entities were created to house the construction workers on the city periphery which further fragmented of the city fabric.

The Megalopolis Model

The second model is the megalopolis, a city based on a new distribution system and oil as a new energy source. The megalopolis sprawls beyond the confines of the metropolis and has no single centre. The French geographer Jean Gottmann coined the term in his book *Megalopolis: The Urbanized Northeastern Seaboard of the United States*, an area that includes metropolitan New York. (Gottmann, 1961) He pointed to an enormous scale jump that had occurred in an urban agglomeration stretching from Boston to Washington and including 32 million people. Gottmann analysed a set of cities in transition as car-based suburban tracts spread out from old urban centres. His megalopolis included large tracts of forested land across several watershed basins, water, rail and electrical supply infrastructures, as well as agricultural land that feed the cities.

The mathematician Alan Turing had predicted in 1952 that twin dominant satellite cities would emerge on either side the metropolis, creating a three-centre, linear dynamic across the ring system. (Krugman, 1996) Similarly, the logic of linear growth from the centre formed the basis of the influential Greek planner Constantinos Doxiadis's 'ecumenopolis'. (Doxiadis, 1963) His global city encompassed all forms of human settlement including informal developments like Latin American favelas - there were still shantytowns in Europe at the time, in Athens and Rome. In modelling this new city, Doxiadis pioneered the use of computers and mathematical models that forecast the growth and laid the basis for the first UN-HABITAT meeting in Vancouver (1976). This meeting marked the shift from the government-controlled metropolis to a megalopolitan model including bottom-up nongovernmental organisations (NGOs) in informal settlements.

In the 1970s, Tokyo emerged as a model megalopolis just as New York had formed the ideal metropolis. After the firebombing of Tokyo in the Second World War and official plans for a very low-density, green, semi-rural city, architects and urban designers dreamt of a much denser city. In the 1960s it seemed logical to urban designers that the new urban nodes should scale up to match the megalopolis, producing giant megastructures. The linear form of the megalopolis based on highways for automobiles and trucks, easily accommodated airports and container ports for global trade. Cheap and plentiful oil supplies encouraged the development of global corporations and global commerce. Old villages and local bottom-up codes were easily included in the large-scale network of highways as small urban patches. (Shane, 2011)

The fundamental problem with the megalopolis was that it defied control. The scale of the development, its speed, and dispersion of controls, as well as its impact on

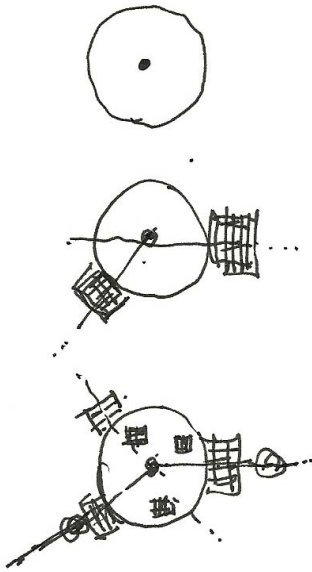


Figure 1.13. The Megalopolis Model diagram. The growth of the city is associated with the creation of multiple centers along the city periphery causing a scale jump in the city size. Courtesy of Noheir Elgendy

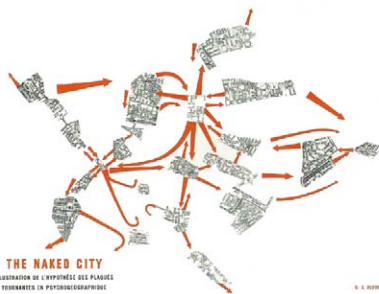


Figure 1.14. The Naked City-Illustration by L'Hypothese des Plaques Tournantes en Psychographique

rural to urban migration caused the city to grow beyond planners expectations. In fact, it could be argued that the growth of the megalopolis took place through public efforts rather than government plans, given the governments' failure to provide sufficient housing units and their failed attempts to discourage internal migration towards the cities. In addition to these public efforts, the expansion of the city to dominate the semi-rural areas has created a self feeding cycle as it helped encourage rural to urban migration by making migration easier and by absorbing small surrounding settlement., ultimately producing a city fabric eventually that contains small enclaves of informal settlements carrying the culture and traditions of former settlements.

The Fragmented Metropolis

The third model, the fragmented metropolis, is a combination of the top-down control model of the metropolis and the locally flexible model of the sprawling megalopolis. Jonathan Barnett described this urban condition in his book, *The Fractured Metropolis* (Barnett, 1996), in which he describes from experience how the metropolis grows in fits and starts through history and ends up being a series of fragments. This urban design model emerged when Metropolitan governments were losing their economic tax base as people moved into the megalopolitan sprawl. The fragmented metropolis model is also characterised with a degree of flexibility, allowing input from local urban actors in urban village communities such as Chinatown.

The fragmented metropolis model has appeared in a number of European countries, including OMA's Euralille project (1991-4) and Renzo Piano's Potsdamer Platz in Berlin (mid-1990s). 'World financial centres' have also proliferated as a global brand of office tower and mall complexes in Tokyo, Hong Kong, Singapore, Mumbai, Shanghai and Beijing. By the 2000s these giant urban fragments transformed into transit-oriented developments (TODs) such as the Hong Kong International Financial Centre 2 (IFC2), which comprises a mall tower and hotel complex above a new station linked to the airport (2003). In Tokyo the Shinjuku commercial node had always been above railway lines. Other examples include the huge railway station reconstructions for the Eurostar at Berlin's Hauptbahnhof (2006) or London's St Pancras (2008), or the proposed Transbay station complex, San Francisco (2008). These mega projects represent a return to the metropolitan ideal inside a giant fragment, in anticipation of increases in future energy prices. The Olympic Park in London which hosted the 2012 Olympics continued this tradition, scattering Olympic sites as urban fragments across the city, especially around Stratford East, where a mega mall and towers complex were developed above a new Eurostar high-speed rail station.

Urban design theorists like Colin Rowe and Fred Koetter had anticipated the breakdown of the metropolis and megalopolis in their book, *Collage City*, which examined the combinatorial logic of a city of urban fragments - including historic,

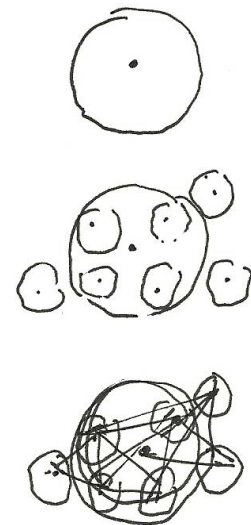


Figure 1.15. The Fragmented Metropolis Diagram. The fragmentation of the city through the creation of multiple centers within the city as well as outside its peripheries. These centres are networked according to their typology and function. Courtesy of Noheir Elgendy

modern, postmodern fragments - themed to accommodate urban actors' dreams, in a Disneyland- like manner (1954).(Rowe & Koetter, 1978) Yet, while Rowe and Koetter stressed the political dimension of the system in terms of freedom and choice, they were vague about the methods of coordinating such fragments. The American New Urbanism movement developed this thematic fragment approach in large suburban subdivisions in the 1980s and 1990s, as part of a housing boom that included many peripheral, gated communities.

At this stage the city isolated enclaves have developed a diversity of typologies from grand projects to gated communities. The pattern of regenerating the city fabric through removing a whole district and replacing it by a hybrid building containing office towers, malls, and subway stations have reconfigured the urban districts nature and style. It has produced these giant structures which are proposing a new form of life in the city, isolated from its surrounding but having a national and even a global scale. In addition, the idea of generating a utopian lifestyle through gated communities not only introduced a new element to the city fabric, but also accelerated the forces of disintegration. This typology of isolated communities emerged in parallel to the increased proliferation of informal settlements across the city periphery, thus accelerating the process of fragmentation and hybridization.

The Megacity

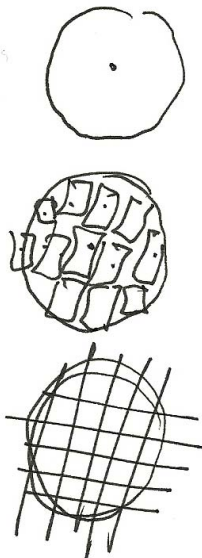


Figure 1.16. The Megacity Model Diagram. The City fabric is developed into a number of isolated islands that are structured within a mesh of infrastructure. Courtesy of Noheir Elgendy

The last model of this analysis, the megacity, bears some similarity to the fragmented metropolis, as it combines elements from the metropolis and megalopolis. Yet, most contemporary megacities are in middle-income and poor countries with large populations using far less energy per capita than industrialised nations. For years, urban designers have turned a blind eye to the informal cities built by peasants moving into the cities of Latin America, Asia, and Africa for the last half of the 20th century following European decolonisation. These megacity shanty settlements were sometimes on public land zoned as green belts or parks (as in Caracas), or built with the collusion of landlords (who collected rents informally) on land zoned as agricultural (as in Bogota and Cairo), or on riverbeds, marshlands or dangerous flood plains (as in Dharavi and Mumbai). In the 1990s the controversial Peruvian economist Hernando De Soto advocated giving land ownership to squatters to achieve the participatory goal between the government and the community, a policy that is currently being tested in Rio, Sao Paulo, and Bangkok. (McHarg, 1969) Bogota has provided, under two progressive mayors an exemplary low-energy megacity model, which expanded on the low-cost ecological blueprint for slum upgrading and improved bus service presented by the relatively wealthy city of Curitiba in Brazil. In developing Bogota urban designers also took advantage of earlier plans by Le Corbusier and J.L. Sert to create in the 1990s a new system of linear armatures of garden parkways that linked the pedestrianisation of downtown, express bus lanes and local community upgrading with a new water supply, hospitals, schools, and allotment gardens in the parks. Bogota also presents an encouraging example in how NGOs and local municipalities took part in improving

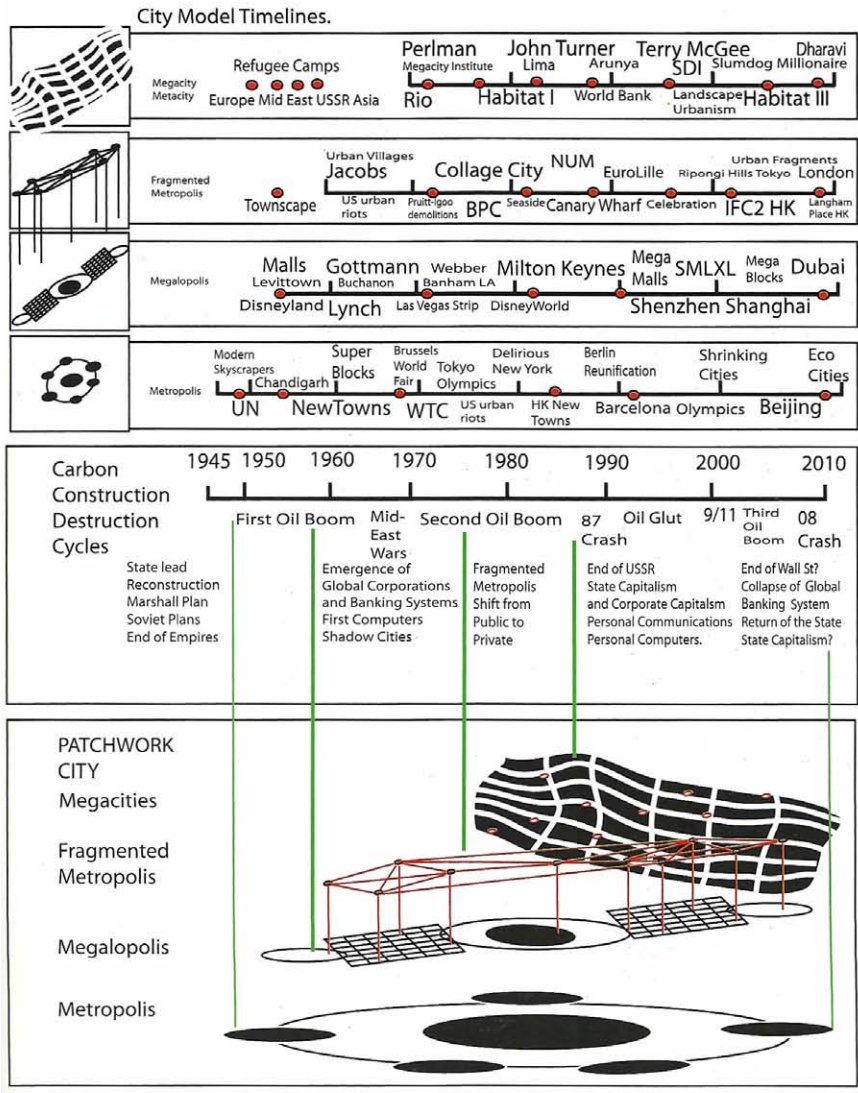


Figure 1.17. The Four City models timeline and diagram
 Each city model runs parallel with the others, taking precedence with the ascendance of particular urban actors
 -Diagram courtesy of David Grahame Shane

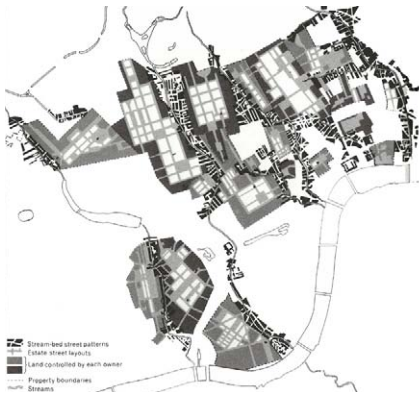


Figure 1.18. Feild Analysis of Central London, 1971.

Courtesy of Grahame Shane

urban conditions of the 1 million strong city, and how feedback from - and participation of - residents has taken on effective role.

Based on a similar analysis of the Veneto in Italy as an urban constellation, Paola Viganò hypothesised a ‘reverse city’ in her book, *La Citta Elementare* (1999). She proposes that the spacing between urban elements in the landscape became the subject of urban design, deriving from earlier regional studies with Bernardo Secchi that emphasized the ecological aspects of landscape designs. (McGrath & Shane, 2005) As in the Asian megacities, Secchi and Viganò highlighted the contours of the productive agricultural landscape embedded within the fabric of the sprawling city as a positive valuable force, a ‘reverse city’ code that should be a part of the overall design.

This process of linking the city once more to village typology and connecting the city back to the agricultural land patterns - whether in terms of landscape, practicing urban agriculture, or actual agriculture on the city periphery - signals a process of reversing codes. While the city expansions have affected the production of food and the urbanized areas footprint signals an future ecological crisis, the process of reversing the city can be considered a step towards an increased dominance of isolated enclaves.

Given that they represent a significant part of contemporary cities, the culture of the isolated ‘islands’ is now forced upon the city. Yet, when one visits one of these islands, one is struck by the multiplicity of functions that they contain and how these functions can be entirely independent of the outer city. They grow, merge and form interconnections to sustain their existence and power. The informal settlements, the gated communities or the hybrid mega malls are now fundamental components that define the contemporary city rather than external or obtrusive entities.

1.3 The City Elements

Cities are about people living and working together, and this requires organisation and skills in managing the affairs of a local community and city as a whole. Cities are built by their urban actors - individuals, groups, and businesses - who even in the most seemingly out of control cities, contribute their beliefs, energy, and organisational skills to building it. Urban actors need to cooperate not only in building the city, but also in maintaining, regenerating, and transforming it. (Portugali, 2000) Urban actors manipulate a limited set of urban elements to make urban models that work for them in a particular time and place.

The next section of this thesis will elaborate further on three important urban elements: the enclave, the armature and the heterotopia, as key elements employed by urban actors in constructing cities. (Shane, 2005) Yet before embarking on such discussion, it is essential to illustrate the concept of the urban element, which is so closely linked to urban typology and morphology, and to outline this thesis’s conception of what an “element” is.

“[A]n element means something that enters into a composition as a part of a constructed unity and fits into a formula; but this nomenclature also means a principle, the foundation of a theory that determines a discipline.”

Ernesto Rogers, 1961

Ernesto Rogers definition can be viewed as specific when compared to a dictionary definition, which defines an element as “a basic constituent; substance incapable of being and analysed into any simpler form” (Penguin).

Urban actors create cities through negotiations that employ shared and symbolic intermediaries, creating a common or shared space for activities. In his book, “Recombinant urbanism: conceptual modeling in architecture, urban design, and city theory”, David Grahame Shane formalized these commons into an enclave, an armature, and a heterotopia.

Cities are made up of shifting, recombinant relationships between these three elements: The enclave is predominant in the archaic, hierarchic (Asian, Islamic, Medieval European) spatial order of localization. The armature is predominant in the spatial order of extension in the infrastructure or public spaces of the modern industrial city and the heterotopia predominates in the network space of the post-industrial city. (Shane, 2005) The enclave and the armature are mostly elements of the city that represent a conscious state of intervention of the city to produce a certain model. But the heterotopia is rather a place of exclusion where new patterns are experimented and modified and then introduced to the city, to produce a new force of transformation. These three organizational devices are fundamental to the activities of urban actors, who need shared, common, communicative, collective, conceptual models in order to create and operate the city successfully.

Allowing elements to make contact with each other is part of the syntagmatic structure of the Archi Citta, which is built stone on stone. Elements can touch, so that a prison, for instance, might be attached to a public house serving alcohol. “Touching” in the Cine Citta, with its emphasis on movement and segregation, is carefully controlled in the style of cinematic montage and collage, with their emphasis on image, the displacement of actors, and scientific detachment.

The Enclave

The enclave is a space defined by a perimeter with one or more entries and a clearly defined centre, with Beijing’s Forbidden City and the Rockefeller Centre given as examples. As an organizational device, the enclave serves as a collecting point for people, objects or processes that fall within the purview of a single urban actor who controls the space, its contents and its perimeter. Hierarchical systems of control and top-down command structures radiate out from this dominant actor, who nests many enclaves within enclaves to aid sorting and memory. This nesting of enclaves within enclaves can scale up to encompass a whole city, as in imperial Beijing, focusing symbolically on the Forbidden City. Urban actors altered the role of the enclave when they paid more attention to flow and process in the city, so the enclave became a stationary point in the system, where people, goods or services could be temporarily located and stored in places like hotels, warehouses or storage yards, docks and containers. Later still, enclaves became containers for urban fantasies and imagery, a means of way finding, attraction and identification

“Theories of complexity have shown us that to grasp the city as a living phenomenon, we have to start from the parts and their modes of relationship, rather than from some ideal, imaginary totality. what emerges from this is a new paradigm, that of complex forms characterized less by their components than by the relationships between them.”

Serge Salat, 2011

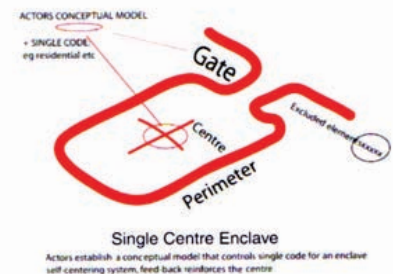


Figure 1.19. The Enclave
Courtesy of David Grahame Shane, 2009

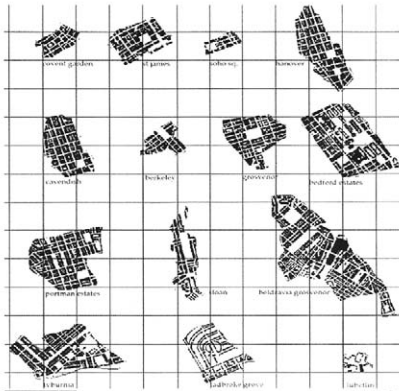


Figure 1.20. London City Enclaves
 Courtesy of David Grahame Shane, 2009

for different areas of the city, as described in Kevin Lynch's *The Image of the City*. (Lynch, 1961)

All great cities are necessarily built around such specialized districts, plan units, or enclaves as centering devices for flow systems. These centering devices have performed different functions at different periods and in different urban systems. The square in front of the cathedral is different from the square in front of the factory or department store, and all are different from a square in Disneyland. Each is the product of incremental growth patterns that proceed in a "punctuated equilibrium" style, that is, in small spurts of activity that accumulate over time. All enclaves centre, slow down, and store urban flows and energies, forming temporary node structures. The emergence of enclaves and enclave recognition is fundamental to the urbanization and settlement process. (Shane, 2011)

The Armature

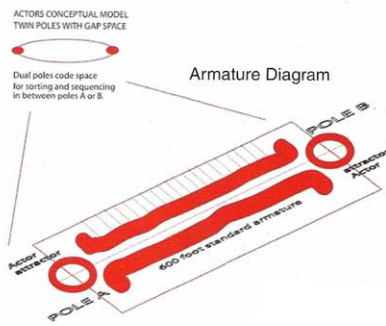


Figure 1.21 The Armature
 Courtesy of David Grahame Shane, 2009

The armature, in contrast to the enclave, is a linear space containing and sorting flows. It is a linear sequencing device controlling space and time inside a linear, logical process. An armature may also be hierarchical, making centric, tree-like structures, as in rivers flowing to an estuary or roads leading to a highway entrance. The standard urban pedestrian armature for many centuries has been a five-minute walk, about 200 metres, a unit found in Greek and Roman plans, medieval towns, the Manhattan grid and modern shopping mall design. Standard armatures are for people on foot. Stretched armatures imply a transportation system. Large-scale armature like rivers and highways, stretch across the city territory. In addition there is the compressed armature. This involves stacking or spiralling armatures one top of another, so in three floors, for instance, 600 metres can occupy a small footprint of 200 metres.²⁸ Shopping mall designers took advantage of this principle of compression in the same way Trajan's Market in Ancient Rome and countless bazaars across the ancient global trading networks did. (Shane, 2005)

Layering, overlapping, and transparency in the City as a Machine do not necessarily involve touch, as communication systems allow voice or visual control from a distance. In photomontage, for instance, images of disparate objects, displaced from their original locations, can be brought together the photographic process without any of the objects being physically moved from their original locations. In the Tele Citta, remote-communication systems allow inhabitants to stay at home and view everything remotely- a visual or informational omnipotence that sponsors, in reaction, an immense demand for the lost sensations of touch, taste, sound, smell, community, and interconnection.

The Heterotopia

Urban actors and designers use heterotopias to combine enclaves and armatures, making new hybrids that they hope will have special advantages and accommodate change or difference in the city. Michel Foucault, the French philosopher who

introduced the term to architects in the 1960s, was especially interested in the heterotopias used to bring modernism into traditional societies not based on modern science, organized by custom, magic, or belief in different hierarchical systems. Foucault emphasised that heterotopias were often miniature models of an urban ecology, a small city within the city. Also the actors in charge often reversed significant codes inside the heterotopia. If the city was chaotic, for instance, then actors sought order, calm and control within the perimeter of the heterotopia. The other distinguishing characteristic of the heterotopia was its multiple actors, each with their own spaces and codes all within one perimeter. This contrasted with a modern enclave that tended to be monofunctional - a business park, for instance.

Foucault recounted how urban actors who sought a modern scientific basis for society created 'heterotopias of deviance', where people who did not conform to modern society were marked and segregated as deviants, to be reformed and re-educated. Because of their nonpunitive nature, Foucault called the earlier system of handling people in transition or stress situations 'heterotopias of crises. (Foucault, 1997) People could voluntarily come and go from these special spaces without penalty or stigma. In the heterotopias of deviance, urban actors as asylum doctors or prison officials set rigid rules and punished all deviance, locking people away until their term was served or the authorities deemed them cured. The 18th-century social theorist Jeremy Bentham designed a circular Panopticon prison. The jailer hidden in the centre observing all cells on the periphery symbolised the heterotopia of deviance.(Evans, 1971) Foucault also listed a third order of 'heterotopias of illusion' that had fast-changing rules and codes and involved fashion and aesthetics, reversing all the codes of the heterotopia of deviance that was devoted to work. These pleasure palaces and temples of consumption did not interest Foucault as much, although he listed many urban components, such as shopping arcades, department stores, museums, theatres, cinemas and brothels in this category.

1.4 The Parallel City

The development of heterotopias within the megacity model and the formation of the mega-scale elements have fragmented the city fabric more and more. The creation of such elements as the mega-nodes, mega-malls, as well as the mega-slums as secluded entities, have been allowed to grow and develop for certain political and social conditions to create networks along the city and thus creating complete parallel cities.

Confronting Mega-Scale

We experience the disorientation of mega-scale regularly on our highways, in parking structures and in airports, in shopping malls and discount "super-stores." (Safdie,1997)We know from old cities that techniques for creating hierarchy,amplified by an appropriate architectural vocabulary, can give us our bearings. Today's large complexes demand the development of hierarchy and an

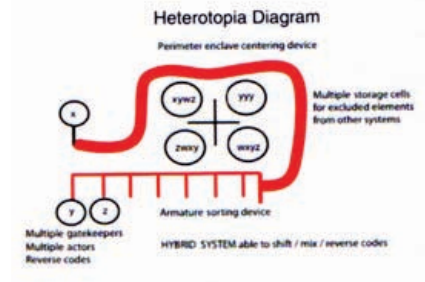


Figure 1.22 The Heterotopia

Courtesy of David Grahame Shane, 2009

“True, the forces causing mega-scale are overwhelming, and they appear irreversible, at least for a few generations to come. The undifferentiated, relentlessly repetitive workspaces, the windowless environments, the cacophony of industrial structures, the gigantic, repetitive assemblage of apartment towers--- these are the uninhibited results of forces larger than an individual architect, corporate trader, international businessperson, or citizen, and of patterns that simply did not exist in the era of the New England town or the gentle, classical city. We must, with the mega-school, agree that changing technology, information transfer, social structures, demographics, mobility requirements, and economic forces are shaping the environment in which we live.”

Moshe Safdie, 1997

“The hyper-markets, the auto ports, the enormous service stations that line our highways, airports and their parking areas, the nodes of exchange between types of transport, the manufacturing/retail settlements along the roads that lead out of the cities are but a few of these placeless typologies. To these should be added the residual spaces, container deposits, used car lots and junkyards, but also abandoned sport fields or parks. As opposed to the large markets of antiquity, there is nothing in the way these placeless typologies present themselves which gives us the feeling of spontaneous, temporary aggregation which characterized the space “extra muros”: rather, they are regulated by rigid laws of internal distribution and equally rigid laws of investment and profit. These laws are in no way connected to the places, they need no roots, neither in terms of form, nor in terms of resources, because the very resource of the market is based on difference, on its ability to give user a momentary illusion of having left the everyday world and entered another world. ... measure on the one hand of the distance that has opened in the last half century between architecture and the visual, and on the other hand of the incongruity of the context presented by the placeless typologies, for the moment”

Vittorio Gregotti, 1990

articulation of parts we would take for granted in a small building or town. A system of major interior “streets,” smaller passages, and private “alleys” for example, could break down a complex building into comprehensible components. Distinctive architecture could then make each part recognizable and distinct within the whole. With countless new mega-plexes to design, we must recognize that in many cases, the building has become a city, and the task of an architect, inherently, became that of a city planner. (Safdie, 1997)

Consider living in a house in a village. Clusters of smaller dwellings- even if compact - compare closely enough to the size of our own houses and bodies to give us a sense of location: we can automatically project ourselves into our surroundings. This is profoundly different from the feeling of a resident of the fifteenth floor of a sixty-story apartment tower, one of twenty-five such towers compactly clustered, as in a Singapore new town or the suburbs of Sao Paulo. A five-foot-tall person who works among man-made structures one hundred times taller than he or she, who dwells behind a square in a repetitive facade - one of a dozen facades - is bound to feel diminished and lost. (Safdie, 1997)

These dilemmas are not, of course, rooted fundamentally in architecture or the art of building. They are dilemmas of the structure of our society, its economy, and its methods of organization, of humanity reproducing out of control - two, four, six, eight billion in population and still on the rise - with almost half of this number concentrated in metropolitan cities globally. Thus, public policy specialists have written on the necessity of stabilizing or decreasing the birth rate so that our human population might better relate to the earth’s resources; social scientists have critiqued the evolution of multinational corporations, whose visions of efficiency demand vast and minimal working facilities. And architects have responded to mega-scale by trying to camouflage it, attempting to ignore it, or adopting it wholeheartedly. (Safdie, 1997) A decade ago, postmodernist architects specialized in surface treatments that were aimed, in part, at counteracting the inherently new nature of mega-scale in the architectural program. Devoting much effort to composing the curtain wall from multiple materials and tints of glass, the designer would create complexity in the building envelope, simply accepting the inflated space inside. It was as if architects were more troubled by the scale of buildings as objects, and less by the gigantic spaces they held. Zigzags of color as on military airplanes or ships made forty-story buildings into assemblies of parts. Decorated skyscrapers came alive, like textiles, with pattern.

To propose that the new problems of scale can be restructured and reversed in order to return us to pre-industrial patterns and nineteenth-century building types requires a high measure of wishful thinking, and, to an architect or planner confronted with the reality of urban North America and the developing world, is quite basic. Knowingly or unknowingly, these designers rely on social, economic, and political conditions that cannot by any reasonable measure of realism be seriously considered obtainable in the face of the urban ills affecting the vast majority of the global population: ever-increasing densities, diminishing environmental and

land resources, hugely scaled manufacturing and retail facilities, increasing car ownership, traffic, and parking needs. For an architect in Singapore, Hong Kong, or Tokyo contemplating new residential communities of hundreds of thousands of people, each of an average density of fifty to one hundred units per acre, the problem of scale is real: it is the result of fundamental changes to the statistical condition of humanity. (Safdie, 1997) And in this context, the argument that it can be avoided by “rearrangement” appears naive and misdirected.

The Utopia and the Heterotopia

The creation of the multi-cellular heterotopic enclaves within the city are due to a utopic vision of the city or a heterotopic nature due to crisis, deviance or illusion (Foucault, 1967). These enclaves are created to fulfill the needs, of presenting new forms and visions of life for the fortunate, as the gated communities, or the basic needs for the misfortunate, as the slums. These excluded structures existed as testbeds for change, they presented places for experimenting new ideologies to be then practiced through the city. These ideologies are either the visions of the city planners for the future of the city or the visions of the city residents presented in their constructed cities within the city as a way to fulfill their needs and thus their ‘utopia’.

The heterotopia is the element which evolves to fulfill the needs and provides solution for the city. In elaborating on his “heterotopology” Michel Foucault, speaks of the miniaturization involved in the creation of heterotopias, as well as their mobility moving between set points (his perfect heterotopia was the ship “moving from port to port, from brothel to brothel”) and their feed-back capacity in terms of multiple, “mirroring” codes. Heterotopias were always complex, ambiguous and multi-cellular structures, capable of containing exceptional activities and new urban immigrants because of their flexible codes and their unusual multiple compartments. The codes of heterotopias mirrored and inverted their host societies, discipline and illusion being balanced in the “heterotopia of crisis”, discipline dominating in the “heterotopia of deviance” and illusion dominating in the “heterotopia of illusion”. (Shane, 2005)

The three sorts of heterotopia Foucault distinguishes can be tied to his three spatial systems or stages in his ‘history of space’: the medieval hierarchic “Space of emplacement” where the “heterotopia of crisis” is hidden, the modern “Space of Extension” where new urban actors create the “heterotopia of deviance” outside the city initiating an urban network, and finally the network as the “System of relations”, where urban actors enjoy “heterotopias of illusion” that display shifting, mobile relationships within the network (Foucault, 1997). We commonly call these three urban and informational systems the pre-industrial, the industrial, and post industrial city. The terms Archi Citta, Cine Citta and Tele Citta (ISoCaRP, 2001) have the advantage that they emphasize the communication systems and symbolic intermediaries used by different generations of urban actors. Furthermore they echo Jean Baudrillard’s three, informational “Orders of Simulation” where the



Figure 1.23. Sir Thomas More: Frontspiece from Utopia, 1516

“Where we do not reflect on myth but truly live in it there is no cleft between the actual reality of perception and the world of mythical fantasy.”

Ernst Cassirer

“Whenever the utopia disappears, history ceases to be a process leading to an ultimate end. The frame of reference according to which we evaluate facts vanishes and we are left with a series of events all equal as far as their inner significance is concerned.”

Karl Mannheim



Figure 1.24. The Forbidden City, Beijing
 The Forbidden City represents the
 Cine Citta urban heterotopia.
 Courtesy of Google Earth 2010

first order of simulation consists of hand crafted originals, the second of mechanical reproductions, and the third of simulacra and hyper-reality (Baudrillard, 1998). In the “Third Order of Simulation” (Tele Citta) there is “no original and no copy” and new originals (“the real”) can be created “from miniature units, matrices, memory banks, and control modules” and ceaselessly circulate in the media and society in an “ecstasy of communication” that he both welcomed and feared (Luke, 1994). Foucault investigated how the “heterotopia of deviance” promoted the modern shift from Archi Citta to the Cine Citta, from the medieval to the industrial city with the rise of the mental asylum, the hospital and the prison (Foucault, 1978). Fast-paced “Heterotopias of illusion” now facilitate the shift to the “Third Order of Simulation” in the Tele Citta.

When Foucault wrote about heterotopias in the 1960s, he imagined three primary categories with many variations, making his ‘heterotopology’ (Foucault, 1997). There were heterotopias of crisis that helped people grow and change, hidden in plain sight, amongst the community. There were heterotopias of deviance that prepared people for and enforced the application of the codes of modernity, usually located outside the old city in a separate enclave. Then there were heterotopias of illusion that accommodated virtual and fleeting worlds, changing fast and manipulating information, giving the impression of freedom. Foucault did not develop this category so much in his essay as the computer and information age was just beginning as he was writing. Nonetheless, he spoke of information systems, flows, bits and bytes of information as a potent force for change in the city.

Foucault’s three categories form a useful basis for charting the evolution of heterotopias in the last 60 years since 1945. His first category of heterotopias of crisis, where people in transition take refuge from life crises, have continued such as places for the instruction of boys approaching puberty, menstrual huts for women in tribal encampments, boarding schools, military barracks, wedding weekend places, motels, medieval almshouses, and hospitals in cities, student and migrant hostels, old-age homes, and nursing homes integrated in society. This category could be extended to include favelas and informal settlements where people voluntarily move in order to take advantage of urban life compared to rural subsistence. The invisibility of these settlements on official maps, and yet their obvious presence adding to the city, conforms to the ‘hidden in plain sight’ characteristic of the medieval almshouses for instance, and distinguishes them from the refugee camps and internment camps that involve coercion and force. This inclusion allows the category to evolve into a vast system of informal settlement patterns, NGOs, and bottom-up-self organizing groups.

At the same time, heterotopias of crisis appeared in shrinking cities of the northern hemisphere as urban designers plan expanded facilities to house and care for an ageing population on a voluntary basis, as distinct from state-supported facilities. A key characteristic of these heterotopias is their voluntary, collective and cooperative nature, creating a place where people go for a time without penalty or punishment. People are free to leave and re-emerge when they feel ready. These



Figure 1.25. Development of Walled city of Kowloon- Hong Kong
Courtesy of sometimes-interesting.com

'Perhaps our life is still ruled by a certain number of oppositions that cannot be touched, that institution and practice have not yet dared to undermine; oppositions that we regard as simple givens: for example between private space and public space, between family space and social space, between cultural space and useful space, between the space of leisure and that of work. All these are animated by an unspoken sacralization.'

Michel Foucault, 1984

spaces are part of a larger social process accommodating personal changes and circumstances within a community. Religious foundations and charitable organisations have often supported these urban shelters from modernity, including homeless shelters, food pantries, and homes for battered women, runaway children, orphans, and other outcasts. In the past, many of these organisations maintained an institution in the metropolis or in its periphery to house those in need. While these buildings remain in use, many institutions have shifted to a wide distribution system to serve people's needs, finding families or homes willing to accept orphans, distributing housing vouchers to homeless people so they do not have to live in a shelter, trying to prevent homelessness through outreach programmes making better information available to people on the verge of losing their house.

Throughout the last 60 years, war, famine, natural disasters, and economic and political failures have constantly created new refugee camps and temporary cities. Some like Gaza or Soweto became permanent settlements; others, like Kowloon's Walled City, were demolished. Many of these settlements were indistinguishable from many shantytowns that developed around oil-rich cities like Caracas in Venezuela, Lagos in Nigeria, or Jakarta in Indonesia. Millions of people participated in this mass urban design experiment without professional help. Professionals, as put by David Satterthwaite, arrived late with plans for upgrades and modern insertions, bringing heterotopias from Foucault's list of state communal institutions such as schools, libraries, hospitals, sports clubs, parks, and sewage systems.

Over the years, the scale of the self-built heterotopic settlements, so often overlooked and unmapped, has grown incrementally as in the case of Dharavi, Mumbai, which has been branded by Mike Davis as a Megaslum. Such settlements even exist inside planned new towns like the urban villages of Shenzhen, China. The UN estimates that one third of the world's 3 billion urban population lived in shantytowns in 2010, meaning that these heterotopic, temporary structures are continuing to house a billion people. In some cities such self-built city extensions approach the 50 per cent tipping point where they become the new norm, not the exception.

Much of Foucault's research concerned the shift from the heterotopia of crisis to the heterotopia of deviance, as the modern state created a safety net for its citizens after the Great Depression of the 1930s. Foucault concentrated his research on the emergence of the modern state and its repressive institutions in the 19th century, writing during the 1960s when the European states rapidly built new schools, universities, mass social housing estates, hospitals, asylums, clinics, and other welfare facilities for their citizens (Hobsbawm, 1996). As European states lost their global empires, their governments concentrated their resources at home, modernising and vastly expanding the old state equipment to educate and serve the children of the postwar baby boom as they became adult citizens. (Judt, 2006) Architects redesigned universities, schools, hospitals and prisons for modern times. Urban designers worked on new towns as solutions to the housing crisis.

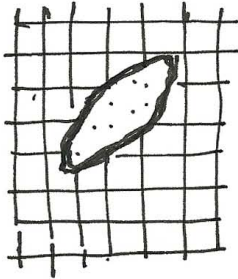
Foucault also fought against the rigid rules and brutal, utilitarian standardisation enforced in the rapid re-modernisation of the state institutions of Europe. But Foucault also recognised that passage through this phase, however painful, was a necessary prelude to modern life. Many of these state institutions have changed enormously in the years since Foucault wrote in the 1960s, in part because of criticism of their rigidity from left-wing politicians and in part because of complaints about their high cost from right-wing politicians wanting to limit the role of the state and cut taxes. The impact of this double campaign about heterotopias could be devastating in a city. In New York, for instance, the homeless population reached over 70,000 people in the 1980s as the state authorities shut mental hospitals and shelters in an effort to lower costs without providing any alternative place to live. (Jencks, 1995)

This brief history of New York heterotopias in the 1980s illustrates the impact of heterotopias in a city and their role in handling change. The failure of the Reagan-Thatcher cuts in social welfare and privatisation of public assets, such as transportation systems, resulted in further transformations in heterotopias. Private contractors ran many public facilities like prisons, hospitals and railways, altering their priorities from care to profit. From the perspective of a state emerging from the Soviet sphere of influence and rigid central governmental control, this might seem an improvement. From a European shrinking-city perspective, this cut in services and resources might represent the loss of hospital care, rail service, pension funds, public housing, or post office service.

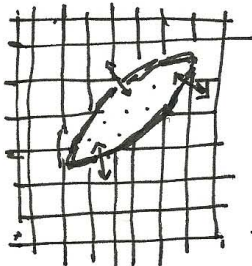
New communication technologies introduced in this period also altered the method of delivery of basic services and altered the role of the heterotopias in the provision of welfare state services. With the widespread availability of televisions, and then personal computers, universities took to the airwaves, like the Open University in Britain, supplementing traditional means of education. When Wikipedia became available on smart phones, a universe of 'information' suddenly became accessible where a cellular phone service is available. Prisons could also be replaced by house arrest or parole systems using ankle bracelets equipped with location tracking to report the parolee's movements. Doctors developed new microsurgery techniques that allowed patients to go home from hospital as outpatients, where they could nurse themselves under the supervision of their doctors. New drugs enabled doctors to treat mental patients who might once have been locked up for depression or violent behaviour in an asylum, releasing them to return to their homes and communities. Instead of building housing estates, housing associations could give vouchers to the homeless to find housing in the city, while having spaces for those in transition, from prison or mental institutions. In a horrific but ironic twist, prison has become the subject of a top ranking 'reality show' on American television, just as schools and hospitals were earlier the subject of soap operas in suburbia.

As European states abandoned their empires, urban designers also worked on the conversion of colonial infrastructures to new uses, in old docklands, waterfronts,

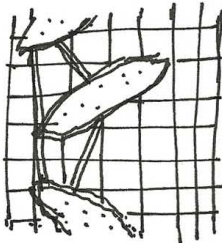
abandoned railway stations, old warehouse districts, stables, wholesale markets, barracks, hospitals, and prisons. Christiania, for instance, a disused military base occupied by hippies in Copenhagen in the early 1970s represented a heterotopic conversion. Camden Market in north London provides another example where a disused canal basin, railway stable blocks and warehouses have all coalesced into a youth centre, with nightclubs, street markets, sellers of used books and clothing, antique flea markets, restaurants, pubs and bars, with high-end restaurant starting to appear in new buildings. The conversion of military bases to parks and playgrounds represent a further shift in Foucault's heterotopology, from deviance to illusion. He criticised the rigid codes of the prison or heterotopias of deviance, and pointed to their opposite, the flexible codes that seemed to promise freedom in heterotopias of illusion. These structures accommodated the dreams and fantasies of urban actors, whether in palaces of consumption, like department stores, galleries, theatres, cinemas, or museums of red-light-district bordellos.



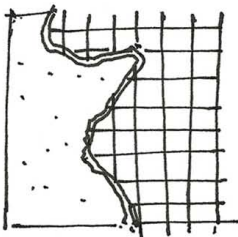
Heterotopic Enclaves within the city fabric



Creation of controlled entry points and boundary system



Interconnection of similar heterotopic enclaves



The heterotopic enclaves grow to create a parallel neighborhood and then a parallel city structure

Figure 1.26. Development of the heterotopic enclaves into a parallel city structure. Courtesy of Noheir Elgendy

From department stores to malls is a small step, and from malls to multilevel megamalls like Langham Place, Hong Kong, is the result of the scaling up of mass communications and easy transport access via subway and automobile. Steven Holl's Linked Hybrid (2003-9) in Beijing, China also shows the impact of the megacity in a megablock, experimenting with new public spaces in high-level links between towers on the site of an old work brigade factory. In urban terms, temporary exhibitions and world fairs played a great role as places of experiment, as at the Brussels World's Fair in 1958 or Osaka in 1970. World fairs meant that entire cities became the subject of design, as the host city upgraded itself for the occasion. (Foucault, 1997) Similarly the Olympics came to have a heterotopic and transformative effect after the 1964 Tokyo Olympics, followed most successfully by the Barcelona Olympics of 1992, the Beijing Olympics of 2008, and London in 2012.

The Creation of parallel cities

Like Lynch, Rowe, and Koetter, Secchi maintains that urban actors and elements have ambiguous and complex relationships that can be analyzed through a layered, "space body" approach, like a collage. Rowe and Koetter's Collage City (1978) distinguished a whole category of heterotopic, "ambiguous" buildings that glued the city together, while in A Theory of Good City Form (1981) Lynch portrayed the city as woven together from disparate, linear elements of ideal "fast" and "slow" growth strands, creating an ambiguous hybrid tartan.

The process of fragmentation of the city due to the appearance of a diversity of heterotopic enclaves within the city fabric lead to the appearance of a parallel city composed of this excluded enclaves. This parallel city forms relations and interconnections between these heterotopic enclaves producing a system that competes with the city, sometimes pushes the city forward and others act as an Anticity.

Fragmentation does not mean an absence of community, the absence of rules or the absence of physical and social order. The acts of the Anticity are born from a

need to “make the city”, the modern components of the city work against the need of people to live together and to recognise themselves in those forms. Consequently, the components of the Anticity help to avoid anonymity, the loss of identity linked to blood, race, culture, religion which the sharing of space can produce.

The parallel city is not only that which emerges from the fact that too many similar kinds of lives are concentrated in spaces which are too alike, and where urban revolts explode, showing a total alienation from the urban condition. The parallel city is a source of deep energy and is apparently peaceful. It does not oppose itself to the cities where we live; instead, it tends to erode it from within. Without making big gestures, it moves quietly and often invisibly within the mechanisms of reproduction of contemporary urban space; it breaks down connections, and unties knots, it compromises the very workings of the city. It is not born from exclusion or a sense of revolt, but from the fragmentation and dissipation of those vital energies which flow in every corner of urban life. This parallel city does not grow through processes of concentration and closure, but rather in those where urban connections are diluted. It does not create an alternative to that city we have inherited, but is, if anything, a more recent version of it, something post-modern.

While part of contemporary life, the parallel city co-exists with other historic forms of production in the city, with its important social and physical divisions linked to industrial modernity, the expansion related to the Renaissance era, the mono-centrism of the medieval city. In order to develop, it has no need to destroy the physical legacy of the city, but tends, rather, to conquer it from the inside and reconfigure its spaces, erecting barriers and breaking them up. The Parallel city is nothing other than the city which we are aware of and where we live; it is not a form of cancer and nor does it represent the death of the city. It is an underground city which has always flowed in the veins of every urban community. A river which collects urban energies linked to daily lives and pushes them towards individualism and fragmentations which, at times, explode.

But there are episodes, periods and epochs when the city stops working as a necessary counterpart to those aggregative pulses which push forward urban society; it stops being a necessary break from the over homogenous nature of ordinary urban space, between one house and another, one neighbourhood and another and one city and another. In these periods the parallel city begins to dominate, it becomes all-powerful. It even sets the rules for daily life. Its energy – which is no longer contained or controlled by the power of links to neighbours, by density, by the urban condition – is freed up through a myriad of small activities, which dilute the value of human relationships and construct enclaves where there is no social or cultural variety. It weakens relationships between different communities and transforms differences of identity and culture into physical barriers. Today, we are living in one of these moments. This is the time of big urban areas, the time when cities have had success on a global scale and the urban condition has become pervasive. But the global success of the political, economic, symbolic model of urban life,

which is considered by everyone as the most efficient way to live in the world, runs the risk of undermining the essential aspects of the way the city is made. Often, in reality, it is the anti-urban values which are winning, with the accelerated speed of urban growth, the megalopolis created by unstoppable internal migrations, and the numerous edge cities produced by uncontrolled decentralisation.

In the period when the urban condition is winning, the parallel city is building huge cities without borders across the world, places which are extending into those areas which were once used for agriculture or simply left to nature, and these new cities are made up of a number of mono-cultural islands which are uninterested in the workings of the geographical and anthropological organisation of which they are part. (Boeri, 2011)

Yet, even at this time, paradoxically, the parallel city remains an essential part of the creation of the city. It cannot stop feeding off those energies which are pushing towards the coming together of spaces and social groups, in order to fragment and weaken them; those energies which bring people together and create links between them, which connect up identities and favour the sharing of experiences and daily practices.

For all these reasons, today more than ever, we need to understand the Parallel city in all its forms, and recognise these forms with clarity, while avoiding the temptation to see them not as part of our own lives. We need to understand where and how they work, what rules they follow how they push themselves.

"Despite the preponderant significance of the city in our civilization, however, our knowledge of the nature of urbanism and the process of urbanization is meager. Many attempts have been made to isolate the distinguishing characteristics of urban life. Geographers, historians, economists, and political scientists have incorporated the points of view of their respective disciplines into diverse definitions of the city."

Louis Wirth, 1938

"In order to go forward and consider the city that might be, we must look at the many visions of our cities since the beginning of the massive urbanization that marks this century. What have the proposals been? Have they been tested, and if so, what have we learned from them? What were the values that guided their authors, and to what extent has society itself changed in the unfolding of the saga of the twentieth-century urbanism?"

Moshe Safdie, 1997

Conclusion

This chapter investigated the processes of transformation in the city meaning and values. And although each city has its specific situation, yet despite distinct differences of scale and resources, of climate and history, there is, indeed, a universal pattern. Everywhere in the world we find examples of expanded regional cities - cities that in recent decades have burst out of their traditional boundaries, urbanizing and suburbanizing entire regions, and housing close to a third of the world's population. (Thomas Angotti, 1993) These patterns need to be explored and understood. Through this chapter an attempt was made to decode the processes that allowed the transformation in the form and structure of the contemporary city. Starting from the concept of the city, and the creation of the walled cities as concrete unified enclaves to the fragmented megacities, an investigation was made to trace the processes of creation of private enclosed heterotopias that interconnected to create parallel cities. The parallel cities sometimes acted as anti-cities reversing the city codes and others were planned to follow the city design yet acted as separate independent entities.

The contemporary city has developed a diversity of models to adapt its political, social and economical conditions, yet some of these models are not planned. They are the resultant of the laissez-faire land-use planning policy that many cities adopted that created the fragmented mega size cities. From the metropolitan model

to the mega/merta-city model, the cities have developed new modes of growth at unprecedented rates. This caused the city theory to follow the actual patterns of growth and development and a deficiency in predicting the contemporary city future, just an attempt to understand its processes and proposing forms of taming it.

During this chapter, we have traced the city elements, and how they have changed in form and developed new activities with the complex nature of the contemporary city. Using Grahame Shane categorization of the city elements into enclave, armature and heterotopia, we have traced the transformation in each of these elements and their effect on the contemporary city structure. The heterotopia as a concept coined by Michel Foucault in 1960s could be considered the testbed for changes in the city. They are the elements through which new visions are experimented and through which solutions emerge for the marginalized and neglected. The contemporary city elements with the transformation from a city model to the other, have developed a complexity of activities forming hybrid systems of two elements or more. This presented new typologies of the city elements that have caused further fragmentation of the fabric, yet developed new logics and systems.

The sprawling city and its dispersed patterns, the invention of the mega-scale hybrid elements, as well as the emergence of new urban heterotopias as the gated communities and the megaslums have developed to create new patterns within the contemporary city. Each of them evolved to accommodate certain circumstances and needs. They have developed forming borders, setting rules, and suspending the entire city laws outside their walls. They define by time their urban character and logic, satisfying their economical, social and cultural needs, thus creating their own 'state within the state'.

The sprawl of these urban enclaves that acted as heterotopias within some of the contemporary metacities has produced a parallel city, an Anticity, holding the notions on which they were created. This anti-city acts as a counterpart to the formal planned city, competing and forcing its rules, untying the city knots and creating new bonds and connections. Through the study of the origins of the city and exploring the appearance of the urban heterotopias and their several mutations reaching the anti-city, this chapter presented an understanding of the contemporary city artifact, focusing on the forces beyond the formation of the parallel city and how we might take control of current patterns. For an understanding of current needs, contemporary behavior, and real economic necessities.

In order to get a deeper understanding of the phenomenon of the parallel city, in the next chapter we will focus on Cairo, one of the megacities which have undergone the process of formation of three parallel cities within its territories. Each of them emerged and evolved for certain reasons and conditions, accommodating a certain sector of the community. Through the next chapter we would explore these parallel cities, their processes of creation, their interrelationship and their effect on the whole city territory

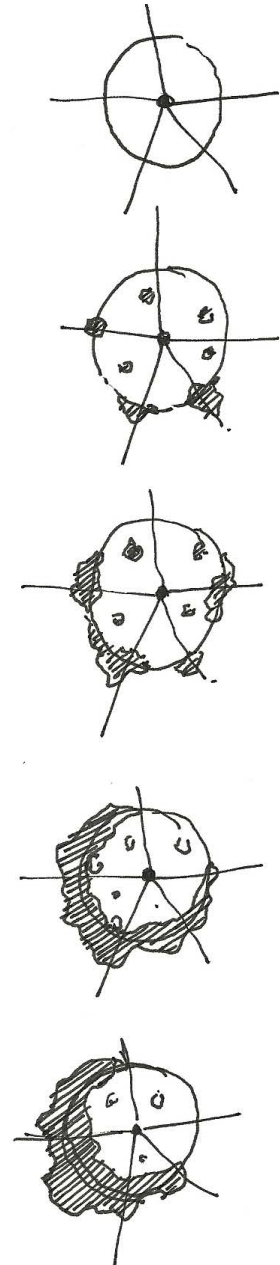


Figure 1.27. Development from the city model to the parallel cities model

Bibliography- Chapter 01

- Angotti, T. (1993). *Metropolis 2000*. New York: Routledge.
- Aristotle. (2005). *Politics*. The Loeb Classical Library (Vol. XXI). Cambridge, MA and London: Harvard University Press.
- Barnett, J. (1996). *The Fractured Metropolis: Improving The New City, Restoring The Old City, Reshaping The Region*. New York: Harper-Collins .
- Baudrillard, J. (1998). Simulacra and Simulation. In M. Poster (Ed.), *Jean Baudrillard, Selected Writings*. Stanford University Press. Retrieved from http://www.stanford.edu/dept/HPS/Baudrillard/Baudrillard_Simulacra.html
- Boeri, S. (2011). *The Anticity*. Abitare, 513.
- De Caeter, L., & Deheane, M. (2008). *Heterotopia and the city : public space in a postcivil society*. New York: Routledge.
- Doxiadis, C. (1963). *Architecture In Transition*. New York: Oxford University Press.
- Evans, R. (1971). *Bentham's Panopticon: an incident in the social history of architecture*. *Architectural Association Quarterly*, 3(2).
- Foucault, M. (1967). *Of Other Spaces*. (C. David & J.-F. Chevrier, Eds.). Kassel: Hatje Cantz. Retrieved from <http://foucault.info/documents/heterotopia/foucault.heterotopia.en.html>
- Foucault, M. (1978). *Discipline and Punish: the Birth of the Prison*. New York: Penguin.
- Gottmann, J. (1961). *Megalopolis: The Urbanized North-eastern Seaboard of the United States*. New York: Twentieth Century Fund.
- Gregotti, V. (1990). *Atopic typologies*. Casabella, 568.
- Haw, S. G. (2006). *Beijing-A Concise History*. London: Routledge.
- Hobsbawm, E. (1996). *The Age of Extremes: The History of the World, 1914-1991*. New York: Penguin.
- ISoCaRP. (2001). 37th International ISoCaRP Congress 'Honey, I shrunk the Space - Planning in the Information Age', (September).
- Jencks, C. (1995). *The Homeless*. Cambridge, MA: , Harvard University Press.
- Judt, T. (2006). *Postwar: A History of Europe since 1945*. New York: Penguin.
- Kitto, H. D. F. (1951). *"The Polis" from The Greeks*. London: Penguin Books.
- Koolhaas, R. (1978). *Delirious New York*. New York: Oxford University Press.
- Kostof, S. (1991). *The City Shaped: Urban Patterns and Meanings Through History*. Boston: Little, Brown and Co.
- Krugman, P. (1996). *The Self-Organizing Economy*. Oxford: Blackwell.
- Le Corbusier. (1987). *The City of Tomorrow and its Planning*. New York: Dover.
- Luke, T. W. (1994). Aesthetic Production and Cultural Politics: Baudrillard and Contemporary Art. In D. Kellner (Ed.), *Baudrillard: A Critical Reader*. Blackwell: Oxford.

- Lynch, K. (1961). *The Image of the City*. Cambridge MA: MIT Press.
- McGrath, B., & Shane, D. G. (2005). Sensing the 21st-Century City-Close-up and Remote. *Architectural Design*, 75(6).
- McHarg, I. (1969). *Design with Nature*. New York: Garden City.
- Mumford, L. (1937). "What Is a City?," *Architectural Record*, LXXXII.
- Portugali, J. (2000). *Self-organization and the city*. Berlin: Springer-Verlag .
- Rossi, A. (1984). *The Architecture of the City*. Cambridge: MIT Press.
- Rowe, C., & Koetter, F. (1978). *Collage City*. Cambridge MA: MIT Press.
- Safdie, M. (1997). *The City After The Automobile: An Architect's Vision*. WestView Press.
- Salat, S., & CSTB. (2011). *Cities and Forms on Sustainable Urbanism*. Hermann Editeurs des Sciences et des Arts.
- Shane, D. G. (2005). *Recombinant Urbanism: Conceptual Modeling in Architecture, Urban Design and City Theory*. Chichester: Wiley-Academy .
- Shane, D. G. (2011). *Urban design since 1945. A global perspective*. Chichester: Wiley.
- Siza Vieira, A. (1984). L'accumulazione degli indizi. *Casabella*, 498(9).
- Ungers, O. M. (1984). Modificazione come tema. *Casabella*, 498(9).
- Van Pelt, R. J., & Westfall, C. W. (1991). *Architectural Principles in the Age of Historicism*. New Haven, CT, and London: Yale University Press.
- Wirth, L. (1938). Urbanism as a Way of Life. *American Journal of Sociology*, XIV,(1).

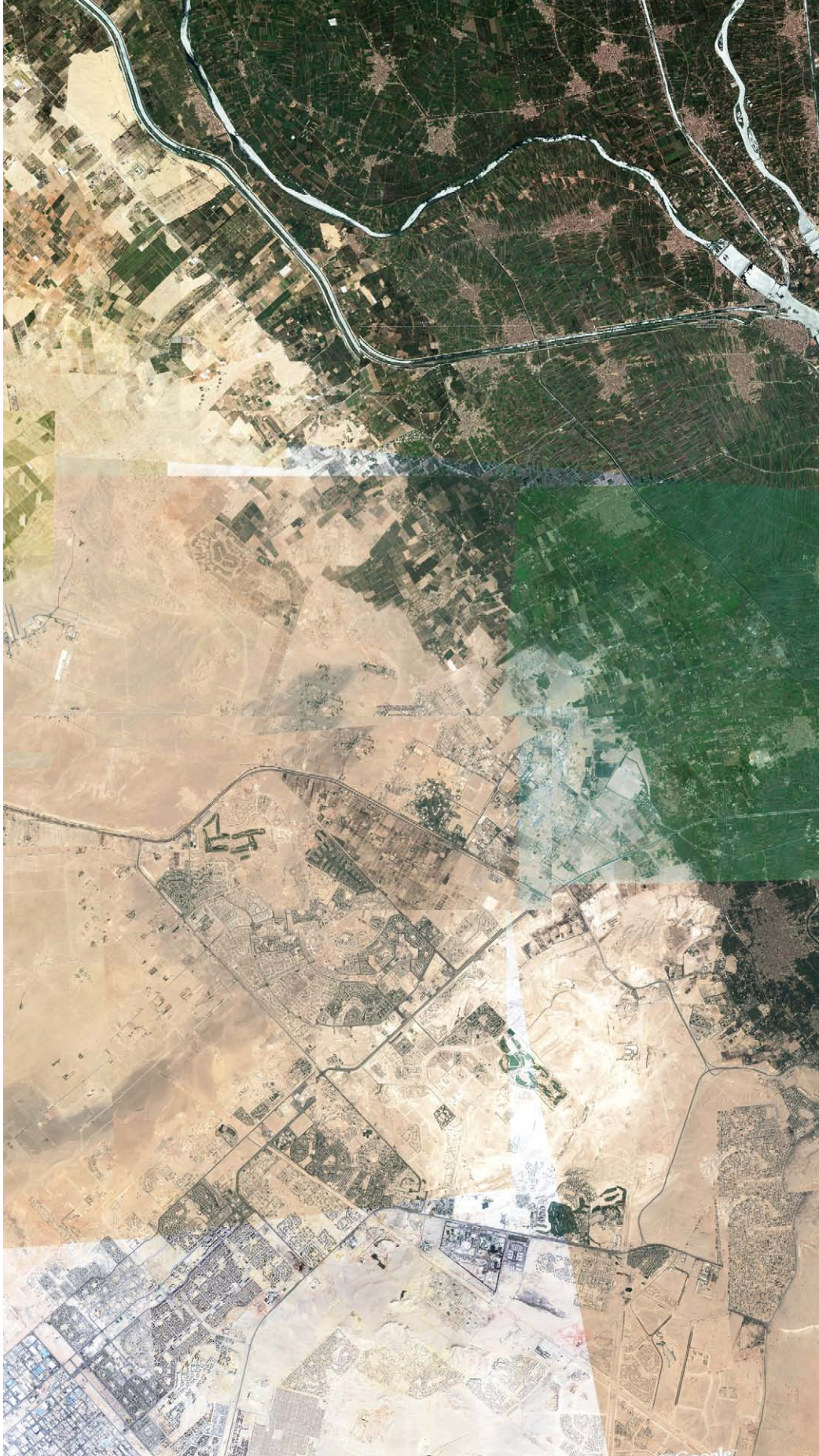
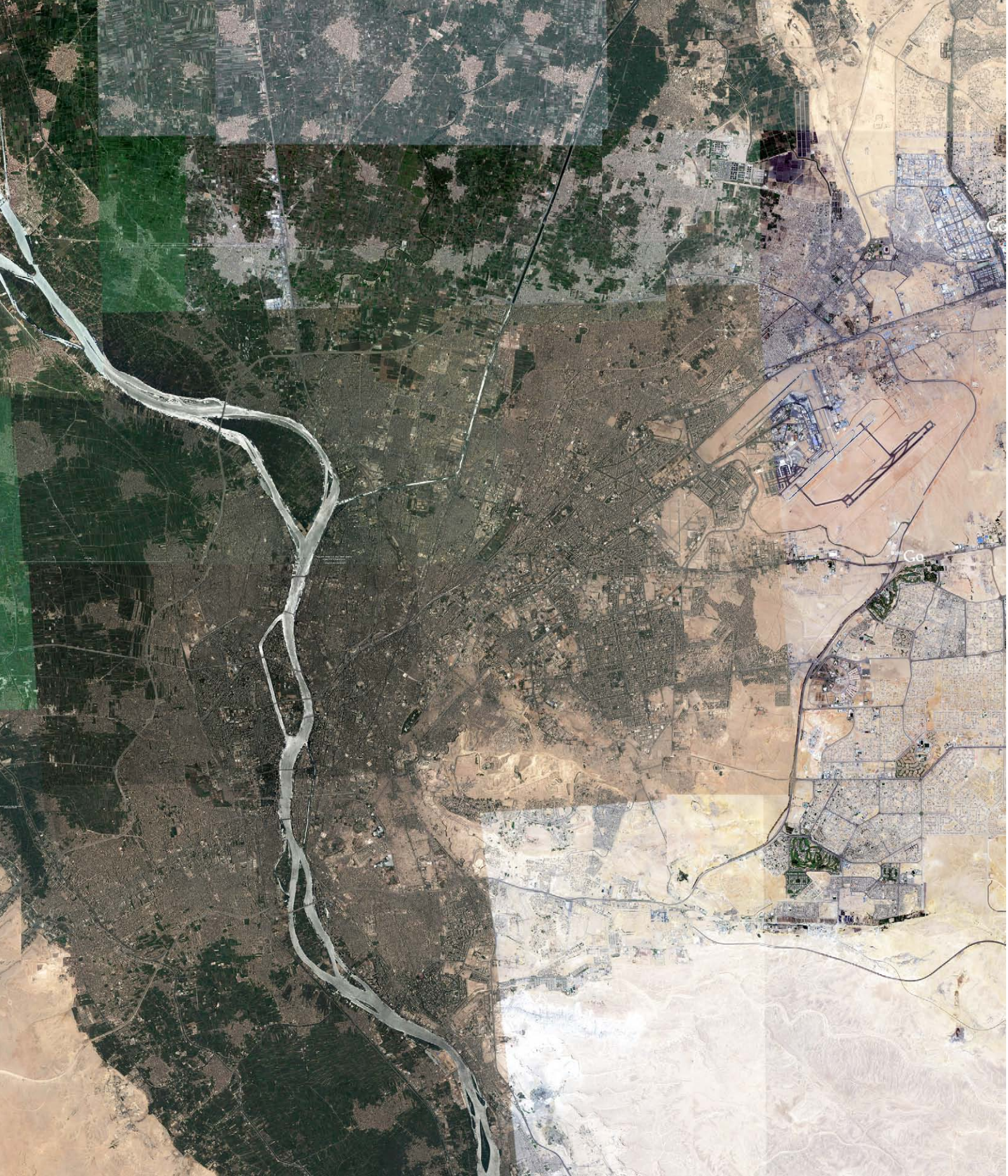


Figure 2.1. Cairo Satellite Image
Courtesy of Google Earth 2012



Chapter 02

2.0 THREE PARALLEL CITIES: THE CASE OF CAIRO

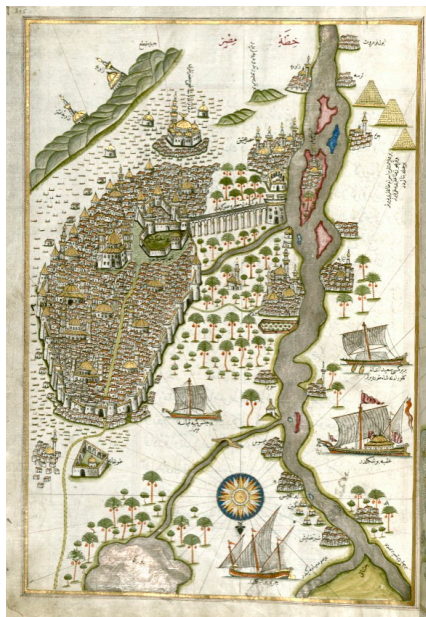
2.1 The Formal City
Modern Cairo
The Open Door Policy
Decentralization of formal Cairo

2.2 The Informal City
Emergence of the phenomenon
Controlling the Informal city
The Informal City Exposed

2.3 The Desert City
Manufacturing the desert city
New Towns
The Gated Communities

“Perhaps today’s greatest riddle is not so much ‘where is Cairo headed?’ as ‘where is Cairo at all?’ Is it in the old quarters, or the remnants of belle époque downtown, or in the new middle-class areas on the west bank, or in the satellite cities of the desert? Or is the real Cairo to be found in the myriad hovels in which most of the people actually live? ... Does a collective hallucination sustain the image of an ancient venerable city when it is in fact disfigured with slums and crass consumerism?”

Maria Golia 2004



Map 2.1. Cairo Map by Piri Reis, 15th century
An Excerpt from Youssef Rakha’s “In Extremis: Literature and Revolution in Contemporary Cairo (An Oriental Essay in Seven Parts)”

Greater Cairo is a city that has expanded over many millennia of political change without losing its centrality or coherence. The exponential growth of Cairo’s population in the last generation has been matched by radical expansion of the metropolitan region’s boundaries turning it into a megacity. (Abu-Lughod, 2010) According to the 2006 census, around a quarter of Egypt’s approximately 73 million inhabitants live in Cairo, amounting to nearly half the country’s urban population. Egypt’s other cities seem almost provincial by comparison. (Kipper, 2009) It is not simply its physical size or the number of its inhabitants that account for Cairo’s status as Egypt’s principal city. The country’s economic and political life is also concentrated there. Most of Egyptian industry, as well as many jobs, are located in the capital. In the past, this centralization of jobs has led to a massive migration of rural populations to Cairo in search of jobs and an improved living situation. In terms of investment and development, Egypt can be seen as a country of two speeds, with a huge gap between the fast-paced city of Cairo and the much slower rural and peri-urban areas. Everything in Cairo is faster than in other parts of Egypt: the growth rate of the city, the traffic, and the pace of life in general. (Kipper, 2009)

Cairo is a city in transition; it has quadrupled in the last fifty years, and has undergone several transformation and mutations since then. The view of the city from outer space using Google Earth reveals a variety of settlement patterns, indicating the diverse eras of its development: the Islamic quarter with its narrow and angled streets, for example, or the Downtown area patterned after Haussmann’s plan for Paris. (Kipper, 2009) Cairo is a moving target, as any dynamic must be, yet the reasons and forces beyond these continuous transformations needs to be investigated and addressed. It is important to understand the forces beyond its drastic transformations. The city which is described as confusing, disorganized and simply out of control. This situation was produced by the unbalanced powers of the formal and informal sectors of the city, has produced a city that grows beyond planning and the governmental input in mastering the city is almost negligible. This leads to the emergence of parallel cities within the city that are growing constantly, suspending all the city rules, and laws and creating their own codes and norms. These cities can be described as a parallel city or an anti-city presenting a new logic that now defines Cairo.

Cairo has been surrounded by two myths in the past decade, which created the meta-narratives, around which most of the literature about Cairo has been produced. The first myth of the city as an explosive device is familiar to most. Indeed, many academics, reporters, and international diplomats continue to stake their careers on incendiary images of the city: Cairo as a population bomb, a pollution epicenter, a laboratory for explosive terrorists cells, the flashpoint for communal Coptic-Mus-

lim riots, or ground zero for insurgent solidarities such as anti-American protests, anti-IMF riots, pro-Palestinian or Islamic Movements. In these representations, the people, spaces, public opinion, and state institutions of Cairo are projected onto fantasies about the Arab Street, a racist euphemism popular with journalists. The Arab Street term means when evoked by journalists and academics today, means the worst kind of barbarous urban mob, threatening local and global orders such as the Camp David Accords or Free Trade and IMF-instituted structural adjustment (Bayat, 2003). Real-estate developers and politicians exploit more and more the stigmatization of the street, spread by the media on a global scale, arguing that the Arab metropolis is a terrorist risk factory. This Islamist Peril, legitimizes political de-liberalization (including repression, torture, election-rigging) while promoting a particular landscape of perverse economic liberalization (producing gates, walls, mass arrests, and surveillance systems rather than any social or labor equivalent of a free market). (Denis, 2009)

Paradoxically, the second well-worn myth about Cairo proclaims the megacity to be anything but explosive. In the tomb myth, the city is hyper-passive - dead or ruthlessly repressed and thus quiescent. Often noting and blowing out of proportion the fact that some Cairenes reside in cemetery zones, internationalists romanticize Cairo as 'The City of the Dead.' The city is depicted as a "Saharan landscape of mummies and pyramid-crypts, an open air museum of monumentism, a veiled feminized site of submission, an impenetrable warren of Oriental alleyways and timeless urban peasant traditions." (Diane Singerman and Paul Amar, 2009)

Neither of these meta-tropes or categories of popular narrative permit the development of a more nuanced recognition of the causes and contours of Cairo's activities, diversities, cruelties, contentions and modern relevance. This lack of attention to Cairo's broader forms of agency has enabled the reproduction of essentialized misunderstandings of the whole region. As a result, global publics as well as those within the Middle East remain unfamiliar with the lives and concerns of many classes and forms of agency at work in the region, and incapable of imagining quotidian life and subjectivity. Although Middle Eastern dictators and kings, obsessed with national security and repressing internal diversity and dissent, strive to embody Arab states as rigid, monolithic national-security polities, and rarely critique these mythic tomb and bomb discourses. (Diane Singerman and Paul Amar, 2009) However, these two myths were proven wrong with the rise of the Arab Spring represented in Egypt by the Twenty fifth of January revolution, which stood against the tomb myth that advocated the city as dead and that the long decades of repression, made it impossible for the people to rise once more and ask for their rights, this was the fact, which stunned all who believed that Cairo was a tomb. On the other hand, how peaceful the revolution took place, also proved that Cairo was not an explosive bomb. These two meta-narratives of Cairo, no longer exist and thus highlights how important at this moment, to identify what Cairo really is, to address its different constituents to get an understanding of the whole.

"In many ways, Cairo is completely out of control, at least by the metric of western urban management. Two-thirds of the city's population now live in neighbourhoods that have sprung up since 1950, devoid of any planning or control, and which are considered by officialdom as both illegal and undesirable. In contrast there are vast extensions of the urban region that are completely devoid of any inhabitants. Housing in Cairo is built, and property exchanged, in contravention of a host of laws; transport functions in strange and apparently contradictory ways; and hanging over all are near-dysfunctional and largely irrelevant bureaucracies."

David Sims, 2010

"Greater Cairo- referred to as the "City Victorious" and "Mother of the World,"- operates as the political capital of the Arab League and pan-African institutions, and as the guardian of a significant portion of humanity's architectural heritage. Modern discourses and practices that make up the contradictory essence of today's globalization- 'mass tourism,' 'counter-terrorism', and externally imposed 'fiscal adjustment' were first tested and developed in and around colonized Cairo in the late 1800s. And in the twentieth century, the urban spaces of Egypt's capital have served as the cradle of modern revolutions, insurgencies, and solidarity movements: Nasserism, Arab Socialism, Islamism, Third Worldism, Mediterraneanism, the non-Aligned Movement, Pan-Africanism, and so on.

Diane Singerman and Paul Amar, 2009

“Cairo is a chaotic megalopolis where life is characterized by extremes, both of tradition and of modernity”

Regina Kipper 2009

“The use of the term megacity, introduced by Janice Perlman and used by the United Nations since the late 1970s, implied much more than just a quantitative aspect, applied to urban agglomerations of more than 10 million inhabitants. The expression carried beleaguered associations with the most negative and problematic traits inherent in cities. The complexity of agglomerations and critical mass we see today as full of potential was at the time perceived as a problem that could not easily be addressed.”

José Castillo, 2007

So in this chapter, I would like to present Greater Cairo's evolution and how it exemplifies the emergence of the parallel city phenomenon within megacities. Through, identification of the elements of the parallel cities within Greater Cairo fabric and the process of creation of enclosed heterotopias acting as test beds for changing the city norms and rules. And how these heterotopias, whether belonging to the formal or informal sectors of the city, have affected the structure and balance of powers in the city. Yet, in order to understand how Cairo got to where it is now, it is best to start in the middle of the twentieth century, roughly in 1950. At that time the city had just emerged from its wartime restrictions and the literal as well as figurative hangovers of the massive Allied Forces armies. Cairo was bursting as its seams, since large migrations from the countryside had already commenced, while all urban projects had been frozen by the war. The metropolis contained roughly 2.8 million inhabitants, less than one-sixth of the number today, but the population was expanding at over 6 percent per year. Cairo's already significant industrial base soon started to expand rapidly, as bourgeois industrialists began to invest heavily in consumer industries protected by high import tariffs. In effect, Cairo was poised to expand at a scale never before seen in its history. Thus allowing a reading of the relation of the parallel cities and outlining the debate between the formal and the informal. This would be done through studying Cairo's urban development from 1950 by focusing on three distinct morphological phenomena or urban forms; firstly, the continuing growth of the formal city, secondly, the emergence and explosive expansion of the informal city, and thirdly, beginning in the late 1970s, the crafting of the modern desert city. Each of these urban form contains its own causes, rules, and norms, and although there have been some blurred and overlapping edges between the formal and informal cities, each of the three forms is fundamentally physically and legally separate.

2.1 The Formal City

The formal city represents the original city planned along the Nile, excluding the new towns in the eastern and western deserts and the informal settlements along the periphery. The formal city is constituted of numerous juxtaposed layers, presenting different eras, paradigms and visions. The Coptic city, the Islamic city, and the modern and postmodern cities, all exist parallel to each other. The formal city also presents a mix of different social, economic and cultural backgrounds neighboring each other and completely integrated.

Modern Cairo

In 1950 virtually the whole of Cairo could be considered as formal. That is, up to then, the modes of city formation had been mainly legal, in the sense that they were real-estate projects and land subdivisions that conformed to the laws and government controls existent at the time. This should also include historic Cairo, with its narrow and winding streets and jumbled mix of monumental and decrepit buildings, as during the period of its development, which extended over almost one thousand years, there were no controlling legislative frameworks, and thus, strictly speaking, its evolution was 'formal'. (Sims 2010)

At that time almost all Cairo's urban population existed on the East of the Nile. But since the 1950s and early 1960s formal Cairo expanded substantially, mainly through the mechanism of state-sponsored subdivision projects in combination with private housing companies. The largest of these was in what is now Mohandessin-Agouza west of the Nile. Other subdivisions were launched at this time were smaller in scale, such as in al-Darrasa, Muqattam, Hilmiya, al-Zeitoun, and Helwan. Many were located in the 'Northern City', which had doubled in population over the 1947-60 period to reach 1.6 million inhabitants, over one-third of Cairo's population. With few exceptions these new districts and neighbourhoods were located directly on agricultural land next to the existing fabric.

The Open Door Policy

Then the 1967 war put an abrupt halt to all of Cairo's formal urban expansion. Egypt rapidly shifted to a wartime economy, with controls on materials, foreign exchange restrictions, and conscription that vacuumed up the labor force for the duration. Little of the government's budget could be spared for maintaining Cairo's infrastructure, let alone any new urban projects. This has all changed by the mid-1970s President Sadat's Infitah, or Open Door policy, which took hold in Egypt and especially in Cairo. In a very short time local capitalist entrepreneurs began to re-emerge, and Egyptian workers started to flood the Gulf countries and send back remittances. Imported goods, through exclusive local import agents, began to appear, as did foreign oil companies and banks. A real-estate boom began to change formal Cairo's landscape, with residential tower blocks, new hotels, and office complexes. Building controls seemed not to exist, and many landlords gleefully added

“Cairo of the 1950s witnessed Egypt’s earliest experiments in what was to become a long and continuing love affair with the state-subsidized public housing. The first law governing state aided social housing was Law no.206, issued in 1951. The first project was ‘Masakin al-‘Ummal project in Imbaba, conceived in 1948 and only partly completed... Other public housing projects were launched around Cairo after the revolution in 1952 and into the 1960s, all of which were walk-up apartment blocks, with initially of a maximum of four floors.”

David Sims, 2010



Map 2.2. Built-up area of Cairo 1950 compared to 2009 .
(From Maslahat al-Misaha - Egypt Survey Authority map series 1:100,000, sheets 30/31 (1949) and 31/32 (1951).
Courtesy of David Sims

several floors onto existing buildings. Infrastructure projects, mainly symbolized by the Sixth of October Bridge and flyovers, began to appear. The boom continued into the 1980s, with the introduction of the first metro line and highways such as the Autostrad, and numerous subdivisions were added onto existing urban layouts. This all has led to a noticeable expansion and densification processes in Greater Cairo's urban fabric, whether legally or illegally.

Yet the 1970s and 1980s formal Cairo's horizontal growth remained limited to the north-eastern desert quadrant, and this continued up to the present day. Any formal subdivisions on agricultural land were prohibited, which meant that the whole northern and western arcs of Cairo's fringe, those areas that would have been the most economically feasible and profitable for development and that had been earlier axes of expansion, were shut off. On the other hand, the state adopted the new towns as the unique focus of its urban development policies, and had launched a number of these in desert locations around Cairo. In addition to a rent control policy which continued to dampen severely any in-town real-estate investment.

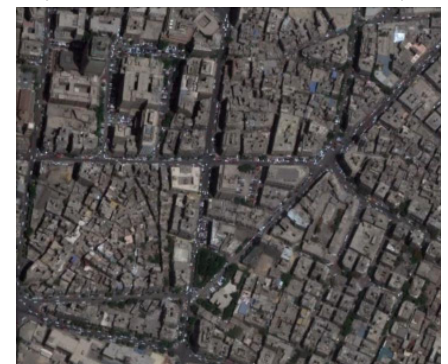
Decentralization of Formal Cairo

This was translated in the population shifts in the formal city; the most startling aspect was the progressive depopulation of the older, especially historic districts in central Cairo. Such a trend was noticeable as far as back 1966 when, according to the census, six aqsam (central districts) had lost population. By 1986 this number had increased to eighteen districts. The exodus from central Cairo seems to have peaked in the 1986-96 period, when inner districts of Cairo Governorate lost over 500,000 inhabitants, a whopping 20 percent of their 1986 populations. In 1996-2006 periods, the trend continued, albeit at a slower overall rate. All of the inner seventeen districts continued to lose population, but the overall loss was 251,000 inhabitants over ten years, representing 12.1 percent of the 1996 population. The causes of such large population shifts out of historic and core formal areas were partly slum clearances for prestige projects. But in most area the main factor was the increasing commercialization of space and the conversion of housing into small factories, warehouses, and wholesale operations, couple with the slow deterioration and even collapse, of much of the older housing stock.

This has led to the formulation of a new sort of isolated urban pockets within the city center. The repulsion of investments due to certain rules and laws in those areas lead to deterioration in the urban conditions and the commercialization of the neighbourhoods changed their identity and character. This produced a sort of heterotopic 'islands' that present a new genetic transformation of downtown Cairo, including the concentration of new activities, delaying certain zones and isolating a community that has long existed in that place, but are no more homogenous with the rest of the city fabric or life. These heterotopias exist in different areas of downtown and they attract small investors according to the activities, trade and the community social and cultural background.



Downtown Cairo fabric. (Image dated 2012, courtesy of 2012 Digital Globe/ 2012 GOOGLE.)



Part of Downtown of Cairo fabric showing the transformations in the functions and the deterioration of the fabric. (Image dated 2012, courtesy of 2012 Digital Globe/ 2012 GOOGLE.)

Figure 2.2 Deterioration of Downtown Fabric



Figure 2.3 Aerial view of Formal Cairo along the Nile, representing the image promoted by the government of contemporary Cairo. Courtesy of www.cartinafinland.fi

Over the last twenty-five years these pockets have undergone a series of attempts aiming at cleansing formal Cairo of its more noxious and least attractive activities. In the 1980s the removal of car repair workshops from the downtown precincts gained momentum, and although new 'car repair cities' were created within government housing estates in outer areas, few downtown workshops actually closed. In fact, the efforts made to get rid of central parts of Cairo undesired activities has been and continues to prove, the inability of authorities to comprehend just how tied smaller enterprises are to Cairo's fabric and how these neighbourhoods were created based on the mixite of activities and place

In the 1990s and 2000s Cairo has witnessed a number of improvements and metamorphoses. Infrastructure has continued to be extended. The Cairo Ring Road was built in stages. More flyovers were built, as was the al-Azhar tunnel. The second metro line was completed and construction of a third line commenced. Telecommunications were much improved, and mobile phones were introduced in 1996, becoming ubiquitous in almost no time. Yet, the decline of the downtown as the commercial center, already noticeable in the 1980s, accelerated, with most upscale establishments and offices opening or relocating to more prestigious quarters such as Mohandiseen, Heliopolis, Maadi, Zamalek, and Madinat Nasr. These areas also witnessed a new wave of higher quality apartment block construction, partly due to the liberalized rent regime that was introduced in 1996. Thus the city center was substituted by a number of centres throughout the megacity. This also encouraged the spread of the global trend of shopping malls, which suited the punctual intervention within the dense fabric and high land value. This prototype was easily accommodated and welcomed by the Egyptian community. This allowed the development of these hybrid buildings that included, in addition to shopping malls, hotels, office buildings, conference halls as well as residential buildings. These isolated hybrid entities represented another form of disintegration of classes and added to the overall fragmentation of the city fabric.

“The transformation of particular parts of the city overtime is very closely linked to the objective phenomenon of the delay of certain zones. This phenomenon can be defined as characterized by a group of buildings-which may be in their neighbourhood of a certain street or may constitute an entire district- that has outlined the dynamics of landuse in the surrounding area. Such areas of the city do not follow life; they often remain ‘islands’ for a long time with respect to the general development, bearing witness to different periods on the city and at the same time configurat- ing large areas of “reserve” .”

Rossi 1984

Generally a few districts have been added or extended to the formal city, in the last twenty years. And almost all of these have been located on the eastern desert fringes of Cairo Governorate, mainly on concession lands of the nationalized housing companies. Practically all of these subdivisions developments were aimed at the upper-middle and investor classes. By 1996 the formal city had a population of 4.8 million inhabitants, and this had increased only slightly to five million by 2006. In effect, the formal city had ceased to absorb population, and there were precious few opportunities for its further physical expansion. Certainly, urban metamorphoses within formal Cairo are continuing, although it is presented only in gentrification and punctual intervention. This left no choice for the majority of population, who were either neglected by the government or banished from old districts, to produce another form of urban development that suited their conditions and needs rather than the formal city. This makes it essential to understand Greater Cairo's historical development and its present state of play, to pay attention to the informal city and the desert city, these two urban forms that increasingly define the megacity and are, paradoxically, absolute opposites.

“It is, therefore, more than coincidental that, precisely in Egypt, the word ‘ashwa’iyat, which derives from the Arabic root that signifies chance, appeared at the beginning of the 1990s to designate slums, shantytowns, and the selfmade cities of the poor, i.e. illegal and/or illegitimate quarters. By the end of the 1990s, the term came to describe not just spaces but peoples, encompassing a near-majority of the city as risky, ‘hazardous’, errant figures.”

Eric Denis, 2009

“On the surface Cairo’s ways of coping seem hopelessly tangled and sclerotic. They can be maddening...By and large, though, the city’s mechanisms work ...In richer cities formal structures, rules, and regulations channel a smooth flow of things. In Cairo informal structures predominate.”

Rodenbeck 1998

2.2 The Informal City

In 1950 there were virtually no informal (ashwa’i - the Egyptian term for informality) settlements around Cairo. There is no recorded history of the germination of the phenomenon and the actors involved, but then, because of their marginal character and rather insignificant scale, informal areas did not generate academic or professional interest. It appears that there was no official resistance, even though these early informal subdivisions clearly contravened the subdivision laws and building code. Perhaps it was simply the fact that at the time government was increasingly preoccupied with creating new socialist zones and prestige heavy industry, and it could afford to ignore a few marginal, unregulated developments on the periphery. Informal areas began their incipient growth in the early 1960s.

Emergence of the phenomenon

A perusal of satellite imagery of Cairo shows that, during the earliest emergence of the informal city, some residential subdivisions were created that exhibited some ‘planned’ features. That is, lanes were strictly parallel and there were occasional cross-streets, which imply that someone plotted the area in drawings and set it out. The building patterns within these blocks are however indistinguishable from those in classic informal areas, that is, small building footprints, 100 percent plot coverage, and little or no allocation for public open space or social facilities.

Yet, the first small appearances of informal settlements multiplied in various locations of Cairo in the 1960s and early 1970s, both on agricultural land and in the desert fringes. In most of the earliest cases, subdivision and development began in what had been agricultural land, frequently being grafted onto existing rural settlements. This helps to explain, at least to some extent, the lack of official reaction. Rural housing was not regulated (building permits were unnecessary outside city limits), so local administrations had a plausible excuse for overlooking what was already becoming quite evident. And the logic probably went: If some farmers went to sell off some strips of agricultural land piecemeal, this can hardly be constructed as contravening the subdivision laws, which were meant for modern, proper housing areas.

But as during the war years between 1967 and 1975, all development of formal Cairo stopped, informal Cairo continued to grow, undoubtedly fuelled by continued in-migration and the need to accommodate some of the one million people evacuated from the Suez Canal zone. This was followed by a dramatic change in the domestic economic conditions in Egypt due to the liberalization of the Infitah beginning in 1974. Most importantly, Egyptians were motivated-and allowed- to travel freely abroad. This coincided with the oil price hike of 1973 (and later 1979) that soon made neighbouring countries, most importantly Saudi Arabia, Libya, and Iraq, awash with money and eager to hire all classes of Egyptians to do their work. Savings and remittances of these expatriate workers provided the main capital for the accelerated housing construction in the informal city, since it put serious

investment money in the hands of the kinds of families who were attracted to live in informal areas. Not unreasonably, for many, the preferred choice of investment was in land, bricks, and mortar. The level of construction in the large fringe areas already established before 1977 rose to fever pitch. New buildings appeared and, equally common, vertical extensions were added to existing buildings. Also, new informal areas began to be created or extended from existing villages during this period. According to Galila Elkadi's 1987 study, parcelling of agricultural land in some fringe informal areas was carried out by subdivision companies that operated in a kind of semiformal world. (El Kadi 1987)

Controlling the Informal city

Then in the late 1970s, The government being aware of the new phenomenon, it produced a series of decrees and orders, which made it increasingly illegal to build on what had been recognized as precious agricultural land, and parallel efforts were stepped up to preserve state lands from encroachment. Throughout that period, these proscriptions had little real impact, only making it more difficult for authorities to turn a blind eye and opening up a considerable business in petty bribes. There was little official commitment to tackle the issue, since it began to dawn on decision makers just how vast informal areas had become. For urban planners and the state alike, it was an unwelcome reality that hopefully could be wished away.

Mapping analysis comparing 1983 with 1989 showed that, at least in terms of major additional new lands coming under informal urbanization, development had slowed, with fewer sizable additions to the large fringe developments, and a somewhat reduced level of activity around satellite villages. The effect government control was having is debatable, but certainly a contributing factor was the drying up of remittance income from Egyptians working abroad. World oil prices began to tumble in 1983-84, and host countries began to apply restrictions to Egyptian workers at about the same time. The Iran-Iraq War in the 1980s led progressively to the elimination of the Egyptian worker's best bet, Iraq. Another factor working to slow down urban informality was demographic. Starting in the mid-1970s, the population growth rates of Greater Cairo proper started to fall significantly. During 1961-75 Greater Cairo grew at an average of 3.1 percent per year, but this rate fell to 2.7 percent for the period 1976-86 and to 1.9 percent for the period 1986-96. Natural increase rates retreated slightly, but also migration to the city decreased dramatically.

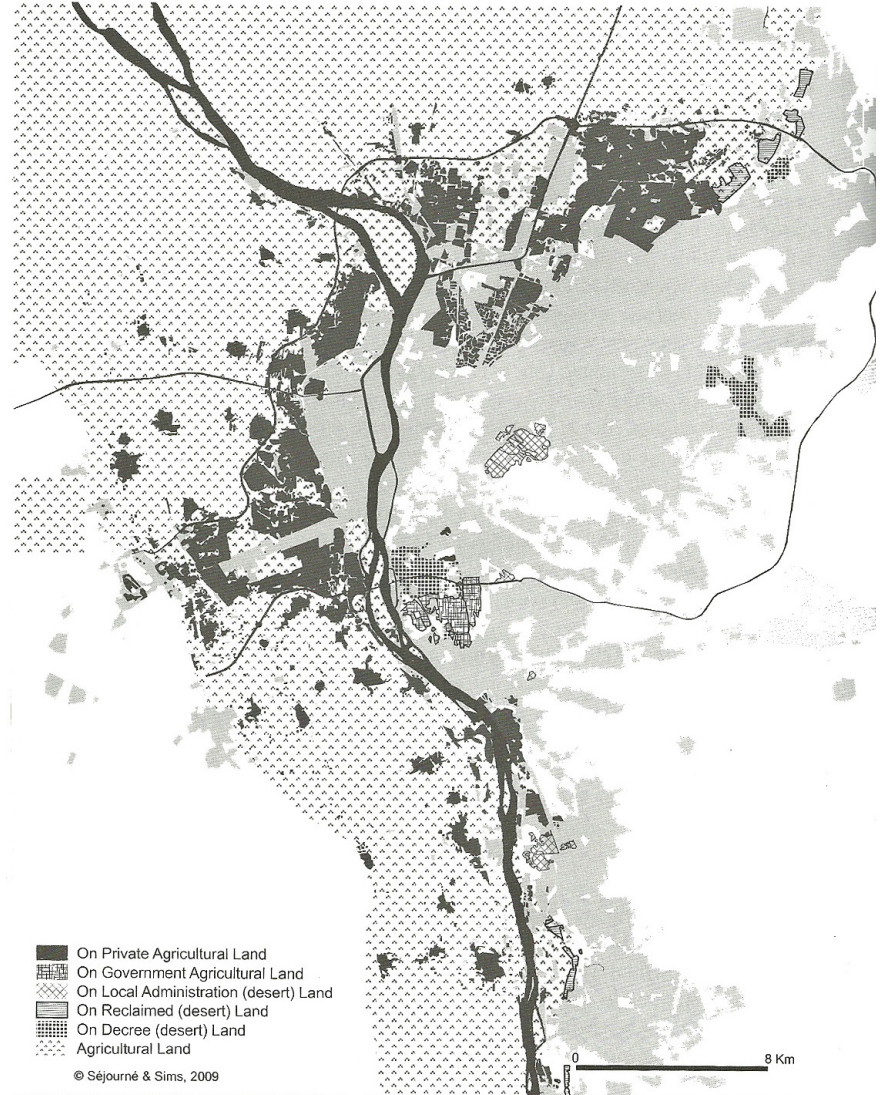
Although all new informal settlements or extensions started off without any public infrastructure or social services, as an area matured and the number of its inhabitants increased, needs became articulated and slowly authorities would give in, responding to pressures, and began to provide basic services, at least in the larger informal areas. This was especially true in the 1980s and 1990s, when the utilities authorities in Cairo finally were able to improve and extend networks, partly due to foreign assistance. Of course, such infrastructure services were slow in coming, often substandard, and varied considerably from location to location. In

"Private dynamism has replaced public planning. Greater Cairo has not been mastered or planned"

Sutton and Fahmi, 2001

"Informal development has been, and continues to be, the dominant mode of urbanization in many developing countries, including Egypt. It occurs especially on the urban fringes, on privately-owned agricultural land, rather than in desert areas, which would be considered squatting on state-owned land. Despite 30 years of attempts by the government to limit unplanned growth and urban expansion on agricultural land around Cairo, as it has in most Egyptian cities and villages, informal settlements around Cairo sheltered more than 7 million inhabitants in 1998."

Marion Séjourné, 2006



Map 2.3. Informal areas of Greater Cairo by typology in 2000.

Courtesy of Sejourne & Sims, 2009

addition, many of the minor water and especially wastewater lines were installed by neighbours themselves through *guhud zatiya* (self-help) efforts. This process of providing facilities and infrastructure gave it a sense of legalization and encouraged more the phenomenon of sprawl on agricultural land, as the facilities would eventually be installed.

Yet, some public facilities such as schools were rarely provided in informal settlements, since in Egypt such services are only built on available state land, which was in most locales extremely hard to find. This presented a problem for communities moving to Cairo in search for a better future for their children. But as most of informal settlements were built adjacent to formal neighbourhoods and most of the time providing them with labor, this enabled the informal settlements children to go to the state schools in these areas. This produced the pattern of daily movement across the formal and informal neighbourhoods through certain cross points and routes.

The Informal city exposed

These informal settlements by time have managed to develop a new model of the city neighbourhood, having a certain urban language and structure. Having definite border system and access points and presenting a new logic of the city that is based on negotiation and flexibility, they have formulated another form of the city urban heterotopias. They were able to adapt the environmental conditions, fulfil their needs and sustain their social and cultural origins within their defined entities that mix the village and city life.

The Cairo Ring Road started in 1985 and finally completed in 2001, it was meant to form a new edge for the city to control further expansions. Yet, this project sharply increased awareness of the informality phenomenon, as it skirted fringe informal areas of the metropolis. As they were never presented on maps or in any official documents, they were completely neglected. Ranking officials and middle class drivers began to use the Ring Road, and to their consternation could see from their vehicles massive reddish-hued informal housing areas stretching far into the agricultural plain. This was especially true on the northern, western, and south-western arcs of the Ring Road. No longer was the phenomenon out of sight, conveniently dismissed as a marginal aberration. In 2002 the then governor of Giza launched a demolition campaign that involved chopping off the ubiquitous concrete pillars protruding from the roofs of informal structures, intended to support future vertical extensions. However, his campaign never extended more than a hundred meters on either side of the Ring Road along its north-western arc, and within a couple years all traces of his actions had disappeared. The Ring Road itself as a project, presented the officials approach in solving one of the city's major problems, which is traffic. Statistically, the ring road serves 10 percent of the ridership in Cairo, represented in the people owning cars. This project which required huge investments neglected 90 percent of the population, who didn't receive any parallel solution in terms of public transports, or metro lines.

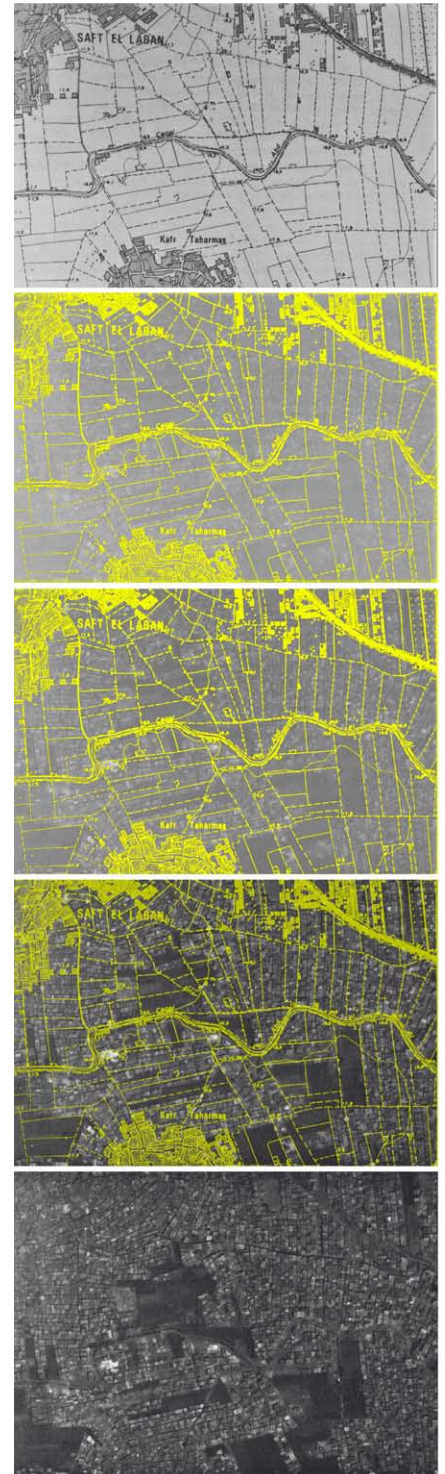


Figure 2.4. The process of informalization of Saft al-Laban neighborhood from agricultural land to and informal settlement.



Figure 2.5. Aerial view of Informal Cairo along the city periphery - developing on private owned agricultural land.
Courtesy of www.cartinafinland.fi

In the year 2000, an attempt to quantify the informal development phenomenon in Greater Cairo was carried out for Hernando Desoto's Institute for Liberty and Democracy (ILD). This study, based mainly on map and satellite imagery and on the detailed results of the 1996 Census of Egypt, concluded that of the estimated 11.4 million inhabitants of Greater Cairo in 1996, some 7.1 million, or 62 percent, were to be found in areas developed informally since 1950, covering 129 square kilometres. In other words, already a majority of the population and half of the residential surface areas of the metropolitan region were deemed to have been developed informally. (Sims 2002) study, undertaken by CEDEJ and published in 2002, confirmed the dominance of informal areas in Greater Cairo proper increased at an annual rate of 3.4 percent, and that the population in informal areas increased by 3.2 percent per year. This represented an additional 200,000 persons or 42,000 families each year. In comparison, the annual population growth in formal Cairo was only 0.8 percent. (Denis & Sejourne 2002) This study also showed how the forms of informal development had become much more nuanced. Few new areas on virgin land had been created; instead, the mode became more the infilling of agricultural pockets between informal buildings, and small accretions and additions to existing informal settlements and villages, along with the filling in and densification of informal areas on state-owned desert land.

Since then, the informalities acted as a counterpart of the city, which present the majority of its population, they have departed the stage of being neglected or marginalized and they began to claim for their rights, not just, in facilities and services, but also as a part of the city. They have managed to fulfil the needs of a large sector of Cairenes through producing a new form of development based of the community. As Sims quoted in his book, "Cairo has generated its own logics of accommodation and development, and that these operate largely outside the truncated powers of government or are at best in symbiotic relation with its weakness. For lack of a better word, these logics can be called 'informal'." (Sims 2010)

The informal city has continued to grow and absorb the majority of additions to Greater Cairo's population in the decade since 2000. And even the officials continued to disregard the phenomenon in terms of planning proposals, legal speech, as well as media. The informal city started to prove its dominance and gained more and more power, which was clearly present at the 25th of January revolution. The characteristics of the informal city, its dynamics, and evolution are described in greater detail in the next chapter. And the next section would give a brief history of the desert city.

"The failure of the Egyptian government's housing policy to provide affordable, viable housing for a significant number of Cairenes has led many to build homes—either semi-legally or illegally—on privately-owned or public lands. These so-called informal settlements are where approximately 70% of the inhabitants of Greater Cairo are now living, and provide the subject of the articles included in this volume. They are probably not the first thing that comes to mind when thinking about Cairo. The present book, however, aims to broaden the picture of a diverse city, rich in contrasts, and to highlight the realities of the majority of Cairo's growing population."

Regina Kipper, 2009

2.3 The Desert City

A closer look at a satellite picture also shows substantial development on desert land. Due to massive population pressure, city officials in the 1950s began developing land further outside Cairo in areas such as Nasr City. Beginning in the 1980s, so-called New Towns began to be planned. A number of these satellite cities have been built, but despite many incentives encouraging Cairenes to relocate, they have not prospered as they were intended to. Housing in the New Towns was and still is unaffordable for the majority of Egyptians. In recent years, urban development in desert areas has increased and much construction is currently taking place. These areas often feature decentralized housing and shopping facilities, and many businesses have relocated there. Universities such as the American University of Cairo are being shifted out of the city center to less expensive and more automobile-accessible desert locations. Some consequences of these developments are already obvious: the immense volume of traffic along the city's peripheral roads, and the impact on the environment. (Kipper,2009)

Manufacturing the Desert City

After announcing the start of the massive Toshka land reclamation project near Aswan, the president declared:

“Leaving the narrow (Nile) valley and fanning out, in a planned and organized manner, throughout the country, has become an unavoidable necessity. In view of these facts, the conquest of the desert is no longer a slogan or dream but a necessity dictated by the spiralling population growth. What is required is not a token exodus into the desert but a complete reconsideration of the distribution of population throughout the country.”

Hosni Mubarak, 1997

The desert around Cairo lies both east and west of the city proper. As the formal city had begun extending to the east into the adjacent desert plain from as early as 1905 with the Heliopolis suburb project as well as with the establishment of British army camps and depots in al-‘Abbasiya and elsewhere in the 1920s. Until the late 1970s, the limitless desert to the east was hardly considered to have development potential. This eastern desert was mainly flat in the northern quadrant, but the topography was much more rugged east and south of Maadi. Much the same could be said for Cairo's western desert. This desert area, seemingly without limits, was separated from Cairo proper by the agricultural plain whose width averages fifteen kilometres. Except for the pyramids area on the Giza Plateau, the Alexandria and Fayoum desert roads, the western desert was considered, until the arrival of the concept of the new towns, to be just one very large and empty backyard. (Sims,2010)

The idea of developing the deserts around Cairo for urban expansion can be traced back to the 1956 Cairo Master Plan, and the concept was elaborated in the successor 1969 Master Plan. The latter, finally approved in 1974, concluded that Cairo's growth had already exceeded its “carrying capacity” and that the population of the metropolis should be limited to 9.5 million inhabitants. All excess population was to be directed to four satellite cities, two located in the eastern desert and two in the western desert.(Dorman 2007)Yet the real political commitment to developing Cairo's deserts derives from President Sadat's 1974 October Paper, itself a product of the euphoria following the successes of the 1973 October War. In this widely promoted document, Egypt's path to a modern future was sketched out, first by launching the economic Infitah, and secondly by announcing a state policy of constructing desert cities throughout Egypt, thus shunting growth away from Cairo, Alexandria, and the crowded Nile Valley. The new towns were to be growth

poles for alternative development and for decentralizing state institutions. They were aimed explicitly at attracting population, creating an industrial base outside the Valley, and attracting public and private investments, which dovetailed well with economic Open Door policy.(Sims 2010)

It is important to note that even thirty years later, such a spatial policy for Egypt remains a central part of government thinking. As declared in 1990, the government perceived that “the old inhabited areas along the Nile valleys are no longer able to absorb the increasing population and the Egyptians have to conquer their desert land in order to ensure the sustainable growth of the nation.” (Madbouli 2005) An important affirmation of Egypt’s desert development imperative was articulated by President Mubarak in an address given to both houses of parliament in 1996.

In the 1970s, the concept of new towns in the desert generated considerable excitement among urban planners, higher state officials, and even Egypt’s cultural elite. It was in these new desert settlements that the uncrowded, organized, and modern urban Egypt was expected to be established. Self-contained, balanced industrial towns economically independent of Cairo designed on government-owned lands that appeared to be endless. Desert sites represented the planner’s ultimate dream of a total blank sheet of paper, where town layouts would be constrained neither by topography nor existing urban realities. Concepts of low residential densities, separation of land uses, green belts, and integrated neighbourhoods could be pursued with a vengeance.(Sims 2010)

New Towns

The first new town venture began in 1976 with the declaration by President Sadat of the intention to build from scratch a totally self-sufficient new town at a desert location about halfway between Cairo and Ismailiya, that is, supposedly far enough away to be independent from these existing urban poles. To be called Tenth of Ramadan, the new city was to have a solid economic foundation based on manufacturing, and workers in the industrial enterprises were to reside in government built housing blocks. A limited amount of middle-class housing was to be privately built in neighbourhood subdivisions. The design of the town was aimed at an ultimate population of 500,000. Other new town schemes, each to have a significant industrial base, were announced. Two of these were to be located near Cairo. The first was Sixth of October, west of Cairo at an isolated desert location about forty kilometres from the center of the metropolis, off the Bahariya Oasis road, and the second was al-‘Ubur, to be located east of Cairo, about twenty five kilometres from the city center, just north of Ismailiya desert Highway. Along with Sadat City and al-‘Amiriya al-Gadida near Alexandria, these cities were considered the ‘first generation’ of industrial new towns. In addition, another purely residential new town, Fifteenth of May, was to be developed in the near desert adjacent to the Cairo suburb of Helwan.



Map 2.4. Greater Cairo new towns boundaries in 2009.
Courtesy of Sejourne & Sims, 2009

There are presently eight new towns that can be considered part of Greater Cairo: Sixth of October, Tenth of Ramadan, Fifteenth of May, al-'Ubur, al-Shuruq, Sheikh Zayed, New Cairo, and al- Badr. These cities are part of Egypt's New Towns Program, which started in 1977, was codified under the Law no. 59 of 1979, and is being implemented by the New Urban Communities Authority (NUCA) of the Ministry of Housing, Utilities, and Urban Development. Although the program is nationwide in scope and currently boasts some twenty new towns established around Cairo- and dozens more on drawing boards- it is the eight new towns around Cairo that have captured most government investments and private capital and have attracted the most inhabitants. Although the authorities have recognized that Cairo's new towns are in need of revitalization and replanning, it seems that what is being contemplated is, basically, more of the same kinds of development as in the past, all of it on truly grand scales. Most ideas focus on how to release and allocate yet more land, and none addresses the problems created by the enormous amounts of land already allocated or sold. (Sims, 2010)

The industrial new towns enjoyed almost immediate success in attracting manufacturing. For example, within ten years of their establishment the industrial zones of Tenth of Ramadan had filled up and new industrial subdivisions had to be added to accommodate more factories. There was a similar rapid take-up of Sixth of October's huge industrial area. Such a glowing success of the industrial face of Cairo's new towns was due to entirely to government incentives to attract private manufacturing, and government requirements that public-sector industries locate there.

Although construction on the 'first generation' of new towns around Cairo had hardly begun, by the early 1980s the concept of satellite 'new settlements' around Cairo was launched, and this second generation of nine settlements was to be located in the desert both east and west of Cairo proper. These were to be dormitory suburbs of mainly subsidized public housing, aimed at absorbing Cairo's population increases, and they became cornerstones of the 1983 Master Plan for Cairo and were to be interlinked by the Ring Road. Although none ever materialized in their original planned forms, three have been amalgamated into New Cairo to the east and two into Sheikh Zayed to the west.

The 1986 Census revealed that growth of the residential population of the new towns around Cairo was proving to be exceptionally slow, in contrast to the rapid take-up of the industrial areas in Tenth of Ramadan and Sixth of October. The results of the 1996 Census continued to deliver extremely disappointing population figures. Overall, the combined population of all these first new towns around Cairo registered less than 150,000 inhabitants, equivalent to an insignificant 1.1 percent of Greater Cairo's population at the time.

The Gated Communities

Although nominally, all desert land is under state ownership and control, huge tracts of deserts around Cairo have been allocated and developed in what can be

“The gated communities were promoted and legitimated by a ‘security risk’ discourse that framed central Cairo as menacing, dirty, polluted, unsafe, and unhealthy. The upheavels in the 1980s and 1990s by Islamist movements and state cycles repression fueled this security risk’s metanarrative.”

Eric Denis, 2006

“Gated communities are one of the most striking and revealing products of this new ecology of risk and monopolization of politics. They reveal processes of disorganizing and reorganizing modes of living and co-habiting in the city, that is, the dynamics of spatializing a new neoliberal ‘moral order’ and justifying it through risk discourse.”

Robert Park, 1926

described as a scramble by both state and private-sector actors to capture development rights on land that, at some point in time, is perceived as being extremely valuable, at least for speculative purposes. The list of such projects is long and growing, in addition to the numerous land assignments that have been incorporated into the new town boundaries. (Sims, 2010) This huge parcels of land have been transformed into gated communities, around golf courses, for the elites, .

In the early 1990s there was a fundamental shift in the concept of new towns and the associated land management policy. Up to this time, new towns had mainly been developed to attract the working classes through the construction of state-subsidized low-cost housing blocks, in addition to the provision of some middle-class land subdivisions. With the change of ministers and increasing criticism of the quality and aesthetic of social housing, a much more ‘capitalist’ mode of development was applied. First, the boundaries of existing new towns and settlements were dramatically extended, particularly for those cities around Cairo that were considered to have development potential. Huge tracts of subdivided land were sold at nominal; some would say give-away, prices to individuals. And large tracts were released, again at very low prices, to private developers. Three ‘second generation’ satellite settlements were amalgamated and boundaries extended to create New Cairo in the desert east of the metropolis, with a target population of two million. Also, two huge new settlements of Sheikh Zayed and al-Shuruq were created. Also, it signalled a fundamental shift, with new towns around Cairo evolving into the locations for the new middle classes and the rich. Gated communities, compounds, and upmarket subdivisions were launched. Yet, in parallel, the state continued to pour investment into subsidized public housing in the new towns around Cairo, creating more and more workers’ housing estates.

Billboards and advertisements announce in glowing terms the schemes of private developers promising a quality of life in the desert that is the antithesis of the crowded, polluted, and noisy life found inside Cairo. There are big players, such as the Talaat Mostafa Group, with large developments such as al-Rehab City and now, Madinaty, “a world city in the land of Egypt,” and Sodic, with its Beverly Hills compound and now, East Gate and West Gate; but there are many more smaller companies that offer luxury and serenity in gated communities and exclusive compounds. Also promoted are modern private hospitals, private international schools, and private universities. In addition there are the malls and shopping centres, the exclusive golf courses, the business parks, five star hotels, amusement parks, car showrooms, and practically any kind of real-estate venture that could be found outside the average American city. There are also large subsidized government housing schemes underway, such as ibni baytak (build your house) and Orascom’s Haram City in Sixth of October. (Sims, 2010) And many of the consumer goods found on supermarket shelves will have been manufactured in one of Cairo’s new towns. The phenomenon of desert development around Cairo has provoked some political analysts to talk about “a new hybrid globalized Americano-Mediterranean lifestyle,” which is completely in tune with the parameters of economic liberalization and IMF-driven structural adjustments. (Denis, 2006)

There is an air of the 'spectacle' about nearby gated communities and developments of a single-family villas, or apartment buildings for extended families. One after another promises flashier accoutments, bigger entertainment venues, a globalized, almost de-territorialized lifestyle with all the trappings of modernity or post-modernity. (Singerman, 2009) One of the new developments courting international investors online is Hyde Park, the "only masterplanned luxury gated community" of "3000 exclusive villas with a 1 million square meter landscaped park" ("Video Update", 2012). A narrator with a British accent advertises the gated community in an online video as:

"Today's neoliberalism's exclusivity is imposing new stratification, heirarchy, distancing mechanisms, and social polarization in space."

Yasser Elshestawy, 2004

... a world of exclusivity... with a pedestrian-freindly environment with over seven kilometers of walking and jogging trails...[where] water canals meander through the park [and] tree-lined neighbourhood streets with landscaped sidewalks [surround] pocket parks ... [which]... offer the ideal envirnoment for community interaction and children can play safely in close proximity of your home. Fountains, trees, and flowerbeds create the perfect backdrop for you to relax by the sidewalk cafes and restaurants. ("Video Update", 2012)

Utopia, Qattamiya Heights, Beverly Hills, Palm Hills, Belle Ville, Mena Garden City, Dreamland: these are some of the gated communities under development. These developments are marketed as the cutting edge of a post-metropolitan lifestyle, invented between the imaginaries of 'fortress America's' sprawling cities and the new risk-apartheid of Johannesburg. (Blakely and Snyder, 1997)

The movement from the workers town to the gated communities represented a change in paradigms, policies and typologies of the desert towns' dwellers. The gated communities presented an asylum for the Cairo elites, who can no longer stand the chaos, pollution and traffic of the city. Beyond these gates, they produced a new model of Cairo, away from the deteriorated and crowded formal Cairo and the intrusive informal Cairo. They moved to secure a neighborhood that is stable, away from crime and others. And they moved to have control of their environment and of the environment of those who live nearby.

This concept was highly promoted and encouraged by planners and investors producing the new utopia. In the middle of the desert, they designed villas and luxury apartment buildings around golf courses and lakes. They provided all the safety controls as well as the needed facilities and leisure activities. And as the heterotopia is a place where there is a blurring of public-private distinctions, a conceptual or physical border or boundary separating heterotopia from everyday life, a regiment of rules and practices that are distinct within heterotopia and a sense of sanctuary or safe haven such that a special kind of community develops expressed in inclusion/exclusion or insider/outsider distinctions (De Cauter & Deheane 2008). These heterotopian characteristics can define these gated communities in the desert, which presented a new level of segregation and fragmentation in the city social order and fabric.

“In this Disneyesque urban economy, experience has been controlled, organized, enframed, and linked to a fusion of consumerism, entertainment, tourism, and lifestyle.”

Hanningan, 1998

“From the early stages of capitalism in Egypt, entertainment and fantasy were interwoven with the production of elite spaces...Spatially, the production of urban entertainment fantasies in this sense would be the holding together of delusive imaginations, generated through the use of particular signs and images.’The holding together’, I contend, is reached through a process of financial as well as spatial exclusions. This is how liberal economy and the urban oasis, or the neoliberal economy and the gated community are linked together”

Adham, 2004

“ Before we aspire to the day when, as Toussaint Caneri asked in 1905, the Muqattam (the plateau to the east of Cairo) becomes a park sprinkled with villas, linked to the city by a tram, can we wish, at least, for a less egotistical attitude among the ruling classes? It is even in their own interests, if they do not wish to prepare a terrain of choice for the social experiment of tomorrow.”

Clerget ,1934, 21;Caneri, 1905

For many private families with means, the main purpose of purchasing land and building in desert Cairo is a means of speculative investment. It is perceived that money put into land, bricks and concrete will be safe, incur no recurrent costs, and will appreciate at rates higher than inflation. This helps explain the incredibly high rate of vacancies of completed housing units in the new towns. The intention may not only be speculative investment- the investor may reason that the housing unit could have a use in the future. This investment perspective goes a long way toward explaining both the past levels of property construction and vacancies, and the continuing rush to purchase land and property in desert Cairo.(Sims,2010)

These huge investments increased the geographical extent and sunk real-estate investments in the new towns around Greater Cairo, and created optimism for Cairo's desert city and an even greater amount of talk about these new towns as the face of modern Egypt. However, when the preliminary results of the census of 2006 were made available in late 2007, Egyptian planners and promoters of the new towns received a rude shock. Whereas the General Organization for Physical Planning (GOPP) had estimated in 2005 that the population of the new towns around Cairo had reached a figure of 1.75 million, the 2006 Census recorded only one-third of this figure, equivalent to only 3.7 percent of Greater Cairo's total population. Given the entire construction activity going on, especially in Sixth of October and New Cairo, some planners and officials simply could not believe that the population take-up continued to be so slow, choosing instead to doubt the validity of the census. The 2006 Census actually confirmed the investments in the new towns had been considerable, with a total of 409,000 housing units enumerated in Cairo's eight new towns. But an extraordinary amount of this housing was unfinished, stalled, vacant, or simply closed. The number of resident households enumerated was only 139,000, meaning that 63 percent of units were unutilized, or, put another way, that for every resident household there were three dwelling units available.

It may appear puzzling that population growth in the new towns around Cairo has been and continues to be so slow, especially given that the government has built massive amounts of subsidized public housing in these areas. However, a very large portion of the current government-produced stock remains vacant or closed, and the same fate can be expected for units currently being built. It is important to realize that the desert city is not at all confined to its new towns, as large as they may be. Even more desert lands have been developed for various urban and suburban purposes. Although nominally all desert land is under state ownership and control, in the last thirty-five years huge tracts of desert around Cairo have been allocated and developed in what could best be described as a scramble to capture development rights on land that, at some point, is perceived as being extremely valuable, at least for speculative purposes. Both state and private-sector actors have been involved. And this battle have, to a great extent, deviated the notions on which these desert cities were originally created.

Dozens of luxury gated communities, accompanied by golf courses, amusement parks, clinics, and private universities have burgeoned along the beltways like their



Figure 2.6. Aerial view of of Madinaty Gated Community in New Cairo 2012.

siblings, the shopping malls. Against an extremely compact 'organic' urban area, the model for the dense, non linear 'Asiatic' city analyzed by orientalist geographers, is juxtaposed against the horizon of a new city more like Los Angeles, gauged from now on according to the speed of the automobile. This new dimension of Cairo is marked by a flight of the urban elites made more visible by the de-densification of the urban center. This radical reformulation of the metropolitan landscape, which its promoters invite us to view as an urban renaissance, is completely in tune with the parameters of economic liberalization and IMF-driven structural adjustment. (Denis,2009)

Cairo's desert development seriously threatens the current compactness of the metropolis, probably the single greatest advantage of Greater Cairo as an efficient megacity. There is already a tremendous explosion of vehicular travel required to traverse the huge new distances to and within Cairo's many desert developments, and this can only increase by orders of magnitude over the coming decades. Not only does this generate enormous new volumes of traffic throughout Cairo's already clogged arteries, it will represent a much higher level of fuel consumption for transport and also higher energy and water costs to maintain urban life in an inhospitable desert environment. This is very far from any idea of a sustainable city. (Sims,2010)

Conclusion

In this chapter we have investigated the different forms of Cairo's development over the last fifty years or so. The evolution of these forms shows the transformation of Cairo from a metropolis into megacity. The processes of massive expansions, segregation and fragmentation of the city fabric, identify the contemporary situation of contemporary Greater Cairo. The evolution of each of these processes had their effect on the city form and structure.

In 1947, all of Greater Cairo's urban population was contained in formal Cairo. In addition, there were just over half a million persons in what now constitutes peri-urban Cairo, most of whom were in rural households engaged either directly or indirectly in the agricultural economy. From 1947 to 1960 Cairo experienced very high demographic growth averaging almost 4 percent per year, mainly due to immigration. Informal Cairo was still practically nonexistent. At this stage Cairo city represented the metropolis model of the city composed of historic Fatimid Cairo and belle epoque modern Cairo, as a twin city. The presence of informalities which was minimal didn't receive any consideration of, the public and did not affect the city forms or structure. It was a marginalized phenomenon.

In the years between 1960 to 1976, the informal city took off with a vengeance, increasing from practically zero to two million inhabitants, mainly in inner fringe areas that were to become, over the subsequent decades, enormous agglomerations, almost cities in themselves. This created the preliminary phases of fragmentation

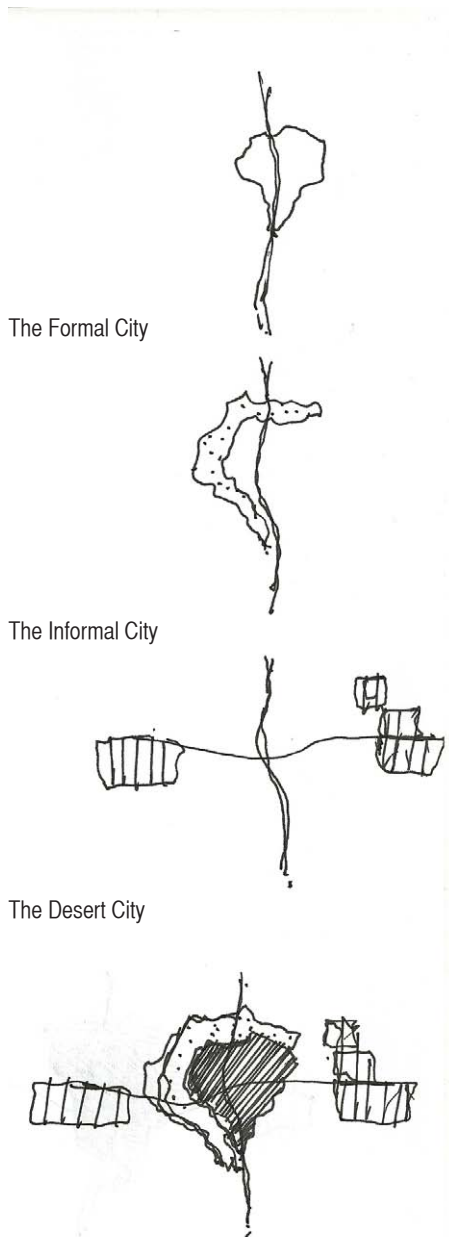


Figure 2.7. The three parallel cities of Cairo

of the metropolis fabric by the new heterotopic enclaves of the informalities. Also the high growth rates of these informalities started to compete with the formal city. The enclaves represented different heterotopias that enabled the transformation of the city. These heterotopias appeared in the formal city, the informal city, and the desert city for different reasons, allowing them to evolve and develop. They acted as test beds for change and transformations in the city. In those isolated enclaves new paradigms were created and experimented, to be then practiced throughout the city. This can be exemplified in the heterotopias of the megaslum (informal city), the megamall (formal city), the gated community (desert city) and many others. Each of them, contributed in transforming the megacity, arriving at its contemporary situation.

Greater Cairo is now composed of three parallel cities, the formal city in the valley along the river Nile, the informal city, the majority of it, is lying on the city agricultural fringe, and the third is the desert city, on the eastern and western deserts around Cairo. These three parallel cities, do not just exist physically separated and parallel to each other, they are also completely segregated and independent from each other on the social, cultural, and economic scales. They create three parallel entities, having parallel systems, logics and patterns, that are recognizable and articulated. These three typologies of the urban development can be categorized into two main processes; the Legal including the Formal city and the Desert city and the Illegal or the informal city. Although the formal city and the desert city, present two different urban products, yet they share the same decision makers, actors, top-down strategy and patterns of production, which are completely different from the informal ones. Each of them is competing for dominance and power. The informal city presents itself as a parallel city or an Anticity to the formal city. Over the forty-six years from 1960 to 2006 the informal city jumped from nearly zero to nearly seven million inhabitants, whereas the formal city expanded only very slowly, from roughly four million to five million inhabitants. It is thus no exaggeration at all to say that almost all of today's Greater Cairo is the product of informal processes, that these processes are dominant, and that they will continue to dominate for years to come. They define the city's landscape and are set to absorb even more inhabitants, whatever the government decides. So, in the next chapter, we would investigate more the parallel city of the informalities, its patterns, processes and relation to the formal city.

“Enclave architecture” increasingly dominates Cairo’s desert fringe yet it is a global phenomenon from Los Angeles and Florida in the United States, to wealthy communities in Mexico, Brazil, Turkey and Tunisia as inequality and separation, inscribed spatially, become their “organizing values”

Teresa P.R. Caldiera, 2000

“Adequate socialist planning is the only path which would ensure the complete use of our natural resources-material, natural and human- in a practical, scientific and humane manner that would enable us to achieve the welfare of the entire people and make a comfortable life available to them.”

Egypt's National Charter, 1962

“Paradoxically, in the post-colonial world we see a return of the notion of a ‘dual city,’ which had characterized bifurcated colonial architecture that “imposed residential segregation between the exogenous elite and indigenous inhabitants” while building imposing edifices of state power.”

Khaled Adham, 2004

Bibliography- Chapter 02

- Abu-Lughod, J. L. (1971). *Cairo, 1001 Years of the City Victorious*. Princeton: Princeton University Press.
- Abu-Lughod, J. L. (2010). Foreward. In D. Sims, *Understang Cairo: The Logic of A City Out of Control*. Cairo: The American University in Cairo Press.
- Adham, K. (2004). Cairo's Urban Deja vu: Globalization and Urban Fantasies. In Yasser El Sheshtawy (Ed.), *Planning the Middle East City: An Urban Kaleidoscope* (pp. 134–68). London: Routledge.
- Blakely, E., & Snyder, M. (Eds.). (1997). *Fortress America: Gated Communities in the United States*. Washington, D.C: Brookings Institution Press.
- Caldeira, T. P. R. (2000). *City of Walls: Crime, Segregation, and Citizenship in Sao Paulo*. Berkeley: University of California Press.
- Caneri, T. (1905). *La ville du Caire son present et son arenir*. Cairo: Institut Francais d'Archeologie Orientale.
- Castillo, J. (2007). After the Explosion. In R. Burdett & D. Sudjic (Eds.), *The Endless City*. Phaidon Press Ltd.
- Clerget, M. (1934). *Le Caire: Etude de geographie urbaine et Economique*. Cairo: Schindler.
- De Cauter, L., & Deheane, M. (2008). *Heterotopia and the city : public space in a postcivil society*. New York: Routledge.
- Denis, E. (2006). Cairo as a Neo-Liberal Capital ? From Walled City to Gated Communities. In D. Singer & P. Amar (Eds.), *Cairo Cosmopolitan: Politics, Culture, and Urban Space in the New Globalized Middle East*. Cairo: American University in Cairo Press.
- Denis, E., & Sejourne, M. (2002). *ISIS Information System for Informal Settlements*.
- Dorman, W. J. (2007). The Polittics of Neglect in Cairo, 1974-98.
- El Kadi, G. (1987). *L'Urbanisation spontanitee au Caire*. Tours: URBAMA & ORSTOM.
- Elshehtawy, Y. (2004). Redrawing Boundaries: Dubai, the Emergence of a Global City. In Y. Elshehtawy (Ed.), *Planning the Middle East City: An Urban Kaleidoscope* (pp. 169–99). London: Routledge.
- Golia, M. (2004). *Cairo: City of Sand*. London: Reaktion Books Ltd.
- Hanningan, J. (1998). *Fantasy City*. London: Routledge.
- Kipper, R. (2009). Cairo: A Broader View. In R. Kipper & M. Fischer (Eds.), *Cairo's Informal Areas Between Urban Challenges and Hidden Potentials - Facts. Voices. Visions*. Cairo: German Technical Cooperation.
- Kipper, R., & Fischer, M. (Eds.). (2009). *Cairo's Informal Areas Between Urban Challenges and Hidden Potentials- Facts. Voices*. Cairo: German Technical Cooperation.
- Madbouli, M. (2005). *Background Paper on Urban Planning, Management and Administration*.
- Park, R. (1926). The Urban Community as a Spatial Pattern and a Moral Order. In E. Burgess & R. Park (Eds.), *The Urban Commiunity*. Chicago: University of Chicago Press.
- Rodenbeck, M. (1998). *Cairo: The City Victorious*. London: Picador Macmillan.

Rossi, A. (1984). *The Architecture of the City*. Cambridge: MIT Press.

Sims, D. (2002). *Informal Residential Development in Greater Cairo: Typologies, Representative Areas*. Lima.

Sims, D. (2010). *Understanding Cairo: The Logic of a City Out of Control*. Cairo: AUC Press.

Singerman, D. (Ed.). (2009). *Cairo Contested : Governance, Urban Space, and Global Modernity*. Cairo: The American University in Cairo Press.

Singerman, D., & Amar, P. (2009). Contesting Myths, Critiquing Cosmopolitanism, and Creating the New Cairo School of Urban Studies. In D. Singerman & P. Amar (Eds.), *Cairo Cosmopolitan: Politics, Culture, and Urban Space in the New Globalized Middle East*. Cairo: The American University in Cairo Press.

Sutton, K., & Fahmi, W. (2001). Cairo's Urban Growth and Strategic Master Plans in the Light of Egypt's 1996 Population Census Results. *Cities*, 18(3), 135.

Sejourne, M. (2006). *Les politiques recentes de "traitement" des quartiers illegaux au Caire : nouveaux enjeux et configuration du systeme d'acteurs?*. University F. Rabelais.

Video Update, (2012). Hyde Park, one of the new developments courting international investors online in New Cairo. http://www.youtube.com/watch?v=IWvFi_g-W38

PART 02

THE FORMAL | INFORMAL



Figure 3.1. Ras el-Bar - Damietta, Egypt Satellite Image
Courtesy of Google Earth 2010

Chapter 03

3.0 UNDERSTANDING THE INFORMALITIES PHENOMENON- THE CASE OF CAIRO

3.1 Defining the Informal

The Informal
The Informality
The Informal City

3.2 Imaging Informal Cairo

Perception of Informal Cairo
Physical Informal Cairo
Residents of Informalities

3.3 Cairo's Informalities Patterns

Informal areas typologies
Informalities Patterns on Agricultural land
Informalities Patterns on Desert land

3.4 The Process of Cairo Informalization

Informal Development of Neighbourhoods
Governmental policy towards Informalities
Amenities in Informal Neighbourhoods

Conclusion

“Cairo has generated its own logics of accommodation and development, and that these operate largely outside the truncated powers of government or are at best in symbiotic relation with its weakness. For lack of a better word, these logics can be called ‘informal’.”

David Sims ,2010

The meta-discourse between the formal and the informal is essential in defining Greater Cairo and structuring an understanding of the parallel cities composing it. The two parallel processes of formalization and informalization have alternatively dominated the city. However, the informalization phenomenon of Greater Cairo is a unique one, that does not follow the slums model developed in Latin America or in the third world megacities. “The belief that informal means ‘unplanned’ or ‘spontaneous’ is one of the foremost myths about urban informality” (Castillo, 2001). However, this phenomenon needs a deep understanding for its patterns, processes and logic in relation to the political, social and economic changes since its early appearances.

The informal city is one of Cairo's parallel cities that was structured to fulfil the needs that the formal city denied. It competes with the formal city, as an anti-city (Boeri,2011), producing an alternative solution for the majority of the city inhabitants. The informal city has been around for decades and houses almost two-thirds of the population of Greater Cairo, and it is still in the minds of most comfortably established Egyptians remains a remote and marginal part of the metropolis. If thought at all, the informal city is usually considered a repository of poverty, backwardness, crime, misery, and all that is wrong with Cairo. This presents the need to understand the informal city, in its own terms, to produce a comprehensive relation between the formal and the informal parallel cities.

“Heterotopias always presuppose a system of opening and closing that both isolates them and makes them penetrable. In general, one does not access a heterotopian emplacement as if it were a pub. Either one is constrained, as in the case of entering a barracks or a prison, or else one has to submit to rites and to purifications. One can only enter with a certain permission and after having performed a certain number of gestures.”

Michel Foucault, 1967

The generalizations about the Informal city, also makes us wonder if such negative images of the ‘other’ serves as a necessary confirmation of the ‘non-other’, that is, the modern middle and upper-classes and self-styled urban elites. This objectification of the ‘other’ exemplifies Foucault's concept of the heterotopia presented in his ‘Des espaces autres’ The objectification all of the processes and inhabitants of the informalities as the ‘other’, which is the backward, undesired and negative part of the city. It is the part of the city that should be contained, isolated or removed. This accentuated the process of disintegration and creation of borders to produce a fragmented and segregated cities both spatially, and socially.

However, the deep energy within the informal city allowed it to grow, to be a parallel to the formal city, that sometimes dominate it. This chapter attempts to draw an image of this phenomenon, the reason beyond its creation, and its patterns, in relation to the state policies and the governmental vision for the development of Cairo.

3.1 Defining the Informal

The term informal is usually a vague term that associated with a variety of synonyms rather than definitions. The informal, extralegal or infralegal is a phenomenon that appears to compensate for state weakness. The 'informal,' 'unregulated,' or 'irregular' urban development, is usually dealt with as a 'defective subdivision'. These terms are used most in a number of countries of the global South, including Egypt. (Vallat, Marino, and Biondi, 1998). They are linked to nonlegalized, self-generated, unregulated working-class housing on state or public lands and they quite often convey their own discourse of disintegration and justification. In the Middle East, and especially in Cairo, the services of extralegal nonregistered organizations (construction, education, sanitation, security, vigilante justice, and so on) largely surpass in reach and scope the activities of legally registered private activities, rendering the legal-illegal dichotomy obsolete and dangerous. The dichotomy both excludes and simplifies the comprehension of real social needs and obscure questions of accountability, power, and social relations. (Durand- Lassevre and Tribillon, 2001; Roy and AlSayyad 2003).

“As an interstitial system, the informal system informalizes aspects of the formal system by inducing formal actors to be informal in their behavior; to engage in informal activities, to use temporarily the formal space informally, or to transform the formal space into an informal space.”

Laguerre 1994

The Informal

Laguerre describes the informal as a social construct that can be expressed, either through the intentional behavior of an individual or group or through the defining of informality by society: “... one can decide to display an informal behavior or one's behavior can be defined as informal by others”. Laguerre describes the informal system as interstitial because of its “interdependence with the formal system, on its interaction with the formal system, on actors who belong to the formal system, and on an outcome that may facilitate or hinder any action undertaken in the formal system”. (Laguerre 1994) The informal emerges from the bottom-up, individual and minority actions of those excluded from the formally defined processes of the city. The informal is not merely the spontaneous, unpredictable, unprogrammed or unplanned actions that animate the urban landscape but they are the appropriation of parts of the city for activities that are against the will of formal authorities. Informality allows unofficial trade, networks, recreation and dwellings to establish themselves in the interstices of the private and public realm, providing a haven for those unable to find their place in more restricted formal settings of the city. (Wall 2010) 'Informal' is not necessarily peripheral or illegal, and en route to formalization, the transitional, the subterranean, or the border acquires an identity of its own. And even in the richer areas, traces of informality can hardly escape experiential attentions. One may speculate: what happens to zoning control and state intervention in such a city? Is informality the lingering ghost of its third-world-city past, a foreseeable consequence of a downright mix-use city, 'real places' (Clay 1994) or bewildering landscapes of the 'generic city' (Koolhaas 1994), or an honest mirror of what the city really is? Whether incremental or organized; squatting constitutes only one modof irregular land acquisition, and not necessarily the most important. Such framings reinforce constructions of informality as the “negative” pole of the



Figure 3.2. Boxes
Photo by Mariam Korashy

city. Informal settlements are worlds apart, “with their own ‘laws’ and ‘codes’”.(Benrenstein Jacques 2001)

As Ananya Roy states: “What is useful about the concept of extralegality is that it shows how informality is at once an outcome and a process. The significance of this process lies in the inherent ambiguities of the informal, and it is this that creates a dynamics of constant negotiation and negotiability.” (Roy 2003) The term ‘informal’ is often acknowledged as the downside of ‘formal’ which recognizes and strengthens the western idea of the legal, rational, capitalistic (financial), public, and institutional. The use of ‘informal’ is therefore controversial that it is subordinate to what is considered ‘formal’ and indicates phenomena inappropriate for modern urban planning even though they may have existed long before capitalism and state power dictate the world.(Kang 2009)

On one hand, the appearances of informal urbanism are crudely condemned as a shameful blemish of modernization and defiant invasion of public spaces; yet on the other hand, celebrated as an amazing collage of complex urbanism which expresses the true nature of city and denounces the rational self-righteousness of planning. Informal urbanism unveils a probable mechanism of autonomous city building from bottom up, yet it also embodies the daily struggles of common citizens who attempt to filch a short span of living space or subsistent ground. The poetics and politics of urban chaos thus engendered are more than a thin layer of street spectacle or modern banality - they are at the same time an outcome and a critique of structural forces. Such landscapes of collective unconscious are hardly tamable by institutional rules and regulations, but due to the retreat of individual agents in the collective mode of mimicry, the conscious act of resistance is inevitably missing. In this unpretentious and indocile landscape, time is the true planner. And since it does not intend to become certain paradigm, informal urbanism seems to have avoided dominant manipulations and mainstream aesthetic models. The sociology of informal urbanism evolves into its own aesthetics, which divulges unsettled reality of urban living through its fragile, unrestrained, contradictory, and transitional state of being.

Instead of the stigmatization, marginalization, and neglect of the ‘informal’. The informal process can provide a potentiality for rethinking the city. Rather than processes of conventional planning that create homogenous urban space the formal/informal dynamic represents the influence of local characteristics and conditions. While theoretical concepts present an evolving argument for new relationships between formal structures and informal acts new expressions of socio-spatial innovation by the informal reveal new typologies for urban space. Whether these processes reconcile or celebrate the differences between the parallel cities – exploring the dynamic between the formal and the informal provides a new perspective to envision the city.

*“Is ‘informality’ an imposed definition?
Informality has been defined in many ways.
It is outside that which is official or legal or
planned, but it is certainly not a synonym for
criminality, which is simply illegal”*

Geetam Tiwari,2007

The Informality

The informality is considered mostly as illegal state in administrative sense, as well as the attribute given to the temporal condition of poor settlements characterized by its scarcity (Roy, 2011). On the other hand, beside their temporal identity, "informal" places often represent the space where the people do not have legal rights to stay at the place where they were born (Lotus Magazine, 2010) The metadiscourse on illegality/informality is omnipresent and too often taken for granted. It tends to assimilate all the newly created, crowded self, self built working-class neighborhoods into its stigmatizing narrative. It also absorbs the ensemble of stereotypes concerning working-class and destitute social groups, which live with few social services. This denigrating language borrows, reinforces, and fuses together a system of negative social signifiers, linking, for example, informality and marginality, informality and disorder, informality and poverty, and informality and rural origins or provincialism. (Agnes Deboulet, 2009)

The articulation of urban informality as forms of social and urban pathology is a global phenomenon, present in the policy and security discourses of a number of cities that feature inadequate public services and poorly controlled urban development (Valladares , 2006; Huchzermeyer and Karam, 2006). Misguided representations of pathology emerge, without a doubt, when technical plans are only an afterthought in cities with increasingly large influxes of people where government is deficient in providing access to housing for this enormous and destitute population. (Agnes Deboulet, 2009)

The theme of informality acts as a metadiscourse insofar as it is applied to almost all residential neighborhoods in Egypt and evokes pell-mell problems and irregularities that in fact originate from considerably contrasting causes and scales. Technicians perceive information about informal development as a juridical irregularity linked to disrespecting sales procedures, ignoring registration procedures, misappropriating real estate without title, and dispensing with construction codes. The term 'ashwa'i (uncertain, risky, or unplanned; also now means informal urban settlement or slum), however, clearly designates the absence of a defined form of development and connotes, again, a disorganized almost irrational, process of implementation. (Agnes Deboulet, 2009)As informality, it conveys the idea of a superior and external social rationality, ideas abandoned since more than a century by anthropologists and sociologists when studying other social milieus.

In addition, informality evokes the political problems of neighborhoods whose ordinary aesthetic disturbs the visual density that is usually linked to supposedly uncontrollable character of such communities. These areas offer solid lodging at a low cost and, from an environmentally positive perspective, a significant number of buildings in a densely packed area. Beyond their similarities, however, extremely diverse ways of living and modes of identity are blanketed over by the metadiscourse of informality. (Agnes Deboulet, 2009) Unsurprisingly, the aesthetics of informality and its concomitant scenes of urban everyday life and living in-between

infiltrate into contemporary design thinking and artistic conceptualization. "...from a design point of view, informality is a condition of complex, non-linear systems in which patterns overlap, intersect, and mutate in unexpected ways." Brillembourg, Feireiss, and Klumpner perceive 'informal' as "an internalization that moves forward to produce a coherence that is form,"(Alfredo Brillembourg et al. 2005) which can be further characterized in three dimensions: local, hybrid, and juxtaposition. Morales when describing about 'in-between' as a "space permanently on the run; a place in itself, a limit made fringe, a border made country,"(Morales 2003) believes that such project can "attract everything towards itself that it can use to make its own space." Jacobs reminds us that many art theoreticians "have shown that the predilection for the everyday and the immanent already constituted the core of modernist art, which swept away classical aesthetic notions of elevation."(Jacobs 2002)

"There are other forms of urban structure, or urban phenomena, of urban society ... [which are] practically universally forgotten except perhaps by persons, mostly anthropologists ... The fact of such variants of 'the urban experience' is uniformly obliterated by persons concerned with 'development' and 'modernization.' Their programs and plans are invariably built on premises derived from the ... capitalist city."

Anthony Leeds, 1979

The polarity can be reversed, endowing the residents with moral superiority and rendering the informalities "heroic in its insistence [on] the everyday and the informal". (Bitter & Weber 2005) The population has a strong sense of community and citizenship emerges from an ideal of collectivity.(Golda-Pongratz 2004) The strength of community is evident in the vitality of street life and public rituals such as religious festivals. "Heroic" views celebrate informality, as we have seen, as resistance (Brillembourg 2004) as spontaneity and an absence of bourgeois calculation, or as the Dionysian, transgressive spirit of Carnival (Berenstein Jacques, 2001a, 2002). For others, it can be a kind of architectural existentialism: improvisation—passion for building, adapting and living ... an unrestrained 'do-it-yourself' approach to life. Merely to exist is not enough—one must be shown to have existed by making a lasting mark on the city.(A Brillembourg & H Klumpner 2005)

At the governmental level, 'informality' expresses the contradictions between legislation and practices. Until the mid-1990s, many drafts of different laws that were never passed circulated through the state, while the population of the city and country boomed and people had to take urbanization into their own hands. Then, in 1996, late in the game, a law emanating from the military courts was imposed to protect agricultural lands, despite the chronic absence of affordable housing alternatives (el-Batran, 2000). This heavy-handed measure ignore the undeniable need for the expansion of housing beyond the bursting limits of historic Cairo into those agricultural lands and public desert holdings that lie in the immediate vicinity of the capital. (Agnes Deboulet, 2009)There has been a rigid – and never respected – definition of an 'urban cordon' that limited construction, and even the new 'martial' law forbidding housing construction on agricultural land has not really changed this ordinary practice.

The Informality whether defined as a product framing certain patterns and modes of growth or as a state of illegality in relation to laws and codes, definitions are insufficient to understand the urban informality, which is a continuously changing process. This process does not only reflect the social, political and economic changes in a city, but also, represents new cultures of living in the contemporary megacity.

The Informal city

“The builders of informal housing are the largest builders of housing in the world – and they are creating the cities of tomorrow.”

Geetam Tiwari, 2007

“Informal development has been, and continues to be, the dominant mode of urbanization in many developing countries, including Egypt. It occurs especially on the urban fringes, on privately-owned agricultural land, rather than in desert areas, which would be considered squatting on state-owned land. Despite 30 years of attempts by the government to limit unplanned growth and urban expansion on agricultural land around Cairo, as it has in most Egyptian cities and villages, informal settlements around Cairo sheltered more than 7 million inhabitants in 1998.”

Marion Sejourne, 2006

The informal city is to more or less degree out of governmental leash, and as a consequence it turns to the grassroots network and plebeian power to sustain its operation. It has become a more autonomous and flexible city of mutual dependence than its counterpart. The Stealth Group (2001) employs the ‘wild city’ to envision new possibilities of design in two conceptual territories: “the metaphorical, which describes an urban paradigm of wildness; and the strategic, which proposes dynamic design procedures for contemporary environments, shaped by dominant market forces and the decline of institutions.” (The Stealth Group 2001) Evidently, learning from the informal city is an academic new trend to explore alternatives of non-eradicative urban renewal, urban design (for instance, Columbia University Urban Design Program, 2005), and urban studies. Sassen (2005) sees the spaces of intersection in the informal city as ‘analytical borderlands’ since they are spaces “constituted in terms of discontinuities and usually conceived of as mutually exclusive” so that “discontinuities are given a terrain of operations rather than being reduced to a dividing line.” What used to be reprimanded as visually ruptured and socially blighted is given fresh perspectives as spaces full of subtleties and possibilities (Kang, 2009).

It is well established that the informal city not only has use value but also exchange value (Ward 1982). In other words, the informal city is a distinctive type of market where affordability accrues through the absence of formal planning and regulation (Baross 1990). In recent years, it has become obvious that informal housing and land markets are not just the domain of the poor but that they are also important for the middle class, even the elite, of Second World and Third World cities (Roy & Alsayyad 2004). Such trends point to a complex continuum of legality and illegality, where squatter settlements formed through land invasion and self-help housing can exist alongside upscale informal subdivisions formed through legal ownership and market transaction but in violation of land use regulations. Both forms of housing are informal but embody very different concretizations of legitimacy. The divide here is not between formality and informality but rather a differentiation within informality. In many parts of the world, the site of new informality is the rural/urban interface. Indeed, it can be argued that metropolitan expansion is being driven by informal urbanization. (Roy 2005)

Class dichotomy and the uneven geographic development which accentuates the polar differences between the center and the periphery are direct contributors to informal urbanism, particularly when the process of urbanization vis-a-vis globalization is brought to light (Harvey 2000), the internal contradictions of high-density cities often incurs implosion of the informal city. Informal city usually refers to the impoverished, self-built communities or shanty towns within the cities, and according to Wright, “they are at once ephemeral and extensive, irrelevant yet critical, glaringly visible yet seldom observed.” (Wright 2005) Yet it can go so far to depict urban scenes associated with the outreach of informal activities – in another word, class does not set the boundary of informality. The political-economy analyses of

informal urbanism reveal the structural operations behind the wide-spread phenomena in most developing countries and post-colonial cities, but to further understand the dynamics of informalization, a closer investigation of the everyday-life of the 'in-between' is inevitable.

In the *Informal City*, Laguerre describes the structural origins of informality – the point where the emergence of the informal and the formal can be identified. This describes a process of change between the formal and the informal. The dynamic between the formal and the informal reveals a potential for new urban processes. Informality provides an opportunity for those excluded from formal processes to find presence in the city. As the informal adapts to the interstitial spaces of the city new forms emerge. Saskia Sassen states: “These two forms reveal how power and the lack of power inscribe themselves in the urban landscape”. (Sassen 2005) The occupation of these interstices is initiated by those who need the space because they, or their actions, are excluded from the formal structures of the city. The informal activities are attracted because of the conditions of the space and the need of the actors to find presence. These actors represent the marginalized and disenfranchised who colonize these essential spaces that are undesirable to other users.

The current discourses about informality obscure certain mystifications concerning the megacity, such as the perception that an increasing influx of rural people endangers the city. This theme has already been developed in urban sociology about other Arab cities and dates back to the modernists' global fears about 'ruralization' in the 1950s and 1960s, which is still to be found despite the striking slowdown in rural-urban migration. Certainly, it is difficult to deny that such a rapid increase in population would perturb the civilized lifestyle of the elites. On the other hand, this dominant version of city dwelling, defined by urbanities as their hereditary right, injures those who do not share it, who have acclimated to the big city and have appropriated its spaces, without a will to exclude others. These new community builders are perceived as a 'wild' or savage menace, destabilizing an old order and contesting an established power. As one researcher suggested, “The phenomenon of wild urbanization... influences the country's stability, and represents a propitious terrain for social conflict” (Agnes Deboulet, 2009). In Egypt, the long-obsolete equation of rural equaling growth and urban equaling disorder somehow remains relevant until today, despite the last census data, which show a slowdown in patterns of rural-urban migration.

As the metropolis is internationalized, the principles guiding urban development and basic reorganization remain stable even though the public sphere is definitely releasing large markets and management facilities to the private sector. These principles are partially codified and are composed of various elements from the regulatory sphere – a potentially repressive arsenal fed by the 'mythic' discourse of informality and from ideologies of the modern movement in architecture and hygiene. Various manifestations of these visions of informality generate the commonly accepted idea that, left to themselves and uncontrolled, lower-class resi-

dents cannot create architecture, let alone 'make a city'. (Agnes Deboulet, 2009)

3.2 Imaging Informal Cairo

There are a number of definitions of what constitutes an informal 'ashwa'i' area (the Egyptian term for informalities). Certainly there are different types or typologies of informal areas and their ages and conditions vary considerably from one area of Cairo to another. After all, the phenomenon is very diverse and heterogeneous. But to be preoccupied with concepts and vocabularies, even after the informalities phenomenon has been around for decades, is counterproductive to say the least. The best definition of informal areas in Cairo is that they are the result of extralegal urban development processes that first appeared around 1950, and they exhibit a complete lack of urban planning or building control. In fact, Unplanned Areas is now the preferred terminology used by GOPP (General Organization for Physical Planning- Arab Republic of Egypt). These areas were established and consolidated in contravention of a host of laws and decrees that either prohibited building on agricultural land or governed urban subdivisions and the requirement for a building permit to be issued for any structure.

In Egypt, processes of globalization are deeply entwined with a neo-liberal agenda that has dismantled, diminished, and privatized (in part) the formerly large public sector. While Egypt's integration into the world economy has not been as extensive as some post-colonial nations, the impact of this even limited integration has been profound..(Vignal and Denis 2006) The change from as a shift from a "social welfare mode of regulation" (Elshakry,2006).The Egyptian regime turned away from the state socialism and post-colonial nationalism of Nasser with the ascendance of President Anwar Sadat. The decision to open Egypt to foreign capital and global financial institutions (Open Door Policy) intensified under President Hosni Mubarak. Slowly, at first, but picking up speed in the 1990s, the government reduced public services and subsidies, sold off a significant share of the large public sector, reduced government employment, and changed its laws to attract foreign capital and institutions, franchise operations, and tourists in the capital city.(Paczynska, 2009)

Neoliberal globalization has not, of course, gone unchallenged. In Cairo as elsewhere in the world, the city's citizens have not simply aligned themselves with the forces of globalization despite the government's best efforts. Cairo's economy also maintains its industrial and manufacturing base unlike other globalized service-oriented economies, and welcomed new capital and new imported technology while deepening its reliance on the productive, low-wage illegal and quasi-legal 'sweatshop' manufacturing sector (Vignal and Denis, 2006). In being shaped by globalization, Cairenes have also translated its imperatives into their own vernacular, finding ways to ride through the political-economic changes of globalization with minimal disruption. Many have also directly resisted or transformed globalization. (Singerman, 2009)

As the Egyptian state turned away from its social contract and provisionary role, Egypt's burgeoning population began building affordable housing on the only available land: agricultural land surrounding Cairo and other major cities. However, it was technically illegal to build on this land because it was zoned exclusively for agricultural land production. One study found that 81 percent of informal settlements were built on privately owned agricultural land; about 10 percent were built on desert state lands, and the rest on agricultural land nominally claimed by the state (Cities Alliance, 2008). Total agricultural land losses since 1982 were estimated at approximately 1.2 million feddans by 2004 (World Bank, 2008). Fueled in part by remittances sent back by Egyptians working in Libya, Iraq, Kuwait, and Saudi Arabia in the 1980s, a tremendous amount of new construction was not only built illegally on agricultural land, but also many buildings were built, renovated or enlarged throughout the city without recourse to zoning and construction regulations. In 2003 the then minister of housing and population, Mohamed Ibrahim Soliman, suggested that 88 percent of housing in Egypt was in violation of the building code (Faraq 2003)

Families would slowly and carefully engage in complex negotiations to build or purchase apartments in these new areas, reinforcing their ownership of their new housing, despite its illegality or extra-legality, through customary quasi-legal norms and the use of selective official, legal maneuvers. 'Ashwa'iyat (informalities) are products of neoliberalism to the degree that such housing was often financed by remittances, was in reaction to skyrocketing real estate prices, as Egypt's economy became internationalized, and took on a networked character that itself broke down earlier boundaries that had demarcated communities and distinguished legal methods of expanding housing. (Singerman, 2009)

Until the rise of Islamist movements and some particularly violent confrontations between the state and the Islamists, informal housing areas were largely ignored and left to their own devices. It is as if the state suddenly 'discovered' these vast areas with millions of people living in them since they had not made claims on the state, at least not in a collective voice, before the roiling years of the 1980s and 1990s. It is this claims making process, the exercise in voice and resistance, which suddenly made the informalities visible and legible on the national stage and led to a public clamoring to reform, upgrade, 'civilize', and improve these areas. (Singerman, 2009). The catalyst that provoked the attention and the hurried plans for more state attention and control was the strength of the Islamist resistance and its ability to seize opportunities and react quickly to crises such as the major 1992 earthquake in Cairo, which caused vast destruction and hundreds of deaths, as poorly built and old housing crumbled. (Florin, 2009) Some scholars argued that these movements created parallel governments or at least governance structures (since norms and rules can also be generated outside of formal, legal, governmental structures), which called for the imposition of the Islamic law and the greater enforcement and policing of morality increased piety, and religious observance (Ismail 2006, Clark 2003, Wickham 2003). Islamist movements as well as more conventional religious institutions began to offer a wide range of services such as

“Yet, the question remains as to why it was so easy for these movements to build a parallel government or alternative governance structures that intentionally tried to mimic the state that they described as unislamic, corrupt, and unjust. Where was municipal or local government in the 'ashwa'iyat (informalities) ? If millions of people lived in these areas, as all our data now confirm, why weren't the residents represented and integrated into the state's municipal power structure? To what extent did they support the oppositional movements that arose among them? More generally, how do we understand the interface of globalization and its resisters in a neoliberalizing, yet still authoritarian, Cairo.”

Diane Singerman, 2009



Figure 3.3. The Informal Walls
Photo by Mariam Korashy

healthcare, tutoring, mediation, religious education, sports, and youth activities to the community at the same time that the state was decreasing these same services or their price grew unaffordable to many as global recession and the 'free market' hit Egypt in the early 1990s and early 2000s. (Singerman, 2009)

Perception of Informal Cairo

Contrary to common perceptions, there are practically no parts of the informal city in Cairo that exhibit the characteristics of the stereotypical 'Third World slum'- hutments, shantytowns, or bidonvilles. Only in small pockets, usually on public rights of way or in just-occupied desert areas, does one find the type of precarious construction that evokes the images of jerry-built slums that are standard in many parts of the developing world. As described in a case study on Cairo in the 2003 UN Habitat Report on slums, these areas can be called 'deteriorated slum pockets,' and they house only a tiny fraction, probably not exceeding one or two percent, of Greater Cairo's inhabitants. Furthermore, these slum pockets are very rarely to be found in Cairo's informal areas. They are mostly restricted to inner-city districts developed in the nineteenth and early twentieth century. "In every case the existence of these pockets is due to precarious land tenure situations which put in doubt the wisdom of serious housing investments, resulting in a very precarious type of housing which in turn attracted very poor families seeking the cheapest possible housing solutions" (Dorman 2009) Most of these areas are slated for removal and the resettlement of inhabitants, and some have already been converted to parks. Certainly there are very poor living conditions in deteriorated buildings in some parts of historic Cairo, such as in al-Darb al-Ahmar and al-Gamaliya, but these are mainly isolated structures within areas that are vibrant and can hardly be called slums. In addition, in some informal areas, especially in Manshiyat Nasir and 'Izbit Khayrallah, people have built not only shacks but substantial houses, both above and below cliffs that present serious dangers.

Physical Informal Cairo

Physically, in informal areas there are few if any organized street patterns, no public space reserves, and little or no land for public services such as schools, health clinics, or youth centers. Streets are commonly very narrow (two or four meters wide), except where canals and other public rights of way allow for the creation of main streets. Land parcels are generally small, averaging 80-150 square meters. Buildings have no side or back setbacks, and the whole parcel of land is built upon, except for narrow light-and air-shafts. Since there is no construction licensing, there is no restriction on building heights and this results, over time, in quite high net-population densities that can easily exceed one thousand persons per hectare.

The informal city represents a much smaller portion of built-up Greater Cairo in square-kilometre terms, since population densities in these mostly compact areas are quite high and there are few non-residential urban lands uses to be found in them. It can be calculated that in 2008, informal areas, including those in peri-

urban Cairo, extended over 205 square kilometres, which is 39 percent of Greater Cairo's built-up area of 529 square kilometres (excluding the modern desert developments). (Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) 2009) Were the area of desert Cairo to be added to the calculations of what constitutes greater Cairo, we would find that in 2008 the informal city, with 63 percent of the population, represented less than 17 percent of the total surface area of the megacity.

Residents of Informalities

Since those who live in informal areas constitute almost two-thirds of the current population of Greater Cairo, it is easy to surmise that the average informal inhabitants does not differ much from the norm of the for the city as a whole. But in spite of this fact, it is surprising how the misconception persists that informal settlements are zones of unrelieved poverty and misery. Census statistics and a number of socioeconomic studies show that most informal areas of Cairo contain households with a wide range of incomes and whose aggregate livelihood indicators are the same as, or not much lower than, averages for Greater Cairo. This was borne out in 2008 from a large random household survey of Greater Cairo proper, in which almost half of families said they lived in informal areas. Although the median reported household income was higher in formal areas than in informal areas, and in formal areas there were higher representations of the rich (especially in the highest national urban income quintile, which contained almost 40 percent of Greater Cairo's formal households), there was a remarkable range of incomes in informal areas. In fact, the distribution of informal households by income quintiles in Greater Cairo proper was almost exactly the same as for urban Egypt as a whole. (United States Agency for International Development (USAID) 2008) Household income statistics were generated by the 2008 study for peri-urban areas of Greater Cairo, and these results also showed a wide range of incomes among families living in informal areas, although there was a higher representation in the lower income quintiles compared to national averages. (United States Agency for International Development (USAID) 2008) Parenthetically, these incomes statistics show that regardless of whether they live in formal or informal areas, the inhabitants of peri-urban areas of Greater Cairo are significantly poorer than those in Greater Cairo proper.

In other words, any single informal area is likely to contain a heterogeneous mix of inhabitants with a wide range of incomes. This heterogeneity is due to largely to an area's development over time. Many families built or required their units in informal areas in the 1970s with money from Gulf remittances, but circumstances did not improve and they now live in a kind of impoverished gentility. Many others, that is, those renting before 1996, are sitting tenants who enjoy near-perpetual fixed rent contracts. Others are building owners who make little rent from existing and try to add more floors to improve their own family finances. Still others are proprietors of small business that have, over time, prospered- or not. In other words, every informal area exhibits both heterogeneity and certain uniqueness due to historic chance.

Cairo's informal areas are also home to many micro-, small- and even medium – size enterprises, a vast sector that generates most urban employment opportunities throughout Egypt as a whole. Even in Manshiyat Nasir, one of the poorest informal areas in Egypt, one finds a mix of typical breadwinners, lower-ranking government employees, professionals, tradesmen, contractors, and so on, alongside some extreme hardship cases. As was uncovered in a study carried out in 2001, over 55 percent of working inhabitants of Manshiyat Nasir found their livelihoods within the area itself. (Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) and Cairo Governorate 2001) Another misconception is that the residents of informal areas are composed of large families with lots of children, and that the average household size for Cairo Governorate was 3.8 persons, while for the large informal areas, average household sizes were nearly the same 3.9 persons respectively. And whereas for Cairo Governorate as a whole, 17.1 percent of inhabitants were under the age of ten, in the same three informal areas the percentages under the age of ten were slightly higher at 19.6, 17.6, and 22.3 respectively. Also, whereas illiteracy was reported at 18.3 percent for Cairo Governorate as a whole, in the same three informal areas illiteracy rates were 20.4, 18.1, and 46.1 percent respectively.

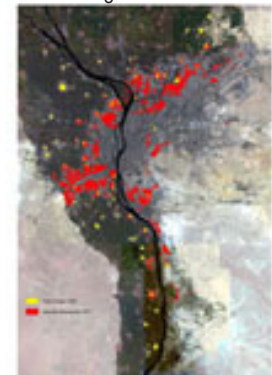
3.3 Cairo's Informalities Patterns

In the recognition of the informal settlements, regardless how constituted or morphologically structured, we can recognize some particular common attributes that in the most cases appear as their general characteristics. Luiz Paulo Conde and Sergio Magalhaes have made theoretical critic on the informal settlements of Rio, where they pointed at the urban characteristics of the slums as the constants that can be shared characteristics of the informal settlements in general: First is the predominance of the private over the public spaces, as a result of the lack of interest of the public or private institutions to develop projects for the public spaces in these areas. Second, the ambiguity of the public spaces for circulation, recreation and gathering, due to their lack of the formal definition of the used space. As the outcome of this situation Conde and Magalhaes found the compromised public space which is a habitual incidence in the informal areas. Further, the third constant appear as improper sizing of road systems, usually associated in equally poor layout, particularly along slopes often so steep as to make vehicular access virtually impossible. In addition, they have recognized also some constants that can be considered technical such as the insufficient infrastructure, precarious public equipment and also legislative issues like indeterminate ownership status (Conde & Magalhes, 2004). These common characteristics have different values and correlation at any particular case, and therefore should be studied and considered always in their individual spatial, social and cultural context.

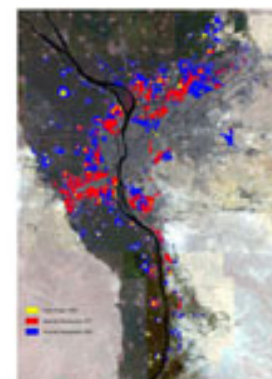
The nature and characteristics of informal housing can be best understood by reference to the history of the phenomenon, which also helps explain the different subtypes and subareas. The best effort to date at classifying Cairo's informal areas can be found in the 2000 study of informal areas produced by ILD. Basically, the



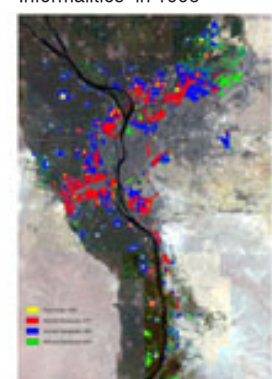
Core Villages in 1950



Informalities in 1977



Informalities in 1993



Informalities in 2000

Figure 3.4. Development of Informalities

study showed that in Greater Cairo the vast majority, or roughly 83 percent, of informal settlements, measured by their areas, were found to be developed on what had been privately held agricultural land. Informal occupancy of state-owned desert lands was limited to 10 percent of the total, and the remaining 7 percent of informal settlements were developed on agricultural reclamation land nominally controlled by the state. It should be noted that delineating informal areas can be challenging cartographically, since although there are some huge informal agglomerations that are easily bounded, there is in many other districts a confusing jumble of informal strips and blocks interspersed with agricultural parcels, factories, and other non-residential land uses, blocks of public housing, and even some formal subdivisions.

Within each of these three main typologies lie many variations. All informal areas began small, usually adjacent to existing agglomerations, factories or villages, and they expanded incrementally and horizontally, and at the same time slowly densified. The original plots might be further subdivided and built on, other buildings would be built to 'infill' the remaining vacant lots and buildings themselves would be progressively extended vertically as floors and rooms were added. Slowly, shops and other businesses would appear, and very slowly, basic infrastructure would be added. Thus a recently developed informal area may appear very rough, sparsely settled, and devoid of services, whereas a mature area several decades old may seem to be completely different, a very dense and vibrant area with relatively good utilities coverage and even some paved streets.

Types of Informal Areas

There is a misconception held by many Egyptian professionals, especially engineers, that informal housing is haphazardly constructed and liable to collapse. However, such precarious housing is almost unknown in informal areas. Since informal housing is overwhelmingly owner-built without use of formal contractors, it is in the owner's own best interest to ensure that care is taken in construction. In fact, one of the main features of informal housing construction is its high structural quality, reflecting the substantial financial resources and tremendous efforts that owners devote to these buildings. At the risk of overgeneralization, it is possible to construct a list of informal housing types or categories as they existed in 2009.

First, there are the older, village-style informal structures, often dating back to the 1950s and 1960s. Typically, buildings of two to four floors were constructed, usually in stages, with load-bearing masonry walls and either slab concrete or wood floors. This type can often be found in, or next to, what had been villages on agricultural fringes of towns that have subsequently either expanded into larger agglomerations or have been engulfed by horizontal informal expansion. To a limited extent they are still being constructed in Cairo's peri-urban areas. Housing units in this category are generally small apartments, although some individual houses were built.

Second, there is what could be termed classic informal housing, and from the 1970s to the present, this type dominates. Buildings of this type are built with reinforced concrete foundations, frames, and floor slabs, with masonry (usually red brick) wall infill. Rule of thumb norms typically allow for ground plus five floors. Building footprints are normally 75-125 square meters, with one or two small apartments per floor (usually ranging from forty to eighty square meters per unit). Construction is almost always in stages, with floors being added as finances permit. Some owners will continue to add floors above the standard ground-plus-five if the building, usually overdesigned, can support them. Such higher buildings are becoming more common in areas under intense development pressures.

Finally, there is the recent phenomenon of speculative one-off towers, which began to appear in the late 1990s, especially dotting well-located inner fringe areas of Cairo. These buildings tend to have larger footprints (250-450 square meters), larger apartments, and more apartments per floor. Heights can reach fifteen floors. What makes this type unique is that the entire building is completed in a single stage, and apartment units are then put on the market for sale or rental. It is understood that groups of relatives or neighbours, mostly from Upper Egypt, pool their financial resources to rapidly construct and rapidly sell off units, realizing quick profits. In many cases the building owner somehow obtains a building permit or otherwise gains acquiescence from local authorities to allow construction. These buildings have become very visible parts of the informal landscape because of their height and their plastered and brightly painted exteriors. They are an indication that, in terms of Cairo's housing markets, there is a strong demand from certain segments of the lower- and middle- classes for substantial housing units that are well-located within the city, despite their situation in decidedly informal areas. In fact, the housing units produced by this 'one-off tower' phenomenon in informal areas are competing very successfully on the market with recent attempts to introduce smaller, more affordable apartments in the new towns.

These three main types of informal construction are found in all informal areas of Cairo. However, in formerly desert sites such as Manshiyat Nasser and 'Izbit al-Haggana, one can still find quite humble single story buildings constructed of rubble or brick and roofed in wood. Most of these buildings has either been replaced with the more substantial structures- or else, following what was in vogue in the 1970s, reinforced concrete columns were placed along the exterior of the building to support additional floors.

Informalities Patterns on Agricultural Land

Agricultural land on the Nile flood plain is overwhelmingly held as private freehold property, usually in very small land holdings. On this land, which bounds the Cairo agglomeration on three sides, at least 80 percent of all informal development has taken place in the past, almost all ongoing informal development is now occurring, and practically all future informal expansion can be expected. The underlying causes of this phenomenon, which are embedded in the modern history of Cairo's

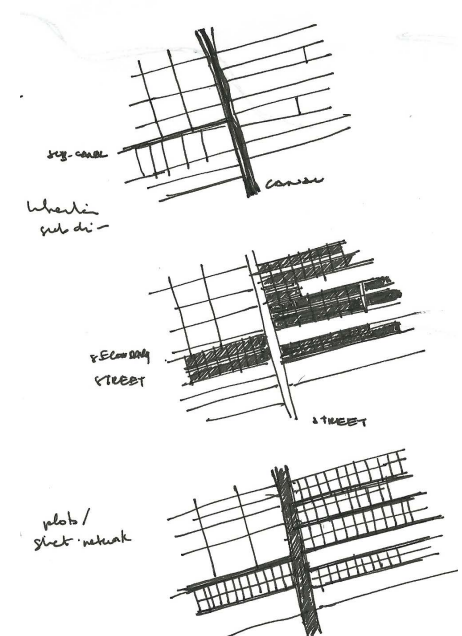
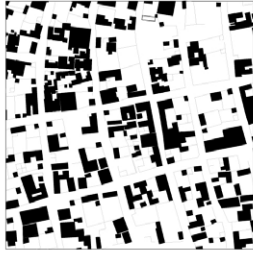
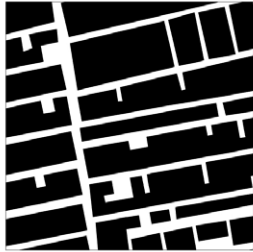


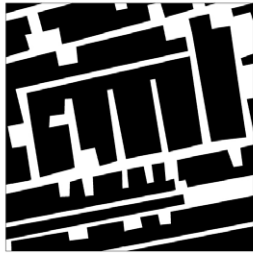
Figure 3.5. Informalities on Agricultural land plot subdivision and street network
Courtesy of Noheir Elgendy



Abbasiya Informal settlement



Dar el-Salam Informal settlement



Ard al-Liwa Informal settlement



Imaba Informal settlement

Figure 3.6. Informalities Patterns on Agricultural land in different informal settlements on the city periphery a 200x200m block
Courtesy of Noheir Elgendy

growth and in Egypt's policies of urban development. Here the focus is on identifying the specific factors that govern the dynamics of this type of informality as it operates today.

The patterns of irrigated agriculture around Cairo lend themselves to easy subdivision for building purposes. Agricultural holdings are very fragmented. They are more or less rectangular, and it is common for individual agricultural parcels to be as small as one qirat (175 square meters). Thus, subdivision is straightforward and the decision to sell/subdivide can be made by a single owner. Multiples of holdings are normally arranged in ahwad (small irrigated agricultural plots), with strips separated by small irrigation channels. These channels become then converted to the access lanes upon subdivision for building purposes. Larger irrigation canals and drains bound multiples of ahwad, and these have side reservations for paths and for canal cleaning. As development in an area intensifies, these are eventually filled in and become the main streets in an area.

Construction on agricultural land is guided by well-established technologies. Rule-of-thumb standards guide the design of foundations and structural elements, at least for the average modest building. Furthermore, temporary water and wastewater solutions can be found on-site, at least until networks are eventually extended to an inhabited area. Shallow tube wells are installed to tap the high groundwater and bayarat (soakaway pits) are constructed to receive domestic sewage.

Even though irrigated agricultural land around Cairo is highly productive, its market value as building land is always many times higher, and this creates an almost irresistible incentive for farmers to convert their holdings if at all possible. A main determinant of prices for building land is the accessibility of the plot from existing settlements (with their services and economic life) and existing road networks that provide the link to the metropolitan economy. Plots on main roads always sell at a premium. Due to greater government restrictions on informal development in the last decade, another determinant of prices has become what can be called critical mass or 'safety in numbers,' whereby vacant plots within already-developing areas, and those adjacent to existing buildings, command higher prices because construction on them is likely to be noticed by the authorities.

In most cases, subdivision and sale of agricultural land parcels for construction involves a straightforward transaction between the farmer-owner and end-purchaser, for which simple 'urfi sales contracts are drawn up. A local informal real estate broker, who works on commission, may be involved, as well a local sheikh or lawyer, who draws up the contract. Personal acquaintance and community-sanctioned trust are the main guarantees of these sale transactions. In some areas it is understood that middlemen, sometimes calling themselves land subdivision companies, will buy up larger parcels from farmers (and absentee landlords in a few cases) and resell them to individual builders.



Figure 3.6. Informal Settlements on the agricultural periphery
Photo by Mariam Korashy

It is important to realize that for the most part it is the individual or extended family that carries out residential construction. These owner-builders incorporate all the roles personally: they decide on a design, finance construction, purchase

materials, contract labor, and dispose of units. In these operations they rely on personal contacts and trust, and usually avoid formal written arrangements. Not only does this process reduce costs to a minimum: it ensures that the quality of construction is guaranteed by the owner-builders who have supervised it, and whose own families and relatives will in most cases be the end users. Building in stages is the key. Rooms and floors and finishings are added as finances permit. The negative side of this progressively is that skeletal buildings and unfinished units are very common, especially in newer areas. (el-Hadidi et al. 1987)

In older informal areas on agricultural land, most housing was built decades ago. These are now quite stable residential areas with only incremental building and occasional changeover of occupancy- much of which is among members of extended families or relatives. In these cases, informal rental or ownership tenure prevails. In newer areas and in new buildings in older areas, units may be put on the market either as freehold or ownership or as time-bound rentals with substantial advance payments. It is understood that the market works quite well, with buyers and sellers meeting through informal networks and personal contacts. The newer, speculative tower blocks many advertise units with signs, but this is as far as media are employed.

Informal Patterns on Desert Land

In the past, a few large areas of Cairo's desert were settled informally- mainly Manshiyat Nasir, 'Izbit al-Haggana, and the Fustat plateau – as have many other smaller areas and pockets on the desert fringes, which together represent roughly 10 percent by surface area of all informal areas around Cairo. The process of informal desert encroachment by individuals was a fascinating one, what with initial toehold settlements, shadow land-markets, manipulation of patronage and police power, and the very important concept of critical mass, both to avoid demolition and also to attract the eventual delivery of at least some basic services.

Another fascinating aspect of informal development on state desert land is how urban fabrics are created. Streets, lanes, and building layouts are determined 'organically' over time through negotiation among settlers, the operations of informal land markets, and the common need for access and circulation. Obviously, the government has little or no say in the matter. The resulting local neighbourhood patterns are remarkably reminiscent of, and even indistinguishable from, medieval urban fabrics in Cairo (as well as in other Middle Eastern cities). Figure 4.13 demonstrates this by comparing a satellite image of medieval Cairo neighbourhood dating from the eleventh century with that of a very recent informal neighbourhood of Cairo settled in the 1980s on state desert land.



Figure 3.8. Informalities on desert land
Courtesy of Noheir Elgendy

Today, opportunities for creating new informal settlements or expanding existing ones are practically nil around Greater Cairo. There is simply no more desert land that is easily accessible and does not already have a public enterprise, military, or other formal institutional claim on it. Furthermore, the more remote desert lands anywhere near Cairo is under the authority of the MHUUD (Ministry of Housing, Utilities and Urban Development- Arab Republic of Egypt) or other state agencies, and these lands are now jealously protected against encroachment.

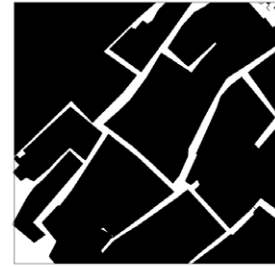
3.4 The Process of Cairo's Informalization

The informlization process which produces the informal city is a place for huge investments that are the summation of individuals savings. The process of informization is a very articulated process that has definite procedures defining each stage. Starting for the agricultural land purchasing , turning it to building plots , the building process and the provision of infrastructure, everything follows certain norms and codes. This process should be envisioned, in relation to the governmental approaches towards informalities, and the policies developed to contol its development, and how the informalities residents dealt with such policies. The informal city in Cairo is now growing at unprecedented rates and manners , forcing itself on the state as fact. In this section I would like to highlight the processes of informalization of Cairo, in relation to the governmental policies and the produced neighborhoods conditions.

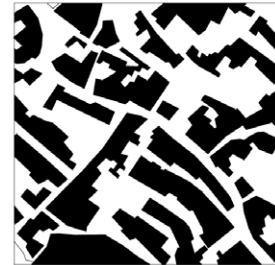
Informal development of Neighbourhoods

The production of 'classic' informal housing is a progressive and quite drawn-out affair, the place of which normally relies on an extended family's ability to save and otherwise mobilize and pool financial resources. The first step is to purchase vacant land. With modest parcels easily fetching in excess of LE 500 per square meter today, an upfront payment will require marshalling, say, LE 40,000 to LE 50,000. This is a very large sum, which may take years to accumulate. Then construction begins, usually with the ground floor which will require accumulating as much as LE 20,000 to LE 40,000, again a struggle which can take years. The additional floors (and rooms) similarly require further savings and conversion of other assets over years.

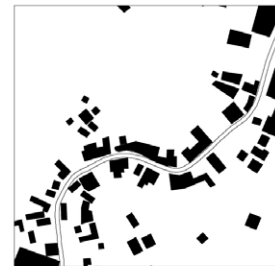
What are understood to be the main sources of such finance? Many observers consider the single most important source to be savings, especially savings generated by Egyptians working abroad. (At least in the 1970s and 1980s these remittances were the main sources of finance fuelling the informal sector.) Other important sources include personal loans (usually without interest and usually from relatives) and from informal revolving credit groups. The conversion of other family assets, such as the selling of agricultural land, animals, jewellery, and so on, is also common. Another method, perhaps becoming more and more important, is the



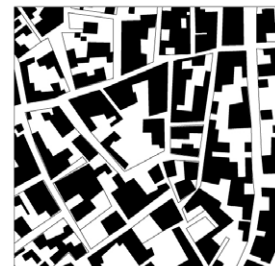
Al-Zabbaleen Informal settlement



Mandhiyat Nasser Informal settlement



Al-Duweiga Informal settlement



Izbit KhayrAllah Informal settlement

Figure 3.9. Informalities Patterns on desert land in different informal along the Muqattam ridge. A 200x 200 m block
Courtesy of Noheir Elgendy

sale or rent of parts of a building to finance its further vertical expansion. This last point helps explain how it is possible for simple extended families to produce over time multi-storey structures that represent hundreds of thousands of pounds in investment. There is no recourse to formal financial services in the informal housing sector. Informal property cannot be used as collateral for bank loans, nor can such property be mortgaged under the nascent mortgage system in Egypt (since the properties have no registered titles), and personal bank loans carry high interest and may require onerous personal guarantees. In a recent study of informal construction in three areas of Greater Cairo finance from bank loans was mentioned as a source in only between 2 and 4 percent of those interviewed. (Madbouli & Lashin 2003)

In the case of the one-off speculative towers, which are becoming more and more common in informal areas, little is known about their financing mechanisms. In fact, it is surprising that virtually no studies have been undertaken of these huge investments, which are starting to alter the skyline of parts of informal Cairo.

Government control over informal areas and attempts to prohibit illegal construction have increased in the last fifteen years, at least in the fringe areas of Cairo where they are most visible. Around smaller towns and villages that are within the urban orb, such control is still relatively lax. This increased surveillance has not at all stopped informal residential construction, but it has generated newer modes of construction and additional actors in the process.

First, construction- at least of the first floor of a structure- must be done quickly. Also, building in open areas where construction is easily seen from main roads has become more difficult. In fact, local land prices put a premium on plots that are small, infill, and hidden within the built fabric. Second, there is a rising phenomenon of middlemen who specialize in overcoming and circumventing the control of government officials. These may be local lawyers or those who are called *muqawilin* (contractors) or *samasira* (agents). In a recent investigation of informal building processes in three neighbourhoods of Cairo and Giza, (Madbouli & Lashin 2003) it was found that these middlemen were the primary organizers of construction in 37 to 41 percent of cases. These persons personally know the local officials from the urban administrative district, agricultural directorate, and/or utilities offices, and they know whom to ask for favours and how much a bribe will cost. Sometimes they may be elected officials in the local popular councils or even members of parliament. They, especially the *muqawilin*, also have many tricks to avoid coming under the eye of control mechanisms. These may involve building on Friday and during the night, blocking access streets with vehicles, or even hiring local toughs to either prevent entry or create diversionary disturbances. Maneuvers may also involve building false walls to hide construction activity. They may also involve getting an official in the agricultural cooperative to declare the land unfit for agriculture, and other administrative chicanery, as well as the purchase of bogus permits.

It is not such bribes, manoeuvres, and subterfuges were unnecessary in previous stages of Cairo's informal development. But in an earlier age things were simpler,

and it was usually the owner-builder himself who carried the burden. The upshot of this is that building an informal structure in sensitive areas today involves many more actors and has become much more expensive, which translates into higher prices for finished housing units, which translates into higher prices for finished housing units, which in turn makes such informal development less affordable to those of limited income or modest family capital.

Government Approaches to the Informality Phenomenon

When informal areas began to appear in the 1960s and expand in the 1970s there was little interest from either government or academics in what was at first a very marginal and not very visible phenomenon. In the late 1970s uncontrolled urban expansion on the Nile Valley's limited agricultural land became an issue, and this provoked a series of decrees and laws aimed at prohibiting further encroachment by informal housing. These had little effect, and in the 1980s and 1990s further attempts were made to legislate away the informal phenomenon, culminating in 1996 with the promulgation of two presidential decrees stipulating that any new construction on agricultural and any urban construction without a valid building permit would be severely punished through military courts. These stern decrees had a temporary dampening effect, but the vertical and horizontal expansion of informal settlements soon resumed in Greater Cairo, albeit with higher 'extralegal transaction costs, that is, bribes. The military decrees themselves were revoked in 2005.

From time to time Cairo's local administrations have also attempted to discourage informal building by denying water, sewerage, and electricity connections to those who do not have building permits or otherwise cannot prove a building's legality. This has caused certain hardships, but usually connections will eventually be provided quietly, often encouraged by small bribes. And the local administrations themselves frequently reverse their prohibitory decisions for political expediency. As recently as August 2006, the Governor of Cairo announced that any building in violation constructed before June 2006 would be allowed to have utilities connections "as a temporary measure." In other words, this decree allowed virtually all buildings in Cairo Governorate to be connected up, previous banning orders notwithstanding. (al-Ahram, 6 August 2006, 14)

"Ever since the informal urbanization phenomenon became visible in Greater Cairo, it came to be recognized in some circles that simple prohibition was insufficient and that the state should offer alternatives to informal housing expansion on agricultural land. Although there have been a number of schemes proposed and even designed with donor support, in or around Greater Cairo there have been virtually no successful pilot projects to date."

David Sims, 2010

In effect, since the 1990s the state has only begun to address the issue of informal settlements in Greater Cairo after the fact, and in situ urban upgrading of informal areas has become the main preoccupation of government as well as donors. The first such effort was in Imbaba in 1992-93, and involved the introduction of infrastructure that was lacking and the opening up of some roads by Giza Governorate. (Rayan 2008) In 1998, GTZ, in alliance with Cairo and Giza governorates, began upgrading exercises in Manshiyat Nasir and Bulaq al-Dakrur. These efforts involved a limited amount of capital investment for water, sewers, roads, and social facilities, combined with a considerable amount of technical assistance for studies, planning, training, community mobilization, and capacity building. The concept of community participation, always in vogue among international donors, has been a

paramount dimension to these two projects, both of which continue more than ten years later, although focus is now limited to scaling up and general policy impact. (Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) 2009)



Figure 3.10. Telal Zeinhom squatter settlement before upgrading. Courtesy of archnet.org



Figure 3.11. Telal Zeinhom project after upgrading. Courtesy of archnet.org

In 1998 the area of Telal Zeinhom, an older, deteriorated area of Cairo in Sayyida Zaynab district, became a model redevelopment project championed by the Egyptian Red Crescent, the Future Foundation, and the First Lady, with funding mainly from voluntary contributions by prominent businessmen. This project involved the demolition of all old structures and the rehousing of residents in new walk-up apartments surrounded by manicured gardens. The final phase was completed in 2009 and the different phases together saw the building of 2,400 housing units as well as a number of public facilities.

Although the Telal Zeinhom area had been in a minor run-down inner-city area of squatters and crumbling emergency housing, and in no way could be considered typical of informal areas of Greater Cairo, the state and its media have lost no time in declaring that this kind of showcase redevelopment is the model for dealing with informal areas. (Al Ahram Weekly, 21-27 May 2009,2) Such an approach was repeated in some small informal settlements around Helwan in 2005 to 2007 called 'Izbit al-Walda and 'Arab al-Walda. This project was also championed by the First Lady and involved some very plush social services as well as roads and parks built by the Egyptian Army (and, it might be added, on land that had been an army camp). (Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) 2009) Both of these projects are tirelessly lauded by the state media as successful approaches that show the commitment of government to solve the informalities problem, although it is more correct to say they are drop-in-the-ocean, expensive showcase efforts that are hardly replicable without the strong and continued interest from the very highest levels of political power.

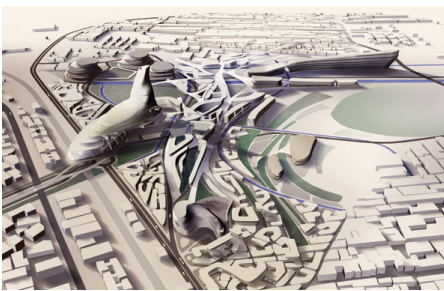


Figure 3.12 Imbaba airport park project proposal

A government project currently underway in Imbaba represents what is probably the most ambitious and large-scale venture at improving and restructuring an informal area of Cairo. The scheme, which first was considered in 2000 by the Ministry of Housing, is using the 74-hectare site of the disused Imbaba Airport to build a park, a major boulevard, and social facilities for the surrounding informal areas. Also being built on the site are public housing blocks that are to be used to resettle those in the path of street widening. If implemented as intended, this project will definitely benefit the huge surrounding informal areas where more than half a million people reside. (Imbaba tantazir al-tatwir, al-Misri al-yawm, 4 October 2009, 17) However, even if successful, this experiment is hardly an approach that is replicable, since in addition to being expensive, finding more prime sites embedded in Cairo's informal areas is well nigh impossible.

Whether and to what extent one considers that the state has officially recognized informal development and conceptualized approaches and strategies to deal with or stop the phenomenon, it is important to realize that state activities- mainly in the form of service provision through traditional line agencies of government- have

been considerable in informal areas, as discussed above. In fact, it could be said that there is a kind of 'organic' development operating- piecemeal, insufficient, and chaotic, always after the fact and limited- through local and national sectoral agencies. Roads eventually do get built, water and wastewater networks do get extended, schools do appear, and electricity does get provided to informal areas, just as they do in rural Egypt. It may take years, and even decades, but most informal neighbourhoods of Cairo have been and are being served. If this is not state recognition, then what is? The residents of these areas may be disenfranchised and given pathetic funding priorities, but their very mass works in their favour. They do have some representation and some weight and voice, especially in local administrations, and this translates into a kind of pressure of numbers. Voting pools may work somewhat, but it is more the same kind of personal and informal relations and negotiated norms that ease the establishments and consolidation of informal areas and also allow the extension of public infrastructure and services, regardless of whether an area is considered illegal/ informal or not.

It is important not to get carried away and to overly laud this quiet and piecemeal improvement of informal areas. The state's aggregate budgetary allocations to informal areas for infrastructure and services, on a per capita basis, whether through local authorities or line ministries, are truly pathetic. It is symptomatic of the embarrassing imbalance that such comparative budgetary exercises are never carried out. One has only to set levels of investments and the resulting services in informal areas, against what can be found in the new towns around Cairo, where almost no one lives and the few new inhabitants are likely to be decidedly well off. Or one can compare the level of investments in any informal area of Greater Cairo to those in a district like Zamalek, where it seems a street is hardly repaved and recurbed before the process starts over again, and where there are four government cooperative supermarkets, supposedly for limited-income customers, selling a wide range of fixed-price meats, canned goods, fish, fruits, and vegetables.

One of the basic principles of urban development is that investing scarce public moneys in large and dense settlements and in areas adjacent to the city core would have a much higher impact on the welfare of the city as a whole than investing the same amount in faraway locations where demand is still sluggish or in areas already enjoying high levels of services. Government investments have much higher economic returns when the flow of benefits (such as clean water, good electricity, better transport, and better education) directly benefit a large number of people per unit of investment. This should be completely obvious. But it is symptomatic of where government priorities lie in Cairo that one can search high and wide and never find any calculation of per-capita investment allocations by geographic area of the city. This is true whether talking about sectoral allocations such as water and wastewater or education, or whether total investment budgets are being considered. In this vacuum, it is easy for decision-makers to continue to pour funds into grandiose desert schemes or into precious parts of the formal city. Informal areas of Greater Cairo, with almost two-thirds of the total population today, do not capture even a very tiny fraction of the city's investments in basic services.

Amenities in Informal Neighbourhoods

Although all new informal settlements start off without any public infrastructure or social services, as an area matures and the number of its inhabitants grows, needs become articulated and, in most cases, utility authorities slowly begin to provide basic services. Metered electricity is usually the first network to arrive. Potable water networks serving individual buildings are usually next. Sewers, the most expensive of infrastructure services, are slowly and sometimes arbitrarily extended, with building owners required to pay hefty fees for individual connections. Finally, in formerly agricultural areas, canals are filled in, and main roads created and sometimes paved. Schools and other social facilities are problematic since they require public land sites, which are extremely scarce. Overall, the provision of services to an area may take decades and will depend in large part on the proximity to existing utilities mains, the availability of state land parcels for public facilities, and also on the pressures a community can exert on local politicians.

Statistically at least, infrastructure service levels in Cairo's informal areas are quite good and not far from citywide averages. Yet, the main problem with utilities and other services in Cairo's informal areas is that as populations increase, these services quickly become overburdened; over time such services can reach a crisis point. In many mature informal areas, water, power, and sewerage networks were extended rather haphazardly in the 1970s and 1980s, and they now must function for several times the original design populations. The results are voltage and water pressure drops, power and water cuts, and blocked and overflowing sewers. Similarly, public primary and secondary schools built at the same period in informal areas must now cater to armies of kids, with the number of students per classroom frequently exceeding eighty pupils, even with double shifts. (United States Agency for International Development (USAID) 2008)

Roads and lanes in Cairo's informal areas are mostly in a deplorable state, although in some areas there are exceptions. Most main roads, if ever paved, have long ago to dust and rubble, and smaller lanes were almost never paved. The 2008 HSUE reported that, for all of Greater Cairo, only 34 percent of residential buildings fronted on paved streets in good condition. For peri-urban Greater Cairo, the same figure was a pathetic 6 percent. And these figures relate to both formal and informal neighbourhoods, so one can imagine what the percentages for informal areas alone might be.

In effect, the quality and levels of infrastructure and levels of infrastructure and public services vary greatly from one informal area to another. As mentioned above, it is the older, more mature areas that tend to be better served. Also to generalize, informal areas that are found within established urban districts tend to be of a higher quality than those located within village clusters and extensions into agricultural land. Thus informal areas found in the peri-urban frontier in Giza and Qalyubiya Governorates tend to suffer more. But in all informal areas public amenities could be vastly improved, and it is simply government neglect, and lack

of sufficient investment in upgrading or extending networks and in upgrading or extending networks and in building, equipping, renovating, and maintaining public facilities, which are to blame.

Whether and to what extent one considers that the state has officially recognized informal development and conceptualized approaches and strategies to deal with or stop the phenomenon, it is important to realize that state activities – mainly in the form of service provision (however slow) through traditional line agencies of government – have been considerable in informal areas. In fact, it could be said that there is a kind of ‘organic’ development operating – piecemeal, insufficient, and chaotic, always after the fact and limited – through local and national sectoral agencies. Roads eventually do get built, water and wastewater networks get extended, schools do appear, and electricity does get provided to informal areas, just as they do in rural Egypt. It may take years, and even decades, but most informal neighborhoods of Cairo have been and are being served. This is simply a form of state recognition, a form of formalization, of these settlements. The residents of these areas may be disenfranchised and given pathetic funding priorities, but their very mass works in their favor. They do have some representation and some weight and voice, especially in local administrations, and this translates into a kind of pressure of numbers. Voting pools may work somewhat, but it is more the same kind of personal and informal relations and negotiated norms that ease the establishment and consolidation of informal areas and also allow the extension of public infrastructure and services, regardless of whether an area is considered illegal/informal or not.

(Sims, 2010)

Conclusion

The ‘Informal’ as defined is not the unplanned, unorganized, or chaotic. The informality, and in particular the case of Cairo, refers to the state illegality of building on state owned land, or building on agricultural land which is prohibited. The process of constructing the informal city is a very structured system, following certain codes and norms, developed by the community, to achieve a system that was able to grow to house two thirds of Greater Cairo’s population.

The perception of informalities is surrounded by many myths. It is often stigmatized as the ‘negative’ or the ‘undesired’ part of the city. They are the places of poverty, literacy and backwardness. However these myths are on their way to disappear, with the extensive growth of the informal city, as the informalities are growing to be the *norm* not the *exception*.

Based on past trends, the informal city can be expected to keep growing, with an ever-increasing portion of Greater Cairo’s inhabitants finding homes and livelihoods in it (World Bank 2008). Thus, developing its complete and independent parallel city in terms of organization, entity, and structure.

The informal mechanisms, like formal ones, comply with rules. Social networks and cultural norms are the organizational bases that dictate those rules and the means through which they are enforced. Informal activity is not really 'outside' the formal sphere of the state, and should be recognized as intertwined with the state in complex ways. The persistent misconceptions of informal areas as being 'chaotic,' and their residents 'uncivilized' and ultimately a 'dangerous threat' and 'undesirable,' reflect ideas about the government as controller rather than as guide or facilitator. Informal areas are considered as a burden. Although, in 1997, informal housing was valued at 73 billion dollars, when state resources are limited or poorly managed, when the understanding of people's priorities and of urban development processes on which laws, policies, and regulations are based is inadequate, and when government capacity to regulate is undermined by widespread non-compliance and disrespect for government institutions—under such conditions, informal areas develop to give rise to 'popular' urban districts that answer the needs of people under the local circumstances and constraints. They are the consolidation of ongoing 'private' investment and the effort of millions of fellow Egyptians to provide a liveable, appropriate, affordable living environment for themselves and their children, within the constraints of the available choices. Last but not least, informal areas are not inhabited only by the poor. Authorities declare that almost 17 million Egyptians live in informal areas around cities. That figure includes many more than just the very poor. Studies reveal the profile of informal areas to include a wide spectrum of socio-economic groups; its resident could include street vendors as well as judges. Residents of informal areas include government employees, workshop owners, and artisans, as well as professionals such as doctors and lawyers. In short, almost any Egyptian may live in an informal area. (Shehaye, 2009)

The informal settlements, regardless how constituted or structured, have common attributes that appear as their general characteristics as; the predominance of the private over the public space, the ambiguity of public spaces for circulation, recreation, and gathering as well as the insufficiency of the basic infrastructure and public amenities. These common characteristics differ from one area to the other, therefore, should be studied and considered always in their individual, spatial, geographical and social contexts.

The informal settlements across Cairo are divided into three main categories; the first which presents the majority (around 83 percent of the informal settlements of Cairo) are built on privately held agricultural land; the second category of informal settlements (which is around 10 percent) are built on state owned land; the third which represents the remaining 7 percent were developed on agricultural reclamation land nominally controlled by the state. However, within each of these three categories lie many variations, and each produces certain typomorphological patterns, that enable us to differentiate between each category and sub-category.

Thus, the informal settlements are categorized into two main typologies; agricultural land and desert land informal settlements, and the subcategories are defined



Figure 3.13. Contrasting urban fabrics over nine hundred years.

Top: the Bab al-Wazir area of historic Cairo (developed in the eleventh century);
Bottom: Fustat Plateau area (developed in the 1980s).

Courtesy of David Sims

according to the typology of housing they contain. Starting from the older, village-type informal structures, after dating back to the 1950s and 1960s, to the second category which could be termed as classical informal housing, and rises up to four or five floors which started from the 1970s and still developed until now, this typology presents the majority of building types in the informal city, and finally the recent phenomenon of the speculative one-off towers, which began to appear in the late 1990s, especially located on the inner fringes areas of Cairo, where the highest land value exists. These categories allow us to develop an understanding of the rationale beyond the informal city evolution.

The production of the classic informal housing is a very systematic procedure, in terms of finance, land subdivision and building techniques. The common code system was developed through trial and error, to produce a very efficient and reliable model for building and even investment. This whole process included the ways and tools to manipulate and hide from the government eyes, which prohibits this process in concept. However, the governmental approach have changed several times since the appearance of the informalities phenomenon. In the fifties and sixties the informalities were completely neglected, that they didn't even exist maps. With the growth of the informal city, the approach was turned into an attempt of controlling and containment, providing a belt system around the already existing areas. This approach was also changed another time, due to the local and international pressures, turning it into an upgrading and development approach. These three attitudes have shifted the informal city from a state of informalization against the state's will, to a state formalization of the informal city. This discourse is critical in understanding the changes in the informal city patterns, processes, and logic and thus the potentialities of intervention.

In the next chapters we will investigate the spatial and physical relationships that are associated with the appearance of the informal city, and the possible strategies for the the redevelopment of the relationships between the parallel cities.

Bibliography- Chapter 03

- Agnes Deboulet. (2009). The Dictatorship of the Straight Line and the Myth of Social Disorder. In D. Singerman (Ed.), *Cairo Contested: Governance, Urban Space, and Global Modernity*. Cairo: American University in Cairo Press
- Baross, P. (1990). Sequencing land development: The price implications of legal and illegal settlement growth. In P. Baross & J. Linden (Eds.), *The transformation of land supply systems in Third World cities*. Aldershot: Avebury.
- Berenstein Jacques, P. (2001). The aesthetics of the favela: the case of an extreme. In J. JFiori, H. Hinsley, E. Pascolo, & K. Thornton (Eds.), *Transforming Cities: Design in the Favelas of Rio de Janeiro*. London: Architectural Association.
- Bitter, S., & Weber, H. (2005). Caracas—hecho en Venezuela. In A Brillembourg, K. Feireiss, & H. Klumpner (Eds.), *Informal City: Caracas Case*. Munich: Prestel .
- Brillembourg, A, & Klumpner, H. (2005). Introduction. In Brillembourg A, K. Feireiss, & H. Klumpner (Eds.), *Informal City: Caracas Case*. Munich: Prestel.
- Brillembourg, Alfredo, Feireiss, K., & Klumpner, H. (2005). *Informal City: Caracas Case*. Munich, Berlin, London, New York:: Prestel Verlag.
- Brillembourg, C. (2004). The new slum urbanism of Caracas, invasions and settlements, colonialism, democracy, capitalism and devil worship. AD: *Architectural Design*, 74(2).
- Castillo, J. (2001). Urbanisms of the informal: transformations in the urban fringe of Mexico City. *Praxis:Journal of Writing and Building*, 2(1).
- Cities Alliance: Cities without Slums and the City of Sao Paulo. (2008). Informal and Squatter Settlements in Greater Cairo: Challenges and Policy Response. *Slum Upgrading Up close: Experience of Six Cities*. Washington, D.C. Retrieved from <http://www.citiesalliance.org/doc/resources/upgrading/su-up-close/su-up-close.pdf> (accessed 15 July 2011)
- Clark, J. (2003). *Islam, Charity, and Activism: Middle-Class Networks and Social Welfare in Egypt, Jordan, and Yemen*. Indianapolis: Indiana University Press.
- Clay, G. (1994). *Real Places: An Unconventional Guide to America's Generic Landscapes*. Chicago: University of Chicago Press.
- Conde, L. P. ., & Magalhaes, S. (2004). *Favela-Bairro : rewriting the history of Rio*. Rio de Janeiro: ViverCidades
- Deutsche Gesellschaft fur Technische. Zusammenarbeit (GTZ). (2009). *Cairo's Informal Areas: Between Urban Challenges and Hidden Potentials: Facts,Voices,Visions*. Cairo.
- Deutsche Gesellschaft fur Technische., & Zusammenarbeit (GTZ)and Cairo Governorate. (2001). *Manshiet Nasser Guide Plan, Anlysis of the Existing Situation*. Cairo.
- Dharvi: Documenting informalities. (2010).*Lotus Magazine*, 143.
- Dorman, W. J. (2009). Of Demolitions and Donors: The problematics of State Intervention in Informal Cairo. In D. Singerman (Ed.), *Cairo Contested: Governance, Urban Space, and Global Modernity*. Cairo: American University in Cairo Press.
- Durand-Lasserve, A., & Tribillon, J.-F. (2001). "La loi ou la ville?" *Urbanisme*, 318, 72–77.
- El Shakry, O. (2006). Cairo as Capital of Socialist Revolution? In D. Singerman & P. Amar (Eds.), *Cairo Cosmopolitan: Politics, Culture, and Urban Space in the New Globalized Middle East*. Cairo: American University in Cairo Press .

- el-Hadidi, H., Oldham, L., & Tamaa, H. (1987). Informal Communities in Cairo: The Basis of a Typology. *Cairo Papers in Social Science*, 4(10).
- el-Batran, M. (2000). The Role of Local Authorities in Implementing Secure for the Benefit of the Poor: *The Experience of Egypt. The Second Forum for the World Alliance of Cities against Poverty*. Geneva.
- Farag, F. (2003). Urban Matters: Fatemah Farag Considers the Dark Side of City Life. *Al Ahram Weekly Online*, 658(2). Retrieved from <http://weekly.ahram.org.eg/2003/658/fel.htm> (accessed 14 November 2008)
- Florin, B. (2009). Banished by the Quake: Urban Cairenes Displaced from the Historic Center to the Desert Periphery. In D. Singerman (Ed.), *Cairo Contested: Governance, Urban Space, and Global Modernity*. Cairo: American University in Cairo Press .
- Foucault, M. (1967). *Of Other Spaces*. (C. David & J.-F. Chevrier, Eds.). Kassel: Hatje Cantz. Retrieved from <http://foucault.info/documents/heteroTopia/foucault.heteroTopia.en.html>
- Golda-Pongratz, K. (2004). The barriadas of Lima: utopian city of self-organisation? *AD: Architectural Design*, 74(4).
- Harvey, D. (2000). *Spaces of Hope*. Berkeley: University of California Press.
- Huchzermeyer, M., & Karam, A. (Eds.). (2006). *Informal Settlements: A Perpetual Challenge?* Cape Town: University of Cape Town Press.
- Ismail, S. (2006). *Political Life in Cairo's New Quarters: Encountering the Everyday State*. Minneapolis: University of Minnesota Press.
- Jacobs, S. (2002). Shreds of Boring Postcards: Towards a Posturban Aesthetics of the Generic and the Everyday. In the Ghent Urban Studies Team (Ed.), *Post, Ex, Sub, Dis: Urban Fragmentations and Constructions*. Rotterdam: 010 Publishers.
- Kang, M. J. (Ed.). (2009). The 4th International Conference of the International Forum on Urbanism (IFoU) The New Urban Question – Urbanism beyond Neo-Liberalism. *INFORMAL URBANISM FROM INSIDE-OUT – INTERNALIZING TAIPEI EXPERIENCES OF INFORMALITY*. Amsterdam.
- Koolhaas, R. (1994). The Generic City. In J. Sigler (Ed.), *Small, Medium, Large, Extra-Large*. Rotterdam: 010 Publishers.
- Laguerre, M. S. (1994). *The Informal City*. Basingstoke: Macmillan.
- Leeds, A. (227AD). Forms on Urban Integration: 'Social Urbanization' in Comparative Perspective. *Urban Anthropology*, 8.
- Madbouli, M., & Lashin, A. (2003). *al-Manatiq al-'ashwa'iya fi-l- Qahira al-Kubra: dirasat al hala al-qa'ima fi Bulaq al-Dakrur*. Cairo.
- Morales, J. (2003). In-Between. In S. Cros (Ed.), *the Metapolis Dictionary of Advanced Architecture: City, Technology and Society in the Information Age*. Barcelona: ACTAR.
- Nippon Koei Co.Ltd, & Katahira Engineers International. (2008). *The Strategic Urban Development Master Plan Study for Sustainable Development of the Greater Cairo Region in the Arab Republic of Egypt, Draft Final Report. Vol. 1:Starategic Urban Development MAster Plan* . Cairo.
- Paczynska, A. (2009). Economic Liberalization and Union Struggles in Cairo. In D. Singerman (Ed.), *Cairo Contested: Governance, Urban Space, and Global Modernity*. Cairo: American University in Cairo Press.
- Rayan, G. (2008). *Amaliyat al-irtiq'a' bi-l manatiq al-'ashwai'ya fi fa'aliyat tanfiz al-mukhattatat*.
- Roy, A. (2003). *City Requiem, Calcutta*. Minneapolis: University of Minnesota Press.

- Roy, A. (2005). Urban Informality, Toward an Epistemology of Planning. *Journal of the American Planning Association (JAPA)*, 2(71).
- Roy, A. (2011). Slumdog Cities: Rethinking Subaltern Urbanism. *International Journal of Urban and Regional Research*, 35(2).
- Roy, A., & Alsayyad, N. (Eds.). (2004). *Urban informality: Transnational perspectives from the Middle East, South Asia and Latin America*. Lanham, MD: Lexington Books.
- Sassen, S. (2005). Fragmented Urban Topographies and Their Underlying Interconnections. In Alfredo Brillembourg, K. Feireiss, & H. Klumpner (Eds.), *Informal City – Caracas Case*. . Munich: Prestel Verlag.
- Shehayeb, D. (2009). Advantages of Living in Informal Areas. GTZ, *Cairo's Informal Areas: Between Urban Challenges and Hidden Potentials: Facts, Voices, Visions*. Cairo: Participatory Development Program in Urban Areas.
- Sims, D. (2010). *Understanding Cairo: The Logic of a City Out of Control*. Cairo: AUC Press.
- Singerman, D. (Ed.). (2009). *Cairo Contested: Governance, Urban Space, and Global Modernity*. Cairo: American University in Cairo Press .
- Sejourne, M. (2009). The History of Informal Settlements. In R. Kipper & M. Fischer (Eds.), *Cairo's Informal Areas Between Urban Challenges and Hidden Potentials: Facts, Voices, Visions*. Cairo: German Technical Cooperation.
- The Stealth Group. (2001). *The Wild City: Genetics of Uncontrolled Urban Processes*.
- The World Bank. (2008). Arab Republic of Egypt- Urban Sector Update. *Sustainable Development Department Middle East & North Africa Region (Vol.I)*. Washington, D.C.
- Tiwari, G. (2007). Informality and its Discontents. In R. Burdett & D. Sudjic (Eds.), *The Endless City*. Phaidon Press Limited.
- United States Agency for International Development (USAID). (2008). *Housing Study for Greater Cairo*. Washington D.C.: USAID/Egypt Policy and Private Sector Office.
- Valladares, L. (2006). *La favela d'un siecle a l'autre*. Paris: Editions de la Maison des sciences de l'Homme.
- Vallat, C., Marino, B., & Biondi, G. (1998). *Naples: Demythifier la ville*. . Paris: L'Harmattan.
- Vignal, L., & Denis, E. (2006). Cairo as Regional/Global Economic Capital? In D. Singerman & P. Amar (Eds.), *Cairo Cosmopolitan: Politics, Culture, and Urban Space in the New Globalized Middle East*. Cairo: American University in Cairo Press.
- Wall, E. (2010). *Infrastructural Form , Interstitial Spaces and Informal Acts*.
- Ward, P. (Ed.). (1982). *Self help housing: A critique*. London: Mansell.
- Wickham, C. R. (2003). *Mobilising Islam: Religion, Activism, and Political Change in Egypt*. New York: Columbia University Press.
- World Bank. (2008). *Arab Republic of Egypt: Urban Sector Note* . Washington, D.C.
- Wright, G. (2005). Informal Cities, Multiple Realities. In Alfredo Brillembourg, K. Feireiss, & H. Klumpner (Eds.), *Informal City: Caracas Case*. Munich, Berlin, London, New York: Prestel Verlag.



Figure 4.1. Ramlet Bulaq, Cairo
Photograph by Mosaab al-Shaby

Chapter 04

4.0 INVESTIGATING THE CITY SCALE: RE-CONNECTING THE PARALLEL CITIES

4.1 The Parallel Cities Spatial Configuration

Cairo's modes of Expansion

The Informal City Expansion Process

The Informal City Spatial Structure.

Stratifying the City Layers

4.2 The Parallel Cities Interrelationship

Neglection

Segregation

Migration

Exposure

Dominance

4.3 The City Scale Strategy: Stitching the parallel cities.

The City Fabric

The City Edges

The Open Spaces as City 'Thresholds'

Conclusion

“City design is the art of creating possibilities for the use, management, and form of settlements or their significant parts. It manipulates patterns in time and space and has as its justification the everyday human experience of those patterns ... [City design] thinks in terms of process, prototype, guidance, incentive, and control and is able to conceive broad, fluid sequences along with concrete, homely details. It is a scarcely developed art- a new kind of design and new view of its subject matter”

Kevin Lynch, 1981

“But ... how can man withdraw himself from the feilds? Where will he go, since the earth is one huge unbounded feild? Quite simple: he will mark off a portion of this feild by means of walls, which set up an enclosed finite space over against amorphous, limitless space ... For in truth the most accurate definition of the urbs and the polis is very like the comic definition of a cannon. You take a hole, wrap some steel wire tightly around it, and that's your cannon. So the urbs or polis starts by being an empty space ... and all the rest is just a means of fixing that empty space, of limiting its outlines ... The square ... This lesser rebellious field which secedes from the limitless one, and keeps to itself, is a space sui generis of the most novel kind in which man frees himself from the community of the plant and the animal ... and creates an enclosure apart which is purely human, a civil space”

José Ortega y Gasset

The state of parallelism between Cairo's formal, informal and desert cities, defines how independent each of these cities are. The parallelism as a term signifies the lack of points of intersection and relationships. This is more or less the case between Cairo's parallel cities. They exist as segregated entities or enclaves each hosting certain economic, cultural, and social conditions and practices. The resultant is a city 'cut into parts', separated by both physical and non-physical borders and edges. These edges are present spatially as natural or artificial borders, that are accentuated by the social and cultural gaps, which sometimes are stronger as edges, separating the parallel cities.

However, it is still possible to trace the relationship between the parallel cities, with the social and political changes and the consequent changes in policy. The parallel cities can be categorized as formal/ legal (including the formal and the desert cities as identified in the last chapter) and illegal/ informal (presented in the informal city with its different typologies). Thus, the relation between the parallel cities were directly affected by the changes in policies, developing the governmental vision or reacting to it.

This chapter attempts to understand the physical and spatial configurations of the parallel cities, and the edges separating them, focusing on the relation between the formal and the informal cities, in order to propose a strategy for re-stitching the city fabric and re-defining the the parallel cities interrelationship.. This chapter will also be followed by two chapters analysing the urban and architectural scales to reach a comprehensive reading of the parallel city. Each of these chapters, focusing on a certain scale of the city, would allow a comprehensive reading of the phenomenon of the city informalization and the current processes of formalization. The reading of each scale would be followed by a strategic proposal dealing with the segregated relationship between the formal and informal parallel cities. Based on the patterns analysis, a multiscale proposal for the city would be constructed, rethinking the city and proposing methodologies for intervention.

4.1 The Informal City Spatial form

In order to trace the parallel cities forms, structures, and relationships, it is important to identify Cairo's modes of expansions since the 1950s, which is the date since which, Cairo's two parallel cities; the informal city and the desert city, started to appear. The expansion is a process through which we can identify many social, political and economic factors beyond Greater Cairo's current condition. From the standpoint of the city plan, zoning and regional surveys, the city processes of expansion has been almost wholly thought of in terms of physical growth. The attempts made to forecast the direction and the rate of growth of the city was in order to anticipate future demands for the extension of services and infrastructure. In the city plan the location of parks and boulevards, the widening of traffic streets, the creation of a ring road, are all in the interest of the future control of the physical development of the city and attempting to measure the expansion to deal with the changes that accompany the city growth. (Burgess, 1925) Yet, It is important to understand the processes that created these growth patterns, to formulate what are the potentials and possibilities for intervention.

It is possible to trace the processes of expansion of the city through the stratification of its layers and its phases of development. Ernest W. Burgess describes the city expansion process as "The typical processes of the expansion of the city can be best illustrated, perhaps, by a series of concentric circles, which may be numbered to designate both successive zones of urban extension and the types of areas differentiated in the process of expansion". In his diagram of the city he represents an ideal construction of the tendencies of any town or city to expand radially from its central business district until its periphery—as illustrated on the map.

Cairo's modes of Expansion

Cairo is one of the cities which has undergone massive processes of expansion in the last three decades. This expansion was basically due to the process of informal urbanization of the city agricultural land. The origin of this process is to be found in the 1960s and 1970s when Cairo witnessed the emergence of a peripheral form of urbanization. This was led by private actors and developed outside of, and without regard for, state building laws and regulations, particularly those prohibiting the conversion of agricultural land into housing plots. Informality became the solution to the housing needs of the city's lower and middle classes. It is estimated that between the 1970s and the 1990s approximately 80% of the new housing units in Greater Cairo were built informally. According to a more recent study published in 2000, at the end of the 1990s informal areas represented approximately 53% of the built residential surface of Greater Cairo and hosted 62% of its inhabitants (Sims, 2000; Sejourne, 2006).

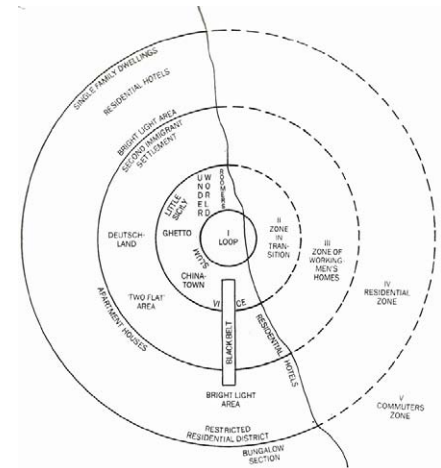


Figure 4.2. The Expansion Process
Courtesy of Ernest Burgess

“ ‘the Loop’ (I) Encircling the downtown area there is normally an area in transition, which is being invaded by business and light manufacture (II). A third area (III) is inhabited by the workers in industries who have escaped from the area of deterioration (II) but who desire to live within easy access of their work. Beyond this zone is the ‘residential area’ (IV) of high class apartment buildings or exclusive ‘restricted’ districts of single family dwellings. Still farther, out beyond the city limits, is the commuter’s zone: suburban areas, or satellite cities, within a thirty-to sixty-minute ride of the central business district.”

Ernest W. Burgess, 1925

The Informal city expansion process

“Such aggregations of people are phenomenon of great geographical and social importance; they give rise to new problems in the organization of the life and well being of their inhabitants and in their varied activities. Few of them have yet developed a social consciousness at all proportionate to their magnitude, or fully recognized themselves as definite groupings of people with many common interests emotions and thoughts”

Ernest W. Burgess, 1925

“The city is not its own master. Still, something has gone wrong, radically wrong, in our conception of what a city itself should be. We need to imagine just what a clean, safe, efficient, dynamic, stimulating, just city would look like concretely – we need those images to confront critically our masters with what they should be doing – and just this critical imagination of the city is weak. This weakness is a particularly modern problem: the art of designing cities declined drastically in the middle of the twentieth century. In saying this, I am propounding a paradox, for today’s planner has an arsenal of technological tools – from lighting to bridging and tunnelling to materials for buildings – which urbanists even a hundred years ago could not begin to imagine: we have more resources to use than in the past, but resources we don’t use very creatively.”

Richard Sennett, 2006

One of the most important and striking developments in the growth of Cairo during the last few decades has been the appearance of vast urban aggregates that have developed simultaneously with the expansion of a number of neighbouring towns or villages, which have grown out toward each other until they have reached a practical coalescence in one continuous urban area. Each of these aggregates still have within it many nuclei of denser town growth, most of which represent central areas of the various villages from which it has grown and they still appear within the fabric as ‘Core Villages’. Creating a hybrid system between the city and the village, which is one of the characteristics of the parallel city.

This process created a parallel city, which was constructed by a process of informal urbanization, which has not meant land occupation or squatting on public land, but has developed around a non-official land market starting from private landholders. Previously cultivated areas are subdivided into smaller plots of 60 to 100 m² by farmers and middlemen, or by companies in possession of large agricultural fields, and sold to private owners and builders. The construction work starts with the employment of local labor and with the typical red bricks and cement structure (Sims, 2003; Abdelhalim, 2002).

A large portion of Egypt’s urban population is faced with only three residential options: physically deteriorating ‘popular’ districts ; mass housing in New Towns; and informal areas. Each one of these residential choices offers a different set of living conditions. The figures show that New Towns are attracting a very small proportion of the population and the informal areas were the fastest growing alternative, which lead to the creation of the complete independent parallel city.

The Informal City Spatial Structure

In the expansion of the city a process of distribution takes place which sifts and sorts and relocates individuals and groups by residence and occupation. The resulting differentiation of the city into areas is typically all from one pattern, with only interesting minor modifications. This differentiation into natural economic and cultural groupings gives form and character to the city. For segregation offers the group, and thereby the individuals who compose the group, a place and a role in the total organization of the city life. Segregation limits development in certain direction , but releases it in others. These areas tend to accentuate certain traits to attract and develop their kind of individuals, and so to become further differentiated. The division of labor in the city likewise illustrates disorganization, reorganization and increase differentiation. The immigrant from rural communities brings with him economic skill of any great value in our industrial, commercial or professional life.

The growth of informal areas is the result of several conditions that have coincided to create demand on housing in certain locations. In Egypt, one driving force was the shift from an agriculture-based economy to an industrial- and service-based

economy, which created more jobs in and around large cities and detracted from development in rural regions. As well as the deficiencies in provision of housing for the natural increase in population. Thus, informal areas also received the 'spill-over' populations of the older districts of the existing city.

The informal areas that have accommodated this fast growing demand on housing was physically distributed in small pockets as well as on the city periphery. These informal areas had a logic in developing along the infrastructural armatures sustaining its proximity to the formal city fabric, thus to the main services and facilities. The patterns of the informal settlements, whether on agricultural land or desert land, have been affected by the physical territory both natural and artificial. In order to trace the logic and the patterns of the informal city we need to investigate the city layers and how each of them has affected the formation or growth patterns of the informal city and its relation to the formal one.

Geographically, Greater Cairo is unique as a megacity. It is not common for large cities hinterlands to have the stark dichotomy of huge tracts of publicly owned desert land upon which to expand, and simultaneously intensive small farm agriculture and dense rural settlements arrayed along the immediate urban fringe. Egypt is certainly fortunate in having a desert hinterland. This has allowed Greater Cairo's expansion to bifurcate: practically all new industries over the last thirty years have been located in the desert, avoiding the common land-use and environmental conflicts associated with metropolises whose expansion on all directions must confront a rural hinterland. Also, land-hungry modern corporate development, with its speculative subdivisions, gated communities, business parks, and megamalls, all can find a home in the desert. So can huge government establishments, such as those needed for defense, security, and utilities, as well as garbage disposal and other noxious activities. Cairo's desert is a case of a near-perfect match between huge amounts of land and land-wasteful development, all of which is sanctioned and encouraged by the state.

Stratifying the City Layers

Stratifying the city layers as a methodology to investigate the process of formation of the parallel cities and the conditions beyond their current relationships. The three different cities each occupying a zone and producing certain patterns that are relative to the different topographic, geographical conditions and the different city networks. The parallel city was created and evolved to produce certain patterns due to a series of different social, political and economic conditions, yet the spatial patterns and form of the informal city was affected by a number of physical constraints and conditions. These constraints can be identified as:

The Topographic Conditions

The formal city was originally constrained in the valley between the desert edge and the agricultural land. The city was always planned and grew close to the river

"Normally the process of organization and disorganization may be thought of as in reciprocal relationship to each other, and as co-operating in a moving equilibrium of new social order and spatial organization. So far as disorganization points out to reorganization and makes for more efficient adjustment, disorganization must be conceived not as pathological but normal."

Ernest W. Burgess, 1925

"We should focus on processes rather than things and we should think of things as products of processes. From this standpoint, we have to ask some fundamental questions about the nature of the categories we use to describe the world. Most of the categories we use tend to be 'thing' categories. If instead we examine dynamics and processes, we may try to do so by conceiving them as relationships between pre-existing things. But if things too are not pre-existing, but are actually constituted in some way by a process, then you have to have a rather different vision. This transformation in our way of thought seems to me absolutely essential if we are going to get to the heart of what the city is about"

David Harvey, 1997

“Walls: The wall would seem an unlikely choice; it is an urban construction which literally closes in a city. Until the invention of artillery, people sheltered behind walls when attacked; the gates in walls also served to regulate commerce coming into cities, often being the place in which taxes were collected. Massive medieval walls, such as those surviving in Aix-en-Provence or in Rome, furnish a perhaps misleading general picture; ancient Greek walls were lower and thinner. But we also mis-imagine how those medieval walls themselves functioned. Though they shut closed, they also served as sites for unregulated development in the city; houses were built on both sides of medieval town walls; informal markets selling black-market or untaxed goods sprung up nestled against them; the zone of the wall was where heretics, foreign exiles, and other misfits tended to gravitate towards, again far from the controls of the centre... These walls functioned much like cell membranes, both porous and resistant. That dual quality of the membrane is ... an important principle for visualising more modern living urban forms. Whenever we construct a barrier, we have to equally make the barrier porous; the distinction between inside and outside has to be breachable, if not ambiguous.”

Richard Sennett, 2006

Nile on its fertile land (starting on the east and then moving also to the west side of the river Nile). This policy of development of the city within the valley boundaries until the new towns policy was then acknowledged as Cairo 's new mode of expansion along the east and west axes, forming the Greater Cairo territory. This policy along the past forty years have attracted a very small proportion of the Cairene population. However the informal city expanded around the formal city boundaries , especially the western fringe, on the agricultural land , ensuring its proximity to the city services and infrastructures and the fertile land of the valley.

The informal city grew firstly in the form of small pockets within the fabric or on the formal city periphery , performing new heteropic urban enclaves that belong neither to the city nor the village. They formed a hybrid typology that carries the characteristics of both.

The Agriculture land

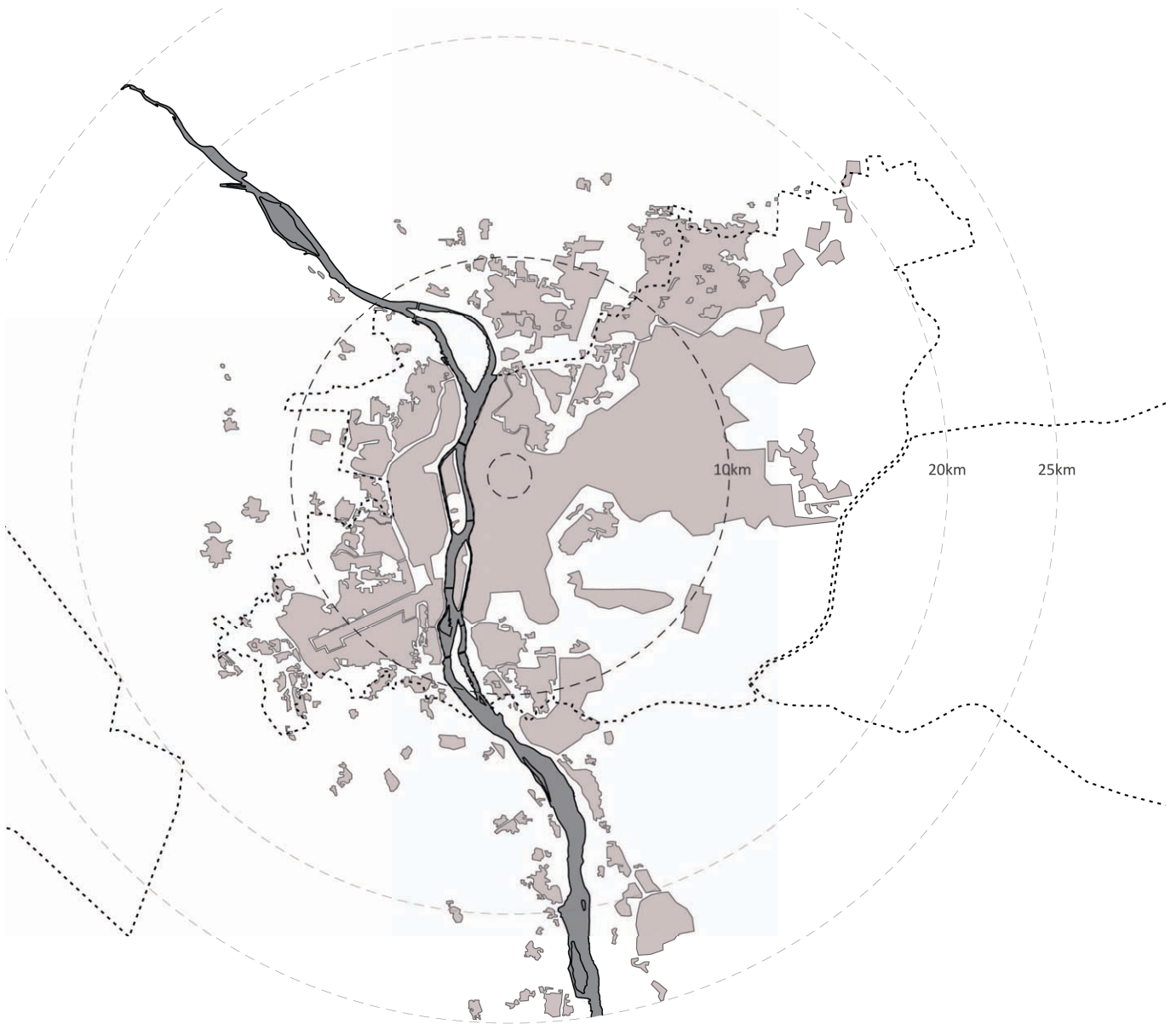
The agricultural land and the system of inheritance which subdivided the land into small subdivisions facilitated the growth on the western and northern fringe of the city. These subdivision was the main characterizing pattern of this typology of informal settlements that formed the majority of the parallel city.

The Irrigation Network

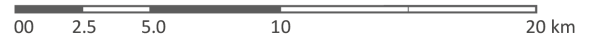
The irrigation network can be considered the main infrastructure of the parallel city. The irrigation canals was the main source of water for these areas until the authorities would provide them with this service , which usually takes a long time. The irrigation network was also the main structuring network on which the road system was created. The main irrigation canals were usually turned into the main streets and the secondary canals were turned into the smaller streets , thus defining the street network was a translation of the heirachy of the irrigation network.

The Infrastructural Network

The pattern of the parallel city was also affected by the road network, and especially the construction of the ring road. The ring road, which was originally meant to form a border around the city, avoiding further expansions, was the main reason for the growth of the informal city. It rather represented an access element and a threshold to the city rather than a margin or a border. The documentation of the informalization process that associated the construction of the ring road , reflects how the informal city has developed on the contrary of the authorities visions. The informal city have always developed in relation to the city margins as the rail road line which was the first city margin, as well as the main infrastructural axes and highways. The parallel city was able to make use of these grand infrastructural corridors and to adapt it in its own rather than being excluded by these margins.



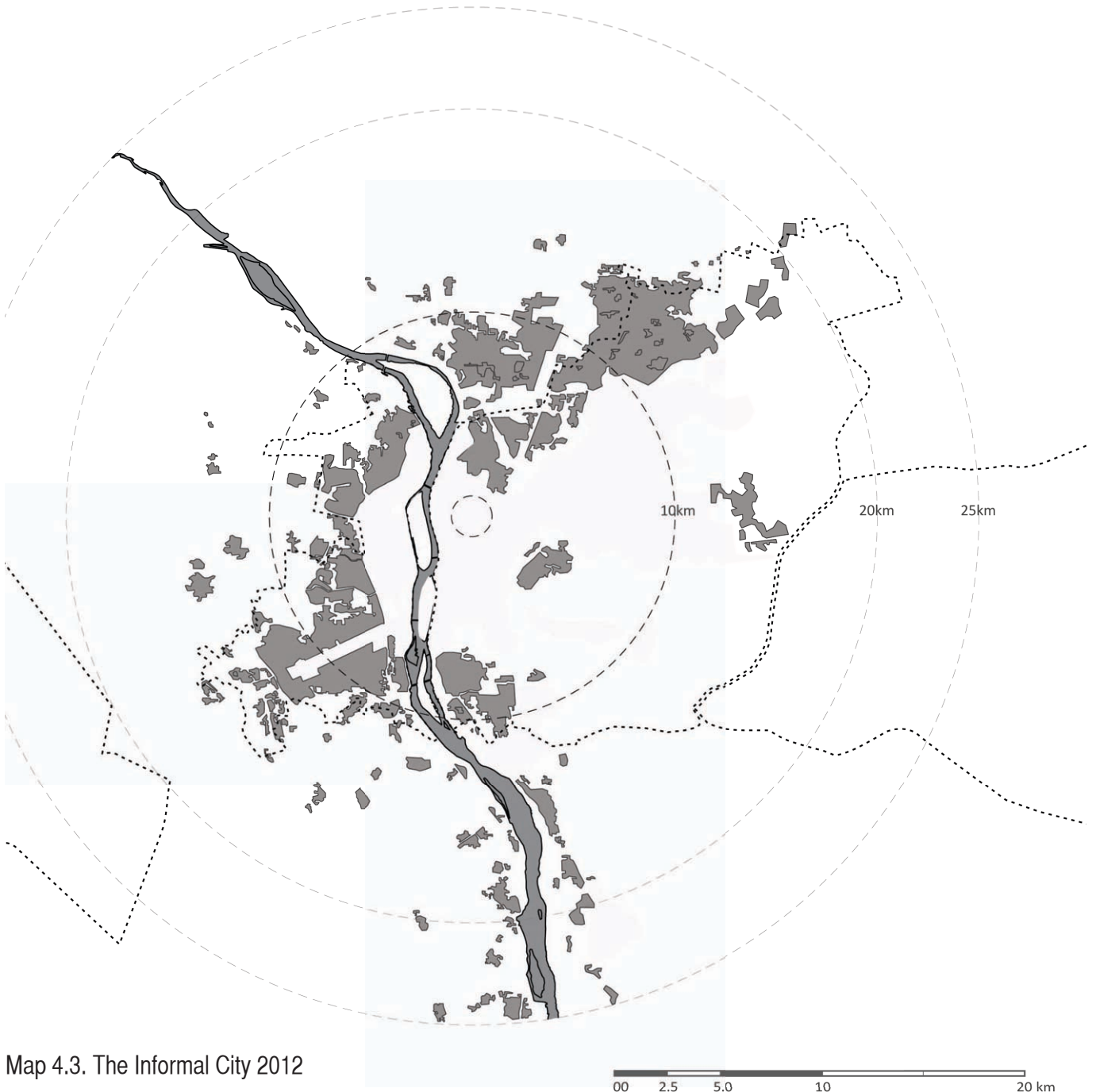
Map 4.1. Cairo- Built Up Areas 2012



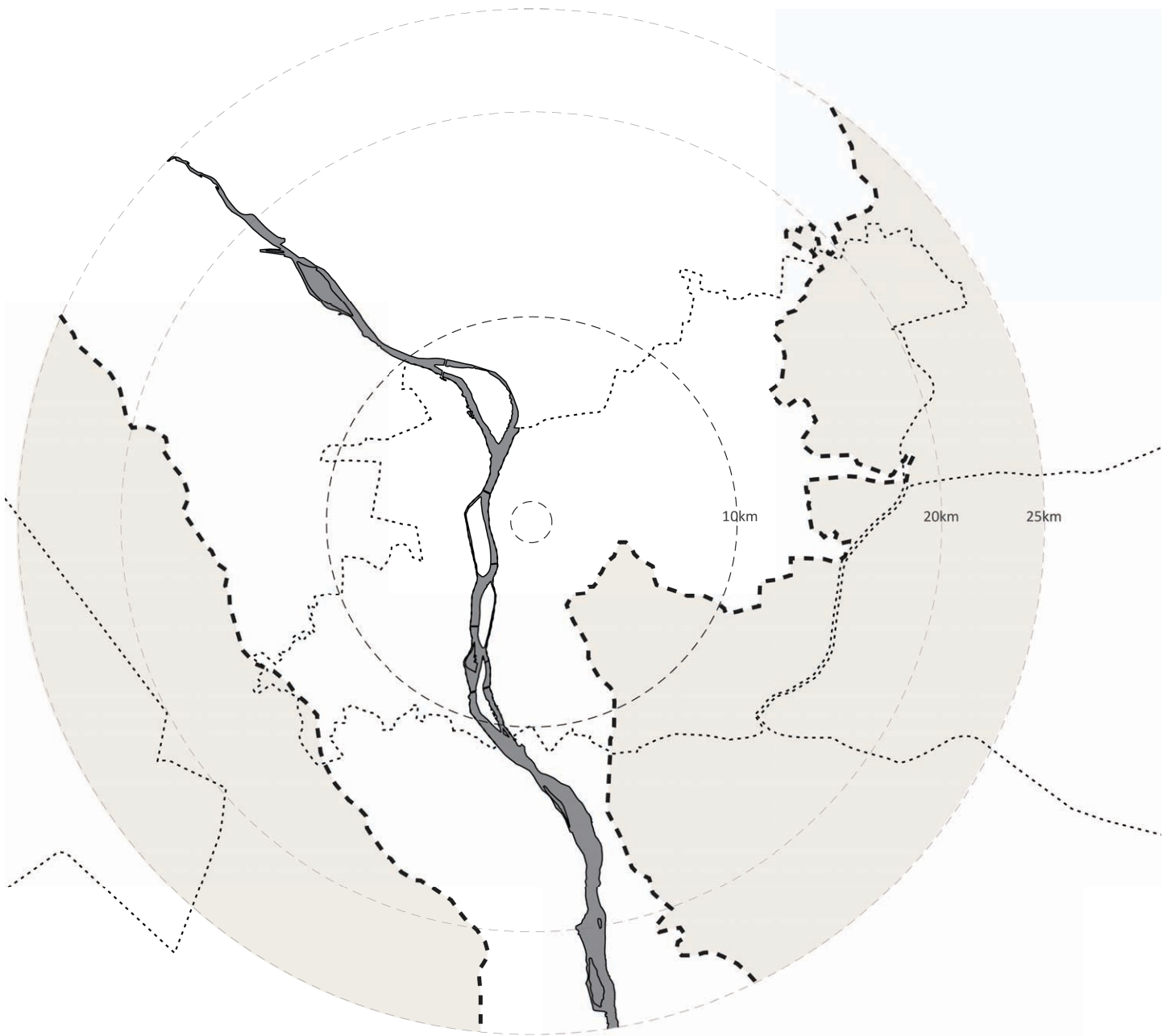


Map 4.2. The Formal City 2012

00 2.5 5.0 10 20 km

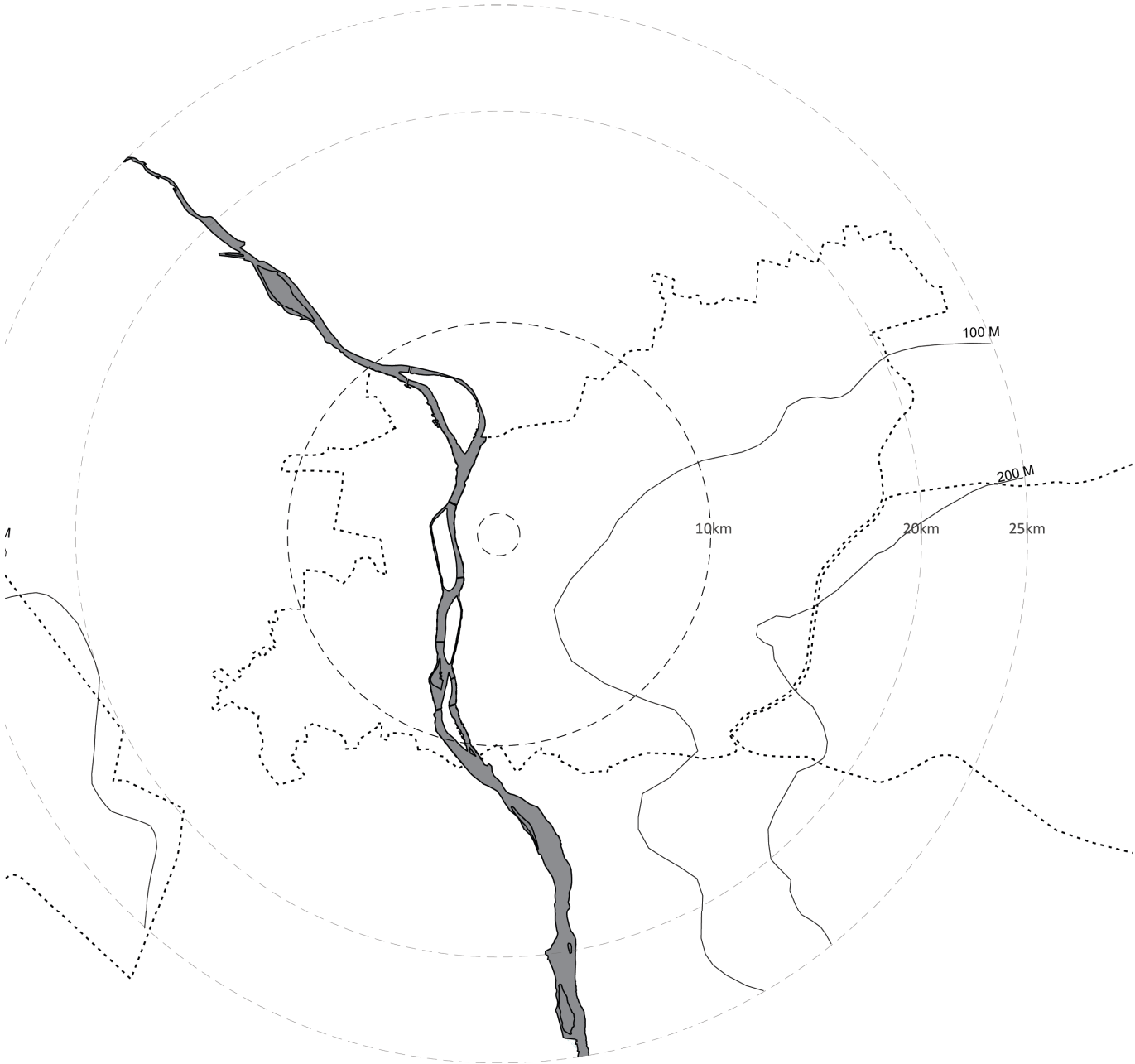


Map 4.3. The Informal City 2012



Map 4.4. The Desert Edge 2012



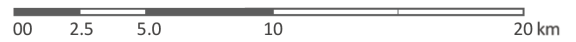


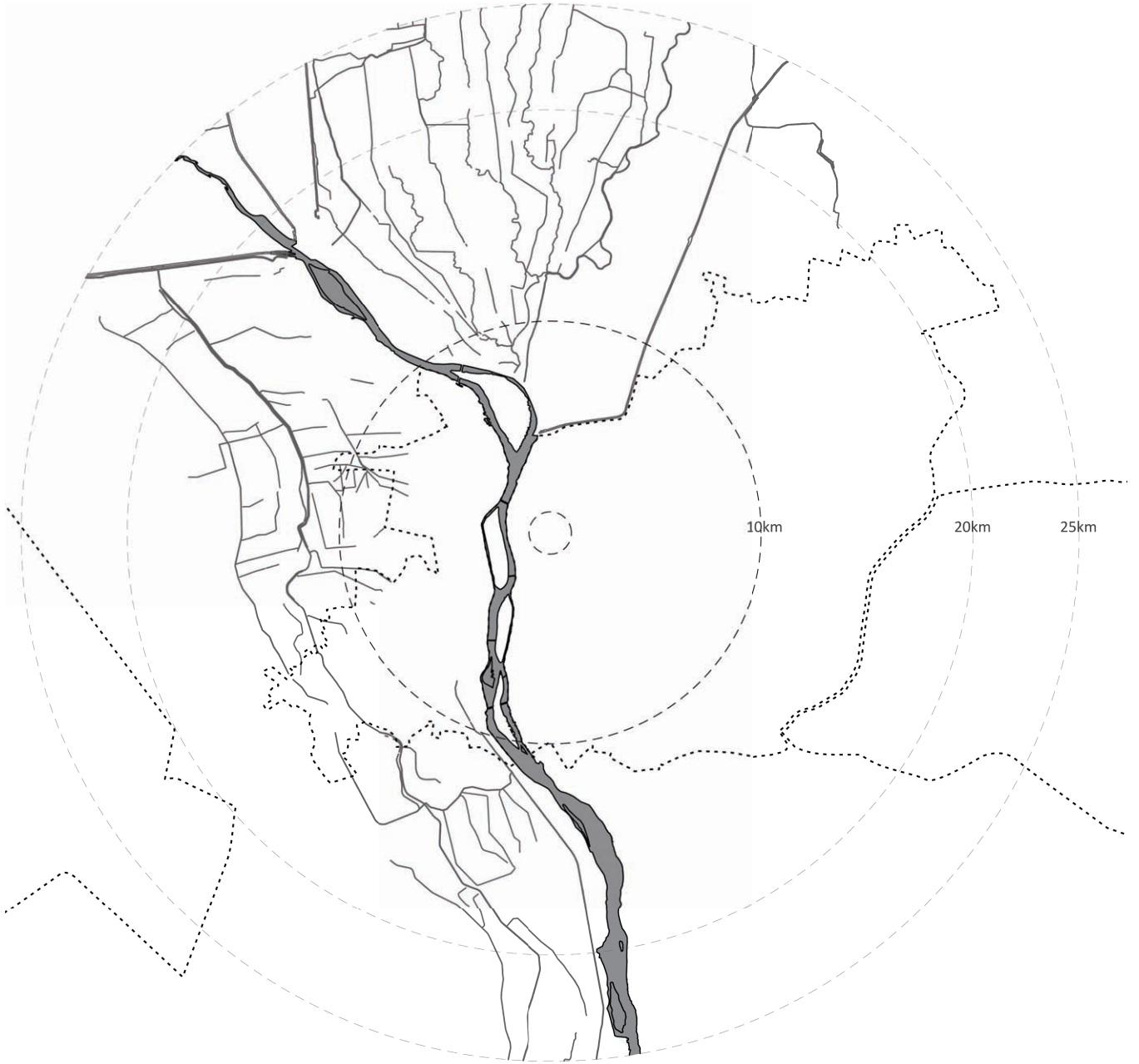
Map 4.5. The Contour Lines 2012





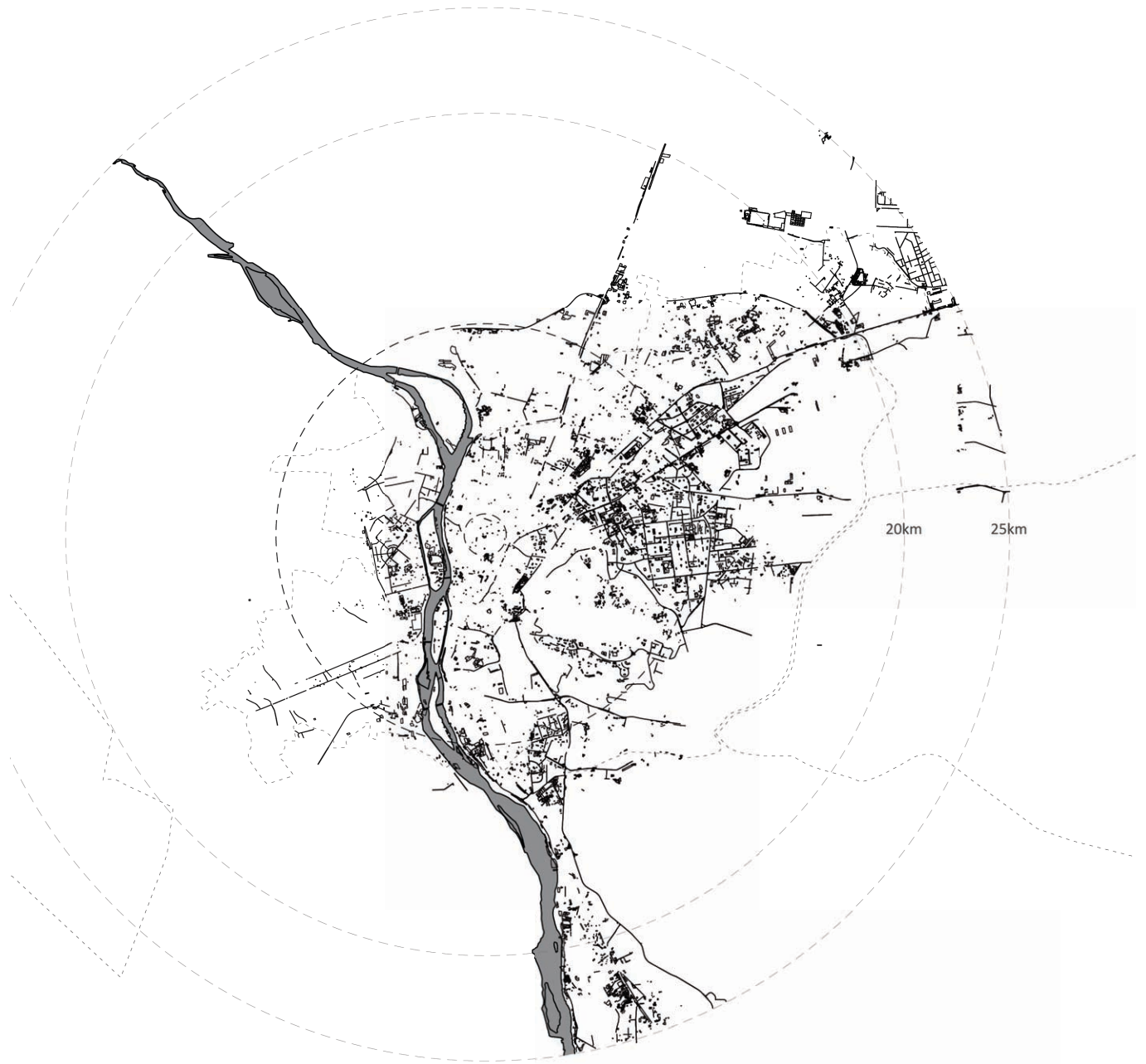
Map 4.6. The Agricultural Fringe 2012





Map 4.7. The Irrigation Network 2012



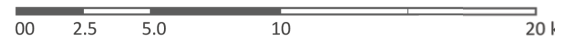


Map 4.8. Existing Open Spaces Network 2012





Map 4.9. Existing Infrastructural Network 2012



“In earlier years I thought of society... as a structure of positions, roles, statuses, groups, institutions and so on, all given shape ... by the cultures on which they draw. Process I saw as ‘forces’, movement, connection, pressure, taking place in and among these loci or nodes of organization, peopled by individuals. Although this seems largely true to me, it has also come to seem a static view- more societal order than societal becoming... Since it does not seem inherent in nature... that these loci exist, it seems unacceptable simply to take them as axiomatic; rather we must search for ways to account their appearances and forms. More and more, the problems of becoming... have led me to look at society as continuous process out of which structure or order precipitates in the forms of the loci listed above”

Tony Leeds

“If we think about the likely qualities of life in the next century by projecting forward current trends in our cities, most commentators would end up with somewhat dystopian view. We are producing marginalization, disempowerment, alienation, pollution and degradation”

David Harvey, 1997

“Disorganization as preliminary to reorganization of attitudes and conduct is almost invariably the lot of the newcomer to the city, and the discarding to the habitual, and often of what has been to him the moral, is not infrequently accompanied by sharp mental conflict and sense of personal loss. Oftener, perhaps, the change gives sooner or later a feeling of emancipation and an urge toward new goals.”

Ernest W. Burgess, 1925

Thus, the process of expansion, and especially the rate of expansion, may be studied not only in the physical growth, but also in the consequent changes in the social organization. The growth of the city, in its physical and technical aspect is not always matched by a natural and adequate readjustment in the social and spatial organization of the city. In the case of Cairo the creation of the informal city proposed a new social organization to the city, containing internal immigrants from the rural areas and including villages which were near Cairo periphery, has produced a new social order different from that of the city as well as from the village. Thus the parallel city did not just mean a parallel container for residents' demand on housing, but a complete parallel system that combines the elements of the city periphery; the city and the rural patterns.

4.2 The Parallel City Interrelationship

“Now, from a dialectical standpoint, the relationship between process and thing becomes complicated because things, once constituted, have the habit of affecting the very processes which constituted them. The ways that particular ‘things-like structures’ (such as political-administrative territories, built environments, fixed networks of social relations) precipitate out of fluid social processes and the fixed forms these things then assume have a powerful influence upon the way that social processes can operate. Moreover, different fixed forms have been precipitated out at different historical moments and assume qualities reflective of social processes at work in particular times and places. The result is an urban environment constituted as a palimpsest, a series of layers constituted and constructed at different historical moments all superimposed upon each other.”

David Harvey, 1997

The relationship between the formal and the informal city has been in continuous transformation along the past thirty years. Although they have always developed independently but their interrelationship has affected the structure of Cairo as a containment of the whole city, and their patterns and modes of growth have affected each other. This can be summarised within the following themes or phases of their interrelationship:

Neglect

The growth of the informal city as small enclosed ghettos within the formal city or around its margin presented a new urban, social and economic order. It presented a new mode of urban intervention within the city that was created by new actors, which were mostly coming from the countryside seeking new opportunities in the capital. Their origins and their patterns was translated in the way they created the informal urban system, yet it was new and experimental. The process of the informal development was based on trial and error. The codes were based on

the practice and performance and the laws were based on the community norms and backgrounds. They have created a new typology of urban heterotopias, which were testbeds for further transformations in the form and structure of the whole city. However, the informal interventions were completely neglected by the formal city. There were no serious reaction by the government to contain or deal with that phenomenon and the media completely disregarded its existence. Eventually, this allowed further expansion of the informal city, yet the fact of their being illegal and stigmatized for containing the poor and retarded part of the society, forced them to develop in the shadows and to maintain a border system to defend themselves from the views of the 'other', creating completely excluded heterotopias.

Segregation

The informal urban heterotopias have developed overtime a bordering system, with identified access points (sometimes allowing getting in or out the neighbourhood in certain periods of the day) to sustain themselves and stay away of the government site, so as not to be removed elsewhere, and also avoid the public misconception of these areas. Within these borders, they have constructed their own system based on their norms and rules, suspending all the formal city laws and codes. They are no longer governed by the government but they created a series of self-governed ghettos. They have developed a set of rules branching from village tribal origins, but were then adapted to fit the contemporary city. These heterotopic hybrid system was controlled through borders, limits and defined access points. The government, having failed to deal with informalization process or to afford an alternative for the city residents, have decided to completely deny the informalization phenomenon. They have always promoted for it as a marginal phenomenon that needed to be removed, a cancer that grew within the city fabric. The formal city did not want to have any relationship with that 'other'. The informal city, consequently, wanted to keep itself unseen and unreachable. This process created physical and non physical borders that accentuated the segregation between the parallel cities.

Migration

Although the informal urban heterotopias have maintained an introvert environment with a secure border system, yet the massive growth of the informal city caused a daily intense internal migration process, from the informal to the formal city. Originally, the informal city was created to provide an affordable housing for people coming from the villages searching for a job opportunity in the capital, following the national shift from an agricultural-based to an industrial based economy. This meant that the informal city dwellers would live in informal settlements, yet their work exists within the formal city. This has changed with the continuous growth of the informal city and the densification of the commercial activities and informal services that required labour, yet the majority of the informal city dwellers work elsewhere. Eventually, the formal city became more and more dependant on the

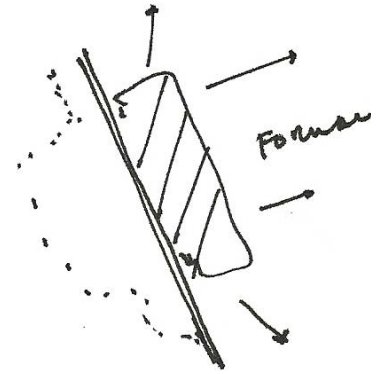


Figure 4.3.: Neglection between the parallel cities. The City Maps denied the existence of the informal settlements, as well as the formal city residents.

Courtesy of Noheir Elgendy

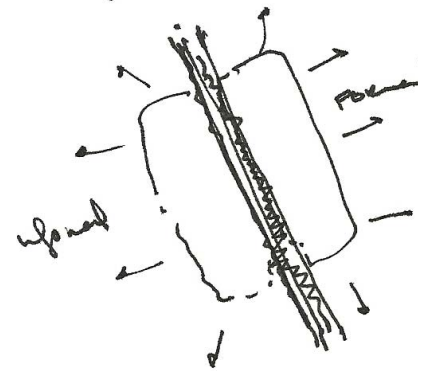


Figure 4.4. The Segregation between the formal and informal sectors through physical and non-physical borders.

Courtesy of Noheir Elgendy

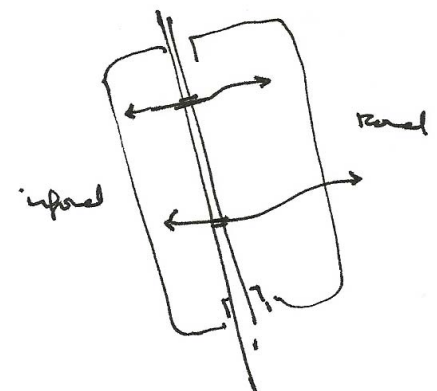


Figure 4.5. Migration of the informal city residents to the formal city.

Courtesy of Noheir Elgendy



Figure 4.6. Daily migration of the informal neighborhoods residents through the few crossings between the parallel neighborhoods.
Photo by Hamdy Reda

informal sector in providing labour in both the private and the public sectors. The informal city according to the last census contains around 60 percent of the Cairene population, which shows how strong and vital the relationship between the two cities is, although the access points are minimal and the edges and borders cutting these two parts of the city makes it harder for the everyday life. The Migration process included the whole of Greater Cairo territory, yet there was a particular relationship between the neighbouring formal and informal neighbourhoods. The high and middle class formal neighbourhoods depended on the informal settlements lower classes to provide them with services as porters, drivers, maids ..and so on, as they preferred working in these neighbourhoods which were usually at a walkable distance from their informal settlements or pockets. As for the middle class residents of the informal settlements they worked as doctors, engineers, lawyers,.. etc, and they chose to live in these areas to maintain their proximity to their work, families and the city services.

Exposure

The relationship between the formal and the informal city have been dramatically transformed with creation of new informal highways and roads like the ring road, the 26th of July axis and the Saft al-Laban axis. These new armatures have cut through the existing informal settlements. The long heterotopic nature of the informal enclaves, was suddenly uncovered and exposed. Although the new informal settlements have grown and forced themselves on the formal city, yet this exposure have lead to many physical and non-physical transformations in the relation between the two cities. These long neglected parts of the city, which did not even exist on maps until the late ninties, are now visible to all Cairenes using these major highways on a daily basis. This, on one hand, have shocked the formal city residents, who have never dealt with this phenomenon before and were never aware of its real dimensions. This also arose a lot of intellectual discourses and attracted the media's attention to this new city revealed, proposing processes of investigation and understanding of this phenomenon, which was associated with a lot of misconceptions. The heterotopic system was finally broken, and what was once considered as the 'other' was getting to be ordinary. This action of exposure gave the existing parallel informal city a level of legality and formalization. This did not just presented the informal city as a counterpart of the city, but also encouraged it to aggressively grew along these new armatures as new sources of life.

Dominance

Since its creation, the informal city existed parallel to the formal one. Each was following its own rules and codes and producing certain patterns and forms. This relation was gradually changed, to compensate the government and the formal private sector defficiency in providing some of the community services, transportation means and housing. This allowed the informal economic sector to start to obtain a place within the formal city. However, this gradual change was accelerated dramatically with the occurrence of the 25th of January Revolution in 2011 and the

"The original city still exists, and is now the heart of the contemporary city, thanks to its capacity to transfer itself, integrate economic and social changes and rebuild what has been destroyed. This is a complicated, yet necessary, internal transformation and public authorities have been deeply involved in the process. Yet, in many cases they show opposite trends, especially when they have undergone expansion and transformation in the latter half of the twentieth century."

Joan Clos, 2010

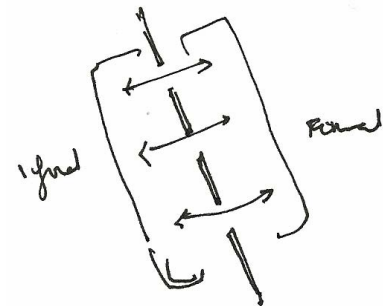


Figure 4.7. Exposure between the parallel cities
Courtesy of Noheir Elgendy



Figure 4.8. Exposure of the informal city- View of Izbat Khayrallah informal settlement from the ring road .

resultant absence of the state security apparatus. Since then, the informal patterns started to dominate the formal city, from street vendors occupation of formal city streets to physical interventions on highways and illegal building on state-owned land. This series of informal interventions, in addition to the extensive expansion of the informal city on the agricultural land have affected the balance of power between the formal and the informal cities. And although this process, was associated with the transitional period after the revolution, yet it signaled the necessity of a deeper understanding of the informal city and its impact on the whole Greater Cairo territory.

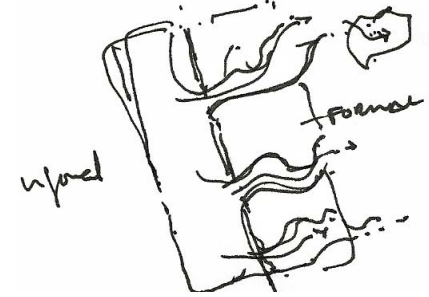


Figure 4.9. Dominance of the informal city

Social segregation and specialization in production are spontaneous trends brought about by individuals, groups and sectors with a view to improving efficiency. This gives rise to spatial segregation. Accordingly, different models of organization should be sought. From the standpoint of positive coexistence in the city, experience shows that solutions that create ghettos, while apparently straightforward and reassuring in the short-term, may sow the seeds of far-reaching conflicts, whereas as integrating solutions, although more complicated, better contribute to establishing and enriching long-term coexistence. (Clos, 2010)

4.3 The City Scale Strategy: Stitching the Parallel Cities

Based on a reading of the processes of expansion of Greater Cairo and the logic beyond its current form and structure identified through the stratification of the city layers, it is possible to identify a strategy to redefine the missing relations and re-stitch the gaps that cut the city fabric apart. However, the intervention within Cairo's fabric is very complicated, as it is a very dense city fabric, with a variety of juxtaposed layers. Therefore, to get an overview of Cairo's city fabric to identify a possible strategy for intervention.

The City Fabric

According to the Japan International Cooperation Agency, Greater Cairo can be considered the most densely inhabited metropolis on earth, at 257 persons per built-up hectare, denser than the metropolitan areas of Lagos, Manila, Tehran, Jakarta, or Delhi. Even higher density estimates of above 350 persons per hectare, are given for Greater Cairo, although some sources put Mumbai just ahead of Cairo as the world's most dense city. (Sims, 2010)

Cairo became so dense and compact, in spite of the centrifugal tendencies so common in large modern cities toward endless sprawl. The informal response to growing demand for habitation in Greater Cairo produced and continues to produce huge, dense and well-located neighborhoods that not only absorb most of the additional population but that also generate, within or in close proximity to them, most of the economic activities, jobs, and services these inhabitants need. (Sims, 2010) It was not at all planned this way, and had the government's long-held de-

"Increasingly the wealthy seal themselves off in those fanciful, gated communities that enable the bourgeoisie to cut themselves off from what their representatives call by the hateful term 'the underclass'. 'The underclass' is left inside the ghetto, along with drugs, AIDS, epidemics of tuberculosis and much else. In this new politics, the poor no longer matter. The marginalization of the poor is accompanied by a blasé indifference on the part of the rich and the powerful."

David Harvey, 1997

"What we want to discuss here, however, in more strictly disciplinary terms, is what kinds of compatibility are possible (and if they are possible) between the settlement principles of belonging, of a sense of place, and placelessness; if it is possible to create some kind of connection, and if it is possible, and how, to articulate in terms of architecture the material offered by the specific character of placelessness."

Vittorio Gregotti, 1990

termination to expand the city solely into its distant and extensive desert fringes been successful, it is hard to imagine how Cairo, with all its faults, would be able to function, or at what costs.

The expansion of informal housing has affected the environmental conditions and the quality of life in the city, especially for the residents of informal areas themselves. Urban density in these areas, combined with the lack of timely provision of infrastructure and services, has created difficult problems that compromise community health and welfare, often increasing as the communities mature. Lack of access to a clean water source, inadequate wastewater disposal and little solid waste collection, for example, are typical problems of this type of development, especially in its early years. Even when the authorities begin to provide urban infrastructure (and de facto recognition), it is often not at a pace that can keep up with an area's rate of growth. As more land is filled in with housing construction, the absorptive capacity of the surrounding land, air, and water become overtaxed at the local level. Dense development along the narrow paths of these areas creates problems of transportation and access, as well as insufficient open space in the face of rapid construction. These are difficult problems to face once the neighborhood is fully constructed, as housing must be removed in order to create green space or put in new infrastructure. (Bell, 2009)

Dense construction also contributes to the economic vibrancy of these areas, consisting as they do of housing as well as workshops and small businesses and factories. The image associated with informal areas is generally negative in Egypt, however, often colored by the environmental deficiencies of this type of growth. The dominant portrayal of these areas often involves the perception that they are simply a type of slum, ignoring the larger infrastructure and service gaps that are prevalent in the informal city. (Bell, 2009) This perception has worked its way into the politics of land use and urban growth in Cairo, finding political expression in the authorities' attitudes toward informal areas, particularly those that stand in the way of large state or private development plans.

The process of continuous densification due to the governmental policies and the increase of population has led to a very dense fabric with very scarce open spaces in the formal and the informal cities. The informal city became a hot spot for investment by small contractors. The former productive agricultural land was turned into 13 and 14 floors towers that accommodated the housing demand of the fast growing population, who seek proximity to the capital where all the services, and job opportunities are concentrated.

“Public space of cities is not kept primarily by the police, but by an intricate, almost unconscious, network of voluntary controls and standards among people themselves.”

Jane Jacobs,

The gentrification processes that existed in the formal city due to the high land value also started to take place on the edges between the parallel cities on the informal side, turning the three and four buildings into thirteen and fourteen apartment buildings for investment. This also has eliminated any possibility of open spaces on both sides which highlights the need of the threshold points as an open space that includes activities connecting the two parallel cities.

Informal land use has been politicized in Egypt through various images; it has been depicted as 'un-modern,' as representative of a rural way of life, and as an expression of backwardness. (Bell, 2009) The state's sustainable development policies, which began in the 1990s, added an environmental dimension to the rhetoric about the informal city. In 1997, for example, the former governor of Cairo, 'Omar 'Abdel Akher, cited the destruction of thirteen informal settlements as part of the city's environmental agenda. Noting that these areas would be cleared and turned into green space or parks, he cited them as evidence of the city's sustainable development agenda ('Abdel Akher, 1997). While clearances of working-class informal housing areas in Egypt and elsewhere often have been justified as being part of urban beautification plans, by the 1990s an environmental rationale had been added in Cairo. For example the government in 1993 had made these thirteen areas part of a large-scale, state-funded upgrade plan for informal areas (Arandel and El-Batran, 1998). A few years later, the governor included this policy as part of the environmental 'clean-up' of Cairo.

Egyptian government policy toward the existence and growth of illegal settlements has evolved overtime, though for many years it was one of neglect. Internal and external pressures eventually pushed the government in the direction of 'upgrading' the informal settlements that were growing in number (Arandel and El-Batran, 1998). Internal factors included the growing perception that the government needed to regain control of vast areas outside the scope of the city services, where in some cases Islamist organizations had grown up to meet inhabitants' needs. The loss of valuable agricultural land to urbanization was beginning to reach crisis proportions, as well. External pressures in favor of upgrading came in the form of donor projects and structural adjustments policies.

The informal city, being the fastest growing urban form in Greater Cairo territory, provides the majority of housing needs in the city. The informal is now the place for a large sector of the middle class population after the long failure of the government to provide an alternative or taking serious actions to stop the encroachment on the agricultural land through laws or actions. Yet, the continuous process of segregation between the formal and informal cities needs to be readdressed and rethought. The interdependent relationship between the parallel cities that has grown for the past three decades signifies a real need for interaction and integration.

The Informal massive expansion in relation to the formal city, and the creation of the new towns as isolated ghettos have divided the city into three separated entities. The exclusion of the informal part of the city have separated through a series of physical as well as non-physical edges and borders which needs to be rethought. The neglect and marginalization attitudes which have long been adopted by the government, creating the edges that cuts and separates the city parts is the scope through which the city can be restitched and reconfigured.

The parallel cities are adjacent but not interacting, the city scale strategy attempts to provide a proposal for rethinking the relation between the the parallel cities

"It seems our faith now to be faced with either the endless inconsistencies of the roadtown, which is chaos, or the infinite consistency of the Levittown, which is boredom. In the roadtown we have false complexity; in Levittown a false simplicity."

Robert Venturi, 1966

This discussion of walls and borders leads logically to a second systematic characteristic of the open city: incomplete form. Incompleteness may seem the enemy of structure, but this is not the case. The designer needs to create physical forms of a particular sort, 'incomplete' in a special way... Incompleteness of form extends to the very context of buildings themselves... now the buildings acquire their specifically urban value by their relationship to each other; they become in time incomplete forms if considered alone, by themselves."

Richard Sennett, 2006

“The periphery requires, today, before plans and project, permanent descriptions and specific explanations. (...) Subdivided into typologically, morphologically and socially recognizable parts.”

Bernardo Secchi, 1991

through the redefinition of the spaces forming the edges between the formal and informal cities. The edges which has long limited the interaction between these two entities are now rethought as a chain of spaces that provides points of thresholds between the separated city parts. This strategy will include multiscalar analysis and experimentation of these relations on the city, urban and architectural scales , defining the edges and the proposed thresholds. This process would introduce a comprehensive, yet open, flexible and adaptable possibilities for intervention in the different context along the edges.

The City Edges

The strategy attempts to define a series of spaces along the city edges that provide a possibility of intervention. Thus, redefining the meaning of those edges and re-connecting the parallel cities. The spaces along the edges include the brownfields and residual spaces associated with infrastructure and the activities on the periphery. The strategy attempts to trace the residual spaces on the points of intersection between the main infrastructural axis along the edges between the formal and informal cities to implement a park system. This park system would act as a system of ‘thresholds’ that reconnects and restitch the gap between segregated formal and informal cities and the isolated new towns. Through the stratification of each of the city layers engaged with the points and reconnecting each of its layers, this would re-configure the relations between the built up, the open spaces, and the infrastructure as well as the agricultural grids and water networks. This points of connection also addresses the process of urbanization of the agricultural periphery and the relation between the formal and the informal city which is vastly expanding on the agricultural land, which brings up the concept of urban agriculture as a possible form of intervention within the chosen residual spaces to restore the relationship.

Open spaces as ‘Thresholds’

The concept of defining a threshold space along the edges, brings out the question of what are these spaces , what is their nature, and what are their functions and forms within the city? In the contemporary landscape there are processes that generate specific kinds of urban ‘spaces’ which is very difficult to specify. This difficulty is not present neither simply because of their complexity as a form, nor because of the infinite number of variations and sub-variations from which they outcome, but due to the exceptionality regarding the question of the spatial identity interpreted in the wider sense. Many of those spaces can be identified as fragments in between the two well defined spatial identities as in example between the city and the suburb, between the village and highways, inside the big junctions etc. At some cases they can be planned, or rather be an expected space along with the designed thing, as the spaces under the elevated structures or the fragments of the land divided by the infrastructure etc., while on the other hand these incidences might appear as a consequence between the two growing entities, either planned or unplanned.

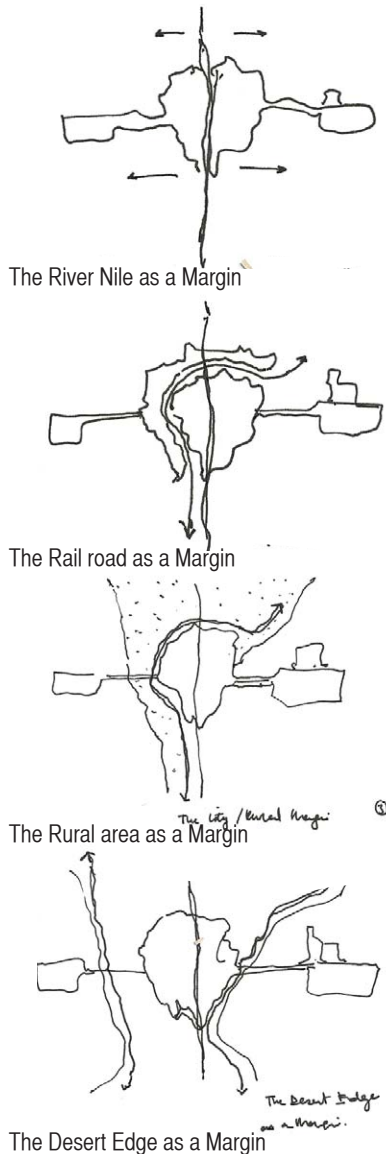


Figure 4.10 Cairo margins

There are several definitions of these specific urban situations: terrain vague, new type of wilderness, interstice or interstitial space, pore/porosity, limit (interior of urban form), hybridization, interspace (threshold), and low-tech. Therefore, various interpretations are possible regarding all this in-betweens that depends of their particularity, as well as depending on the different philosophical approaches. While in the one hand the terrain vague is an abandoned place of social indeterminacy or non-place (Auge, 1995), on the other hand it can be a space of alternative freedom (Sola-Morales Rubio, 1995). However, these spaces are the only typology of spaces that could be found within the dense city fabric, yet they provide a potentiality for the regeneration of the fabric. Identifying those spaces on the intersection between the formal, the informal, the desert cities margins would provide a network of open spaces that are the new thresholds between the parallel cities. The 'open' spaces as a scarce element within the city, and essentially needed can be the space that provide the possibility for reintegration, removing the physical and the non-physical edge.

Stitching the parallel cities through the green corridor parallel to the city margins and the canal system, engaging residual spaces between the formal and the informal cities. These chain of spaces would include patterns, norms and logics of the both cities. These thresholds would promote new forms of interactions between these two segregated entities. The informal city now includes doctors, engineers, lawyers and judges who migrate daily to the formal city. This shows that the points of threshold includes heterogeneous social groups who should engage a diversity of activities within the open space.

"(...) Perhaps what we need is a new overall project; not series of projects, a cascade of individual ideas, but a single unified project which selects and, at the same time, defines on different scales the relevant themes, embracing diversity and singularity without repressing them, but giving them a complete meaning; which above all, has the courage to submit to the falsification of the future."

Bernardo Secchi, 1991

"Edges are the linear elements not used or considered as paths by the observer. They are the boundaries between two phases, linear breaks in continuity: shores, railroad cuts, edges of development, walls. They are lateral references rather than coordinate axes. Such edges may be barriers, more or less penetrable, which close one region off from another; or they may be seams, lines along which two regions are related and joined together. These edges element, although probably not as dominant as paths, are for many people important organizing features, particularly in the role of holding together generalized areas, as in the outline of a city by water or wall"

Kevin Lynch, 1960

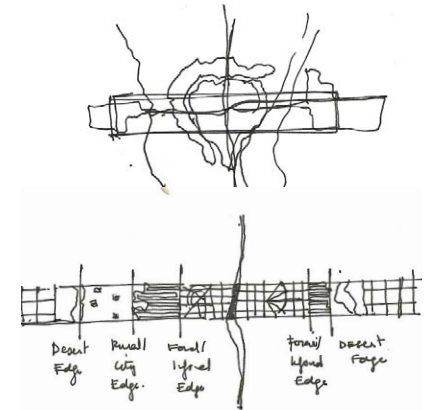


Figure 4.11. City Section sketch exploring the margins

City Section- Investigating the city edges



Figure 4.12. City Section Diagram

City Scale Strategy- Re-stitching the Parallel Cities

Identifying points of thresholds at the intersection of city edges and the main infrastructural networks

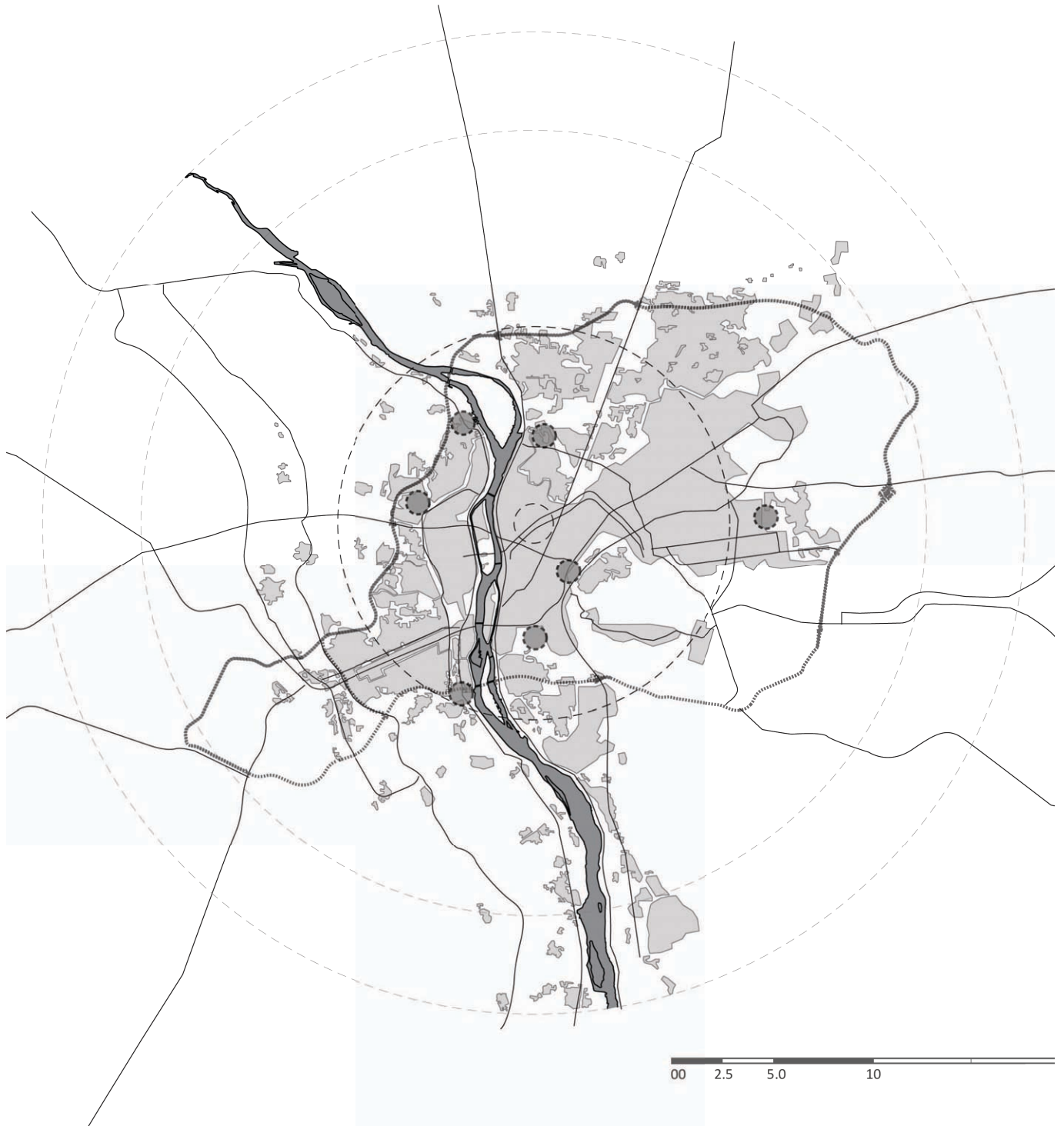


Figure 4.13. City Scale Strategy- points of threshold

City Scale Strategy- Re-stitching the Parallel Cities

The points of Thresholds as a Park system

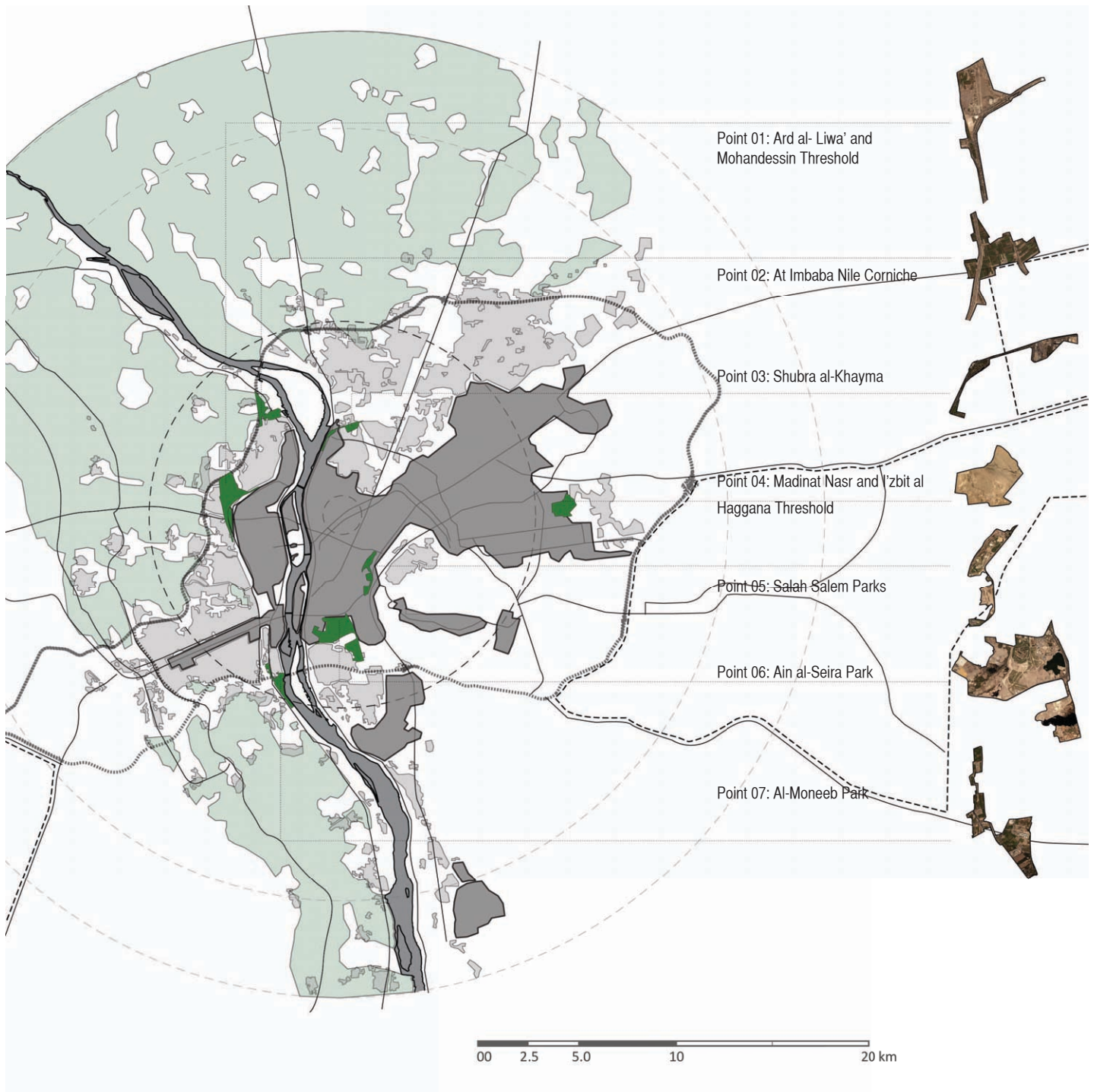


Figure 4.14. City Scale Strategy- Park System

Point 01: Ard al- Liwa' and Mohandessin Threshold

Site Photo- Courtesy of Noheir Elgendy

The first point lies on the threshold between two parallel neighborhoods; Ard al-Liwa' (Informal) and Mohandessin (Formal). This point also lies on the intersection of one of the main axis connecting East and West New Towns of Cairo. This site is a collection of residual agricultural plots and brownfields. The site is composed of four main areas al-Awqaf (Endowment) agricultural land, former Imaba Airport site, the sewage station brownfield and the railroad residual space.

Figure 4.15. Point 01: Ard al- Liwa' and Mohandessin Threshold

Point 02: At Imbaba Nile Corniche



Site Photo- Courtesy of Noheir Elgendy

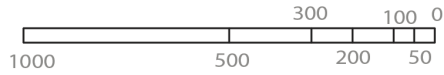
The first point lies on the Nile Corniche of Imbaba informal settlement, lying on the city's agricultural periphery. The site also lies on one of the main infrastructural road connecting Cairo with the Delta Cities. The project site is composed of mainly a number of agricultural plots that are to be transformed to an urban agricultural park connecting the community of the city and the rural villages on the periphery. It acts as a regional park as well as a space housing the main services in this marginalized area .



Figure 4.16. Point 02 -Imbaba Nile Corniche

Point 03: Shubra al-Khayma

The project lies in one of the grande neighborhoods of Cairo, Shubra al-Khayma. Within that neighborhood there is a number of informal settlements as pockets. The project at the margin between the formal and informal sectors of the neighborhood. The project also lies on the Nile Corniche to provide a space for the community on the river Nile.



Site Photo- Courtesy of Noheir Elgendy



Figure 4.17. Point 03 - Shubra al-Khayma

Point 04: Madinat Nasr and l'zbit al Haggana Threshold



Site Photo- Courtesy of Noheir Elgendy

This point lies on the western city desert between the parallel neighborhoods of Madinat Nasr (Formal) and Izbit al-Haggana (Informal). The site provides an opportunity for a park on the western fringe where there is an essential need for public open space. This site also lies on the connection between the city and the western new towns and thus provides a city scale community park.



Figure 4.18. Point 04 - Madinat Nasr and l'zbit al Haggana Threshold

Point 05: Salah Salem Parks

The site for this series of parks lie on Salah Salem street between the historic Cairo neighborhoods and the informal settlements in the deteriorated urban pockets, such as al-Darb al-Ahmar. The site contains an already existing park of al-Azhar park and is to be extended to create a series of parks as proposed in the Cairo 2050 vision.



Site Photo- Courtesy of Noheir Elgendy



Figure 4.19. Point 05 - Salah Salem Parks

Point 06: Ain al-Seira Parks



Site Photo- Courtesy of Noheir Elgendy

This point lies in Ain al- Seira zone between the two parallel neighborhoods of Masr al-Qadima (Formal) and Izbit Kharallah (Informal). The project lies connecting the lakes of Ain al-Seira and provide a space between the two neighborhoods. This project is also considered within the Cairo 2050 vision of Cairo parks system.

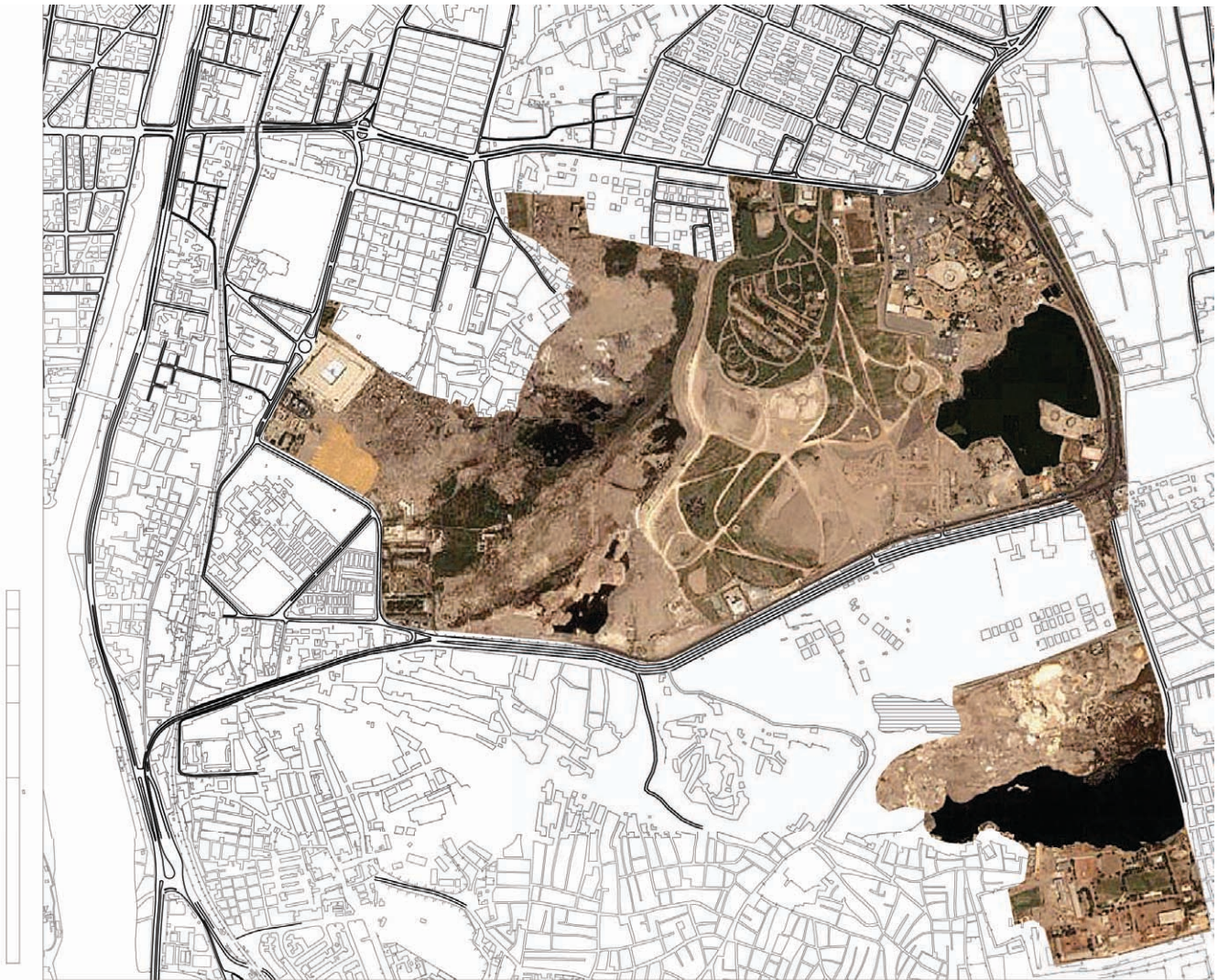


Figure 4.20. Point 06 - Ain al-Seira Parks

Point 07: Al-Moneeb Park

Site Photo- Courtesy of Noheir Elgendy

The site of this park lies on the threshold between two parallel neighborhoods; al-Moneeb(Informal) and Giza (Formal). This point also lies on the intersection of one of the ring road and the Nile Corniche. This site is a collection of residual agricultural plots within the two parallel neighborhoods.

Figure 4.21. Point 07 - Al- Moneeb Park

“We would abandon the view of the urban of the urban as simply a site or a container of social action in favour of the idea that it is, in itself, a set of conflictual heterogeneous processes which are producing spatio-temporalities as well as producing things, structures and permanencies in ways which constrain the nature of the social process. Social processes, in giving rise to things, create the things which then enhance the nature of those particular social processes.”

David Harvey, 1997

“Nevertheless, it is necessary to avoid the unconsidered and standardized repetition of these characteristics. We must not forget that some of the features we now value—such as density without quality urban design and with a mix of incompatible uses—have led in the past to situations of deep crisis in the city, and could do so again in the future. It is therefore to ‘reinvent’ cities on the basis of their experiences of urban transformation. Their continuing capacity for transformation, by preserving their assets while simultaneously rectifying failures, will make it possible to rebuild cities that can look to the future with optimism.”

Joao Clos, 2010

Conclusion

The reading of Greater Cairo's current spatial patterns, highlights the transformations in the form and the structure of the city due to the evolution and growth of the parallel cities as independent and secluded entities. Cairo's modes of expansion since the 1950s was very fast and extensive, and it was basically due to the creation of the two parallel cities; the desert city and the informal city. The desert city was created in the form of new towns that spreaded along the eastern and western desert surrounding Cairo; and the informal city expanded along the northern and western agricultural fringes of the formal city.

The desert city was produced to provide new typologies of housing throughout the city desert and was transformed into a series of gated communities, which did not hosted a very small porportion of the population (almost negligible), yet the urban design approaches were very land consuming providing leisure areas, parks, golf courses and so on. These desert city , regardless of its very low density still in terms of area, presents a considerable proportion of Cairo 's expansion process. The majority of population has been housed within the informal city which aslo expanded massively in the past few decades, to house two thirds of Cairo's population. The informal city fabric is a very dense one, yet it presents one third of Cairo's total built up area (excluding the new towns). The informal city can be considered the major expansion force in Cairo nowadays, starting as urban aggregates at the periphery, and sprawling to connect to the neighboring villages, thus creating a homogenous interconnected parallel city.

However, in order to develop an uderstanding of the transformation in the physical and spatial configuration of the city, it was essential to stratify the city layers and identify the consequent changes in the city fabric based on such processes of expansion of the parallel cities. Isolating each layer and identifying its patterns and its effects on the realtion between the formal and the informal cities. These layers identify the topographical, geographical, infrastructural and agricultural patterns, to produce an interpretation of the logic of the spatial configuration and relations between the parallel neighborhoods and their context.

The formal and the informal cities, can be considered as independent entities, yet a relationship has developed between with time. The formal city started with an attitude of neglection to the informl city as if it never existed, yet this attitude has changed with the growth of such areas and the process of stigmatization that was promoted by media, this transformed the relation into another of segregation, creating physical and non-physical borders from both sides. However, the proximity between the parallel cities forced some minor interrelationships , and movement of the parallel neighborhoods residents from side to the other allowing some process of interaction. Yet, the extensive growth of the informal city, eventually, made it more exposed to the formal city residents. The informal city presents itself as a fact, a rightful partner of the city, that sometimes dominates and forces its patterns and norms on parts of the formal city.

This long history of segregation between the parallel cities, is significantly present on the city edges and margins. Thus, the physical edge presents a social, cultural and economic edge. So, this chapter, based on the developed interpretations of the city proposed a strategy for the regeneration of the dense city fabric, through a series of 'open' spaces along the edges between the formal and the informal cities. Occupying the residual spaces, brownfields and terrain vagues as a potentiality to rethink the relation between the parallel cities and turn the city borders into 'thresholds' of interaction. These open spaces are chosen to be on the parallel cities margins and intersecting with the different city infrastructural networks and layers, to provide a means to re-connect the city layers and redevelop the inter-relationship between the isolated city systems and structures.

In the next chapter, a focus will be drawn on one of these points falling on the formal and informal city margin. Experimenting the strategy on the urban scale, and defining the urban layers and the interrelationship between the parallel neighborhoods. This would allow us to investigate the hypothesis and verify the possibility of redefining the 'edges' and developing the 'open' spaces strategy.

Bibliography-Chapter 04

- 'Abdel Akher, 'Omar. (1997). *Remarks by the governor of Cairo at the Center for the Study of Developing Countries, Cairo University, 8 April*. Cairo.
- Arandel, C., & El-Batran, M. (1997). *The Informal Housing Process in Egypt*. London.
- Auge, M. (1995). *Non-places : introduction to an anthropology of supermodernity*. London: Verso.
- Bell, J. (2009). Land Disputes, the Informal City, and Environmental Discourse in Cairo. In D. Singermn (Ed.), *Cairo Contested: Governance, Urban Space, and Global Modernity*. Cairo: The American University in Cairo Press.
- Burgess, E. W. (1925). The Growth of the City: An Introduction to a Research Project. In R. Park & E. W. Burgess (Eds.), *The City*. Chicago: The University of Chicago Press.
- Clos, J. (2010). The European City Model. In R. Burdett & D. Sudjic (Eds.), *The Endless City* (2nd ed.). Phaidon Press Limited.
- Gregotti, V. (1990). Tipologie atipiche. *Casabella*, 568.
- Harvey, D. (1997). Contested Cities: Social Process and Spatial Form. In N. Jewson & MacGregor Susanne (Eds.), *Transforming Cities*.
- Jacobs, J. (1961). *The Death and Life of Great American Cities*. New York: Random house.
- Lynch, K. (1960). *The City Image and its Elements. The Image of the City*. MIT Press.
- Lynch, K. (1981). *Good City Form*. MIT Press.
- Secchi, B. (1991). The periphery. *Casabella*, 583.
- Sennet, R. (2006). *The Open City*. Berlin: Urban Age.
- Sims, D. (2010). *Understanding Cairo: The Logic of a City Out of Control*. Cairo: The American University in Cairo Press.
- Sola-Morales Rubio, I. (1995). Terrain vague. In C. Davidson (Ed.), *Anyplace*. Cambridge, Massachussets: MIT Press.
- Tiwari, G. (2007). Informality and its Discontents. In R. Burdett & D. Sudjic (Eds.), *The Endless City*. Phaidon Press Limited.
- Venturi, R. (1966). *Complexity and Contradiction in Architecture*. New York : The Museum of Modern Art Press.



Figure 5.1. The Informal City and the Rural Periphery
Photograph by Mark Joseph

Chapter 05

5.0 INVESTIGATING THE URBAN SCALE: ARD AL-LIWA AND MOHANDESSIN NEIGHBORHOODS

5.1 The Informal Neighbourhoods

Self Sufficiency

Proximity

Participation

Privacy

Safety

5.2 The Informal Neighbourhoods Typomorphological patterns

Informal Settlements on Agricultural Land

Informal Settlements on former State-owned Land

Deteriorated Urban Pockets

5.3 The Parallel Neighbourhoods Interrelationship

Division

Interchange

Formalization

Competition

5.4 The Urban Strategy: Re-connecting the parallel neighbourhoods

Ard al-Liwa and Muhandessin Neighborhoods-Cairo

The Urban Context

Stratifying the Parallel Neighborhoods

Reconnecting the Parallel Neighborhoods

Conclusion



Figure 5.2. Crossing the rail road to move between the formal and informal neighborhoods
Photograph by Hamdy Reda

Allowing a closer view of the informal city, through the study of the informal neighborhoods and the formal/informal neighborhoods relationship, would provide us with a deeper understanding of the nature of the edges between such neighborhoods and how the relationship between the parallel neighborhoods has evolved. The focus on a generic case between an informal settlement growing on agricultural land (83 percent of the informal settlements are developed on agricultural land) and a common formal neighborhood, would allow us to investigate the strategy and produce a model to be applied in similar cases along the margin.

A large portion of Egypt's urban population is faced with only three residential options: physically deteriorating 'popular' districts; mass housing in New Towns; and informal areas. Each one of these residential choices offers a different set of living conditions. The figures show that informal areas are the fastest growing alternative, while New

Towns are suffering reverse migration. Why do people choose to live in poorly serviced informal areas, rather than inhabit the planned, 'modern' New Towns? To answer such a question we must look deeper and understand the economic, social, and psychological needs that people seek to fulfill in their residential environment, and thereby unravel the hidden attraction of informal areas. (Shehayeb, 2009)

Social networks and cultural norms are the organizational bases that dictate those rules and the means through which they are enforced. Informal activity is not really 'outside' the formal sphere of the state, and should be recognized as intertwined with the state in complex ways. Informal areas are not a burden. How could this be the case when, in 1997, informal housing was valued at 73 billion dollars? When state resources are limited or poorly managed, when the understanding of people's priorities and of urban development processes on which laws, policies, and regulations are based is inadequate, and when government capacity to regulate is undermined by widespread non-compliance and disrespect for government institutions—under such conditions, informal areas develop to give rise to 'popular' urban districts that answer the needs of people under the local circumstances and constraints. They are the consolidation of ongoing 'private' investment and the effort of millions of fellow Egyptians to provide a livable, appropriate, affordable living environment for themselves and their children, within the constraints of the available choices. (Shehayeb, 2009)

Studies reveal the profile of informal areas to include a wide spectrum of socio-economic groups; its resident could include street vendors as well as judges. However, the patterns of life, culture and social practices differ between the formal and the

“In Greater Cairo, housing is characterized by overwhelmingly individualistic, personal, and atomized modes of supply. It is individuals, families, and informal entrepreneurs who produce units and put them up for sale or rent. Corporate and government production remain marginal. One might expect that this incorporate system could be found in the countryside and in small towns, but that it dominates in the capital Cairo, with all its relative sophistication and assumed modern business penetration, is truly remarkable.”

David Sims, 2010

informal neighborhoods . In this chapter we identify the effect of the socio-cultural conditions on the two parallel neighborhoods and thus the formation of edges and borders to divide and separate those differences. The strategy proposes a generic model applying the city sclae strategy attempting to connect the parallel cities using the margins spaces as a space of integration rather than exclusion.

5.1 The Informal Neighbourhoods

“The fundamental organizing elements of the New Urbanism are the neighborhood, the district and the corridor. Neighborhoods are urbanized areas with a balanced mix of human activity; districts are areas dominated by a single activity; corridors are connectors and separators of neighborhoods and districts. A single neighborhood standing free in the landscape is a village. Cities and towns are made up of multiple neighborhoods and districts, organized by corridors of transportation of open space. Neighborhoods, districts and corridors are urban elements. By contrast, suburbia, which is the result of zoning laws that separate uses, is composed of pods, highways and interstitial spaces.”

Andrés Duany and Elizabeth Plater-Zyberk,
1993

Informal areas are different from one another. Fourteen different types of informal areas have been identified. The most widespread type is made up of fulfill other needs and medium height, high density, brick and reinforced concrete buildings. In some informal areas, average building height is six to eight floors, with some structures rising to a height of more than 12 floors. On main streets in informal areas, one can hardly distinguish the difference between the urban scene there and in other parts of the city. In fact, recent conceptions regard them as an integral part of the city, and increasingly as the future of Cairo.

Informal neighborhoods are similar in form and process of development to the natural growth of cities prevalent in the pre-World War II era, before the introduction of industrial utopianism and social engineering into city planning. They are similar in a number of ways to many parts of the existing ‘legitimate’ city. The most striking visual differences in form and density are the result of constraints imposed on the informal area as a result of their unsanctioned locations, and the absence of the state’s support. Informal areas are a 100% self-financed self-help housing mechanism. They are demand-driven, incremental in growth, yield a built form that is compact, low-energy-consuming, ‘walkable,’ with an efficient mixture of uses allowing work-home proximity and district self-sufficiency in terms of daily and seasonal needs. These are exactly what city planners, neighborhood designers, sustainability policies, and international environmental agendas are calling for.

The informal city neighbourhoods which have developed from being excluded ghettos to massive settlements have sustained some characteristics through its process of evolution and growth. These characteristics were the reason beyond their extensive growth to compete with city formal neighbourhoods, and urn to be the fastest growing housing sector in Cairo. The informal city has always been stigmatized for being the place for the poor, drug dealers and religious extremists, and was categorized as city slums, although this is not the case. The informal neighbourhoods provide a permanent, secure and safe housing form and house a variety of population, including a high percentage of middle class residents. This was because the informal neighbourhoods, in addition to their explicitly identified problems, they still hold a variety of advantages that attracts city residents and make them an appropriate alternative for the majority of Cairo’s population. The spatial characteristics of the informal neighbourhoods support positive aspects of the residential environment, such as ‘walkability’, ‘self-sufficiency’, ‘ house and

work proximity', sense of 'safety and security' of streets as well as community participation in the maintenance of public amenities. These advantages created by the spatial organization of the informal neighbourhood can be summarized as:

Self-Sufficiency

The informal neighbourhoods contain shops and markets that fulfil all the needs of their residents. Residents also appreciate the fact that goods in those shops and markets are affordable, and perceive them positively as a source of income for area residents. The same can be said about the presence of workshops in such areas. Although residents also perceive these services and shops to cause nuisances such as noise or pollution, the positive value of their being in close proximity outweighs their negative effects. It should also be clarified that the geographic distribution of such uses is not chaotic. They are usually situated on commercial vehicular and commercial pedestrian streets, and hardly ever penetrate into the narrower residential streets, which consequently remain protected from strangers and allow them to function as extensions of the home.

Proximity

Another advantage found in informal areas is the proximity of work and home locations. This measure of 'convenience' is evident in many areas, such as Boulaq al-Dakrou, where 60% of residents go to work on foot. The advantages of walking to work are numerous. Besides environmental gains from reducing energy consumption and pollution produced from vehicular means of transportation, walking to work saves money at the individual level and offers the opportunity to fulfil other needs and errands on the way. It is an activity pattern that saves time and effort, as well as money. Key characteristics in the urban pattern of informal areas that afford this measure of convenience include the distribution of non-residential uses, as well as the comprehensive diversity of those uses. 'Walkability': Saving Money, Saving Energy, and Community Building. Walking is the most often utilized means of transportation in informal areas. The compactness of the built forms, and the presence of commercial pedestrian streets tied to residential streets without interruptions by wide, vehicular traffic routes, are major factors. The restricted access, residential streets allow cars in at slow speeds, is reminiscent of the pedestrian areas in Europe. The second most used means of transportation is the microbus. There have been complaints from residents concerning the quality of the microbuses—that they are crowded, unclean, and sometimes unsafe—and therefore this could be an area of improvement where intervention would help regulate the system of transportation. (Shehayeb, 2009)

Participation

Services such as garbage collection, street lighting, street cleaning, and public landscaping are performed quite successfully in residential streets, where narrow widths restrict the access by strangers, and through-traffic allows those streets to



Figure 5.3. A typical urban street in the informal neighbourhood of Ard al-Liwa'.

be appropriated and controlled by their residents. People clean and maintain what they feel is theirs. The limit of resident participation in what should be governmental responsibilities stops at the main streets. Those streets are more public, shared by many, open to outsiders, and hard for residents to control. As a result, there are piles of garbage, inadequate street lighting, and poor pavement conditions. This is the territorial domain where the government should perform its public responsibility

Privacy

The same stranger-free residential streets mentioned above allow these same streets to be an extension of the home: a private, protected place where children can play and women can sit in the afternoon and exchange news and knowledge. This appropriation of 'near home environment' serves several functions at the same time. It compensates for limited private space inside the apartments, for example. More importantly, it helps build community ties. When neighbours know each other, social solidarity increases, collective initiatives are easier to realize, and natural surveillance and self policing occurs. All these factors together decrease the dependence on local authorities, which as a result saves the government money.

Safety

When a community's sense of safety is high, the opportunity to commit crimes decreases because people are out on the streets, leading to "more eyes neighbourly relations, and the attachment and solidarity enjoyed within the neighbourhood. These same people often describe informal areas as being a "popular district" in its positive sense: "lively, friendly, and alive around the clock." The density of inhabitants was recognized as one of the leading factors behind this "liveliness." The above advantages are the main ingredients of community building, and the physical environment either helps or deters this process based on the extent to which it allows residents to meet and to get to know each other. Informal areas, in contrast to modern, planned neighbourhoods, increase these opportunities. The above are some reasons why people live in informal areas. Professionals and policy makers should first admit that New Towns, in the way they are planned and designed today, are not as liveable for many people as informal areas are. They should then critically evaluate those areas, draw lessons from what works well, understand the needs and priorities upon which residential choices are based, and then revise the planning and design approaches they have been unsuccessfully pursuing for the past 50 years.

Despite all the advantages the informal neighborhood provide its residents, yet,he constraints within which informal areas grow, their location on agricultural land or in unsafe geographical areas, the entrepreneurial initial subdivision, and the ex post facto introduction of infrastructure have all led to several major shortcomings in the quality of life for those living there. Also important in this regard are the poor quality of roads and of means of transportation, the poorly ventilated dwellings, and

the unregulated construction, which may vary in terms of safety depending on the know-how of local contractors. These problems arise as a result of the absence of regulations.

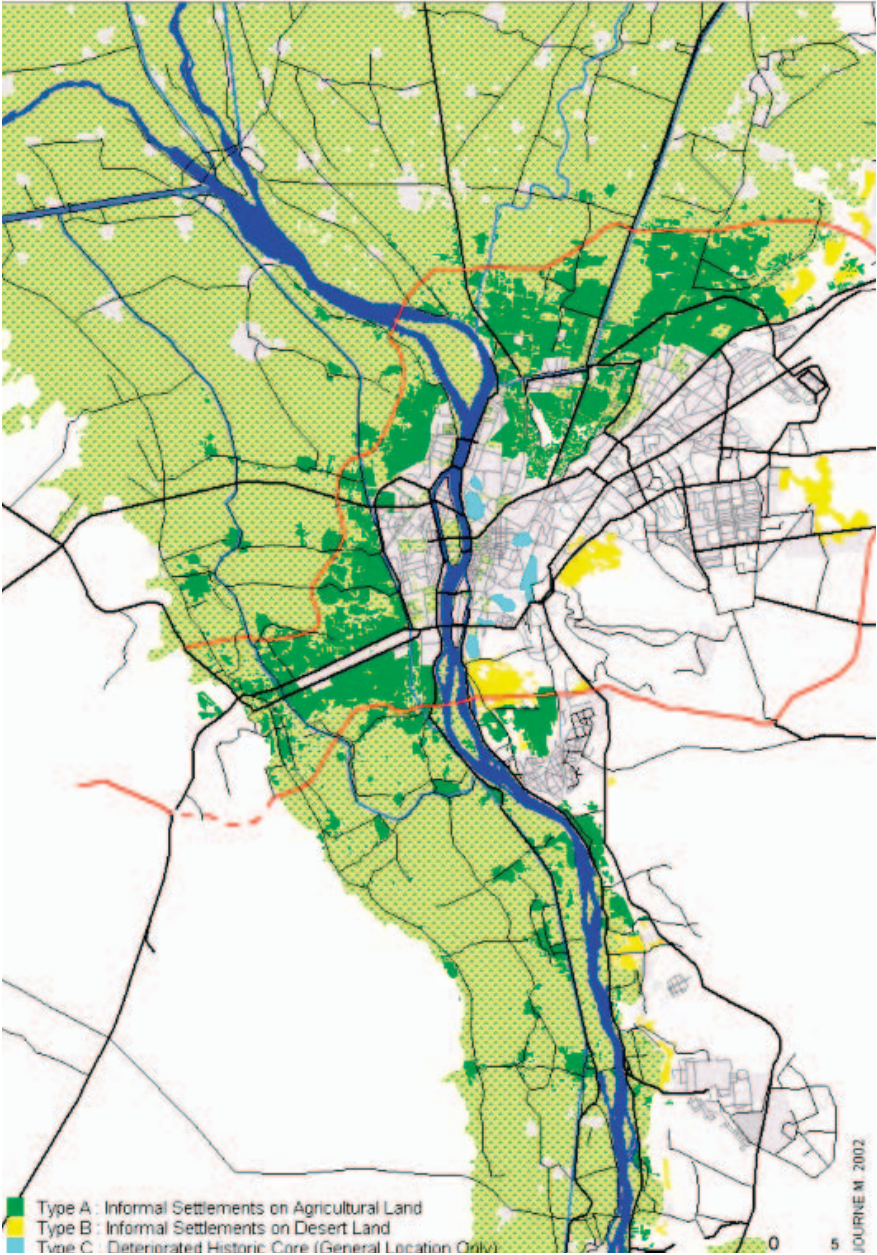
In addition to the above, another set of problems arises in domains where the residents of informal areas cannot fill the government's role and help themselves. Such problems include inadequate garbage collection. Similarly, the domain of infrastructure networks is one where residents cannot do much to help themselves, and the attempt to do so often leads to major health hazards. Another inadequately addressed domain is public transportation, which, as mentioned above, can complement the privately-owned means of transport, as well as compel them to improve their quality. Vehicle-associated accident rates are higher in informal areas than in other districts, partly because of the unregulated microbus services whose drivers are often minors.

The above problems can be summarized as a lack of support on the part of the government toward its people, and a failure in its honoring their rights as citizens. The marginalization of residents of informal areas, the stigmatization of its youth, and the failure to protect its young people from drugs and hustling has caused these places to attract more illegal activity than other, better-protected districts. This contributes further to the marginalization of these areas and their residents.

The problems with informal areas should be more carefully articulated so that intervention efforts do not squander valuable resources on replacing what is already working relatively well; rather, intervention should be targeted at improving what works poorly, including filling gaps in infrastructure where services are completely lacking. While many problems in informal areas could be solved by informed intervention and political will, the challenge still remains of stopping such settlements from growing up in other, inappropriate locations, without the necessary guidance and regulation. (Shehayeb, 2009)

5.2 The Informal Neighbourhoods Typo-morphological Patterns

The informalities have grown parallel to the formal city, yet following its basic infrastructural networks and making use of every possible opportunity. The informal parallel city, presenting a spontaneous attitude of growth, has shown a great sensitivity to the contextual, environmental and topographical conditions of the location in which they have evolved. These conditions have produced different morphological and typological patterns that help us categorize and understand the process of informalization and creation of the parallel city. The three typomorphological categories of the informal interventions can be identified as: Informal settlements on Former Agricultural land, Informal settlements on Former Desert State land, and Deteriorated Urban Pockets.



Map 5.1. Cairo Informalities Typo-Morphological Distribution
Sejourne M, 2002

Type A: Informal Settlements on Former Agricultural Land

Figure 5.4. Ard al-Liwa' neighbourhood Fabric
200m x 200m area

Average density
1000 person/acre

Average block size
Length: 150-400m
Width: 15-30m



This typology is defined as private residential buildings constructed on agricultural land purchased from farmers in areas where there were no subdivision plans and where building permits were not given. As such, the words “squatting” or “invasion” cannot be applied. The typology contains over half the population of Greater Cairo and almost half the total residential area. As such, it can hardly be considered a marginal phenomenon. The phenomenon has its roots in the 1960s, when small agricultural areas on the fringes of “formal” Cairo began to be subdivided by farmers and middlemen and sold to individual owner-builders. It accelerated dramatically after the 1974 open door policy was proclaimed. It was at first totally ignored by the authorities, even though the very act of subdividing land for building purposes without a permit was illegal, as was building without a permit. The process was completely informal in the sense that land was bought and transferred and buildings were erected with no legal paper work and a total reliance on personal trust, mediated when necessary by the existing community. Government - in the form of permits, fees, taxes, and services - was totally absent, at least during the formative stages. Finances were in every case from personal savings, remittances from relatives, or conversion of other assets. Under such financing, incremental construction was a necessity. Although these were new neighbourhoods, tight networks of kinship and geographic association were present from the beginning, as plot purchase opportunities were always conveyed by word of mouth. Starting in 1978 a series of laws and decrees made it increasingly illegal to build on agricultural land. The latest (and most respected) was promulgated in 1996 and made such building a criminal offence to be handled under military law. In physical terms, this process presented a specific morphological pattern for this typology. The layouts of these informal areas are always determined by the prior agricultural field and irrigation patterns, with canals becoming the only main thoroughfares. Local streets are straight and very narrow (usually 2-4 metres), the minimum required to allow access. There are normally no public open spaces or areas for services of any type. Plots tend to be small, ranging from 60 to 140 m² with 80 m² being average. Frontages are usually 7 to 10.5 metres. There is 100 per cent plot coverage except for small air shafts or light wells. Buildings are mainly of reinforced concrete frame and floor slab construction with red brick infill walls and are designed for at least five floors, although in older buildings and in core villages (a sub typology) load bearing walls and concrete slab floors are common. Incremental (room by room and floor by floor) construction is the norm. In some fringe areas a relatively new phenomenon is appearing of taller buildings (up to 10 and 14 floors) with larger footprints which are built once-off for sale. These buildings represent the appearance of small developers, in the Western sense, alongside the more common owner-builder. Whereas the quality of construction of housing is generally good, there is a very common trend of increasing densification of areas over time and a parallel phenomenon of serious overcrowding. As families grow, and as it becomes more and more difficult for newly formed families to afford new units, the apartment and room rates of overcrowding soar, especially in mature inner settlement

Type B: Informal Areas on Former Desert State Land

This typology is defined as private residential buildings constructed on vacant state land by citizens under the process of “hand claim”. Such a typology is analogous to the squatting and invasions found in Latin America and throughout the third world. In every case in Greater Cairo the land was marginal desert land without any specific purpose. The history of the phenomenon is particular to each location. For example, Manshiet Nasser began as a site for relocated slum dwellers and garbage collectors, and Izbit El Haggana began as a hamlet for the families of coast guard soldiers stationed nearby. In every event a core settlement was allowed to take hold, slowly expanding as the usual neglect of the government towards its own property became apparent. Usually quite large plots on the fringes of the established core were walled, and then sub-parcels would be sold by these pioneers to other settlers. The rate of growth of individual communities varied greatly, with spurts of expansion at certain periods being quite common. As with Typology A, the development process was completely informal, with no legal paper work and a total reliance on personal trust, mediated when necessary by the existing community.

These areas are illegal, but settlers have certain customary rights derived from interpretations of those portions of the civil code pertaining to hand claims on desert land. In any event, settlers amass either the receipts from paying “takhir” (a nominal rent imposed by a Governorate’s Amlak (properties) Department) or “awayyid” (property tax), from electrical connections, and other items to gain as much paper legitimacy as possible. Despite the illegality of these areas, the regularisation of their tenure status is not difficult should government make it a definite policy to do so. The key is that, unlike Typology A, there is only one legal land owner, the State, and there are no convoluted transactions, subdivisions, and inheritance histories to be considered to reconstruct and legalise post-facto.

Although it is difficult to generalise, housing conditions are in general worse than those found in Typology A. There are higher incidences of dilapidated structures and of whole families living on one room. Yet the produced morphological pattern is distinguishable and specific. The morphology of these settlements reflects greatly the topographical condition of the city desert periphery. They grew incrementally adapting the desert edge. The road system following the contour lines and the creation of each building depends on its specific location and conditions. The overall morphology is organic yet depends, in its density and plot size, on each area’s conditions.

Type C: Deteriorated Urban Pockets

In various inner areas of Cairo, especially those developed around the beginning of the 20th century, are found small pockets of very dilapidated one- to three storey structures which accommodate quite poor families. Examples include areas around Masr el Qadima, Hekr Sakakini in el Wali, and Teraa el Towfiqia in Mataria. In every case the existence of these pockets is due to precarious land tenure situ



Figure 5.5. Type A: Informal Settlements on Former Agricultural Land



Figure 5.6. Type B: Informal Settlements on Former Desert State Land



Figure 5.7. Type C: Deteriorated Urban Pockets

ations which put in doubt the wisdom of serious housing investments, resulting in a very precarious type of housing which in turn attracted very poor families seeking the cheapest possible housing solutions. Although there are no overall studies of these areas, they represent an insignificant portion of the city's population, probably not exceeding 1 per cent of the total. Most are slated for removal, and some have already been converted to parks (with the inhabitants relocated in public housing estates). One could add to this category rural villages which have been overtaken by urban expansion, such as Mit Oqba, Agouza, and the core of Giza. However, these areas more closely reflect the older kind of settlements already categorised under Typology A.

Contradiction can be adapted by accommodating and compromising elements, or by using contrasting superimposed or adjacent elements. Contradiction adapted is tolerant and pliable, while contradiction juxtaposed is unbending. Kahn, "It is the role of design to adjust to the circumstantial."

Robert Venturi, 1966

One of the specific sub-typologies of the deteriorated urban pockets are the ones in the historic city, that is Cairo before the expansions which began after 1860, are found neighbourhoods with a high percentage of old, crowded, and deteriorated structures within the medieval urban fabric. Examples include Darb el Ahmar and El Gamalia (especially the eastern sections along the Fatamid walls), and parts of Masr el Qadima, Boulaq Abou Aala, El Khalifa, etc. Also included are historic "villages" such as Qait Bey and el Tonsa which serve the vast historical cemetery areas. (Contrary to journalistic exaggeration, the phenomenon of squatting in tombs is an extremely rare phenomenon in Cairo). The deteriorated buildings found in these areas are the result of confused ownership (mostly inheritance quarrels) and/or owner neglect due to controlled rents. Many of the families inhabiting these structures are quite poor. But it is extremely difficult to classify the whole areas where this phenomenon is found as distinct slums, since there are also mixed into the area newer and quite sound buildings. Also, the populations of these historic areas are declining as residential space is converted to commercial and workshop use and as buildings completely collapse.

Morphologically, this typology does not have a distinctive character, as it is based on the urban pockets fabric in which they occupy. There are no special features to be identified within that fabric, except for that, overtime with continuous collapsing of the buildings in these areas they are substituted by other activities which eventually changes the form and structure of these neighbourhoods.

The growth of informal areas is the result of several conditions that have coincided to create demand on housing in certain locations. In Egypt, one driving force was the shift from an agriculture-based economy to an industrial- and service-based economy, which created more jobs in and around large cities and detracted from development in rural regions. An influx of rural migrants to Cairo and to other large cities started in the 1950s. At the same time, rent control laws were passed to grant tenants security of tenure. As a result, property owners stopped investing any money in maintenance, thereby accelerating the deterioration of existing housing stock in all cities. Also, tenants who moved out of their rental units kept them vacant for possible future use because the rent was ridiculously low. Recent studies have identified around 6 million vacant housing units in Egypt, many of which belong to that category. As a consequence, newly-formed households resulting from natural

population increase could not find housing units in neighbourhoods where they had grown up, married, and worked. In order not to be too far from their parents, property, and work locations, informal settlement began in the nearest available location; 65% of Manshiet Nasser residents, for example, are from the nearby Darb al-Ahmar and Khalifa districts. Thus, informal areas also received the 'spill-over' populations of the older districts of the existing city.

5.3 The Parallel Neighbourhoods Interrelationship

"The reason that slums remain slums is the unstable population of residents there, ready to get out when they have the choice. Therefore, the real slumming process, as opposed to slum shifting through renewal projects or slum immuring practices of orthodox planning, is to make slum dwellers desire to stay and develop neighborhoods."

Jane Jacobs, 1961

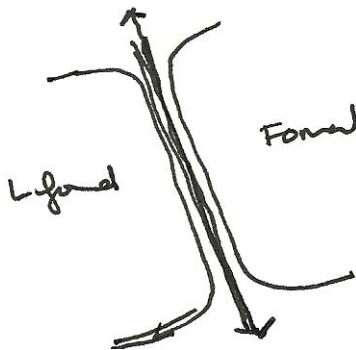


Figure 5.8. The Margin as a divider between two parallel neighborhoods.
Courtesy of Noheir Elgendy

The formal and informal neighbourhoods grow parallel to each other each of them following certain rules and producing a certain urban intervention within the city. The parallel neighbourhoods grow as separate entities and house a certain class of the population, yet each two formal and informal neighbourhoods have an interrelationship that could be highlighted to be then a way to re-frame the formal and informal cities relationship. This interrelationship can be identified as:

Division

The informal neighbourhoods are always separated, whether physically or non-physically, from the formal ones due to their original patterns of formation as an illegal intervention. The majority of the informal settlements in Cairo have developed on the agricultural fringe of the city, and were separated from the rest of the city fabric through the rail road line. This rail road line, was considered as modern Cairo defined periphery, but now it is a cut within the city fabric dividing the inside (the formal) from the outside (the informal). The rest of Cairo informalities, which have developed on desert land, were also separated from the formal neighbourhoods by means of topography and location. These physical borders were one of the main reasons beyond the formation of the informal neighbourhoods as isolated ghettos. They were almost invisible to the formal city, that there was no perception of what existed beyond those peripheries. These borders were also accentuated and highlighted due to the very small inefficient number of access points between the two parts of the city. The informal neighbourhood can have only one access point to the formal city; this also has encouraged the development of the informal neighbourhood as a typical heterotopia. These heterotopias were not just created by the physical borders; they also included non-physical ones presented in social and economic differences that caused a deeper form of segregation. The fact that the informal neighbourhoods contained the lower economic levels and the process of their stigmatization for being the poor uncivilised part of the city, have caused a repulsive reaction from both ends. However, this common repulsive process was partially changed during the 25th of January Revolution sit in, where people from all standards were forced to stay together for days. This enabled them to get in acquaintance of each other and develop a different understanding of the 'other'. Following that, was the fall of the state security apparatus, when people from both the formal and informal areas created popular committees to stand up for thieves and thugs, allowing a new relation between each two neighbouring formal and

informal neighbourhoods. Thus, highlighting a new stage where the borders of the informal heterotopias were broken.

Interchange

Although the parallel formal and informal neighbourhoods hold many levels of segregation, yet as they have both grown and developed, they have shown some layers of interdependence. The formal neighbourhoods have depended on their neighbouring informal neighbourhoods to provide them with labour like porters, drivers and maids, who also preferred to work in proximity of their houses. In addition to that, the informal neighbourhoods as they developed, they produced large markets to fulfil their needs, and also many of the residents worked inside these areas in workshops as carpenters, mechanics and plumbers. These services did not have an equivalent in the nearby formal neighbourhoods. Thus the formal sector depended on the informal one to provide them with such services. The informal neighbourhoods also included some illegal activities, due to their existence away from the state police eyes, so they were the places where the formal residents dealt with drug dealers, thugs, and so on.

Formalization

In the division of districts in Cairo, each district usually includes a formal and an informal neighbourhood. The informal neighbourhoods have a very dense fabric housed a much higher population compared to the formal ones. During the elections the informal sector presented the only way for the candidates to win a chair in the parliament, as they contain the critical mass. This caused a competitive process between the parliament candidates to gain the informal areas votes. The informal neighbourhoods being deprived of many services as water, electricity and sewage networks, offered support to one of the candidates according to his promises to provide them with these services. The informal neighbourhood residents waited for the elections to determine what might be their gains and who would fulfil their needs. Actually, this process was one of the main reasons many informal neighbourhoods developed and were provided with services. This process also meant a pattern of formalization of the informal neighbourhoods, having the governmental water, electricity and sewage networks gave them a legalized frame of their existence.

Competition

Some of the informal neighbourhoods have grown to contain hundreds of thousand inhabitants. Nowadays, the investments on agricultural land are no longer based on individual interventions. It is now handled by a network of contractors and medians, who buy pieces of agricultural land and then subdivide them into building plots, to be then turned into 13 and 14 floors apartment buildings. This encouraged huge investments in these areas, as they depended on the government eventual acceptance of these illegal interventions and their provision of services

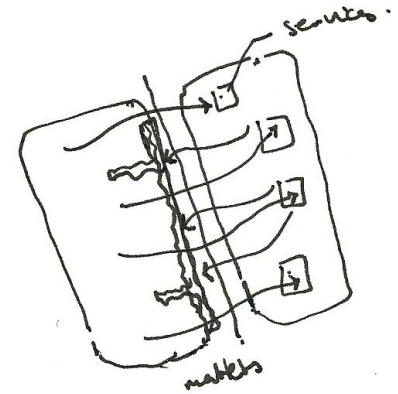


Figure 5.9. Interchange between the parallel neighborhoods. The informal needs of the formal sector services, and the formal needs of the markets in the informal sector. Courtesy of Noheir Elgendy

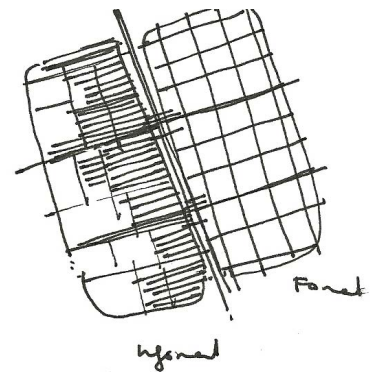


Figure 5.10. Formalization of the informal neighborhoods through the government approval and appliance of infrastructural network. Courtesy of Noheir Elgendy

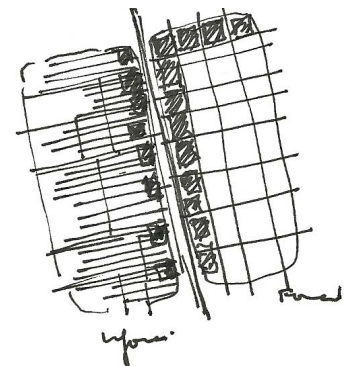


Figure 5.11. Competition between the parallel neighborhoods. Due to the increase in the land value of the areas near the margin there is a sort of competition between the formal and informal neighborhoods in the quality and height of buildings. Courtesy of Noheir Elgendy

“This is the strength of weakness; that strength which art and architecture are capable of producing precisely when they adopt a posture that is not aggressive and dominating, but tangential and weak.”

Ignasi De Sola Morales, 1998

and infrastructural networks. Consequently, the informal neighbourhoods are now growing at an extensive rate that was never witnessed before. This process was also accompanied by a process of gentrification of the peripheral areas of the informal neighbourhoods facing the formal city. Forming a competitive process that sometimes it is hard to identify the produced buildings and skyline belong to which part of the city.

5.4 The Urban Strategy: Re-connecting the parallel neighborhoods

Based on the city scale strategy that attempts to reconfigure the city edges into ‘thresholds’ of integration between the segregated communities of the parallel neighborhoods. Turning the residual spaces along the city margins into ‘open’ spaces housing activities that redevelops a new relation between them. An urban strategy is addressed to propose a generic model at one of the points identified on the city scale strategy. To investigate the potentiality within the city edges and the spatial organization reflecting the city scale strategy.

The urban scale strategy presents a generic model for the transformation of the city physical and non-physical edges into a collective ‘open’ space that acts as a threshold point within the extended edges along the city. The formal city margin, on which the informal city has developed, is a collection of infrastructural routes as well as a number of brownfields and residual spaces that were associated with the history of that area as a space for industrial plants outside the city periphery, which were then moved out of the city once more, due to the growth of the informal city. This is the stereotypical case between the formal and the informal cities, thus the investigation of the urban scale at that point would provide a typical model that could be generalized in similar situations.



Figure 5.12. The Typical Section of the city edges



The Urban Context

The urban strategy is experimented on the margin between two parallel neighborhoods; Ard al-Liwa', an informal neighbourhood and al-Muhandessin, a formal neighbourhood. Ard al-Liwa' is a 'typical' informal housing development on the agricultural belt on Cairo western periphery. Dating back to at least three decades, it bears the characteristics common to many other informal developments: high density, substandard infrastructure, insufficient public services and poor connection to the city at large. One of the latest studies of Ard Al-Liwa estimates its population to about 300,000 inhabitants occupying around 470 acres, and rendering its density to an average of 638/acre. The area is located to the west of al-Muhandisin District, an upper middle class neighborhood that has witnessed a real-estate boom during the 1980s and 1990s, and is separated from which by the regional railway to Upper Egypt and al-Zomor irrigation canal. Up to the 1970s, as cadastral maps illustrate, the area has been predominately agricultural fields that began to rapidly transform into informal housing as a twin city, dependent on al-Muhandisin in both its economy and in terms of public services. In the late 1990s, along with the neo-liberal policies adopted by the cabinet then, the programs of new private development on the city's desert edges were gaining momentum. A new network of infrastructure was constructed at the turn of the century, including two major freeways, the Ring-Road and 26th July Corridor, defining the boundaries of Ard al-Liwa from the west and north respectively. The intersection of both highways constitutes one of the major traffic junctures approaching Cairo from the west, defining the outer limit of the Ard al-Liwa and rendering it most visible for daily commuters as well as travelers to Alexandria and the Mediterranean Coast.

Ard al-Liwa, in short, is delimited by three major urban transportation corridors, which have been drawing the city limits between the twentieth and twenty-first centuries. These corridors have also been paradoxically contributing to both Ard al-Liwa's misfortune and its potential development opportunities. On the one hand, they define its borders and limit its accessibility and connection to the city proper. Their close proximity, on the other hand, offers visibility and potential public attention, something that other informal areas are lacking.

(Nagati and Elgendy, 2012)

Stratifying the Parallel Neighborhoods

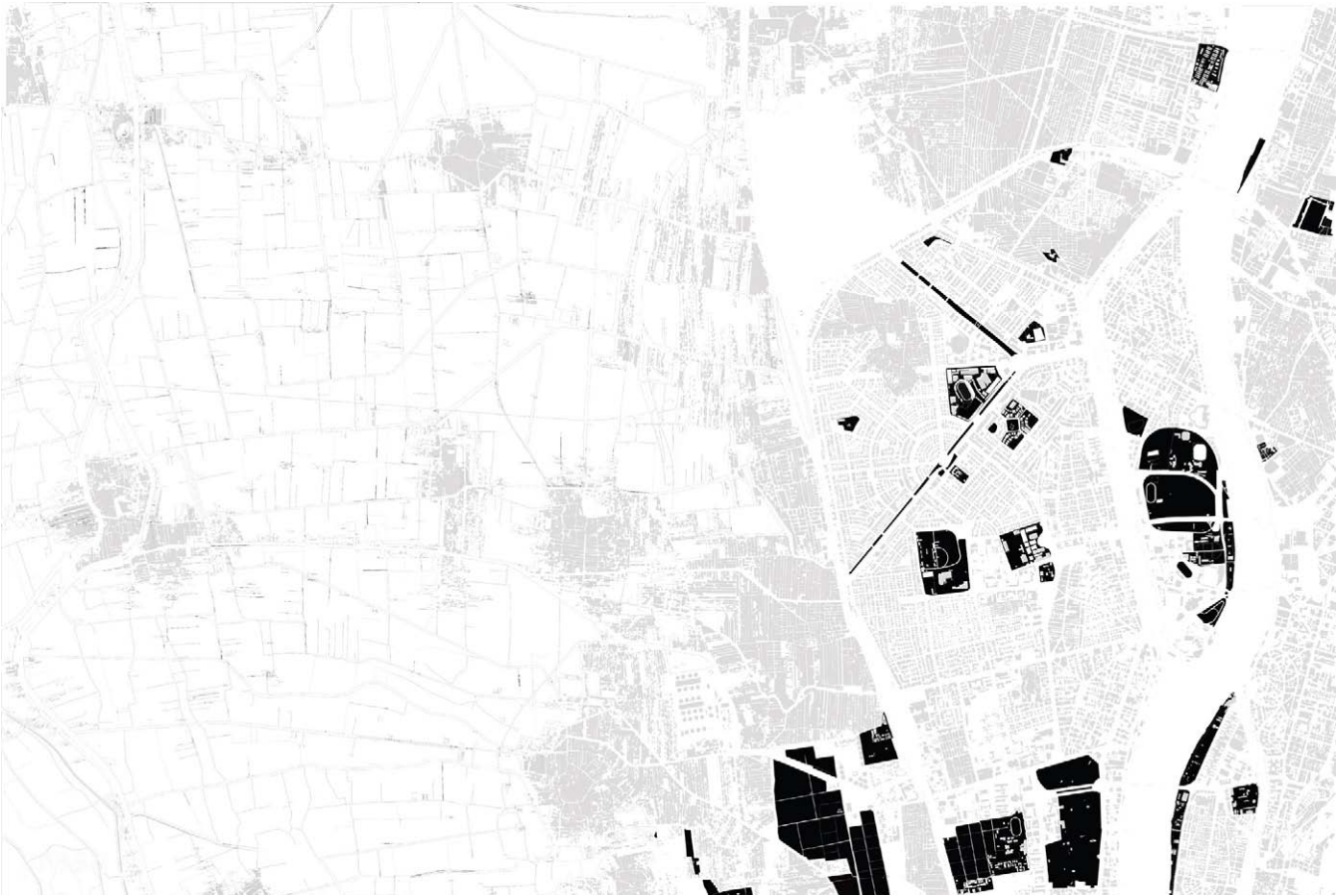
The stratification of the neighborhood layers to develop an understanding of the basic spatial relationships between the parallel neighborhoods of Ard al-Liwa' and Muhandessin. The investigation parallel typologies of fabrics, open spaces, and street networks would allow and understanding of the potentialities of intervention to re-connect these parallel neighborhoods.



Map 5.2. Context-Formal -Built up-Fabric



Map 5.3. Context-Informal -Built up-Fabric



Map 5.4. Context-Formal Open Spaces Network



Map 5.5. Context-Informal Open Spaces Network



Map 5.6. Context-Street Network



Map 5.7. Context-Water Network



Map 5.8. Context-Core Villages

“Social differences are embodied in spatial struggles, in atomized simultaneous forms of mobilization claiming exclusive use of space. Who has control over the processes of socio-spatial change in neighborhoods? Can architects and planners contribute to creating a sense of security in disadvantaged areas? ... Can they help these people take charge of the public space that surrounds them via design and expertise, bringing them a sense of ‘delight’ rather than submitting them to sterile plazas and security devices?”

Sophie Body-Gendrot, 2007

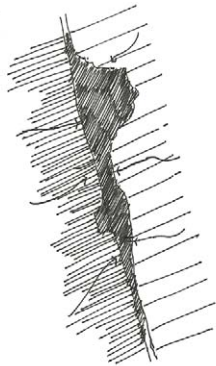


Figure 5.13. The in-between threshold space
Courtesy of Noheir Elgendy

“The greatest defect of these placeless typologies is their incapacity to regulate open spaces, to use such spaces as a principle form of mediation between surroundings and of attachment to the ground, the land surface which is inevitably their support structure, and of confrontation with its geographic and technical nature.”

Vittorio Gregotti, 1990

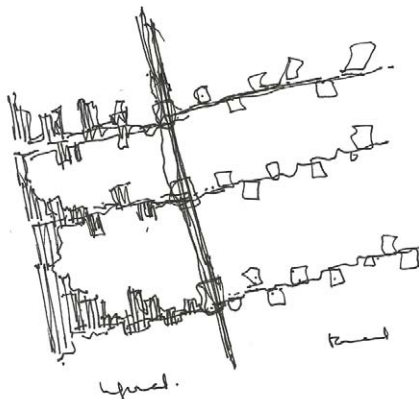


Figure 5.14. The connecting chain of spaces
Courtesy of Noheir Elgendy

Re-connecting the Parallel Neighborhoods

The strategy attempts to connect the parallel neighborhoods through tying them using a network of spaces, that is divided into typologies of spaces; the first are a series longitudinal spaces that are connected to compose a large ‘open’ space that acts as a park presenting a ‘threshold space’ within the segregated communities; the second, is a set of chains of spaces that connect the two parallel neighborhoods transversally providing a continuous landscape through the parallel cities fabric. These spaces would include ‘open spaces’ whether, recreational, social, cultural ... etc, in addition to services and facilities that are missing in both neighborhoods, especially, the informal one.

The longitudinal ‘thresholds’

The interstitial space between the parallel neighborhoods is extended along the rail road, al-Zomor canal and al-Sudan street. These three lines act as three parallel edges separating Ard al-Liwa and Muhandessin neighborhoods. Along these three edges, there is a number of residual spaces that belong to the Rail Road Company, the Awqaf (Endowment) Ministry, the Sewage Institution, as well as Imbaba Airport site that was planned to be developed into a community park with a housing project, commercial activities and office buildings. These spaces if connected would create a massive ‘open space’ on the city margin that would interconnect with others creating a green way along the city old periphery.

The transversal ‘chain of spaces’

The informal city being developed incrementally on agricultural land, still has within its fabric residual agricultural plots. These agricultural plots are almost the only typology of open areas in the informal city dense fabric. And although the formal city fabric is also a dense one, yet there is a network of open spaces existing, which is mal-used now, but could be developed. The strategy proposes a secondary network of open spaces as a ‘chain of spaces’ that connects the residual agricultural plots of the informal city to the open spaces network of the formal city creating routes of continuous landscape that cross the edges and reconnect the parallel neighborhoods. This case is existing in the majority of the formal/informal city relations (as around 83 percent of the informal settlements are developed on agricultural land). These chains of space would also act as ties strengthening the relationship between the parallel neighborhoods and will provide a new typology of landscape that is essential to the very dense and polluted city fabric.

Conclusion

The constraints within which informal areas grow, their location on agricultural land or in unsafe geographical areas, the entrepreneurial initial subdivision, and the ex post facto introduction of infrastructure have all led to several major shortcomings in the quality of life for those living there. This is due to a lack of support on the part of the government toward its people, and a failure in its honoring their rights as citizens. The marginalization of residents of informal areas, the stigmatization of its youth, and the failure to protect its young people from drugs and hustling has caused these places to attract more illegal activity than other, better-protected districts. All of these elements have deepened the gap between both the formal and the informal neighborhoods. Yet, the physical cut between the formal and the informal cities, due to the spatial configuration of the modern city periphery have accentuated that gap and turned into a border or an edge that divides the city.

However, this division contributed further to the marginalization of these areas and their residents. The problems with informal areas should be more carefully articulated so that intervention efforts do not squander valuable resources on replacing what is already working relatively well; rather, intervention should be targeted at improving what works poorly, including filling gaps in infrastructure where services are completely lacking. This is what the urban strategy proposes in developing the informal neighborhoods as well as fixing the relationship between the parallel neighborhoods. Counting on, the potentialities the informal city offers Greater Cairo, in housing two thirds of the population and providing the missing services and facilities within 'in between' open spaces between the formal and the informal parts. This was translated into typologies of spaces; the longitudinal 'threshold' spaces and the transversal 'chains of spaces'.

This strategy was investigated as a generic model between two parallel neighborhoods; Ard al-Liwa' informal neighborhood, and al-Muhandessin formal neighborhood, experimenting the possibility of creating such typologies of 'open spaces' that would connect the segregated communities. This strategy has been developed according to the city scale strategy, developing one of the proposed points of intervention. And in the next chapter, the strategies will be experimented on the project/architectural and urban scales, developing the 'spatial' guidelines into a real project to further investigate the strategy, with a deeper focus on the context and the different communities needs and aspirations.

“ Moreover, the communications functions are often so badly misunderstood, and so poorly connected to the context and to the construction, that there is a constant uncertainty about their structural incorporation in architecture, and their placement in the area of passing, secondary accidental elements. The visual pollution this situation creates is, I believe, measure on the one hand of the distance that has opened in the last half century between architecture and the visual, and on the other hand of the incongruity of the context presented by the placeless typologies, for the moment.”

Vittorio Gregotti, 1990

“Today the territory appears as a theater of irreducible events: spatial proximity can no longer be place, articulate and explain it. The illegal quarter, the historical village, the industrial plant and the orchard,; the change in measure; the nomadism of the tourists and of the shepherd; the enormous amount of the interstitial areas, each one left over from a different story; the partiality of the building, infrastructures and utilization; use only in summer, only in daytime, only at holydays period, for a few hours; the use of places by sections of population and groups unknown to each other. The territory has never seemed as fragmented as today.”

Bernardo Secchi, 1985

“A feeling for paradox allows seemingly dissimilar things to exist side by side, their very incongruity suggesting a kind of truth.”

August Heckscher, 1962

Bibliography- Chapter 05

Body-Gendrot, S. (2007). Confronting Fear. In R. Burdett & D. Sudjiv (Eds.), *The Endless City*. Phaidon Press Limited.

De Sola Morales, I. (1998). *Weak architecture, Architecture Theory since 1968*. The Trustees of Columbia University in the City of New York and Massachusetts Institute of Technology.

Duany, A., & Plater, E. (1993). The Neighbourhood, the District, and the Corridor. In P. Katz & V. Scully (Eds.), *The New Urbanism: Toward an Architecture of Community* .

Gregotti, V. (1990). Tipologie atopiche. *Casabella*, 568.

Heckscher, A. (1962). *The Public Happiness*. New York: Atheneum Publishers.

Jacobs, J. (1961). *The Death and Life of Great American Cities*. New York: Random house.

Secchi, B. (1985). Abandoned Territory. *Casabella*, 509/510.

Shehayeb, D. K. (2009). Advantages of Living in Informal Areas. In R. Kipper & M. Fischer (Eds.), *Cairo's Informal Areas Between Urban Challenges and Hidden Potentials: Facts, Voices, Visions*. Cairo : German Technical Cooperation.

Sims, D. (2010). *Understanding Cairo: The Logic of a City Out of Control*. Cairo: The American University in Cairo Press.

Venturi, R. (1966). *Complexity and Contradiction in Architecture*. New York : The Museum of Modern Art Press.

Right : Figure 6.1. The Rail Road Line along the city margin
Photograph by Mariam Korashy



Chapter 06

6.0 INVESTIGATING THE PROJECT SCALE| ARD AL-LIWA PROJECT

6.1 The Parallel Cities Margin
The Ard al-Liwa Park Site
The Project Initiative
The Project Concept

6.2 The Margins Typo-Morphological Patterns
The Formal and Informal Fabrics
The Infrastructural Networks
The Irrigation Network
The Core Villages

6.3 The Project- Architectural Language and landscape Strategy
The Masterplan Concept
The Built Up
The Open Spaces
The Infrastructure

Conclusion

“Public space dedicated to pedestrians can be an equalizer – a means to a more inclusive society. In public space people meet as equals, stripped bare of their social hierarchies ... Access to green spaces may be the most formidable barrier to inclusion, not only now but also into the future ... Open spaces are precious because neglecting to acquire and secure them today is not something that can be remedied easily in the future. It would be extremely difficult to purchase and demolish hundreds of buildings in order to create green spaces. And lacking such spaces severely affects quality of life, inclusion and, as a result, the legitimacy of social organization. Beyond the basic public pedestrian space, which should be found throughout the city, a good city should have at least one, and ideally several, ‘grand’ public spaces. That is to say, spaces of such quality that even the wealthiest members of society cannot avoid frequenting them.”

Enrique Ponalosa, 2007

For the past 18 months Cairo has been experiencing a process of urban transformation unparalleled in its recent history on two different levels: changes on the ground and a new mode of urban citizenship. Many Egyptian cities have witnessed since January 2011 a breakdown of security apparatus and a relative absence of state enforcement institutions, generating an exponential rise of community initiatives, in both measure and kind, and creating a fluid urban landscape in state of flux. And while ‘informal interventions’ have been a hallmark of Cairo public space for decades, new genre of informality has emerged taking advantage of state vulnerability and increasingly empowered communities.

In addition to the physical transformations resulting from marches, protests and street battles, Cairo’s neighborhoods and public spaces have all been subject to a process of informal encroachment, taking advantage of the absence of law enforcement. Individual and communities, on the other hand, have been empowered and emboldened by the overthrowing of the regime, challenging authorities and reclaiming their right to the city and public space. Both phenomena are interconnected and may best be illustrated by concrete examples, where local communities are taking the initiatives, changing their urban environments and reconstituting their meaning.

One of those concrete examples is the Ars al-Liwa’ Park project, where the community inspired by the revolutionary spirit of the 25th of January revolution, and believing in their rights of an honourable life, have lead an initiative to turn a residual agricultural plot belonging to the ministry of Awqaf (Endowment) into a public park, including a variety of services and facilities that are missing in their neighborhood. This project is essential in understanding the transformation in the relation between the formal and the informal sectors and between the informal sector and the government. It represents a drastic change in the governmental approach and perception of the informal city. This project is one of several initiatives that illustrate the attempts of the informal city to be formalized.

This project also fulfills the city scale strategy and lies on one of the points specified on the formal/informal city margin. Thus, this project could be used to experiment the thesis strategy and verify its hypothesis, by using the residual spaces identified in the urban scale strategy, and developing the ‘threshold’ between the parallel cities, within a real project in the making. I have been engaged in developing that project with research group, including urban planners, architects, community representatives and artist, and throughout the project we dealt with a number of governmental entities and institutions as well as NGOs, which allowed us to get a real understanding of how such a strategy could be implemented and what are the difficulties and potentialities in developing it.

6.1. The Parallel Cities Margin

Ard al-Liwa Park :The Site

One of the only remaining undeveloped sites—partly due to the fact that it is owned by the Ministry of Awkaf (Endowments)—is a strip of 12-14 acre parcels parallel to a key transportation and irrigation corridor that defines the western limits of ‘city proper,’ while separating planned/formal districts to its east from informal districts to its west. The site remains a rare opportunity to accommodate lacking services and establish active interface between the increasingly segregated formal and informal developments on its both sides.

In the community’s imaginative geography, the site has for years served as a potential container to accommodate many of the services lacking in Ard al-Liwa, as well as an untapped reservoir of open land for recreational facilities and green areas. Throughout the past few years, there has been a number of schemes, dreamed or actually charted on paper, to resolve some of the chronic issues surrounding the site, such as the congestion and traffic hazards at the railway crossings, the street vendors and informal transportation hubs, as well as environmental and sanitary concerns due to the piles of garbage dumped into al-Zomor Canal. Some of these community initiatives are to a large extent technically credible and have in fact been communicated with different levels of authorities, but were mostly stalled for lack of financial support and political will.

The Ministry of Awkaf has designated this site to develop a large housing development scheme comprising fourteen blocks, including five affordable and nine upscale apartment buildings. By the end of 2011, all necessary approvals were acquired, and the site preparation process began in late March 2012. Local community leaders, waking up to sounds of bulldozers, stood for what they viewed as their right to decide the fate of such precious land, which they considered to be hijacked by investors and state cronies. Empowered by ‘revolutionary spirit,’ they not only stopped the construction process, but also managed to escalate their demands through media and local MPs, who helped arrange a meeting with former Prime Minister, Kamal El-Ganzoury. The latter acknowledged the failed purpose of such housing project and endorsed their demand for an alternative vision of recreational hub and service facilities.

The project Initiative

The success of this community initiative could thus be ascribed to their persistence on two parallel tracks. On the one hand, it has been a result of a cumulative process of developing visions for this parcel over the past few years. This envisioning process, on the other, was compounded by organized efforts to confront government plans to build more housing blocks. Such dual process of resistance and alternative proposals, which is situated within the context of the rising urban citizenship, culminated in an approval on the highest official level, bypassing conventional

“A government project currently underway in Imbaba represents what is probably the most ambitious and large-scale venture at improving and restructuring an informal area of Cairo. The scheme, which first was considered in 2000 by the Ministry of Housing, is using the 74-hectare site of the disused Imbaba Airport to build a park, a major boulevard, and social facilities for the surrounding informal areas. Also being built on the site are public housing blocks that are to be used to resettle those in the path of street widening. If implemented as intended, this project will definitely benefit the huge surrounding informal areas where more than half a million reside.”

David Sims, 2010

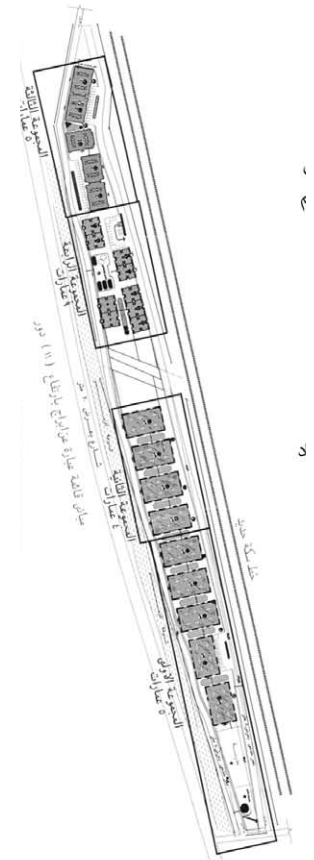


Figure 6.2. The Ministry of Endowments proposal for the site. Courtesy of CLUSTER



Figure 6.3. The Project site at the “threshold” between Ard al-Liwa and al - Muhandessin Neighbourhoods
Photography by Hamdy Reda

bureaucratic procedures and classic institutional frameworks necessary for similar projects of the same size. The next logical step was to turn their vision into a blueprint—a master plan according to professional standards and planning codes.

Ard Al-Liwa Youth Coalition approached Cluster group (a research platform in which I was engaged), based on earlier engagements and previous experience, requesting to translate their needs and aspirations into a technically feasible planning scheme, and thus turning an oppositional position into a proactive developmental vision. The latter would then be presented to different authorities and stakeholders, to gauge their interests and win their approvals, but also as a means to consolidate their vision into a real measurable project, which could then be subjected to both technical critiques and financial assessment. The specificity of the site and its strategic location lends itself to a broader framework for development that would address urban issues on multiple levels, from the neighborhood, district to city scales according to the previously proposed strategies:

1. For its immediate context, the site would provide Ard Al-Liwa and surrounding informal areas with services and open spaces lacking in such densely populated and underserved areas. Through a number of workshops with local community representatives, a design brief was developed including major public amenities, such as health, education, vocational training, sports and recreational facilities and municipal services.

2. On a larger scale, the site location offers a rare opportunity to restructure the distorted relationship between informal and formal parts of the city, from one of marginalization, exclusion and dependency, into one of integration and interdependence. The project could thus be viewed as a bridge or meeting point between two districts: Al-Muhandisin and Ard al-Liwa, on its both sides. Lateral connections, such as bridges and elevated pedestrian passageways, as well as common plazas and gardens are proposed as the principal planning framework for the park project, providing two typologies of open spaces. the longitudinal thresholds presentrd in the park and the transversal chains of spaces , both aiming to connect the parallel neighborhoods.

3. Thirdly, on a city scale, the project falls within a grand urban transportation corridor, which would potentially be converted into a major green spine as part of a network of greenways in the city at large. Such network would promote alternative environmentally friendly modes of circulation and rapid transit lines. The project thus aims at turning the generic condition of dilapidated infrastructure corridors on rapidly urbanized agriculture tracts in many other parts of the city along stretches of informal development, transforming peripheral conditions into central green arteries.

The Project Concept

The project's planning concept is then anchored in the larger question of informal development in Cairo, and aims at addressing a complex set of planning issues on multiple levels that would transcend the immediate local needs of Ard al-Liwa.

The project also positions itself within the newly emerging urban order, whereby individuals and communities are taking the initiatives, then inviting professional and planners and policy makers on board, thus challenging the former models of 'citizens participation,' and redrawing the balance between the state and its urban citizens.

6.2 The Margin Typo-morphological Patterns

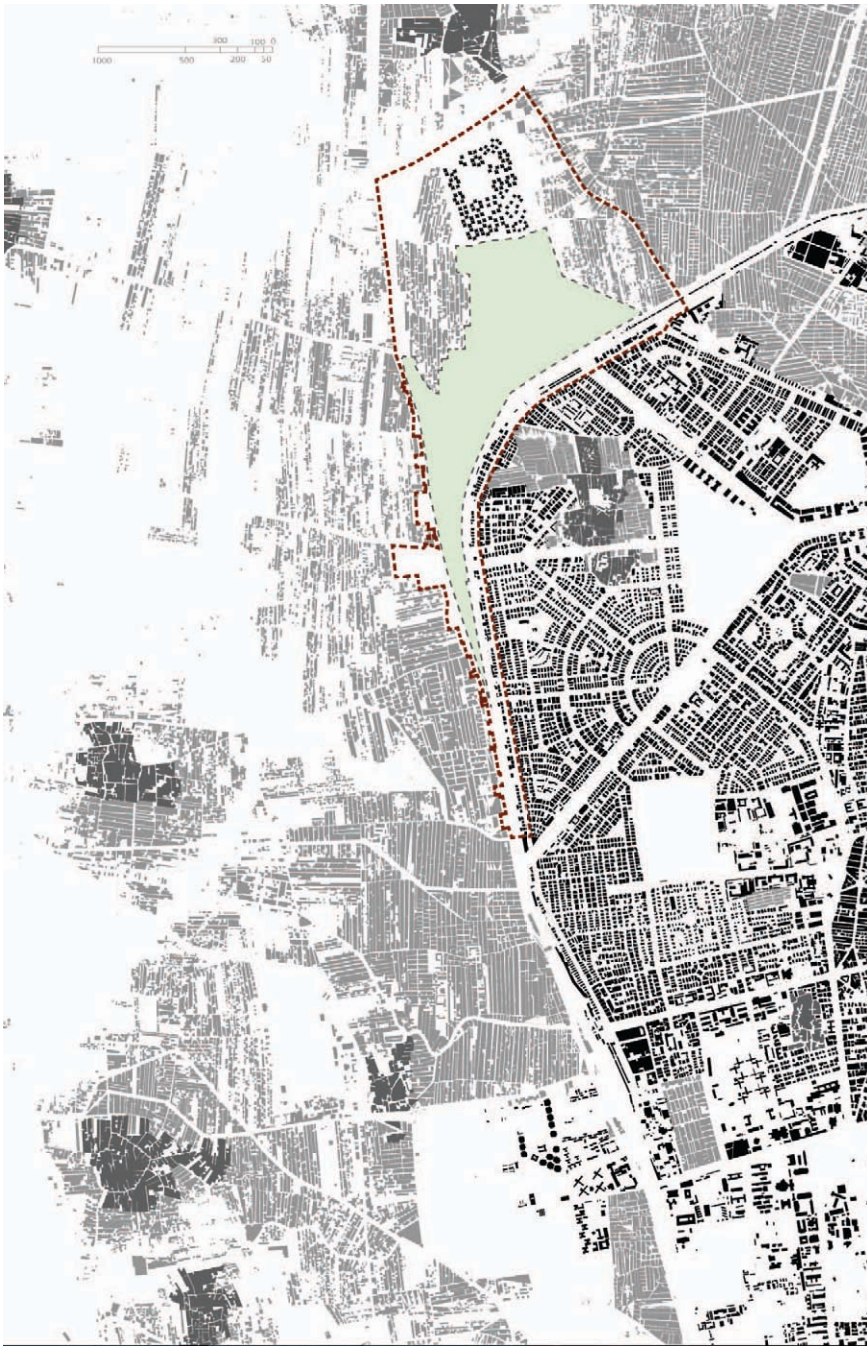
Ard al-Liwa' is a 'typical' informal housing development on the agricultural belt on Cairo western periphery. Dating back to at least three decades, it bears the characteristics common to many other informal developments: high density, substandard infrastructure, insufficient public services and poor connection to the city at large. One of the latest studies of Ard Al-Liwa estimates its population to about 300,000 inhabitants occupying around 470 acres, and rendering its density to an average of 638/acre. The area is located to the west of al-Muhandisin District, an upper middle class neighborhood that has witnessed a real-estate boom during the 1980s and 1990s, and is separated from which by the regional railway to Upper Egypt and al-Zomor irrigation canal. Up to the 1970s, as cadastral maps illustrate, the area has been predominately agricultural fields that began to rapidly transform into informal housing as a twin city, dependent on al-Muhandisin in both its economy and in terms of public services. In the late 1990s, along with the neo-liberal policies adopted by the cabinet then, the programs of new private development on the city's desert edges were gaining momentum. A new network of infrastructure was constructed at the turn of the century, including two major freeways, the Ring-Road and 26th July Corridor, defining the boundaries of Ard al-Liwa from the west and north respectively. The intersection of both highways constitutes one of the major traffic junctures approaching Cairo from the west, defining the outer limit of the Ard al-Liwa and rendering it most visible for daily commuters as well as travelers to Alexandria and the Mediterranean Coast.

Ard al-Liwa, in short, is delimited by three major urban transportation corridors, which have been drawing the city limits between the twentieth and twenty-first centuries. These corridors have also been paradoxically contributing to both Ard al-Liwa's misfortune and its potential development opportunities. On the one hand, they define its borders and limit its accessibility and connection to the city proper. Their close proximity, on the other hand, offers visibility and potential public attention, something that other informal areas are lacking.

Stratifying the Project Site Layers

Stratifying the project site identifying the formal and the informal fabrics, the infrastructural networks, the irrigation networks and the core villages in the project context. Each layer is identified on a map as follows:

The Site Context



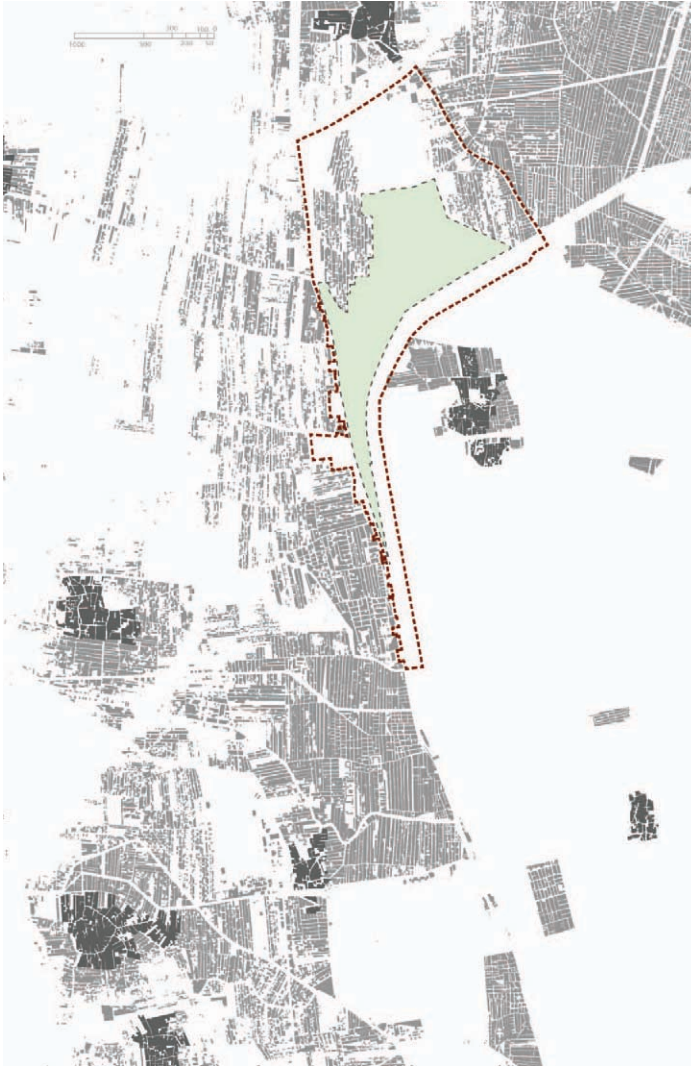
Ard al-Liwa lies in the informal areas belt in the city of Giza and unaligned to the railway and Zomor canal that extends from Imbaba and Bstill north to the Omrانيا south . the region includes population of 101,177 for 2006 according to GOPP , while the estimated population for 2012 about 145,811 people, with annual growth rate 6.4%(1996 - 2006).

According to updated fieldstudy by taking a sample of residential block, sample area was 52693 m2, the number of buildings 249 and 2390 apartment and snapped a 4.2 average number of individuals in the apartment. the population of the sample becomes 10,038, including, and so the population of the region about 300,950 people.

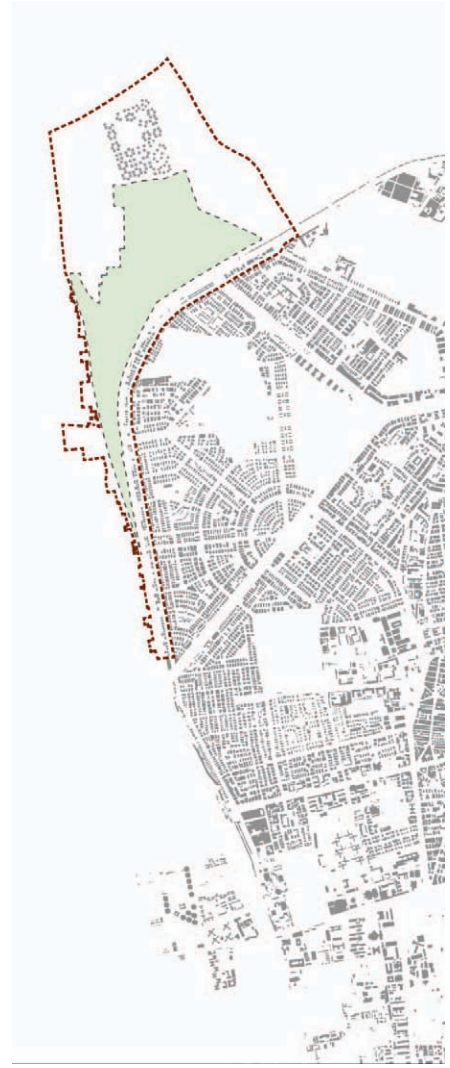
Ard al-Liwa limits from the south by al-Magnona canal (Ali Ebin Abi Talib street), either its western limit is the Ring Road, while the north is bounded by Alabiat canal on the east Zomor canal street. Ard al-Liwa surrounded by number of Major urban communities, we find al-Mohandesin from the east, village Barajil from north, from the south Bulaq al-Dakrur and village Almatmdia on the west.

Ard al-Liwa Suffers from many problems such as lack of services, open areas and, deterioration of infrastructure in addition to the crisis relationship with the heart of the city where Ard al-Liwa contact with Mohandesin by a limited number of crossings and bridges that creating a traffic bottleneck and with the risk of crossing to children and the elderly in addition to the spread of street vendors and informal markets, non-compliance with the building standard . This is in addition to the containment al-Zabalin unsafe area.

Map 6.1. The project site as a collection of residual spaces and brown fields that can be transformed into a public open space and a park, that allows the integration between the formal and informal cities.



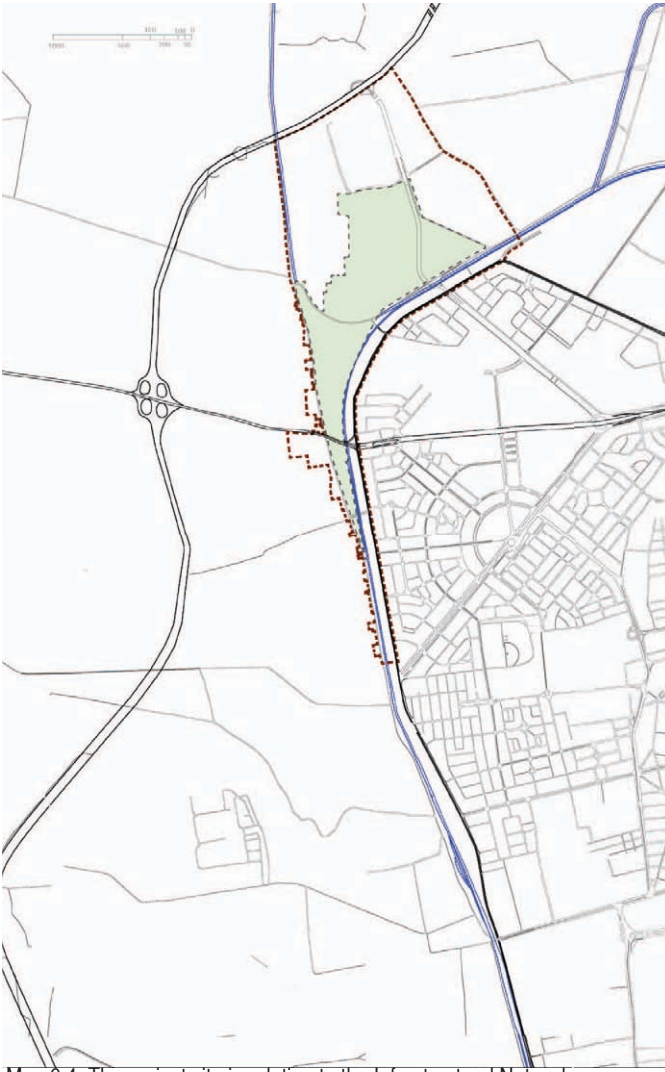
Map 6.2. The project site as a margin of the formal city



Map 6.3. The project site as a margin of the Informal city



Figure 6.4. Al-Muhandessin Urban Facade



Map 6.4. The project site in relation to the Infrastructural Network



Map 6.5. The project site in relation to the water Irrigation Network



Figure 6.5. Ard al-Liwa Urban Facade

6.3 The Project - Architectural Language and landscape Strategy

“When the city operates as an open system – incorporating principles of porosity of territory, narrative indeterminacy and incomplete form – it becomes democratic not in a legal sense, but as physical experience”

Richard Sennett, 2006

“ A park fairly well managed near a large town, will surely become a new center of that town. With the determination of location, size, and boundaries should therefore be associated the duty of arranging new trunk routes of communication between it and the distant parts of the town existing and forecasted”

Frederick Law Olmsted,

The initial stages of the design process involved intensive sessions and workshops with local community representatives to develop a program for the project and translate their needs and aspirations into a design brief. Once a preliminary conceptual design was ready for discussion, the next step involved a series of meeting with stakeholders, local and governmental authorities, as well as international development agencies and potential donors. Each time the process of approval gets stalled, due to a change of cabinets or because of political turmoil, talking to media proved very useful to increase pressure on authorities. The scope of design process followed a number of stages, including a) identification of all previous studies for the site and surrounding context; b) developing a design brief through a number of participatory workshops with community groups and translating their needs and aspirations into an area program; c) establishing a broader conceptual framework for the site and surrounding context, on local, district and city scales, each to address a number of planning issues and specific design priorities.

Due to the site location and its immediate juxtaposition to a number of infrastructure lines, the formal approval process had to be negotiated with multiple ministries and authorities, such as the Ministry of Housing, the Ministry of Transportation, the Ministry of Irrigation, the Ministry of Awqaf (Religious Endowments), and the Ministry of International Cooperation, as well as the General Organization of the Physical Planning, which has to ratify any future plan in accordance with its own strategic plan of the area, and the Giza Governorate, which will eventually be the owner of the Park project. For negotiating approvals and exploring funding possibilities, representatives from the community and the design team organized a number of meetings with local authorities whose stakes in the project may facilitate or otherwise block such unconventional bottom-up initiatives. The team also explored preliminary fund-raising possibilities by engaging key national and international agencies with specific interest in the development of informal areas.

One of the main challenges facing the formalization process in this project has been the fast-changing political landscape. During the past 24 months, Egypt witnessed three cabinets, changing governors and three national elections for both assemblies and the presidency. These changes, often coinciding with major turmoil on the ground ranging from rallies to street battles and burning of public buildings, were often accompanied by shifts in political ideology or at least government's attitude and priorities towards projects of this size. This in turn has often resulted and in stalling earlier momentum for approval and formalization of the project. Conversely, each new cabinet tried to repackage ongoing or potential project under its platform of development. The Nahda (Renaissance) program by Freedom and Justice Party is a case in point.

The Masterplan Concept

Based on the previously identified strategies on the city and on the urban scales, the project falls within a network of spaces at the city scale, attempting to provide a methodology to deal with the interrelationship between the formal and the informal parallel cities, turning the contemporary situation of exclusion and segregation into another of inclusion and integration. Thus, the project proposes an experimentation of the strategy on a generic case between the formal and the informal cities. The basic concept of the project is providing an 'open space' at certain points within the city margin that acts as 'threshold' points, that allows reconnecting the two segregated communities of the parallel neighborhoods of the formal and the informal city, as well as creating ties of chains of spaces that re-stitch the neighborhoods fabrics, through green corridors along the main routes crossing the city edges.

Thus, the project masterplan intends to turn the four residual spaces of: Alwqaf (Endowment) site, the rail road brownfield site, the sewage station brownfield site, and the proposed Imbaba park project into one 'open space'. The project site is supposed to fulfill the missing services and facilities in both parallel neighborhoods, as well as a variety of activities that are meant to engage both communities to encourage interaction and integration. Also, since the project site, lies on a regional axis that connects the formal, the informal and the desert cities, the project would also include some regional services as a train station on the western side of the metropolitan, parallel to the only station on the east, as well as a cultural hub that engages the whole city community. However, the project is mainly divided into three main systems, the built up system, the open space system and the infrastructural system, which are defined as follows:

The Built Up

In addition to the basic planning premises outlined above, and once a preliminary master plan was approved by the highest political authorities, it became clear that such conceptual design scheme is not very useful to communicate with local communities and engage different forms of media. In order to develop an architectural expression that could be presented to a wider public beyond the circle of experts and official, the planning team embarked on a process design development of architectural and urban forms derived from local context. This process involved analyzing and decoding the elements of the architectural language of informal urban conditions through a multi-level framework, including the urban block, the typical architectural unit, as well as detailing features. In addition to engaging local modes of architectural expression, the study also aims at a critical understanding of the agricultural and landscape development in informal areas.

Starting with urban scale, the first level of analysis focuses on the housing block, and investigates the process of formation of this fabric whereby the patterns of the irrigation grid and land subdivisions informs and often offers a guiding principles

"There is a critical difference between going through the empty ritual of participation and having the real power needed to affect the outcome of the process... participation without redistribution of power is an empty and frustrating process for the powerless. It allows the power holders to claim that all sides were considered, but makes it possible for only some of those sides to benefit."

Sherry Arnstein, 1969

"Originally, the organization of the streets of our community was completely unsystemized. Our most important goal for the streets at that time [in 'Izbat Khayrallah on the Fustat Plateau] was simple to make sure people could move down them smoothly. At every fifth or sixth house, we decided to open a small street or a hara (alleyway). We wanted Vespas, taxis, and motorcycles to pass easily through the small streets. So, we made a lane, a wider path through the center of the buildings. People decided to construct their houses more in alignment, one beside the other.... Together we planned and laid out a nice avenue and made it pretty. We who implemented these ideas are educated people. And this despite the fact that our nas al-kubar (elders, important people, local leaders) didn't even know how to read and didn't think they knew how to create a vision of a city."

One of the residents of 'Izbat Khayrallah'- one of the informal settlements of the desert edge.

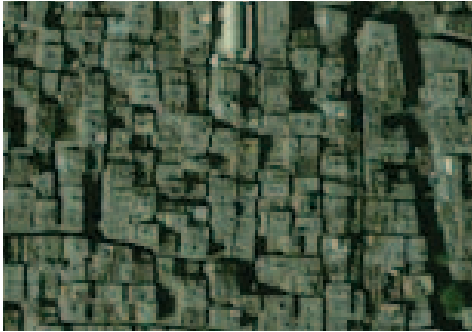


Figure 6.6. The Pixels of the Informal City Fabric
Ard al-Liwa' Neighborhood
Courtesy of GOOGLE EARTH 2012

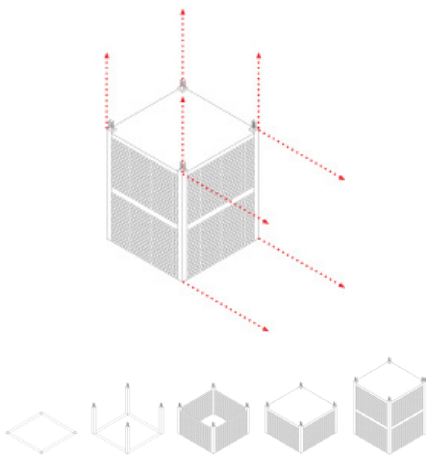


Figure 6.7. The Informal unit as a Pixel that grows
Courtesy of Pier Paolo Tamburelli

for residential areas. Most of the identified patterns are more or less rectangular. And it is common for individual agricultural parcels to be as small as one qirat (175 square meters). Multiples of holdings are normally arranged in small irrigated agricultural plots, with strips separated by small irrigation channels. These channels become then converted into access lanes separating urban subdivisions. Larger irrigation and drainage canals link these rectangular strips, and often have dikes on both sides reserved for pathways and for canal cleaning. As development in an area intensifies, these canals are eventually filled in and become the main streets, serving as both traffic collectors and major commercial and service corridors. Identified urban patterns, including block size, street network, and hierarchy of services, are thus primarily based on the agricultural and irrigation grids, generating such highly dense and expansive informal settlements.

One of the oldest residents of 'Istabl 'Antar (one of Cairo's informal settlements) explained the ways that his community planned the neighbourhood together:

"The people who came here, they have organized. So that the street is good, we have leveled the soil. I'm not greedy and that one over there isn't either; we organized the street together, we cooperated.... As for the streets, we made them together so that they would be wide for him, for you, for my son.... The road that comes from Dar al-Salam, we said 'it's the [principal] route; that one over here, it will be constructed here, that one over there, there.' We tried to make a large enough street so that people could walk together. We organized the place calmly, each one made concessions and, God willing, there aren't differences among us."

The urban subdivision of narrow rectangular plots also generates a somewhat standardized apartments building type. This typical block is then analyzed in terms of footprint, number of facades, light wells and ventilation systems, heights and number of units, as well as proportion to street width and other neighboring open spaces. Finally, the study aims at identifying key architectural detailing features that would capture the character and aesthetic vocabulary, starting from typical windows, balconies, stairwells, and skyline as well as generic elements defining the roof-scape, such as minarets, pigeon towers and satellite dishes. The process of learning from the informality intends to help develop an urban language and modes of architectural expression sensitive to its surrounding context—one that would capitalize on the process of accretion and millions of trials in such rich reservoir of local knowledge. In so doing, it hopes to offer lessons and performance-based standards that could then be further tested and systematized, potentially contributing a to a contemporary urban and architecture language in Cairo.

The Pixel Concept

In a preliminary development of the concept of a neo-vernacular architecture, which is represented in the project's architectural language and depends on the concept of the 'pixel' which is the basic unit of the informal city. It is the basic unit, which is around 4x4 meters, built with reinforced concrete and brick, and then extruded both vertically and horizontally to create the informal city. This pixel also exist in the formal sector, yet in different sizes and planned in different patterns.

The architectural language of the project, will be using a derivative of the formal and the informal pixels to create, that is, the base on which all the project's buildings will be developed. This pixel also allows flexibility in creating a mega-pixel that houses bigger spaces for certain activities, and its six sides can be changed into different materials that suits that different needs and functions.

The Open Space System

The project is mainly defined as an 'open' space, that is meant to be 'open' as an outdoor open space - a park - that is an extremely scarce element in Cairo's landscape and very much needed, as well as 'open' to everybody, as a public space that does not exclude any of the community's members, due to social, cultural or economic backgrounds. This form of a public open space are disappearing in Cairo due to the neo-liberal privatization processes, so this project attempts to allow the Cairenes to meet once more.

However, this attempt was experimented before in the only park of its kind in Cairo, which is al-Azhar park, developed by the Agha Khan Trust for Architecture. This park can be considered successful in containing the majority of the Cairene community within one park space, at a small wage of one dollar per person, an offering a less fee to the neighboring popular neighborhood residents at half a dollar person. This park, when built, provided a new experience for Cairo's residents with a vast open space in the dense and polluted city fabric. And although formal Cairo had a network of parks, yet the lack of appropriate maintenance kept the majority of residents out. Thus, al-azhar park is meant to be integrated within the city scale strategy as one of the points of "thresholds".

The Ard al-Liwa park, was to be developed into a number of gathering spaces as piazzas, squares, as well as recreational areas, and sports facilities. yet, all of these areas are developed within urban agricultural plots reserving the agricultural nature of the site and providing a productive space for the residents of both communities.

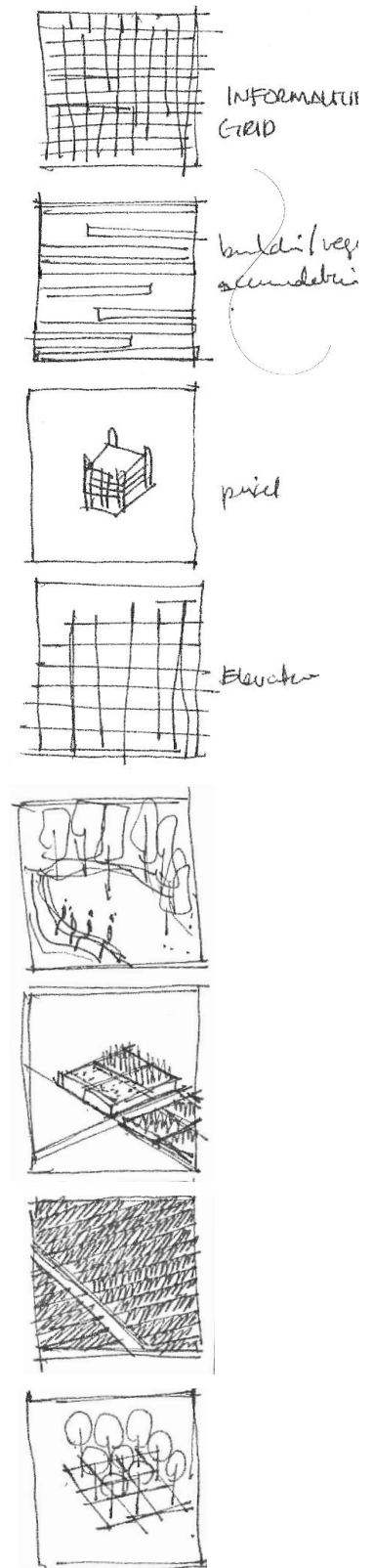


Figure 6.8. The pixel and the grid
 Courtesy of Noheir Elgendy

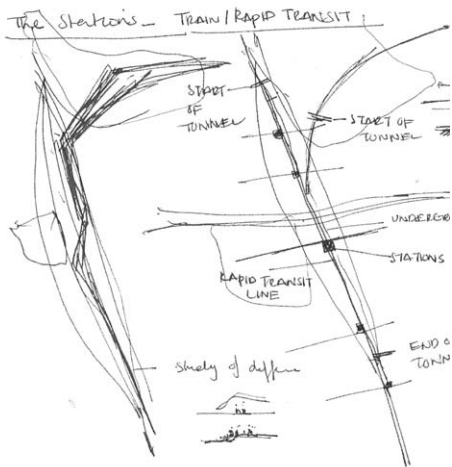


Figure 6.9. The Infrastructural System
Courtesy of Noheir Elgendy

The Infrastructural System

The project was developed to follow the spatial configuration of the margin, which includes the rail road line, al-Zomor irrigation canal, al-Sudan street at the formal side, and Ter'et al-Zomor street at the informal side. The masterplan uses each of these infrastructural armatures to serve the residents of the parallel neighborhoods creating; a green corridor along the irrigation canal; a rapid transport line along the rail road line to serve as a public transport system along the two neighborhoods; as well as the redevelopment of al-Sudan and Ter'et al-Zomor streets.

The second form of the infrastructural network is the chain of spaces bridging the two neighborhoods on either sides of the park, connecting the two parallel neighborhoods, connecting the residual open spaces in both the formal and informal sectors, strengthening the ties between them and providing a continuous landscape within the city fabric.

However, the three systems consider the fact that the project site is originally a piece of agricultural land, similar to the majority of informal settlements in Cairo, and the projects aims to preserve these areas as a way to preserve the relation of the city to the countryside.



Map 6.6. The project site map in the 1960s showing the area as a rural land without any traces of urbanization

Built Up - The Grid

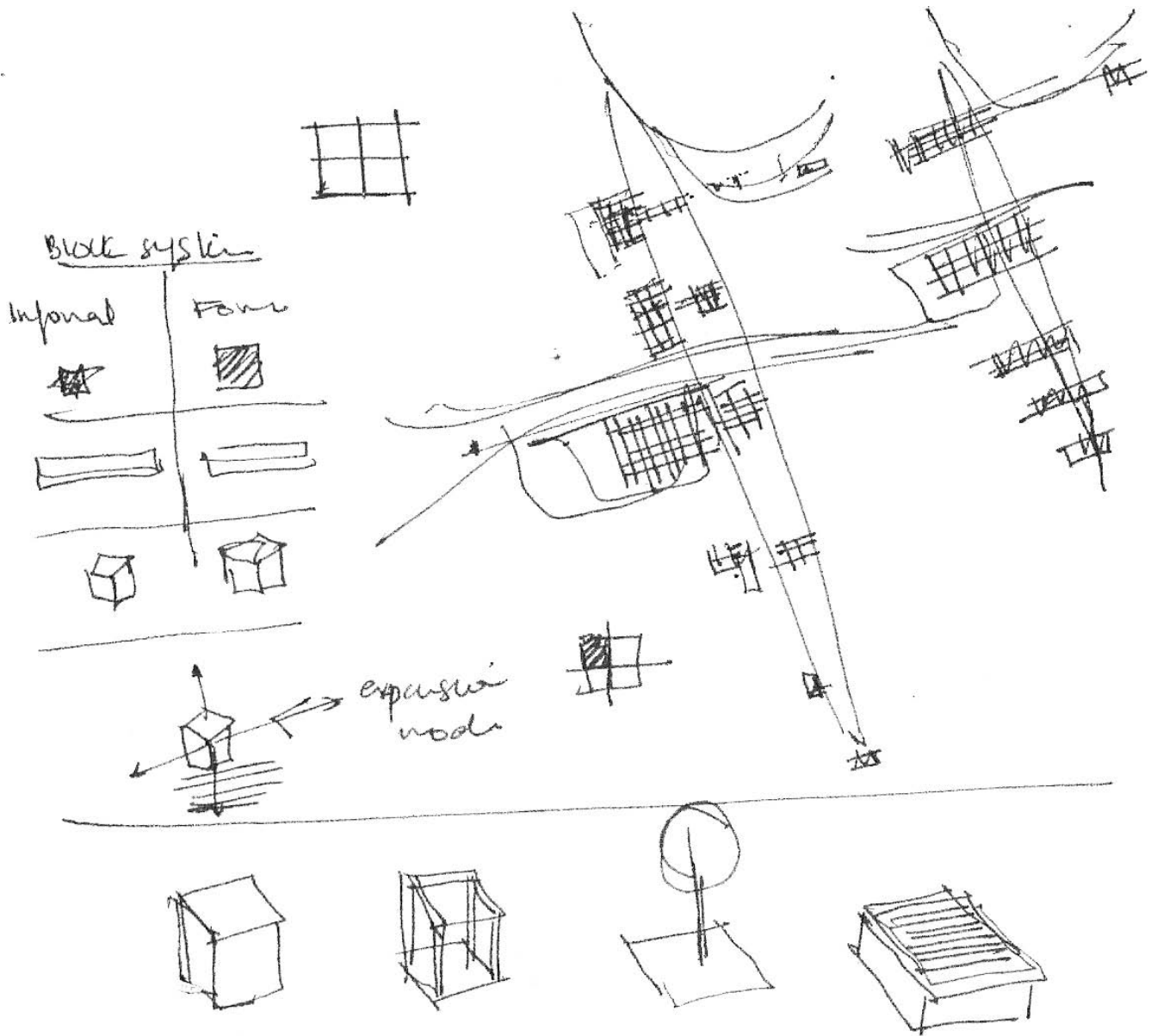


Figure 6.10. The Built Up Grid
Courtesy of Noheir Elgendy

Open Spaces

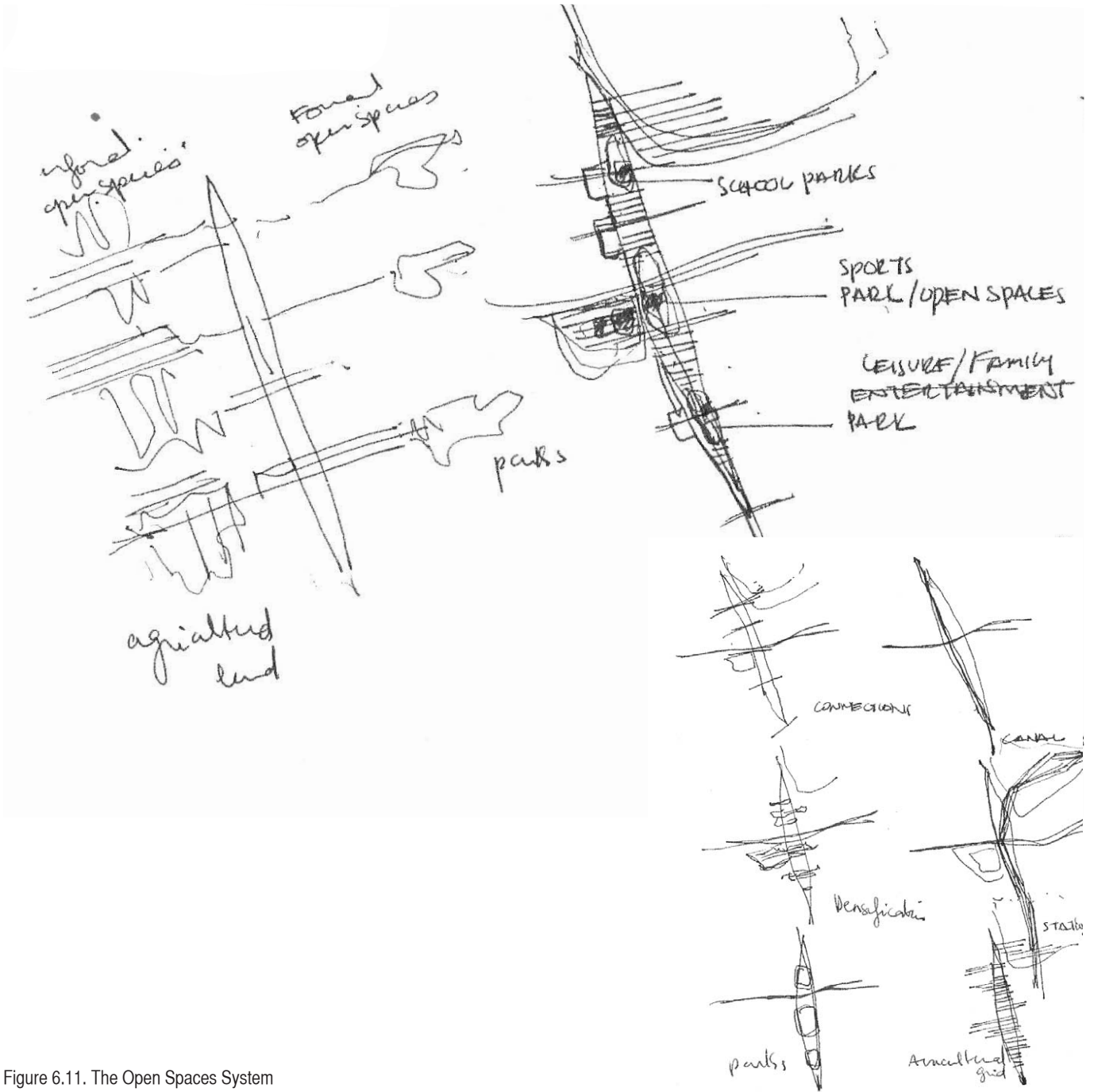


Figure 6.11. The Open Spaces System
Courtesy of Noheir Elgendy



Figure 6.12. Preliminary physical model of the project



Figure 6.13. The project as a continuation of the agriculture grid.



Figure 6.14. The grid based on the pixels concept

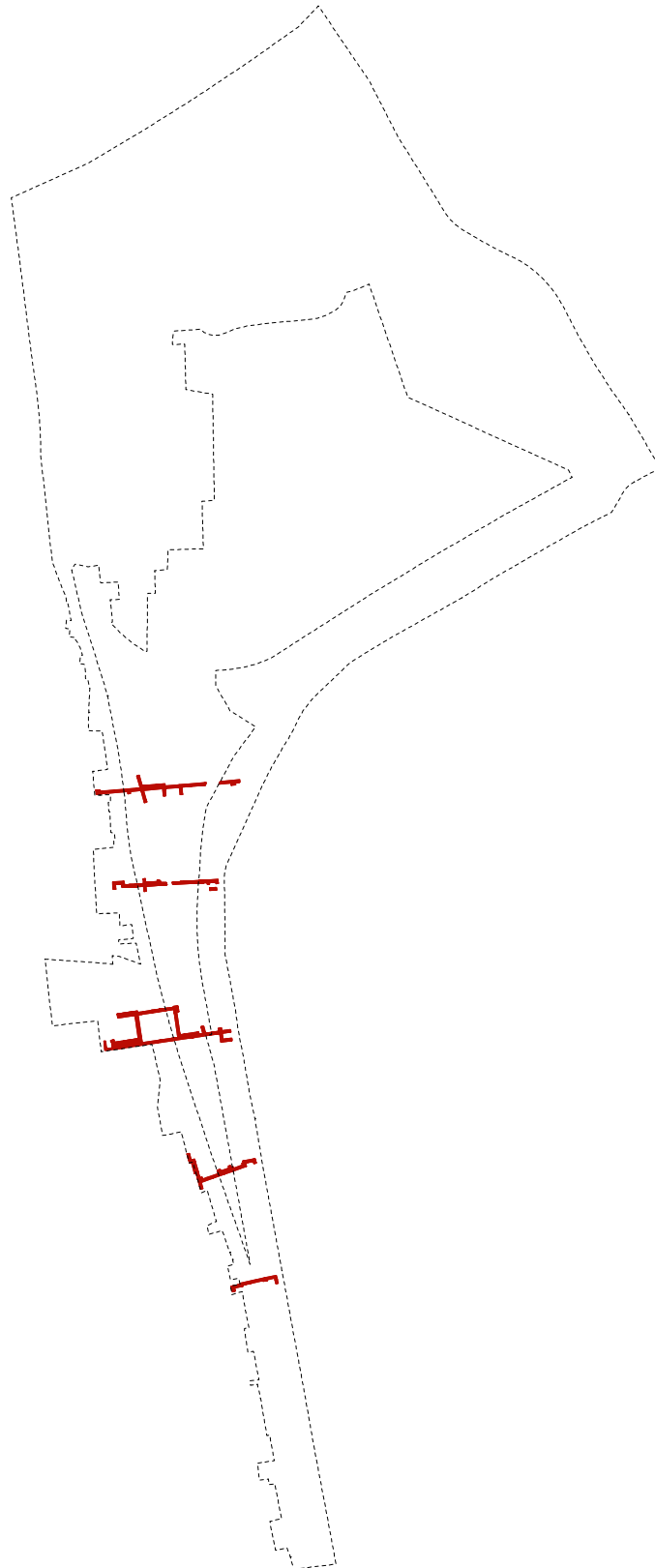


Figure 6.15. The connecting links and bridges



Figure 6.16. The Project Infrastructural network



Figure 6.17.The project chains of spaces



Figure 6.18.The Shaded Spaces

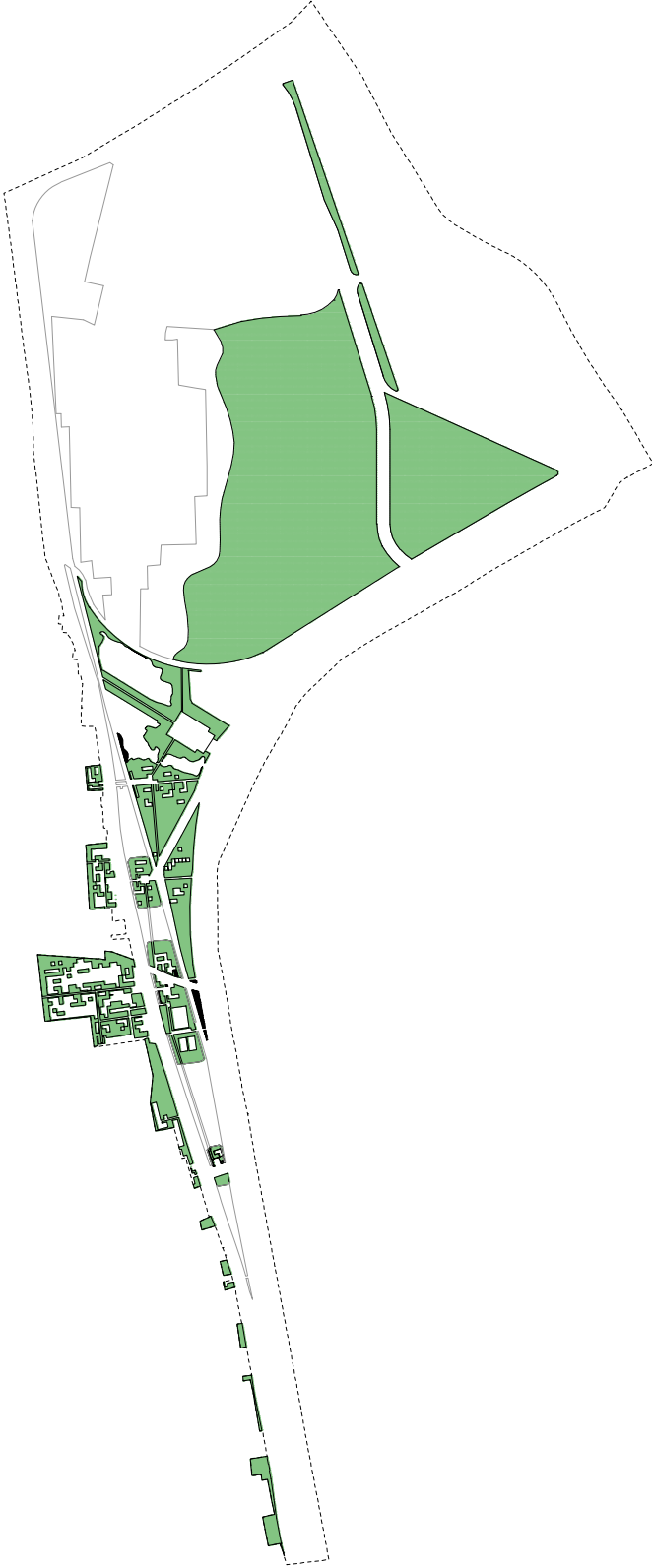
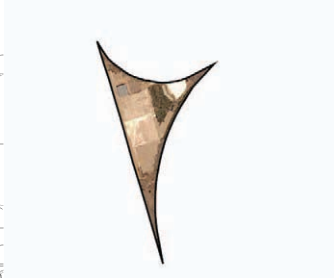


Figure 6.19. The Recreational Areas

Site Configuration



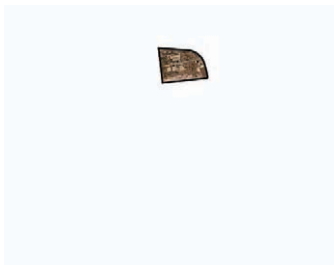
01 Imbaba Park Project Site
 The site was originally an airport, and was planned to be transformed into a grand park with residential buildings, commercial activities and office towers. The project aims at redeveloping the neighbouring informal settlements of Imbaba, Mit-Oqba and Ard al-Liwa. The project site as a park would be integrated within the overall masterplan.



02 The Railways Authority Site
 The site belongs to the Railway authority and was dedicated to store the materials for the rail road maintenance, however the site is no longer used for that purpose and is left unused. The site offers a potential site for a Train station on the western side of the city.



03 Al-Awqaf (Endowment) Site
 The site is originally a residual agricultural plot that belonged to the Ministry of Endowment. In 2012, the site was meant to be transformed into a social housing project, however Ard al-Liwa community claimed for their rights as an open space including the lacked services in their area, and they managed to get the approval of the prime minister on that.



04 The Sewage Station Site
 The site includes a sewage station that is to be moved out of the residential zone. The site will be turned into a brownfield that could be integrated within the whole masterplan site, as it offers an opportunity to host the main services and built structures needed in the informal neighbourhood within the fabric leaving the park area free of buildings.

Figure 6.20. The Site Configuration



Figure 6.21. The project masterplan proposal

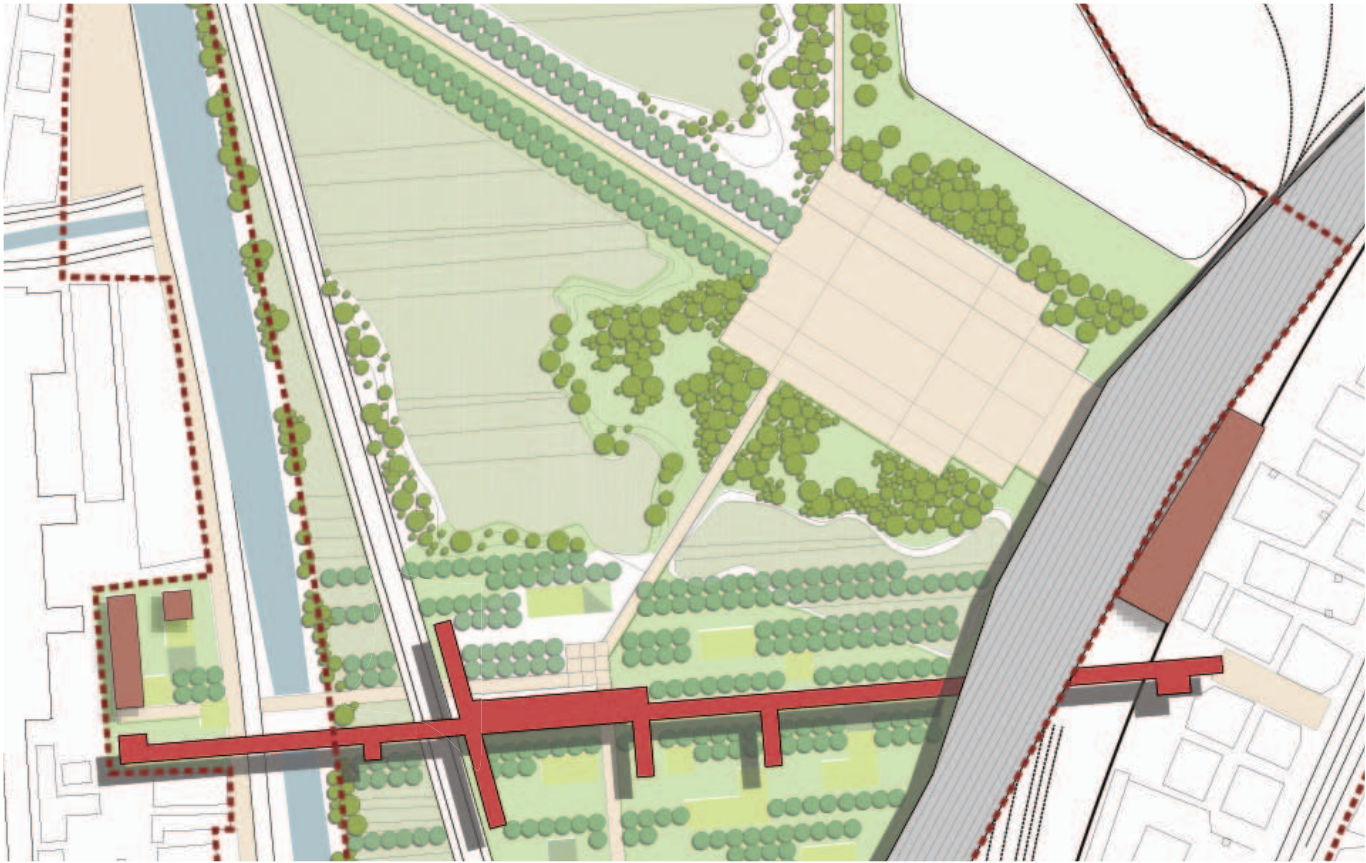
Link 01: The Entrance Piazza and the Connection to the station

Figure 6.22. Link 01: The Entrance Piazza and the Connection to the station

Entrance Plaza: A Gateway and Train Station

The entrance plaza is considered as a main crossing point bridging to the city at large as well as a gateway to the park and is surrounded by a cluster of commercial activities that would generate necessary revenue for the Park maintenance. Furthermore, it offers an opportunity to house service buildings for the district of Ard al-Liwa. The entrance plaza is situated in front of the Train Station that is created on the site as a parallel train station on the eastern site of the city to the only station in Ramses Square.

Entrance Piazza Program:

Piazza: 600m²

Cafeteria: 100m²

2 MPUs: 100m² each

Courtyard: 300m²

Footprint: 500m²

Train Station Program:

Train Station: 10000m²

Shaded Outdoor Area: 20000m²

Footprint: 30000m²

Link 02: The Azharite School and Training Center Connection

Figure 6.23. Link 02: The Azharite School and Training Center

Azharite School

The Azharite School is a response to the community aspirations for a moderate religious education, which, along with the cultural center, constitutes a hub for innovative and creative thinking.

School Program:

Capacity: 2 classes/year, 6 classes/floor (180m²)

Floor 01: 1st to 3rd primary

Floor 02: 4th to 6th primary

Floor 03: 3years preparatory

Floor 04: 3years Secondary

Facilities area/floor: 360m²

Courtyard 450m²

Footprint:540 m²

Link 03: The Municipal Buildings, Cultural and Sports Center and Health Care Connection



Figure 6.24. Link 03: The Municipal Buildings, Cultural and Sports Center and Health Care Connection

Culture Centre

The cultural plaza occupies the spatial center of the Park and a center of gravity of its activities. It aims at converting the left-over space under the 26th of July Corridor into spaces of artistic production, such as theaters, exhibit halls and open spaces.

Culture Center Program:

- Theatre: 300m²
- Open exhibition: 200m²
- Cafeteria: 100m²
- 2 MPUs: 100m² each
- Artists Residence: 200m²
- 5 workshops: 15m² each
- Courtyard: 300m²
- Footprint: 800m²

Recreational, Sports and Training Center

The Sports and recreational plaza includes a number of courts and playfields and is surrounded by a cluster of steps and viewing platforms, which constitute together a proper stadium for Ard al-Liwa that would host sports events and festivals. This node also includes a vocational training center for crafts and small industries prevailing in the neighborhood and interests the parallel neighborhood of Muhandessin.

Technical High School Program:

- 3 workshops: 200m² each
- Theoretical learning sector:
- 3 classes/year: 140m²
- Service building: 50m²
- Courtyard: 600m²
- Footprint: 800m²

Health Center and Emergency Hospital

A health and wellness center is proposed within the urban fabric of Ard al-Liwa neighborhood, and includes an emergency hospital as well as necessary medical services that are lacking in the neighborhood. In order to extend the domain of its service provision and increase accessibility, it is developed on one of the main streets of Ard al-Liwa.

Hospital Program

- Hospital capacity: 50 beds
- Specialities :Outpatient clinics / Emergency/ Kidney Dialysis/ Labs and X-Rays/ Gynecology & Obstetrics Dept.Total area: 5000m²
- Footprint: 1200m²

Link 04: The Connection between the Formal and Informal means of transportation

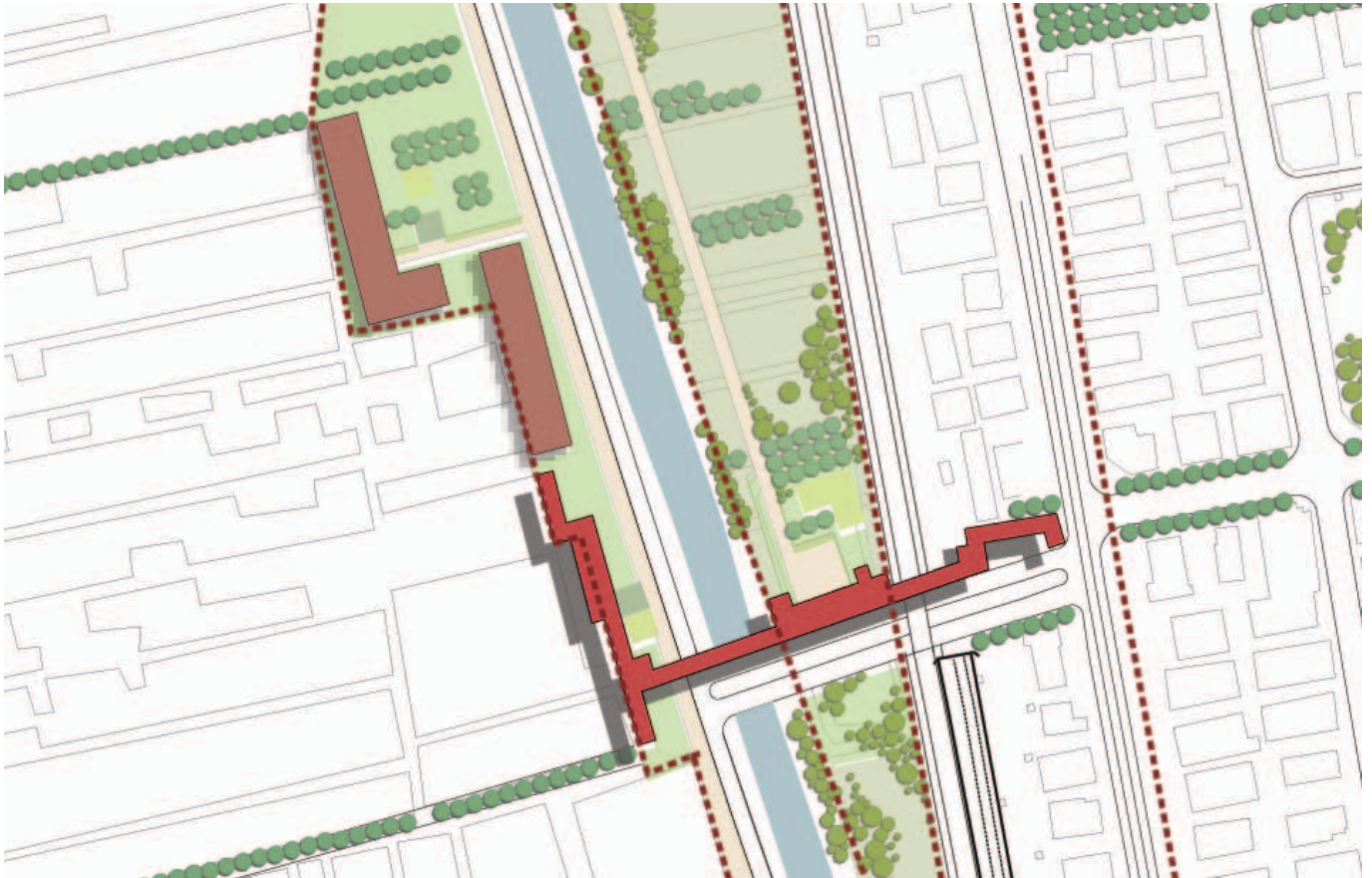


Figure 6.25. Link 04: The Connection between the Formal and Informal means of transportation

The Transportation Hub

The link is meant to connect the two existing formal and informal transportation stations on both sides of the site into a transportation hub that connects the regional and the rapid transit lines to the formal Bus station in al Sudan street and the informal Microbuses and Tuktuks. This link also has the opportunity of being on the only existing pedestrian and vehicular connection between the two neighborhoods and thus its location is known by both residents



Figure 6.26. The project contextual section





Figure 6.27. The Project Model - Bird's eye overlooking the project

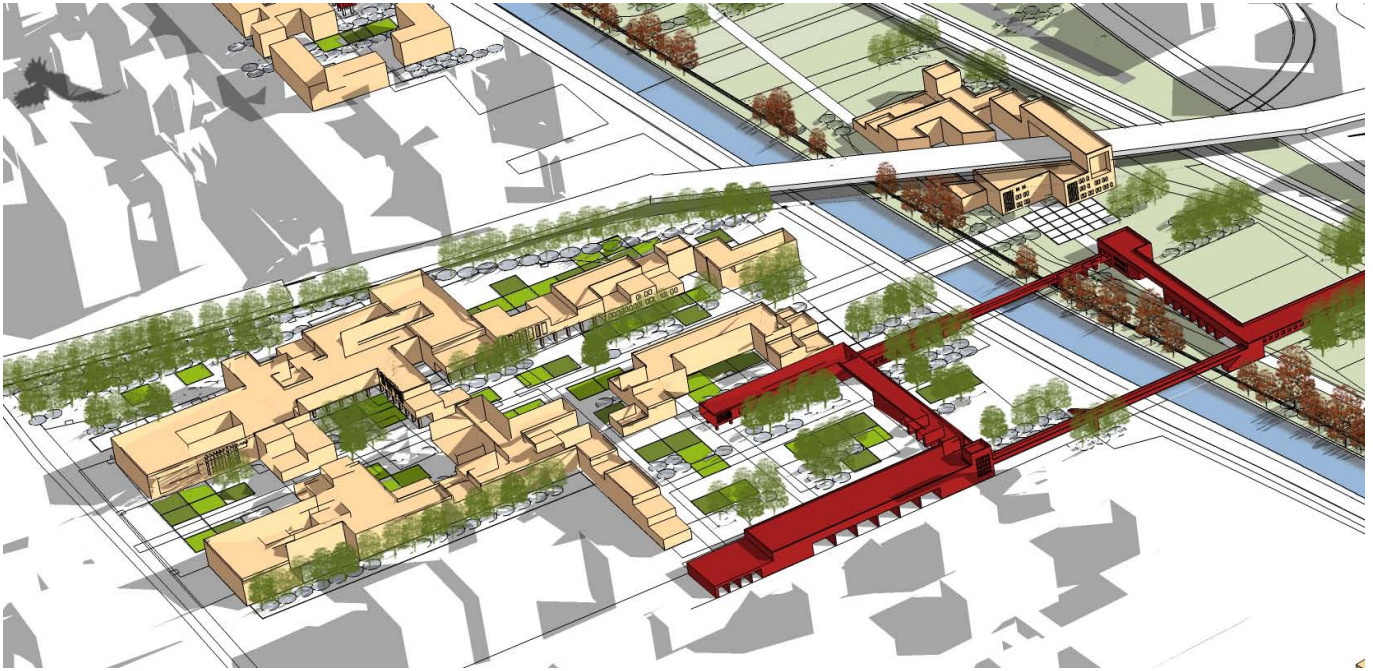


Figure 6.28. The Link 02 Shot

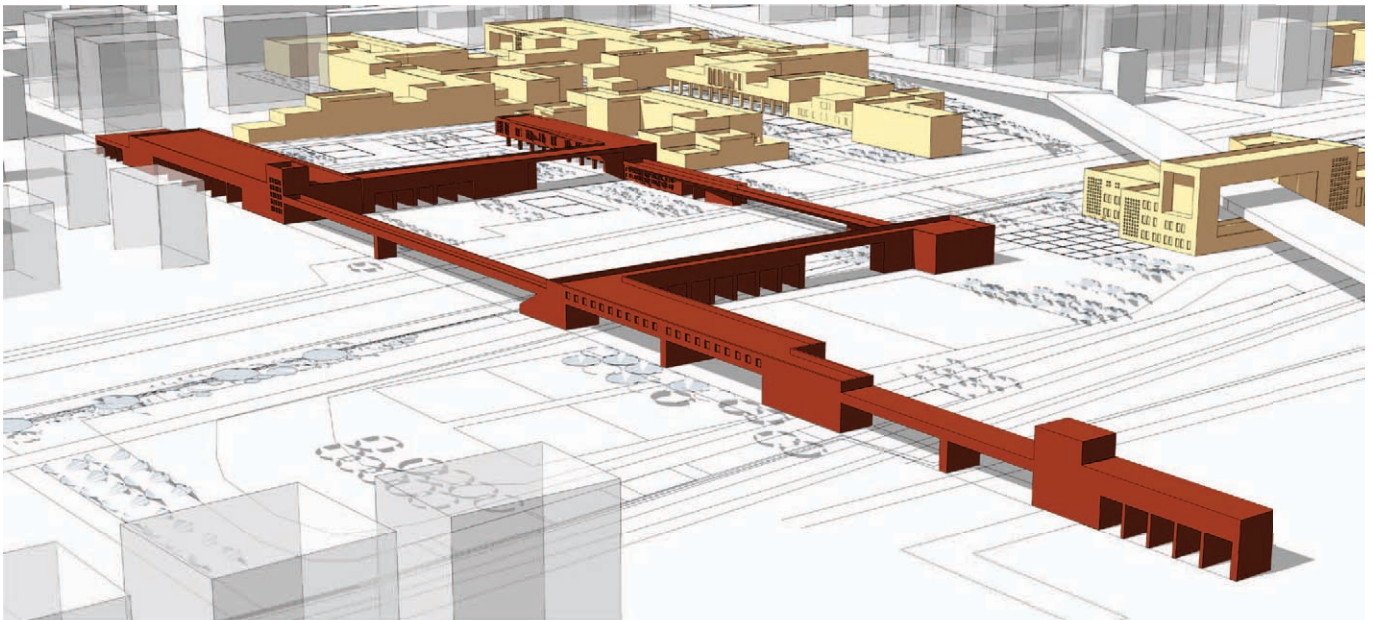


Figure 6.29. The Project Link 02 Massing Study

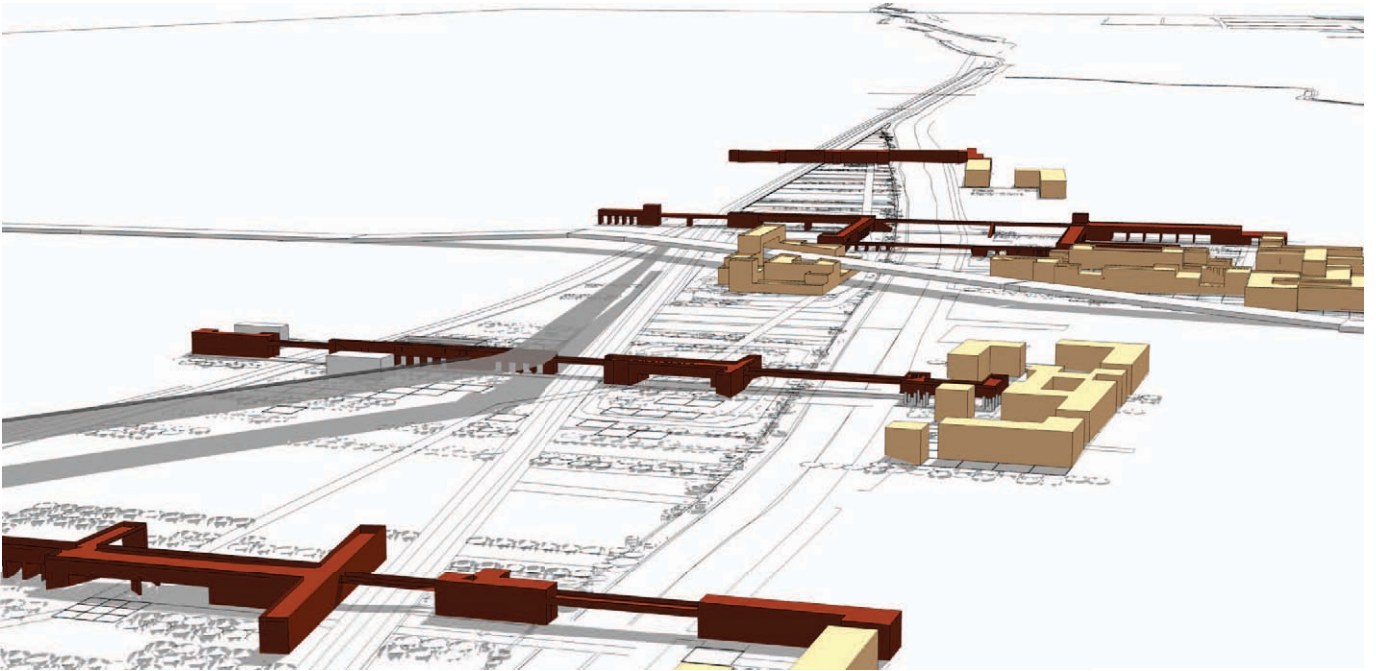


Figure 6.30. The Connections



Figure 6.31. Shot Under the Bridge

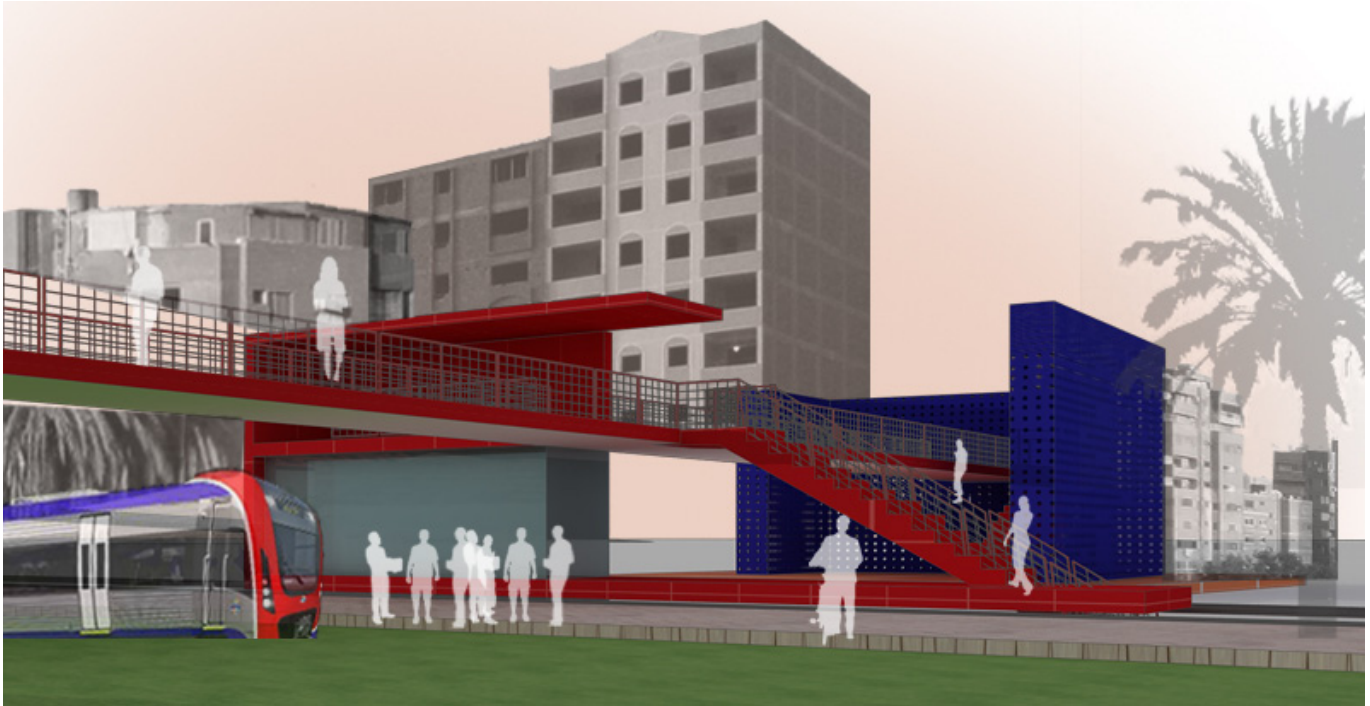


Figure 6.32. Photomontage of the connection in relation to the rapid transit - Courtesy of CLUSTER



Figure 6.33 The cultural center below the 26th of July bridge - Courtesy of CLUSTER



Figure 6.34. A photomontage of the cultural piazza - Courtesy of CLUSTER

“The definition of a good city lies in the realm of ideology. There is not a scientifically or technically correct or incorrect way of making a city. Defining what makes a good city is more a matter of heart and soul than of engineering. It is more akin to an art than to a science. Yet, despite the subjective nature of urbanism, a government must adopt a vision and promote it, make decisions, build, define rules and enforce them – it must not only envision but also enact the city. If a good city is society’s collective work of art, then its government acts as the piece’s conductor and often its composer as well.”

Enrique Ponalosa, 2007

“... in an open city, as in the natural world, social and visual forms mutate through chance variation; people can best absorb, participate, and adapt to change if it happens step-by-lived-step. This is evolutionary urban time, the slow time needed for an urban culture to take root, then to foster, then to absorb chance and change. “

Richard Sennett, 2006

Conclusion

Ard al-Liwa Park Project offers an opportunity to engage new modes of practice as well as alternative forms of urban and architectural expression. On the one hand, the process whereby the project was conceived, negotiated, and approved, defies the classic “participatory planning” as well as the hailed public-private partnership (PPP) models. Instead, it suggests a framework whereby the community takes the initiative, proposes an alternative vision to governmental plans, then invites architects, planners, and policy makers on board, in a truly bottom-up model of development. Secondly, the strategic location of the project straddling the formal-informal divide provides an opportunity, to experiment the city scale open spaces network, that lies on the formal/informal margin. Applying the urban scale concepts of the ‘threshold’ spaces and the ‘chains of spaces’, to investigate the possibility for intervention in such a complex situation of the city margin. Planning interventions that would not only respond to many of the needs lacking within underserved informal areas, but also potentially help restructure the distorted relationship between formal and informal parts of the city, from one of dependency, marginalization and exclusion, to one of integration and interdependence.

Building on the experience of Ard al-Liwa Community Park, this project aims at highlighting the significance of an emerging urban order, redefining the role of professionals and academics amidst a fast-changing urban landscape. The project suggests ways in which such model may offer an alternative developmental approach to informal areas in Egypt, where states have become increasingly unable to cope, both economically and politically, with the magnitude of the informal urbanization process.

Lastly, the project attempts to offer a platform to test new urban and architectural language that are distilled from the reservoir of local knowledge and building tradition in informal housing areas. Such tradition has for decades been dismissed as illegitimate and chaotic. If implemented, Ard al-Liwa project could potentially stand as an example for an urban revolution in the making.

Bibliography- Chapter 06

Arnstein, S., 1969. A Ladder of Citizen Participation. *Journal of the American Institute of Planners*.

Deboulet, A., 2009. The Dictatorship of the Straight Line and the Myth of Social Disorder. In D. Singerman, ed. *Contested: Governance, Urban Space and Global Modernity*. Cairo: The American University in Cairo Press.

Egyptian Ministry of Awqaf Projects' Department, 2009. *Housing project on Waqf Moham-ed Sinan, Ard al-Liwa*.

Elkadi, G., 2009. *Al-Tahddur al-"Ashwa"i, Cairo: Al Majlis al-A'la lil-Tarjama wa-al-Nashr*.

Enrique Ponalosa, 2007. Politics, Power, Cities . In R. Burdett & D. Sudjic, eds. *The End-less City* . Phaidon Press Limited .

Gad, H., 2011. *Action Plan for the Development of Ard al-Liwa, Giza Governorate*.(in progress)

Maezia, M., 1998. Traces reguliers, traces regulateurs. In J. Dakhli, ed. *Urbanite arabe*. Paris: Sindbad-Actes Sud.

Ministry of Housing and General Organization for Physical Planning, 2012. *Detailed Plan for Ard al-Liwa, Study of Existing Condition*. (in progress)

Ministry of Housing and Infrastructure and Development and General Organization for Physical Planning and Cairo University Faculty of Urban Planning, 2009. The General Strategic Plan for the municipal unit of Ard al-Liwa Villa,Kirdasa Township. , Cairo.

Nagati, O., 2012. Informalization as an urban revolt: Reclaiming space, reproducing "order". In *Re-evaluating the Postcolonial City: Production, Reconstruction, Representation*,. University of Leeds.

Nagati, O. & Stryker, B., 2012. *Archiving a city in flux: Cairo's evolving Urbanism pre and post-Revolution*.

Olmsted, F.L., 1870. Public Parks and the Enlargement of Towns, American Social Science Association. In R. Burdett & D. Sudjic, eds. *The Endless City*. Phaidon Press Limited.

Raymond, H., 1984. *L'architecture: Les aventures spatiales de la raison*, Paris: Centre de Creation Industrielle, Centre Georges Pompidou.

Sennet, R., 2006. *The Open City*, Berlin: Urban Age.

Sims, D., 2003. *The Case of Cairo, Egypt. In Understanding Slums:Case Studies for the Global Report 2003*. London: UN-Habitat and Development Planning Unit, University College London. Available at: http://www.ucl.ac.uk/dpu-projects/Global_Report/cities/cairo.htm (accesses September 2011).

Sims, D., 2010. *Understanding Cairo: The Logic of a City Out of Control*, Cairo: The American University in Cairo Press.

Sejourne, M., 2006. *Les politiques recentes de "traitement" des quartiers illegaux au Caire: Nouveaux enjeux et configuration du systeme d'acteurs.*

Part 03

THEORY | PRACTICE



Figure 7.1. Practicing the informality
Photograph by Mariam Korashy

Chapter 07

7.0 THEORIZING THE PARALLEL CITY.

7.1 Governing the Parallel City
The Government Approach
The Logic of Neglection
Demolishing the Informal City
The Futuristic Vision: Cairo 2050

7.2 Formalizing the Parallel City
Lino's Cafe' Initiative
Al- Mi'timdya Initiative
Ard al-Liwa Park Initiative

7.3 Negotiating New Modes of Practice
Learning from Ard al-Liwa Project
The Current practices within the Informal City
Defining possible modes of practice

Conclusion

“Theory in the social sciences is intended to explain phenomena and provide a framework for understanding...Theory can inform practice and practice can inform theory.”

“While good city planning needs to be inspired by a vision of the end results, and should be informed by theory, in democracy city planning is never achieved without conflict. Planners, citizens, local elected officials, developers and others invariably have different views on what a city should be like and how to, build it”

Frederic Stout, 2007

“There is a definite mismatch between the world of current planning theory, on the one hand, and the other hand. The one is the quintessence of order and reason in relation to the other which is full of disorder and unreason. Conventional theorists then set about resolving this mismatch between theory and reality by introducing the notion that planning theory is in any case not so much an attempt to explain the world as it is but as it ought to be. Planning theory then sets itself the task of rationalizing the irrationalities, and seeks to materialize itself in social and historical reality by bringing to bear upon the world a set of abstract, independent, and transcendent norms.”

Scott and Rowe, 1977

The first two parts of the thesis deal with the transformation process that occurred to the contemporary cities, turning them into a set of fragmented enclaves. Taking Greater Cairo as an example, that has undergone several processes of fragmentation and segregation in an attempt to understand that phenomenon. The goal of the first two parts of the thesis was to understand the processes of fragmentation of city's fabric into separate entities that interconnected to create two parallel cities to Cairo, the informal city and the desert city. Thus, Greater Cairo was divided into three parallel cities, the formal city, the desert city and the informal city. Thus, the first part of the thesis aimed at investigating that phenomenon in the contemporary cities, with a specialized study on Cairo. While the second part, was focused on the formal/informal metadiscourse, with a practical investigation of its patterns and processes and its physical implication on the form and the structure of the city. Stratifying the city layers, and proposing a multi-scalar strategy for redeveloping the relation between the parallel cities. This was experimented on a project that acted as a model for developing the formal/informal relationship

The third and the conclusive part of the thesis aims at addressing this phenomenon and its significance in relation to both theory and practice. The processes of formalization and informalization of the city attracted lots of researches, academics, and theorists, yet what this has to do with reality? The future of the informal city and consequently Greater Cairo, is dependant on understanding the phenomenon and proposing sensitive solutions. The undergoing processes of formalization exemplified in Ard al-Liwa park project, present a change in paradigms, an urban revolution in the making. This requires a deep understanding of all the actors involved, starting from the policy makers, to the city residents, and identifying the role of urban planners, theorists, and practitioners, within that changing urban order.

This chapter attempts to highlight the governmental approaches dealing with the informal sector, in relation to the formalization initiatives that is currently practiced on ground, by the informal city inhabitants, and inspired by the 25th of January revolution. Addressing and questioning the role of the urban planner, within the discourses of theory and practice, in dealing with the formal and informal cities, that are continuously changing the city landscape.

7.1 Governing the Parallel City

Understanding the governmental approaches that deal with the informal city is essential to understand the reasons beyond the current relationships between the formal and the informal cities as well as the future of these relationships. The government presented in the planners and the policy makers have changed their approach towards the informal sector of the city, several times. Starting from complete neglect, as if they never existed, to marginalization and stigmatization, which lead to proposing the demolition of all the informal settlements. However, this strategy proved to be a failure, so the government started to develop an approach of controlling the growth and sprawl of the informal city, through *tahzim* (a belting and containment) strategy. Each of these approaches have affected the relationship between the formal and the informal cities and deepened the gaps and borders between their inhabitants. This section attempts to summarize the changes in policies and approaches towards the informal city, as well as the proposed futuristic approaches presented in Cairo 2050 report, and how realistic and applicable these approaches are?

“The burden of my argument is that city planning failed to adopt the planning method, choosing instead to impose input bundles, including regulatory constraints, on the basis of ideologically defined images of goodness. I am urging, as an alternative, that planning tries out the planning idea and the planning method.”

Webber, 1969

The Government Approach

As has been repeatedly acknowledged, the phenomenon of informal areas is closely tied to the lack of an effective housing and urban development policy in Egypt. Although centralized decision making and the imbalanced distribution of resources across regions are improving, a housing and urban development strategy for Egypt still takes the form of a series of projects, implemented but not monitored and evaluated so as to provide a strong basis for successful policies. Numerous New Towns in the desert were planned and implemented during the 1970s to accommodate the increasing urban population and to protect the Nile Valley from overcrowding to prevent loss of fertile agriculture land. These cities did not attain their target population despite the continuous efforts of the government. The problem is multi-faceted. First, there is the tendency of the government to tie the success of the New Towns to political agendas, which leads to a repeated denial of their failure. Another mistake has been to insist on following divisive master planning principles which have been shown to be unsustainable and do not yield liveable places in aspects such as safety, convenience, and community building. Very little time has been spent understanding how urban life and urban systems work, and the focus has been solely on speedy implementation and the meeting of political agendas. Instead of providing land for people to build on under zoning regulations that ensure sustainable and adequately serviced extensions of cities and new communities, the government has taken it upon itself to provide a fully developed ‘product’ that residents should not change or develop further. The idea of government as provider of housing came after World War II to solve certain pressing problems, but has been challenged over the decades, being substituted since the 1980s with the government in the role of enabler or facilitator.

Applied research has shown that when the poor realize that investments in the built environment benefits them directly, they are willing to pay. The more value-for-cost, the more they pay. Once again, the informal areas hold lessons for policy makers in this regard. Unfortunately, the huge investments that residents are making is not recognized as a potential source of income by the government, and there is still a lack of interest in understanding when and why residents of informal areas are willing to invest in their residential environments.

“City creation or urbanism is thus based on an anachronism: governmental intervention. Urbanism has to do with community and society decisions, enforced through some form of government. It is not possible to leave it up to them as to whether there should be parks and if yes, whether or how big they should be, and whether there should be a mixture of residential and commercial buildings. The fact that government intervention is essential, together with the reality that there are multiple possible designs for a city, makes urbanism one of the few remaining realms of ideology.”

Enrique Ponalosa, 2007

Yet, the government still insist on building neighborhoods that are inconvenient, wasteful, and unsustainable. One reason is that they look good on paper, with neatly-delineated shapes and separated color codes. They are easy for politicians to understand, and easy for contractors to implement. Such recipes, easy for consulting firms to produce and reproduce, save time and money, since more complex designs would require multi-disciplinary teams and a participatory process with local authorities and user-representative groups by the government. The norm is that the demand directs the characteristics of the supply. In housing, this means that the location, dwelling size, and neighborhood design are shaped by what people need most, accommodating variety in household size, priorities, and lifestyles. Research shows that in existing city districts, and surprisingly enough in informal areas, the housing supply does reflect this variety in the demand. Filling entire neighborhoods and districts with thousands of apartments, all of which have the same design, is not realistic, clusters around undefined spaces that are too expensive to landscape or maintain.

The Logic of Neglection

The Egyptian state's negligent governance of Cairo thus cannot be entirely the result of insufficient resources. The authoritarian and patrimonial character of the contemporary political order. While Egypt's rulers have considerable powers to act without bottom-up consent, their capacity to penetrate and mobilize Egyptian society is consequently circumscribed. For example, the absence of democratic bargaining contributes to state-society disengagement and limits the possibility of social regulation. The exigencies of regime reproduction, clientelism, and top-down distribution have exhausted state capacities. Finally, the state's tendency to risk avoidance may well stem from the denial of formal representation and participation, at least by peaceful means, to the people. In general terms, therefore, the Egyptian state can be seen as a “lame leviathan,” appearing “both as domineering and authoritarian and as ineffective, rickety, and porous,” with one observer going so far as to assert that it really controls only the “main axes” of the country (Munro, 1998; Rousillon, 1998)

It is manifest throughout informal Cairo. Given the scarcity of land available for officially sanctioned development, access to formal housing historically has been an important spoil in the clientilistic politics through which Egypt is ruled (Harik, 1997). Increasingly priced out of the formal private market since the 1970s, the people also have had little access to public housing. This consists of relatively small num-

bers of finished apartment blocs, the construction of which has been highly, subsidized, with access depending on clientelist connections (Hassan, 1985; Taher, 1986). Not surprisingly, many Cairenes in search of housing have entered the informal housing sector despite the absence of state recognition and the inadequacy of urban services (Bayat and Denis, 2000).

Neglectful rule also helps explain the durability of informal communities in the face of apparent official hostility. Given their preoccupation with direct challenges to their power, Egypt's rulers likely have had little capacity to police the seemingly peripheral zones of Egyptian society (Abt Associates with Dames and Moore and General Organization of Housing, Building and Planning Research, 1982). In some cases, state officials have found it profitable to turn a blind eye to informal urbanization (Fahmy, 2004). In others, they may tacitly have encouraged such settlements as a means of housing low-income Cairenes at minimal state expense (Tekce, Oldham, and Shorter, 1994). Such clientelism has not been purely a top-down phenomenon. Informal communities have often been able –via such clientelist mechanisms as intermediary notables or “relatives and friends located at different levels of the vast bureaucracy”- to gain gradual access to state services and avoid removal (Tekce, Oldham, and Shorter, 1994).

Demolishing the Informal City

In aggregate terms, however the informal housing sector is highly resilient... As of 2000, approximately 82 percent of the informal city had been developed on privately held agricultural land and 9 percent had been built in state-owned desert areas (Sims, 2000). In the areas built on agricultural land, the state has tried merely to restrain further informal growth, with only limited effect (Sims, 2003)

As authoritarian governments allegedly are more likely to undertake urban redevelopment by means of demolition, the Egyptian state's relative tolerance of the Cairo informalities throughout the 1980s and 1990s needs to be explained (Hardoy and Satterthwaite, 1989). Two potential explanations, each of which has some of the qualities of a metanarrative, are immediately obvious. The first, is that of popular agency, bottom-up resistance, and subaltern protest, by which communities block state efforts to demolish them. There are numerous references in the secondary literature on Cairo, again necessarily anecdotal, to protracted struggles between the state authorities and informal homesteaders whose dogged persistence allowed them to outlast the police and resist removal. To quote from one account, set in the 1960s, of a squatter community in the industrial district of Helwan, some forty kilometers to the south of the city center, “The police used to come every day with a van. Wherever they found a hut they would call the bulldozer and knock it down. But the next morning they would come and find it rebuilt just as it was with people living in it !... After four months the police stopped chasing us and destroying our houses”(El-Messiri, 1985)

In 1998, in Ard al-Liwa', the Zarayib area was threatened with removal to make

way for access ramps connecting the Sixth of October satellite city road to the Cairo Ring Road. Again, members of the community sought outside assistance, in this case from a legal NGO, the Center for Human Rights Legal Aid. Coordinating the defense of the community, was a loose network of community members and activists, some affiliated with the leftist Tagammu' Party, calling themselves the Popular Committee for the Defense of the People of Ard al-Liwa'. Their efforts to obstruct the clearance included organizing court challenges, mobilizing residents of the Zarayib neighborhood against the clearance; meeting with an activist who had secured compensation for another community threatened with demolition; publishing pamphlets setting out the injustices of the clearance; and seeking to generate sympathetic media coverage on behalf of the Zarayib community. Their efforts appear to have been successful, insofar as the community remained in place through 2001. (Dorman, 2009)

Bayat has described such struggles as "*the quiet encroachment of the ordinary*" and argued that they are "*marked by quiet, largely atomized and prolonged mobilization with episodic collective action – open and fleeting struggles without clear leadership, ideology or structured organization*" (Bayat, 2000). On the other hand, the role played by the NGOs, the Popular Committee for the Defense of the People of Ard al-Liwa', and the youth, is closer to that of a social movement in the minimal sense suggested by Charles Tilly: "*A sustained series of interactions between power holders and persons successfully claiming to speak on behalf of a constituency lacking formal representation, in the course of which those persons make publicly visible demands for changes in the distribution or exercise of power, and back those demands with public demonstrations of support*" (Tilly, 1984)

Whether in the form of quiet encroachment or a more vocal social movement, such popular agency can be seen as exerting a kind of continuous bottom-up pressure on the Egyptian state, constraining its discretion to intervene in Cairo... Egypt's rulers have long viewed Cairo principally as a security problem and vulnerable to "mass violence" that might bring it "and hence the nation to a halt" (Waterbury, 1982). As a result, they have practiced risk avoidance, eschewing evictions and demolitions that might galvanize the passive networks Bayat sees as underlying the Cairo "street," preferring to neglect the informal rather than coerce it. (Dorman, 2009)

So, if the durability of informal communities is largely in the aggregate, then it must be explained in terms of similarly large-scale factors, rather than purely micro-level tactics. A second explanation for the lack of large scale clearances may be the Egyptian state's inability to construct a sufficient number of apartments to rehouse the tens of thousands, if not millions, of Cairenes who would be displaced. Hence urban-pocket areas, with relatively small numbers of inhabitants, are the most vulnerable to demolition. By contrast, when larger, more developed settlements, such as those on the agricultural fringe more generally, "gained a certain critical mass, there were simply too many families which required forced removal or which would require alternative (public) housing" (Sims, 2000)

This explanation suggests a different sort of metanarrative: that of a weak Egyptian state ruling an underdeveloped society (Ayubi, 1995; Waterbury 1985; 1983). Not only does the state have little capacity to intervene systematically in Egyptian society, from which there are few resources to be had, but it is also itself a “major obstacle” to the society’s “economic and social development” (Palmer, Ali, and el-Sayed, 1998). Critics have long decried the state’s overcentralization, excessive red-tape, overstaffing, unskilled and apathetic employees, agencies with overlapping responsibilities, and poor internal coordination (Palmer, Ali, and el-Sayed 1988). In this context, the survival of the Cairo informal housing sector can be understood in terms of perennially impoverished state lacking the resources to intervene effectively in its capital. Although something of a cliché, this metanarrative has a measure of empirical plausibility. The expansion of informal Cairo, particularly of agricultural periphery communities, has often been understood in terms of the state’s inability to accommodate Cairo’s growth either by providing sufficient stocks of public housing or planned and serviced land suitable for formal urbanization (Harik 1997; Sims 2000; Steinberg 1990; Tekce, Oldham, and Shorter, 1994; World Bank, 1986)

The Futuristic Vision: Cairo 2050

Starting in 2008 the Egyptian government began spending considerable efforts to promote a future vision for Greater Cairo, with GOPP sponsoring a study called “Greater Cairo Strategic Planning 2050 Concept.” Using a time horizon of over forty years, and some extremely optimistic assumptions about Egypt’s demography and economic performance, government planners and their consultants have demonstrated in ‘Cairo 2050’ a continued penchant for the manufacture of unrealistic dreams. However, these dreams firmly reflect their wishes for Cairo to become a super-modern, high-tech, green, and connected city that can stand shoulder –to-shoulder with the metropolises in the world’s most advanced countries. .(Sims, 2010)

“In 2050, Egypt would become an advanced country (economically and socially) and acts effectively on the regional and international level”

Cairo 2050 Report, 2010

The features that collectively make up the ‘Cairo 2050’ vision are truly amazing, both in their daring and in their cost implications, There are to be new universities, libraries, movie studios, and specialized hospitals and museums, all of the highest international standards. There are also to be technology and research centers, new hotel and conference districts, immense new boulevards and architectural focal points. A prominent feature will be huge green areas and recreational parks, both in the city’s desert and in what are now the historic cemeteries and Nile islands. Downtown Cairo will be huge green areas and recreational parks, both in the city’s desert and in what are now the historic cemeteries and Nile islands. Downtown Cairo will be completely gentrified, and historic areas transformed into ‘open-air museums.’ Most government offices are to be relocated and concentrated into one large desert site. New central business parks are to be created on what are now poor neighborhoods. Huge office towers and hotels will spring up all along the Nile. The informal and shabby parts of Cairo are either to be removed



Figure 7.2. Cairo 2050 vision of al-Haram street , the main street leading to the puramids platform, including the demolition of large areas of informal settlements.

entirely (with the inhabitants relocated to public housing in the desert or to new neighborhoods on agricultural land to be developed by private investors), or they are to be 'decongested' by creating wide roads and green corridors that cut through major informal areas. Millions upon millions of residents in informal areas will need resettlement. .(Sims, 2010)

It hardly needs saying that few of the schemes and projects of Cairo 2050 will ever see the light of day. The colossal sums needed to finance investments will simply not materialize, and social resistance can be expected to be fierce. In a way it seems that government planners enjoy going through a rosy design exercise in which they can conveniently forget the reality that is present-day Cairo and over which the government has so little control.(Sims, 2010)

Cairo 2050 report envisions the future of Cairo by the year 2050 . It presents a reading for the current situation of Egypt and Cairo in particular and proposes strategies for development. So this proposal have produced goals on the national scale through its capital Cairo . The goals that are defined for Cairo within a national vision of Egypt 2050 are; 1)Raising quality of life standards to become one of the best 30 countries around the world instead of the current ranking (84) of the 100 countries, 2)Raising human development standards to become one of the best 30 countries in the world instead of the current ranking (111) of the 180 countries.3) Raising quality of the Egyptian production, 4) Reaching higher rates in sustainable economic development (not less than 7.5% per year), 5)Achieving social equity (between different segments of society), 6) Restructuring the demographic distribution of Egypt, to enhance the benefit of Egypt's geographical location and its natural potentials, 7) Building an integrated society in which all can enjoy the rights of citizenship, and 8) Maximizing the effectiveness of Egypt's regional role on the Arab, Islamic, and African level.

Regarding the informal city, the vision categorized the informal settlements into two main sectors and consequently how to deal with them as follows:

First :Unsecure areas

Urban Areas unsecure for the life of its inhabitants or deteriorated areas: the strategy of rehabilitation could be compensate inhabitant or provide another adequate houses for them.

Second:Unplanned areas

Informal Areas with high density: needs decentralization, providing services and housing units; those housing units could be on the same area or near to it, according to each situation.Dealing with this areas through providing open accesses and roads,essential services, facilities in pockets and vacant land ,as well as job creation for the youth

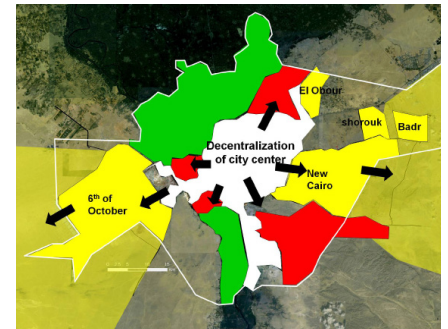


Figure 7.3. Decentralization of Cairo center and accommodate the expected population increase in 6th of October and Helwan governorate

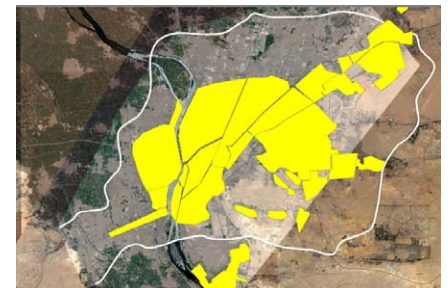


Figure 7.4. Protection and preservation of planned areas in Cairo and Giza through enforcing building regulations.

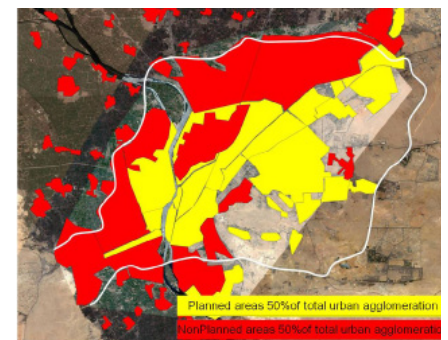


Figure 7.5. Controlling the extension of the informal unplanned areas.

The proposal identifies a strategy to control further expansions of the informal city through building planned middle class housing projects along the informal city peripheries. This proposal prevents the expansions of the informal city, which is originally illegal as it allows building on agricultural land, which is illegal. Yet, the proposal builds on the residual agricultural lands to do so, which is supposed to be illegal according to the law.

In addition to that, according to the past experiences, the informal city grew in contact with the formal city as it depends on it in the provision of main services, and when the ring road was constructed as the new city periphery, to prevent further expansions of the city and especially the informal one, on the contrary, the informal city grew around it and it increased the market value of the agricultural lands nearest to it. So, this proposal might be a reason for further extensive expansions on agricultural land.

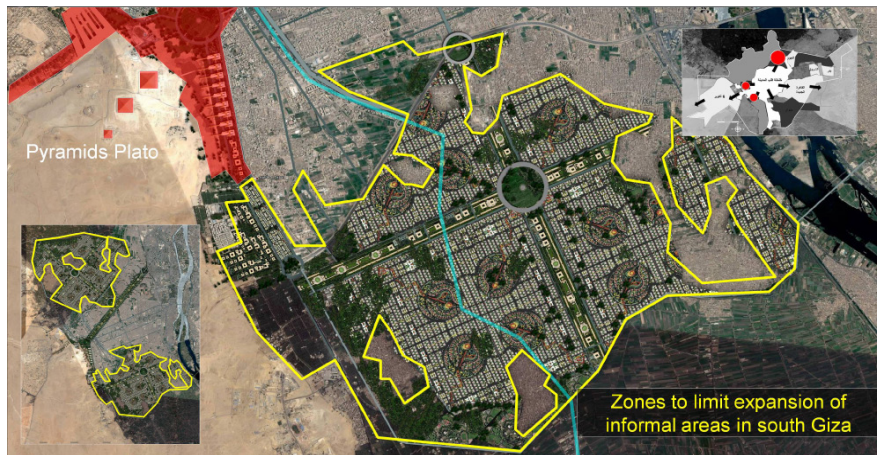
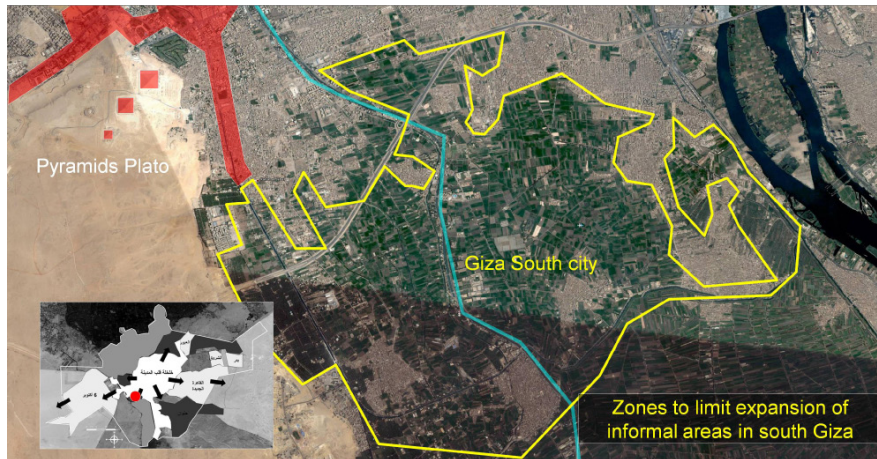


Figure 7.6. Strategy for Controlling the informal growth.

And in order to accommodate the increase in population growth the vision has provided a strategy for the decentralization and redistribution of population in Cairo and Giza, through upgrading unsecure and unplanned areas by opening new access roads, provide a suitable relocation areas (if need) on near location within the same governorate or in 6th of October or Helwan governorate.

Accommodating the expected population increase in 6th of October and Helwan governorate.;Protecting and preserving planned areas in Cairo and Giza through enforce building regulations; and dealing with unsecure and non planned areas through execution plan and precise time schedule.

Conclusion

The state's seeming inability to clear potentially threatening informal areas on a large scale reflects not simply an absence of material capacity or the bottom-up resistance of their inhabitants but also constraints embedded in the political order and its logic of top-down rule. This suggests that any comprehensive approach to urban informality requires giving such neighborhoods a measure of legal recognition and allowing them to develop a measure of social autonomy. (Dorman, 2009)

Hence the political order contributes to the reproduction of informal Cairo in two respects. First, the exigencies of authoritarian rule and clientelism constitute a substantial part of its conditions of possibility and shape its characteristics. Second, as observed in the upgrading case studies, these same exigencies have obstructed the introduction of more sustainable forms of urban governance. In short, the informality of Egypt's post-1952 politics has tended to informalize Egyptian society. Yet ironically, this very combination of state-society informality has also created the conditions of possibility for the popular agency. The durability and tenacity of informal Cairo is, to a large extent, the effect of an incompetent and indifferent state, the potential administrative capacities of which have been subverted by the survival strategies of the political elite. The people in Ard al-Liwa', and elsewhere have been able to resist removal if for no other reason that the state has few options in dealing with them. The neglectful nature of its rule has foreclosed alternative governance strategies.(Dorman, 2009)

However, these strategies that objectifies the informal communities and lack a deep understanding of the social structure and the needs of their inhabitants, were the main reasons beyond the extensive growth of the informal city. Yet, this was also prevalent in the futuristic vision of Cairo 2050, which signifies that policy makers are still unable to understand the patterns and the logic beyond informalities phenomenon and so unable to provide possible solutions for developing these areas and their relation to the rest of the city.

“In economic organization and reform, the “great issues” are no longer the great issues, if they ever were. It has become increasingly difficult for thoughtful men to find meaningful alternatives posed in the traditional choices between socialism and capitalism, planning and the free market, regulation and the laissez faire, for they find their actual choices neither simple nor so grand, because economic organization poses knotty problems that can only be solved by painstaking attention to technical details.”

Paul Davidoff, 1965

7.2 Formalizing the Parallel city

The informal city being an illegal city built on agricultural land have always accepted to be marginalized and under-served. Yet, they have always found a way to put pressure on the government through the parliament representatives, who bring their demands to the government and provide them with services and the basic infrastructures, in return to their votes and so their seats in the parliament . Actually, this strategy did work and most of the informal city is provided with clean water networks, sewage systems, electricity, and even some of them have natural gas networks that are not yet provided in some of the formal city parts. Yet, the informal city is still deprived from most of the governmental services whether educational, municipal, or health facilities. They always tried to provide an informal or private alternatives for them, yet, the needs of the informal city inhabitants (which are assumed to be 70 percent of Cairo's population) were never fulfilled.

In summer of 2000, an unexpected environmental protest took place in Giza City, on the wet bank of the Nile in Greater Cairo. A group of several hundred residents of an informal area in the Pyramids district called ‘Amr ibn al-‘As converged in front of downtown government offices, holding placards that said, “No to fear, No to sewage, No to pollution” (“Sayin No to Pollution”, 2000). Expressing outrage over a problem that afflicts informal areas as their population density increases, the residents’ signs alluded to the sewage that had submerged their dense neighborhood streets over the previous eight months. Having tried a self-help strategy up to that point, they were driven to protest when the flooding triggered an electrical fire and fire trucks were unable to access the area because of the waterlogged, unpaved streets. (Bell, 2009) The residents blocked traffic for hours, eventually gaining access to the offices of Giza governorate officials and their representatives for a face-to-face meeting. The authorities agreed to dispatch dredging trucks to temporarily ameliorate the problem. Residents remained there until the trucks were dispatched. Later in the week, the authorities announced a comprehensive sewage plan for the area. The residents had been successful in prompting the city to put their neighborhood on the ‘map,’ achieving formal recognition and promises from the city to provide them with services integral to modern urban life. (Bell, 2009)

However, to understand the significance and extent of such phenomenon, one needs to go back to the weeks and months immediately after the Revolution. The so-called popular committees, which had been formed in almost every street or neighborhood to defend their homes and properties when security forces had a total meltdown, had subsequently evolved into broader coalitions of youth and active citizens gradually shifting their focus and mandate from security questions to development and awareness-raising efforts. In the absence of active and transparent bodies of local governance, these coalitions or initiatives have become an alternative forum for debating and negotiating competing interests and often conflicting priorities in such communities.

Then during, the 25th of January revolution, which called for bread, freedom and social justice, the informal city community have participated and provided it with the critical mass, and thus allowed the revolution to continue and forced the regime to step down. This drastic change in the whole nation, was one of the reasons to raise the awareness of the informal city community of their rights. In addition to that, the failure of the state security system has allowed the informal city inhabitants to practice a number of initiatives that express their needs and will to expose themselves and get formalized. They range from the simple encroachment on sidewalks and streets, horizontal and vertical extensions to existing structures and premises, building on state land or privately-owned agricultural tracts, to the construction of highway exits and other infrastructure projects entirely by local community effort.

A distinction could be drawn between two levels of interventions. The first include individual efforts and encroachments on public space, such as tea stands, food stalls, street vendors and informal parking regulations, whereby many shop owners and some residents 'reserve' the area outside their premises as their own, or at least for the exclusive use of their customers/guests. The second level, however, involves interventions by groups or communities, which entails higher level of collaboration and coordination, and often more complex network of fundraising and organization. In some cases, the type of intervention also involves more sophisticated construction or engineering systems, such as the construction of mega sheds, raised platforms or ramps. Two examples of the latter are worth noting.

Lino's Cafe' Initiative

Lino's Cafe used to be a roadside tea stand similar to tens of others scattered on both sides of the ring road and many other major highways. During the months after the revolution, the two brothers Ali and Mutwally and their brother-in-law Hatem, began to construct a more elaborate "resting point" for truck and microbus drivers by offering a full coffee-shop services and snacks in a more elaborate seated and shaded area. The location, which is less than a 100 meters away from their residence in Izbit Khayrallah informal neighborhood, was carefully chosen at the "bridgehead," where a locally constructed stairway leads up to an informally organized microbus stop. The station is, thus, a natural hub for both riders and drivers offering an excellent business opportunity. (Nagati and Stryker)

The challenge the Lino's brothers faced was not only extending electricity and water connection to the new premise, something that was overcome by extending a cable from the nearest light post and providing small water tanks, but rather the sloped retaining wall flanking the ring road from both sides in this area. They devised a simple and affordable engineering solution to level it out, creating a raised platform accessible from the highway, which was later covered by a makeshift wooden shed (the latter gets elaborated upon every time I pass by it). The innovative 'engineering solution' was so successful to the extent that it was immediately copied 50 meters away, typical of the modus operandi of informal development based on the multiplication and optimization through trial and error.



Figure 7.7. Lino's Cafe built on the sidewalk of the ring road. Courtesy of CLUSTER

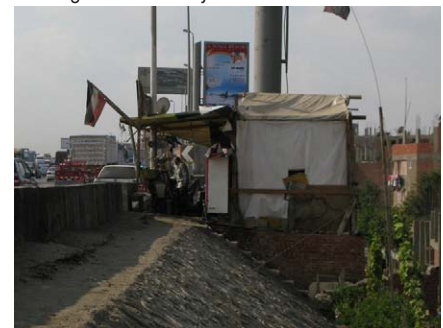


Figure 7.8. The Structure of the Cafe was raised platform to level the sides and used the light posts as a source of electricity. Courtesy of CLUSTER

Al- Mi'timdiyya Exit Initiative

Figure 7.9. Using the official format for making signposts for al-Mi'timdiyya exit.

Courtesy of CLUSTER.



Figure 7.10. Al-Mi'timdiyya ring road exit.

Courtesy of CLUSTER

The second example is Al-Mi'timdiyya Exit—an informal on and off ramps constructed in the three months after the fall of the former regime. It is located in the stretch between two formal junctures: 26th July Corridor, about 1 km to its north, and Saft al-Laban Corridor, 2 km to its south. The informal area of al-Mi'timdiyya had evolved from a rural settlement to a fast-growing residential area further west to the informal belt around the city's western and northern limits. It has, thus, 'fallen outside' the ring road when it was constructed at the turn of the twentieth-first century, in part to delineate a new city limit and contain further encroachment on fertile agriculture land by informal housing development. As such, the community of al-Mi'timdiyya had no linkages to the city other than passing through the whole informal belt from west to east and then crossing the railway at limited access points.

The ring road, which literally over-passed the area for a decade, offered a rare opportunity for a vehicular access point. And while this idea, and probably a clear scheme has been percolating for a long time in the minds on the community leaders, it was only during the time when the security apparatus collapsed and the state was most vulnerable that the moment of execution arrived. The project, which costs around a million Egyptian Pounds (one quarter of the amount it would have cost if constructed by the government), required the mobilization of all resources al-Mi'timdiyya community could muster. Some contributed with cash, while others in kind, donating material, machinery, labor and know-how. Once the piles of garbage and debris have been removed, four ramps were constructed copying the existing exits nearby and adopting similar techniques and 'adjusted' codes. The process of construction was meticulously documented and edited in a epical presentation material, sent to the governor and police chief in Giza, inviting them to inaugurate the project—something that they did willingly, celebrating the heroic deed by the revolutionary citizens and assigning the area under the highway as a traffic police point, thus lending legitimacy to what would otherwise in a different time and place be deemed a criminal act.

The two cases discussed above are part of a whole range of other examples that illustrate a new mode of urban order, whereby individuals and communities are taking the initiative, imagining and implementing their dreams of a city, the making of which they had long been excluded. Not only do they challenge the urban status quo, offer alternative, but often invite professionals, architects and planners, and policy makers in subsequent stages to join them on their own terms, in what could be viewed as a process of public-private participation from below. The Ard al-Liwa Park project is yet another testimony of this inverted model.

Ard al-Liwa Park Initiative

The Ministry of Awqaf has designated the site of a residual agricultural plot, to develop a large housing development scheme comprising fourteen blocks, including five affordable and nine upscale apartment buildings. By the end of 2011, all necessary approvals were acquired, and the site preparation process began in late March 2012. Local community leaders, waking up to sounds of bulldozers, stood for what they viewed as their right to decide the fate of such precious land, which they considered to be hijacked by investors and state cronies. Empowered by ‘revolutionary spirit,’ they not only stopped the construction process, but also managed to escalate their demands through media and local MPs, who helped arrange a meeting with former Prime Minister, Kamal El-Ganzoury. The latter acknowledged the failed purpose of such housing project and endorsed their demand for an alternative vision of recreational hub and service facilities.

The success of this community initiative could thus be ascribed to their persistence on two parallel tracks. On the one hand, it has been a result of a cumulative process of developing visions for this parcel over the past few years. This envisioning process, on the other, was compounded by organized efforts to confront government plans to build more housing blocks. Such dual process of resistance and alternative proposals, which is situated within the context of the rising urban citizenship, culminated in an approval on the highest official level, bypassing conventional bureaucratic procedures and classic institutional frameworks necessary for similar projects of the same size. The next logical step was to turn their vision into a blueprint—a master plan according to professional standards and planning codes.

These initiatives represent a new mode of action from the informal city. A real attempt to be legalized and formalized, as part of their rights. These processes highlight both the potential the informal city holds as well as its complete awareness of their need for professional and technical support, to match the standards and codes of the formal city and how they should develop the channels and restructure themselves to get to negotiate their rights with the government.

7.3 Negotiating New Modes of Practice

The two parallel processes and visions of the informal city and the government (the formal city) addresses the question of what might be the role of the planner, the urbanist and the architect, within this state of conflict. These processes of negotiation that has long been the case between the formal and informal can no longer depend on a top-down strategy that the government adopts neglecting the community needs and aspirations, nor a bottom development approach that engages the community, yet lacks a comprehensive vision of the city.

Behind the dogma of new urban order, a complex interaction plays out between local discourses and international investment and forces. The vocabulary of in-



Figure 7.11. Community activists protesting against Awqaf project. Courtesy of CLUSTER



Figure 7.12. Meeting with Prime Minister Kamal al Ganzoury and approving the project. Courtesy of CLUSTER

formality is not specific to Cairo. In fact,, 'ashwai' (random or chaotic) has a Tunisian and Algerian equivalent, which translates as 'anarchic' in Maghreb countries. Analogies abound and all express the proliferation and fundamentally restive or sick character of the social fabric, often described in the same breath as both 'cancerous' and 'spontaneous.' These analogies instantly communicate the idea of unmanaged internal, regulatory, and planning matters and blur together present, past, and future social realities. Such ideologies are represented as opposite to the norm of a programmed, regulated, and preplanned city. In Egypt, as elsewhere, however, the city is a condensed structure of institutions, places, and people historically situated that exists not only materially but also, significantly, as a representation (King, 1996)

Both the national and international press convey the image of chaos, as in this article title :*"Cairo: The Lure of Gain Has Made of Cairo an Unlikely Network of Anarchic Constructions"* (Duccianti, 1996). The residents of working-class communities are not described as individuals who project their ideals about life onto a space, neither are their neighborhoods described as models for city planning. Similarly, the code for reading the creation of these neighborhoods derives from methodological individualism or utilitarianism. These theories describe processes by which isolated individuals or families establish urban communities. They are often moved by a purely individualist spirit of appropriation and sometimes manipulated by a few unscrupulous promoters who do not establish any shared rule-making with those they serve. The social sciences are rarely employed to analyze such situations, and too often in Egypt and the west, urban and architectural analysis is 'seen from the sky,' from a top-down perspective that quantifies individuals superficially rather than probing social, historical, and relational identities. This top-down type of analysis negates working-class residents' positions as actors, which may be explained by the habit of considering the 'ashwa'iyat as a mass of individuals 'by default'- subjects whose actions are motivated from the outside, by poverty and urgency, but also by the spirit of immediate profit (Castel, 1995; Berry-Chikhaoui and Deboulet, 2000).

Contrary to such objectifying critical approaches, we need to consider these people as thinking individuals with reflective agency, even if their approach is less technical than practical, and oriented toward singular, not generalized, uses of place. Cairo's poor are made up of individuals faced with social constraints that elide their ability to imagine and reason; yet such abilities are foremost in helping them survive. (Deboulet, 2009)The creation of this space by dispossessed, largely illiterate people without specialized construction knowledge or formal training runs against the representation maintained by 'professionals.' Indeed, professional architects are characterized by mastery of representational space, which establishes their legitimacy by such skills as reading graphs, working from a plan, and using Euclidian representation (Raymond, 1984). Unskilled informal planners can adapt, however, without literacy or blueprints, adjusting their city projects to the mental landscape of technicians. They may valorize mainstream forms, the geometric shape of new gated communities, the charm of the Californian villa, and the sweep

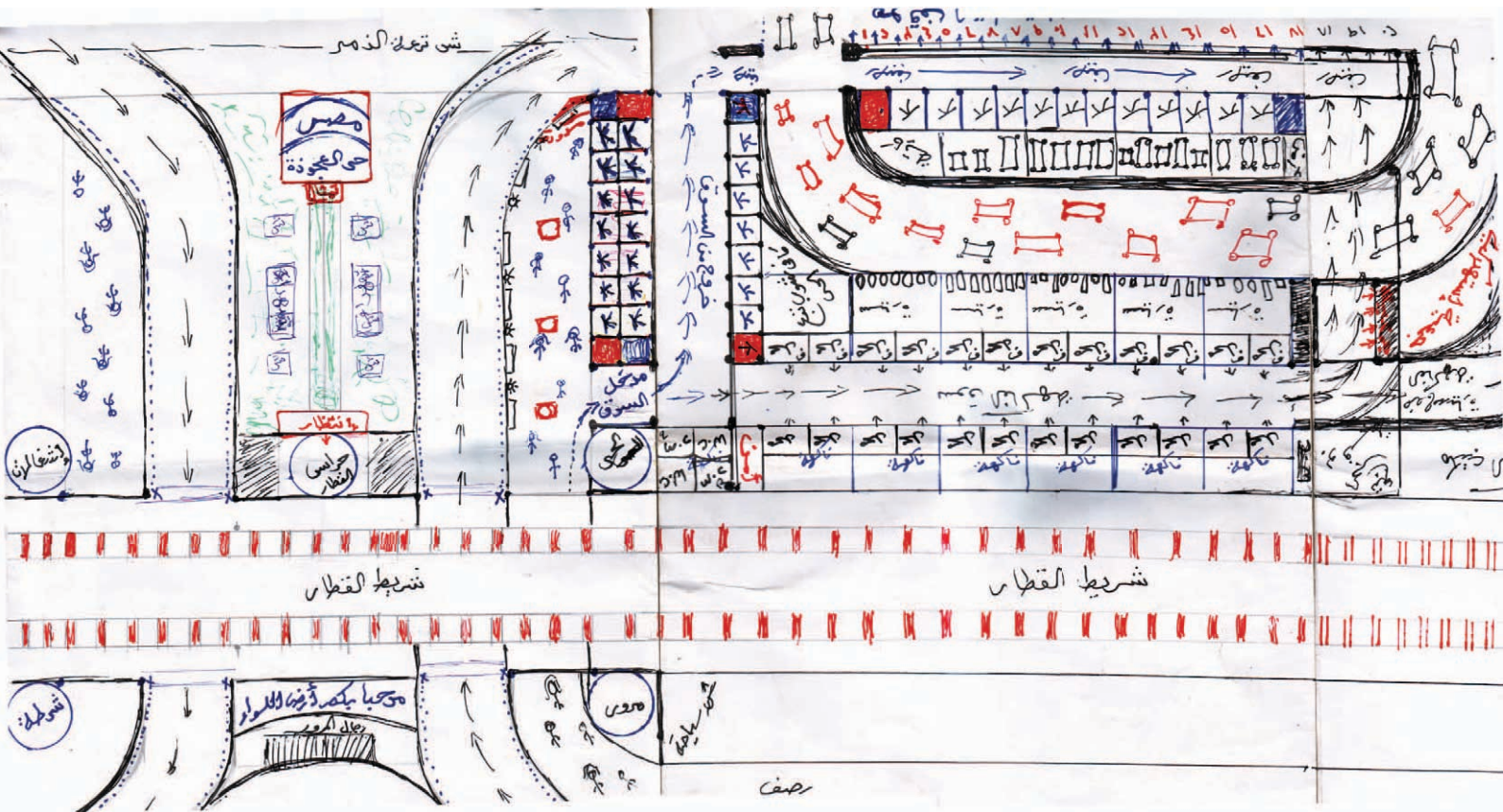


Figure 7.13. Detailed Plan for Rail way Crossing by Reda Abdullah (one of Ard al-Liwa community representatives)
 Courtesy of CLUSTER

of wide streets and elevated highways. (Deboulet, 2009) But they also express a class ethos that translates into their improvised use of available material, cognitive, and social resources.

For some observers, self-created working-class neighborhoods may evoke the notion of urbanity without planning, development without a soul, and dusty roadways deserted by cars and mobbed with chaos. These myths of informality, underdevelopment, and rurality weigh on these communities, which have access neither to public services nor to the public sphere in which to challenge their status and representation as 'illegals'. These local societies are supposedly either hyperpassive or danderously explosive, thus contrasting forms of contact and disjuncture with spaces of hegemonic power at the urban, national, and international scale. The tensions and inequalities between urban spaces categorized as informal/illegal and those normalized but riddled with infralegality are aggravated by the circulation of resources and expertise associated with globalization. (Deboulet, 2009) The force of globalization and metropolization has expanded urban spaces across ever growing territory without offering increased means of connecting laborers with jobs or goods, with markets.

Non-recognized settlements of Greater Cairo now constitute a transclass negotiation space that has begun to challenge the neat spatial frontiers that have marked the city. This erosion of boundaries between 'formal' and 'informal' neighborhood spaces reveals the contradictions inherent in urban studies models of categorization, and the renegotiation of urban modernism and developmentalism in law and space between and between international and local norms. (Deboulet, 2009) Existing discourses about urbanity require interventions that establish space for strengthening notions of the 'right to the city' as an essential social and human right. These nascent rights have been threatened, weakened in the brutal confrontation with global development paradigms and neoliberal retrenchment (Sassen, 1999). Nevertheless, the daily struggle and engagement in 'the right to the city' as an essential modern basis for legal subjectivity, social stability, and citizenship continues.

Working-class communities in Cairo have confirmed that through grassroots planning and building, the city can be a shared, governable, and affordable space. But this statement is not valid unless public interventions reinforce local involvement in providing sustainable solutions such as helping to maintain open spaces or providing amenities. In recent years, the scarcity of affordable buildings has led to massive densification of much of the unrecognized settlements and this even stronger for the squatter settlements. Residential densities today exceed one thousand inhabitants per hectare in many parts of Cairo...Added to such densities, the lack of sanitary drainage is causing growing environmental problems when these small communities are not the recipient of public intervention or upgrading of any kind and become giant slums. (Deboulet, 2009)

Finally, in the post-industrial megapolis growing segments of the population remain invisible and unheard (Honneth, 2002). While deepening social and political fractures affect the living conditions of the squatters, the most advanced infrastructure is delivered to those who can afford to turn their back on the megapolis, widening a two-tiered urban citizenship. But Cairo deserves more than the widening economic and environmental fissure between successful Egyptians, on whose behalf urban renewal and costly infrastructure is undertaken in the new desert communities (such as New Cairo), and the anonymous crowd of the deprived in their enclaves. We need to take a necessary step toward recognizing the dignity of the multitude and their useful contribution to the city's shape, structure, and dynamics. (Deboulet, 2009)

Learning from Ard al-Liwa'

The unique experience that Ard al-Liwa' project presented to us, addresses a new possibility for a new mode of practice. During the Ard al-Liwa project, the conflict between the formal and informal cities visions and demands have been addressed. Ard Al-Liwa Youth Coalition approached Cluster group, based on earlier engagements and previous experience, requesting to translate their needs and aspirations into a technically feasible planning scheme, and thus turning an oppositional position into a proactive developmental vision. The latter would then be presented to different authorities and stakeholders, to gauge their interests and win their approvals, but also as a means to consolidate their vision into a real measurable project, which could then be subjected to both technical critiques and financial assessment.

The specificity of the site and its strategic location lends itself to a broader framework for development that would address urban issues on multiple levels, from the neighborhood, district to city scales. Thus, the project's planning concept is anchored in the larger question of informal development in Cairo, and aims at addressing a complex set of planning issues on multiple levels that would transcend immediate local needs of Ard al-Liwa. The project also positions itself within the newly emerging urban order, whereby individuals and communities are taking the initiatives, then inviting professional and planners and policy makers on board, thus challenging the former models of 'citizens participation,' and redrawing the balance between the state and its urban citizens.

The initial stages of the design process involved intensive sessions and workshops with local community representatives to develop a program for the project and translate their needs and aspirations into a design brief. Once a preliminary conceptual design was ready for discussion, the next step involved a series of meeting with stakeholders, local and governmental authorities, as well as international development agencies and potential donors. Each time the process of approval gets stalled, due to a change of cabinets or because of political turmoil, talking to media proved very useful to increase pressure on authorities. The scope of design pro-

“In this general process of planning we particularise in order to deal with the more specific issues: that is, a specific real world system or subsystem must be represented by a specific conceptual system or subsystem within the general conceptual system. Such a particular representation of a system is called a model... the use of models is a means whereby the high variety of the real world is reduced to a level of variety appropriate to the channel capacities of the human being.”

Chadwick, 1971

cess followed a number of stages, including a) identification of all previous studies for the site and surrounding context; b) developing a design brief through a number of participatory workshops with community groups and translating their needs and aspirations into an area program; c) establishing a broader conceptual framework for the site and surrounding context, on local, district and city scales, each to address a number of planning issues and specific design priorities.

Due to the site location and its immediate juxtaposition to a number of infrastructure lines, the formal approval process had to be negotiated with multiple ministries and authorities, such as the Ministry of Housing, the Ministry of Transportation, the Ministry of Irrigation, the Ministry of Awqaf (Religious Endowments), and the Ministry of International Cooperation, as well as the General Organization of the Physical Planning, which has to ratify any future plan in accordance with its own strategic plan of the area, and the Giza Governorate, which will eventually be the owner of the Park project. For negotiating approvals and exploring funding possibilities, representatives from the community and the design team organized a number of meetings with local authorities whose stakes in the project may facilitate or otherwise block such unconventional bottom-up initiatives. The team also explored preliminary fund-raising possibilities by engaging key national and international agencies with specific interest in the development of informal areas.

One of the main challenges facing the formalization process in this project has been the fast-changing political landscape. During the past 18 months, Egypt witnessed three cabinets, changing governors and three national elections for both assemblies and the presidency. These changes, often coinciding with major turmoil on the ground ranging from rallies to street battles and burning of public buildings, were often accompanied by shifts in political ideology or at least government's attitude and priorities towards projects of this size. This in turn has often resulted and in stalling earlier momentum for approval and formalization of the project. Conversely, each new cabinet tried to repackage ongoing or potential project under its platform of development. The Nahda (Renaissance) program by Freedom and Justice Party is a case in point.

This process shows the need for the identification of a new mode of practice by professionals that is able to engage both entities and ensures the quality of reduced urban spaces that will eventually define the future of the city. The process of developing Ard al-Liwa' park project also supported the thesis proposed strategies regenerating the city fabric and developing the informal city neighborhoods through the 'interstitial' and 'in between' spaces along the margins. The conflict between the formal and the informal cities cannot be just framed within the policy making, and planning strategies. It is important to identify a new urban order that learns from informality and works on developing it as well as accommodate the needs of the formal one. These new 'thresholds' between the parallel cities are the new heterotopias, the new test beds for changing the city, through which we can turn the segregated Cairo into one 'united' entity.

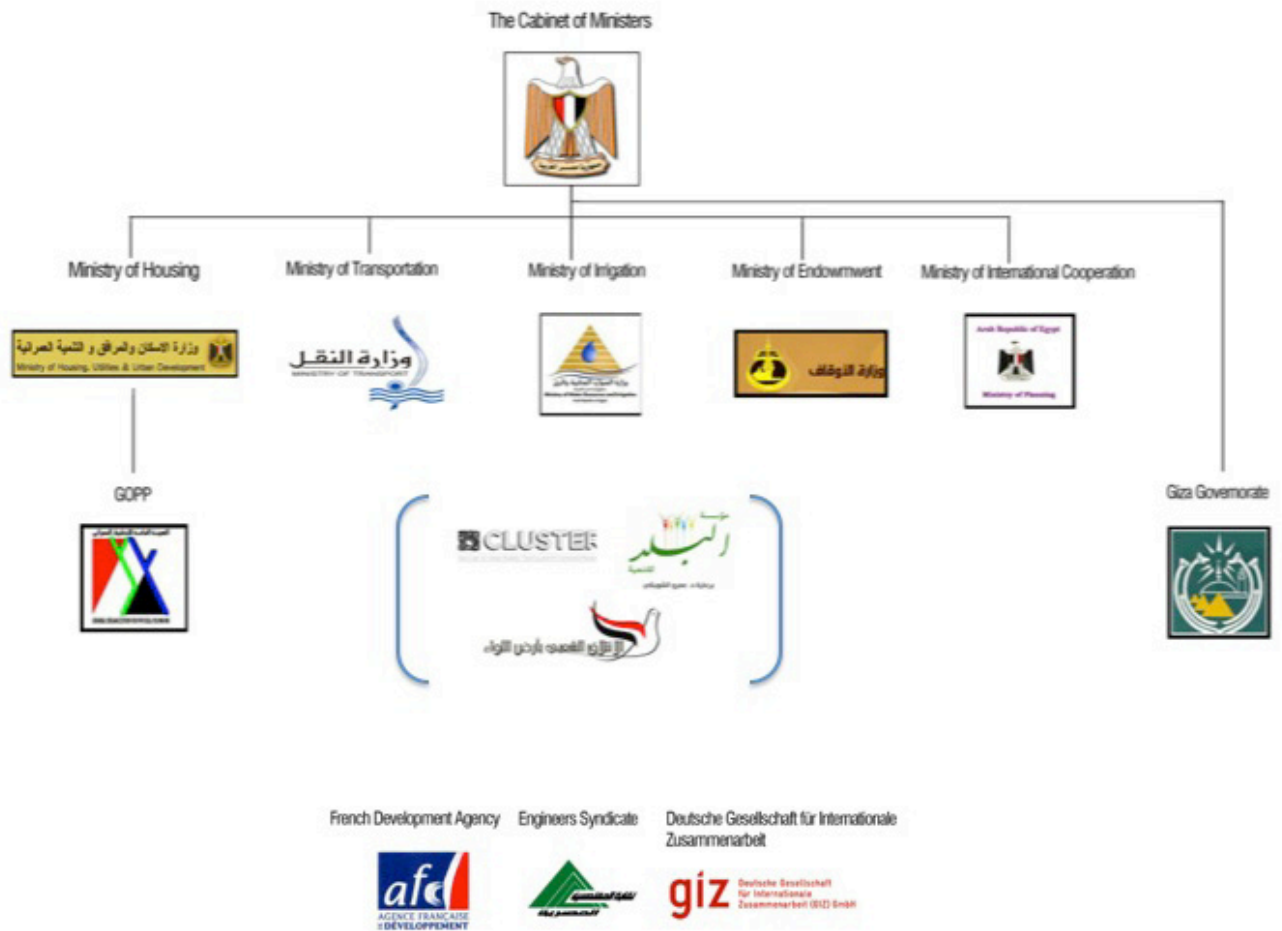


Figure 7.14. The Organizational Structure of the Project
 Courtesy of CLUSTER

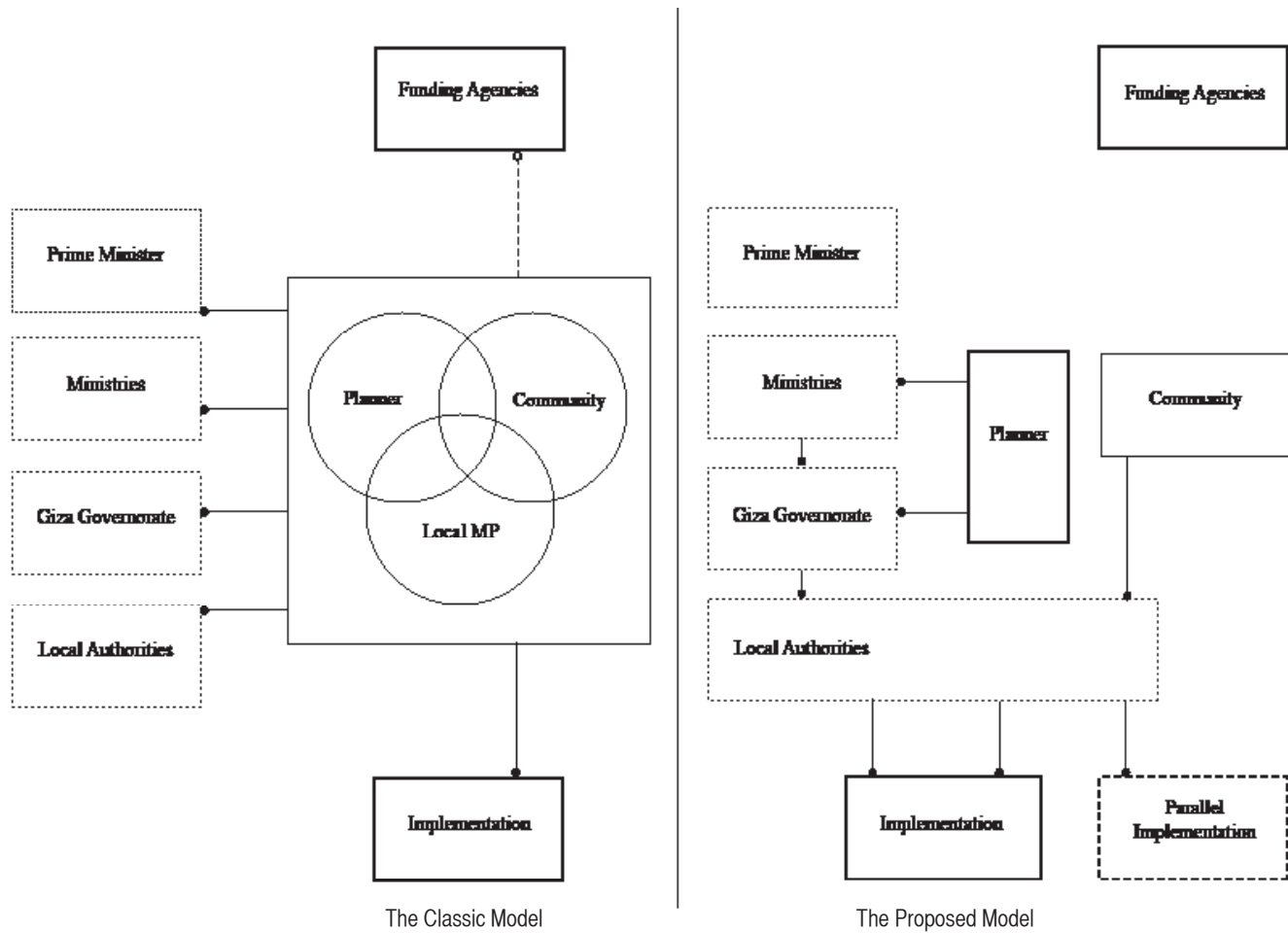


Figure 7.15. The Classic Organizational Model versus the Proposed Model
 Courtesy of CLUSTER

Conclusion

Based on past trends, the informal city can be expected to keep growing, with an ever-increasing portion of Greater Cairo's inhabitants finding homes and livelihoods in it. Some mature informal areas have pretty much reached saturation, but in many others consolidation and incipient infill continue for years. However, There are two government initiatives that have been launched in the past few years, which might have some effect on informal areas in Greater Cairo. The first is the national Sunduq Tatwir al-Manatiq al-Ghayr Amina (Unsafe Area Development Fund), which was established in late 2008 under the prime minister's office and appears to be well financed. The initiative, aims at redeveloping all dangerous informal areas in Egypt. This is a limited approach that appears to be rationally thought out. For Cairo, it will mainly mean the redevelopment of cliff areas in Manshiyat Nasir and Stabl 'Antar as well as the removal of some slum pockets. Perhaps a total of 250,000 to 400,000 persons in all Greater Cairo will be affected, almost all of whom will need to be resettled at government expense.

“How a city's land is used defines its character, its potential for development, the role it can play within a regional economy and how it impacts the natural environment”

Seattle Planning Commission, 1993

The second initiative is much more ambitious and, so far at least, not very well conceived. It is called the tahzim (belting or containment) strategy developed by GOPP in 2007 and 2008, and it aims to allow limited formal urban development on agricultural land around informal areas in order to contain further informal encroachment. Although this strategy represents a fundamental shift in government policy related to the urbanization of agricultural land, it has yet to be applied and will require planning and control mechanisms and institutions that still need to be articulated. Also, unless greatly relaxed standards of subdivision and building are allowed in these tahzim zones, there is the risk of creating yet more areas for private real-estate speculation and little if any affordable housing. In any event, this strategy has yet to become operational even on a pilot basis.

The government has to identify the trade-off between problems and gains that residents of informal areas experience in their daily lives. for two reasons. Firstly, it provides a guide for intervention strategies. It develops understanding of what is working well but needs improvement, as well as what is ineffective and needs to be changed. If intervention is implemented without such knowledge, it might negatively impact certain advantages enjoyed by residents. The second reason is that it allows planners and policy makers to learn lessons in urban planning and development, in that informal areas seem to be the preferred residential choice for many low- and middle-income families.

There are lessons to be learned by professionals, and by their partners and stakeholders, regarding the planning, design, and operation of both formal and informal neighborhoods, whether for new design purposes or for rehabilitation and upgrade. The first lesson is to recognize people as potential: to invest money, to manage and maintain the physical environment, and to participate in service provision. The second lesson is the need for the government to adopt an enabling approach that supports what people do, and to regulate to the benefit of the collective good.

One priority should be the development of enabling /affordable housing standards, rather than standards so unfeasible that they leave most of the housing stock unregulated. The third lesson to be learned from informal areas is the importance of appropriate neighborhood planning: where street layout and distribution of commercial activities promotes sustainability, where value-for-cost is maximized, thereby allowing residents the opportunity to control and appropriate public space, and where people are encouraged to invest in the shared amenities and maintenance of their neighborhood.

Thus, the informal settlements turn the simple question of urban planning into an enigma. Indeed, how can local actors, who lack legitimate resources, build common property of the greatest complexity, a space that becomes a city and that resonates as a shared common space? Here, there are at least two hierarchies that must be rearticulated. The first are urban norms of international importance and status, which produce global, national, and local spaces with their corresponding structures and evaluation of collective abilities. Their evident limitations emerge only after construction has begun. The second set of erected hierarchies is internal to the social relations of risk within the community. People grabbing such land had to face the reality of setting themselves up on virgin land and building homes despite the risks of eviction, failure, new and unpredicted conflicts, and parcel swindling. (Deboulet, 2009) Yet, the enigma can also be drawn about what is the possible role of an urban planner in cases of intervention within such structured entities. What can be proposed as a role between the governmental policies and these areas residents and builders? Is there a realistic possibility to develop these areas, that are deprived of the basic services and amenities? And if so, how can the urban planner be the link that connects the top-down policy with the current interventions on ground? What is the possible new urban order?

Bibliography- Chapter 07

- Abdel-Khalek, G., & Tignor, R. (Eds.). (1982). *Patterns of Urban Growth and Income Distribution in Egypt. The Political Economy of Income Distribution in Egypt*. New York: Holmes and Meier Publishers.
- Abt Associates with Dames and Moore and General Organization of Housing, B. , and P. R. (1982). *Informal Housing in Egypt*. Cairo.
- Ayubi, N. N. (1995). *Over-stating the Arab State: Politics and Society in the Middle East*. London: I.B. Tauris Publishers.
- Bayat, A. (2000). From “Dangerous Classes” to “Quiet Rebels”: Politics of the Urban Subaltern in the Global South”. *International Sociology*, 15(3).
- Bayat, A., & Denis, E. (2000). Who is Afraid of ashwaiyyat? Urban Change and Politics in Egypt. *Environment and Urbanization*, 12(2).
- Berry-Chikhaoui, I., & Deboulet, A. (Eds.). (2000). *Les competences des citoyens dans le Monde Arabe: Penser, faire et transformer la ville*. Paris/Tunis: IRMC/Karthala/URBAMA.
- Castel, R. (1995). *Le metamorphose de la question sociale*. Paris: Fayard.
- Deboulet, A. (2009). The Dictatorship of the Straight Line and the Myth of Social Disorder. In D. Singerman (Ed.), *Contested: Governance, Urban Space and Global Modernity*. Cairo: The American University in Cairo Press.
- Dorman, W. J. (2009). Of Demolitions and Donors . In D. Singerman (Ed.), *Cairo Contested: Governance, Urban Space and Global Modernity*. Cairo: The American University in Cairo Press.
- Duccianti, A. (1996). The Lure of Gain Has Made of Cairo an Unlikely Network of Anarchic Constructions. *Le Monde*, (6 June).
- El-Messiri, S. (1985). The Squatter’s Perspective of Housing: An Egyptian View. In W. van Vliet, E. Huttman, & S. Fava (Eds.), *Housing Needs and Policy Approaches: trends in Thirteen Countries*. Durham: Duke University Press.
- Enrique Ponalosa. (2007). Politics, Power, Cities . In R. Burdett & D. Sudjic (Eds.), *The Endless City* . Phaidon Press Limited .
- Fahmy, N. (2004). A Culture of Poverty or the Poverty of Culture? Informal Settlements and the Debate over the State-Society Relationship in Egypt. *Middle East Journal*, 58(4).
- Hardoy, J., & Satterthwaite, D. (1989). *Squatter Citizen: Life in the Urban Third World*. London: Earthscan Publications.
- Harik, I. (1997). *Economic Policy Reform in Egypt*. Gainesville: University Press of Florida.
- Hassan, N. M. (1985). Social Aspects of Urban Housing Cairo. *Miramar*, 17.
- Honneth, A. (2002). *La lutte pour la reconnaissance* . Paris: Le Editions du Cerf.
- King, A. D. (1996). *Representing the City: Ethnicity, Capital and Culture in the 21st- century Metropolis*. London: Macmillan.
- LeGates, R. T. (2007). Prologue. In R. T. LeGates & F. Stout (Eds.), *The City Reader*. London and New York: Routledge.
- Munro, W. (1998). *The Moral Economy of the State: Conservation, Community Development, and State Making in Zimbabwe*. Athens: OH: Ohio Universty Center for International Studies.
- Palmer, M., Ali, L., & El-Sayed, Y. (1988). *The Egyptian Bureaucracy*. Syracuse: Syracuse University Press.

- Rousillon, A. (1998). Republic Egypt Interpreted: Revolution and Beyond. In M. W. Daly (Ed.), *The Cambridge History of Egypt, vol.2, modern Egypt, from 1517 to the End of the Twentieth Century*. Cambridge: Cambridge University Press.
- Sassen, S. (1999). Whose City Is It? Globalization and the Formation of New Claims. In J. Holston (Ed.), *Cities and Citizenship*. Durham: Duke University Press.
- Saying No. (2000). Saying No to Pollution. *Al-Ahram Weekly*, 20-26 July. Cairo. Retrieved from <http://weekly.ahram.org.eg/2000/491/fr1.htm> (accessed 19 February 2012)
- Sims, D. (2000). *Residential Informality in Greater Cairo: Typologies, Representative Areas, Quantification, and Causal Factors*. Cairo.
- Sims, D. (2003). The Case of Cairo, Egypt. *Understanding Slums: Case Studies for the Global Report 2003*. London: UN-Habitat and Development Planning Unit, University College London. Retrieved from http://www.ucl.ac.uk/dpu-projects/Global_Report/cities/cairo.htm (accesses September 2011)
- Sims, D. (2010). *Understanding Cairo: The Logic of a City Out of Control*. Cairo: The American University in Cairo Press.
- Steinberg, F. (1990). Cairo: Informal Land Development and the Challenge for the Future. In P. Baross & J. van der Linder (Eds.), *The Transformation of Land Supply Systems in Third World Cities*. Aldershot: Gower Publishing.
- Taher, N. A. (1986). Social Identity and Class in a Cairo Neighborhood. *Cairo Papers in Social Science*, 9(4).
- Tekce, B., Oldham, L., & Shorter, F. (1994). *A Place to Live: Families and Child Health in a Cairo Neighborhood*. Cairo: American University in Cairo Press.
- Tilly, C. (1984). Social Movements and National Politics. In C. Bright & S. Harding (Eds.), *Statemaking and Social Movements: Essays in History and Theory*. Ann Arbor: University of Michigan Press.
- Waterbury, J. (1983). *The Egypt of Nasser and Sadat: The Political Economy of Two Regimes*. Princeton: Princeton University Press.
- Waterbury, J. (1985). The "Soft State" and the Open Door: Egypt's Experience with Economic Liberalization, 1974-1984. *Comparative Politics*, 18.
- World Bank. (1986). *Project Performance Audit Report: Egypt First Urban Development Project*. Washington, D.C.



Figure 8.1 The Informal city and the agricultural land
Photo by Mariam Korashy

Chapter 08

8.0 CONCLUDING THE PARALLEL CITY.

8.1 Summarizing the Parallel City Discourses, Methodology and Findings

- The City and the Anti-city discourse
- The Formal and the Informal Discourse
- Theory and Practice Discourse

8.2 Re-visiting the Thesis Hypothesis

- Hypothesis Aim
- Hypothesis Applicabilty
- Hypothesis Verification

8.3 Further Research on the Parallel Cities

Conclusion

The city that has been continuously fragmented and transformed has created a sort of enclaves or excluded heterotopias housing what we can call the 'other', which can be the minorities, the poor, the immigrants, and even the elites. These enclaves have grown in the past forty years, during the transformation of the city from the metropolitan model into the meta/megacity model. These enclaves have occupied larger territories, with time, and formed networks across the city creating a complete parallel city. The parallel city could fulfill the demands of the excluded and marginalized communities. The parallel city exists within the city territory. Yet, it usually has defined edges and a tendency to be hidden and secluded. The parallel city offers the complete structure of the city, including the hierarchy of spaces, functions, services and public and private enterprises, yet everything based on the community needs and aspirations. The parallel city can be a solution for an existing heterotopia or a physical construction of a utopia.

Cairo- which is defined as Greater Cairo Region is now composed of five governorates- contains three parallel cities that have developed along the past fifty years and each has evolved to produce a very characteristic and articulated form and structure based on its ideologies and needs. The three parallel cities exist close to each other, yet, they practice minimal forms of interaction. Their parallelism defines how they can hardly meet or interact. The first of these three cities is the formal city, which is the oldest, is a collection of a diversity of fabrics, from the old Egyptian, to the Coptic, Islamic, and then the different phases of the modern city. It is the most layered and complex fabric growing parallel to the river Nile. The second city is the informal city, which grew firstly in the empty pockets along the city periphery and then extended to occupy the entire formal city external periphery. The majority of the informal city is built on the agricultural land, and it is growing extensively that it covers around two thirds of Cairo's housing demand. It offers housing at affordable prices, yet close to the formal city where the job opportunities and public services exist. The third city is the desert city, and it is composed of a number of towns that were created around Cairo to contain the gradual increase in population. These new towns were originally targeting the low and middle class population, yet due to the lack of means of transportation to and from these new towns and Cairo formal city as well as their designs which did not match these classes social and cultural needs, they were almost completely abandoned. On the other hand, it appealed to the higher classes as a retreat from the problematic, congested and polluted city. This made it the place for a number of gated compounds for Cairo's elites. The desert city became a collection of closed heterotopic systems, each bordered by both physical and mental barriers.

The three cities which lived parallel to each other have caused rifts in Cairo city's fabric. They hardly meet or interact, each creating its own border system that has been developed and articulated by time, keeping them from the 'other' in the way they define them and for the reasons they acquire. These borders, edges or margins became the symptom for a city cut into parts.

This chapter intends to conclude the main discourses discussed within the thesis narrative, summarizing the main topics and findings of the thesis. Through the meta-discourses of the city and the anti-city, the formal and the informal, and theory and practice, the thesis theoretical background, analysis, interpretations, and strategies have been addressed. So, in this chapter we will summarize the thesis narrative, in addition to, revisiting the thesis hypothesis, and assessing its strategy and verifying its compatibility to be generalized. This chapter also includes suggestions and recommendations for further research in the topic, highlighting areas in the research that could be further developed or topics and issues that were raised and needs to be explored.

8.1 Summarizing the Parallel City Discourses, Methodology and Findings

The City and the Anti-city Discourse

The thesis topic was originally raised from the concept of the 'island', which are closed enclaves within the city fabric. These enclaves that were excluded and segregated from the rest of the city were introduced as a 'heterotopia', which are the test beds for changing the city, the community. The increase in the presence of such enclaves/heterotopias within the city fabric, due to the different social, economic, political and ideological transformations, that transformed the metropolitans from one model to another, starting from the metropolitan model to the fragmented metropolis, the megalopolis and finally the megacity. These enclaves obtained a different forms and contained different sectors of the community.

The thesis hypothesis claims that, these enclaves which grew by time and created networks along the cities and especially the megacities, which witnessed drastic differences in the social and economic levels, have constituted a sort of an anti-city or a parallel city that is structured, and develops overtime on the organizational level to compete with the 'original' city. This hypothesis was applied on one of the megacities, to investigate the processes of creation of such parallel cities, and what are the possible interventions that could be applied to regenerate such fragmented city fabric.

The selected city was Greater Cairo, one of the largest megacities that suffers high levels of fragmentation and segregation on all scales. An interpretation was developed on the process of development of Cairo since the 1950s, to turn the city into three parallel cities; the first is the formal city (Cairo within the valley and along the Nile), the second is the informal city, developed along the formal city periphery,

the third one, is the desert city (presented in the New Towns developed on the eastern and western desert around Cairo). However, the study, was focused on the two parallel cities of the formal and the informal, as they contain the majority of population (more than 90 percent of the population) and they present the strongest patterns of conflict in the social, economic and urban scapes.

The Formal and the Informal Discourse

The formal and informal discourse required an identification of the meaning of the term, informality, and thus the informalization processes, patterns and structures. The term informal, illegal, or ashwa'i (which is the Egyptian term referring to informal) is different from one place to the other, as the process and the product also differs. The informalities in Cairo has nothing to do, with the concept of slums of squatter settlements. They are far more structured and more or less permanent, built reinforced concrete structures and reaches up to 12 or 13 floors height. Thus, an identification of the informal 'term' and 'process' was essential to develop an understanding of the formal/ informal relationship and thus proposes a strategy for intervention.

Through the readings developed on the relationship between the formal and the informal cities and its effect on the overall structure of the city. It was noticed that the highest levels of division and segregation exist along the city physical edges, whether natural or artificial. Thus, the thesis hypothesis was identified claiming that on breaking the physical edges which acts as borders that separate the city into closed enclaves, the non-physical borders will also be broken and the social, cultural and economic integration will be again possible, allowing the regeneration of the city fabric and rethinking the missing connections and realtions on the different scales of the city.

Applying the thesis hypothesis a multi-scalar strategy have been proposed, starting from the city/regional scale, to the urban scale, reaching the project/architectural scale. Stratifying each scale layers, to compose an interpretation of the process of development of the informalities phenomenon, the relationship between the formal and the informal sectors and the possibilities to apply the hypothesis strategy. Thus, the multiscalar strategy was constituted and experimented on a realistic project, at generic case on the formal and the informal cities margin, to check its feasibility.

The project was developed on the margin between the parallel neighborhoods al-Muhandessin, formal neighborhood, and Ard al-Liwa', informal neighborhood, which provides a generic case of the margin between the parallel cities. Thus, providing a model to conclude the main issues, relations and guidelines, applying the multi-scalar strategy. The project site, happened to coincide with a realistic project, that was initiated by the community of Ard al-Liwa', presented in Ard al- Liwa' Youth Coalition. In developing a masterplan for that project, a number of workshops and sessions were held, including researchers, urban planners, community

representatives and artists as well as a number of meetings with policy makers, governors and ministers. This enriched the research debates and discussions and highlighted the discourse between theory and practice.

Theory and Practice Discourse

The experience of proposing a hypothesis and experimenting it practically on ground, raised a number of issues and topics that refer to the current organizational and institutional structure that can possibly develop the city scale strategy. The current actors creating the informalities phenomenon in Cairo, or generally in Egypt, is basically presented in two entities, the first is the policy and decision makers who create the vision of the city, attempting to control the growth of the informal sector, and the second entity is the informal city residents and builders, who are developing the informal city and presenting attempts for its formalization and supporting it with the basic infrastructures and services. However, these two entities are completely separated.

Yet, the drastic changes that occurred to the whole country, and especially Cairo, in the past 24 months due to the 25th of January revolutionary, which can be considered as a social, as well as an urban revolution, have led to a number of changes in the governmental attitude as well as the informal city residents. The changes in the balance of powers, and the belief in the people's rights, presented the beginning of a new urban order. This new urban order, requires new modes of practice, especially due to the missing link between the two involved entities. The role of the urban planner in the redevelopment of the city, and providing a profound understanding of the current urban landscapes should be identified. However, though the process of developing the project appeared very complex and complicated, yet the energy presented in the community desire for change, developing their city and removing those segregating borders, as well as the current government flexibility and intentions to change and collaborate, addresses a real possibility for change and an essential identification of new modes of practice for the urban planners and researchers to face the new emerging urban order.

8.2 Revisiting the Hypothesis

The thesis hypothesis has been drawn to deal with the phenomenon of the creation of parallel cities that divide and fragment the city fabric and affects the economic, cultural, and social orders of the city. Through the understanding of the processes of formation of each of the parallel cities, and the patterns of division along the city physical edges a hypothesis was formulated.

Hypothesis Aim

The thesis hypothesis is based on the concept of the edge, which segregates the different city parts and how these edges can be transformed from elements of separation into elements of interaction and integration, from edges and margins into thresholds. The idea was to trace the city edges and transform them into a system of public spaces that regenerates the city fabric and redevelops the relation between the parallel cities and in particular the formal and informal ones, which shows the extreme forms of segregation.

The thesis aimed at providing a framework to rethink the formal and informal cities relationship through developing a network of spaces along the city edges. Tracing the formal city periphery line, and connecting residual spaces, brownfields and terrain vagues, that could be a potential for public spaces connecting the two cities. Claiming that, on breaking the physical edges of the city and transforming them into 'thresholds' can also break the social, cultural and economic borders and thus re-stitch the city fabric and regenerate the segregated relationships

Hypothesis Applicability

The thesis hypothesis was applied on a hierarchy of scales starting from the city scale, to the urban and the project scale. The thesis methodology identified a series of actions on each scale, the first of them would be the stratification of layers to reach a comprehensive understanding of the main relations between the infrastructure, the built up and the open spaces. Based on these relations, a strategy is composed for each scale that rethinks the different layers and proposes a network of public spaces that refills the gap between the formal and the informal cities. This methodology intends to focus on the 'open' space as a threshold for integration, the open space as a void, within the dense city fabric, and as being 'open' to the different communities, challenging the concept of exclusion and segregation. Defining on each scale, the potential 'in between' spaces and creating a network of spaces parallel and crossing the formal and informal parts of the city, thus allowing a process of stitching the city fabric. Through the experimentation of the strategy on the different scales, its applicability was checked regarding a number of issues as follows:

Firstly, The existence of the proposed spaces and the governmental approval of the strategy: this stage was the successful due to the presence of such residual spaces and brownfields, and the possibility to negotiate with the government to turn those spaces into a public park system along the city periphery, especially due to the current political changes .

Secondly, The community response: this issue was checked by interviewing the parallel cities communities, and checking their interest in such spaces and their readiness to integrate and interact with the 'other', and we have received a positive response regarding the project proposal, this showed that the city residents did not favor these forms of segregation,

Thirdly, The presence of organized structures that would develop the strategy: This was defined as the main obstacle in developing the project , due to the gap between theory and practice and the scarcity of structures that have the capability to engage the professional practice, research, and dealing with the governmental institutions. Yet, the strategy the composition of groups of researchers, urban planners, developers, policy makers and community representative to represent a comprehensive model that are capable to develop city scale strategies on ground, based on an understanding of the context and the community needs and aspirations.

Hypothesis Verification

The verification of the hypothesis was based on the results obtained through the experimentation of the project as a model for developing the strategy . The project provided an open space that cuts the city margin and provide a physical connection between the two parallel cities , to verify the hypothesis we need to check the resultant proposed transformations in the non-physical borders , according to that action of physical connection as follows:

The Social Borders: The project has been initiated by a community initiative of one of the parallel neighborhoods and encouraged by the other. The project although not yet implemented, is basically an 'open; space that is designed to public to be affordable for both communities, as well as it is being an open space as a park is a very scarce and needed element , within the city fabric, that is supposed to attract the city residents from different social levels. This was also based on, al-Azhar park experience, which identified the essentiality of open spaces in Cairo and the community readiness to integrate within such spaces, regardless of their social levels and backgrounds.

The Cultural Borders: The project as a 'model' was also meant to contain a cultural hub providing a space for the exchange of cultures .The need for such spaces was identified during the 18 days sit in at Tahrir square during the 25th of January revolution . The Cairene community had the opportunity to share ideas, thoughts and hopes. The square was turned into a carnival containing different cultures and

backgrounds. The need for such spaces was identified in the return to the square once more after the revolution were political, social and ideological debates were held. The strategy proposed the development of such spaces across the city based on that experience , thus allowing the dissolution of the cultural borders.

The Economic Borders: The main economic obstacle for that park , was creating it as a public park, that is free and open to both communities. And the governmental approval to allow and support the creation of that project as a public entity represents the possibility for reintegrating these economically segregated communities in one space.

Thus, the thesis hypothesis have proved that the reconfiguration of the role and the form of the city edges can be used as a methodology to reconnect the segregated city parts not just physically, but can also regenerate the social, cultural and economic relationships. Thus, allowing a redevelopment of the whole city.

8.3 Further research on the Parallel Cities

This strategy proposes a model or a strategic framework that was experimented on the city, urban and project scales, yet it proposes a collective and overall vision of the city, stratifying its different infrastructural layers; of the road network, the rail road lines, subway lines, water networks, as well as the built up layers of the formal, informal and the desert city different fabrics, and the open spaces layers with their different categories. On the city scale the study proposes further research on each of these city layers, focusing on each of them to develop a methodology to use each of the city layers as a tool to regenerate Cairo city fabric as well as the application of this methodology on other cities. The proposal developed throughout the project attempts to rethink the relation between these different layers and use the open space as the main container of interaction. Yet, it is possible to redevelop the strategy using the infrastructural network and experimenting the methodology in that aspect, as well as a strategy through the built up fabric, by processes of densification, demolition and gentrification. These are all possibilities to regenerate a city like Cairo, which has suffered extensive processes of division and segregation, and requires a deeper research in all the city constituting layers.

On the urban, and the architecture scales, we need to develop a research on the possible urban order and the architectural language for the threshold areas between the formal and the informal cities, the formal and the desert cities, as well as the informal and the desert cities, which are starting to be close to each other. A language and an order, which are based on the parallel cities patterns, fabrics and landscapes. This study should be grounded on a research of the elements, patterns and processes of the urban orders of each of these cities, to provide new forms and structures for an architecture that fits the areas on the borders and the edges and has the ability to adapt and refer to the parallel cities.

“Finally, we must recognize as scholars we construct new myths even as we try to contest old ones...Cairo remains not a tomb, nor a bomb, but simply a living entity that will always change its skin with the passage of time.”

Nezar Alsayyad, 2006

Bibliography- Chapter 08

Alsayyad, N. (2006). Whose Cairo? In D. Singerman & P. Amar (Eds.), *Cairo Cosmopolitan: Politics, Culture, and Urban Space in the New Globalized Middle East*. Cairo: The American University in Cairo Press.

Kotkin, J. (2007). The Urban Future. In R. T. LeGates & F. Stout (Eds.), *The City Reader*. London and New York: Routledge.

Sims, D. (2010). *Understanding Cairo: The Logic of a City Out of Control*. Cairo: The American University in Cairo Press.

Webber, M. M. (2007). The Post-City Age. In R. T. LeGates & F. Stout (Eds.), *The City Reader*. London and New York: Routledge.

EPILOGUE

“Cairo as all constructed places, will always be contested. Its identity and normative trajectory will never be fixed. Approaching this and yet seeing lineaments along which its identity, built environment, spatial political economy, and normative future are being worked, is the challenge of scholarship in Cairo.”

Diane Singerman, 200

The three parallel cities of Cairo, the formal, the informal and the desert cities, are a combination of physical heterotopias and false attempts to create a utopia. Both cases are unstable, and are unable to compete with the pace of a fast transforming and mutating city. Cairo has lived within different myths that affected the government policy and the people interventions to transform the city, “...to deconstruct the two most popular myths about Cairo; the city as a tomb, a dead or hyper-passive entity more like an open-air museum of monuments occupied by a population of quiescent serfs; and the city as a bomb, an entity of grave contradictions that harbors the explosive ‘Arab street’ that will detonate at any moment.” Cairo needs to challenge itself and collect its parts, before being able to compete with others, it needs to be thought from within. The city needs to be rethought through the understanding of those three parallel systems, which are working separately, and should be redeveloped to engage them within a whole. Suspending the planning utopian vision the government adopts, and restructuring a city that has the potential to house two thirds of its inhabitants in informal settlements, independently from the government.

The informal development is a negative response, due only to a lack of enough affordable public housing, or a lack of appropriate urban plans and housing programs, or a lack of appropriate economic assistance packages to help the poor, or a lack of regional development strategies to stem the drift to the cities. In other words, the state has not done enough. It has not performed its ‘high modernist’ function. This is insufficient, at least for Cairo. We would advance the opposite: informal life in all of its aspects would exist even were government policies and budgets ‘appropriate’ and realistic. Perhaps the scale and pervasiveness of informality would have been less, but there is no government that could have met the challenge of the megacity such as Cairo represents. Governments in developing countries are just not the omnipotent, even if they were somehow able to set aside a whole canon of prejudices in favor of control and modernity and give priority to the simple needs of the majority. And even if that were possible, governments like Egypt’s have their inevitable fellow-travelling business elites who will constantly redirect policies back to western, modernist-corporate paradigms.

However, one can say that Cairo has been blessed, both by geography and, ironically, by the state's misguided approach to it. Geographically, Greater Cairo is unique as a megacity. How many large city hinterlands have the stark dichotomy of huge tracts of publicly owned desert land upon which to expand, and simultaneously intensive small-farm agriculture and dense rural settlements arrayed along the immediate urban fringe?

Egypt is certainly fortunate in having a desert hinterland. This has allowed Greater Cairo's expansion to bifurcate: practically all new industries over the last thirty years have been located in the desert, avoiding the common land-use and environmental conflicts associated with metropolises whose expansion on all directions must confront a rural hinterland. Also, land-hungry modern corporate development, with its speculative subdivisions, gated communities, business parks, and megamalls, all can find a home in the desert. So can huge government establishments, such as those needed for defense, security, and utilities, as well as garbage disposal and other noxious activities. Cairo's desert is a case of a near-perfect match between huge amounts of land and land-wasteful development, all of which is sanctioned and agreed by the state. (Sims, 2010)

By shunting off large-scale formal urban development to the adjacent deserts, the rural fringes have been left to 'silently' absorb people and the dense and small-impact informal residential neighborhoods they create. It wasn't at all planned that way. But the economics of housing and livelihoods for the mass of inhabitants has prevailed, and as a result, over a few short decades the rural fringes of Greater Cairo have now been transformed, house the majority of the city's inhabitants, and represent, in a real way, the future of the city. The incremental and informal mode of settlement expansion in these fringe urban area is dense and efficient, minimizing the loss of the agricultural land that surrounds them and making their (eventual) servicing straightforward and cost effective. There are certainly many problems in these areas, but they relate mostly to the lack of sufficient state investments in infrastructure and public services to keep up with population growth. A reprioritization of government budgetary allocations could make these areas much better, and at little cost.

Here is where true ironic serendipity comes in. Informal urban development on a massive scale, with all of its logic could not have occurred had the government not adopted and stubbornly pursued its wholesale desert development strategy and not tried, however unsuccessfully, to proscribe all development on the rural plain.

Thus, in a sense, Cairo ended up with the best of all worlds. The informal dynamic was left to operate, but constrained into a form of organic spatial growth and consolidation. This dynamic could thus provide well-located housing affordable to the masses, create neighborhoods that could easily be supplied with basic infrastructure (however tardily), and generate its own economy and services. All of these new areas were created, for the most part, without any polluting factories or other non-conforming land uses nearby, and without the remaining agricultural land and

BIBLIOGRAPHY

- 'Abdel Akher, 'Omar. (1997). *Remarks by the governor of Cairo at the Center for the Study of Developing Countries, Cairo University, 8 April. Cairo.*
- Abdel-Khalek, G., & Tignor, R. (Eds.). (1982). *Patterns of Urban Growth and Income Distribution in Egypt. The Political Economy of Income Distribution in Egypt.* New York: Holmes and Meier Publishers.
- Abt Associates with Dames and Moore and General Organization of Housing, B. , and P. R. (1982). *Informal Housing in Egypt.* Cairo.
- Abu-Lughod, J. L. (1971). *Cairo, 1001 Years of the City Victorious.* Princeton: Princeton University Press.
- Abu-Lughod, J. L. (2010). Foreward. In D. Sims (Ed.), *Understang Cairo: The Logic of A City Out of Control.* Cairo: The American University in Cairo Press.
- Adham, K. (2004). Cairo's Urban Deja vu: Globalization and Urban Fantasies. In Yasser El Sheshtawy (Ed.), *Planning the Middle East City: An Urban Kaleidoscope* (pp. 134–68). London: Routledge.
- Agnes Deboulet. (2009). The Dictatorship of the Straight Line and the Myth of Social Disorder. In D. Singerman (Ed.), *Cairo Contested: Governance, Urban Space, and Global Modernity.* Cairo: American University in Cairo Press .
- Alsayyad, N. (2006). Whose Cairo? In D. Singerman & P. Amar (Eds.), *Cairo Cosmopolitan: Politics, Culture, and Urban Space in the New Globalized Middle East.* Cairo: The American University in Cairo Press.
- Angotti, T. (1993). *Metropolis 2000.* New York: Routledge.
- Arandel, C., & El-Batran, M. (1997). *The Informal Housing Process in Egypt.* London.
- Aristotle. (2005). *Politics. The Loeb Classical Library* (Vol. XXI). Cambridge, MA and London: Harvard University Press.
- Arnstein, S. (1969). A Ladder of Citizen Participation. *Journal of the American Institute of Planners.*
- Auge, M. (1995). *Non-places : introduction to an anthropology of supermodernity.* London: Verso.
- Ayubi, N. N. (1995). *Over-stating the Arab State: Politics and Society in the Middle East.* London: I.B. Tauris Publishers.
- Barnett, J. (1996). *The Fractured Metropolis: Improving The New City, Restoring The Old City, Reshaping The Region.* New York: HarperCollins .
- Baross, P. (1990). Sequencing land development: The price implications of legal and illegal settlement growth. In P. Baross & J. Linden (Eds.), *The transformation of land supply systems in Third World cities.* Aldershot: Avebury.
- Baudrillard, J. (1998). Simulacra and Simulation. In M. Poster (Ed.), *Jean Baudrillard, Selected Writings.* Stanford University Press. Retrieved from http://www.stanford.edu/dept/HPS/Baudrillard/Baudrillard_Simulacra.html
- Bayat, A. (2000). From "Dangerous Classes" to "Quiet Rebels": Politics of the Urban Subaltern in the Global South". *International Sociology, 15*(3).
- Bayat, A., & Denis, E. (2000). Who is Afraid of ashwaiyyat? Urban Change and Politics in Egypt. *Environment and Urbanization, 12*(2).
- Berenstein Jacques, P. (2001). The aesthetics of the favela: the case of an extreme. In J. JFiori, H. Hinsley, E. Pascolo, & K. Thornton (Eds.), *Transforming Cities: Design in the Favelas of Rio de Janeiro.* London: Architectural Association.

- Berry-Chikhaoui, I., & Debout, A. (Eds.). (2000). *Les competences des citoyens dans le Monde Arabe: Penser, faire et transformer la ville*. Paris/Tunis: IRMC/Karthala/URBAMA.
- Bitter, S., & Weber, H. (2005). Caracas—hecho en Venezuela. In A. Brillembourg, K. Feireiss, & H. Klumpner (Eds.), *Informal City: Caracas Case*. Munich: Prestel.
- Blakely, E., & Snyder, M. (Eds.). (1997). *Fortress America: Gated Communities in the United States*. Washington, D.C.: Brookings Institution Press.
- Body-Gendrot, S. (2007). Confronting Fear. In R. Burdett & D. Sudjiv (Eds.), *The Endless City*. Phaidon Press Limited.
- Boeri, S. (2011). The Anticity. *Abitare*, 513.
- Brillembourg, A., & Klumpner, H. (2005). Introduction. In Brillembourg A., K. Feireiss, & H. Klumpner (Eds.), *Informal City: Caracas Case*. Munich: Prestel.
- Brillembourg, Alfredo, Feireiss, K., & Klumpner, H. (2005). *Informal City: Caracas Case*. Munich, Berlin, London, New York: Prestel Verlag.
- Brillembourg, C. (2004). The new slum urbanism of Caracas, invasions and settlements, colonialism, democracy, capitalism and devil worship. *AD: Architectural Design*, 74(2).
- Burgess, E. W. (1925). The Growth of the City: An Introduction to a Research Project. In R. Park & E. W. Burgess (Eds.), *The City*. Chicago: The University of Chicago Press.
- Caldeira, T. P. R. (2000). *City of Walls: Crime, Segregation, and Citizenship in Sao Paulo*. Berkeley: University of California Press.
- Caneri, T. (1905). *La ville du Caire son present et son avenir*. Cairo: Institut Francais d'Archeologie Orientale.
- Castel, R. (1995). *Le metamorphose de la question sociale*. Paris: Fayard.
- Castillo, J. (2001). Urbanisms of the informal: transformations in the urban fringe of Mexico City. *Praxis: Journal of Writing and Building*, 2(1).
- Castillo, J. (2007). After the Explosion. In R. Burdett & D. Sudjic (Eds.), *The Endless City*. Phaidon Press Ltd.
- Cities Alliance: Cities without Slums and the City of Sao Paulo. (2008). Informal and Squatter Settlements in Greater Cairo: Challenges and Policy Response. *Slum Upgrading Up close: Experience of Six Cities*. Washington, D.C. Retrieved from <http://www.citiesalliance.org/doc/resources/upgrading/su-up-close/su-up-close.pdf> (accessed 15 July 2011)
- Clark, J. (2003). *Islam, Charity, and Activism: Middle-Class Networks and Social Welfare in Egypt, Jordan, and Yemen*. Indianapolis: Indiana University Press.
- Clay, G. (1994). *Real Places: An Unconventional Guide to America's Generic Landscapes*. Chicago: University of Chicago Press.
- Clerget, M. (1934). *Le Caire: Etude de geographie urbaine et economique*. Cairo: Schindler.
- Clos, J. (2010). The European City Model. In R. Burdett & D. Sudjic (Eds.), *The Endless City* (2nd ed.). Phaidon Press Limited.
- Conde, L. P., & Magalhaes, S. (2004). *Favela-Bairro: rewriting the history of Rio*. Rio de Janeiro: ViverCidades.

- De Caüter, L., & Deheane, M. (2008). *Heterotopia and the city : public space in a postcivil society*. New York: Routledge.
- De Sola Morales, I. (1998). *Weak architecture, Architecture Theory since 1968*. The Trustees of Columbia University in the City of New York and Massachusetts Institute of Technology.
- Deboulet, A. (2009). The Dictatorship of the Straight Line and the Myth of Social Disorder. In D. Singerman (Ed.), *Contested: Governance, Urban Space and Global Modernity*. Cairo: The American University in Cairo Press.
- Denis, E. (2006). Cairo as a Neo-Liberal Capital ? From Walled City to Gated Communities. In D. Singer & P. Amar (Eds.), *Cairo Cosmopolitan: Politics, Culture, and Urban Space in the New Globalized Middle East*. Cairo: American University in Cairo Press.
- Denis, E., & Sejourne, M. (2002). *ISIS Information System for Informal Settlements*.
- Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ). (2009). *Cairo's Informal Areas: Between Urban Challenges and Hidden Potentials: Facts, Voices, Visions*. Cairo.
- Deutsche Gesellschaft für Technische., & Zusammenarbeit (GTZ)and Cairo Governorate. (2001). *Manshiet Nasser Guide Plan, Analysis of the Existing Situation*. Cairo.
- Dharavi: Documenting informalities. (2010).*Lotus Magazine*, 143.
- Dorman, W Judson. (2007). *The Politics of Neglect in Cairo, 1974-98*.
- Dorman, W.J. (2009a). Of Demolitions and Donors: The problematics of State Intervention in Informal Cairo. In D. Singerman (Ed.), *Cairo Contested: Governance, Urban Space, and Global Modernity*. Cairo: American University in Cairo Press.
- Dorman, W.J. (2009b). Of Demolitions and Donors . In D. Singerman (Ed.), *Cairo Contested: Governance, Urban Space and Global Modernity*. Cairo: The American University in Cairo Press.
- Doxiadis, C. (1963). *Architecture In Transition*. New York: Oxford University Press .
- Duany, A., & Plater, E. (1993). The Neighbourhood, the District, and the Corridor. In P. Katz & V. Scully (Eds.), *The New Urbanism: Toward an Architecture of Community* .
- Duccianti, A. (1996). The Lure of Gain Has Made of Cairo an Unlikely Network of Anarchic Constructions. *Le Monde*, (6 June).
- Durand-Lasserve, A., & Tribillon, J.-F. (2001). "La loi ou la ville?" *Urbanisme*, 318, 72–77.
- Egyptian Ministry of Awqaf Projects' Department. (2009). *Housing project on Waqf Mohamed Sinan, Ard al-Liwa*.
- Elkadi, G. (2009). *Al-Tahddur al-"Ashwa"i*. Cairo: *Al Majlis al-A'la lil-Tarjama wa-al-Nashr*.
- El Kadi, G. (1987). *L'Urbanisation spontanee au Caire*. Tours: URBAMA & ORSTOM.
- El Shakry, O. (2006). Cairo as Capital of Socialist Revolution? In D. Singerman & P. Amar (Eds.), *Cairo Cosmopolitan: Politics, Culture, and Urban Space in the New Globalized Middle East*. Cairo: American University in Cairo Press .
- El-Hadidi, H., Oldham, L., & Tamaa, H. (1987). Informal Communities in Cairo: The Basis of a Typology. *Cairo Papers in Social Science*, 4(10).

- El-Messiri, S. (1985). The Squatter's Perspective of Housing: An Egyptian View. In W. van Vliet, E. Huttman, & S. Fava (Eds.), *Housing Needs and Policy Approaches: trends in Thirteenth Countries*. Durham: Duke University Press.
- El-Batran, M. (2000). The Role of Local Authorities in Implementing Secure for the Benefit of the Poor: *The Experience of Egypt. The Second Forum for the World Alliance of Cities against Poverty*. Geneva.
- Elsheshtawy, Y. (2004). Redrawing Boundaries: Dubai, the Emergence of a Global City. In Y. Elsheshtawy (Ed.), *Planning the Middle East City: An Urban Kaleidoscope* (pp. 169–99). London: Routledge.
- Enrique Ponalosa. (2007). Politics, Power, Cities . In R. Burdett & D. Sudjic (Eds.), *The Endless City* . Phaidon Press Limited .
- Evans, R. (1971). Bentham's Panopticon: an incident in the social history of architecture. *Architectural Association Quarterly*, 3(2).
- Fahmy, N. (2004). A Culture of Poverty or the Poverty of Culture? Informal Settlements and the Debate over the State-Society Relationship in Egypt. *Middle East Journal*, 58(4).
- Farag, F. (2003). Urban Matters: Fatemah Farag Considers the Dark Side of City Life. *Al Ahram Weekly Online*, 658(2). Retrieved from <http://weekly.ahram.org.eg/2003/658/fel.htm> (accessed 14 November 2008)
- Florin, B. (2009). Banished by the Quake: Urban Cairenes Displaced from the Historic Center to the Desert Periphery. In D. Singerman (Ed.), *Cairo Contested: Governance, Urban Space, and Global Modernity*. Cairo: American University in Cairo Press .
- Foucault, M. (1967). *Of Other Spaces*. (C. David & J.-F. Chevrier, Eds.). Kassel: Hatje Cantz. Retrieved from <http://foucault.info/documents/heteroTopia/foucault.heteroTopia.en.html>
- Foucault, M. (1978). *Discipline and Punish: the Birth of the Prison*. New York: Penguin.
- Gad, H. (2011). *Action Plan for the Development of Ard al-Liwa, Giza Governorate*.
- Golda-Pongratz, K. (2004). The barriadas of Lima: utopian city of self-organisation? *AD: Architectural Design*, 74(4).
- Golia, M. (2004). *Cairo: City of Sand*. London: Reaktion Books Ltd.
- Gottmann, J. (1961). *Megalopolis: The Urbanized North-eastern Seaboard of the United States*. New York: Twentieth Century Fund.
- Gregotti, V. (1990a). Tipologie atopiche. *Casabella*, 568.
- Gregotti, V. (1990b). Atpoic typologies. *Casabella*, 568.
- Hanningan, J. (1998). *Fantasy City*. London: Routledge.
- Hardoy, J., & Satterthwaite, D. (1989). *Squatter Citizen: Life in the Urban Third World*. London: Earthscan Publications.
- Harik, I. (1997). *Economic Policy Reform in Egypt*. Gainesville: University Press of Florida.
- Harvey, D. (1997). Contested Cities: Social Process and Spatial Form. In N. Jewson & MacGregor Susanne (Eds.), *Transforming Cities*.
- Harvey, D. (2000). *Spaces of Hope*. Berkeley: University of California Press.
- Hassan, N. M. (1985). Social Aspects of Urban Housing Cairo. *Miramar*, 17.

- Haw, S. G. (2006). *Beijing-A Concise History*. London: Routledge.
- Heckscher, A. (1962). *The Public Happiness*. New York: Atheneum Publishers.
- Hobsbawm, E. (1996). *The Age of Extremes: The History of the World, 1914-1991*. New York: Penguin.
- Honneth, A. (2002). *La lutte pour la reconnaissance*. Paris: Le Editions du Cerf.
- Huchzermeyer, M., & Karam, A. (Eds.). (2006). *Informal Settlements: A Perpetual Challenge?* Cape Town: University of Cape Town Press.
- Ismail, S. (2006). *Political Life in Cairo's New Quarters: Encountering the Everyday State*. Minneapolis: University of Minnesota Press.
- ISoCaRP. (2001). 37th International ISoCaRP Congress 'Honey, I shrunk the Space - Planning in the Information Age', (September).
- Jacobs, J. (1961). *The Death and Life of Great American Cities*. New York: Random house.
- Jacobs, S. (2002). Shreds of Boring Postcards: Towards a Posturban Aesthetics of the Generic and the Everyday. In the Ghent Urban Studies Team (Ed.), *Post, Ex, Sub, Dis: Urban Fragmentations and Constructions*. Rotterdam: 010 Publishers.
- Jencks, C. (1995). *The Homeless*. Cambridge, MA: Harvard University Press.
- Judt, T. (2006). *Postwar: A History of Europe since 1945*. New York: Penguin.
- Kang, M. J. (Ed.). (2009). The 4th International Conference of the International Forum on Urbanism (IFoU) The New Urban Question – Urbanism beyond Neo-Liberalism. *Informal Urbanism from Inside - Out - Internalizing Taipei Experiences of Informality*, Amsterdam.
- King, A. D. (1996). *Representing the City: Ethnicity, Capital and Culture in the 21st-century Metropolis*. London: Macmillan.
- Kipper, R. (2009). Cairo: A Broader View. In R. Kipper & M. Fischer (Eds.), *Cairo's Informal Areas Between Urban Challenges and Hidden Potentials - Facts. Voices. Visions*. Cairo: German Technical Cooperation.
- Kipper, R., & Fischer, M. (Eds.). (2009). *Cairo's Informal Areas Between Urban Challenges and Hidden Potentials- Facts. Voices*. Cairo: German Technical Cooperation.
- Kitto, H. D. F. (1951). *"The Polis" from The Greeks*. London: Penguin Books.
- Koolhaas, R. (1978). *Delirious New York*. New York: Oxford University Press.
- Koolhaas, R. (1994). The Generic City. In J. Sigler (Ed.), *Small, Medium, Large, Extra-Large*. Rotterdam: 010 Publishers.
- Kostof, S. (1991). *The City Shaped: Urban Patterns and Meanings Through History*. Boston: Little, Brown and Co.
- Kotkin, J. (2007). The Urban Future. In R. T. LeGates & F. Stout (Eds.), *The City Reader*. London and New York: Routledge.
- Krugman, P. (1996). *The Self-Organizing Economy*. Oxford: Blackwell.
- Laguerre, M. S. (1994). *The Informal City*. Basingstoke: Macmillan.
- Le Corbusier. (1987). *The City of Tomorrow and its Planning*. New York: Dover.

- Leeds, A. (2007). Forms on Urban Integration: 'Social Urbanization' in Comparative Perspective. *Urban Anthropology*, 8.
- LeGates, R. T. (2007). Prologue. In R. T. LeGates & F. Stout (Eds.), *The City Reader*. London and New York: Routledge.
- Luke, T. W. (1994). Aesthetic Production and Cultural Politics: Baudrillard and Contemporary Art. In D. Kellner (Ed.), *Baudrillard: A Critical Reader*. Blackwell: Oxford.
- Lynch, K. (1960). *The City Image and its Elements*. MIT Press.
- Lynch, K. (1961). *The Image of the City*. Cambridge MA: MIT Press.
- Madbouli, M. (2005). *Background Paper on Urban Planning, Management and Administration*.
- Madbouli, M., & Lashin, A. (2003). *al-Manatiq al-'ashwa'iya fi-l- Qahira al-Kubra: dirasat al hala al-qa'ima fi Bulaq al-Dakrur*. Cairo.
- Maezia, M. (1998). Traces reguliers, traces regulateurs. In J. Dakhli (Ed.), *Urbanite arabe*. Paris: Sindbad-Actes Sud.
- McGrath, B., & Shane, D. G. (2005). Sensing the 21st-Century City-Close-up and Remote. *Architectural Design*, 75(6).
- McHarg, I. (1969). *Design with Nature*. New York: Garden City.
- Ministry of Housing and General Organization for Physical Planning. (2012). *Detailed Plan for Ard al-Liwa, Study of Existing Condition*. (in progress) .
- Ministry of Housing and Infrastructure and Development and General Organization for Physical Planning and Cairo University Faculty of Urban Planning. (2009). *The General Strategic Plan for the municipal unit of Ard al-Liwa Villa, Kirdasa Township*. Cairo.
- Morales, J. (2003). In-Between. In S. Cros (Ed.), *the Metapolis Dictionary of Advanced Architecture: City, Technology and Society in the Information Age*. Barcelona: ACTAR.
- Mumford, L. (1937). "What Is a City? . *Architectural Record*, LXXXII.
- Munro, W. (1998). *The Moral Economy of the State: Conservation, Community Development, and State Making in Zimbabwe*. Athens: OH: Ohio Universty Center for International Studies.
- Nagati, O. (2012). Informalization as an urban revolt: Reclaiming space, reproducing "order". *Re-evaluating the Postcolonial City: Production, Reconstruction, Representation*,. University of Leeds.
- Nagati, O., & Stryker, B. (2012). *Archiving a city in flux: Cairo's evolving Urbanism pre and post-Revolution*. Cairo.
- Nippon Koei Co.Ltd, & Katahira Engineers International. (2008). *The Strategic Urban Development Master Plan Study for Sustainable Development of the Greater Cairo Region in the Arab Republic of Egypt, Draft Final Report. Vol.1:Starategic Urban Development MAster Plan* . Cairo.
- Olmsted, F. L. (1870). Public Parks and the Enlargement of Towns, American Social Science Association. In R. Burdett & D. Sudjic (Eds.), *The Endless City*. Phaidon Press Limited.
- Paczynska, A. (2009). Economic Liberalization and Union Struggles in Cairo. In D. Singerman (Ed.), *Cairo Contested: Governance, Urban Space, and Global Modernity*. Cairo: American University in Cairo Press.
- Palmer, M., Ali, L., & El-Sayed, Y. (1988). *The Egyptian Bureaucracy*. Syracuse: Syracuse University Press.

- Park, R. (1926). The Urban Community as a Spatial Pattern and a Moral Order. In E. Burgess & R. Park (Eds.), *The Urban Community*. Chicago: University of Chicago Press.
- Portugali, J. (2000). *Self- organization and the city*. Berlin: Springer- Verlag .
- Rayan, G. (2008). *Amaliyat al-irtiqā' bi-l manatiq al-'ashwai'ya fi fa'aliyat tanfiz al-mukhattatat*.
- Raymond, H. (1984). *L'architecture: Les aventures spatiales de la raison*. Paris: Centre de Creation Industrielle, Centre Georges Pompidou.
- Rodenbeck, M. (1998). *Cairo: The City Victorious*. London: Picador Macmillan.
- Rossi, A. (1984). *The Architecture of the City*. Cambridge: MIT Press.
- Rousillon, A. (1998). Republic Egypt Interpreted: Revolution and Beyond. In M. W. Daly (Ed.), *The Cambridge History of Egypt, vol.2, modern Egypt, from 1517 to the End of the Twentieth Century*. Cambridge: Cambridge University Press.
- Rowe, C., & Koetter, F. (1983). *Collage City*. Cambridge: The MIT Press.
- Roy, A. (2003). *City Requiem, Calcutta*. Minneapolis: University of Minnesota Press.
- Roy, A. (2005). Urban Informality, Toward an Epistemology of Planning. *Journal of the American Planning Association (JAPA)*, 2(71).
- Roy, A. (2011). *Slumdog Cities: Rethinking Subaltern Urbanism*. *International Journal of Urban and Regional Research*, 35(2).
- Roy, A., & Alsayyad, N. (Eds.). (2004). *Urban informality: Transnational perspectives from the Middle East, South Asia and Latin America*. Lanham, MD: Lexington Books.
- Safdie, M. (1997). *The City After The Automobile: An Architect's Vision*. WestView Press.
- Salat, S., & CSTB. (2011). *Cities and Forms on Sustainable Urbanism*. Hermann Editeurs des Sciences et des Arts.
- Sassen, S. (1999). Whose City Is It? Globalization and the Formation of New Claims. In J. Holston (Ed.), *Cities and Citizenship*. Durham: Duke University Press.
- Sassen, S. (2005). Fragmented Urban Topographies and Their Underlying Interconnections. In Alfredo, Brillembourg, K. Feireiss, & H. Klumpner (Eds.), *Informal City – Caracas Case*. . Munich: Prestel Verlag.
- Saying No. (2000). Saying No to Pollution. *Al-Ahram Weekly*, 20-26 July. Cairo. Retrieved from <http://weekly.ahram.org.eg/2000/491/frl.htm> (accessed 19 February 2012)
- Secchi, B. (1985). Abandoned Territory. *Casabella*, 509/510.
- Secchi, B. (1991). The periphery. *Casabella*, 583.
- Sennet, R. (2006). *The Open City*. Berlin: Urban Age.
- Shane, D. G. (2005). *Recombinant Urbanism: Conceptual Modeling in Architecture, Urban Design and City Theory*. Chichester: Wiley-Academy .
- Shane, D. G. (2011). *Urban design since 1945. A global perspective*. Chichester: Wiley.

- Shehaye, D. (2009). *Advantages of Living in Informal Areas. GTZ, Cairo's Informal Areas: Between Urban Challenges and Hidden Potentials: Facts, Voices, Visions. Cairo: Participatory Development Program in Urban Areas.*
- Shehaye, D. K. (2009). Advantages of Living in Informal Areas. In R. Kipper & M. Fischer (Eds.), *Cairo's Informal Areas Between Urban Challenges and Hidden Potentials: Facts, Voices, Visions.* Cairo : German Technical Cooperation.
- Sims, D. (2000). *Residential Informality in Greater Cairo: Typologies, Representative Areas, Quantification, and Causal Factors.* Cairo.
- Sims, D. (2002). *Informal Residential Development in Greater Cairo: Typologies, Representative Areas.* Lima.
- Sims, D. (2003). The Case of Cairo, Egypt. *Understanding Slums: Case Studies for the Global Report 2003.* London: UN-Habitat and Development Planning Unit, University College London. Retrieved from http://www.ucl.ac.uk/dpu-projects/Global_Report/cities/cairo.htm (accesses September 2011)
- Sims, D. (2010). *Understanding Cairo: The Logic of a City Out of Control.* Cairo: The American University in Cairo Press.
- Singerman, D. (Ed.). (2009). *Cairo Contested: Governance, Urban Space, and Global Modernity.* Cairo: American University in Cairo Press .
- Singerman, D., & Amar, P. (2009). Contesting Myths, Critiquing Cosmopolitanism, and Creating the New Cairo School of Urban Studies. In Diane Singerman (Ed.). (2009). *Cairo Contested: Governance, Urban Space, and Global Modernity.* Cairo: American University in Cairo Press .
- Singerman & P. Amar (Eds.), *Cairo Cosmopolitan: Politics, Culture, and Urban Space in the New Globalized Middle East.* Cairo: The American University in Cairo Press.
- Siza Vieira, A. (1984). L'accumulazione degli indizi. *Casabella*, 498(9).
- Sola-Morales Rubio, I. (1995). Terrain vague. In C. Davidson (Ed.), *Anyplace.* Cambridge, Massachussets: MIT Press.
- Steinberg, F. (1990). Cairo: Informal Land Development and the Challenge for the Future. In Paul Baross & J. van der Linder (Eds.), *The Transformation of Land Supply Systems in Third World Cities.* Aldershot: Gower Publishing.
- Sutton, K., & Fahmi, W. (2001). Cairo's Urban Growth and Strategic Master Plans in the Light of Egypt's 1996 Population Census Results. *Cities*, 18(3), 135.
- Sejourne, M. (2006). *Les politiques recentes de "traitement" des quartiers illegaux au Caire: Nouveaux enjeux et configuration du systeme d'acteurs.*
- Sejourne, M. (2006). *Les politiques recentes de "traitement" des quartiers illegaux au Caire : nouveaux enjeux et configuration du systeme d'acteurs? .* University F. Rabelais.
- Sejourne, M. (2009). The History of Informal Settlements. In R. Kipper & M. Fischer (Eds.), *Cairo's Informal Areas Between Urban Challenges and Hidden Potentials: Facts, Voices, Visions.* Cairo: German Technical Cooperation.
- Taher, N. A. (1986). Social Identity and Class in a Cairo Neighborhood. *Cairo Papers in Social Science*, 9(4).
- Tekce, B., Oldham, L., & Shorter, F. (1994). *A Place to Live: Families and Child Health in a Cairo Neighborhood .* Cairo: American University in Cairo Press.
- The Stealth Group. (2001). *The Wild City: Genetics of Uncontrolled Urban Processes.*

- The World Bank. (2008). Arab Republic of Egypt- Urban Sector Update. *Vol.I :Sustainable Development Department Middle East & North Africa Region* (Vol.I). Washington,D.C.
- Tilly, C. (1984). Social Movements and National Politics. In C. Bright & S. Harding (Eds.), *Statemaking and Social Movements: Essays in History and Theory*. Ann Arbor: University of Michigan Press.
- Tiwari, G. (2007). Informality and its Discontents. In R. Burdett & D. Sudjic (Eds.), *The Endless City*. Phaidon Press Limited.
- Ungers, O. M. (1984). Modificazione come tema. *Casabella*, 498(9).
- United States Agency for International Development (USAID). (2008). *Housing Study for Greater Cairo*. Washington D:C.: USAID/Egypt Policy and Private Sector Office.
- Valladares, L. (2006). *La favela d'un siecle e l'autre*. Paris: Editions de la Maison des sciences de l'Homme.
- Vallat, C., Marino, B., & Biondi, G. (1998). *Naples: Demythifier la ville*. Paris: L'Harmattan.
- Van Pelt, R. J., & Westfall, C. W. (1991). *Architectural Principles in the Age of Historicism*. New Haven, CT, and London: Yale University Press.
- Venturi, R. (1966). *Complexity and Contradiction in Architecture*. New York : The Museum of Modern Art Press.
- Vignal, L., & Denis, E. (2006). Cairo as Regional/Global Economic Capital? In D. Singerma & P. Amar (Eds.), *Cairo Cosmopolitan: Politics, Culture, and Urban Space in the New Globalized Middle East*. Cairo: American University in Cairo Press.
- Wall, E. (2010). *Infrastructural Form , Interstitial Spaces and Informal Acts*.
- Ward, P. (Ed.). (1982). *Self help housing: A critique*. London: Mansell.
- Waterbury, J. (1983). *The Egypt of Nasser and Sadat: The Political Economy of Two Regimes*. Princeton: Princeton University Press.
- Waterbury, J. (1985). The "Soft State" and the Open Door: Egypt's Experience with Economic Liberalization, 1974-1984. *Comparative Politics* , 18.
- Webber, M. M. (2007). The Post-City Age. In R. T. LeGates & F. Stout (Eds.), *The City Reader*. London and New York: Routledge.
- Wickham, C. R. (2003). *Mobilising Islam: Religion, Activism, and Political Change in Egypt*. New York: Columbia University Press.
- Wirth, L. (1938). Urbanism as a Way of Life. *American Journal of Sociology*, XIV,(1).
- World Bank. (1986). *Project Performance Audit Report: Egypt First Urban Development Project*. Washington, D.C.
- World Bank. (2008). *Arab Republic of Egypt:Urban Sector Note* . Washington,D.C.
- Wright, G. (2005). Informal Cities, Multiple Realities. In Alfredo Brillembourg, K. Feireiss, & H. Klumpner (Eds.), *Informal City: Caracas Case*. Munich, Berlin, London, New York: Prestel Verlag.
- Video Update, (2012).Hyde Park,one of the new developments courting international investors online in New Cairo. http://www.youtube.com/watch?v=IWvFi_g-W38

APPENDICES

Appendix 01: Similar Projects- Regenerating the City Periphery.

Appendix 01A: West Milan- Interpretations of Urban Peripheries and Regeneration of Fabrics.

Appendix 01B: Colorificio Migliavacca| TOPOSCAPE-Urban textures and architectural connections.

Appendix 01C: Tor Bella Monaca -Interpretations of Urban Peripheries and Regeneration of Fabrics

Appendix 02:Cairo 2050 Report

Appendix 03:Ard al-Liwa Report

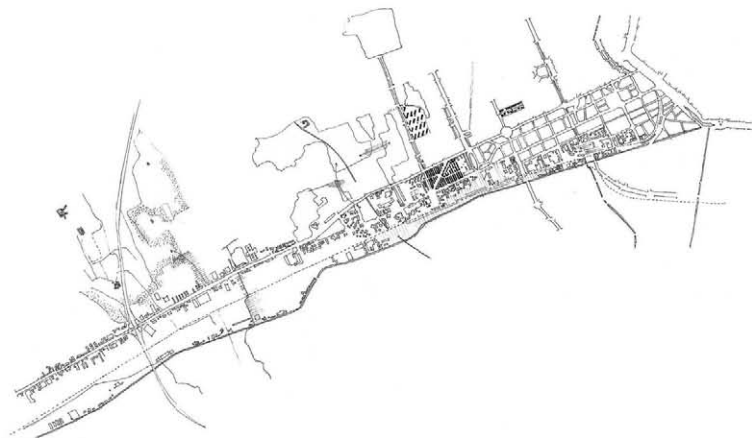
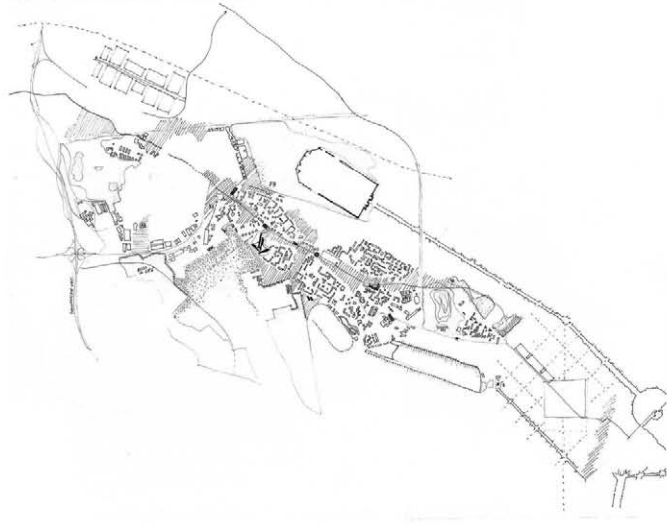
Appendix 01 : Similar Projects- Regenerating the City Periphery
1A. West Milan: Interpretations of Urban Peripheries and Regeneration of Fabrics.

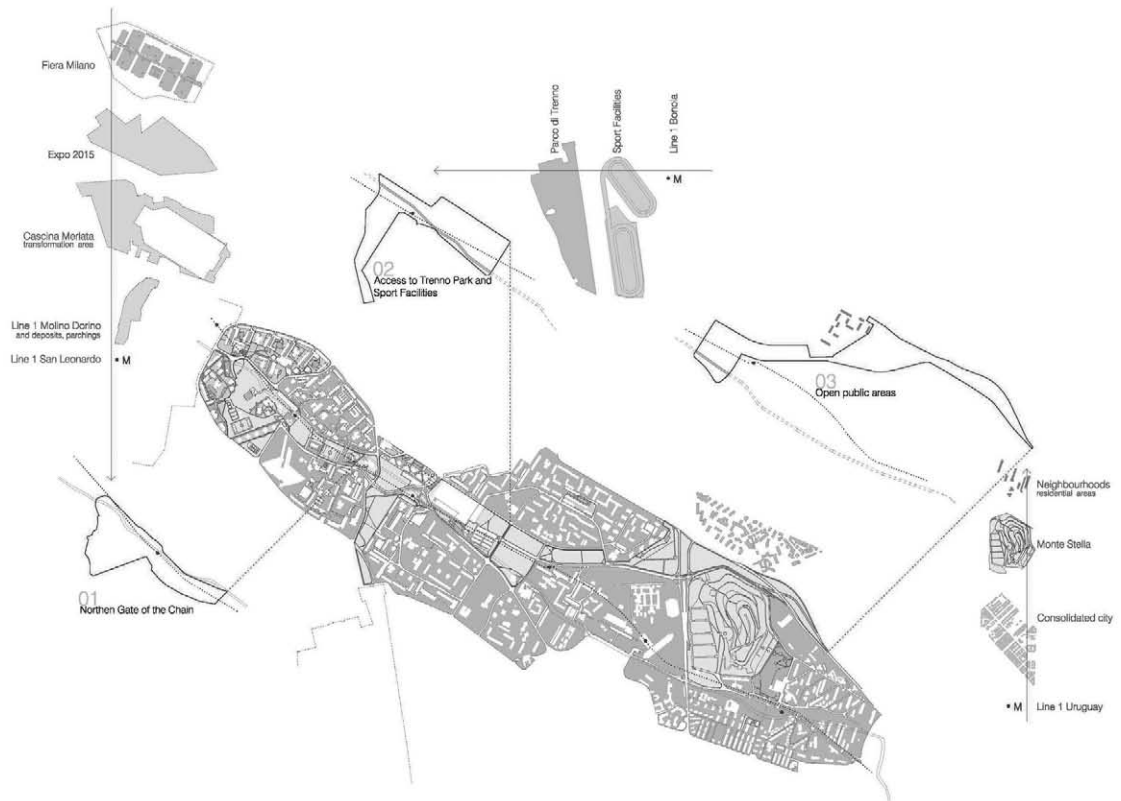


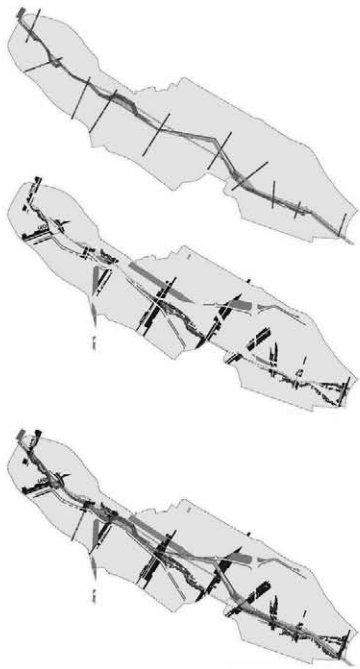
The workshop addressed the issue of regeneration of the urban fabric through margins, and especially the mainly residential districts made after World War II. The workshop aimed at identifying and developing tools to the description, interpretation and project intervention aimed at the regeneration of some areas identified in the marginal areas of the western sector of the city of Milan.

As the scope of the workshop defined the western section of Milan, and especially the quadrant between the axis of the Sempione to the north and the Naviglio Grande to the south, in an experimental way, we proceeded to the formulation of readings descriptive and interpretative diagrams of the sector. The identification of the residential areas belonging to this urban quadrant then initiated the formulation of intervention strategies on a large scale, even in relation to policies put in place by the municipality with the recent plan of the Government and the related projects of the Expo 2015. For each district we built a detailed bibliography of reference: as a useful tool for those who is preparing the study of the same neighborhoods. We then proceeded to the development of proposals in relation to the strategies formulated: trying to formulate an intervention method valid at different scales, which can involve not only the built environment, but also open spaces.

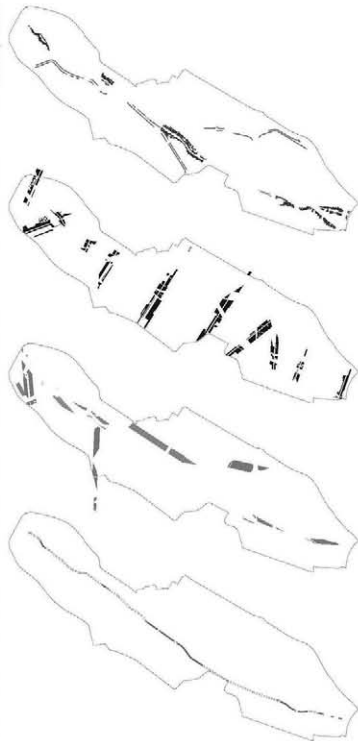
Within this framework, I worked on that project with Elena Fontanella, focusing on the sequence of neighborhoods of QT8, Gallarate1 and Gallarate2, this sequence was considered important in relation to the issues presented by the guidelines of the laboratory on the one hand, and at the same time in relation to the intervention strategy at the larger scale we proposed in this area. The project, which we called 'The Spine: Regenerating the Gallarate-QT8 Chain of Spaces, a Strategy for Re-connecting the City Layers' consists of four sections. 'Reading the Layers City: Milan Western Area' which is a system that provides descriptive readings, and assumes the technical detection and separation of layers in a way to understand the area. The second section 'Restructuring the City: Chains of Spaces Strategy' which introduces the intervention strategy proposed on a large scale, which is based on the identification and enhancement of three large urban spatial sequences (Chains of Spaces), and more precisely in the redefinition of certain tissues, the redefinition of open spaces and connections between separated parts, the strategy of action in the field west of Milan. The two concluding sections ('Case Study Documentation: Gallarate and QT8: Description Layering through' and 'The Spine: Regenerating the Gallarate-QT8 Chain of Spaces') focus first on the description and interpretation of the districts selected for the project development, and thus in the setting of the master plan. This part represents a proposal to re-connect and regenerate the urban fabric through open spaces, stratifying the contemporary city layers and reconnecting them, working on a mixture of functions and supportive service for the residents, and on the accessibility of public spaces, recognizing the nodes of the metro stations as hubs for the reorganization of certain functions supporting the neighborhood, but also the wider urban scale, and the city scale.



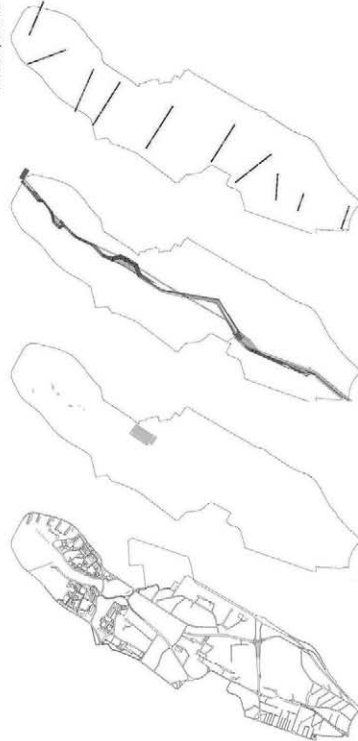




NATURE PALATRE



ARTISE PALATRE



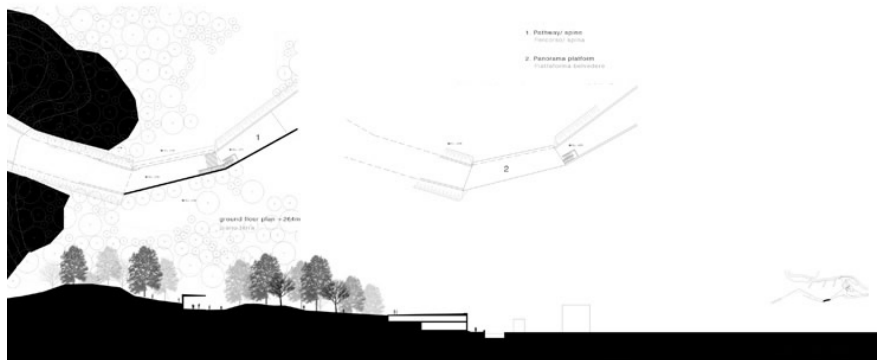
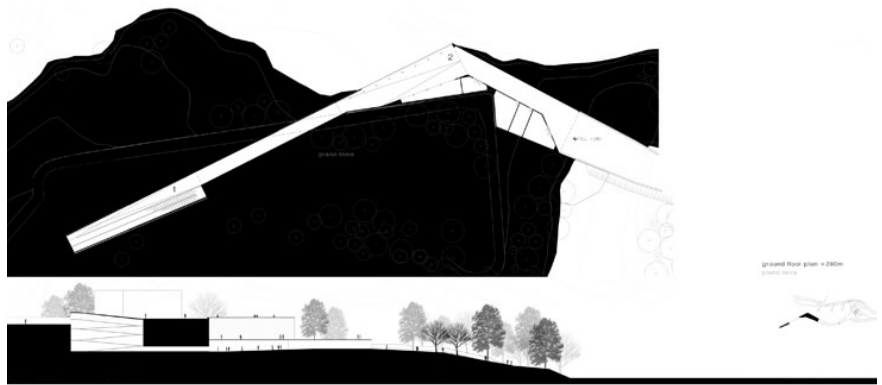
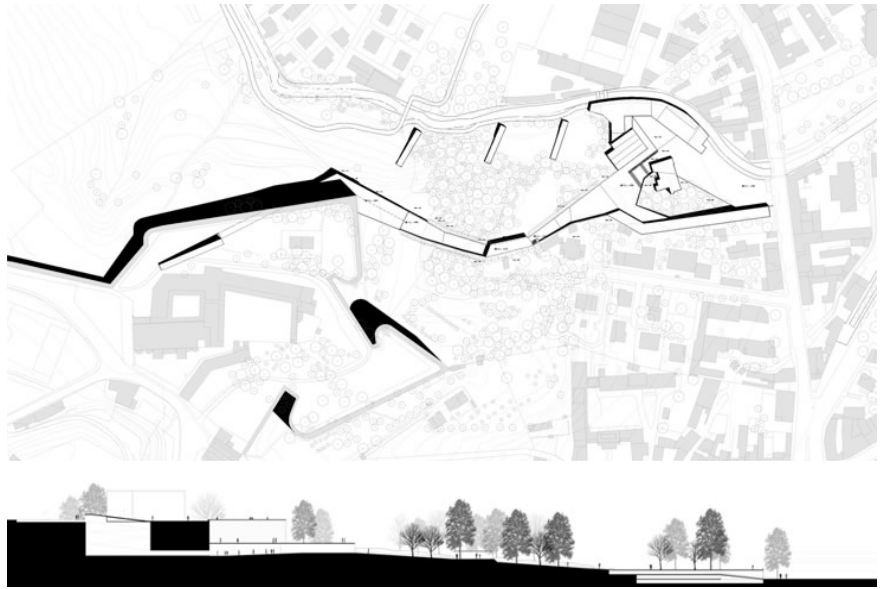
1B. Colorificio Migliavacca| TOPOSCAPE-Urban textures and architectural connections - International PhD Summer School-Bergamo: Designs, strategies and research for the contemporary city-III edition, Bergamo Prize November 2010.



During the international PhD Summer School, that took part in Bergamo from the 5th to the 17th of July 2010. Roy Nash and I have developed a project for the Colorificio Migliavacca and we called it 'TOPO|S|CAPE'. The project's design concept initiated from the idea to trace through architecture landscapes that can read and interpreted the orography of the territory, at the same time is left to nature the opportunity to reshape the territory through the architectural signs sculpted on the land.

The first stage of the project was to develop a reading for the site. The colorificio is positioned in a part of territory rich of very heterogeneous spaces, emergencies and physic peculiarities. In fact the west-east section, traces the most significant profile of the geography and history of Bergamo. From one side the walls and the high old city, on the other one the old low city town. The link between the two parts of the urban fabric has as a catalyst the anthropic landscape in its different typologies and parts of the territory that might appear almost natural. The junction of parts of forest and cultivated areas, terraces smoothed by the time, are the materials of our project. Finally through the south-north section we cut a part of a more modern sprawl city, the Morla river an important emergency for our site, directly link with the colorificio, and a urban agglomerate of warehouses, religion buildings and housing.

The second stage was to formulate an interpretation for the site and the project. The wish to use the described sprawled materials on the landscape for our project is driven from the reading of the topography of the territory, in the south a building that redesigns the valley towards the city supports the entire territorial system of fields, terraces, and use as a connection the space defined by the colorificio. Climbing the valley towards the west side the landscape is missing any kind of artifact. In this case we rethought the entire system of artifacts and landscape in continuity, waiting for the course of the time, and a new naturally restructured territory. A more smoothed system of terraces and agriculture fields related to the tradition of the place melt into each other during the different phases of the time giving back to the territory a strong architectural image that rediscover the signs of a strong tradition.



land formation - formazione del paesaggio



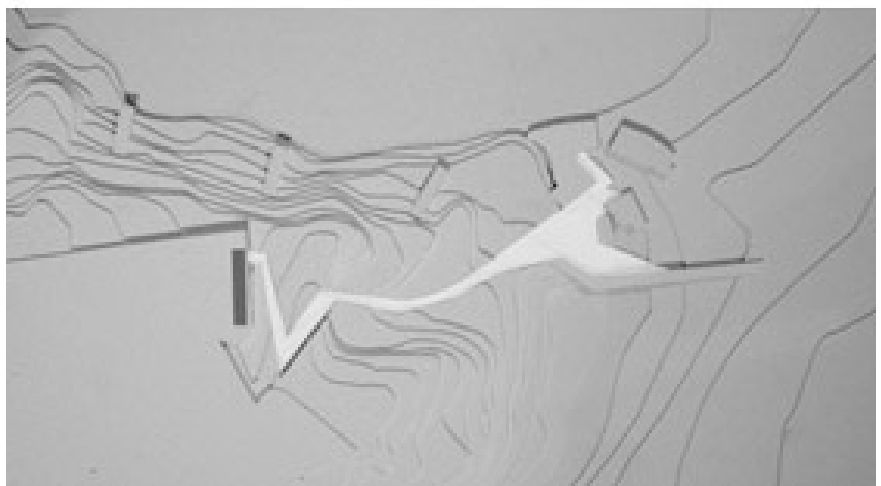
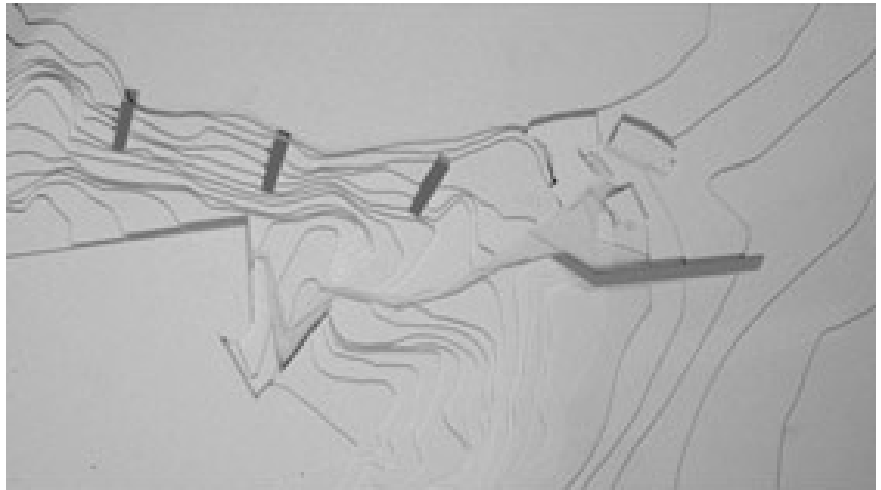
rhythm - ritmo

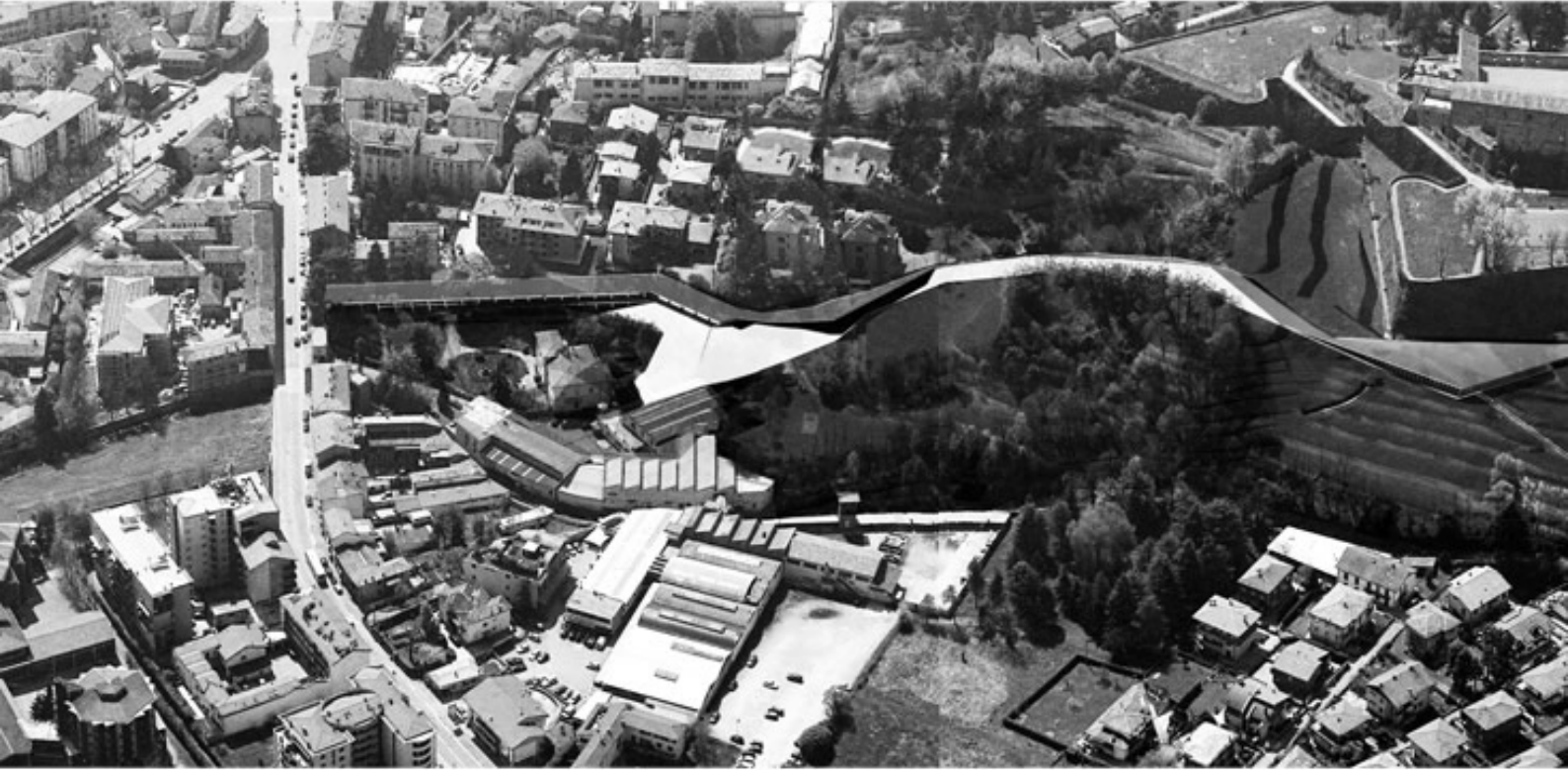


solid and void - pieno e vuoto



The third stage was to produce a mode of intervention within the site. The intervention was based on two important choices: From one side to preserve and refurbish the colorificio, important presence to keep alive the memory of history, continuous narration of fact during the time, and on the other side the desire to redesign the valley through signs, sculpting the ground, using terraces and buildings inserted on the ground. The building in the south of the area is the volumetric extension of the plough towards the built city and the invitation to integrate the landscape in the city. It hosts residential functions and activities related to housing, while the colorificio hosts more public functions related to the free time and to the park. Finally the ex-colorificio and the space described by its volumes is most of all the fulcrum of the built and un-built landscape, the valley, and all the functions that intersect each other, redesigning the new place of the project and at the same time the introduction to the territorial system of the park. The design is a series of different experiences, that starting from the "low part of the city" and guiding through the green path the discovery of the nature and of the old agriculture tradition, are the silent answer to some of the main contemporary themes: how to link present and past, the respect of historicity and the preservation of important symbols, the great challenge of sustainability and the conservation of the old fabric and buildings through a careful and minimal edification.





!C. Tor Bella Monaca -Interpretations of Urban Peripheries and Regeneration of Fabrics



The research work done in the workshop of Tor Bella Monaca has addressed the issue of the regeneration of fabrics, and especially the residential neighborhoods built after World War II. The workshop aimed to the identification and development of tools aimed at the description, interpretation and intervention through a project,

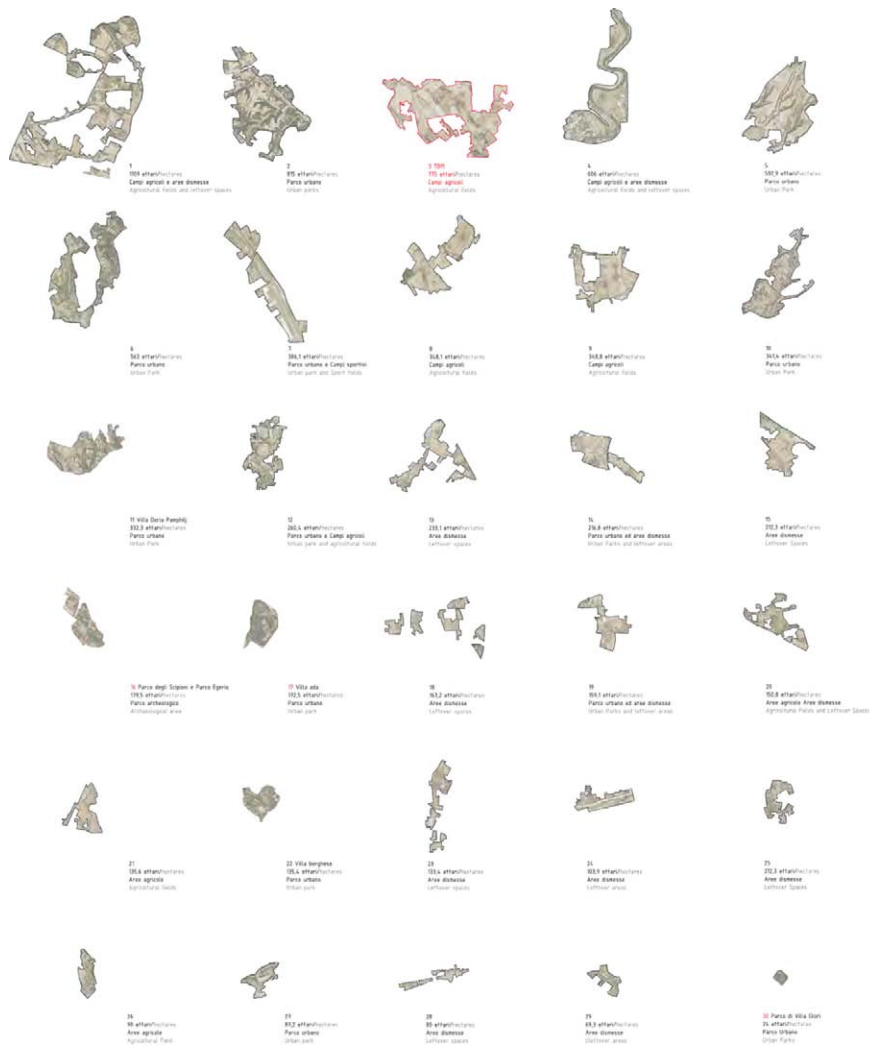
During the first part, we proceeded to the formulation of descriptive readings of the neighborhood. This reading was based on measuring the space of Tor Bella Monaca which was done through studying; the great measures of Rome, comparing the neighborhood to similar projects and areas, the morphology of the territorial systems, and the environmental characteristics of the context.

The second section aimed at finding possibilities of intervention through strategies. The formation of these strategies was done through a series of layers identifying; the areas of potential intervention, the typologies of surrounding urban fabrics, and the objectives of each strategy. This eventually built up a series of actions for the regeneration of this neighborhood and its surrounding fabric.

The third part was basically an attempt to define scenarios for the application of the regenerative strategies. Through the selection of points of intervention and overlapping the strategic layers, we have identified four possible scenarios.

The first scenario focused on forming a new infrastructural ground for the neighborhood including a diversity of functions, connections to the surrounding fabric, and engaging the territorial relations. The second scenario focused on the open space redefinition offering a hierarchy of activities and spaces from private to public and studying its ecological impact. The third scenario focused on the building within the built up fabric including addition and subtraction of spaces to enhance the quality of the buildings and their interrelations. Finally the fourth scenario suggested the addition of spaces of living within the built up fabric focusing on each building typology and the potential interventions that can take place to enhance the quality of space.

So the result of the three parts was the definition of a master plan of Tor Bella Monaca neighborhood based on our readings and interpretations and forming layers of interventions keeping the relations of the city today.



t**bm** proposta Krier

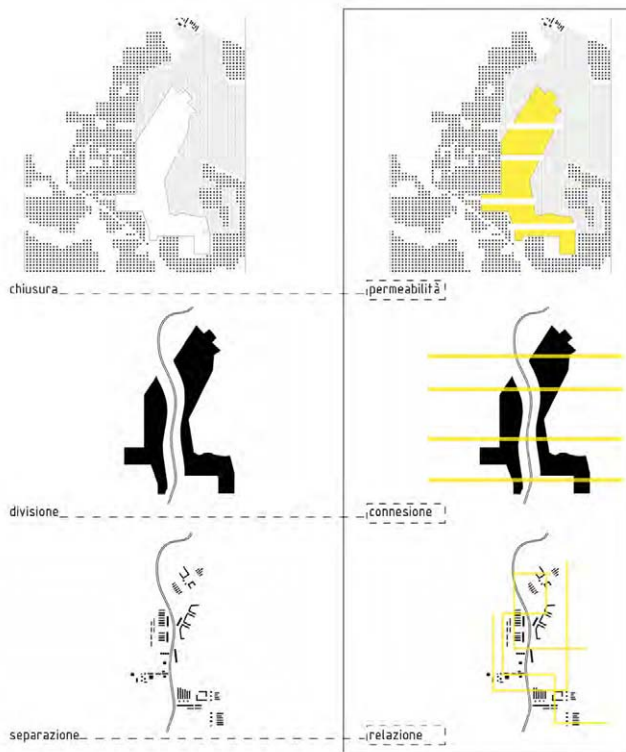
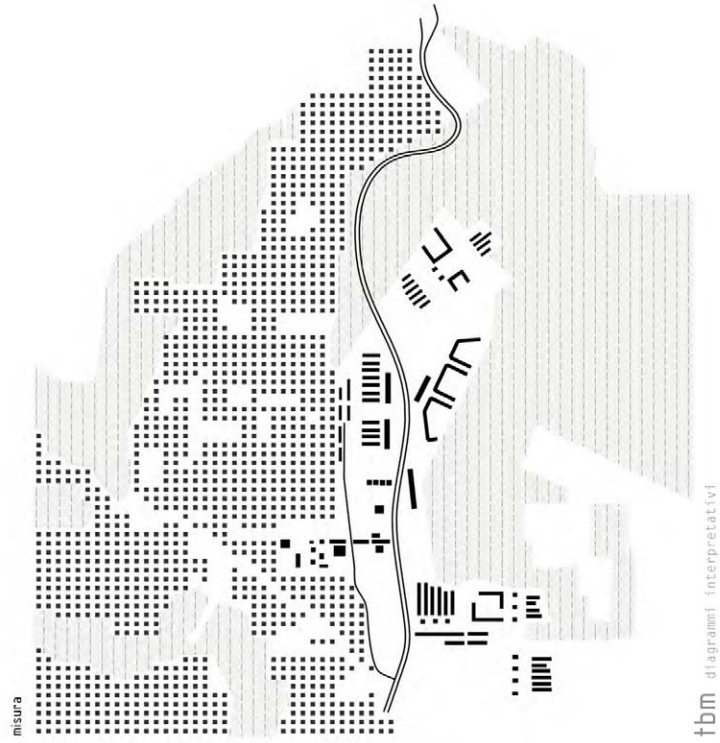
il nuovo intervento prevede un notevole consumo di agri romano

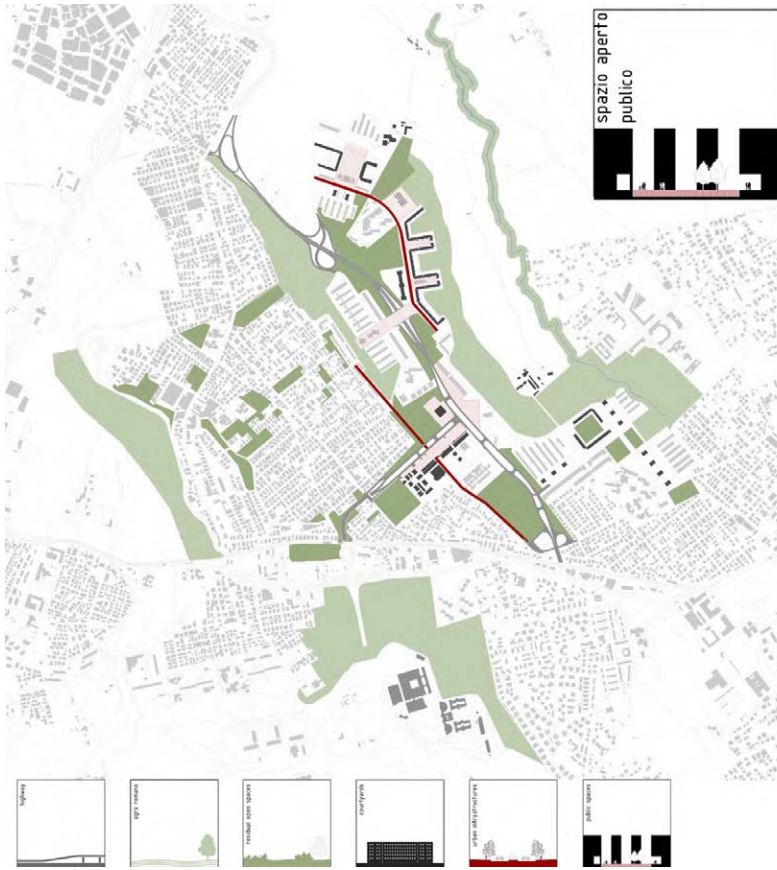


t**bm** proposta Krier

l'intervento non risolve il sistema connettivo



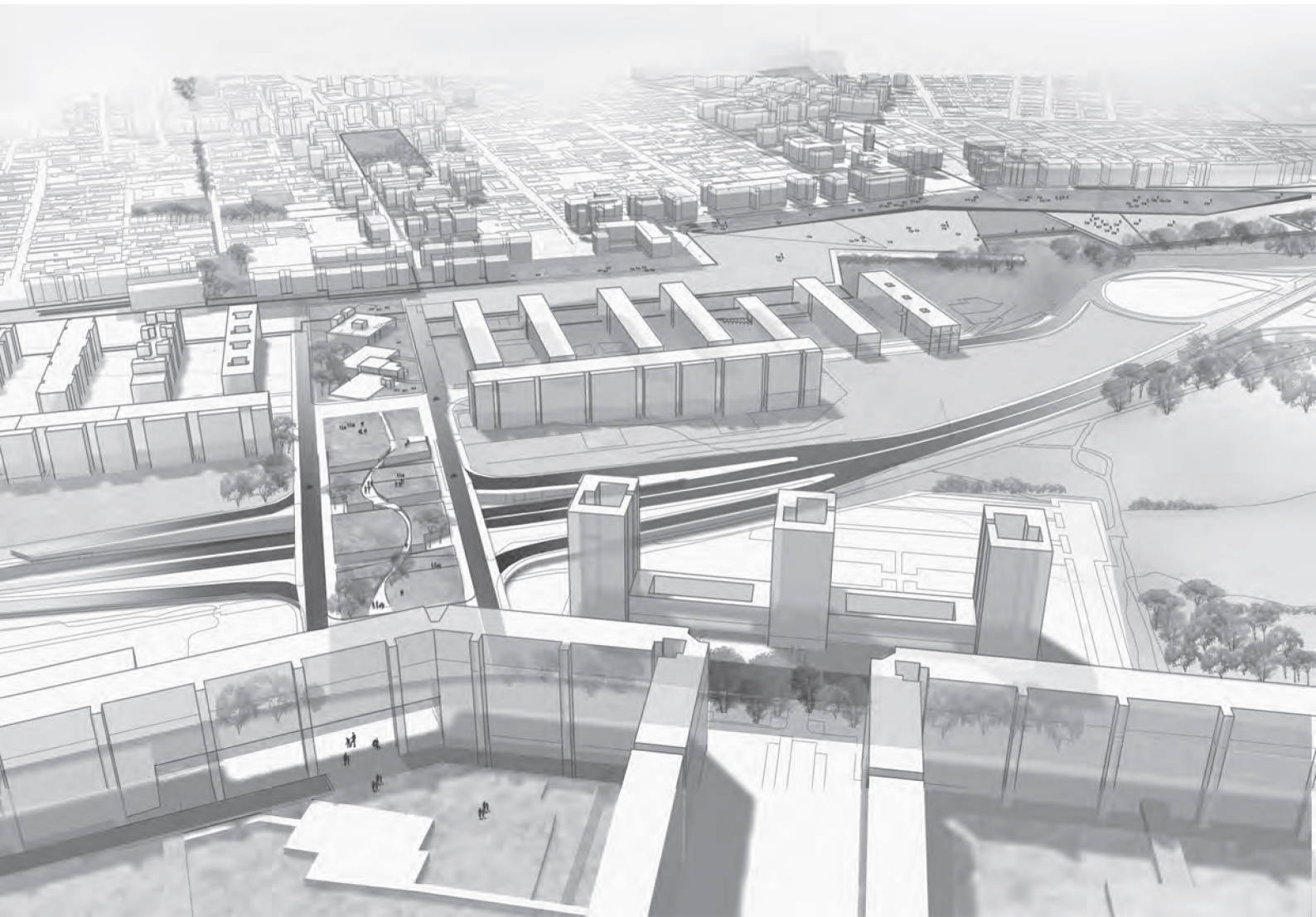




t b m mappa delle aree sensibili al mutamento

strategia di densificazione





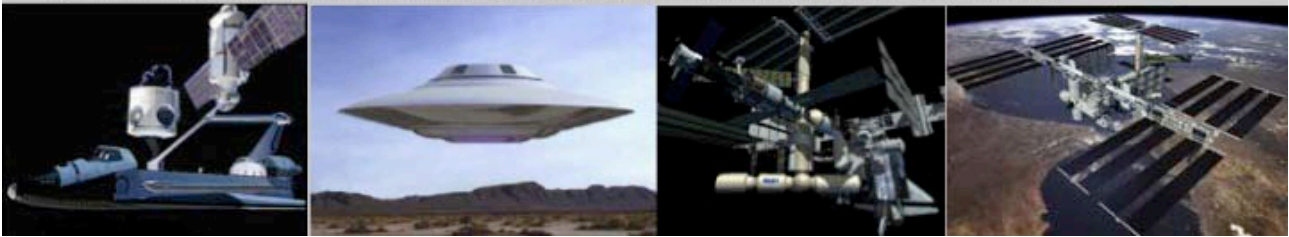


<p>01 Cairo within a national vision of Egypt</p> <p>02 Why a vision for Cairo?</p> <p>03 Points of strength and challenges in Cairo</p> <p>04 Cairo citizens opinion and wishes</p> <p>05 The vision & Its objectives</p> <p>06 Basic Principles to achieve the vision</p> <p>07 The strategic Sectors and Themes to realize the vision</p> <p>08 Proposed projects to realize the vision</p>	 
--	--

Objectives of the Egyptian vision:

“In 2050, Egypt would become an advanced country (economically and socially) and acts effectively on the regional and international level

- Raise quality of life standards to become one of the best 30 countries around the world instead of the current ranking (84) of the 100 countries.
- Raise human development standards to become one of the best 30 countries in the world instead of the current ranking (111) of the 180 countries.
- Raise quality of the Egyptian production (Made in Egypt).
- Reach higher rates in sustainable economic development (not less than 7.5% per year) .
- Achieve social equity (between different segments of society).
- Restructure the demographic distribution of Egypt, to enhance the benefit of Egypt's geographical location and its natural potentials.
- Build an integrated society in which all can enjoy the rights of citizenship.
- Maximize the effectiveness of Egypt's regional role on the Arab, Islamic, and African level.



Existing fabric



Egyptian urban development vision till 2050 proposal



Redistribution and decentralization by creating new poles all over the country regions / governorates



Surplus of population in Greater Cairo Region

02

2006	16 million inhabitant
2020	20 million inhabitant
2050	30 million inhabitant

The region accommodates : 22% of total population of Egypt

: 43% of total urban population of Egypt



Main problems of the Region

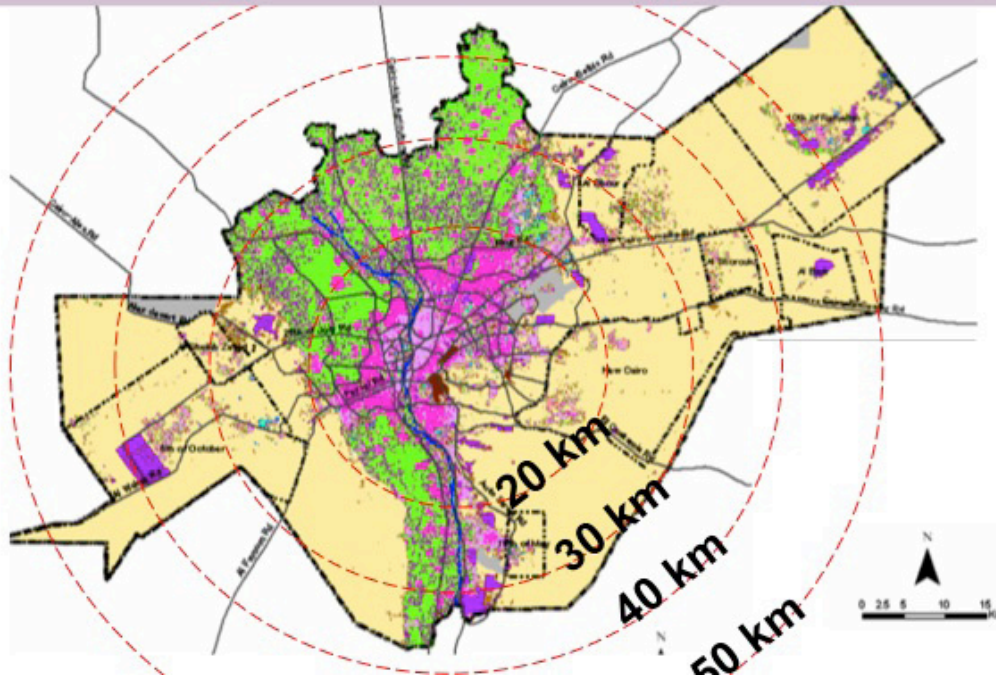
02

- High residential density in main existing agglomeration.
- Rising traffic congestion.
- Limit/mediocre use of culture and natural resources.
- Mediocre living condition in some areas.
- Limited green spaces (0.3 m² /person within the ring road and 1.5 m²/person in the region as total).



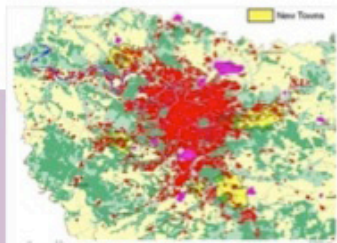


More than 75% of inhabitant are living within 30km from the mass center



Greater Cairo and metropolitan cities

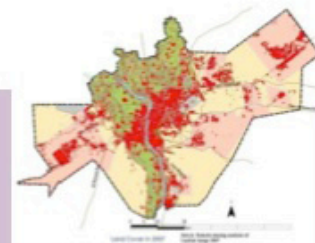
The challenge is not the size, but the population distribution over the whole region area



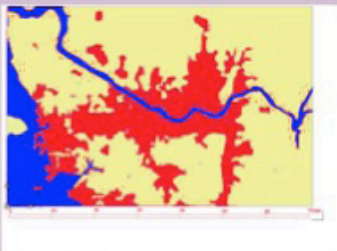
Paris 11 million



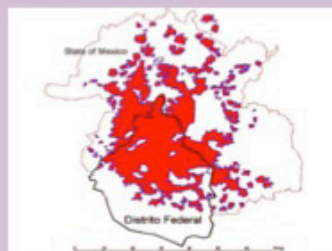
Tokyo 33 million



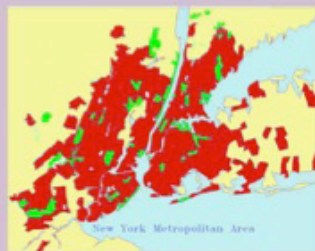
Greater Cairo region 16 million



Seoul 22.5 million



Mexico 16 million



New York 13 million



Cairo 2025

Examples of some studies for the current situation of Cairo region within last 3 years

02

Execute Technical cooperation with national and international agencies/firms to elaborate studies, plans such as JICA and World bank, UNDP and UN-Habitat

- Cairo needs new strategic plan based on sustainable principles.
- The need for massive and rapid shift in thinking and implementation to secure better life for current and future generations.



1982



1991



1997

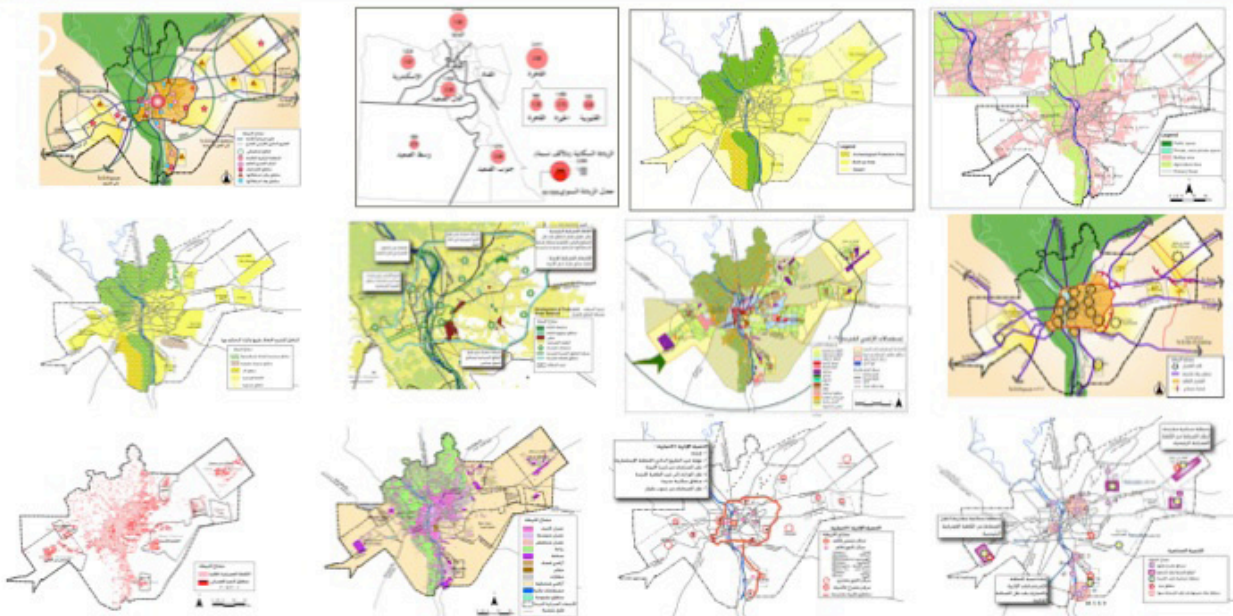
Previous plans for G.C.R



Cairo 2025

Examples of some studies for the current situation of GCR

02



Studies done within the last 3 years to monitor current situation of Cairo city in all fields

Points of strength and challenges in Cairo

03

Inhabitant:

One of the largest cities in the world in the labor force, large markets and purchasing power

Economy:

High rate of Egyptian GDP and a strong contribution in the national economy

Heritage & tourism structure :

Pharaonic , Coptic, Islamic period
Nile river , oasis , natural resources



Points of challenges of Cairo

03

Inhabitant :

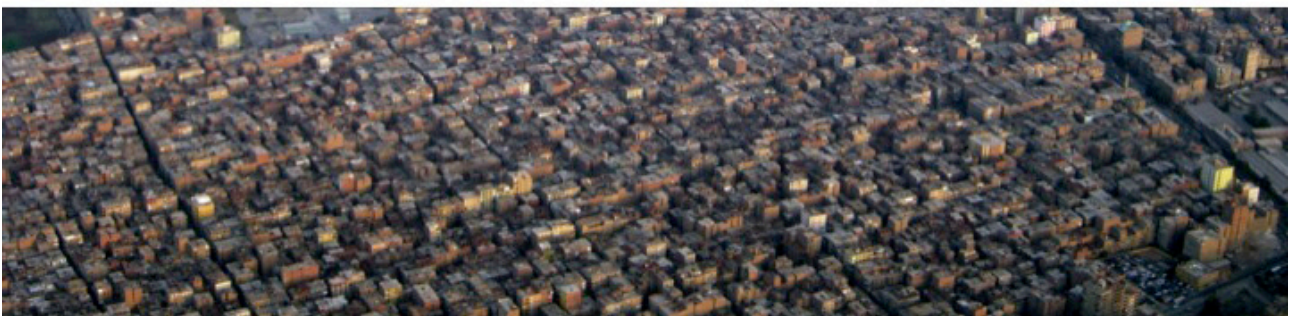
One of the highest population densities of Metropolis in the world

Economy :

High rate of Unemployment (7%)


Urban fabric

- More than 75% of population living within 30 km from the city center
- More than 40% of urban areas are illegal settlement






Community's opinion on the future of Cairo 04

People citizens wants the city 

1. Economically prosperous with jobs opportunities to its inhabitant.
2. Has a tourist, culture leading role in the region and all over the world.
3. Vibrant, place for every one.
4. Plenty of vibrant cultural activities.
5. Secure and safe city.
6. Interconnected, filled with green spaces.
7. Provide good living conditions for all citizens.
8. Clean city.
9. Although of its density it is not congested, available of all means of quality of life.
10. Provide adequate housing for all different society levels.
11. Provide all modern means of transportation at reasonable prices that suit all society levels.



The vision

City ..international-green-integrated

1. African gate and one of the best Middle Eastern capitals.
2. Regional and international pole for: political, administrative, cultural, tourism and economical sectors.
3. Capital of world heritage with all its historical heritage.
4. Act effectively in the global culture networks and an active partner in the global knowledge exchange.
5. Includes tourism and commercial activities and high level business.
6. Includes social, cultural and tourism institutions to protect, attract different talents.
7. Global city with high technology.

GLOBAL



The vision

City ..international-green-integrated

1. Good living condition for its citizens (to be among the 30 best cities in the world).
2. One of pioneer cities on the context of environmental level.
3. Restoration of urban and architecture heritage of the city and elimination of slums.
4. Reach the international standard for green areas/per capita.
5. Containing routes for pedestrians, open and green areas and public squares.

GREEN



Basic Principles to achieve the vision

06



1. G.C.R should be competitive at the national ,international level.
2. Investment & Exploitation of GCR potentials as the capital of Egypt (social, historical, cultural, tourism).
3. Preservation and rehabilitation of historical and heritage zones.
4. Precise urgent needs for social ,culture, economic and urban development to improve quality of life for CAIRO citizens.
5. Provision and increase job opportunities, investment of human capacity.
6. Upgrade poor, deteriorate and informal existing areas, provide new adequate residential areas compatible with government plans to limit informal zones in order to create good and health society.

Basic Principles to achieve the vision

06



7. Relocation of land uses that cause pollution far from the city center.
8. Improvement and creation of roads, tunnels and transportation networks within the GCR at regional, national and international level
9. Upgrade infrastructure network.
10. Create green grid from green areas and parks to upgrade living condition.
11. Enhance the coherence and integration between the existing urban areas and new urban communities.
12. Identify and create a network of investment projects (culture, administration, tourism, religious, social....) in order to attract investors and implement projects of 2050 vision with their participation and integration.
13. Implement existing and approved mega projects as priority projects due to their regional and national importance such as relocation of ministries and public institutions outside the core of the city.
14. Encourage the participation of civils and citizenss as an important issues to the sustainable development of the Cairo 2050 projects.

Main development sectors for G.C.R 07



Sector (1) Upgrade Living condition to international standard	Sector (2) Increase the competitiveness of Egyptian capital
Better Governance	Culture and Media sector
Housing and Informal	Industrial sector
Improve the environment and Increase green areas	Tourism sector
Roads and Transportation	Education sector
Water and Sewage	Health sector
	Finance and Trade sector
	Technology and telecommunication sector

Sectors to achieve Cairo vision 2050 07

- Nominate special consultant for each sector.
- Each consultant interviewed different concerned stake holders (participatory approach), representative of concerned ministries, through interviews and work shops for about 9 months.
- **Objectives of work shops:**
 - Monitor the strengths and weaknesses.
 - Agree on priority projects.
 - Assess the competitiveness of the sector for the development of the region.
 - Identify future vision 2050.



A cooperation agreement was signed between General Organization for Physical Planning (GOPP), Information and Decision Support Center (IDSC)-the Egyptian cabinet to held such a workshops.



1. Better Governance

07

1. Precise the limits of the administration boundary of the capital within the region.
2. Special law and institutional framework for the capital different than local administration law.
3. Encourage cooperation of the private sector in development projects/ programmes.
4. Identify clear roles for the province's urban communities and give each of them a branding that prevent competition among them.

Many responsibilities and roles for many different central and local authorities in controlling and implementing development projects in the region

Upgrade living conditions at international standard

Better Governance

Housing and informal

Improve the environment and increase green areas

Roads and Transportation

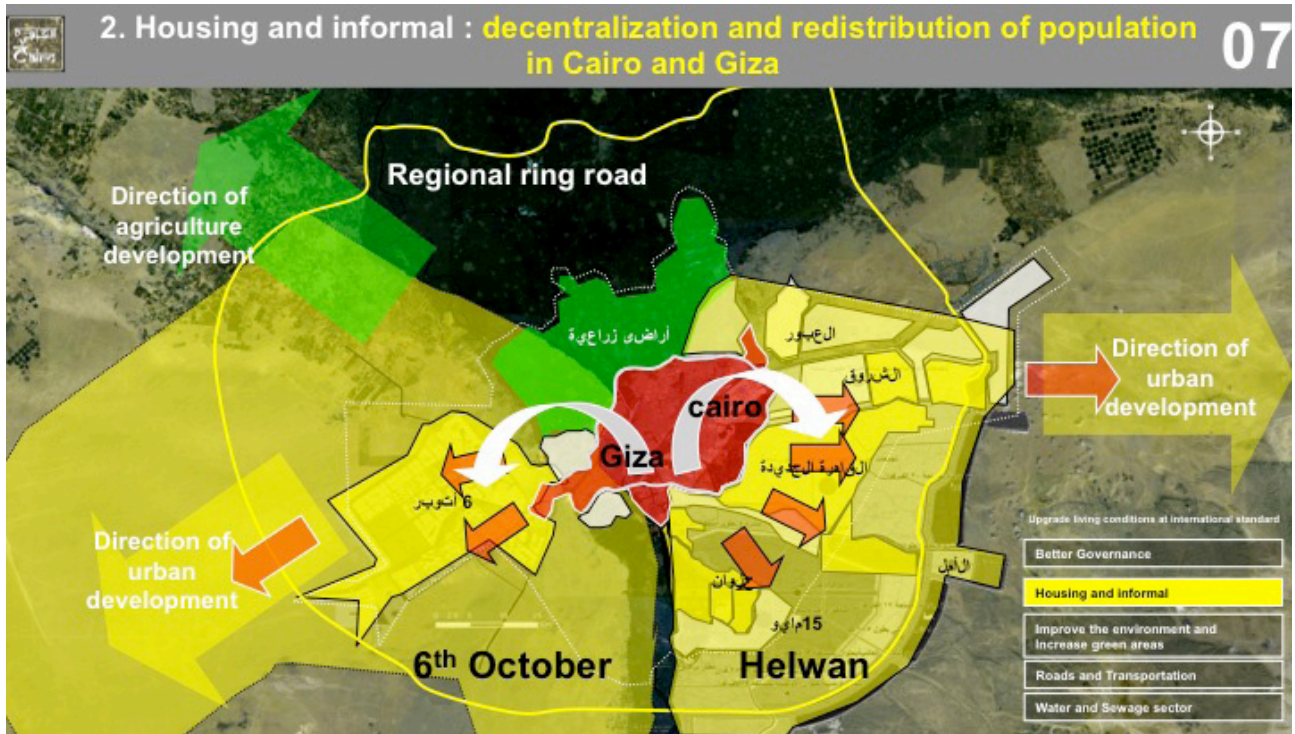
Water and Sewage sector



2. Housing and informal : decentralization and redistribution of population In Cairo and Giza

07

- Decentralization of Cairo, Giza through upgrading unsecure and unplanned areas by opening new access roads, provide a suitable relocation areas (if need) on near location within the same governorate or in 6th of October or Helwan governorate.
- Accommodate the expected population increase in 6th of October and Helwan governorate.
- Protection and preservation of planned areas in Cairo and Giza through enforce building regulations.
- Dealing with unsecure and non planned areas through execution plan and precise time schedule.



Strategic vision for **6th of October Governorate 2050** 07

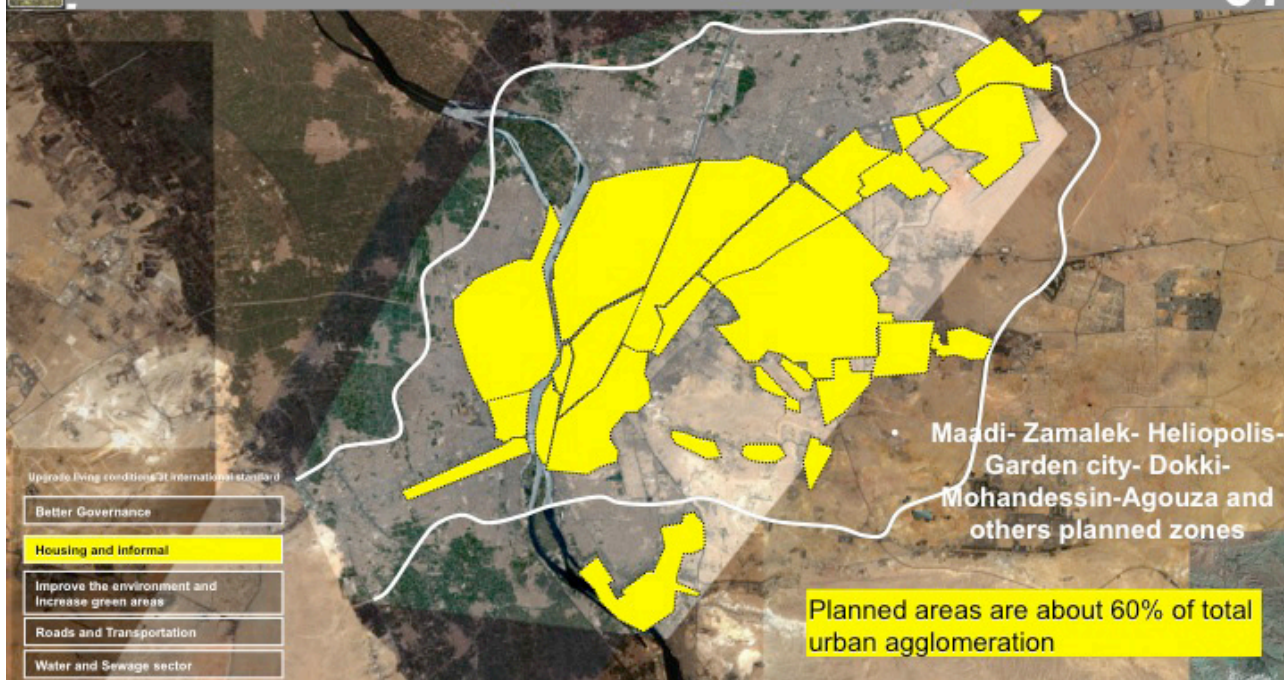
Accommodate 10-12 million person (30% of the region's inhabitants)

- Establishment of Mega city west October.
- Establishment of Mega city south west El-Ayaat Markaz.
- Completion the south west arc of the regional ring road.
- Create a group of development corridors and regional roads to connect the Mediterranean to the Red Sea.
- Establish a number of industrial and service cities at a capacity of 100 thousand inhabitants each.



2. Housing and informal : protection and preservation of planned areas

07



2. Housing and informal : preservation of planned areas in the city core

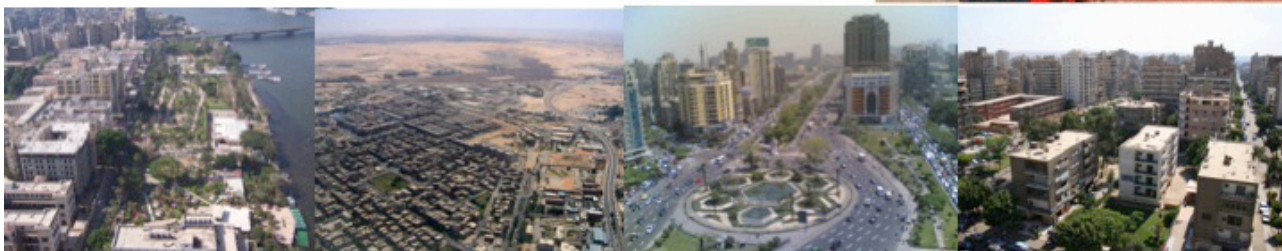
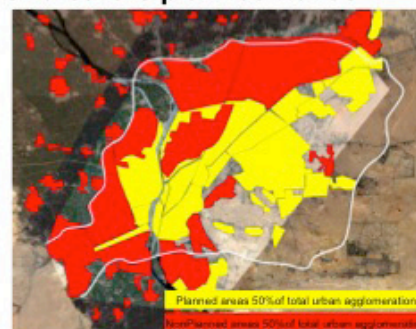
07

Set building regulations for zones:

Maadi, Heliopolis, Garden City, El Dokki, Mohandessin, Agouza and others planned zones

In order to preserve the special character of these zones and control demolition and building through:

1. Precise building heights limit, taking in consideration the existing situation.
2. Prevent miss-uses which causes traffic congestion.
3. Built multi store garage.
4. Precise axes for services and commercial uses.





2. Housing and informal : **upgrading unplanned areas**

07

Dealing with this areas through

- Open accesses and roads
- Provide essential services, facilities in pockets and vacant land
- SMEs and job creation for the youth



1. Ein Shams and Mattaria
2. Dar El Salam
3. Shubra El Kheima
4. El Khosous
5. Boulak El Dakroor
6. Embaba and North Guiza
7. El Monib



2.Housing and informal : **location of alternative and new housing in G.C.R**

07



المجاورة السكنية الجديدة 240 قسماً

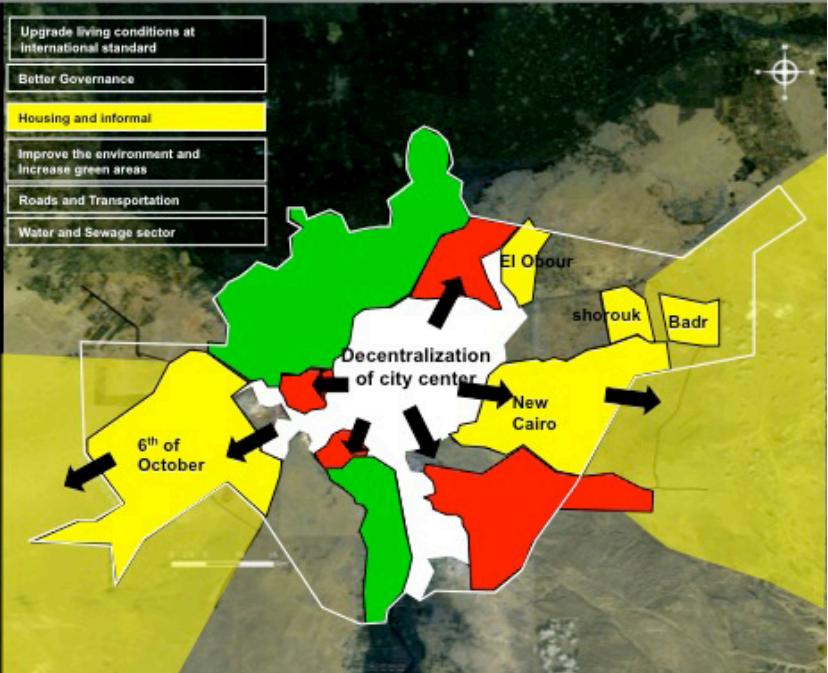
Existing urban agglomeration of the city

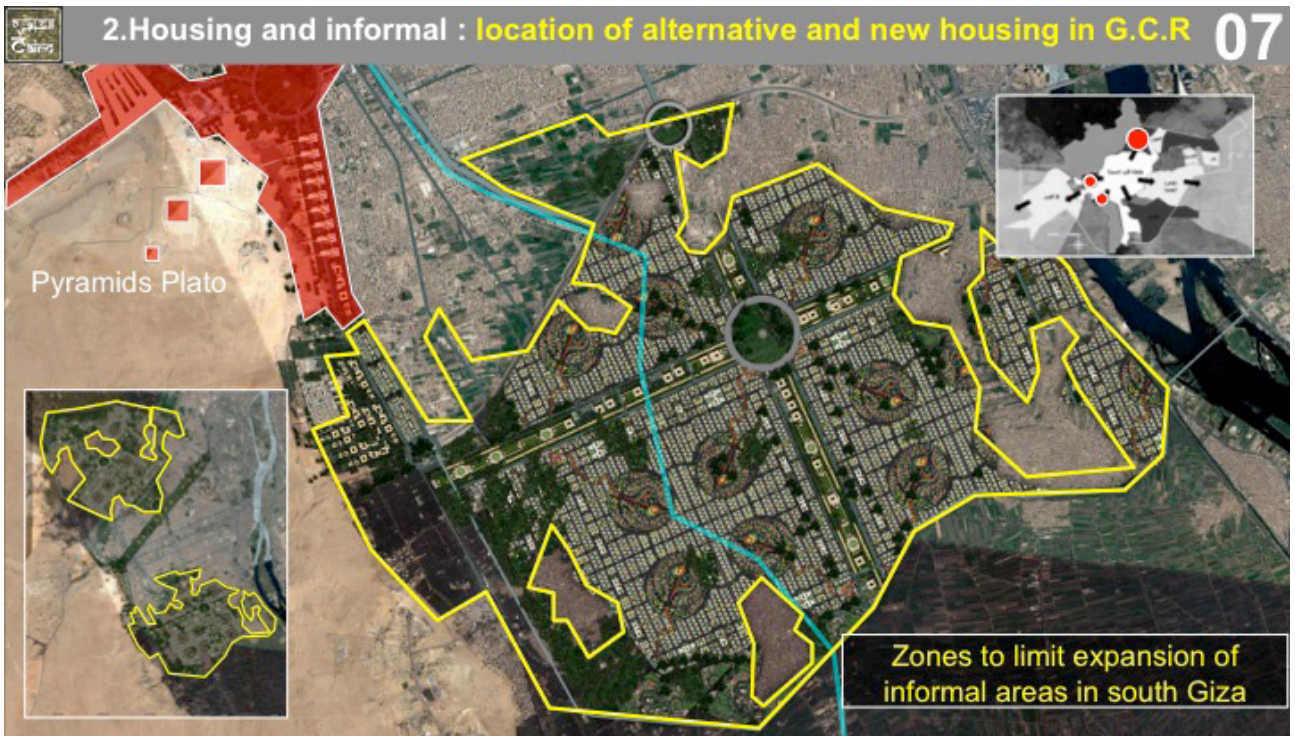
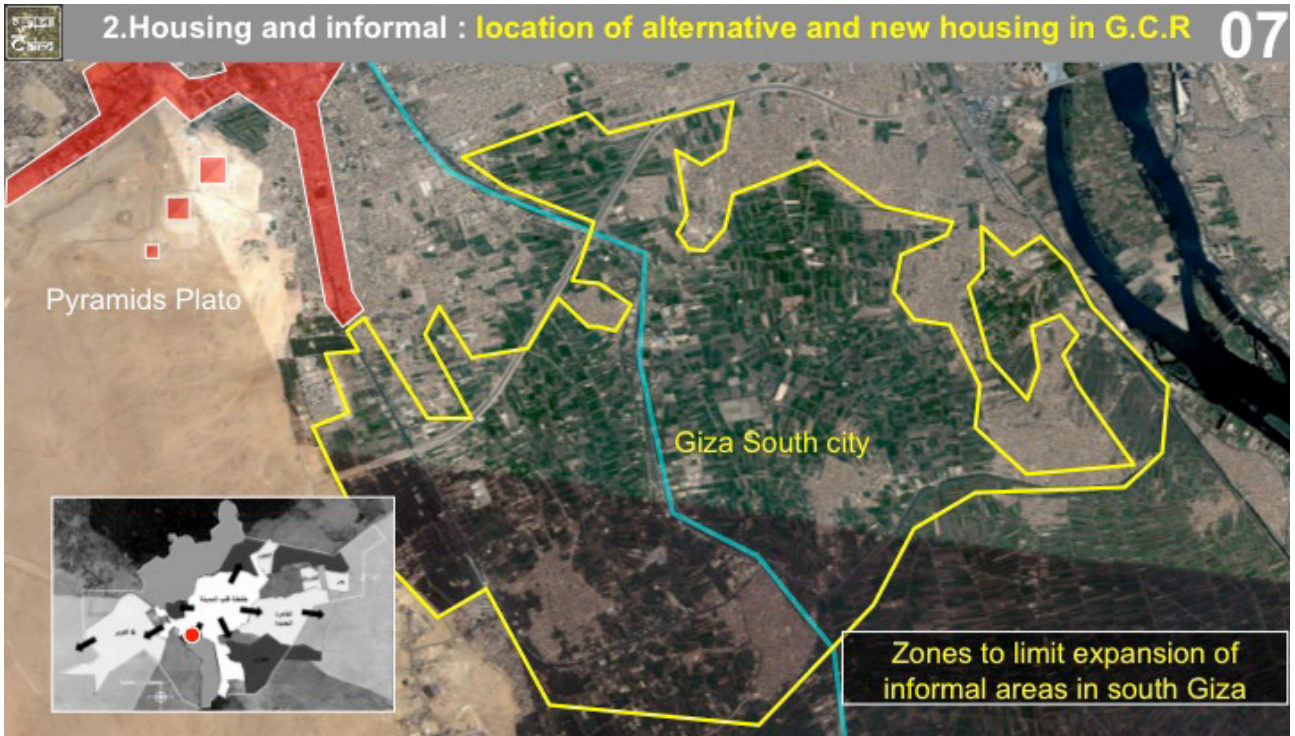
New areas proposed to be planned on a 35 thousand (acer) feddan to accommodate 1 million houses

New towns and extensions to accommodate 1 million houses in surplus

Agriculture land Within the city, 60 thousand (acer) feddan

- Upgrade living conditions at international standard
- Better Governance
- Housing and informal
- Improve the environment and increase green areas
- Roads and Transportation
- Water and Sewage sector





Basic principles to deconcentrate and rarefaction of informal areas
Provide adequate and complete houses for inhabitants before leaving their homes (according to project's phasing)
 (200 thousand houses, metro, transportation, green areas, commercial, schools, hospitals, ...)

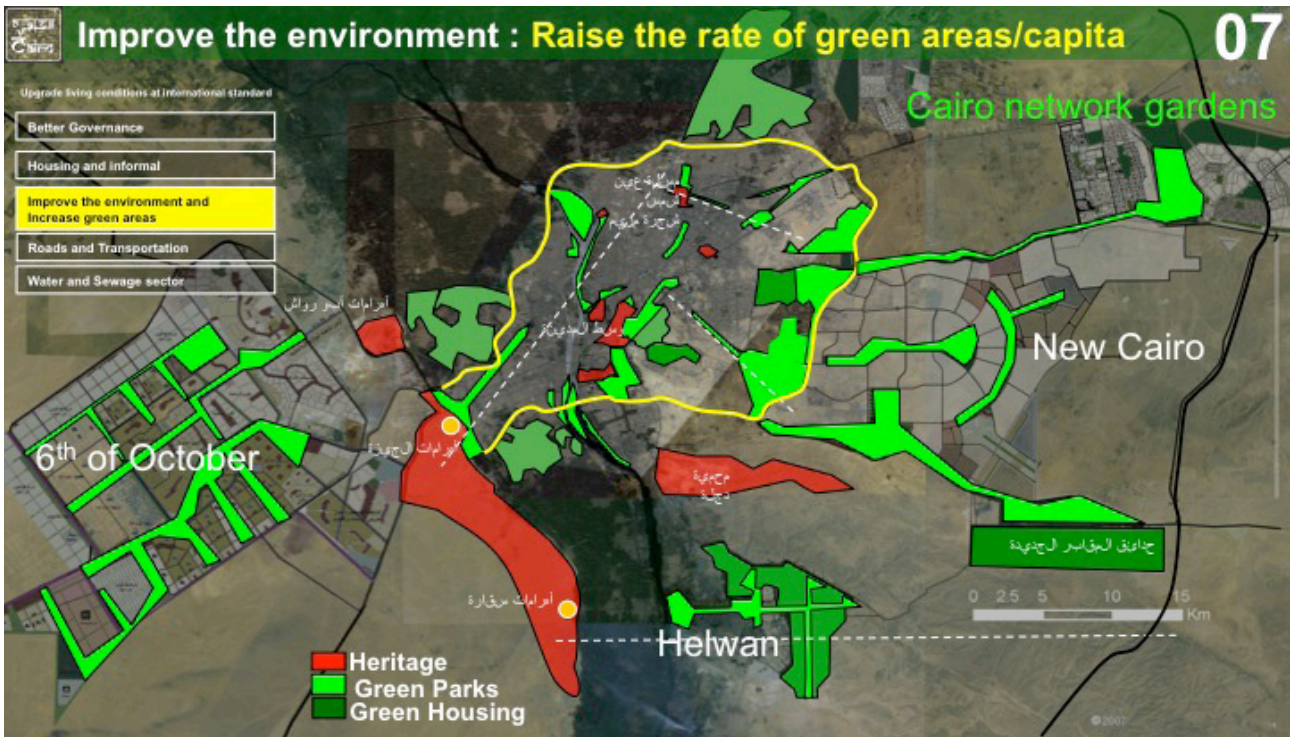
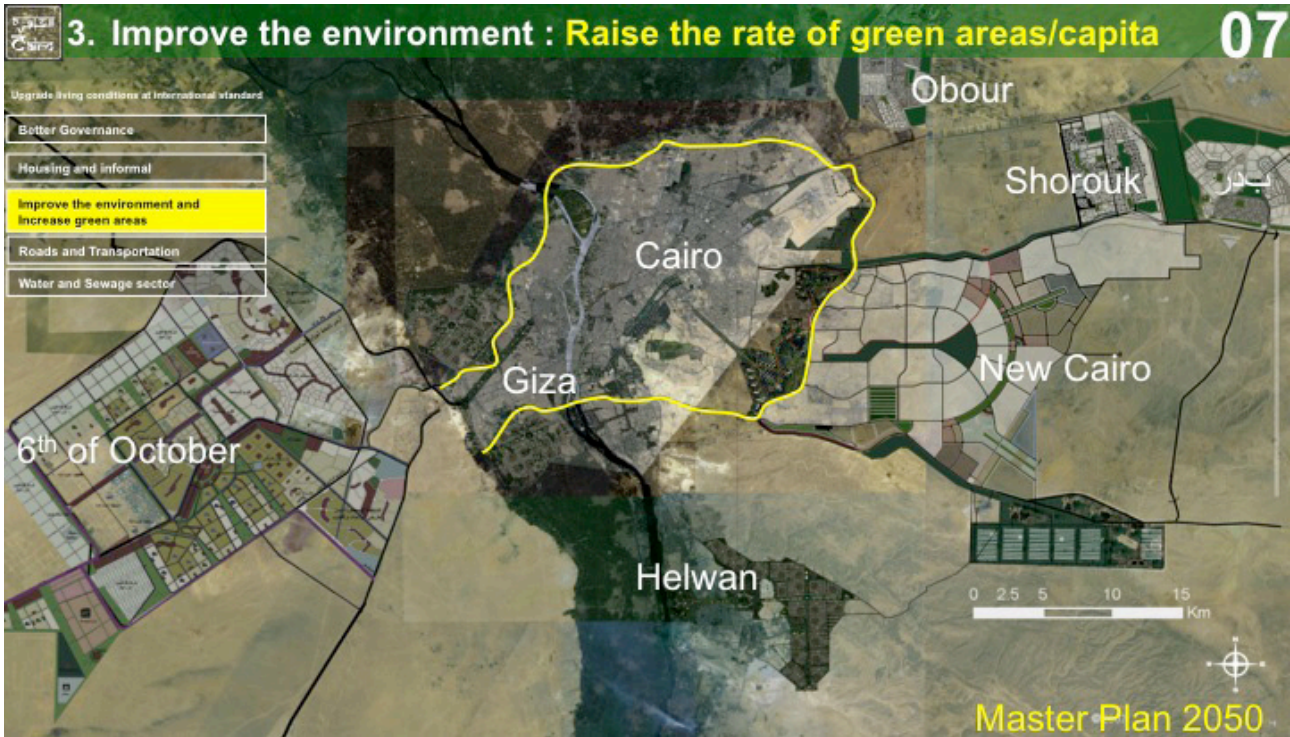
Houses with new trend – good living condition to all inhabitants of informal areas in the capital
 200 thousand houses (services, green areas, commercial, schools,...)

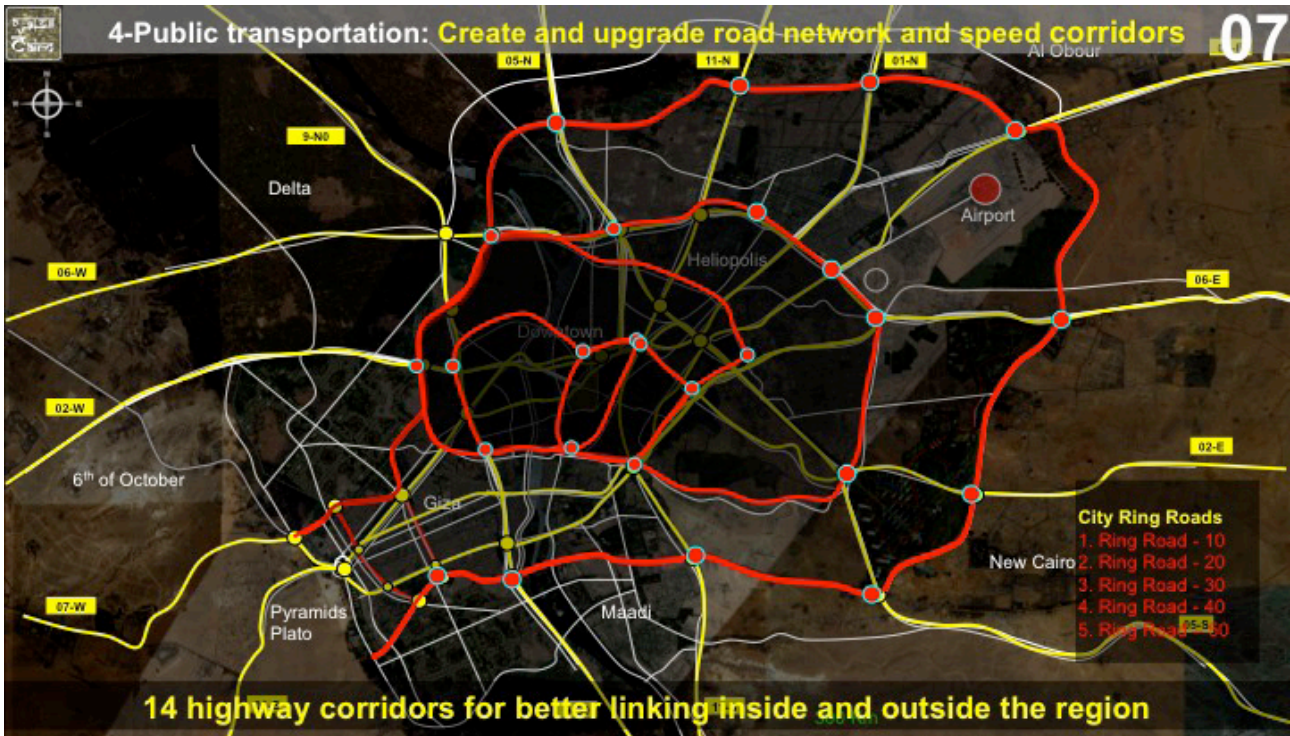
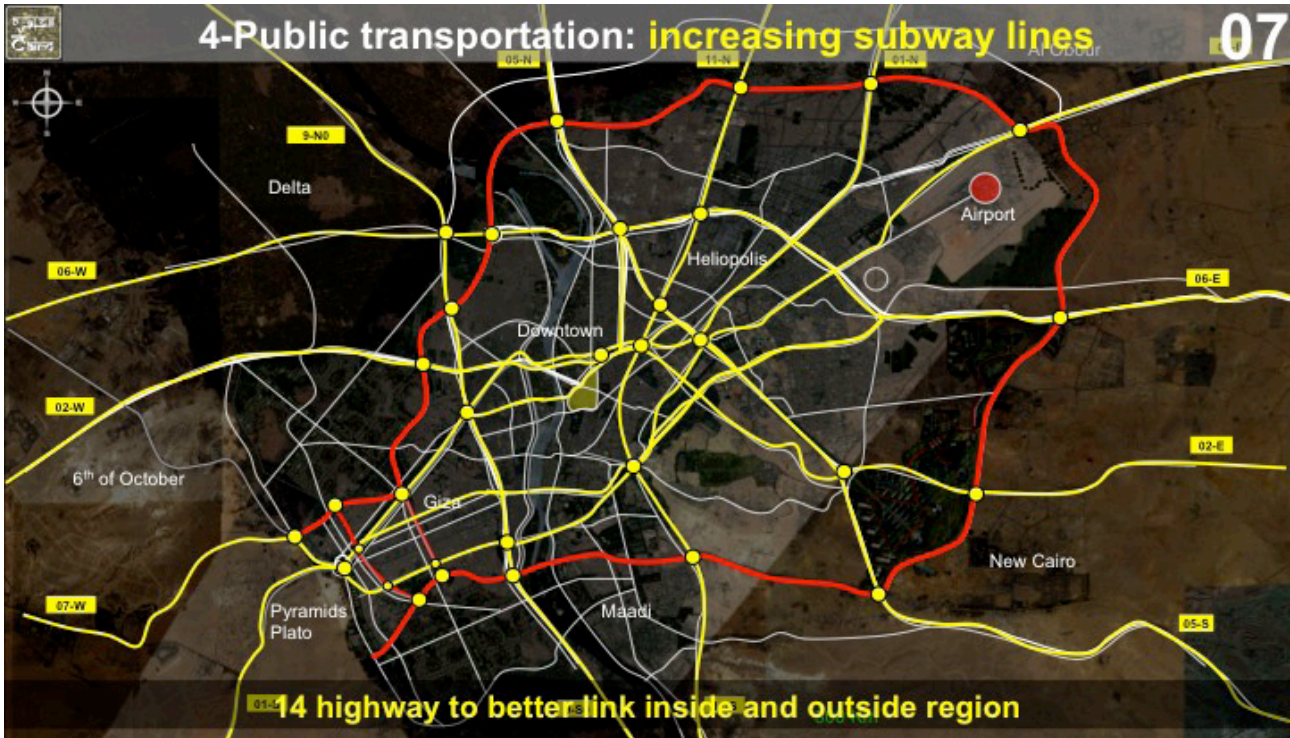
2. Housing and informal : Housing needs until 2050 07



Provide 2.5 million houses with all services and transportation according to international standard for good quality of life



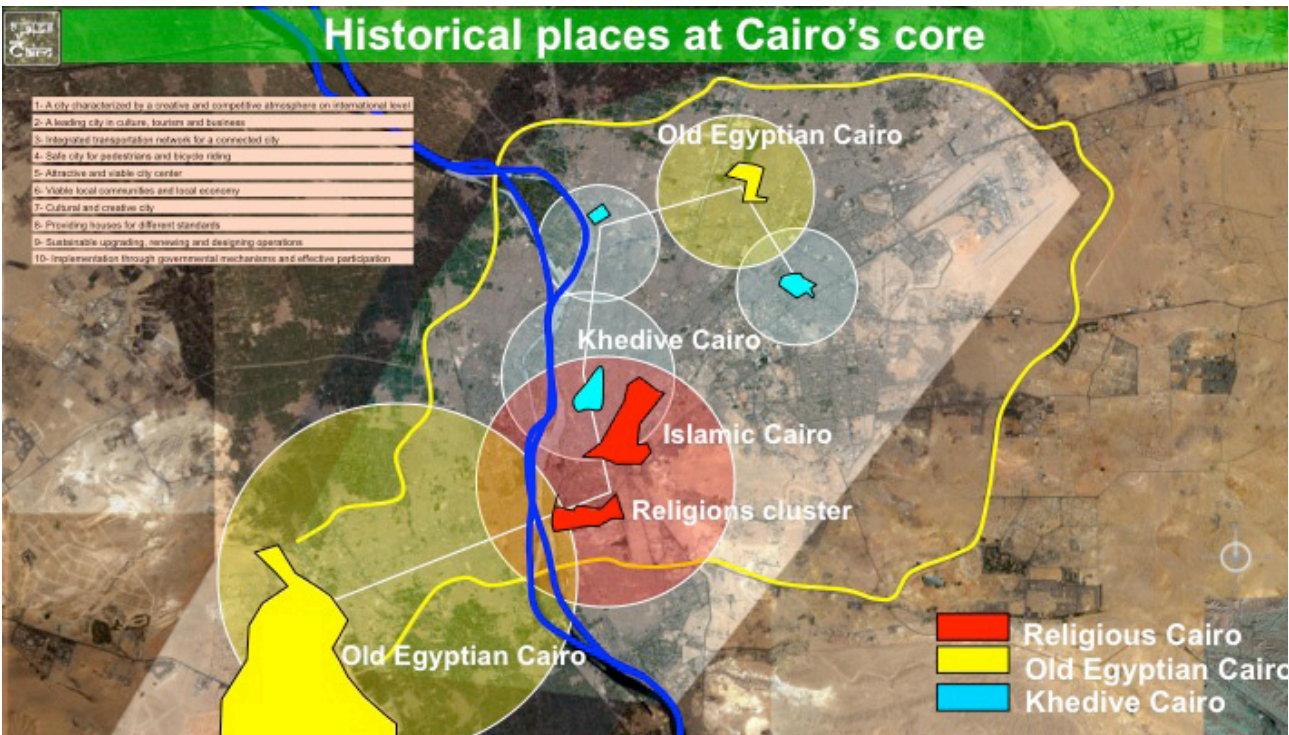


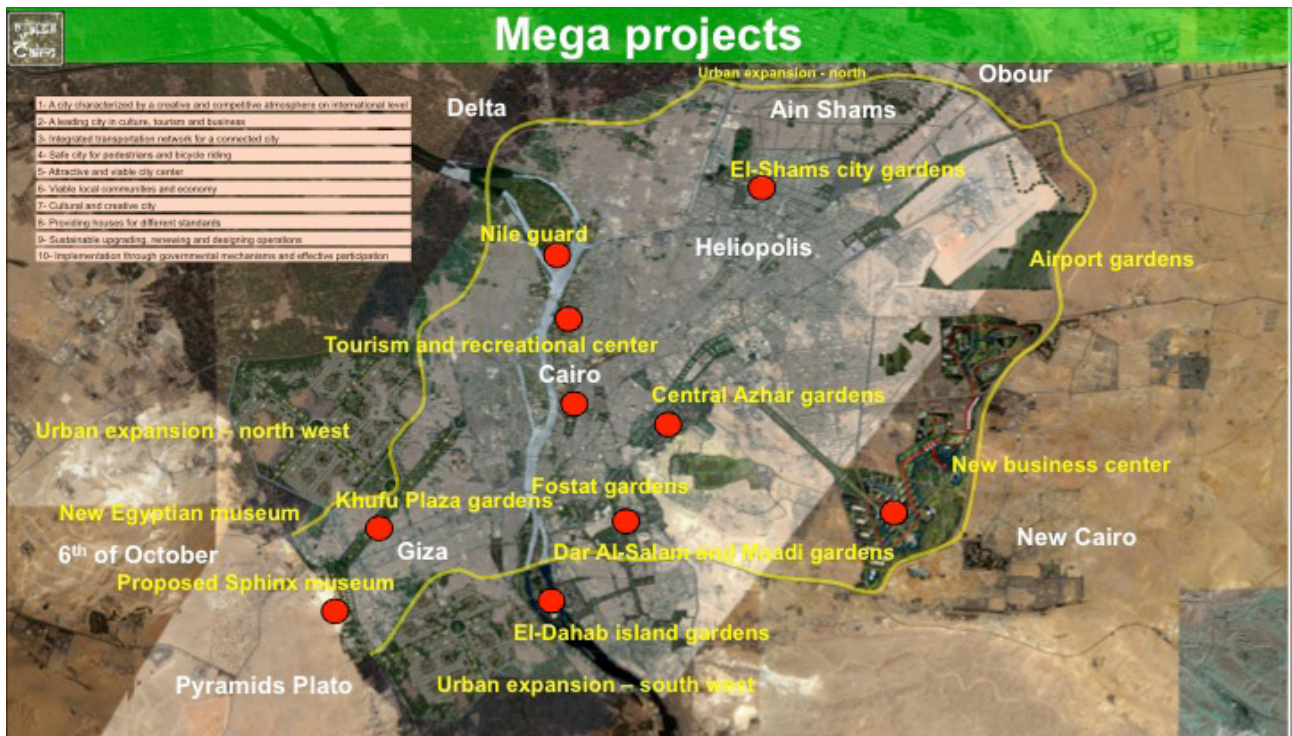
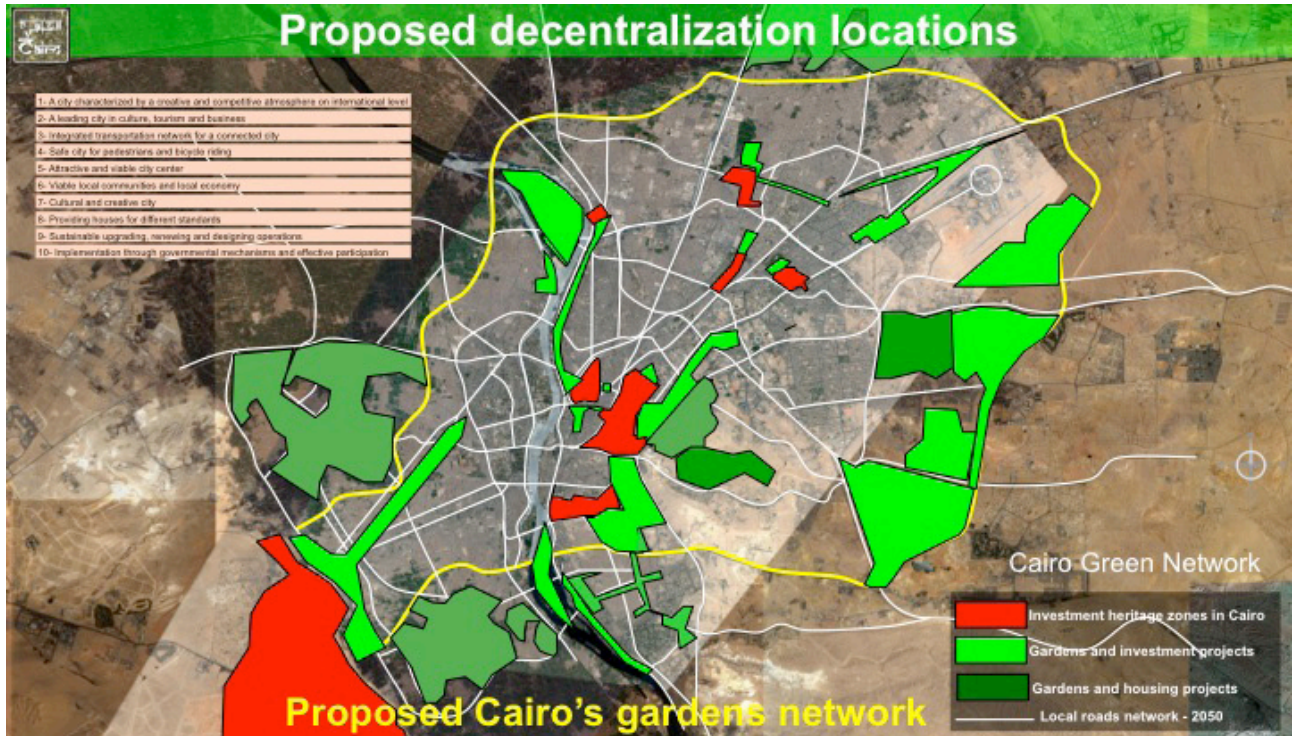


Proposed Mega Projects within the region to achieve Cairo vision 2050

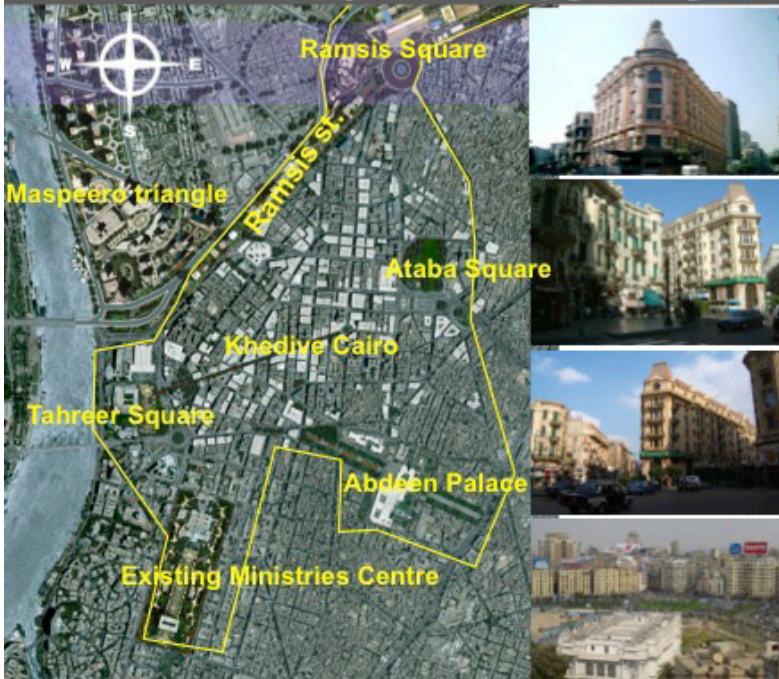


International, Green, Connected City

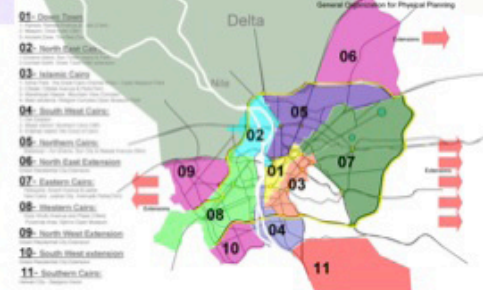




City Centre Upgrading - Khedive Cairo



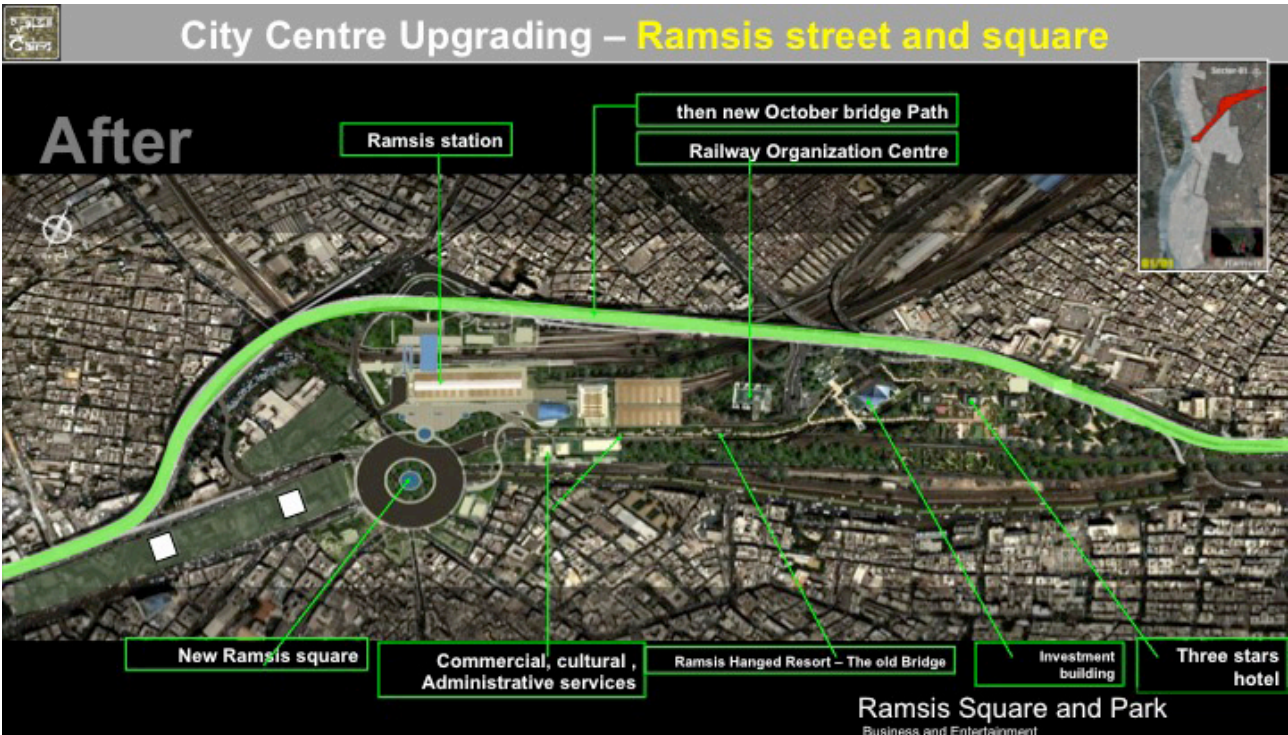
Sectors:



- Conversion of some street to pedestrian paths.
- Main squares development (Tahreer Square, Ramsis Square, Attaba Square, Abdine Square).
- Reuse the ministries square in open parks and cultural activities.
- Construction of some underground multistory garages.


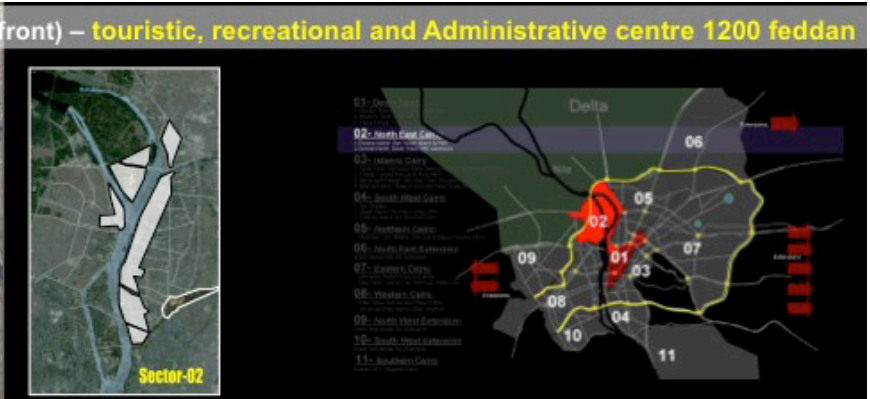
Upgrading city center – Khedive Cairo







Upgrading Nile Cornish (Nile front) – touristic, recreational and Administrative centre 1200 feddan

- Starting from Maspiro triangle to Rod El Farag with an area of 1200 Feddan, 6 km in length to be a touristic, recreational and administrative centre.
- Creation of a recreational resort for the residents along the Nile sides.
- Permission to construct administrative and touristic towers.
- The building ratio should not exceed 20%, and the rest should be allocated for parks and open spaces.

Upgrading Nile Cornish (Nile front) – touristic, recreational and Administrative centre 1200 feddan



Proposed Planning

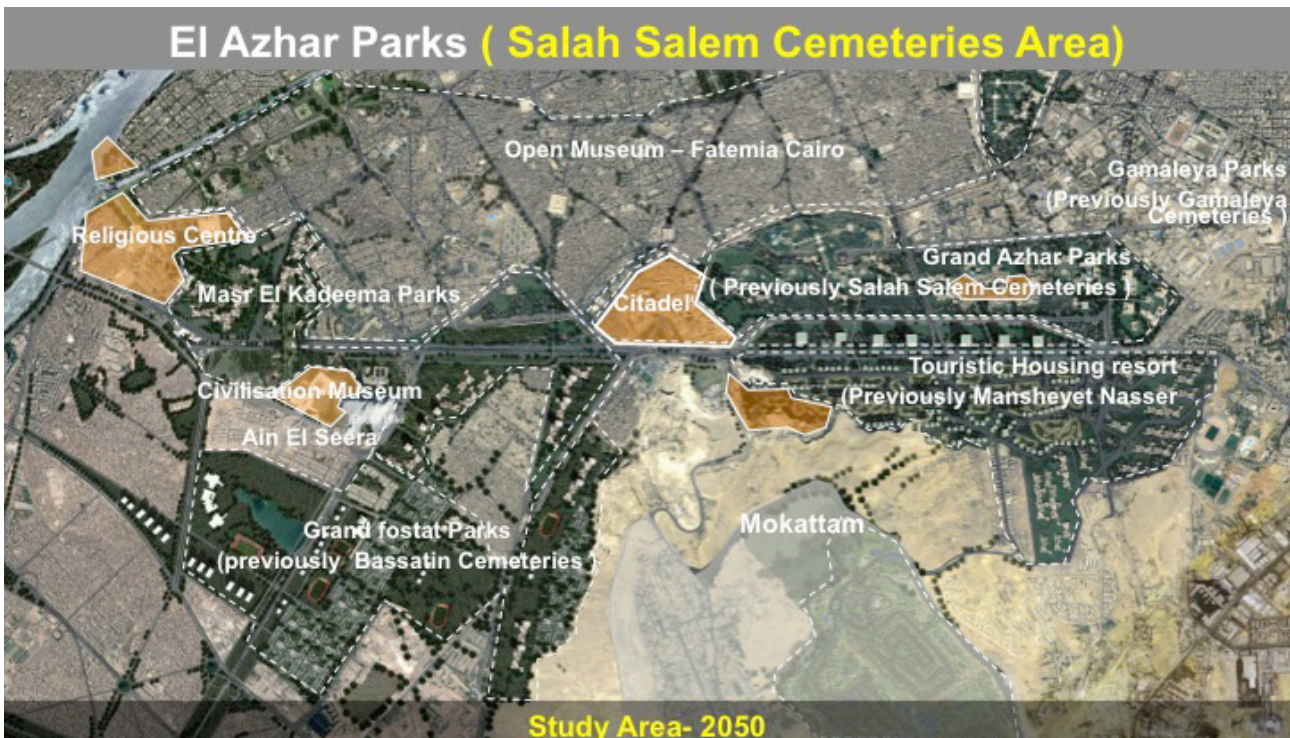
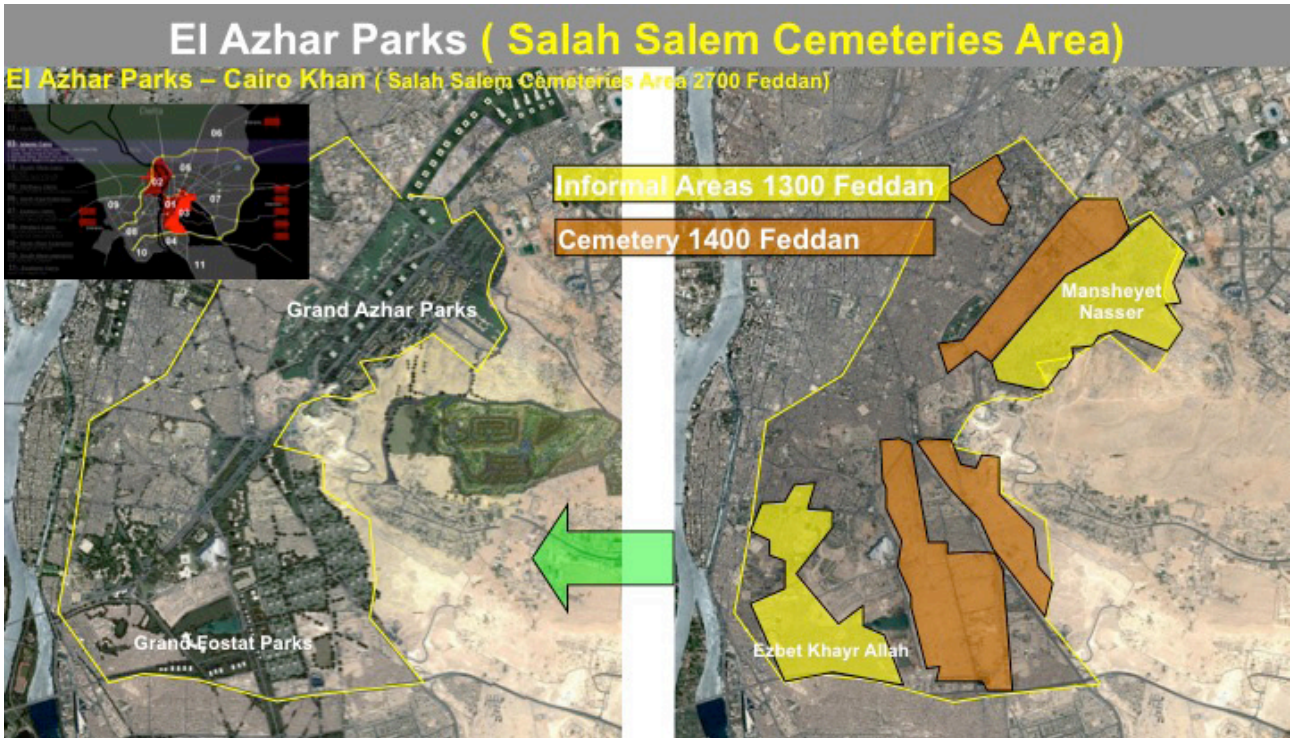
Labels on the map include: Mohamed Ali Palace, Palace Hotel Parks, Palace Bridge, El Warak Recreational Parks, Nile Cornish Business Parks, Nile Cornish Hotel Parks, Open Market, Hanged Ramsis Parks, Ramsis Station, Ramsis Square, Khodive Cairo, Ramsis St. Parks, Maspeero Business Centre, and Zamalek.

Upgrading Nile Cornish (Nile front) – **touristic, recreational and administrative centre 1200 feddan**



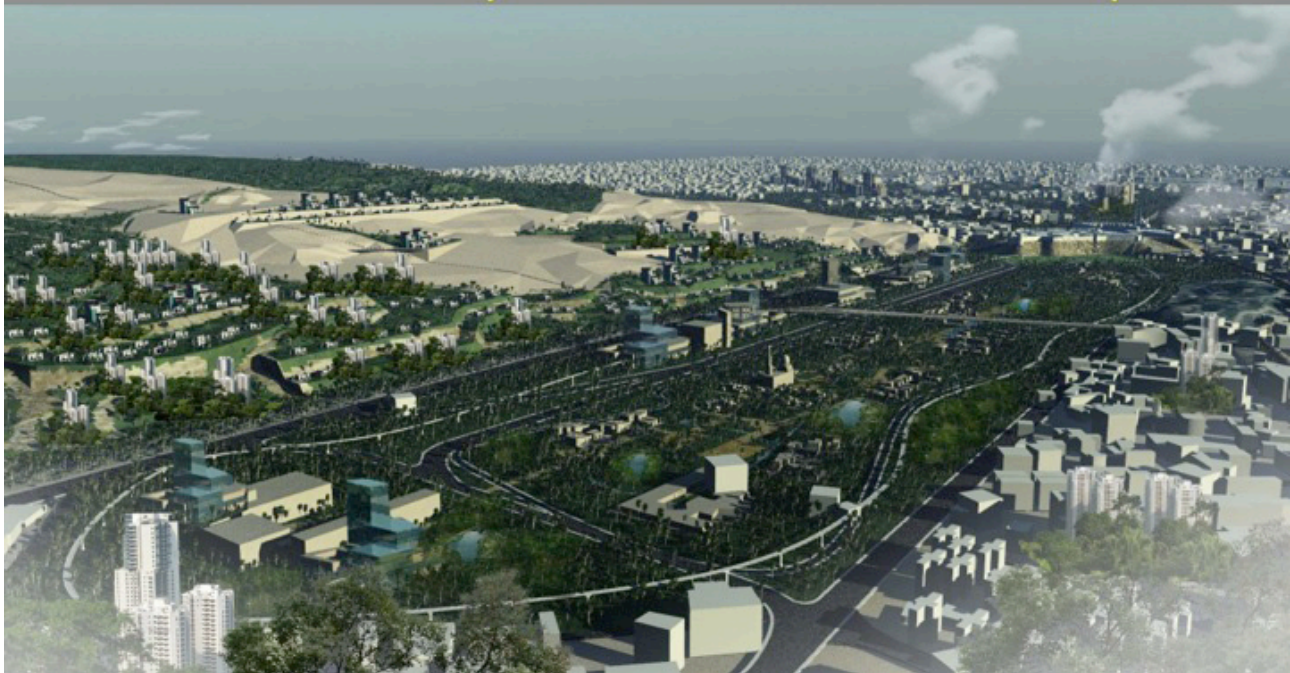
The preliminary schemes for the Nile Cornish landscape






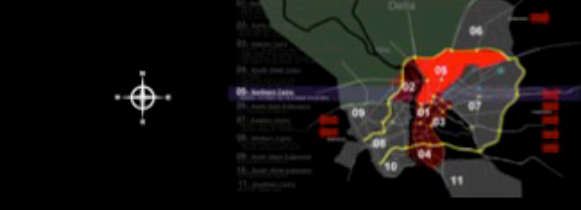


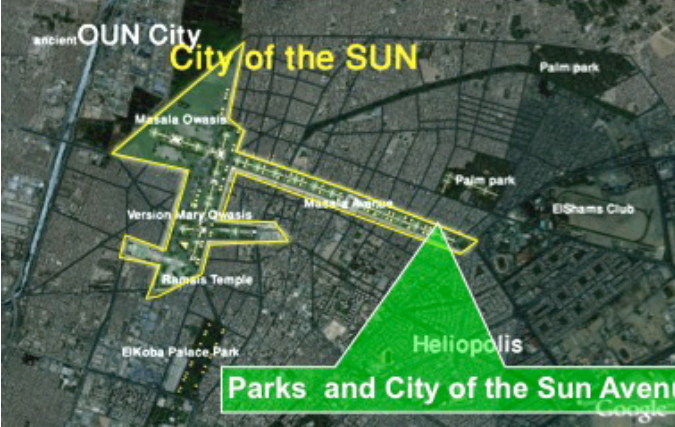
El Azhar Parks (Salah Salem Cemeteries Area)




Ain Shams and el Matareyah Parks – (City of the Sun)

City of the Sun – El Masalah Avenue



Parks and City of the Sun Avenue – 500 Feddan

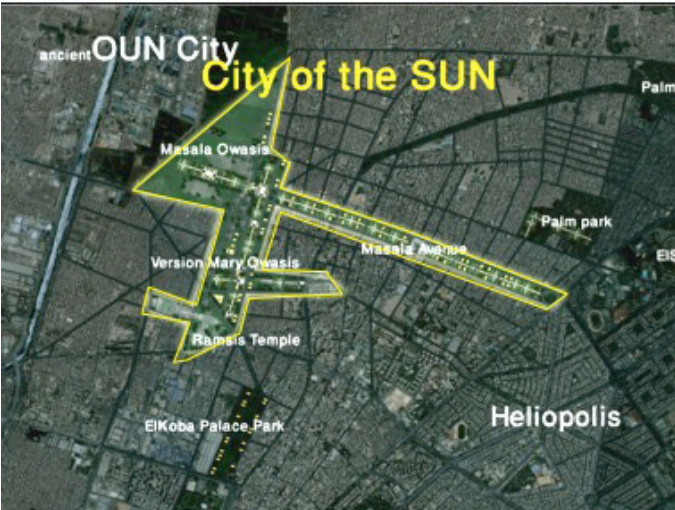



Rarefaction of 500 Feddan

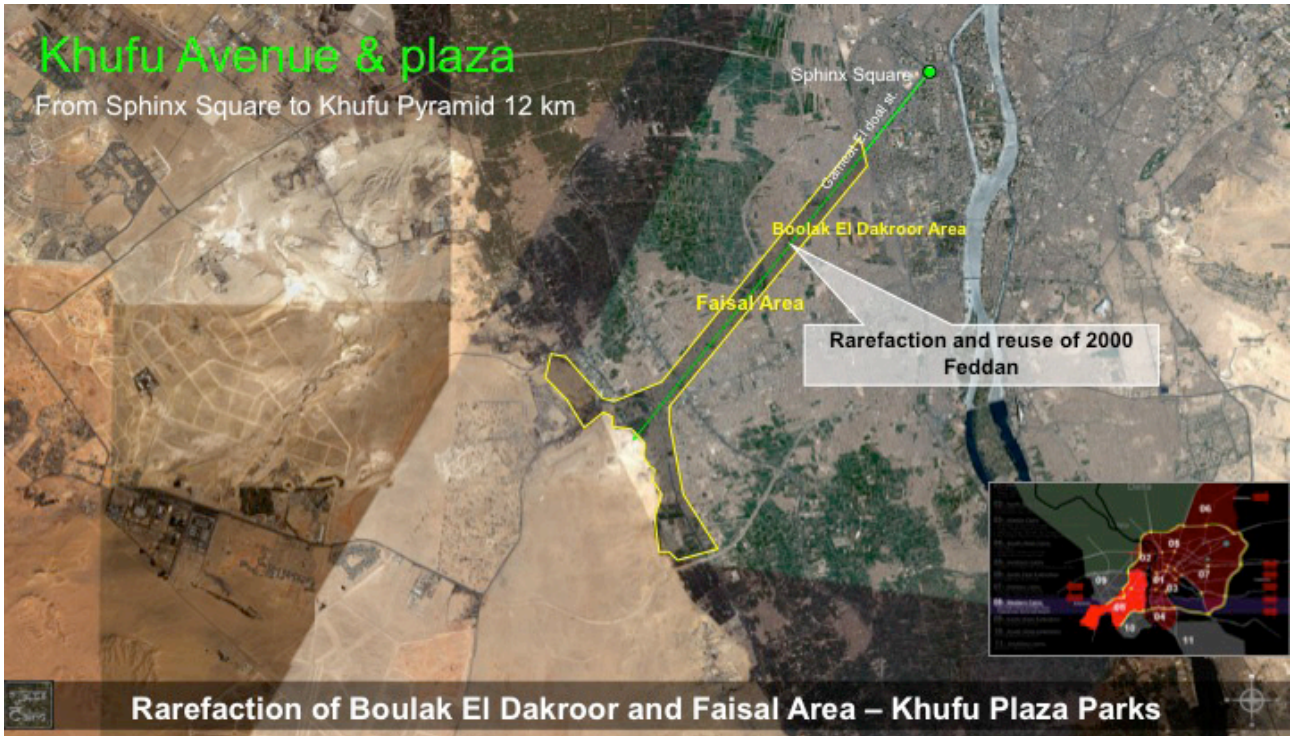
Ain Shams and el Matareyah Parks – (City of the Sun)

City of the Sun– Masalah Avenue

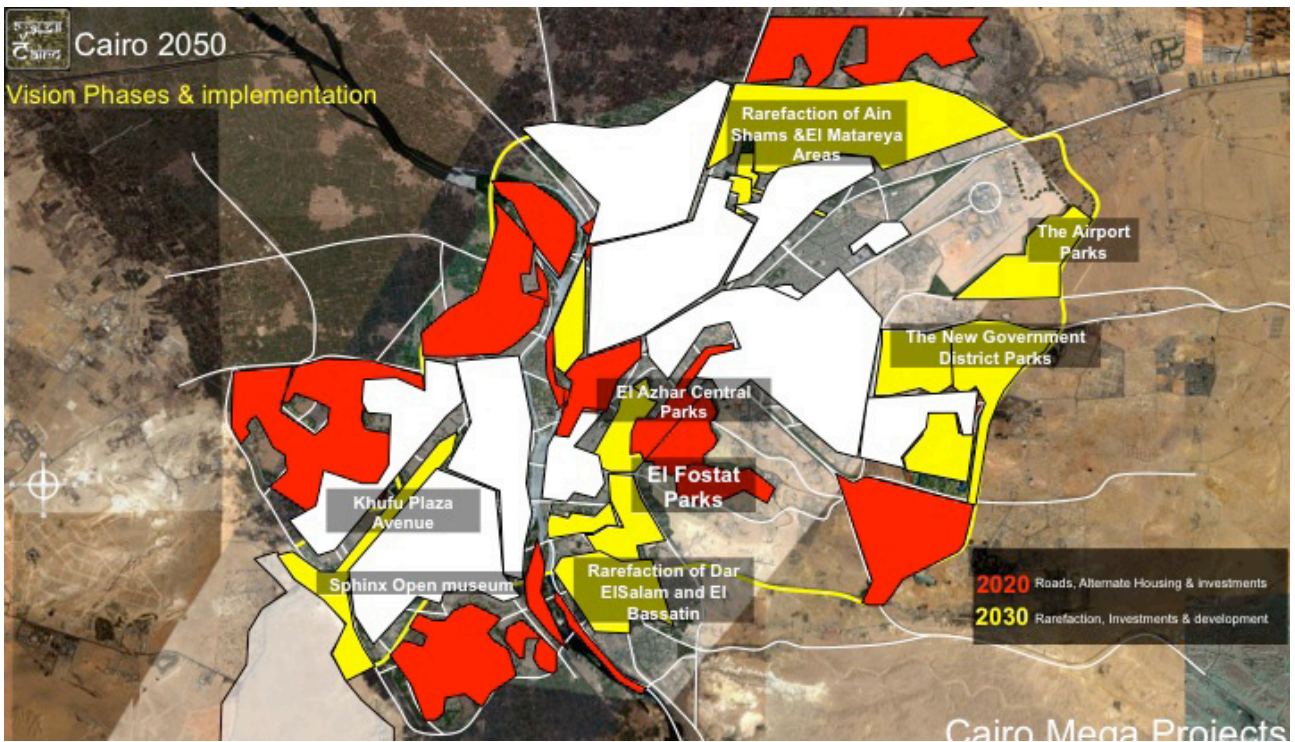
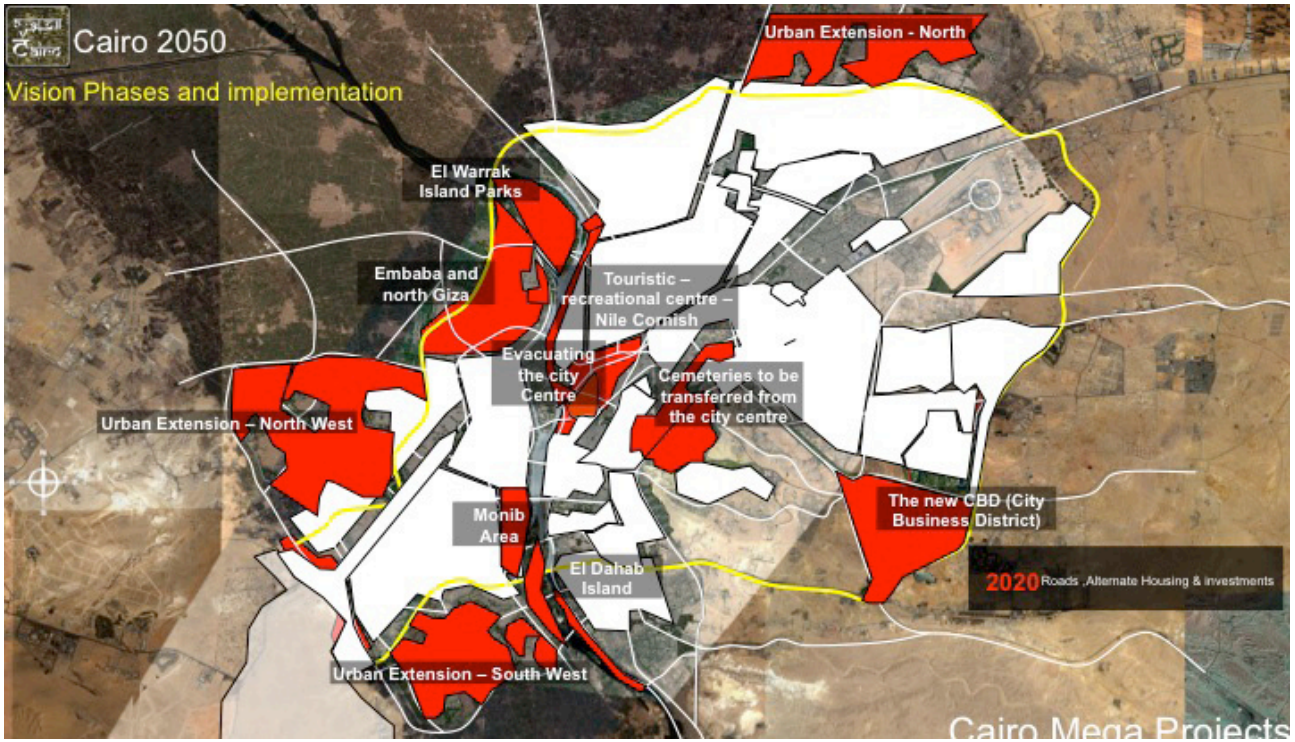
Parks and City of the Sun Avenue – 500 Feddan

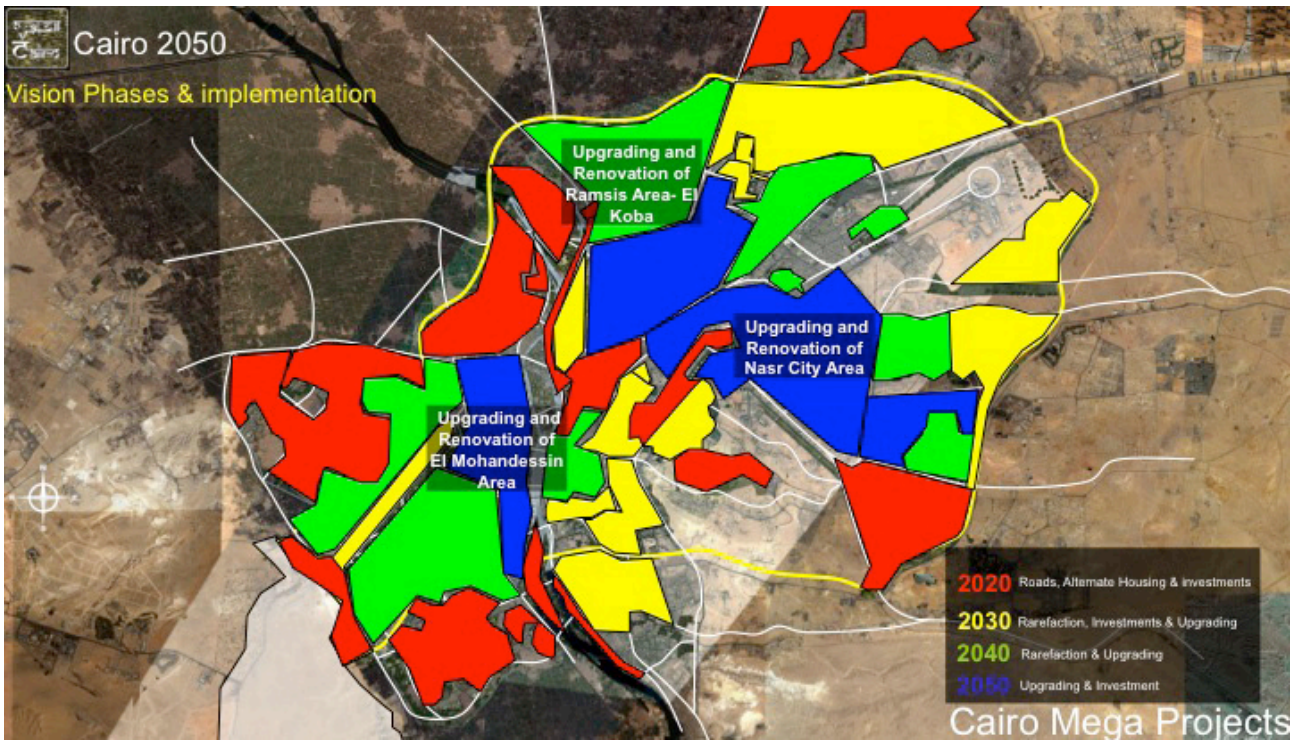
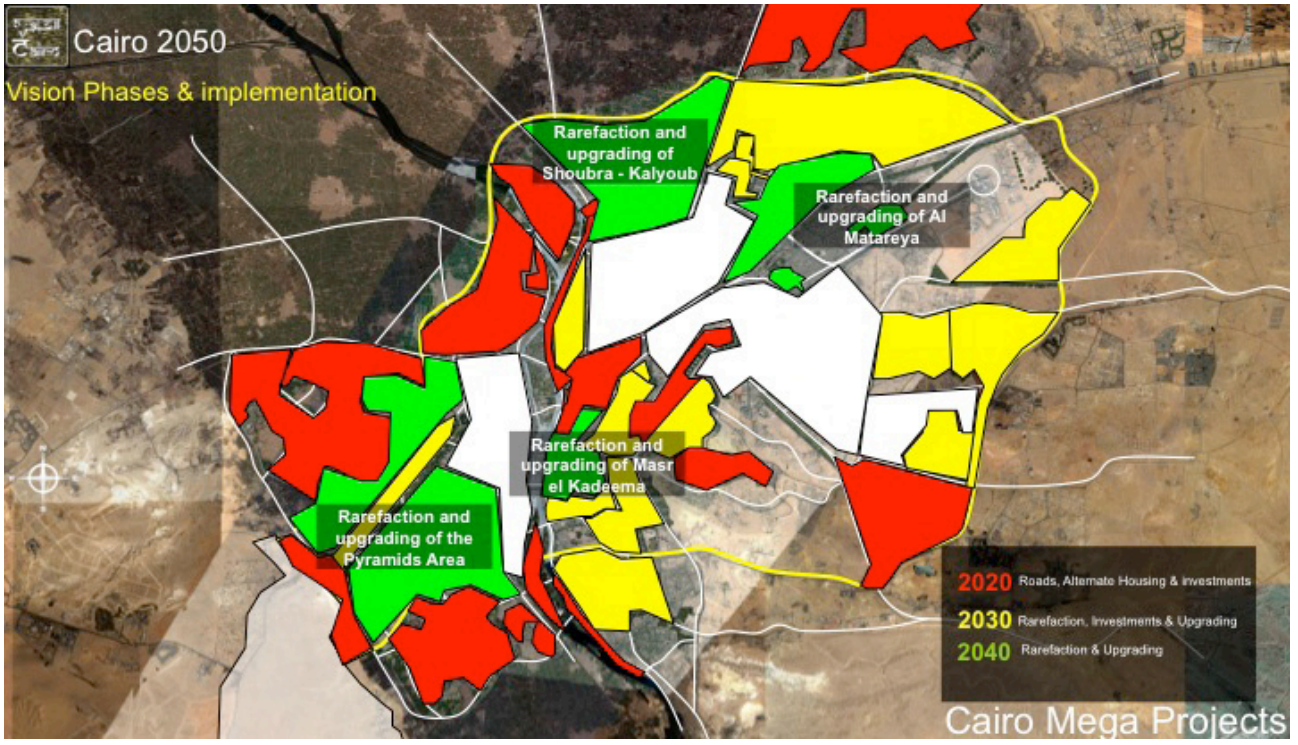














Projects to be implemented by year 2020

- Completion of new corridor roads and ring road.
- Completion of ongoing development projects of the northern sector of Giza.
- New governmental city.
- Completion of linking new urban communities with main agglomeration.
- Completion the upgrading projects for all unsecure informal areas.
- Completion the regional ring road.
- Completion the third and the fourth lines of Metro (subway).
- Upgrading of Nazlet El-Seman informal area and the first phase of Khufu plaza.
- Upgrading the Nile banks and business centers.

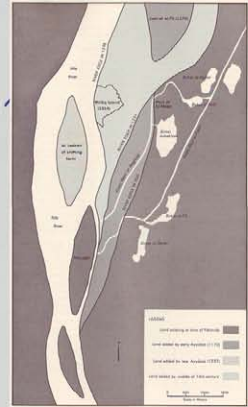
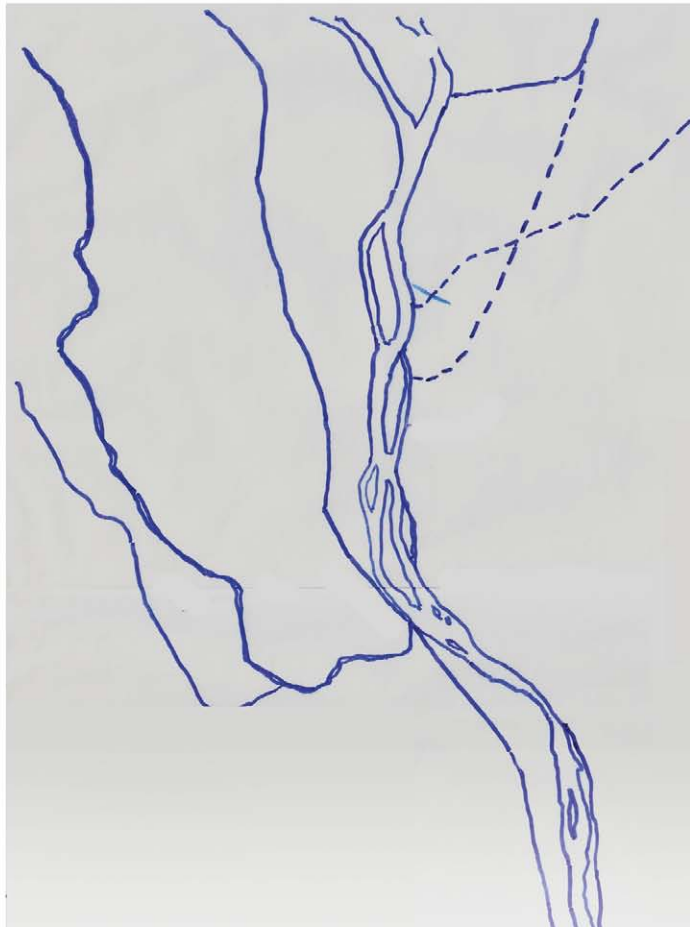


ARD AL-LWA COMMUNITY PARK

حديقة ارض اللواء

A. The Park and the City

أ. الجديدة والمدينة



تحويل مجرى نهر النيل غرباً منذ القرن العاشر الميلادي لتأسيس الجيزة للمصريين والحجري.
Shifting of the river course westwards since the 10th century and the historic paths of al-Khalij al-Misry & al-Khalij al-Nasiry.



موقع القاهرة وفسطاط وعصر القديس وبطليموس بجوار نهر بورك والخلجان القديمة.
The site of Cairo and Fustat in relation to the river edge and historic lakes and canals.

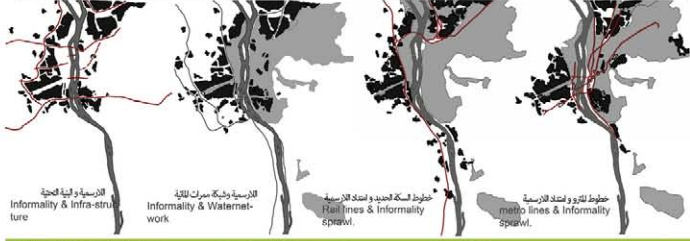


2 المدخل العمراني:

- الترسية وبنية التحتية للتأجير
- 1- الاستفادة من البنية التحتية للترسة لإقامة مساكن العلاقة ما بين الرسي وغير رسمي.
 - 2- إقامة أطلال القنارات والممرات لخلق كآخرة ممتدة لاستيعاب شبكة من الممرات الخضراء وحركة البعثات البيئية والحديقة لبيوت.
 - 3- خلق شبكة من المساحات الخضراء والمناطق الحديقة والترفيهية على جانبي الممرات للتلية.

A2 URBAN APPROACH

- Informality & deteriorated infrastructure:
- 1- Building on existing infrastructure network as a developmental framework between formal and informal areas.
 - 2- Restoring canals and waterways in rapidly urbanized periphery to accommodate a network of greenways and environmentally friendly transit corridors.
 - 3- Developing a chain of gardens & recreational areas along the network of canals.



ARD AL-LWA COMMUNITY PARK

حديقة ارض اللواء

The Park in the District

ب. الجديدة والجنى



ب.1 من حالة طرفية إلى حالة بدينية:

الاعتراف بالظرفية للموقع كحالة تبنية تساهم في تغيير علاقة التهميش والتبعية إلى إطار من التكامل والمنفعة المتبادلة وذلك من خلال مجموعة من المحاور العريضة وكبرى للشاة التي تعمل كمتاحر إتصال وروبط للمدينة

B.1.1 From edge to intermediate condition:

Recognizing the site location as a tool to convert the the edge condition of marginalization, exlusion and dependency into one of balance, integration and interdependence. This could potentially be achieved through a series of lateral connections that would link the otherwise disjoined parts of the same city.



Divergent Urban Tissues المنقسم مساح المدينة

Existing Green Areas

المساحات الخضراء القائمة

Proposed Green Networks

المساحات الخضراء المقترحة

Proposed Pedestion Networks

شبكة برون المشاة

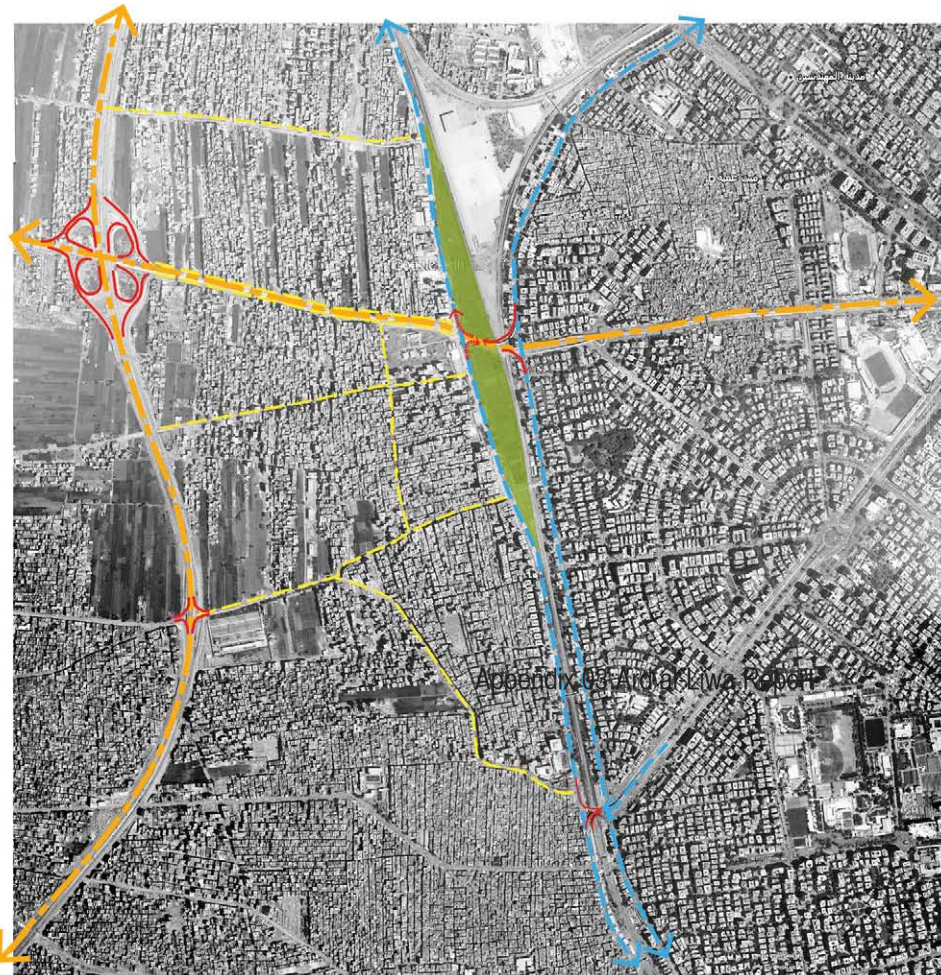


ARD AL-LWA COMMUNITY PARK

حديقة ارض اللواء

B. The Park in the District

ب. الجديدة والجنى



شارع نقطة كورس القوي لاجل الشبكة الجديد
al-Zomor Canal St parallel to the rail way



مزل سيوت الجديدة من الداري
al-Mimdsiya ring-road exit



كوري نلما من شارع حليمة الدول العرية إلى شارع نقطة كورس
Nahya Bridge from Gamlat of Duwel St to Zomor Canal

2. المخطط لمروري للمقترح

وضع مقترح متكامل لشبكة لمرورية من نوع أرض اللواء ل من خلال شطين يمتد الاول على نلما، مزل، كوري، نلما، كندل، زومر إلى أرض اللواء عبر شارع نقطة كورس وقارح مطبق عند تقاطعه مع لمرور لمرور إلى شارع السويان، نلما، بلان، نلما، جويين هذا المقترح يهدف إلى إزاحة لمرور الذي يعمل معرمة مشاة ووصول باقية مشكلة كورس وديفك، للتكراس على شارع السويان أيضا الفتح الفتح لمرور على ترميم وتطوير الشوارع اللوائية إلى سول ومطابق لاجدية على الفريق الثاني ليشكر مشروع ومدخل بدل إلى أرض اللواء

B.2. Proposed Traffic Plan

Addressing the chronic traffic problem through two traffic axes, the first starts from Nahya exit along Zomor Street with a proposed exit at its intersection with Al-Mimdsiya when it merges with the existing Sudan exit. This proposal results in turning the current railway crossing into a pedestrian one. The second axis proposed reinforcing the main streets leading to al-Mimdsiya east on the ring road which would provide for a second access point.

- Regional road طريق القليس
- Arterial road شريان حركة رئيسي
- Collector road طريق تجميعي
- Existing highway exits مطارج قائمة
- proposed highway exits مطارج قائمة جديدة

ARD AL-LWA COMMUNITY PARK حديقة ارض اللواء
C. Morphological Strategy ج. إستراتيجية التشكيل العمراني



الجزء العرضية

يوضح الشكل عرض مقطع عرضي للحدائق المجتمعية في منطقة القطيفين، حيث يظهر كيف يمكن دمج الحدائق مع المباني السكنية المحيطة بها، مما يخلق بيئة حضرية متكاملة. كما يوضح كيف يمكن دمج الحدائق مع المرافق العامة مثل المدارس والحدائق العامة، مما يخلق بيئة حضرية متكاملة.

C1 Lateral Axis

The proposed concept introduces a number of pedestrian routes that are placed in strategic locations along the Lateral Axis. This can be used to create a sense of connection between the park and the surrounding urban context. The Lateral Axis can also be used to create a sense of connection between the park and the surrounding urban context.

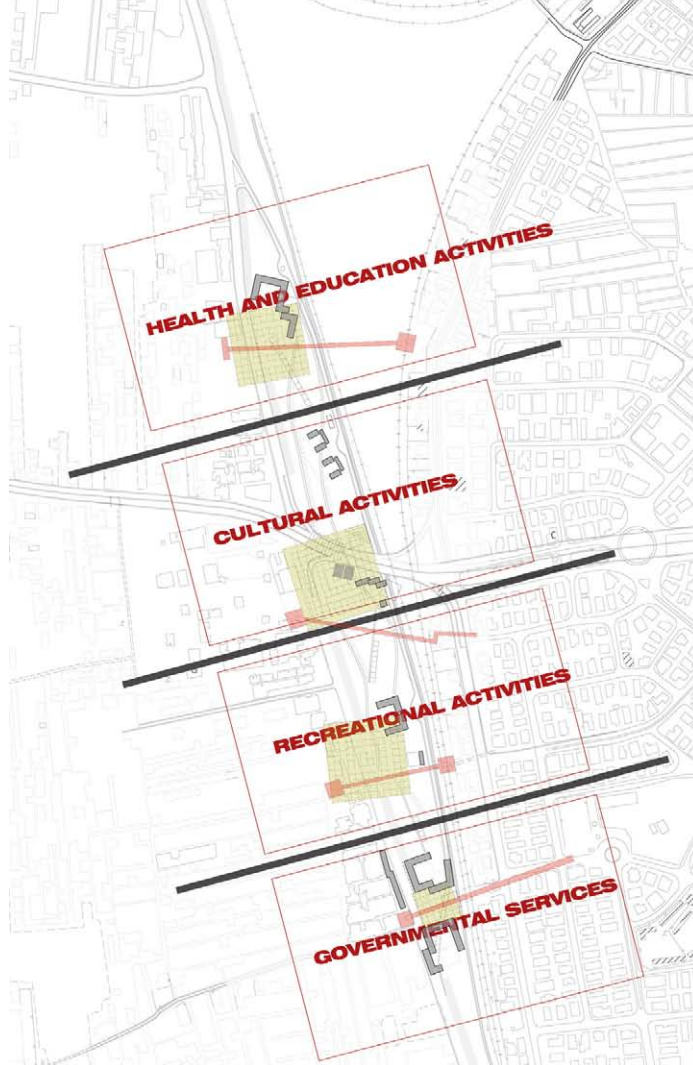


C. Morphological Strategy

ج. إستراتيجية التشكيل العمراني

ج2 الساحات والاحياء الوظيفية

يشكل الموقع اطاراً من عدة مراكز وساحات عمرانية يربط بينها حيوية بين الأنشطة والخدمات الخاصة كل حين،
 (أ) الاجتماعية والثقافية
 (ب) الرياضية والترفيهية
 (ج) التعليمية والصحية
 (د) المساحات التجارية
 وقد تم أخذ في الاعتبار للفرق اللوني كل حيوية بشكل متساوياً مع بقية المناطق السكنية وكما
 تظهرها مع الخدمات العامة للمنطقة



C2 Nodes & Activities

The scheme is organized around a number of nodes and plazas, each is surrounded by a cluster of activities and community services, including:

- a) social and cultural hub,
- b) sports and recreational facilities,
- c) educational, training and health services,
- d) commercial and retail spaces.

The location and makeup of each of these nodes correspond to surveyed community needs and aspirations, as well as the surrounding context and existing services.

ARD AL-LWA COMMUNITY PARK

حديقة ارض اللواء

D. PROJECT COMPONENTS

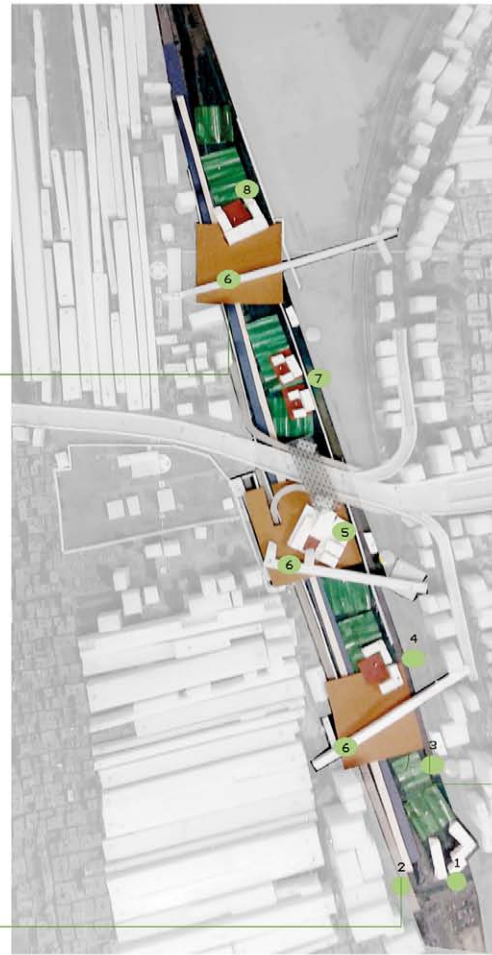
د. مكونات المشروع



Pedestrian bridge



Greenway concept



Linear Park scheme



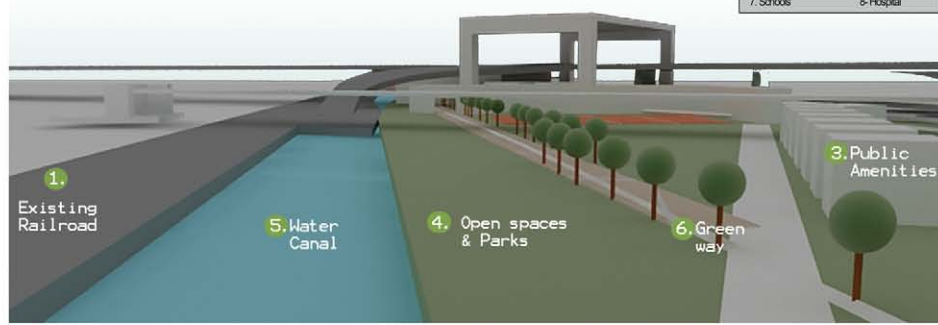
Tram way

مكونات المشروع الأولية

- 1. بوابة المدينة
- 2. مركز العمل
- 3. طريق النقل السريع
- 4. واحة عمل
- 5. مركز تجميل
- 6. مركز ممتلئ
- 7. مدارس
- 8. مستشفى

Elementary project components

- 1. Park Gateway
- 2. Greenway
- 3. Tram way
- 4. Workshops
- 5. Culture Center
- 6. pedestrian bridge
- 7. Schools
- 8- Hospital



Schematic cross section through the site

ARD AL-LWA COMMUNITY PARK

حديقة ارض اللواء

D. PROJECT COMPONENTS

د. مكونات المشروع



ساحة المدخل بولاية المشروع والمركز

تجرساحة المدخل إحدى العنصر الرئيسية للحدائق الجديدة حيث يرتكز عليها الممر الرئيسي للارض اللواء (الزقاق) -الذي يربط بين العديد من المناطق الحيوية التي يمكن ان تساهم كمصدر دخل في اعادة وصيانة المدينة كما ان هذا الممر مركزا ممتازا يربط بين الأجزاء التاريخية والوحدات الحضرية والحديثة لشبكة النقل وذلك مما يجعله ليس فقط نواة المشروع ولكن بوابة ارض اللواء لهذا

Entrance Plaza: A Gateway & Commercial Center

The entrance plaza is considered as a main crossing point bridging to the city at large as well as a gateway to the park and is surrounded by a cluster of commercial activities that would generate necessary revenue for the Park maintenance. Furthermore, it offers an opportunity as a civic center to house municipal and service buildings for the district of Ard al-Lwa.



Soft Scapes

Hard Scapes and plazas

Buildings

Connections



ARD AL-LWA COMMUNITY PARK حديقة ارض اللواء

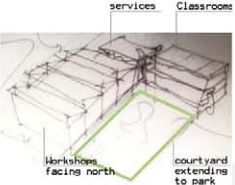
D. PROJECT COMPONENTS د. مكونات المشروع

ساحة الاشطة الرياضية ومراكز التدريب

تتضمن الساحة مجموعة من الملاعب والمدرجات ومناطق اللعب وكذا الحدائق العمودية للتلقيح حيث تشكل مجموعة مراكز رياضية متكاملة لتدريب ومهرجانات من طراز المتفاني كما تشمل مركزا للتدريب الحرفي والمهني يتماشى مع المصنعات الصغيرة وتورش الانتاجية بالحدائق الحديقة والحارة وساحة للاريس المبردة.

Recreational, Sports and Training Center

The sports and recreational place includes a number of courts and playfields and is surrounded by a cluster of shops and viewing platforms, which constitute together a proper stadium for Ard al Lwa that would host sports tournaments and festivals. This node also includes a vocational training center for crafts and small industries revolving in the neighborhood.

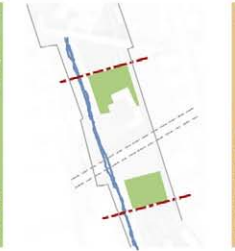


برنامج المدرسة الثانوية للتعليم الجبرفي

قاعة التعليم ايسل
 عدد بونه : 200 / بروب
 قاعة تعليم نظري
 عدد قاعات : 140
 القاعات : 600 / الفه : 600

Technical High School Program:

3 workshops	: 200 m ² each
Theoretical learning sector:	
3 classes/year	: 140 m ² / Service building : 50 m ²
Courtyard	: 600 m ² / Foot print : 800 m ²
Courtyard	: 600 m ²

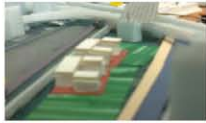


ARD AL-LWA COMMUNITY PARK

حديقة ارض اللواء

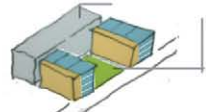
D. PROJECT COMPONENTS

د. مكونات المشروع



البرنامج الوظيفي للمدرسة
 عدد فصول في الطابق بمساحة فصل لكل طابق 300 م² (تدريس)
 طابق الأول من 1 إلى 3 ابتدائي / طابق الثاني من 4 إلى 6 ابتدائي
 طابق الثالث للمرحلة المتوسطة
 طابق الرابع للمرحلة المتقدمة
 المساحة 400 م²
 المساحة 300 م² / طابق / الفناء 450 م²

school program:
 capacity : 2classes / year, 6 classes / floor (180m²)
 floor1 : 1st to 3rd primary / floor2 : 4th to 6th primary
 floor3 : 3 yrs preparatory / floor4 : 3 yrs secondary
 facilities area / floor : 360 m²
 coopere 540 m² * 4 floors / courtyard 450 m²



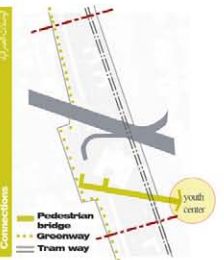
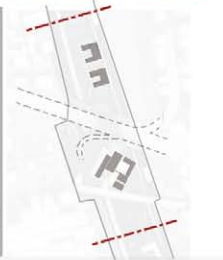
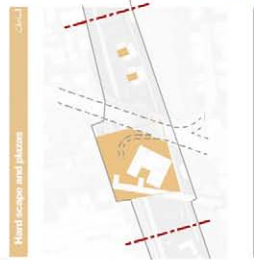
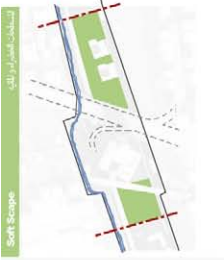
البرنامج الوظيفي للمركز الثقافي
 للمسرح 300 م² / قاعة متعددة الأغراض 100 م² -
 قاعة عرض مكشوف 200 م² - سكن الفنانين 200 م²
 مكتبة 100 م² - ورش عمل 15 ورشة / ورشة
 قاعة 300 م²

culture center program:
 Theatre 300 m² / ZM.P.U. 100 m² each
 Open exhibition 200 m² / Artists Residence 200 m²
 Cafeteria 100 m² / 5 workshops 15 m² each
 Foot print 800 m² / courtyard 300 m²



الساحة الثقافية مركز الإبداع والمدرسة الأثرية
 توسط الساحة الثقافية ومركز الإبداع قلب المشروع مكانيا ليصبح مركز الارتكاز لحي الساحة المحيطة ويضمد التشكل على تحويل الفراغ لتهيئ أسلحاً محورا 20 يوليو إلى مجموعة من مساحات الإنتاج الفني للمسرح وفنانات العرض ومساحات للفنون وديكور لمركز الثقافة مدرسة التعليم لأثرية والسكنى والتأهيل لإنتاجية ثقافتها لعل أرض الفنون في عظيم وسطى بمعدل ليشارك كهيبة للمدرسة ولتفكر التثاقيل في الإنتاج الثقافي الإبداعي والفنوري

Cultural Center and Azharite School
 The cultural plaza occupies the spatial center of the Park and a center of gravity of its activities. It aims at converting the left-over spaces under the 26 July Corridor into spaces of artistic production, such as theaters, exhibit halls and open spaces. The neighboring Azharite School is a response to the community separations for a moderate religious education, which along with the cultural center, constitutes a hub for innovative and creative thinking.



ARD AL-LWA COMMUNITY PARK حديقة ارض اللواء
D. PROJECT COMPONENTS د. مكونات المشروع



الرنامج الوطني للمسنين
 سعة المستشفى: 50 سرير
 المساحة الكلية: 5000 م²
 التخصصات:
 عيادات خارجية / طوارئ / غرف قديمة / غرف قديمة
 ومعمل تحاليل / لفرنس شامو و اولاد

Hospital programme
 Hospital capacity: 50 bed
 Total area: 5000 sqm / Footprint: 1200 m²
 specialities:
 outpatient clinics / Emergency / Kidney Dialysis
 inpatient wards / labs and X- Rays / Gynaecology
 & Obstetrics Dept.



ساحة المستشفى، والخدمات الصحية
 تقع منطقة المستشفى والخدمات الصحية في الطرف الشمالي من المدينة
 بعيدا عن الضوضاء والازدحام حيث تضم مستشفى الطوارئ، والعيادات
 الصحية غير التابعة لارض اللواء، وتتيح نطاق خدمة للمستشفى ليشمل
 المناطق المحيطة، تم اقتراح مركز عرضي يمتد شرقا حتى منطقة بيت طاية
 وبنية الصحن.

Health Center & Emergency Hospital
 A health and wellness center is proposed at the far
 end of the Park, away from the noise and pollution,
 and includes an emergency hospital as well as
 necessary medical services that are lacking in Ard
 al-Lwa. In order to extend the domain of its ser-
 vice provision and increase accessibility, a lateral
 corridor connects eastward to land in IM Uqba
 and al-Sahabiyin Districts.



ARD AL-LWA COMMUNITY PARK حديقة ارض اللواء
LAYOUT AND PROJECT COMPONENTS الموقع العام ومكونات المشروع



Master Plan



ARD AL-LWA COMMUNITY PARK

حديقة ارض اللواء

ARCHITECTURE LANGUAGE & URBAN SPACES

التراغات العامة والتسكيل العمراني



Ai-Awqaf site, 12 acres, separates between Al-Muhandisin and Ard al-Lwa districts.

الموقع أرض الوقف، 12 فدان حد فاصل بين المهندسين وارض اللواء



The park as a stage for a city-scale festivities hub, hosting art and cultural festivals that would transform the 26 July traffic corridor from being a separator into a connector.

المدينة كمناسبة إستراتيجية لحلة المدينة لتسهيل الله والاتصال بين المهندسين وارض اللواء حيث يتحول محور 26 يوليو من كونه حائل الفاصل إلى فرصة لاستضافة عروض فنية وبيرواجات ثقافية


 Detailed Master Plan - مايو 2012 - المخطط التفصيلي للمشروع
ARD AL-LWA COMMUNITY PARK حديقة ارض اللواء











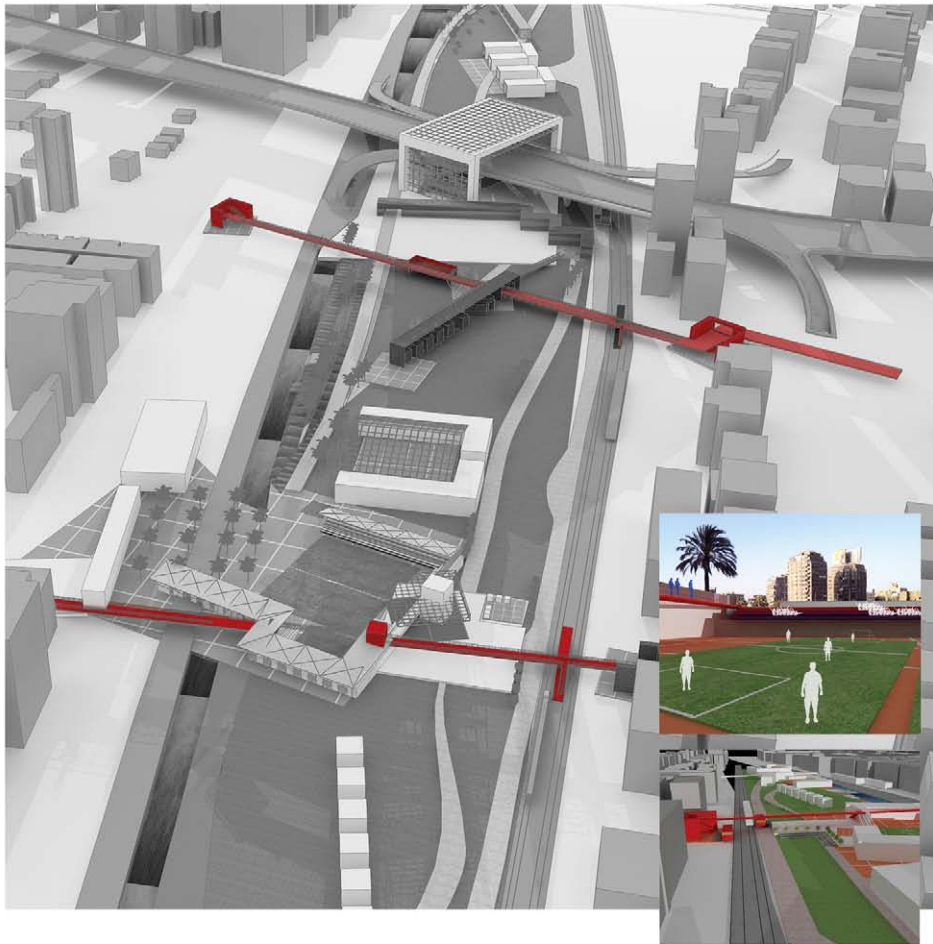


ARD AL-LWA COMMUNITY PARK

حديقة ارض اللواء

ARCHITECTURE LANGUAGE & URBAN SOACES

الفراغات العامة والتكامل العمراني



Lateral connections and crossings:
 the proposed scheme could be reduced to a number of lateral connections, pedestrian crossings and overpasses, each acts as urban device to reconnect the currently separated districts on each side of the site, such as al-Muhammadiyah and al-Sarafiya, on one sides, and Ard al-Lwa, Imbiah and Bubaq, on the other. Each also houses a group of services and facilities underneath as well as ramps, staircases and metro stations.

ممرات وتقاطعات:
 يمكن ترميم الممرات والتقاطعات الموجودة في الموقع من العمارة الحديثة وتكرار اللغة التي كانت موجودة في السابق.
 يمكن دمج التصميمات القائمة على جانبي الشارع، من جهة واحدة فقط، ودمجها مع الجانبين من جهة أو في الراس على أرض
 اللواء بدلاً من التكرار. يمكن دمجها مع الجانبين اللذين كانا كجسور، مثل الجسر الواقع بين اللواء والشارفية، أو خدمات الممرات
 كدورات المياه ومراتب التمرير والتخلص من النفايات.

ARD AL-LWA COMMUNITY PARK

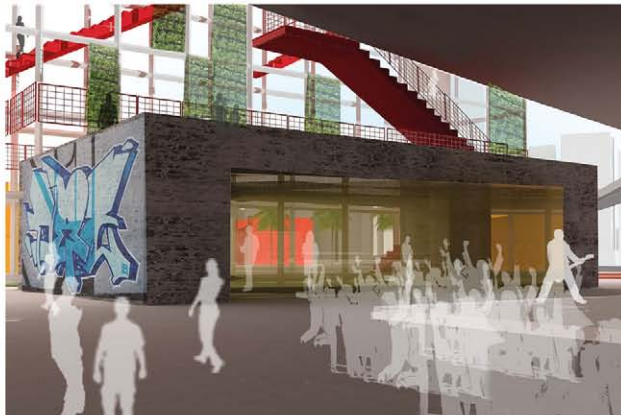
حديقة ارض اللواء

ARCHITECTURE LANGUAGE & URBAN SOACES

الفراغات العامة والتكديف العمراني



تطوير وإعادة تطوير حواف قناة الزمور لخلق واجهة مائية ورياض محيطة من الأنشطة الترفيهية وسرعات للمشاة على جانبيها
 Cleansing and redeveloping the edges of al-Zomor Canal as a waterfront corridor to accommodate a set of recreational activities and greenways.



تحويل الفراغات المهجورة تحت الكوبري إلى حيز مطور الإبداع الثقافي من خلال مجموعة من المساح والمغاط
 العرش
 Activating left-over spaces under the bridge into a ones of creative production including theaters and art galleries.

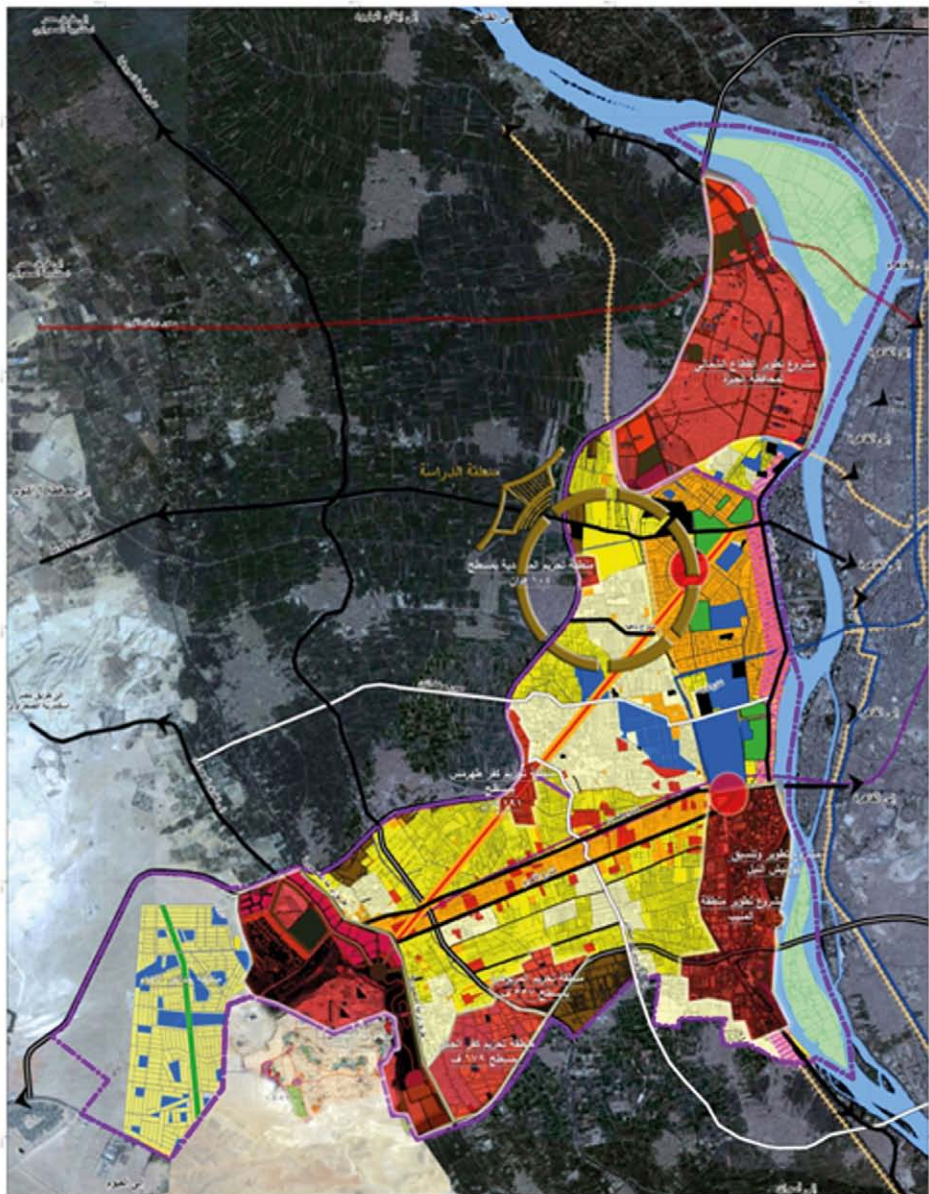


تخصيص أحد المساح الرئيسية في المشروع لإنشاء مركز الشباب القائم حيث ساهم أكبر المساح
 وبها جات وكشافة ابداعية والمخاطبات.
 One of the major nodes is designated as a center for recreational and sports facilities including courts, playgrounds and viewing steps and platforms.

ARD AL-LWA COMMUNITY PARK حديقة ارض اللواء

PREVIOUS STUDIES دراسات سابقة

Giza City Strategic Plan - 2008 للخطة الاستراتيجية لمدينة الجيزة 2008



<p>00.2.4 0.8 1.2 1.6</p>	<p>المناطق السكنية</p> <ul style="list-style-type: none"> مناطق ذات الكثافة منخفضة مناطق ذات الكثافة متوسطة مناطق ذات الكثافة عالية مناطق ذات الكثافة العالية جداً مناطق ذات الكثافة العالية جداً جداً 	<p>المناطق التجارية</p> <ul style="list-style-type: none"> مناطق تجارية خفيفة مناطق تجارية متوسطة مناطق تجارية ثقيلة مناطق تجارية ثقيلة جداً 	<p>مشروع اعداد المخطط</p> <p>الاستراتيجي لمحافظة الجيزة</p> <p>اسم التوحة:</p> <p>المخطط الاستراتيجي</p>	<p>وزارة التخطيط والتنمية الاقتصادية الهيئة العامة للتخطيط العمراني محافظة الجيزة</p>
---------------------------	--	---	---	---



ARD AL-LWA COMMUNITY PARK

حديقة ارض اللواء

PREVIOUS STUDIES

دراسات سابقة

Northern Giza Detailed Plan - Giza Governorate - 2009

المخطط التفصيلي لمنطقة شمال الجيزة - محافظة الجيزة - 2009



ARD AL-LIWA COMMUNITY PARK

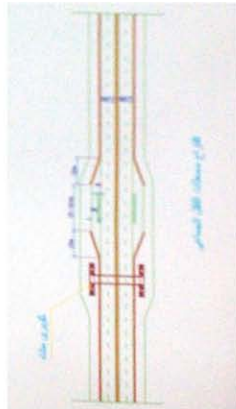
حديقة ارض اللواء

SUGGESTION STUDIES

دراسات سابقة



الخطة المقترحة لترعة الزمر وخط المترو الثالث-2012
Proposed Plan for Zomor Canal & Third Metro Line - 2012

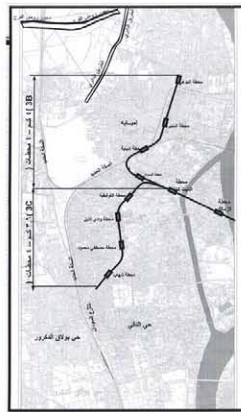


مخطط المجرى المروري

ديم وتحويل ترعة الزمر و تطوير محور مروري سريع موازي الشارع السودان ليربط مناطق الاسكان الغير رسمي من امانة شمالا في العمارة جنوبا

Traffic Corridor Plan

Filling and relocating of the course of the canal and the development of a traffic artery parallel to Al Sudan street to link the informal settlements from Imbaba northwards to Omraneya southwards



خط المترو الثالث

يمتد خط المترو الثالث لمترو ابنفاق القاهرة الكبرى من مطار القاهرة الدولي شرقا حتى اسيوط وبهاقي الدكرور غربا ملرا بمنطقة مصر الجديدة، الفيصلية، اسيوط القاهرة، باب الشعبة، الصبة، الزمالك، المهندسين. ويبلغ عدد محطات الخط (35) محطة وطول إجمالي 43.5 كيلو متر.

Third Metro Line

The third line of the Greater Cairo Metro Network connects the East and the West of the city. Extending from Cairo International Airport eastwards to Imbaba and Bulaq Aldakrur westwards, and passing through Mesr Algadida, Abbasia, Bab Al-Sharya, Attaba, Zamalek and Mohandessin. The Metroline has 35 metro stations , having a total length 43.5 kilometers.



ARD AL-LWA COMMUNITY PARK

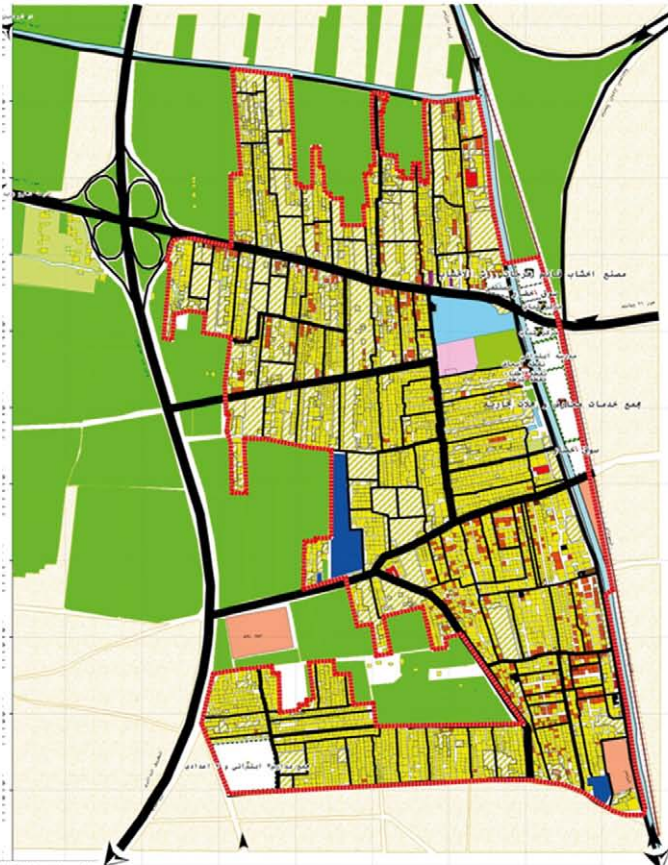
حديقة ارض اللواء

PREVIOUS STUDIES

دراسات سابقة

Ard al-Lwa Urban Survey - G.O.P.P. - 2002

للمسح العمراني لمنطقة أرض اللواء - لجنة لخدمة التخطيط العمراني - 2002



- | | | | |
|---|---|---|---|
| <p>الخدمات المقترحة</p> <ul style="list-style-type: none"> أراضي المقترحة لإقامة المشروعات مدرسة ابتدائي مجمع مدارس ابتدائي و 2 إعدادي مسكني نقطة اسعاف نقطة شرطة نقطة أطباء سركل شباب توزيع سلك القرينة تخطيطي شرفة | <p>المشروعات المقترحة</p> <ul style="list-style-type: none"> الأراضي المقترحة لإقامة المشروعات الى الشمال سوق حمار مجمع خدمات معارف و مكان تجاريه مجمع احطاب فائق فرجان ورق الاح | <p>المناطق الاساسية المقترحة</p> <ul style="list-style-type: none"> المنطقة الحيدية طريق انشائي طريق رئيسي 16 متر طريق رئيسي 8 متر طريق ثانوي 6 متر | <p>استعمالات الاراض</p> <ul style="list-style-type: none"> مكر مكر حقلنظ خدمات اجتماعية خدمات ادارية خدمات فائزسة خدمات ترفيهية خدمات تعليمية حديقة خدمات بيطسية مزارع مزارع ميد زراعة |
|---|---|---|---|



ARD AL-LWA COMMUNITY PARK حديقة ارض اللواء

PREVIOUS STUDIES دراسات سابقة

Existing Land Use Plan (Updated Urban Survey) - G.O.P.P. - 2012 استعمالات الاراضي لقطاع (المسح العمراني المحدث) - لجنة تخطيط العمراني - 2012

