



Behavioral & Cultural Patterns (B.C)s and Upgrading Informal Settlements in Greater Cairo Region

By

Eman Ahmed Saleh Eldin Abdelhalim

A Thesis Submitted to the

Faculty of Engineering at Cairo University

In Partial Fulfillment of the Requirements for the Degree of

DOCTOR OF PHILOSOPHY

In

Architectural Engineering

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Summary :

In recent years, Egypt has confronted a gigantic problem, concerning the growth of slums and informal settlements in frequent districts all over the capital. Moreover, Informal settlements are not only considered an inhabitants' problem or squalid parts suffering from lack of services, however it's considered a complex phenomenon. Thus, the research aims at discovering Behavioral cultural factors' matrix (converted non-physicals) for urban spaces, and then integrated into a comprehensive development strategy to be applicable in development projects. Moreover the research tries to prove by inductive and deductive approaches that each informal area is a "place" with its cultural factors and personality.



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Abstract

In recent years, Egypt has confronted a gigantic problem, concerning the growth of slums and informal settlements in frequent districts all over the capital. Consequently, according to the report from the ministry of local development in 2007, the population of slums in greater Cairo region only reached 6.2 million, and the national level of the slums' population reached 16 million, which is nearly 25% of the all over population of Egypt. Another study was done by *David Sims* proved that the actual percentage of Informal settlements' population in GCR(Greater Cairo Region) in 2009 is about 63% of the whole population in the capital, which is considered an alarming issue.

Moreover, Informal settlements or "ashwae'yat" are not only considered an inhabitants' problem or squalid parts suffering from lack of services, however it's considered a complex phenomenon. In those paradox the social, cultural, and economical characteristics decline massively with an indefinite rate, and also the health and hygienic aspects (for certain types of informal settlements) find a dangerous deterioration

Some Cairo urban researchers and experts highlight the importance of understanding the relation between residents' and their entire urban space within certain Behavioral & Cultural patterns. Thus, the research aims at discovering Behavioral cultural factors' matrix (converted non-physicals) for urban spaces, and then integrated into a comprehensive development strategy to be applicable in development projects. Moreover the research tries to prove by inductive and deductive approaches that each informal is a "place" with its cultural factors and personality.

In the practical part, Ein El Sira and Darb El Labbana areas in old Cairo are the chosen areas to experiment the B.C's Matrix to find the Satisfaction percentage, thus the development entries forms are founded. As a result a 3d upgrading proposal is formed for the two areas, according to the development priorities which were before concluded from the B.Cs.

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Chapter One :
General Consideration
Behavioral & Cultural patterns
within informal settlements'
upgrading

Chapter One : Behavioral & Cultural patterns within informal settlements' upgrading

1.1 Introduction: Problem Confrontation

In recent years, Egypt has confronted a gigantic problem, concerning the growth of slums and informal settlements in frequent districts all over the main capital. Consequently, a certain surge occurred to the slums' population recently, reaching 20% in a single decade. And according to the report from the ministry of local development in 2007, the population of slums in greater Cairo region only reached 6.2 million, and the national level the population of slums reached 16 million, which is nearly 25% of the all over population of Egypt.

As for Cairo today, or Greater Cairo Region (GCR) as it is officially called with its approximately 18-20 million inhabitants, is considered one of the largest cities in the Middle East and counted as one of the world's "mega-cities" throughout specialized literature and in many reports by international organizations (UN-HABITAT, 2003; 2010; Davis, 2006; Sims, 2003; 2010). The city suffers from the burden of supporting a population growing faster than its ability to expand infrastructure and provide basic services to its inhabitants. In a study done by the UN, Cairo city

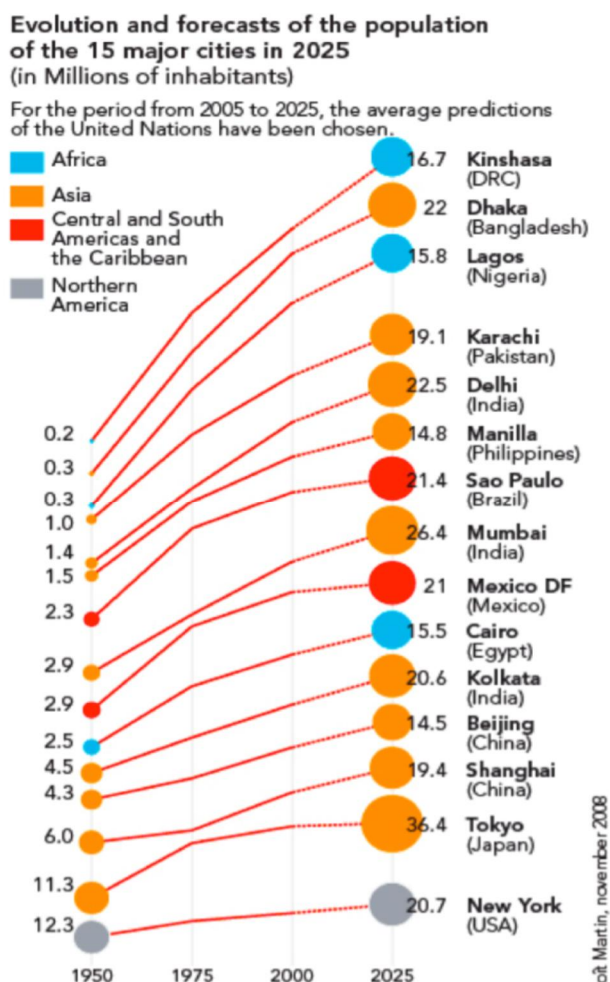


Figure1-1 Comparison between different cities shows the increase of inhabitants from the year 1950 and 2025. (Source: Nations unites, division Population, World Urbanization Prospects: The 2007 Revision, www.un.org, 2014)

alone, which was inhabited by 2.5 million people in 1950, is expected to host a population of 15.5 million by 2025 (Source: Nations unites, division Population, 2007) (Figure 1-1). However the central agency for Public Mobilization and Statistics (CAPMAS) had illustrated a total population for Cairo Region only in December 2016 a figure of 20.64 million. Furthermore, David Sims, as one of the famous experts in Cairo's informality had calculated an average Norm for the agglomerative growth of informal areas about 2.1% (Sims, 2015), thus the population of informal areas in GCR had averagely reached 13.8 million inhabitants in 2016, which represents a percentage of 69% of the total population of GCR (Researcher based on Sims, 2015).

The previous information emphasizes the alarming problem and the lack of radical solutions to reduce the entire growth of slum population, that's why the Researcher chose GCR as an entire area to be studied as a research scope.

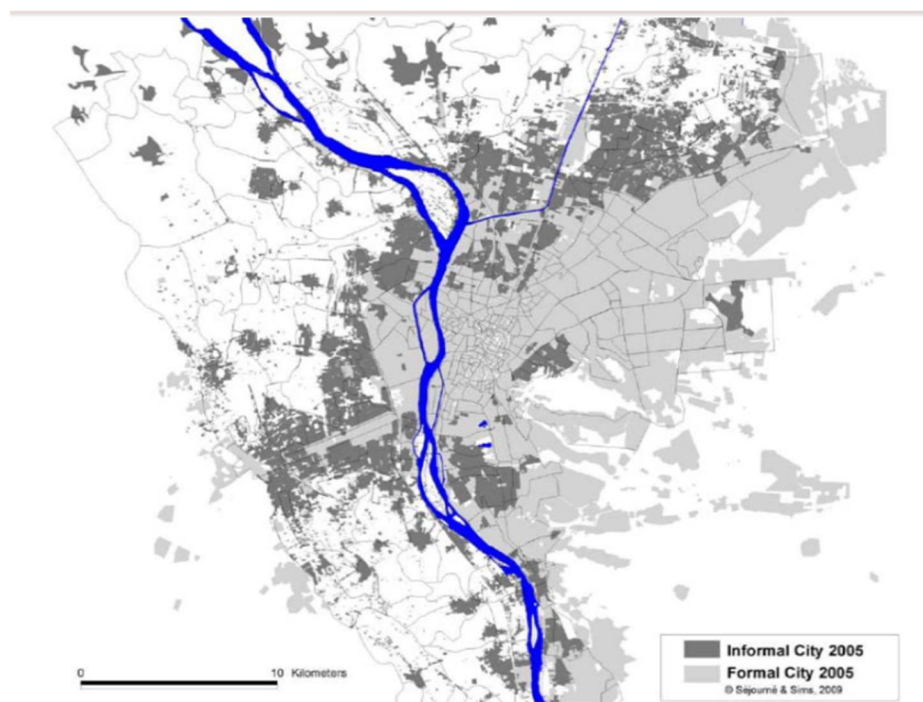


Figure1-2 Shows an investigation for the Formal and the Informal city ,source: (Sims & Sejourne, 2009)

Informal settlements or “ashwae’yat” (as commonly named in Egypt) have become the dominant product within the urbanization process of Cairo and in the provision of housing for the urban poor. These settlements should not be viewed as a part of the country’s housing crisis, but rather as the urban poor’s contribution to its solution. (Sims, 2012)

Moreover, Informal settlements or “ashwae’yat” are not only considered an inhabitant problem or squalid parts suffering from lack of services, however it’s considered a complex phenomenon. In those paradox the social, cultural, and economical characteristics decline massively with an indefinite rate, and also the health and hygienic aspects (for certain types of informal settlements) find a dangerous deterioration.

Furthermore, there is unanimous agreement that slums are the major outcome of several, manifold and multi-leveled factors. The most important factors are: lack of political and economic frameworks, the social Inequality, Bad governance, lack of organization charts and legislative frameworks, the deficiency of urban land market and the financial systems to address the needs of the poor people.

And as Egypt is experiencing a critical moment in its history with the revolution of January 25,2011¹. This poses a great opportunity for the state to change its way of dealing with the phenomenon of informality in general, and specifically, the informal urbanism that takes place all over the built environment in rural and urban areas. This opportunity is accompanied by a mixture of hopes and doubts caused by the inherited mistrust on the part of residents, which stems from their relation to the previous Mubarak regime. This research tends to highlight some aspects from the reality of ‘ashwa’eyat at that historic transformation period of Egyptian history.

1 Although the revolution by itself is not the main focus of the research, it still plays a role in understanding what is going on in Cairo, and its influence on the cultural interventions of the informal settlements’ inhabitants.

It is worth mentioning that different upgrading projects in Egypt have taken local culture, or at least people's preferences², into account to varying degrees without a clear definition of the term "culture". This has been done through participatory approaches that have been applied in communities (Piffero, 2009). Notwithstanding the ongoing conflict between government officials, private interests and informal dwellers, several NGOs have occasionally addressed the problem of creating more decent living conditions for the 'ashwa'eyat residents around the city through charity-based financial assistance, infrastructure and services provision.

Some Cairo urban researchers and experts (Abdel-Halim, 2009; Shehayeb, 2009, 2013) highlight the importance of understanding the relation between residents' culture and the use of urban space beyond having a certain pattern of behavior particular to a certain "place". Rather they call for analyzing them and finding the factors that lead to their existence.

There has been a gap in the discourse of dealing with informal settlements since the early 1980s despite local and global efforts and intentions. Developmental and upgrading projects were sought, focusing on the physical built conditions and infrastructure, which are still quite important; but an important parameter is missing, which is the residents' themselves, the so called "informal" residents.

The research tends to explore these "Cultural" factors and their influence on the urban space, and how practically these factors can be dominant in the development strategies. Consequently, the research tries to prove that each "place" in the informal settlements has its own character, with their inhabitants' personalities, and accordingly, their development project should be compatible with their own culture, hopes and capabilities.

Therefore, the partial solutions for that paradox are not applicable nowadays, and finding a humane housing for the informal settlements inhabitants is not the optimum alternative. However, the comprehensive development (CPA) might be a

2 As an example: The socioeconomic development and Revitalization of Darb al-Ahmar By Aga Khan program.

beneficial solution, as it addresses the main roots of the problem through presenting an integrated development strategy for poverty reduction and addressing the main culture of the inhabitants to inhibit the deficiency of the development projects.

1.2 The Research Objectives

The research tends to discover the Behavioral and cultural factors of the informal settlement's inhabitants and influenced the urban space as a result. Moreover, this research will contribute by the conversion of the Non-Physical Factors (Behavior & Culture) into physical attributes can be measured, thus emerging those factors into the distinct upgrading development strategy of the whole urban space, in order to expand the chances of the upgrading projects' benefit.

Thus, the research aims at discovering Behavioral cultural factors' matrix (converted non-physicals) for urban spaces, and then integrated into a comprehensive development strategy to be applicable in development projects.

Moreover the research tries to prove by inductive and deductive approaches that each informal is a "place" with its cultural factors and personality.

Therefore, the objectives of the research are summarized as follows:

- Understanding the culture of the inhabitants and their interaction within the urban space.
- The influence of various cultures on the style of living and consequently on the urban space.
- Understanding the comprehensive development within the informal settlements and how the cultural factors can be integrated within contemporary developmental strategies.
- Framing Behavioral & cultural factors (B.C)s matrices and its implementation as a check list for an urban space.
- The application of the (B.C)s matrices on the urban space to measure the various attributes.
- Finding the development entries which presents the actual needs of the inhabitation to be applied in the upgrading project.(figure1-3).

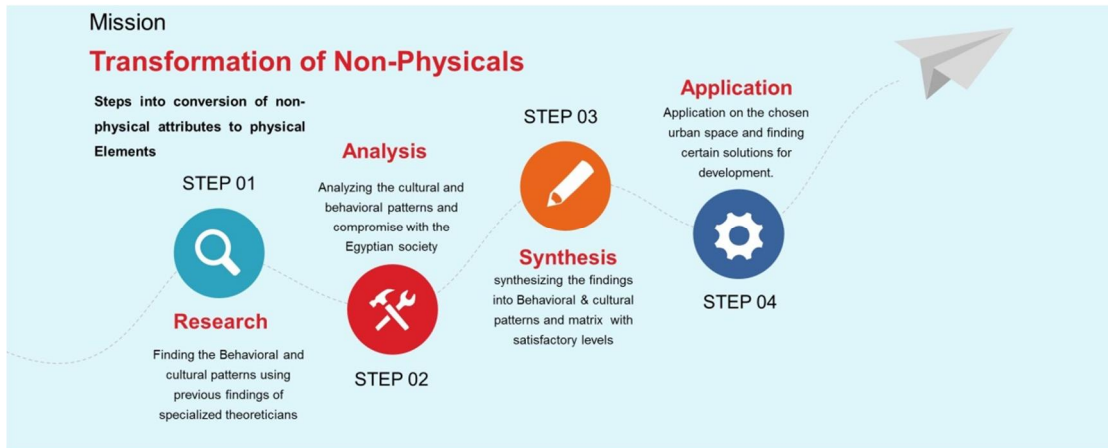


Figure1- 3 The steps of the Research's objectives . (source: Researcher,2016)

1.3 The Research Questions.

Based on the theoretical background discussed in this research, the research explores the relation between culture and urban informality. Each place has its own inhabitants and their own culture which appears clearly in their interrelation with the urban space that each place varies than the other according to the culture of the people. Accordingly, the research tries to prove those cultural factors and how they can be integrated in a comprehensive development strategy. Therefore the research tries to answer the following questions:

- How do people living in informal settlements “Ashwae’yat” interact with their urban space?
- What are the problems with the participatory design solutions?
- What are the comprehensive development strategies?
- What are the Behavioral patterns and the cultural factors of informal settlements?
- What is the distinct conflict between participatory design and cultural principles?
- How can Behavioral patterns and the cultural factors be integrated with the comprehensive development strategies?

1.4 The Research Methodology.

According to the research problem, the thesis begins with a literature review about the history of Cairo informal settlements and the laws and legislation which had a great influence on the exacerbation of the phenomenon. Consequently, an understanding of culture is presented and its influence on the built environment, particularly the informal ones. Accordingly, inductive and deductive approaches are adopted to analyze the chosen sites to prove the hypothetical conceptual framework.

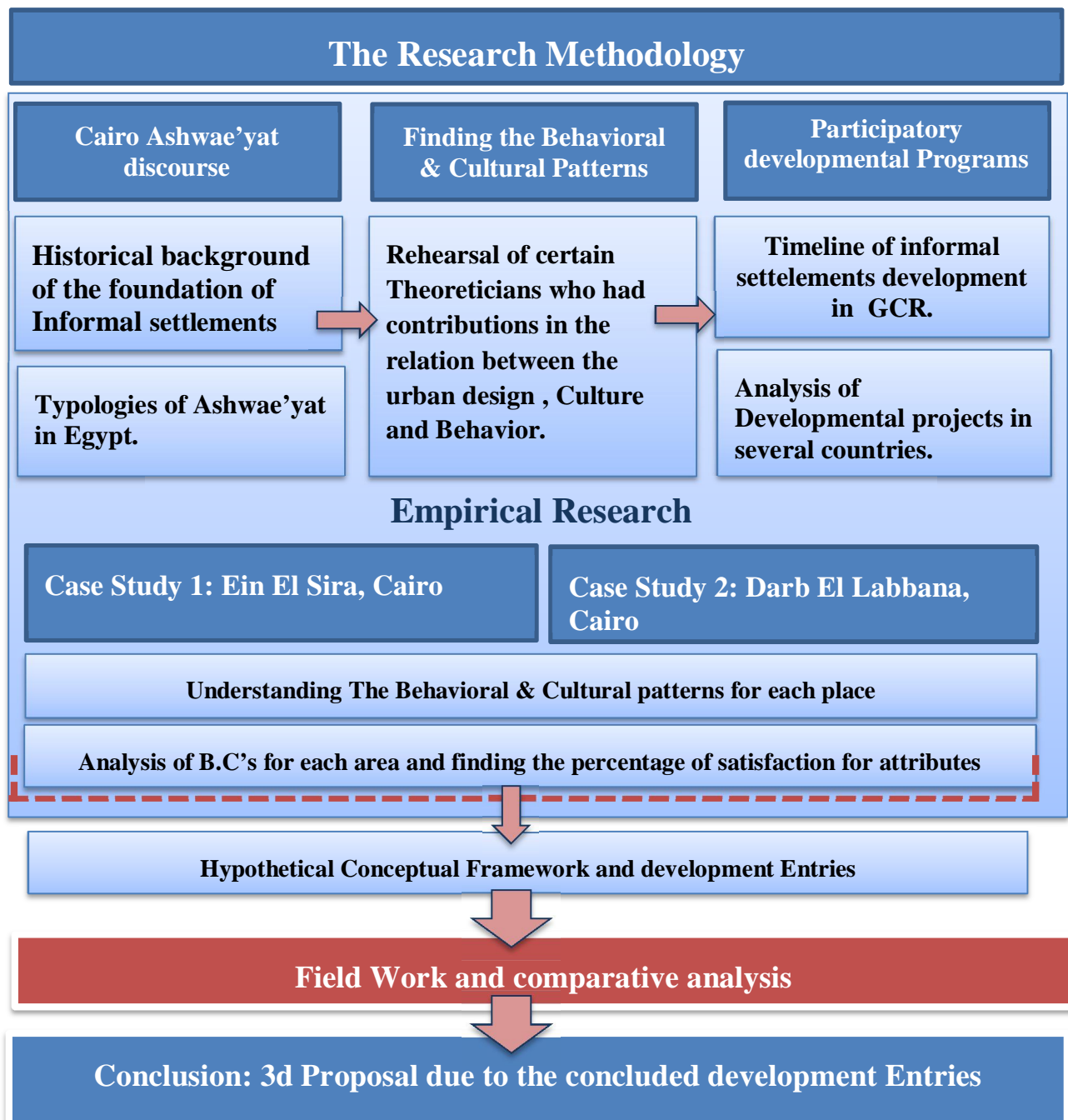


Figure1- 4 The research methodology (Source: Researcher)

1.5 The Research Hypothesis

The Thesis goes through certain hypothesis, where the research tries to prove them, thus these hypothesis are as follows;

- The non-physical dimensions like the behavioral patterns and cultural factors can be converted to physical dimensions to be measured and calculated in a numerical matrix.
- The numerical matrix of the behavioral patterns can calculate the level of satisfaction of certain explored attitudes to begin the upgrading procedures with certain priorities.
- The B.C's matrices are capable of illustrating the actual needs of inhabitants and the priorities of upgrading design.
- Each area has its own personality, with various behaviors and cultural attitude, thus the upgrading procedures must be variable.

1.6 The Research Structure

The present research, objectives and adopted methodology are reflected in the structure and sequence of its parts and components; it can be summarized as follows:

Chapter One: General Consideration

The chapter includes the introduction, the background, research rationale, research methodology and research questions. Assuming the specificity of the case of Cairo as a city, and its 'Ashwa'eyat, it is chosen to be the place of the research.

Chapter Two: History and Typologies of Informal settlements in Egypt

This chapter consists of two parts; *the first part* is about the informal settlements as an international discourse with various definitions of different organizations and concerned professionals. Consequently, the chapter focuses into Cairo "Ashwae'yat" with an understanding of Cairo informal settlements

and its different problems, and then it goes through the origin of this alarming issue and the reason of the incidence of the extensive agglomerations beyond the city borders and aligned with the sub-urban places. This would be addressed by a historical comprehension from the early beginnings of Informal settlements in Egypt, where policies having a direct influence on the escalation of the issue are presented.

The second part, the existing typologies of informal settlements is explored in order to facilitate the selection of the areas for the case studies. Moreover, it goes through a constellation of laws, legislation, and important incidents which had an emphatic influence on Cairo "Ashwae'yat".

Chapter Three: Diversity in development projects worldwide and endeavors in Egypt

This chapter begins with highlighting the housing policies which was adopted by the government from the early 50s reaching the recent years to find the real causes of the housing crisis which began in the late 80s till nowadays, and was consequently the main cause of the slums' agglomeration.

Consequently, the chapter goes through the special approaches in upgrading projects of slums all over the world, especially, the participatory approach (PA) which was handled as a way of development for the existing slums in various parts in the world.

Furthermore, the research highlights the advantages and drawbacks of dealing with such approach, like being a source of understanding the inhabitant's needs. However, this approach has negative impacts, like the time consumption and the probability of negative interaction of the inhabitants with the authorized experts. That will be illustrated in details with the assistance of upgrading projects which was handled with (PA), like, "Mansheyet Nasser" within the chapter.

At the end the chapter, illustrates upgrading projects in developing countries like Brazil and India. Then, the researcher highlights and criticizes the well-

known upgrading projects in Egypt like *Zenhum development project* and the proposal of *Maspeero*.

Chapter Four: Behavioral and Cultural patterns within an urban Space

This chapter consists of two parts:

Part 1: This part evokes the unique scholars and philosophers who had distinctive contributions within the social and cultural studies and their influence on the entire space. These theories were analyzed and categorized within the scope of the research, to reach the estimated sequential matrix of the Behavioral and Cultural patterns.

Part 2: This part discusses the culture and behavioral patterns and their relation with informality; Literature and definitions of cultural and behavioral patterns within urban spaces from different disciplines and different theories are critically discussed. This would be conferred by highlighting the critical examination on the way in which various theoreticians have tried to understand the nature of urban planning and human behavior over the past 150 years. As a result, a comprehensive and cultural pattern would be concluded to be examined afterwards in the empirical research. Accordingly, the influence of cultural and behavioral factors like, the origin, power relations and religious beliefs on the built environment would be confronted.

Chapter Five: The Empirical Research, the Framework and the Research model.

The fifth chapter presents the practical part of the research by presenting the framework of the empirical research. The theoretical chapters (Three and Four) are essential to design the Field work by linking different theories to each other forming the preliminary research questions. This leads to the formulation of the hypothetical conceptual framework of the research, including a description of the behavioural and cultural factors (derived from the case studies analysis) in the empirical study part, in which each of the case study areas is described.

Chapter Six: The first case study; Ein El Sira area-Old Cairo, Analysis and Results.

The sixth chapter starts with explaining the selection process of the case study areas. Exploratory inductive qualitative research is conducted using various research techniques (observation, participatory observation, semi-structured interviews and group discussions). Ein El Sira in old Cairo is the chosen area to experiment the B.C's Matrix to find the Satisfaction percentage, thus the development entry form is founded. As a result a 3d upgrading proposal is formed according to the development priorities which were before concluded from the B.Cs.

Chapter Seven: The second case study ; Darb El Labbana- Old Cairo Analysis and Results.

The Case Study 2 "*Darb El Labbana*" which presents a different culture than other parts of cairo, and illustrates the origin of the old Cairenes identity. Even if, this part presents a type of informal settlements which is the old and deteriorated core, however this part of the research will implement the major hypothesis of the research to prove whether the results are applicable and peculiar from the other part (Ein El Sira).

Chapter Eight: Comparative analysis, conclusion and Recommendations

It includes the synthesis of the research, in which findings and results are discussed and comparative analysis is conducted to answer the research questions. This includes Behavioural patterns' and cultural factors' interrelation to use of space informal urban development and power relations. Accordingly the researcher reaches a comprehensive development matrix acting as a check list for further development to different typologies of informal settlements in Cairo.

Chapter Two

History of Informal Settlements in Egypt

- Part One: Informal settlements in Egypt.
- Part Two: Typologies of Informal settlements of Egypt.

Chapter Two : Informal settlements in Egypt

2.1 Introduction

This chapter highlights the entire history of the composition of informal housing in Egypt, starting from the early beginnings of the first initiations in the year 1952, with the contemporary strategies-at that time- which had an abundant influence on the beginning of such phenomenon.

Accordingly, this chapter shed lights on these strategies from the year 1952 to the revolution era in 2011, showing the various circumstances and different governmental legislations which had a certain impact on the scattering of the issue. That was clear in the political transformation from a pure capitalism in the monarchy's era to pure socialism in Nasser's era, where a social transformation also occurred apparently, thus, due to the various strategies applied at the transformation time, the informal housing and illegal properties appeared consequently.

Part One: Informal Areas in Egypt

2.2 Informal areas or slums Definition

The term “slum” not only suggests indecent or miserable living conditions, however, it also implies other crucial aspects, such as Informality (UN-Habitat, 2003) (TheWorldBank, 2013).Slum refers to a residential area inhabited by extremely poor people.During the major part of the 19th century, the word “*Slums*” appeared in the written language in quotation marks mostly as “backslum(s)”¹.At the end of the 19th century, the word is used as defined in the Oxford English Dictionary as,

“A street, alley, court, etc., situated in a crowded district of a town or city and inhabited by people of a low class or by the very poor; a number of these

¹ The word “slum” appeared in the London at the beginning of the 19th century, designating initially “a room of low repute” or “low, unfrequented parts of the town”.

streets or courts forming a thickly populated neighborhood or district where the houses and the conditions of life are of a squalid and wretched character”.

Buildings found there, can vary from the simplest shack to permanent and sometimes unexpectedly well-maintained structures. Another explanation is that this term is an umbrella concept under which fall numerous categories of settlements, e.g. deteriorated inner city tenements, squatter settlements, informal settlements, and shanty towns. (Khalifa, 2011) Moreover, slums have various names in Latin America, such as, *asentamientos, favelas, barriadas, poblaciones, and villas miserias*”. Some languages have more than one word to describe them: Ghettos, Bidonvilles, Tugurios and Elendsviertel (UN-Habitat, 2003). This diversity demonstrates that there is hardly a universal definition that can describe the phenomenon for the following reasons.

2.3 Historical background of informal settlements in Egypt

Over the last 50 years, the ‘ashwa’eyat have been spreading, hardly stoppable in different directions, mainly around peri-urban Cairo on both agricultural and desert lands. This fact or phenomenon is perceived by many experts as not being a problem of itself, but as a symptom or a consequence of other diseases (problems) or failures of the state to provide appropriate and sufficient housing, in addition to all the other services (El-Batran, 1998; Amin, 2011).

2.3.1 The society segregation between classes before the revolution

Focusing on the last six decades (1952-2012), *Cairo* – being the economic and political capital of the country. It is the hub of the central government including the ministries and the cabinet, in addition to being the major place of investment and media production (journals, movies, private and public TV channels). Due to those facts, Cairo has become the most modernized city of Egypt. In addition, it is the place where the elites live, where the privileged get the best available education, obtain expensive cars and maintains a certain quality of life (relatively high compared to life in ‘ashwa’eyat). This creates an obvious development gap between Cairo and the rest of the country’s

governorates and cities. Discussing about classes gap, social mobility should also be mentioned. Addressing social mobility, Amin says:

“If it is true that the rate of social mobility during the past 50 years has been higher than anything experienced by Egypt in its modern history, then one may argue that it could be the most important factor behind many of the social changes happening in Egypt since 1950.” (Amin, 1998)

After the World War 2 and later on the 1952 revolution, Cairo’s expansion accelerated and acquired new features under a socialist government (Sims, 2012) Within the years of wars 1948, 1967, and 1973 that followed, another main driving force was the shift from an agriculture-based economy to an industrial –based economy (Shehayeb, 2009). This background gives the real incidence of “Ashwae’yat” housing. Accordingly, the policies and milestone incidents which have a distinct role in the growth of Informal housing in Egypt will be discussed as follows Figures 2-1 and Table2-1 show the exacerbation of the phenomenon.

Table2- 1 : shows the historic growth of formal and informal areas in GCR Source: (Sims, 2012)

Year	Existing Agglomeration		Pre-urban Cairo Mostly Informal	Desert Cairo	Total GCR	GCR Annual Increase %	Per cent Informal In Cairo Proper	Per cent Informal In GCR
	Formal Areas	Informal Areas						
1947	2,400,242	0	586,038	0	2,986,280		0.0 %	10.2 %
1960	3,905,670	100,00	955,166	0	4,960,836	3.98	2.5 %	15.6 %
1976	4,610,326	1,969,000	1,374,317	0	7,953,643	2.99	29.9 %	38.1 %
1986	4,650,000	4,248,866	2,063,376	32,615	10,994,857	3.29	47.1 %	54.5 %
1996	4,807,632	5,436,477	2,857,468	149,992	13,251,569	1.88	53.1 %	59.7 %
2006	5,005,824	6,742,416	3,942,262	601,767	16,292,269	2.09	57.4 %	62.8 %
2009	5,038,763	7,155,106	4,345,567	800,952	17,340,388	2.10	58.7 %	63.6 %

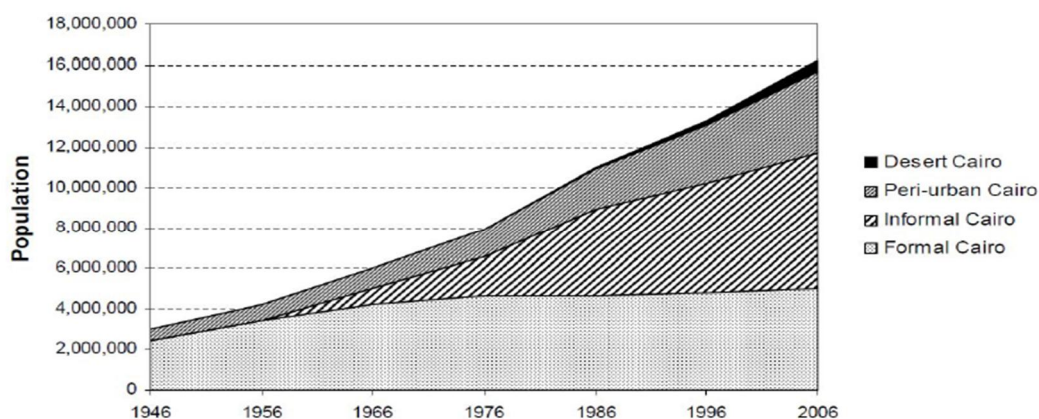
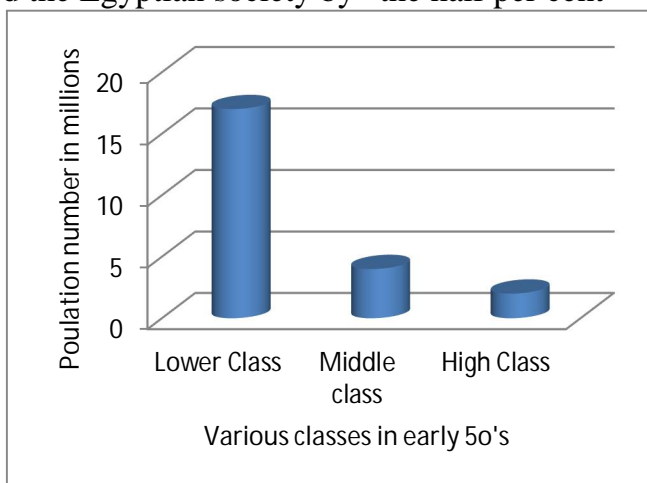


Figure2- 1 shows the surge in population number in informal areas .Source: (Sims, 2012)

2.3.1.1 The income distribution in Egypt before the Revolution

In 1952, President Nasser described the Egyptian society by “the half per cent society”, and he meant the upper class or the ruling class, who owned most of the Egyptian wealth at that time, and had the political power as well. He intended to say that their per cent hadn't exceeded 0.5% of



the total population per cent in Egypt, figure2-2. (Amin, 1998)

Figure2- 2 The difference between classes in 50s
Source: Researcher based on Amin 1998

Nasser's expression might have some exaggeration, however the concept of the poverty degree was approaching the truth, and the per cent quoted was not so far from reality. Nevertheless, a public report published from the British government about the income distribution of various classes in Egypt before the revolution, indicated that: Only 1% of population in Egypt had an income reached 1500 (e.g.p) annually per family, while 80% received an annual total income of 240 (e.g.p) per family. (Issawi, 1963)

2.3.2 The middle and high classes in Egypt before the revolution.

The British report indicated that the middle class at that time presented about 19% of total population. That means that the population of Egypt before the revolution reached 21.4 million in 1952. Consequently, less than 200,000 persons were related to the high class, and about 4 million were the actual middle class and the poor people reached 17 million in the early 50's. (Barakat, 1987)

Therefore, When the revolution initiated, there were about 2000 families (10,000 persons) owned nearly one fifth of the total agricultural land in Egypt, whereas half of the total population owned less than 2 acres (8400 m²) per family.

2.3.3 The 1952 revolution and The Law of "Aggregation reform"

In 1952, the "Aggregation reform" was conducted to reform the agricultural, economical, and social problems at that time, however it was faced with great political uproar for certain reasons which will be stated afterwards.

The law consisted six sections, with 40 articles; Article1 identified the maximum limit of land ownership to be 200 acres per individual. Moreover, Article4 permitted the owner to grant his children 100 acres, and allowed the owners to sell excess lands-which exceeded the maximum permitted areas- to others. Furthermore the law gave them the right to avoid the territory of the sold lands of others, and allowed the exchange compensations to landlords, by estimating the land value of 10 times the rental value. Various properties were added to the land value like, (Trees, equipment, machines,..etc.), and the compensation system was activated by withdrawal of exchange documents with the government, to be paid over 30 years with annual interest rate of 3%.(El-Beshry, 1966)

The law also included regulating cooperatives in the distributed land. Part IV has identified a number of measures to prevent the fragmentation of land distributed, also identified a new tax of the land. The fifth chapter discusses the relationship between landlords and tenants. The sixth and final chapter relates to setting minimum wages for agricultural workers, and by giving them the right to regulate agricultural unions. (Barakat, 1987)

The total land that is applied in September Law 1952 reached 653. 736 thousand acres belong to about 1789 original owners (*who were named Feudal at That time*), but the land which has been applied for by law actually, amounted to 372.305 thousand acres, and the rest which is about half the number of owners were selling their land by their own way until October 1953 when the government canceled the law which facilitated selling manners to the owners. (El-Fadeel, 1987)

2.3.3.1 The Aggregation reform's influence on the composition of the informal settlements

The opponents of the law argued that, there may not be a true need of expropriation of individuals unless there is an urgent issue or a major interest

agreed upon, and actually, that has not been achieved in the agrarian reform law (El-Fadeel, 1987). In addition, Islam permits the absolute property of individuals, and in return, the religion imposed annual expenditures from the rich to the poor, depending on the reserved fortune. Thus, work on the demolition of wealth as a form of monopoly is absolutely refused in Islam, that respects and protects the right of ownership, and that Islamic law did not specify a certain limit of wealth to the owner, and did not oblige anyone to get off his property for free or for a price (El-Beshry, 1966).

Moreover, the opponents claimed that agricultural property size does not stay the same over time, where Islamic inheritance system ensures the fragmentation of such a large volume for the family members. Consequently, the large volume of lands would be basically fragmented, and that was not the main target of “July Rebellions”, they just wanted to fight the feudal lords(El-Beshry, 1966).

Furthermore, The agrarian reform laws did not solve the problem of the landless agricultural peasants, who accounted for before the revolution nearly 44 percent and in 1965 dropped to 40 percent, then rose in 1972 to 45 percent, and at the end of the eighties to 60 percent of the total rural population (El-Emam, 1989).

2.3.4 The Governmental policies in Nasser's era

In 1958 the government adopted the overpopulation problem and the prevalence of the Housing problems by embraced assimilation programs in Giza, Cairo, and Alexandria. One of these programs is the construction of *Nasr City* , *Muqqattam City* and also, the expansion of old districts like *maadi* and *Helwan*.



Figure2- 3 Nasr City in late 80s (Source: (ElMoelhi, 2014)

Moreover, the laborer's housing within the peripheries of old cities had flourished at that time. Most of these places were expansions of old districts

like Shubra, Helwan and *Maadi*. Those projects' budget were presenting nearly 50% of the industrial investments (Makhlouf, 2003)

in 1960. Furthermore there were another type of laborer's housing called "Cooperative housing", which actually were found around the industries, they had another name at that time, which was "Nasser's Cooperatives". No one could deny the remarkable demand on that type of housing; however the government couldn't fulfill that number of units. Especially, when the government rented the units with a bargain prices, reaching 1 EGP/month, and incurred the maintenance expenses (Makhlouf, 2003).

As a matter of fact, the low-income housing projects, which were implemented in in the late 60's were extensions of the same projects initiated in 50's like, *Imbaba* and *Helwan*. Thus these projects were extremely ambitious and intangible if compared with the depreciate financial circumstances at that time. As a result the government encountered a true housing crisis, especially in the year 1967 after the military leakage the main budget was oriented to rebuild the army. Accordingly, the people tried solving their problems away from the legal entities. Thus, the informal settlements were inaugurated vigorously at that time (Daba', 2004).

It's worth mentioning that many housing legislations had flourished in 50's and 60's. The most important one is the law no issue 168 year 1961 which states, the reduction of rents to 20% of its value, and also the issue 46 year 1962 which restricted the rental value to be maximized to 5% of the land value or 8% of the built value, and would not increase except for certain circumstances.

Accordingly, a reluctance for construction occurred at that time as the landlords refused that system because they thought that it wouldn't be worthy for them. As a conclusion for this Era's policies, Socialism had the upper hand in the

articulation of policies at that time, where the government had a full control on the housing programs, which was one of the most significant reasons of the inauguration of the high housing demand and the non-fulfillment of the demanded units.

2.3.5 The 70s and 80s policies and their influence on the growth of informal settlements

In early 70s, the government encouraged the private sector to build houses for various classes, beginning from the lower class to the middle class. By contrast, a rental control law inaugurated in the 1940s and removed only in 1996 discouraged legal private investment in housing for rent. At the same time, legal facilitations for construction and land reclamation after 1974 made the real estate sector attractive to private companies, with the consequent development of a semi-luxury housing market targeting the upper middle classes and fueled by the remittances of Egyptian workers in the Gulf (El Batran & Arandel,

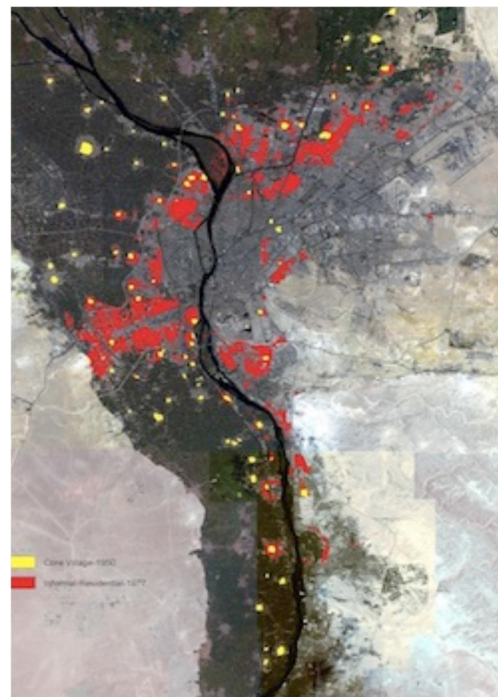


Figure2- 4 The informal settlements prevalence in 70s and 80s Source: (GTZ, 2010)

1998). Moreover they couldn't control the price hikes of the inhabitants' units at that time. Consequently the slums began to proliferate, as the inhabitants depended on themselves to find an appropriate housing with adequate prices.

After 1975, Sadat engaged the country in a new direction, namely the Open Door Policy (Infitah)². The government was the only responsible for the construction of low-income housing, and private sector would have the primary responsibility for providing their housing units. All these factors have resulted

² The Open Door Economic policy (Infitah): This newly developed policy is marked by a greater political and economic opening to the west and a move away from a state controlled economy towards a market economy. With regard to housing, In addition, the state disengaged from the production of rental housing and maintained the policy of rent control with only minor modifications.

in a paradoxical situation where nearly two million of the Greater Cairo Region's housing units are vacant, while its informal areas keep expanding and becoming denser (Piffero, 2012).

Since the 1980, almost no more new informal areas have appeared, however, the growth of the existing ones has not slowed down in spite of the fall in population growth rates and the strict legislations³ from the government.

(Khalifa, 2011) Thus, informal settlements were the only available solution for the poor, and it led to change in the social conditions because of residential migrations. (Shehayeb, 2009)

2.3.6 The Governmental policies in Sadat's era

In the 70's during Sadat's era, the policies were extremely divergent. The government adopted the "open door policy" where the over control on the housing issue was obviously declined.

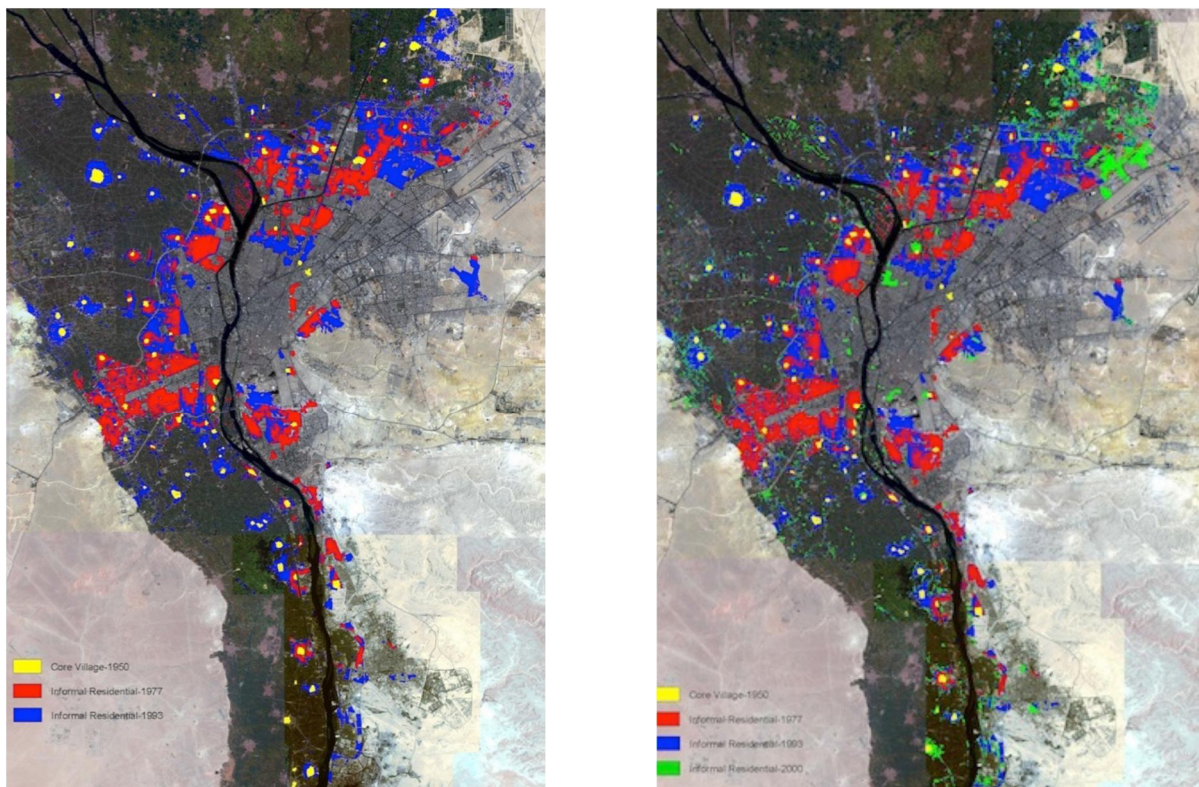


Figure2- 5 the prevalence of the informal settlements from 80s to 90s Source: (GTZ, 2010)

³ The government took strict measures against illegal urbanization in form of military Decrees 1 and 7, which forbids encroachment on agricultural land.

The government focused at that time on the middle income housing who can afford a relatively high rentals, if compared to other types of housing. Accordingly the people proceeded in building shacks, slums and also *the Tomb dwellings* which appeared vigorously within the city peripheries.

It's worth mentioning that this period was more likely to be an economic liberalization. Galal Amin in his book "*Whatever else happened to Egyptians*" claimed that, the changes happened to the economy was not a result of some bright idea on the part of the Egyptian president or one of his principal advisers at the time, it was much more likely to had been the result of the changing international climate with or without some measure of external pressure. He added that, "whatever the cause the results were dramatic".

In October 1974 there were certain decisions which were declared clearly in May by the government. They had a direct influence on the housing policies alteration. Therefore there were certain features for the housing status in that decade like (Elkordi, 1986):

- The private sector is completely responsible for the construction of luxurious and middle-income housing, while the government is only responsible for low-income housing types.
- Several decisions were issued for the private sector to have a significant role in the real-estate investment.
- The dramatic rise in the land prices which reached an annual raise of 200% or 300% from the year 1974 to 1980.
- The tremendous raise in the construction materials and the beginning of the materials' import like, cement to fulfill the high demand of building. Also, the average daily wages for the construction laborers increased immensely (Galal, 1995).

Moreover, in the year 1971 the government also decided to build new cities in the desert, like, 10th of Ramadan which was planned to be a laborer's city and

other cities like 6th of October and 15th of May as a trial to find a solution for the housing crisis. Those cities reached around 16 cities within Sadat's decade.

From the previous review it's clear that the government in Sadat's era encouraged the private sector's investment and didn't successfully intervene to control the housing units' prices. With the increase in the housing demand due to the continuity of immigration, the people continued to build informally.

2.3.7 The Governmental policies in Mubarak's era

In the beginning of the 80's the national committee for the research presented a five year plan to find solutions for the housing problems and that was at the beginning of Mubarak's era in

1982. They estimated building around 800 thousand units in urban places with a total investment of 4.6 billion EGP .

The units were distributed as follows:

55%	Economic Housing
– 37%	Middle income- Housing
– 8%	High Middle income housing.



Figure2- 6 El Dewika area in 2011 (Source:TU Berlin, 2011)

(Zaafarany, 1998)

The most significant participant in the construction process was the private sector. Although it was responsible for finishing around 93% of the estimated units, the government didn't pursue those projects, thus the private sector were basically concerned with the rapid profit and they adopted the high middle and the luxurious housing. As a result housing crisis exacerbated with no vision of solution, and thus the low-income people had no place in investments.

Since the capitalistic system had the reins at that decade (from 80's to 90's), the old rental began to disappear gradually and was replaced by the ownership of the housing units. Thus the people had to find a cheaper alternative in the city capital, so they chose affordable units in the informal places. (Mansour ,2009)

2.3.8 Conclusion of the Historical background

After the rehearsal of the history of the informal settlements' agglomeration throughout GCR, including the reasons and certain circumstances which had an influence on the prevalence within the decades. The various applied policies within decades were synthesized in figure2-7. Moreover, a chronological timeline has been performed by the researcher to synthesize the decades with significant events within the decade figure 2-8.

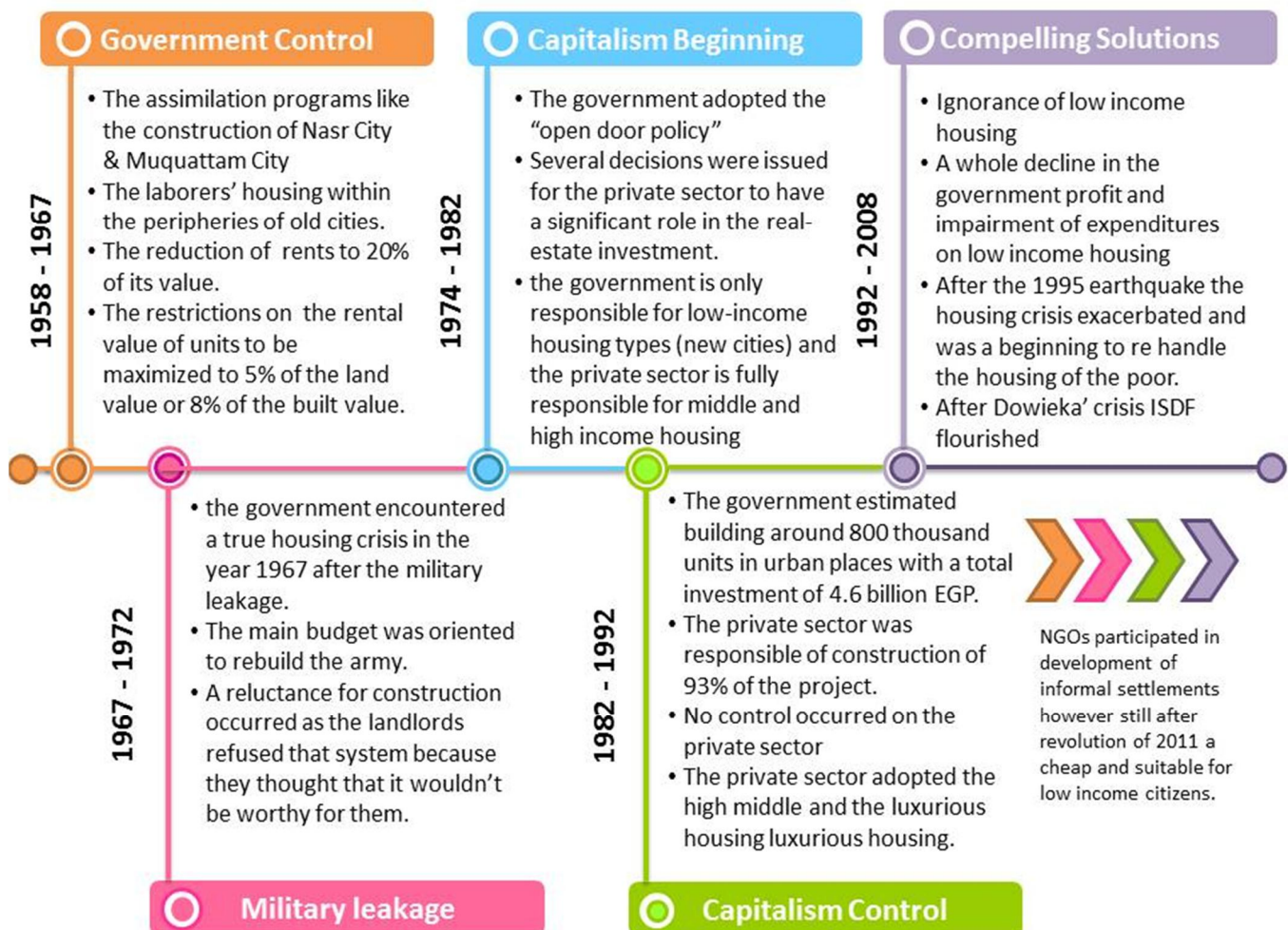


Figure2- 7 Timeline for the various policies applied by the government within decades towards the housing problems source: Researcher

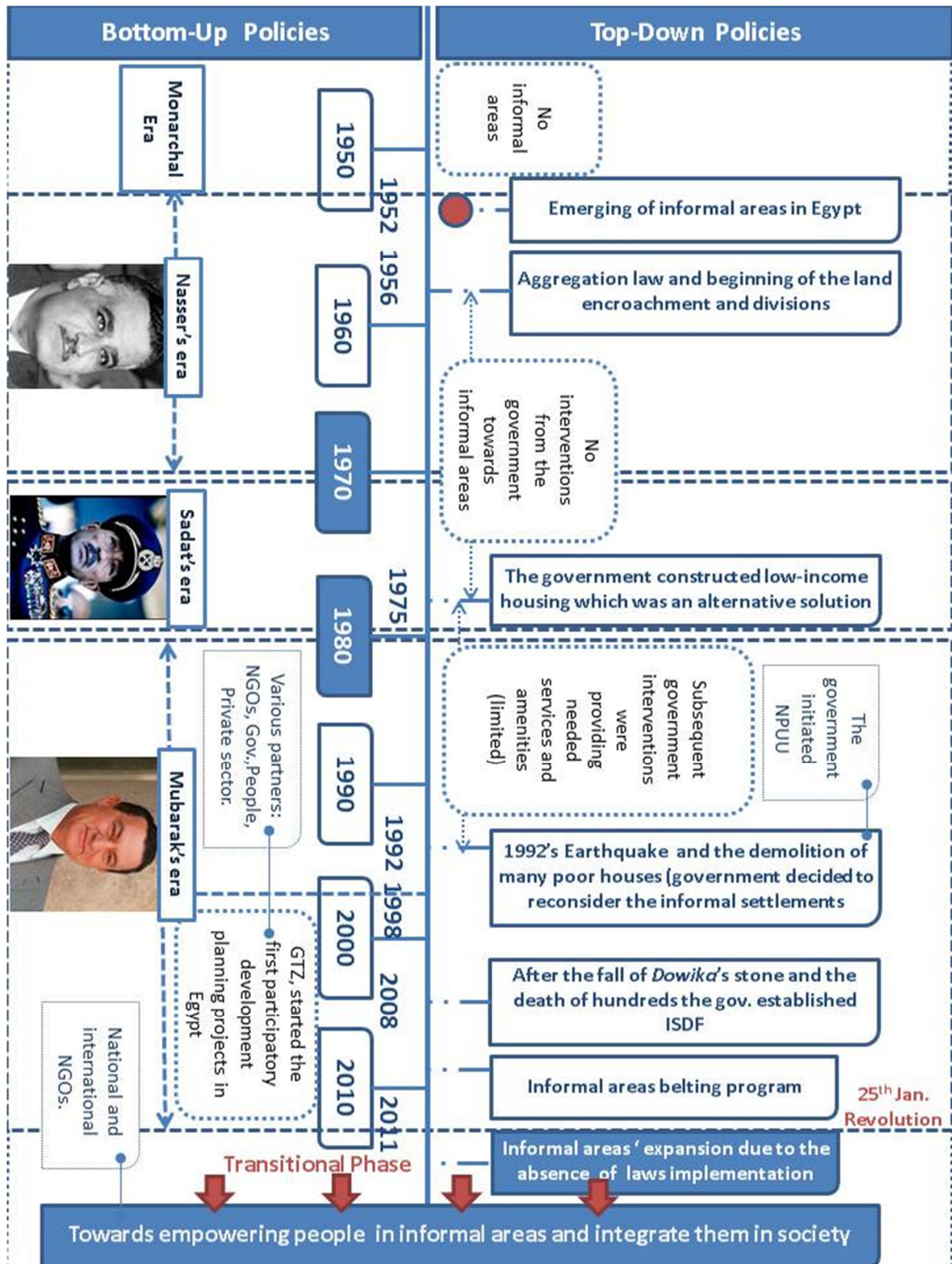


Figure2- 8 A chronological Timeline for the evolution of the informal settlements' phenomenon in Egypt. Source: Researcher.

2.4 The contradiction of data concerning the Informal Settlements in Cairo "Ashwa'eyat".

The inaccurate and contradicting data about 'ashwa'eyat is a real problem that researchers face (Sabry, 2009). GCR, with its over 18 million residents, has zones of spontaneous urbanization that cover 52.8percent of the built-up area and contains over 62percent of GCR residents. In a recent study, 10.7 million people were estimated as residents of 'ashwa'eyat in GCR (Greater Cairo Region) in 2006, equal to 65.6percent of the total GCR population (Se'journe and Sims, as cited in World Bank, 2008). This simply shows that formal areas are now considered the exception (Sabry, 2009).

Hence, the informal city exceeds the formal one in both spatial size and population (Sims, 2012). Estimates of the scale and scope of 'ashwa'eyat vary greatly depending on techniques used to measure them (Sabry, 2009). A joint construction industry study between World Bank and GOHBPR in 1981 estimated that approximately 77 percent of all housing units built within Egypt in the years 1966-1976 were informal. A study on informal housing in 1982 estimated that informal units represented 84 percent of all units built in the years 1970-1981 in Cairo (El-Batran, 1998). A 1993, a GOPP report estimated that there were 23 'ashwa'eyat' in the Greater Cairo region with a total population⁷ of about 5.88 million people and an average density of around 685 persons per hectare.

The Ministry of Local Administration estimated that, in Greater Cairo, 4.52 million people lived in 171 areas with an average density of 780 persons per hectare. Today, three of the world's 30 largest slums are found in Cairo. Abdallah Abdel Aziz Attia⁴ says: "*There are about eight million slum dwellers in GCR. This is very serious and very dangerous*".⁵ "*Cairo is a big informal city with strips, just strips, of formality,*" explains Naglaa Arafa, Programme analyst for the UNDP slum upgrading initiative. About 18-20 million live in 'ashwa'eyat accompanied by rapid urban expansion resulting in encroachments on agricultural land. Total

⁴ Professor of Architecture and Urban planning, Ain Shams University

⁵ CAPMAS,2006 estimated that Informal Areas' inhabitants reached 6.4 million from the total population of GCR which shows the contradiction in the given data.

prime agricultural land lost to urbanization during the period 1952-2002 amounts to 300,000 acres; GCR has been witnessing fast growth of informal housing: over 50percent households live in ‘ashwa’eyat, 82 percent built on agricultural land

(GOPP, 2007). Whereas the development of most of these settlements dates back to the 1960s, most growth has occurred since 1986. Several Program analysts for the UNDP slum upgrading initiative .About 18-20 million live in ‘ashwa’eyat accompanied by rapid urban expansion resulting in encroachments on agricultural land. Total prime agricultural land lost to urbanization during the period 1952-2002 amounts to 300,000 acres; GCR has been witnessing fast growth of informal housing: over 50percent households live in ‘ashwa’eyat’,82 percent built

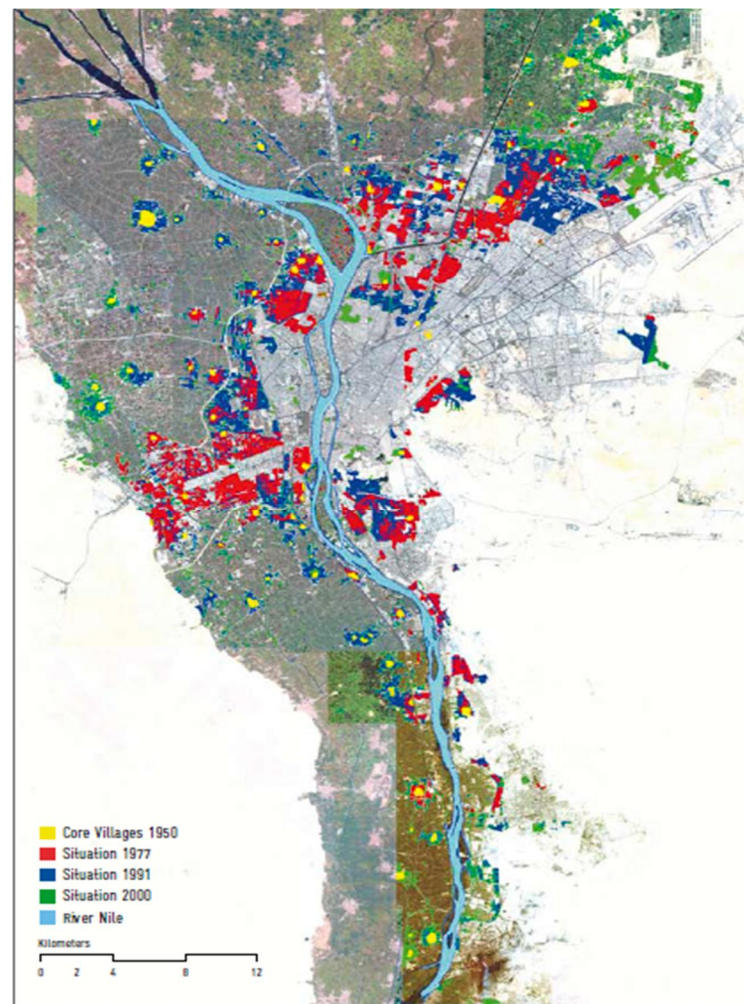


Figure2- 9 Shows the difference between the old city and the incremental agglomeration from the year 1950 to 2000 source: (Shehayeb, 2009)

on agricultural land (GOPP, 2007). Several criteria can be used to differentiate between the types of ‘ashwa’eyat – land tenure is the most beneficial and we can distinguish between squatter settlements on public land and ‘ashwa’eyat’ on private, legally owned land (usually agricultural land). Piffero (2010), claims that illegal occupation of state land is now because of the rising costs of agricultural land. Illegal squatting and occupation of the surrounding vacant land is the way such areas grow. In general, due to a more elevated risk of

eviction and low security of tenure, housing conditions are poorer here compared to former agricultural lands. Piffero adds:

“However, the building quality tends to improve in the oldest and more consolidated areas, where the higher level of perceived tenure security allows the residents to invest more in housing improvements and ameliorations.” (Piffero, 2010: 4)

2.5 Authorities reactions concerning Informal Settlements in recent decades

According to the 2006 Census, in the last decade informal areas have absorbed nearly 79% of the city’s population growth. Although the informal settlements emerged by the late 50s, however, the government didn’t concern the issue, except after the 1992 earthquake’s circumstances (Hassan, 2012). Thus, many of the poor houses in informal settlements were demolished due to the sluggish infrastructure. Accordingly, the informal settlements issue became one of the most crucial issues in the political discourse. The government initiated a National Program of Urban Upgrading (NPUU) in

1992, as a response. The National Upgrading Program (NUP) for Informal Settlements directed upgrading projects relating to the diagnosis of the problem. Furthermore, subsequent government’s interventions till 1994 aimed at upgrading informal areas by providing needed services and amenities (Khalifa, 2011). Unfortunately, the provision of infrastructure, as a result, encouraged the incremental growth of these areas (Hassan, 2012). Therefore, a national strategy was established by the ministry of housing to define ways of implementation to prevent the evolution of new informal areas.

Thus, in 2005, the national ministry of housing contrived a planning project to eliminate the informal housing by the year 2025, and financed the project by a budget of 5 billion dollars. Moreover, the *Informal Settlements Belting Program* was launched to restrict the growth of informal areas (Manal M. F. El-Shahat & Samah M. El-Khateeb, 2012). Most of these programs based mainly

on Top Down⁶ Strategies, where the president and the government had the top hands in decision making.

With the catastrophe of *Dweika* and respectively with the establishment of ISDF (Informal Settlements Development Fund), The informal settlements' development were ordered due to the degree risk. Based on the ISDF the initial estimations of unplanned areas pose to 60% of the total urban area, while the unsafe areas pose to 5%. Priorities of development were set due to the ISDF as follows:

- **First priority:** Buildings in locations that threaten human life, including areas in danger of rockslide, flooding or train accidents.
- **Second priority:** Buildings that are constructed with recycled or reused material in one or more of their elements (walls, roofs, etc.), buildings of low resistance to natural disasters and deteriorated buildings.
- **Third priority:** Threats to the health of inhabitants, as in the case of lacking clean water, improved sewerage, location within the influence zone of high voltage cables or construction on unsuitable soil.
- **Fourth priority:** Threats to stability or the lack of freedom in dealing with the inhabitants' properties.

Part Two: Typologies of Informal settlements of Egypt.

2.6 Classification of Informal settlements in Egypt

The following section will present a short description of the four types of slums found in Greater Cairo Region (CDC, 2006). The location and geographical extend of this types are present in Figure (2-10)

⁶ Top-down [project](#) planning is focused on keeping the decision making process at the senior level. Goals and quotas are established at the highest level, and those at the top are not often willing to take advice or any guidance from lower level employees. Senior-level managers need to be as specific as possible when laying out expectations since those following the plan are not involved in the planning process. Because employees or citizens are not included in any of the decision making process and are often only motivated through either fear or incentives, moral can become an issue.

In GCR, urban poverty is not concentrated in particular district, but it spreads along the whole region, except for a few small and marginal urban pocket. Poor families are found within the lower and middle income families in a wide number of older core districts and in the vast informal areas of Greater Cairo Region

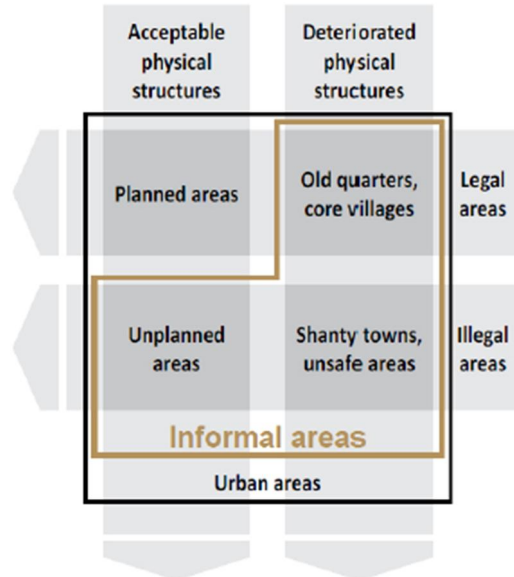


Figure2- 10 The figure shows the diversity in types of informal settlements in Egypt.
Source: (CDC, 2006)

A small percentage of poor families may also be found in older class districts. Conversely, in most informal areas a small percentage of well-off entrepreneurs and professional will be found. This variety of income group or “income heterogeneity” in geographical space is due to a number of historical factors, including:

- The lack of residential mobility due to rent control (Piffero, 2012).
- Imperfect real estate markets (Sims, 2003).
- The Informal Housing dwellers prefer housing near to their workplace (Shehayeb, 2009).
- The Informal Housing inhabitants often encounter to join more than one job in one place, in order to improve their income level.
- The living cost in Informal Housing districts is cheap, if compared with other districts.

Therefore, the informal settlements in GCR were calssified into 4 major types, according to (Sims 2012), These types are:

1. **Informal Housing on Agricultural Land.**
2. **Informal Housing on Desert Land.**
3. **Deteriorated Historic Core**
4. **Deteriorated Urban Pockets**

2.6.1 Informal Housing on Agricultural Land

This class is defined as private residential buildings constructed on agricultural land purchased by farmers in areas where there were no subdivision plans no building permits were taken. According to Sims, this type of informal housing contains over half the population of Greater Cairo Region and almost half the total residential area. Thus, it's hardly considered a marginal phenomenon (Sims, 2012).



Figure 2- 11 Area: Kafr Tuhmus, Bulaque El-Dakroor
source: (Piffero, 2012)

The phenomena has its roots in the 1960s when small cultivated areas on the fringes of “**formal**” Cairo boundary began to be subdivided into smaller plots of **60 to 120 m²** by farmers and land dealers and sold to individual owners as building lots. This process accelerated dramatically after the Egyptian government moved to open door (*infitah*) policy. This phenomenon was supported by increasing flows of remittances from hundreds of thousands of Egyptian working in the Gulf and other oil economics.

The process of transfer and dividing agriculture lands to small land lots and selling it as building lots (*or parcels*), and the construction of new residential buildings on the dividing lots was totally ignored by the real estate local

authorities. This process was done without any legal paper work or legal permissions, this process was completely informal.

In these cases the illegality does not stem from ownership rights, but from the illegal conversion of previous agricultural land into building plots (*for residential use*), as well as from the ignoring of existing regulation concerning the size of the divided lots and the slandered of construction (GTZ, 2010).

The government and local authorities were totally absent during the formative stages, in the form of permits, fees, taxes, and services (Sims, D. 2003). While these areas were spread increasingly, the government began to look upon the phenomenon with disfavor, especially because of the amount of agricultural land that was being eaten up by urban expansion.

Starting in 1978 a series of laws and regulations was taken to avoid the increasingly illegal Informal Housing growth on agricultural land. The latest was promulgated in 1996 and made such building a criminal offence to be handled under military law (Woodow Wilson, 2006).

From the view of urban pattern, the layout of these informal areas are always restricted by the agricultural domain and irrigation patterns, with canals and drains becoming the only main streets, as shown in Figure (2-12). The patterns of these areas have the following characteristics:

- Local streets are straight and very narrow (*usually 2-4- meters*), the minimum required to allow access.
- There are normally no public open places or areas for any type of service
- Plots tend to be small, ranging from 60 to 140 m² with 100 m² being average.



Figure2- 12 A satellite view of Boulaque el Dakrur. Source: (Google Earth 2012).

- Frontages are usually 7 to 10 meters
- There is hundred percent plot coverage except for air or light shafts
- Buildings are mainly of reinforced concrete frame and floor slab construction with red brick infill walls.
- Blocks might reach four or five stories high, and normally devised for future incremental construction.
- In some fringe areas a relatively new phenomenon is appearing of higher buildings (up to 10 or 14 floors) with larger footprints which are built for scale,

2.6.2 Informal Housing on Desert Land

This type can be defined as private residential buildings constructed on vacant state land by citizens under the process of “**hand claim**”. This type is similar to the squatting and invasion process, which is found in Latin America and throughout the third world, (Davis, 2006) in all formal areas on desert land GCR, the land was marginal desert without any specific purpose, figure 2-13.

In GCR, the history of the phenomenon is particular to each location, which spreads out from an initial: “*authorized*” nucleus. For example, “**Manshey’et Naser**” began as a site

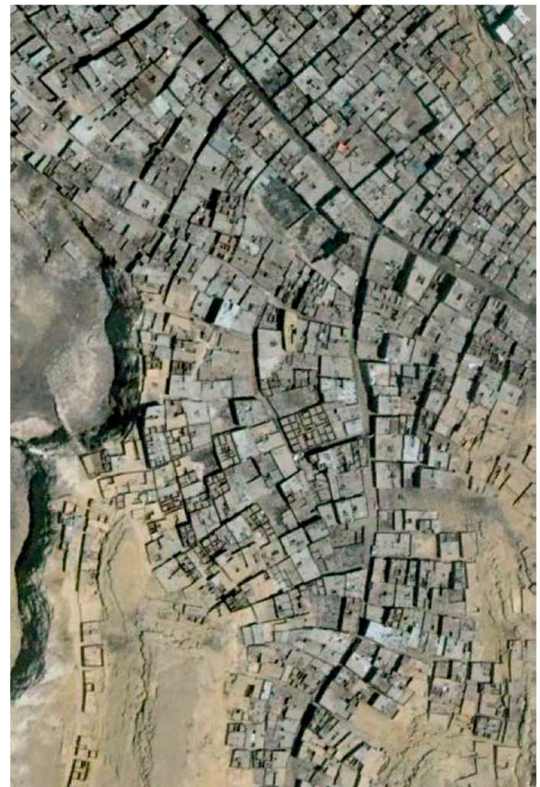


Figure2- 13 an aerial view of Mansheyet Naser Source: (Google Earth 2012).

for relocated slum dweller and garbage collectors, Fig.(2-14). The first dwellers would claim a plot of 200 to 300 m², and to build on 100 m², and dispose of the rest. In “**Manshey’et Naser**” case, rural migrants gathered within their families



Figure2- 14 Mansheyet Naser , showing the garbage in the area Source: (Norbert, 2012)

on these houses, and they began to build their own slums in the surrounding available land without permission or authorized official.

The second example, is “ **Ezbet El Haggana**”⁷ began as a small village for the families of coast guards soldiers stationed near by (Sims, D.2003).

In each case , the core area subsequently expanded due to illegal squatting and the occupation of the surrounding vacant land. In general, the core settlers in 1930 (ElKady,2009) were allowed to take hold on surrounding land through the process “ **hand claim**” and slowly expanding their settlement, usually large spots on the fringes of the established core were walled, and then sub-parcels would be sold by these pioneers to new settlers, the rate of growth of these communities varied greatly, with depletion of the government and local authorities towards its own property.

As in previous type the development process was completely informal, with no legal subdivision, no legal ownership and no legal paper work. However, settlers have certain rights arising from the interpretation of the civil code of the service and Squatters on land owned by the state for housing or residential. Also, settlers gather either the receipts from paying : “property taxes”, from electrical and water connections, and any other legal instruments to gain legitimacy as possible.

Informal Housing in Desert areas has a set of features, such as:

- Winding and narrow streets, (*also it is called popularly Harah*). And different levels along the streets, so it looks like ramps.
- Different levels of the houses entrances and heights, to be compatible with the topography of these areas, so it looks like gradient terraces
- Many buildings of this informal houses type exposed to the dangers of earthquakes and mountain faults (*especially Al-Mokattam Mountain*).

⁷ It was first set up in the second half of the 1930s by members of the frontier guards/camel corps (called *El-Haggana* in Arabic, thus the name *Ezbet El-Haggana*). Officers of the camel corps allowed their soldiers to build houses for their families beside their camp in the mid-1950s. Plot sizes were rather large, ranging between 1,000 and 2,000 square meters.(soliman,2004)

- In this type of IH, the housing condition are in general worse than those found in the agricultural type. There are higher incidence of destroyed structures and whole families living in one room.

2.6.3 Deteriorated Historic Core

In the historic city, that is Cairo before the expansions, which began after 1860, are found neighborhoods with a high percentage of old, crowded and deteriorated structures within the medieval urban fabric. Examples of this type include: Darb Al-Ahmar and AL-Gamalia (*especially the eastern section along Fatimya walls*), and parts of Masr Al-Qadima, Boulaq Abu El Ela,...etc. Moreover, this typology includes many historic villages such as AL-Fostat, Qait-Bey and Al-Tonsy which serve the vast historical cemetery areas, and large number of ancient homes such as : Beshtack Palace, El-Kredlyah. Al-Sadat Home....etc.

One of the main characteristics of this type is the Lack of maintenance resulting from tight rent controls and non-profitability of rental. Residents are generally very poor, however the population in these areas is declining as a result of increasing conversion of residential into commercial spaces and the collapse of entire buildings due to lack of maintenance. (Sims, 2012)

2.6.4 Deteriorated Urban Pockets

Deteriorated urban pockets mostly found in various inner-city areas of Cairo, especially those developed around the beginning of the 20th century and consisting of small pockets of very destroyed one to three stories structure, which accommodate poor families , Examples include areas around *Masr ElQadema*, *El-Sakakini in Al-Wayli*, and *Terra El-Tawfiqia in Al-Matareya*.

In each 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



Figure2- 15 this fig. shows the Manial distict and the deteriorated urban pocket which is very near to the main road.source: (GoogleEarth,2016) edited by the Researcher

Although there are no overall studies of these

areas, they represent an insignificant portion of the region population. Probably not exceed 1% of the total (Sims, D. 2003). Most are slated for removal, and some have already been converted to *parks (with the inhabitants relocated in public housing estates)*

2.7 Typologies of Informal settlements' in GCR.

The typologies of Informal settlements in GCR can be synthesized as follows;

Table 2-2 : The typologies of Informal settlements in GCR .(source: Researcher)

	Type of former land	Location in Cairo	Time of Migration	Level of saturation/Growth	Legal situation	Physical conditions/ services	Political situation	Example
(A) Agricultural old Settlement	Agriculture	Semi - central	>30 years	Saturated, no growth	Currently Legal, but not all registered	Good conditions Accessible to services & infrastructure	Unplanned	Ain Shams. Boulak El Dakrou
(B) Agricultural New Settlement	Agriculture extension of villages	Peripheral in Giza and Qualiobeya (North. West and south of Cairo)	>30 years	Growing, attracting more residents	Legal owaership. iilLegal buildings, no building licence	Lack of services and intra structure	Unplanned	Atfih(south of Giza)

(C) Desert Land (squatters)	Desert	Semi – central, it was peripheral but not any more due to city growth	>30 years	Saturated	illegal, no land titles, no licence	Lack of services and intra structure	Unplanned	Mansheyet Nasser
			>30 years relatively new	Growing in density, sometimes in area (attracts migrants)				Ezbet ElNasar
(D) Rural villages	The domestic part of villages. Used to be surrounded by agricultural land.	Different locations in mostly in Giza	Not migrants.	Not Growing, overtaken by urban expansion.	legal	Deteriorated	Unplanned	Mit Oqba. The core of Giza. Core of typology (A)
(E) Cemeteries dwellers	Cemeteries	Central	>30 years	Saturated, No attraction for migration	illegal	Either live on top of graves or in newly constructed houses	Supposed to get. An alternative housing.	200.000-800.000 inhabitants (inaccurate statistics)
(F) City Pockets	Vacant public or private land	Central	>30 years	Saturated	In most cases Legal	Deteriorated	Land of high market value, exposed to eviction	Hekr Sakakini in el Walii, Ezbet Abu Hashish
(G) Deteriorated Historic core	Old Urban areas	Central	>30 years	Residents are migrating from it	legal	Deteriorated Housing within historic monuments.	Touristic area (high land value)	Al Darb Al Ahmar
(H) Temporary public housing	Vacant Public land	Central. Different locations in the city	>30 years	Growing in density	Originally legal. But with illegal addition.	Deteriorated	It was supposed to be temporary.	Part of Ain El sira
Old public housing	Vacant Public land	Central. Different locations in the city	>30 years	Stable. Saturated, with minor expansion for buildings	Originally legal. But with illegal addition done by dwellers.	Deteriorated	planned	Ain El sira

Chapter Three

**Diversity in development
Projects in Worldwide and
specific endeavors in Egypt**

Chapter Three: Diversity in development projects worldwide and endeavors in Egypt

3.1 Introduction

This chapter highlights the special approaches in upgrading projects of slums all over the world, especially, the participatory approach (PA) which was handled as a way of development for the existing slums in various parts in the world.

Furthermore, the research highlights the advantages and drawbacks of dealing with such approach, like being a source of understanding the inhabitant's needs. However, this approach has negative impacts, like the time consumption and the probability of negative interaction of the inhabitants with the authorized experts. That will be illustrated in details with the assistance of upgrading projects which was handled with (PA), like, "Mansheyet Nasser" within the chapter. In addition, the chapter will go through the policies adopted by the government in confronting the Informal settlements issues mostly after the establishment of *the Informal Settlements development foundation* (ISDF) after the Doweika Crisis in 2008.

At the end the chapter, an illustration of upgrading projects in developing countries like Brazil is presented. Then, the researcher highlights and criticizes the well-known upgrading projects in Egypt like *Zenhum development project* and the proposal of *Maspeero*.

3.2 The Participatory approach

One of the most specialized team, who made significant contributions in the field of the participatory approach are from the University of Kansas¹. They

¹ This team constructed "The Community Tool Box" which is a public service of the University of Kansas. It is developed and managed by the KU Work Group for Community Health and Development and partners nationally and internationally. The Community Tool Box is a part of the KU Work Group's role as a designated World Health Organization Collaborating Centre for Community Health and Development. We are especially grateful to our funders and contributors.

also share overall responsibility for developing, coordinating, and sustaining activities explained the participatory approach as:

“A participatory planning process - one in which all the stakeholders are involved - is often the most effective and inclusive way to plan a community intervention. A participatory process provides community ownership and support of the intervention; information about community history, politics, and past mistakes; and respect and a voice for everyone. It also takes time, care, mutual respect, and commitment.”

Many low-income or minority individuals and groups feel that they have no voice in the society, that they are not listened to even when they are asked for their opinions. True participation means that everyone has a voice which must be acknowledged. (Rabinowitz, 2015)

Acknowledgment also implies having appropriate respect for *the other* opinion to argue with it. However, low-income or minority members of a planning team or governing board are treated with reverse condescension, as if anything they say must be true and profound. A truly participatory process would include not only everyone being heard, but also everyone thrashing out ideas and goals, and wrestling with new concepts. (Chambers, 1994)

In order for this to happen, those with less education and "status" often need extra support, both to learn the process and to believe that their opinions and ideas are important and worth stating. (Chambers, 1983) All of this takes time, but the rewards are great

3.2.1 The advantages of the participatory planning approach

The participatory approach is acknowledged as an efficient development tool due to the following advantages;

Table 3- 1: The advantages of the participatory planning approach(Source: Researcher based on, Rabinowitz, 2015)

<p>1 Ownership of the Inhabitants</p>	<p><i>Participation carries the feelings of ownership, building in the community a strong base for the intervention.</i> When people are integral to community intervention planning, the intervention will belong to them. They will stake in it as its originators not only as its beneficiaries or staff or sponsors. They will do their best so that their work succeed.</p>
<p>2 Credibility</p>	<p><i>It ensures the credibility of the intervention in all segments of the community because it is the planning of a group that represents all community segments. People will assume that their interests were attended to, if they knew that other people having the same point of view, experience were instrumental in approaching the intervention .</i></p>
<p>3 Exchanging various ideas</p>	<p><i>Reaching wider range of perspectives and ideas by providing access to wider range of people to the planning process.</i></p>
<p>4 Understanding the estimated population</p>	<p><i>Pitfalls caused by ignorance of the community realities or the target population can be avoided by participating the planning approach. Community members with long experience knows what failed in the past, why it failed, therefore they can prevent repeating past mistakes.</i></p>
<p>5 The participants in the project</p>	<p><i>From the beginning, important players will be involved.</i> If the support of a particular individual, agency or group is needed in the intervention, their cooperation is assured if they have been part of the planning from the beginning,.</p>

6 <i>Democracy</i>	<i>Providing an opportunity for the often disenfranchised ones to be heard, teaching the community that those have important things to say.</i>
7 <i>Skills improvement</i>	<i>It earns skills that last far beyond the process of planning, and can help achieving long term community improvement. this learn People how to run meetings, analyze data, construct strategic plans - in short, also to become community leaders and resources</i>
8 <i>Entire Relations</i>	<i>Establishing ties and bringing together community members who might have no contact at normal situations. Relations between business leaders and low-income people , for example supports the intervention, and also helps creating long term relationships and break down obstructions in the community.</i>
9 <i>Building Trust:</i>	<i>Participating planning process can build trust between the community and your organization and among the individuals involved. Future community development and community action can be based on this trust.</i>
10 <i>A reflection of mission and goals</i>	<i>The goals and missions of grass roots and community-based organizations are generally reflected in the participatory planning process. The participatory approach reflects the ideals that form the base of the grass roots and community-based organizations. With its inclusiveness, empowerment and underpinnings of collaboration.</i>
11 <i>Respect from various societal classes</i>	<i>It means respect for everyone in community, setting a standard for participation in the community and empowerment that the others - organizations and community at large - may be compelled to follow.</i>

12 <i>Valuing all ideas</i>	<i>It does things as they should be done.</i> It respects values, ideas, experience and everyone's intelligence, affording everyone a control measure . By community empowering , particularly the target population, rather than only superimposing its own ideas on an existing social structure, your organization can give its ideals a substance . In the final analysis, participatory approach is almost the most ethical way to plan a community intervention.
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3.2.2 Problems confronting the participatory approach

It's crucial to understand and anticipate these considerations, and to decide when and how a participatory planning approach (PA) can work in the situation required. (Rabinowitz, 2015). However, (PA) is confronted by certain problems, while these problems present potential or real challenges to the success of a participatory planning process, overcoming them may tremendously increase the possibility of designing and carrying out an effective community intervention. Those challenges can be rehearsed as follows,

Table 3- 2: The problems facing the participatory approach (Source: Researcher based on ,Piffero, 2009)

1 <i>Time</i>	<i>Participatory process takes longer time.</i> Diverse group almost takes longer time to discuss and to make conclusions than small group or an individual. <i>The process of participatory planning takes patience and commitment on everyone's role.</i> People have to keep their commitment all the time, keep themselves civil when they discuss issues that they may have strong feelings about it, and be willing for compromising . One or few key people losing interest, or few misplaced words can disturb the whole process.
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2 Refusal *Target population members of the community may not agree with the experts about what is needed.*

3 Educational level *Community members and the organization need education. In order to understand what the organization is trying to do, members of the target population and the community may need to understand some theory or past practice that they may don't have . New skills are needed for some of the population in order to participate fully in the planning process. On the other hand, the organization needs to learn more about the local culture, community history and political issues, and in order to avoid past errors and tailor the intervention to the community. Education takes time.*

4 Negative behavior influences the whole process *If not handled well, one determined individual can wreck the whole process. If anyone is convinced that only he knows what's right for the community, then this will make the participatory process very difficult. To Handel this situation it may take both tact and toughness.*

5 Not all recipients participate *Making sure that all the right people get to the table may be difficult. Key people may simply don't want to participate. A history of failed communication attempts or at dealing with problems, community factions, ignorance of groups or*

individuals which are important or basic mistrust may complicate the creating of a participatory planning process. Overcoming this barrier, can have - over the long term- profound positive consequences in the community.

3.2.3 Participatory planning in Egypt

Public participation in Egypt has historically been associated by the national liberation, which had the highest priority until the evacuation of British forces in the 1950s. However, since that time, real participation did not take place because of socio-economic factors, including, cultural and historical traditions as well as political and regime systems, (Ibrahim, 2006) The call of democracy after the January evaluation opened new channels to a real participatory approach for the poor to manage a humane life in order to be a part of the national income. GTZ, German technical Cooperation (GIZ now), (GTZ, 2010) was one of the first initiatives of participatory planning projects in Egypt. GTZ assets number of partner ministries as well as the Governorates of Cairo, Guiza, Qalyoubia and Helwan in developing and implementing participatory upgrading mechanisms. They began basically in 1998 and selected two informal areas in region Cairo as pilot projects namely; Mansheyyet Naser and Bolaq Al-Dakrou, they conducted three phases as shown in figure 3-1

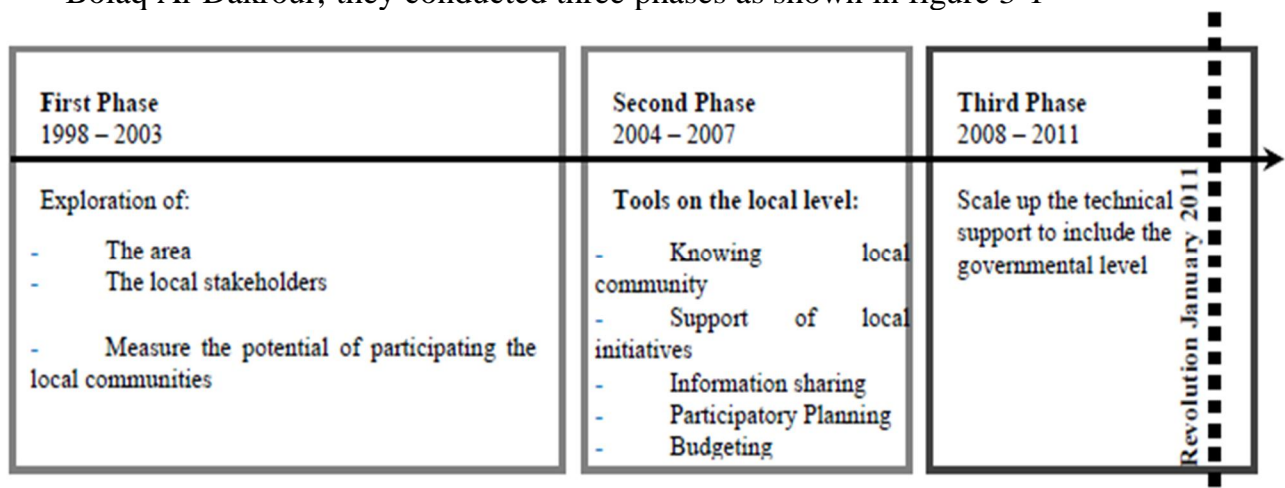


Figure3- 1 Timeline schedule of upgrading project of *Mansheyyet Naser*. source: (GTZ, 2010)

Abdel Halim mentioned in GTZ's report(2009) that the participatory design process promotes an inclusive model of participation on the local level, urging cooperation of all local stakeholders, including district administration, the popular council, NGOs, local businesses, and natural youth and women leaders. GIZ, however, believes that the globally accepted model of cooperation between Government, private sector and the civil society organization (NGO) presenting community cannot contribute to community empowerment or the objectives of the participation ,figure3-2. Although this global model was accepted by the Egyptian Government, and the political parties, AbdelHalim explained his dissenting opinion, that NGOs in most of the cases all over Egypt do not truly represent the civil society and that they do not have a clear comprehensive agenda of development. (GTZ, 2010)

Moreover, AbdelHalim (CDC) added in (GIZ, 2009) “..*These participatory tools may sound for the development or upgrading of an area, in reality there is a limit to what can be achieved on the local level alone. Participatory design principles experience in the pilot projects demonstrates that the governorate level is pivotal in empowering and supporting local participatory development processes*

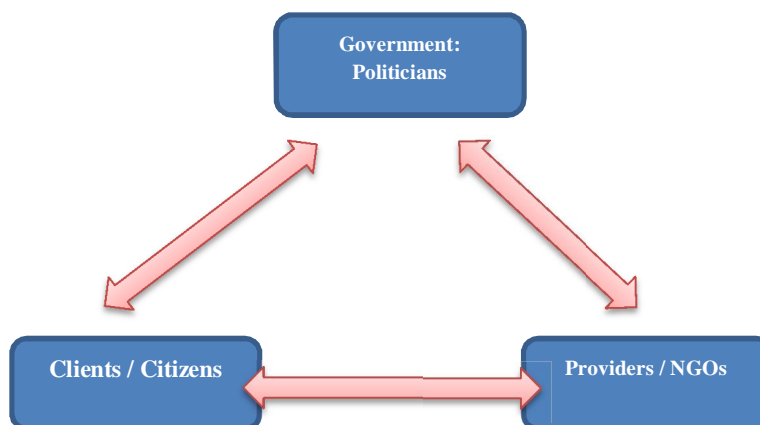


Figure3- 2 Development project's stakeholders. Source: (GTZ, 2010)

The GIZ experience of the Participatory design process in the chosen projects were not classified as sustainable projects, were governmental aids were extremely an important aid for the facilitation and completion of the project. (Ibrahim, 2006). Thus, it was a centralized decision depending on the desires and policies of various governments, in other words, it's a one-way power decision-making. (Manal M. F. El-Shahat & Samah M. El-Khateeb, 2012)

Unfortunately the participatory approach did not continue after the GIZ left these areas . A research has been made by practitioners and academics as an evaluation for the process. Citizens from *Mansheyyet Naser* were asked about The benefits they gained from the participatory process, they reported that that they didn't feel empowered after 13 years of this program they cannot trust the government to that time. (GTZ, 2010) Hence, interviews were conducted with various citizens (singles and families) in *Mansheyyet Naser*. The researchers (Manal M. F. El-Shahat & Samah M. El-Khateeb, 2012) chose samples of both genders and age. The interviews focused on five points:

1. How much they were satisfied with the facilities provided by the government and if they were willing to rebuild the trust with the government.
2. To what extent they could cooperate with the government and which parties they would use as presentative.
3. What was their perception towards their role within their community.
4. The interviews also asked them if they believe they are an effective part in the development process or not.
5. How much the changes that took place after the revolution had a reflection on their way of life and into the participatory planning process.

3.2.4 Results of the interview with “*Mansheyyat Nasser’s*” Residence.

Basically, the result of the interviews was completely inappropriate to 13 years of work within the development projects in *Mansheyyet Naser and Bulaque El Dakrour*. Most of the interviewed persons do not feel belonging to the whole community; they suffer from lack of services and basic amenities. People do not trust the government, as their own perception towards consecutive governments throughout the past decades. (Manal M. F. El-Shahat & Samah M. El-Khateeb, 2012)

Citizens are convinced that the political mainstream is against their existence. From the inhabitants’ point of view, NGOs are not the only representatives of them. Many of them have the ability to share and have the ability to share and play a role in the future. The political parties did not play a role in their life in the past; however they have a hope that the newly elected parties might have a role in their early future.

People are still feeling marginalized before and after the 2011 revolution. Whereas, the interviewed people thought that they were the only ones who knew their requirements and needs. (Ibrahim, 2009) Therefore this research presents a matrix model which hypnotizes that it concludes the priority needs of development and it will be examined practically by the following chapters.

3.3 Policies of Egyptian Government towards the Informal settlements

After a rockslide in “*El-Deweka-Manshiet Nasser*” (September 2008) killed and injured many residents, it was considered a national disaster by the media and consequently the government. In reaction, ISDF has been established as a fund to support locals in the provision of safe housing on a cost recovery basis, and they have given priority to the eradication of slum areas (ISDF, 2011). Another GOPP reaction to this accident has been that it has tried to locate “threatened or unsafe areas” and to indicate types of intervention are needed for those ‘*ashwa’eyat*. Intervention decisions have been always either eviction and relocation, or upgrading through providing infrastructure. Those policies are as follows:

3.3.1 Ignorance Policy.

Due to the rampant bribery and the legal knavery some of the officials do not apply the laws which were laid down by the state (Sims, 2012). As a result, citizens were left to build by their own and the transgressions were settled by the officials, thus, the infrastructure and facilities were easily extended. That was because the government ignored the housing crisis and left the people to find solutions by their own (Marii,2011).

3.3.2 Eviction and relocation

The government followed that policy in various areas; where the buildings were all eliminated and the citizens were substituted by other units in different places. That was clear in the region of *Arab El Mohammady* as the government substituted the people by certain units in *Madinet El Salam* and *Ein-Shams*. Actually, the people suffered from that way of treatment; the people couldn't merge socially with the native inhabitants there. Moreover, they had problems with transportation and their own crafts too (Sims, 2012).

3.3.3 Concession and acceptance

Those who advocates this governmental policy thinks that, if the developing countries couldn't provide an affordable accommodation for the poor, then they have to accept the informal housing and the self-built housing and to be conceded. And within the concession program the poor family occupies the land lot to be built and to be supplied by infrastructure gradually. Later, the family takes a bank loan in order to be able to start construction with some recommendation from officials, thus the loan repayment would be done in several years, so it won't be a high financial burden for the family. One important example of those kinds of programs is "Ibny Beitak" project which was founded within the peripheral areas of 6th October city and 10th of Ramadan city as well (Daba', 2004).

Critics of the program claim that, this is not the magical solution for the informal settlements problem especially that the developing countries are basically suffering from official corruption. Accordingly, if those programs were not confronted with serious control and strict management, their fate would be a miserable failure.

3.3.4 Upgrading and development

Only in 1990 the state has only begun to address the issue of the informal settlements in Greater Cairo, thus NGOs like GIZ (German institute) in 1998 began upgrading exercises in alliance Cairo and Giza governorates. The upgrading and development approach is considered internationally the most successful way in treatment of slums, and that was fruitful in India south Korea and Brazil.

In 1998 the area of *Telal Zenhum*, an older, deteriorated area of Cairo in Sayyeda Zeinab district, became a model redevelopment project championed by the Egyptian Crescent, The Future foundation, and the First Lady-at that time- Suzan Mubarak , with funding mainly from voluntary contributions by prominent business men. This project encountered the demolition of all old structures and the rehousing of residents in new apartments surrounded by landscape. (Sims, 2012)

3.4 Upgrading projects in Egypt

Basically, the successful upgrading projects in Egypt (in the point of view of media) were championed by the authority of the first lady at that time (Suzan Mubarak), Like *Zenhum in Sayyeda Zeinab*. 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 had also involved some very luxurious 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). (Sims, 2012)

These projects are tirelessly lauded by the state media as successful approaches that show the commitment of government to solve the

‘ashwa’ei’ problem, however, they are expensive showcase efforts that are hardly replicable without the strong and continued interest from the very highest levels of political power.

Subsequently, the 2011 revolution which flourished the meaning of equality and the legal rights of the poor, presented a new meaning in dealing with the informal settlements in Egypt. Consequently, the poor inhabitants became a part of the society and had a crucial opinion in their future. Thus, the following part will present a before and after revolution development projects in Egypt like *Zenhum* and *Maspeero*, Which actually present the various applied policies intended by the authorities in upgrading and, if the inhabitants’ requirements were taken into consideration in both projects.

3.4.1 Zenhum development project, Sayyeda Zeinab, Cairo

Zenhum housing area “Masaken Zenhum” was a well-known area which used to suffer from lack of services, amenities and deteriorated housing conditions as shown in figure 3-3. Zenhum upgrading project began in the late 1990s with the aim of improving the quality of the community life through building proper housing, creating facilities in the community and providing essential public services. Several mechanisms were created for effective community participation. (Zeinab Khadr & Lamia Bulbul, 2011)



Figure3- 3 Zenhum area before Upgrading. (Zeinab Khedr & Lamiaa Bolbol,2011)

A Full collaboration and partnerships occurred between The ERC, local authorities represented by Cairo Governorate, and a group of philanthropists/ businessmen. Each partner had specific responsibilities and role to play in the project; the upgrading activities were similar in each zone. The work began by *demolishing the existing houses and the wooden kiosks (ishash)*. The dwellers⁶ of each zone were relocated to a transit/temporary settlements made available by Cairo governorate. These settlements are Mothallath Helwan, Nahda city, Mokattam. During this process, ERC took upon its shoulder the challenge of building a



Figure3- 4 The urban design of the first phase in Zenhum upgrading (Zeinab Khadr & Lamia Bulbul, 2011)

trust relationship with the residents.

In zone I, the total number of building blocks was 29 comprising of 348 flats. Each building block was designed to accommodate 12 flats, the average area of which is 70 m², figure 3-4. The building areas do not exceed 30% of the total area leaving room for green areas, streets and walkways. The map below shows the landscape of the first stage and the plan of the buildings blocks. During this period a social, cultural and health center was established by the ERC on approximately 1500 m² to provide the needed services to community members (Zeinab Khadr & Lamia Bulbul, 2011).

The success of phase one secured 40 million LE for the ERC which helped in starting the second phase. Given the sheer size of zone 2, the construction work was divided into two phases. In the first phase 49 building blocks were built, each of which comprised of 12 apartments in addition to a shopping mall. In

the second phase 35 building blocks were built. Financing the construction of zone 2 followed outline of zone 1. The actual implementation began in early 2003 and the work finished in the by the end of 2004.

The work in the second phase followed the same steps undertaken in the first phase. Additional facilities were built based on the results of the consultation with the residents. A shopping mall was established to serve dwellers of that area as well as neighboring areas. The building area did not exceed 40% of the total area of zone 2.



Figure3- 5 A view of Zenhum project after development (Red Crescent, 2011)

The construction work in zone 3 began in August 2005. It was carried out by engineering department of the Ministry of Defense and other private construction companies. The engineering Department of the Ministry of Defense built 18 building apartment blocks; whereas a private company built 53 building blocks, figure 3-6. The ERC covered the cost of all 71 building blocks from the donations to ERC. It worth noting that not all dwellers who were relocated to transit settlements returned to their original residence in Zeinuhum as some people chose to resettle in the transit settlement. (Zeinab Khadr & Lamia Bulbul, 2011)



Figure3- 6 The second phase of Zenhum development which was changed afterwards (Red Crescent,2011)

3.4.2 Maspeero development project, Cairo

Thousand persons live in the most precious 74 acres in Egypt in deteriorated houses which are mostly ramshackle; moreover, many of the houses were actually destroyed after the lack of maintenance. As a result, many inhabitants lost their houses and need to return to the same place they were raised in. (Haggag, 2015)

Twenty years ago trials have begun to deal with *Maspeero Triangle* or the well-known project “The development of Maspeero Triangle”, those trials were always faced by popular refusal and extreme failure.

This is simply because; the entire development always begins with forced displacement, Figure 3-7.



Figure3- 7 Maspeero’s area proposals by Emaar. source:(Emaar Misr, 2010)

Dr. Laila Eskandar the pre-Minister of the urban development and slums – which previously was an independent Ministry- said, “*The problem of Maspeero’s triangle is almost over*”, that was after the competition offer for the development of Maspeero’s triangle.

Ahmed ZaZaa the head of “Madd” organization claimed that, evectional development projects were adopted by the government before the 2011 revolution. The government intended before the revolution to expel around 18 thousand person from Maspeero, and actually there were no place for them, that’s why projects presented to the ministry of housing by the year 2008 were oriented to the elites with prosperous towers viewing the Nile River. Fig. (Madd, 2015)

After the 2011 revolution the marginalized communities were taken in concern, thus in the case of Maspeero, original residents were considered a crucial part of the solution. Accordingly, an international competition was held to find urban solutions which comprise the rights of the residents to live within their own property and at the same time indulge the investors to benefit from the valuable land (Madd, 2015).

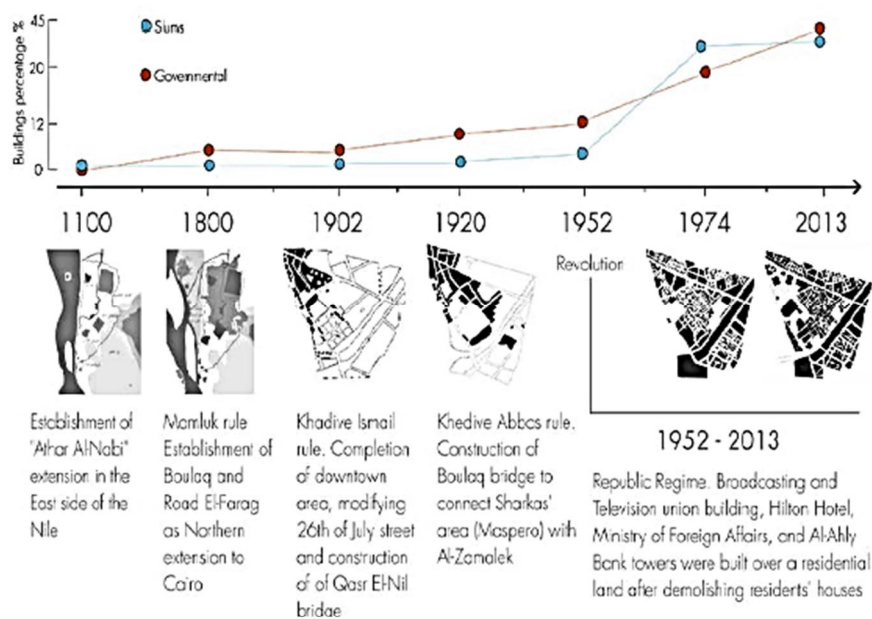


Figure3- 8 A chronological timeline of the urban expansion of maspeero area from the year 1100 to 2013.Source: (Sayed, 2014)

3.4.3 The winning project of *Maspero* development

The winning project was the proposal presented by Norman Foster +partners, who tried to undergo the needs of maspero’s inhabitants. He illustrated their living conditions, the identity, the occupied territory, and he applied the participatory approach to reach a satisfactory proposal to the residents and also to enhance appropriate investments especially that some business men have already properties in the area.

The proposal suggested a property of residential apartments from a unit beginning from 30m2 and expands either horizontally or vertically as shown in figure to reach a 90m2 area apartment.

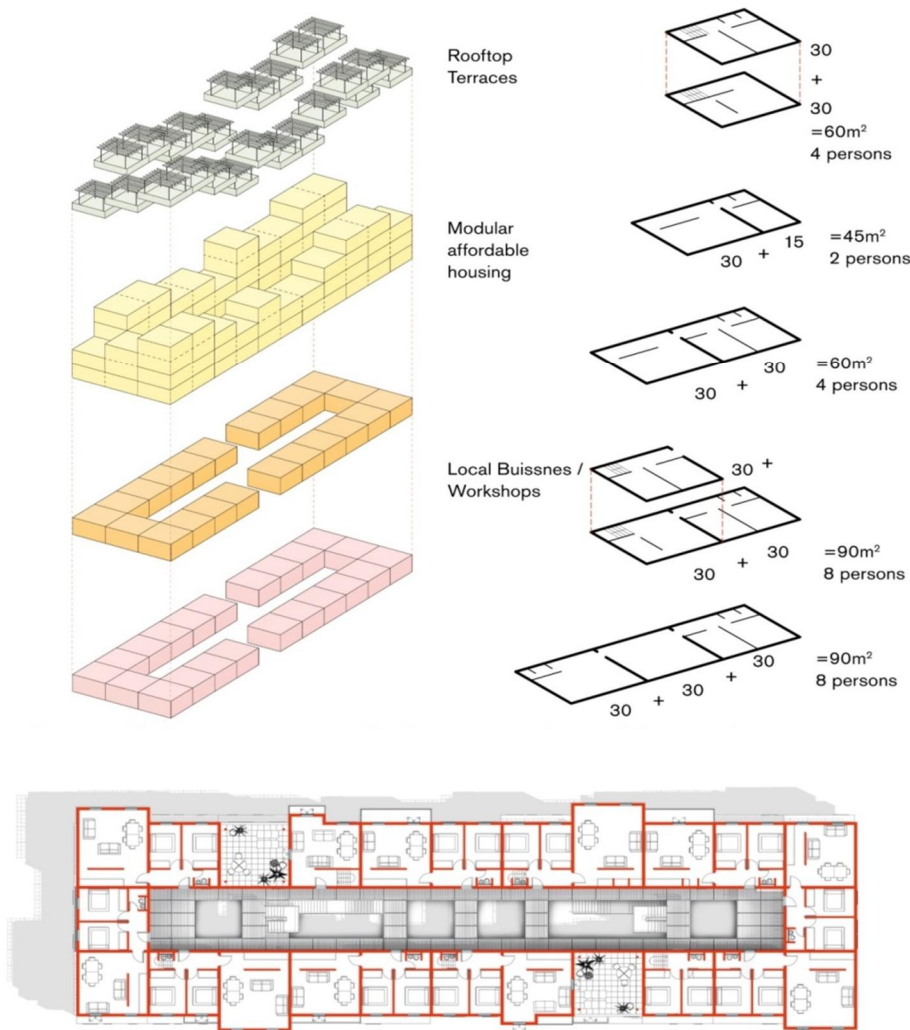


Figure3- 9 proposed apartments open onto a communal courtyard in Maspero residence (Foster, 2016)

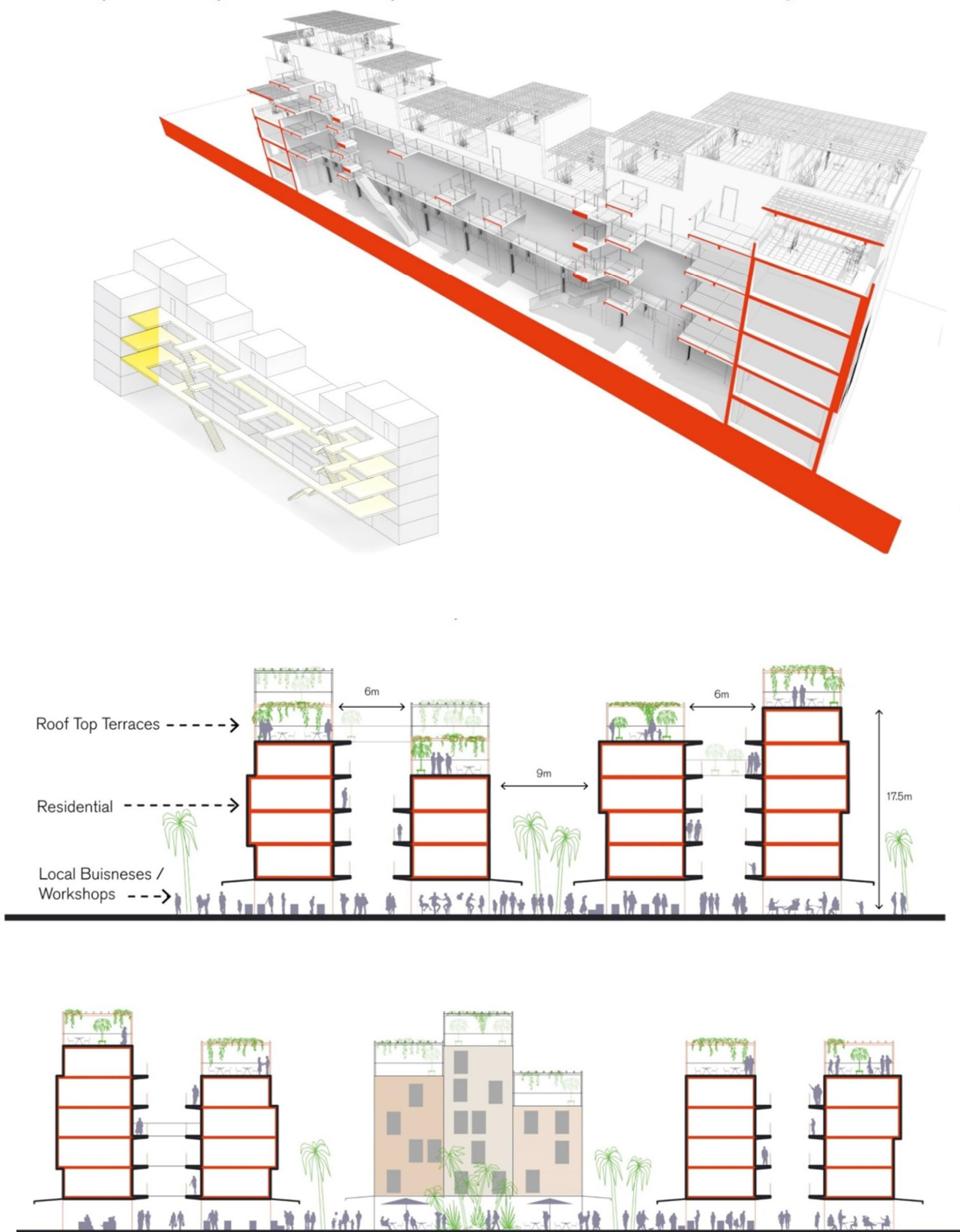


Figure3- 10 A longitudinal section in the proposed residential units of Maspero project, source: (Foster, 2016)

The designer allocated the ground floor to act as a workshop or a means of income to the inhabitants. Moreover the designer created an inner court for the building blocks and also made an outer space between blocks exceeds 9 meters length. Also the heights of the buildings didn't exceed 4 floors, and roof gardens were founded at the top apartments, figure 3-10.

Therefore, certain development entries are concluded, like, the appropriate area for supposed units, roof gardens, the boulevard, efficient use of open spaces, and roof levelling within units.

3.5 International development project.

One of the most significant upgrading projects is the development of Rocinha's area in Reo deGaneiro, Brazil. The urban designers presented different solutions for the informal area. The solutions took in consideration certain aspects within upgrading, like, the social needs, the culture of the residents, the urban basics, and the geography of the place as well.

The cornerstone of the new design is the economic factor, which flourished within certain designs of efficient use of spaces, the preservation of the good conditioned buildings, the linkage of the existing blocks, and keeping mostly the same land use of the place (Vinnitskaya, 2011).

3.5.1 Development of Rocinha area, Reo deGaneiro, Brazil

Rocinha's area is founded in Reo de Ganeiro which buildings' were all made of concrete and wooden deteriorated shacks attached to the blocks. The population reached about 250000 in 1km2 meters. The urban environment was deteriorated, where the shortage of services, shortage of clean water and lack of maintenance of the entire blocks which consisted of 2 to 4



Figure3- 11 Rocinha's location and levels (Fred,2011)

floors. The development project was completely dependent on the NGO's which is basically specialized in development projects (Down-top policy). The type of upgrading is partial eviction, where the whole area was well-studied, then evaluated; thus, only the deteriorated buildings and shacks were evicted. Moreover, the concrete blocks which obstacle the project was dismissed, figure 3-12 & figure3-13 (Vinnitskaya, 2011).

From the researcher analysis, the design mainly depended on the rarefaction of the existing buildings to create an open space between the blocks, thus an enclosure and a semi-private space is basically conceived. Moreover, the ground floor was actually dumped from the surrounding buildings around the proposed the space, thus to generate more space and to widen the spaces in front of the shops.

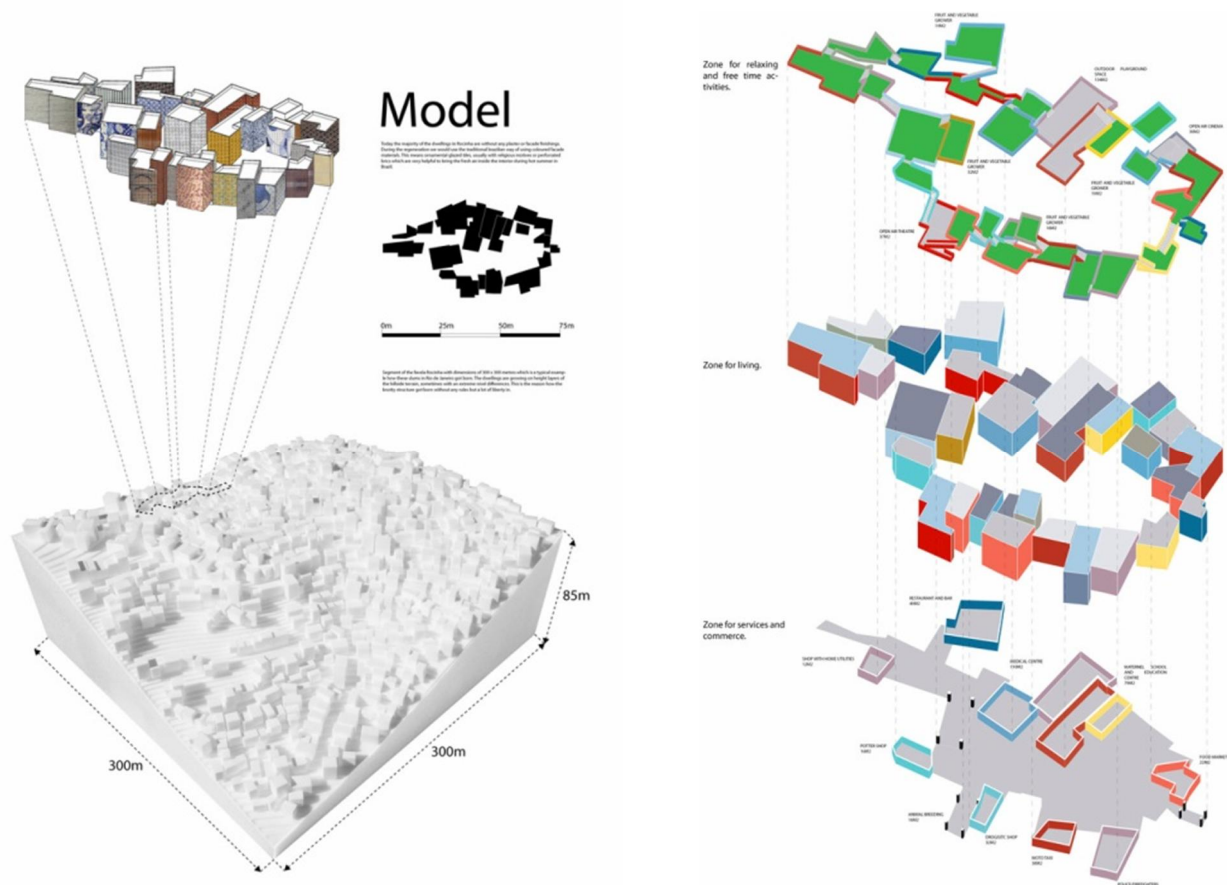


Figure3- 6 Rocinha’s upgrading project proposal and the rarefaction of the new open spaces. Source: (Vinnitskaya, 2011)

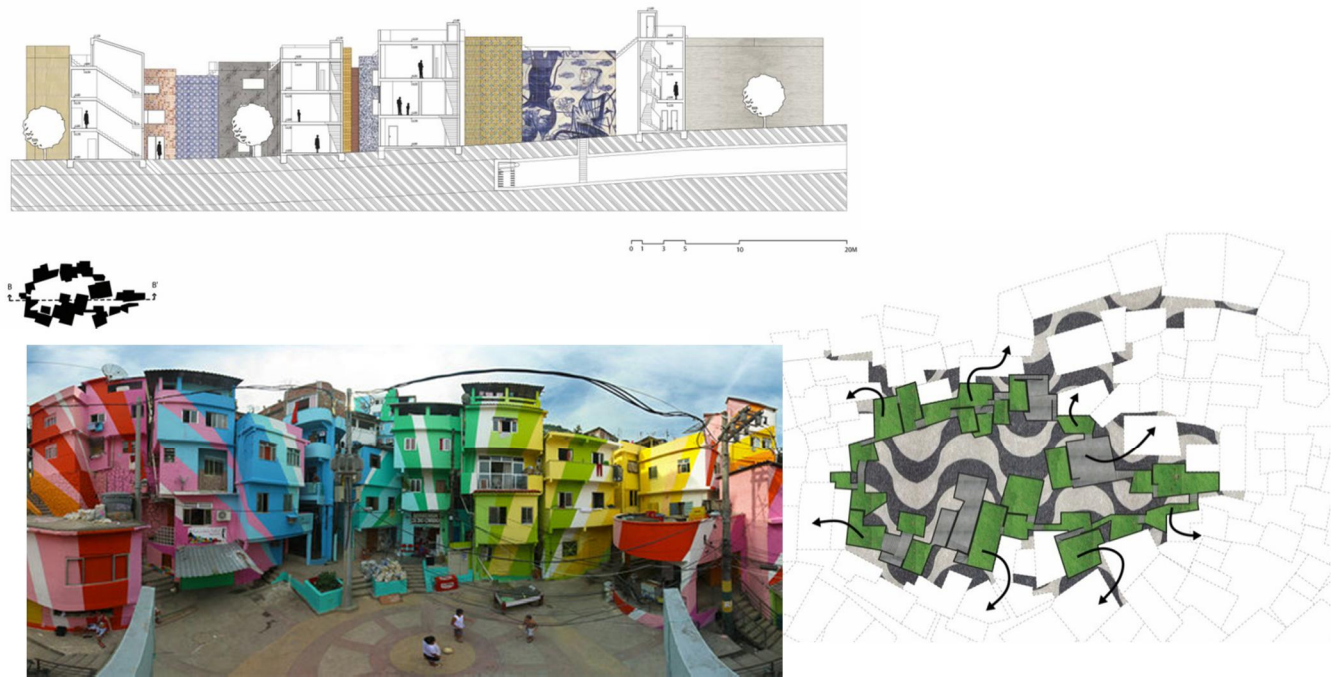
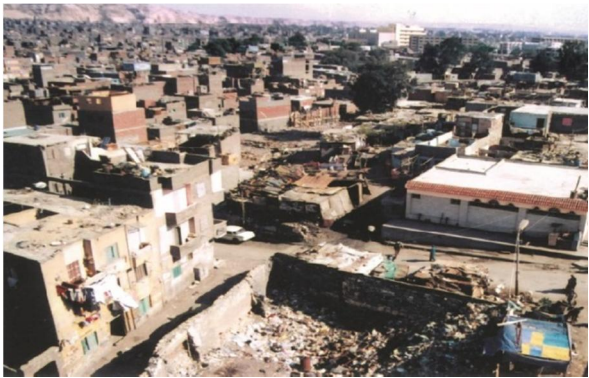




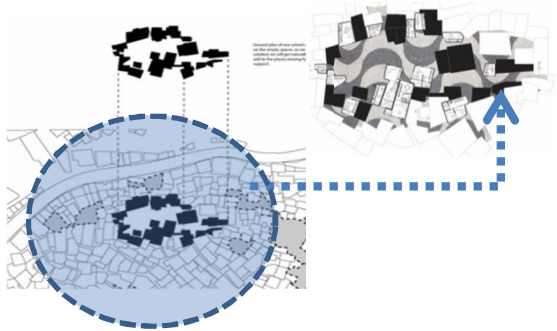


Figure3- 13 The proposed Elevation for Rocinha’s project & the implemented facades.
 Source: (Vinnitskaya, 2011)





3.6 The Comparison between *Zenhum* and *Rocinha* Upgrading Projects

A comparison is accomplished between *Zenhum* and *Rocinha* upgrading projects in order to discuss the various development entries which were implemented in the two projects, thus evaluated to find how each project contributed to fulfill the actual needs of the users.

Table 3- 3: Comparison between Zenhum Upgrading Project and Rocinha(Source: Researcher)

	Development of Zenhum area, Sayyeda .Zeinab, Cairo,Egypt	Development of Rocinha area, Reo deGaneiro, Brazil
Before development	 <p>Source:(Red Crecent 2011)</p>	 <p>Source: (Vinnitskaya, 2011)</p>
	Zenhum's area was a group of deteriorated shacks and some concrete buildings which was deteriorated as well as shown in pic.. In 1999 the entire	Rocinha's area is founded in Reo de Ganeiro which buildings' were all made of concrete and wooden deteriorated shacks attached to the blocks.

	<p>population reached 20 thousand people which were nearly 4000 families. The total area of the place was about 50 acres.</p>		<p>The population reached about 250000 in 1km² meters. The urban environment was deteriorated, where the shortage of services, shortage of clean water and lack of maintenance of the entire blocks which consisted of 2 to 4 floors.</p>					
	<p>The project was initiated by Suzan Mubarak the first lady at that time, thus the government hired the Red Crescent institution to present the developmental studies for the area (Top-Down policy)</p>		<p>The development project was completely dependent on the NGO's which is basically specialized in development projects (Down-top policy)</p>					
Typology	<p>Total eviction: All the buildings and shacks were evicted, the total expenditures in the first phase only is about 30 million e.g.p</p>		<p>Partial eviction: The whole area was well-studied , then evaluated, thus, only the deteriorated buildings and shacks were evicted. Moreover, the concrete blocks which obstructed the project were dismissed.</p>					
Urban Characteristics in the development projects								
Use of Space	 <p>Source:(Red Crescent 2011)</p>		 <p>Source: (Vinnitskaya, 2011)</p>					
	<p>After the eviction, new design was initiated which has no relation with the entire area, thus 4 floors blocks were built and green areas of enclosures were implemented.</p>		<p>The design mainly depended on the rarefaction of the existing buildings to create an open space between the blocks, thus an enclosure and a semi-private space is basically conceived.</p>					
	Evaluation (Social Identity)	Good	Moderate	Weak	Evaluation (Social Identity)	Good	Moderate	Weak
	Evaluation (Economic)	Good	Moderate	Weak	Evaluation (Economic)	Good	Moderate	Weak
New spaces' design	 <p>Source:(Red Crescent 2011)</p>		 <p>Source: (Vinnitskaya, 2011)</p>					

	Spaces were originally designed and were basically .much more wider than needed and not shaded Source:(Red Crecsent 2011)				The ground floor was actually dumped from the surrounding buildings around the proposed the space ,thus to generate more space and to widen .the spaces infront of the shops			
	Evaluation (Social Identity)	Good	Moderate	Weak	Evaluation (Social Identity)	Good	Moderate	Weak
	Evaluation (Economic)	Good	Moderate	Weak	Evaluation (Economic)	Good	Moderate	Weak
Economic Services								
	Source:(Red Crecsent 2011)				Source: (Vinnitskaya, 2011)			
	The buildings were mainly used as residential, thus no space was designed to fulfill any commercial activity. Moreover the commercial area was completely far from the project				the main shopping area and the main market was kept as it is, however the community area like cinemas and coffe shops were rebuilt on the roofs .of the blocks			
	Evaluation (Social Identity)	Good	Moderate	Weak	Evaluation (Social Identity)	Good	Moderate	Weak
	Evaluation (Economic)	Good	Moderate	Weak	Evaluation (Economic)	Good	Moderate	Weak
Heights	Source:(Red Crecsent 2011)							
								
	Heights of the buildings are constant. They are only 3 floors within the whole project; the skyline was obviously monotonous and didn't fulfill the needs of the families.				The heights of the buildings are not constant they average between 3 to 5 floors, the last floor was basically the compensation of the ground floor apartments which were before dumped from residential units and the service areas are located within the buildings.			
	Evaluation (Social Identity)	Good	Moderate	Weak	Evaluation (Social Identity)	Good	Moderate	Weak

Evaluation (Economic)		Good	Moderate	Weak	Evaluation (Economic)		Good	Moderate	Weak
Cultural and Behavioral attributes in development									
The Identity	The urban design does not express the place identity or the culture of the inhabitants. The area is located in Sayyeda Zeinab, which is a historical place, thus the implemented				Rocinha's residents didn't feel a distinct change in their place. The same buildings are existing, thus developed. The designer consulted the inhabitants about the colors of their facades and the services they need around their place				
	Evaluation (Social Identity)	Good	Moderate	Weak	Evaluation (Social Identity)	Good	Moderate	Weak	
	Evaluation (Economic)	Good	Moderate	Weak	Evaluation ((Economic	Good	Moderate	Weak	
The Community									
	Source:(Red Crescent 2011)				Source: (Vinnitskaya, 2011)				
The project didn't locate a place for community gathering like coffee shops which is mostly popular within the Egyptian society and were replaced by a shaded green area which was basically deserted by the inhabitants . Thus the cultural and behavioral attributes were not taken in consideration .				As there were no place for the community gathering areas the roofs were utilized to create open cinemas and coffee shops and connected between roofs by bridges to connect between remote buildings. Therefore, new spaces were created and connected within the cultural and behavioral attributes of the community.					
Colors	Evaluation (Social Identity)	Good	Moderate	Weak	Evaluation (Social Identity)	Good	Moderate	Weak	
	Evaluation (Economic)	Good	Moderate	Weak	Evaluation (Economic)	Good	Moderate	Weak	
									
Source:(Red Crescent 2011)				Source: (Vinnitskaya, 2011)					

The choice of colors was due to the consultant and the inhabitants had no relation with this issue. They didn't choose the implemented colors				The colors implemented in Rocinha were due to the choice of the inhabitants, they also built wooden screens in front of the existing facades.			
Evaluation (Social Identity)	Good	Moderate	Weak	Evaluation (Social Identity)	Good	Moderate	Weak
Evaluation ((Economic	Good	Moderate	Weak	Evaluation (Economic)	Good	Moderate	Weak

3.6.1 Results of the comparison between the upgrading projects

- The total eviction process results in extremely high expenditures which were clear in *Zenhum* project and resulted in the incompleteness of the project and the low number of similar projects.
- Understanding of the real inhabitants and their own needs and requirements is beneficial in the design process, and will also lead to an economic implementation; as the designer wouldn't compose unused spaces like the open spaces made in *Zenhum*.
- Sustainable development is the cornerstone of upgrading; where the inhabitants can cooperate in the process of development and can be a means of incremental growth of their income. That was clear in *Rocinha* project where the women were important members in the upgrading process, as they carved the wood screens which were supposed to be installed within the facades of the buildings.
- However, in *Zenhum* project, the inhabitants had no role in the process from the beginning; they were just enrolled with community development courses and their children had personality upgrading course. Thus they didn't participate in developing their area nor had a certain opinion in their process.
- Even, if the colors of facades were not pleasing for architects in the *Rocinha* projects. Those colors were originally chosen by the residents before the wooden screen.
- Certain development entries are concluded from *Rocinha* project, like, dismissal of the ground floor to increase open spaces' area, heightening the blocks by a floor or two to substitute the number of inhabitants, efficient use of

roofs, keeping the same land use of an entire project, and the rarefaction of existing buildings to create an open space.

- Total eviction as a development entry is considered totally uneconomic, which was basically clear in Zenhum project, where the expenditures of phase one only were 30 million e.g.p in 1998 (Zeinab Khadr & Lamia Bulbul, 2011).

3.7 Concluding Summary of Chapter Three.

- This chapter highlights, the participatory approach (PA) which was handled as a way of development for the existing slums in various parts in the world.
- Furthermore, the chapter highlights the advantages and drawbacks of dealing with such approach, like being a source of understanding the inhabitant's needs. However, this approach has negative impacts, like the time consumption and the probability of negative interaction of the inhabitants with the authorized experts. "Mansheyet Nasser" was one of the projects which was handled by the participatory approach, and GIZ administrated the whole project starting from the year 1998, however the product of 13 years of practicing (PA) did not cope with the project's objectives
- Upgrading projects in developing countries like Brazil are presented and criticized showing the advantages of the inhabitants' participation in such projects. Then, the researcher highlights and criticizes the well-known upgrading projects in Egypt like *Zenhum development project* and the proposal of *Maspeero*.
- At the end, a comparative analysis was illustrated between Zenhum and Rocinha upgrading projects. Consequently, the role of the inhabitants was analyzed in both projects and how their needs were actually implemented in both projects. Thus, certain development entries were concluded which will be used afterwards in the application of the research.

Chapter Four

Behavioral Patterns and Cultural attributes of an entire urban space: Generation of B.Cs

- Part One: Inspirational Theorists for the Behavioral & Cultural Patterns' generation.
- Part Two: The Physical attributes of an interactive space

Chapter Four: Behavioral and Cultural patterns of an entire urban space

4.1 Introduction

This chapter is considered the main cornerstone of the research, as it concludes the main attributes of the cultural and behavioral patterns that assists in understanding the informal place, and how it collaborates with the community.

This is achieved by evoking the unique scholars and philosophers who had distinctive contributions within the social and cultural studies; moreover, they had special additions for the influence of the personal behavior on the entire urban space.

These theories were analyzed and categorized within the scope of the research, to reach the estimated sequential matrix, in order to be tested within the empirical research in the following chapters.

Part One: Inspirational Theorists for the cultural and Behavioral Patterns' generation (Generation of B.C's)

4.2 Generating the cultural and behavioral patterns of an entire space

This part aims at providing comprehension towards the issue of entire spaces, thus the behavioral and cultural patterns which have an influence on a dynamic space. Accordingly, this part highlights the critical examination on the way in which various theoreticians have tried to understand the nature of urban planning and human behavior over the past 150 years. Within this study, urban theorists are chosen, in order to differentiate between the theoretical evolutions between their urban concepts via a chronological timeline, which is thought to be an important asset to this research. Moreover, it spans the period that many thinkers and theoreticians managed to identify, and grasp the essence of urban development and the entire significance on so many levels either, politics, economics, culture ...etc.

Consequently; this chapter might point out some of the main issues that can facilitate distilling certain themes that can be implemented on the local case studies that follows. Hence, the eleven main sociologists and urban designers are, Thomas Gordon Cullen, George Simmel, Mike Davis, Amos Rapoport, Max Weber, Alfred Louis Kroeber, Jane Jacobs, Emile Durkheim, and Christopher Alexander, Figure 4-1.

1	Emile Durkhiem	Sociological conception
2	George Simmel	Metropolis Culture
3	Max Weber	Capitalism& the city
4	Alfred Louis Kroeber	Cultural & behavioral patterns
5	George Murdock	Ethnography & Cultures
6	Talcott Parsons	Envrnmental social structure
7	Jane Jacobs	Urban Renewal & City dwellers
8	Thomas Gordon Cullen	Urban space stucture
9	Amos Rapoport	Culture & the built environment
10	Christopher Alexander	Urban networks and services
11	Mike Davis	Classes conflicts and Privitytization

Figure 4- 1 : A Chronological timeline table showing the chosen theorists with their significant contributions, Source: (Researcher)

- 1. Emile Durkhiem** (1858-1917) A French sociologist. One of those who invented the structural functionalism. Basically his contributions were specialized in how societies could integrate and modernity era. Due to his point of view, ethical and social structures were endangered by technology and mechanization: , hence, his first major sociological work was “ The divisions of labor in society” in 1893 (Emile Durkhiem; edited by Steven Lukes, 1982)
- 2. George Simmel:** (1858 –1918) was a German sociologist, theorist, and critic.Simmel examined social reactions and cultural phenomena within various communities in terms of "forms" and "contents" with a transient relationship; form becoming content, and vice versa, dependent on the context. Consequently, he was the first author within the structural styles of reasoning in the social sciences. Simmel actually, was

the advocate of urban sociology, symbolic interactionism and social network analysis, within his work in the metropolis (Weinstein, 1950).

3. Max Weber: (1864-1920) He is a German sociologist and specialized in political economy. He had special contributions in the field of Ethnography, since he made entire relations between Protestants and capitalism. He also analyzed the bureaucracy phenomenon and he had special point of views concerning the relation between bureaucracy the entire society. Moreover, He created a methodology which deals with the sociology and religion interrelations, political parties, and the economy (Max Weber, Guenether Roth, 1963).

4. Alfred Louis Kroeber (1876 –1960) He was an American anthropologist. During his lifetime, he was well-known as the "Dean of American Anthropologists". Kroeber and Ronald B. Dixon had authentic contributions in the historical classification of American languages in North America, surely interested with theoretical groupings, based on common languages (Kroeber, 1963).

Furthermore, from his well-known books, "The Nature of Culture" (1952), " Culture: A Critical Review of Concepts and Definitions (1952) and "Anthropology: Culture Patterns & Processes" (1963).

5. Chicago ecologists.

a. George Murdock. (1897–1985), He was an American anthropologist. He is well-known due to his tentative approach to the anthropological studies and his memorial works on Old World populations.

In 1954, Murdock established a list of known cultures and named it, "*the Outline of World Cultures*". In 1957, he published his first cross-cultural data set, the *World Ethnographic Sample*, consisting of 565 cultures coded for 30 variables.

Also he had his special contributions in Africa, despite the low professional experience there (Study.com, 2005).

Murdock published “*Africa: Its peoples and their culture history*”, which is considered a beneficial book concerning the African ethnic groups . also one of his most important publications in the Anthropology field is “*Ethnographic Atlas: A Summary.*” In 1967.

b. Talcott Parsons: (1902 –1979) He was an American sociologist .Talcott Parsons, Parsons granted the well-known theory of social evolution and a detailed analysis of the progress of the world history (American Sociological Association, 2010).

6. Jane Jacobs : (1916-2006) An American Canadian writer and was popular because of her significant criticism for urban renewal . Jane Jacobs worked to block urban renewal projects that would have destroyed local community of the neighborhoods, and created isolated, abnormal inactive urban spaces. She called for recreation of dens, mixed use neighborhoods as patterns of vivid urban spaces. Her book “*The Death and Life of Great American Cities*” (1961) argued that urban renewal, which did not respect the needs of most city inhabitants. The book also introduced sociology concepts such as "eyes on the street" (Jacobs, 1961).

7. Thomas Gordon Cullen: (1914 - 1994) was a significant English architect and urban designer, who was a key motivator in the urban design movement. He is basically known for the book *Townscape*, which was first published in 1961. His techniques consisted broadly of sketchy drawings that showed a certain clear understanding of his ideas, and these had a noticeable influence on subsequent architectural illustration styles. He also illustrated several books by other various authors, before writing his own book, (which was based on the idea of *Townscape*) in 1961. *The Concise Townscape* has consequently, been republished around 15 times, proving to be one of the most famous books on *Townscape* and Urban design in the 20th Century (Cullen, 1971).

8. Amos Rapaport (28 March 1929 till present) He is an architect and one of the inventors of Environment-Behavioral Studies (EBS), and

Anthropological studies and its influence on the built environment. He is the author of over 200 academic publications in this field. His writings have been centralized mainly on the role of cultural variables, cross-cultural studies, and theoretical development and synthesis. He assumes that the interaction with various groups has a distinct influence on the built environment; furthermore, different cultures and behavior have a significant impact on the built environment.

His motivational book “*House, Form & Culture*” investigates how culture, human behavior, and the environment influence the form of space and the built environment as well. In addition, other important books are “*The Meaning of the Built Environment: A Nonverbal Communication Approach*” in 1982, “*History and Precedent in Environmental Design*” in 1990, and also, “*Culture, Architecture, and Design*” in 2003

9. Christopher Alexander: (born 1936 in Vienna, Austria - till present) is an architect noted for his theories about design as well as over 200 building projects around the world. Understanding the users’ needs, and believing that their requirements are priorities of design, he produced and validated (in collaboration with Sarah Ishikawa and Murray Silverstein) a "pattern language" to generate the power of the architect to build within these patterns.

The concept of the language of patterns appears to apply to any complex engineering task, and has been applied to some of them. It had a special influence on software engineering where patterns have been used to document collective knowledge in the field. (Alexander, 1987).

10. Mike Davis (born 1946 till present) is an American writer; political activist, urban theorist, and he had special writings throughout the case of informal settlements and slums all over the world. He is mostly popular for his investigations of power and social class in his native Southern California (Davis, 2009).

In his well-known book “*Planet of Slums*”, Davis is not interested in such a "reforming" approach for treatment of slums’ issue. He claims that most

development projects have failed in recent years because they treat the symptoms rather than the cause; economic and political inequality which is the main cause of the issue from his point of view. From his famous writings are “*The Ecology of Fear*” written in 1998 and also, “*City of Quartz: Excavating the Future in Los Angeles (1990, 2006)*”

4.2.1 Analysis of the basic theories to find the physical attributes.

The main writings of the theorists were analyzed beginning from *Emile Durkhiem*, who wrote about the rules of the sociology and how the labor’s society could interact with the entire community (Emile Durkhiem; edited by Steven Lukes, 1982). Then, *Max Weber* talked about the Ethnic groups and relations between the society and the economy, which flourished in his books “General economy history” and “Economy and Society” (Max Weber, Guenether Roth, 1963).

Alfred Louis Kroeber & Amos Rapoport had significant contributions in analyzing the Ethnographic criteria of a certain community and *Rapoport* illustrated the influence of those factors on the urban space. It was crucial also to understand the urban space and how the behavior of various communities had a certain impact on its form and image, that was explained by *Jane Jacobs, Gordon Cullen* and *Christopher Alexander* (Cullen, 1971), (Jacobs, 1961), (Alexander, 1987), table4-2.

4.2.2 Synthesis of the basic theories to find the physical attributes of the Behavioral and Cultural patterns.

After the analysis of various writings from the chosen theorists within the socio-culture, Ethnic Groups, Community development, urban design within communities and the social groups within informality, the researcher chose certain keywords and made interrelations to find the physical attributes of the behavioral and cultural patterns and also the sub-attributes related to them, in order to be synthesized again to form the behavioral and cultural patterns (B.C)s, figure 4-1. Consequently the (B.C) s will be rehearsed in the following part.

Table 4-1: Theories of cultural and behavioral patterns. Source (Researcher)

Theorist	Emile Durkheim (1858-1917)	Max Weber (1864-1920)	Alfred Louis Kroeber (1867-1960)	George Simmel (1868-1918)	Talcott Parsons & George Murdock	Thomas Jordon Cullen (1914 - 1994)	Jane Jacobs (1916-2006)	Christopher Alexander (1936-till present)	Amos Rapoport (1928-till present)	Mike Davis (1916-till present)
Writings	1.Division of labor society. 2.Rules of sociological methods 3.Social satisfaction	1.General economy history 2.Economy and society 3.The protestant ethic and the spirit of capitalism	1. The Nature of Culture 2. Style and Civilization 3. Anthropology: Culture Patterns & Processes	1.Metropolis and mental life 2.Philosophy of money 3.Structural Analysis: From Method and Metaphor to Theory and Substance.	1.Ethnographic Atlas: A Summary. 2.Ethnography:Standard Cross-Cultural Sample” In1969.	1.The Concise Townscape 2.Townscape	1.The economy of cities 2.Cities and the wealth of Nations 3.The death & life of great American cities	1.A New Theory of Urban Design 2.Nature of Order	1.Culture, Architecture, and Design 2.The Meaning of the Built Environment: A Nonverbal Communication Approach	1. The planet of Slums 2. Ecology of Fear 2. City of Quartz: Excavating the future in Los Angeles
Concepts and Theories	Sociology and social action Division of labor Morality and society Developed a political manuscript on the civic morals of the society. The state is important in modern society	Urbanization under specific economic and political circumstances was a necessary <u>linkage</u> in the chain of conditions leading to capitalism system	Understanding the context of <u>cultural phenomena</u> The cultural patterns of each group, and the influences on their behavior.	Spatial activity is dependent on the extent of the individuality against power The consequences of <u>economy on social relationships</u>	Each society has its own common practices and beliefs theory of <u>social evolution</u> and a concrete interpretation of the "drives" and directions of world history	Cullen had different definitions and concepts for <u>city image</u> , he considered the city's image as a 3d image . The great role of time in performing the image of an urban space.	Urban expansion and development are distinctly different Urban renewal policies during the 1950s destroyed communities & <u>created isolated urban spaces</u>	Alexander identifies 15 properties of centers that contribute to the degree of life experienced by an observer. The relation between urban space and its users grasped the attention of several scholars, including architects and urban designers	culture is a complex and complicated group of interrelated things that affects behavior The built environment is usefully conceptualized as the organization of space, time, meaning, and communication	The World Bank policies and its structural adjustments programs are responsible for Africa's urban crises, in collaboration with local elites who close their eyes as they move to the suburbs to live in gated communities.
	State is a place for representatives assemblies, debates, and conscious awareness He was interested in studying three main realms of sociology: <u>Social psychology</u> <u>Morality in society</u> Economic phenomena <u>Dynamic density:</u> Refers to the number of people in a society and the amount of interaction that occur between each other	The city is defined on the basis of political and administrative conception of <u>space control</u> . He created a methodology and a body of literature dealing with the political parties, religion sociology, and small-group behavior	Cultural performances represent the actual set of cultural attributes expressed by an individual, a group, or a population Cultural patterns are divided into 4 main components: Beliefs, values, norms and social practices	The stranger and the community Urban personality as the basis of urban culture, and how residents perceive the community	The entire relations between history and <u>ethnic groups</u> . the <u>social structure</u> refers to the network of social relationship which is created among the human beings when they interact with each other according to their statuses in accordance with the patterns of society.	<u>Townscape</u> is a reaction generated by the composition of a group not by individual buildings. Many actions can occur within groups which is impossible to be done by isolated buildings. The theories of serial vision and urban sense to attain a sensible and comprehensive urban development.	She criticized urban planners for always trying to impose an artificial order into their city planning, which weakened the <u>linkage relationships</u> within the community. Cities consist of many variables that are interrelated into an organic whole, that affects the degree of social activity within the space.	Although humans often experience a large number of components or relationships as complexity, multiplicity does not automatically result in disorder The idea of a <u>pattern language</u> appears to apply to any complex engineering task, and has been applied to some of them.	the city is a collection of different groups or clusters of people homogenous along various characteristics, with different lifestyles reflecting different cultures and subcultures. Socio-cultural variables need to be understood before understanding differences in spatial organization comprehensively.	The <u>social structure</u> of the elite classes within the phenomenon of globalization, and how that influences the accessibility of an entire space. The privatizing of public spaces and the subsidizing of new <u>exclusive enclaves</u> .
Diagrams										

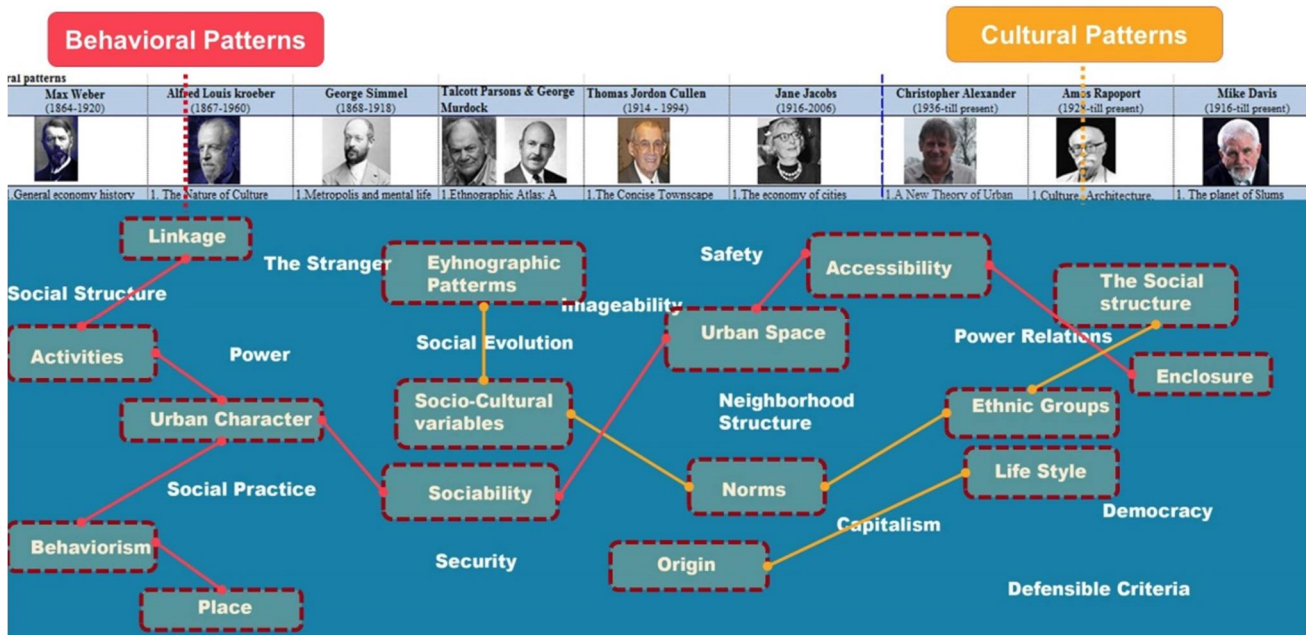


Figure4- 2 Shows the chosen keywords and the interrelations between various attributes to form the behavioral and cultural patterns. Source: (Researcher).

Part Two: The Physical attributes of an interactive space (The Behavioral and Cultural patterns Generation)

4.3 The Behavioral patterns

Throughout history the behavioral anomalies of humans raises many important question for the scholar, practitioner, and layman. Therefore, the intricacies and factors that suggest possible explanations present is a subject that many people find interesting to read about. Much of the interest comes from the personal things that all people struggle with individually throughout life. Therefore, human behavior forms a core subject of study in the field of psychology, sociology, and educational research generating research questions, research, and opinions.

The Behavioral patterns are defined in Oxford Dictionary as:

“A recurrent way of acting by an individual or group toward a given object or in a given situation”.

Moreover, according to Max Weber and Luther Gulick, who had motivational contributions towards the behavioral patterns, they found that the cornerstone of a

community development is directly proportional to the human population and the surrounding environmental problems (Daniel Katz & Robert L. Kahn , 1987)

Throughout the brief view of the biography and main concepts of each philosopher, the research's scope dealt with their ideas and reformed the physical attributes within the behavioral pattern.

Those attributes are:

- **Urban Structure.**
- **Activities and Services.**
- **Social Identity.**
- **Economic Indicators.**
- **Social Indicators.**

4.3.1 The Urban structure (Urban attributes) of an interactive space

Urban structure, or the art of building cities, is the method by which man creates a built environment that fulfills his aspirations and represents his values. One value which is becoming increasingly important is care for the natural and built environment for the benefit of future generations

Urban structure, therefore, can be described as a people's use of an accumulated technological knowledge to control and adapt the environment in sustainable ways for social, economic, political and spiritual requirements. It is the method learned and used by people to solve the total program of requirements for city building. The city, therefore, is an element of a people's spiritual and physical culture and, indeed, is one of the highest expressions of that culture (Cullen, 1971).

Death and Life is a reaction to the devastating results of post-war American urban renewal. Jacobs' 1961 landmark critique directly attacks what she calls "orthodox" city planning and rebuilding. She documents the failures of modernist planning ideas and argues that the various foundations of intellectual planning history all suffer from a misconception of how cities actually work (Jacobs, 1961).

Jacobs' notion that the best ideas on livable cities originate from close observation of city life rather than deductive theories or master plans was a radical new approach in the U.S. during the 1960s and changed the way planners and city dwellers perceive cities today. Even though Jacobs wrote *Death and Life* nearly 50

years ago, her ideas and conceptions of how to make cities livable are as relevant today as they ever were, particularly in American cities where large-scale urban redevelopment projects often lack diversity and vitality just like the slum clearance and urban renewal projects Jacobs witnessed five decades ago (Jacobs, 1961).

4.3.1.1 The city and the metropolis

The deepest problems of modern life derive from the claim of the individual to preserve the autonomy and individuality of his existence in the face of overwhelming social forces, of historical heritage, of external culture, and of the technique of life. The fight with nature which primitive man has to wage for his bodily existence attains in this modern form its latest transformation.

George Simmel's essay "The Metropolis and Mental Life" (1903) was originally a part of a series of lectures carried out by Simmel and his associates discussing different aspects of social urban life at the turn of the 19th century. In it, Simmel illustrates some aspects of modern urban culture. In spite of being written at a time in which cities were very different from contemporary megalopolises with the biggest cities approaching one million inhabitants, Simmel's "The Metropolis and Mental Life" remains to a great extent relevant to this day. (Weinstein, 1950)

"The Metropolis and Mental Life" discusses the individual's position in the big city urban life and his psychological coping with its form of existence. For Simmel, the big city is dominated by objectivism (as opposed of subjectivism, with the individual at the center). Human interactions in the metropolis become short and instrumental, lacking the emotional and personal involvement of small communities. The city's inflation of sensory stimulus coerces man into being rational and instrumental in his social interactions, and he has to screen out much stimulus in order to psychologically be able to cope with its rate. Therefore, the metropolis mental life are essentially intellectual, not emotional. People are enslaved to time, working under the clock. Everything in the city is measurable, qualitative value is reduced to quantitative and this yields what Simmel terms as "blasé" – superficiality, grayness, indifference and alienation.

In certain seemingly insignificant traits, which lie upon the surface of life, the same psychic currents characteristically unite. **Modern mind has become more and more calculating.** This was clear in his quotation,

“Punctuality, calculability, exactness are forced upon life by the complexity and extension of metropolitan existence and are not only most intimately connected with its money economy and intellectualist character. These traits must also color the contents of life and favor the exclusion of those irrational, instinctive, sovereign traits and impulses which aim at determining the mode of life from within, instead of receiving the general and precisely schematized form of life from without.”

At this point, the quantitative aspect of life is transformed directly into qualitative traits of character. The sphere of life of the small town is, in the main, self-contained and autarchic. On the other hand, Simmel describes the metropolis as a place of liberation from the binding mentality of the small community, thus granting the individual more space and freedom to independently define himself (American Sociological Association, 2010).

Urban indifference is manifested for Simmel in indifference to difference, that is the incapacity to relate to differences between things (object of people). Things have no intrinsic value which would make them more worthy than others, they are only measured by the external objective value of money and time, and are therefore all the same.

4.3.2 Activities and Services.

Traditionally, a public space is differentiated in terms of the rules of access and the nature of control over the entry and then the rules of use inside the space. In the age of modernism, spaces are privatized demarcated by state –regulated rules of private property use, this kind of space is not easily accessible to the public, accordingly access and use is regulated and limited to a certain number of people (Schmidt, 2011).

In that sense; communities do not just preserve social links and traditions of interaction, but even sometimes economic and social pressures threaten to break up those social bonds between people. However, people also come together in new ways, undertake new energy and communal resources. With regard to that, both urban theorists Louis Wirth and Jane Jacobs discussed the issue of the deteriorated

social ties between the citizens of one community, and how the type of activities that are practiced in one space influence the urban space.

Wirth's contribution to the urban sociology was mainly concerned with the sociological definition of the urban life, which looks beyond the physical structure of the city to the extended mode of human group of activities within the different life patterns. In his writings, Wirth argued that (density, land values, rentals, accessibility, the type of activities and prestige), all determine the form of various areas of the city as places of social interaction for various classes of the entire population.

He explained how the city consequently tends to resemble segments of social entities, mostly by living conditions that have no emotional ties. The segmental character and utilization sense of interpersonal relations in the city is always reflected in the proliferated spatial expression of the proliferated spatial expression of the privatized institutions (Wirth, 1938).

Moreover, with an increase in number of users of one space, the tendency to the differentiation act and specialization in interaction take place, since only in this way the area can support the increasing numbers (Wirth, 1938).

Density is one of the factors that reinforces the sense of numbers in the diversity of users of the space and the intensity of the social activities, and also in increasing the complexity of the social structure subsequently. Wirth also argued that the heightened mobility of individuals within the space automatically brings them within the range of stimulation by a greater number of diverse individuals with different backgrounds. In that sense, he identified three key characteristics of cities that influence the capacity of human activities within a space. Thus, the three

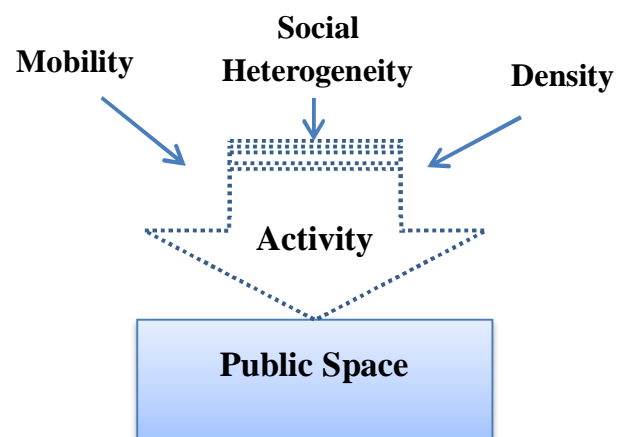


Figure4- 3 variables influencing the public space according to Stout 2011.

factors, Density, Social Heterogeneity and mobility, are not separate from each other (Stout, 2011).

4.3.2.1 Movement and Transportation

Jane Jacobs in her book “death and life of great American cities”, published in 1961 marked a turning point in the gradual deterioration of public life, thus, she presented a more detailed view on the urban space and its sidewalks as well. (Jacobs, 1961)

Jacobs explained the importance of the sidewalks of the city as a whole, and described them in her book, “*A city sidewalk by itself is nothing. It is an abstraction. It means something only in conjunction with the buildings and other uses that border it, or border other sidewalks very near it. The same might be said of streets, in the sense that they serve other purposes besides carrying wheeled traffic in their middles. Streets and their sidewalks, the main public places of a city, are its most vital organs.*” Thus Jacobs proposed a certain criteria for city streets and sidewalks as follows,

First, there must be a clear demarcation between what public space is and what private space is. Public and private spaces cannot interfere into each other as they do typically in suburban settings or in projects.

Second, there must be eyes upon the street, eyes belonging to those we might call the natural proprietors of the street. The buildings on a street equipped to handle strangers and to insure the safety of both residents and strangers, must be oriented to the street. They cannot turn their backs or blank sides on it and leave it blind.

And third, the sidewalk must have users on it fairly continuously, both to add to the number of effective eyes on the street and to induce the people in buildings along the street to watch the sidewalks in sufficient numbers. Nobody enjoys sitting on a stoop or looking out a window at an empty street. Almost nobody does such a thing. Large numbers of people entertain themselves, off and on, by watching street activity.

In the current days cities are taking charge when it comes to their streets.

There are certain guidelines for streets and sidewalks in public spaces, in order to maintain safety and identity of place.



Figure4- 4 showing recommendations of streets and pathways from UK department for Transport and Department for Communities and Local Government.2012

These guidelines according to *UK Department for Transport and Department for Communities and Local Government* are as follows,

1. **Livability and Placemaking:** Making streets places to linger and places to cherish.
2. **Access and Mobility:** Improving the public right-of-way for all users.
3. **Pedestrian and Bicyclist Safety:** Supporting design improvements such as raised crosswalks, bulbouts, bike lanes, and roundabouts that improve safety for pedestrians and bike riders.
4. **Flexibility:** Giving designers choice, rather than a one-size-fits-all approach.
5. **Context:** Designing streets based on their place within a hierarchy of streets and their relationship to surrounding land uses, densities, and commercial activities.

6. **Balance:** Maintaining several functions in the street that include safety, roadway infrastructure, environmental sensitivity, and others.
7. **Healthy Environment:** Minimizing negative environmental effects and creating places that encourage walking and exercise.
8. **Visual Excellence:** Improving the overall aesthetic with an emphasis on high quality, lasting design and materials.

4.3.3 The economic attributes.

Egypt, the fifteenth most densely populated country in the world (UN-Habitat, 2003), has been experiencing a rise in poverty and food insecurity for past three years, according to reports released by the United Nations food agency and its partners.

Twenty six percent of Egypt's population lives in poverty, while forty nine percent of Upper Egypt cannot provide the basic needs of food, said Egypt's Central Agency for Public Mobilization and Statistics. Moreover the unemployment rate reached 13.2 percent and that number almost doubled in women totaling at 24.2 percent, in the year 2010 (CAPMAS, 2010).

4.3.4 The Social Indicators

The rise of the market economy forces had an impact on the traditional forms of the social association and community bonds, which includes the development of the controlling power of the state and investors in directing the social life and the mechanism of the social solidarity within the community, which in most cases leads to a social conflicts between the different classes.

4.3.5 The Social Identity



That idea of social conflict is a Marxist-based social notion, which argues that individuals and groups of social have various amounts of materialistic and non-materialistic resources (The rich vs. the poor). Thus, this controversy produces new forms of social behavior within various groups of the community.

In that regard; Tonnies assumed that all social relationships are created by what is called “Human Will”. That only exists through the will of individuals to associate and communicate or in modern society.

He also argued that traditional societies produce interpersonal ties of a more ‘organic’ and binding nature. He developed a concept that is referred to as (Gemeinschaft & Gesellschaft), which are two different types of social ties, which are based primarily upon natural will and rational will. Tonnies basically distinguished a tension between two types of social grouping (Tönnies, 2001):

1. **Gemeinschaft** (community): It’s a German noun, which means community. Basically it’s based on feelings of being together and on mutual bonds, which are felt as a goal to keep up their members and to be settled as the main goal of life.
2. **Gesellschaft**(society):The second German noun, which is characterized chiefly by formal organization, impersonal relations, the absence of generally held or binding norms, and a detachment from traditional and sentimental concerns, and often tending to be rationalistic and secular in outlook.

Table4- 2: showing the difference between Gemeinschaft and Gesellschaft. Source: (Researcher based on Tonnies,2011)

Gemeinschaft 	Gesellschaft 
<ul style="list-style-type: none"> • Neighborhoods 	<ul style="list-style-type: none"> • Businesses
<ul style="list-style-type: none"> • Religious groups 	<ul style="list-style-type: none"> • Corporation
<ul style="list-style-type: none"> • Co-workers 	<ul style="list-style-type: none"> • Government
<ul style="list-style-type: none"> • Social clubs 	<ul style="list-style-type: none"> • Cities

On controversy, Mike Davis’s analytical views about the issue of powerful classes and their control over the city and its urban resources are symbolized in what he calls ‘*Militarization of the City*’. He discussed how the elite classes prefer to isolate themselves behind walls guarded by private security and electronic surveillance in new suburbs, in an attempt to segregate their elite neighborhoods from the strangers and to control who can access their gated spaces (Davis, 2006).

This fortification is materialized in monumental architectural expressions and police barricade streets. He condemns that obsession with the physical security systems and with the architectural policing of social boundaries in which has become the core of modern urban restructuring that emerged since 1990s worldwide, in a serious attempt to merge between urban design, architecture and police apparatus into a single comprehensive security system (Davis, 2006).

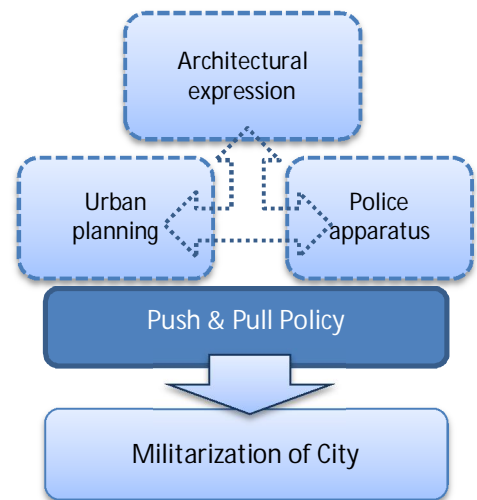


Figure4- 5: Militarization of City due to Davis, 2006 (Source : Researcher)

Thus the Behavioral patterns are concluded as follows:

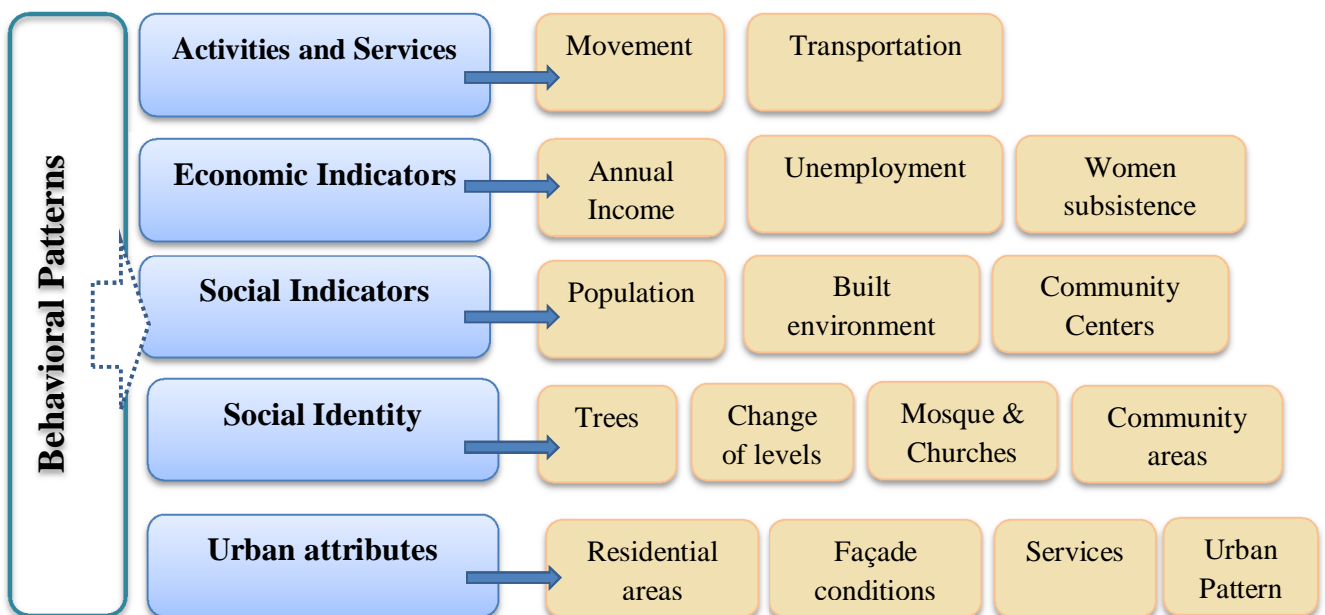


Figure4- 6 The concluded Behavioral patterns due to the conversion of the non-Physicals to Physical attributes (Source: Researcher)

4.4 The Ethnographic criteria (Cultural Factors)

The studied cultural factors stem from different streams of thoughts and various theories, based on readings and interviews with several Egyptian intellectuals, that all converge at a particular point, and within the analysis of the presented theorists. Those cultural factors are developed through the research as outcomes of the whole analysis process including the case study areas' analysis; the terms are reached based on grounded theory interpretation methods explained in the methodology.

Those factors are interrelated within a constellation; they act as variables within informal settlements in Cairo, through certain unknown mechanisms together with the urban physical characteristics of the area, and they direct the urban development process of this area, and are related to use of space and power relations. The factors will be explained as follows.

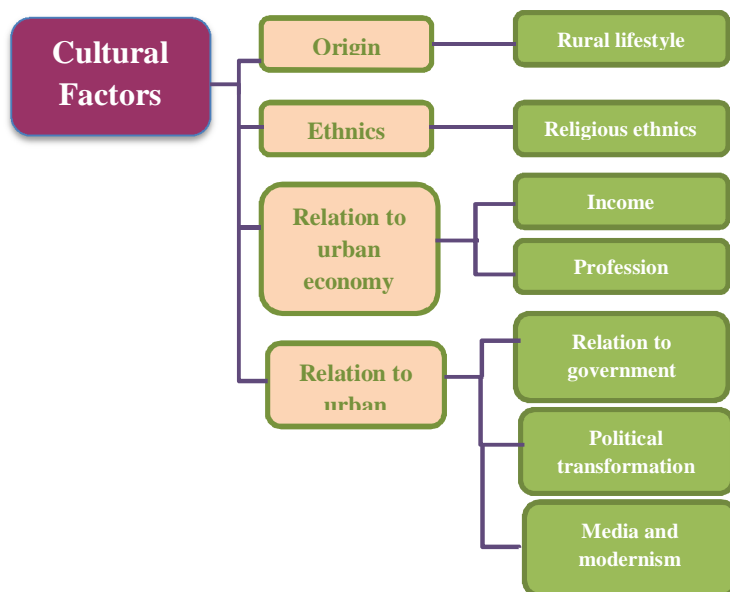


Figure4- 7 Diagram showing the concluded Cultural patterns (Source: Researcher)

4.4.1 Origin

It is obvious in many Cairo 'ashwa'eyat areas that groups of the residents originate from different places in the Upper Egyptian region. In several cases

even from the same village some families are located in certain neighboring streets in an area. According to *El-Safty* (2011), rural-urban migration caused the “*realization*” of today’s *Cairo*. Choosing the “*Upper Egyptian*” and “*Old Cairenes*” as the targeted groups of studied residents in the case studies were done to try to know more about these two groups and their traditional culture, within its original context in the rural villages, or even in the destination districts of Cairo as previously investigated by different researchers.

Upper Egyptians known as *Sa’idi* have their own traditional “*subculture*” and are known for the dignity and pride for their cultural identity, which makes them maintain their beliefs or cultural characteristics (Miller, 2006).

El-Sioufi, believes that ‘*ashwa’eyat* are becoming more heterogeneous over time, and this remains to be verified. Commenting on the cultural factors that might influence the traditions based on origin as a cultural factor, he says: “*Earlier on, in the 70’s and 80’s, people used to bring their relatives from the village to settle next to them. You could find groups from a village from Upper Egypt or the Delta living together in one informal settlement or another. They would obviously bring their cultural customs and habits to that area.*”¹

El Menyawy, agreed that the categorization of ‘*ashwa’eyat* should not only be based on the type of land and its physical conditions, but also on the subgroups of residents in the *areas*, their origins and subcultures. He mentioned that subgroups based on origin form a league (*Rabta*)² adding: “*The leader of any of such league could be illiterate, but he acquired some sort of Knowledge and wisdom, which supports him to play the role of a Judge, and in most cases he is well respected and obeyed by the people belonging to his league*”³. He noticed that people in ‘*ashwa’eyat* have their own mechanisms for *cooperation*, for example they help each other in the construction process (e.g., building a house

1 An Interview with dr. Mohammed El-sioufy in 2014, Professor of Urban planning , Ein Shams University

2 The league supports them in different social events like (weddings- funerals) and it helps them to consolidate together.

3 An Interview with dr. Hani El-Meniawy in 2014, establisher of the Center for Appropriate Development Architecture & Planning Technologies, which focuses on improving the materials and techniques that people use when constructing housing, community facilities, and other public spaces.

or adding a new floor for a son). Cousins or relatives, or even friends and neighbors, who are working in such professions, can help do the job, which ends up with bringing the cost down. He advises that to understand the cultural factors, social events need to be observed (e.g., weddings, funerals, etc.) reflecting the traditions of each group.

El-Safty commented that Upper Egyptians form a big percentage of the *'ashwa'eyat* residents. They could be easily characterized as a “*conservative traditional society*”, since it takes them so long to change, and they are not so flexible. Despite this, as mentioned before – referring to the term “*culture*” as always being in a *dynamic state*, which is always subject to change – Upper Egyptians are still able to sustain their remarkable conservative traditions and norms. Upper Egyptians are chosen to be the focus of this case study. There are many factors that led to the perception that Upper Egyptians are different and distinguished among the Cairene population (Miller, 2006). Among these are: 1) the historical divide between Upper and Northern Egypt; and 2) the economic underdevelopment of Upper Egypt. These reasons have crystallized the stigmatized vision of Upper Egyptians (Miller, 2006).

The bad economic conditions in the southern governorates of Egypt contribute to the suffering of the residents: low incomes, and low qualities of education and health care.

Survival migration is one theory that explains how the migrants have no other option to improve their lives (Bayat, 1997).

Family and kinship

Across cultures, the family is the basic social structure most likely to meet individual needs

and expectations (UN-Habitat, 2003).which is argued to be applicable in the case of Egypt. Miller reached two main findings after doing her research about the “personal networks” of Upper Egyptian migrants’ in Cairo (1994-1998). The first one was the relative importance of regional-based, village-based or kin-based networks among migrants and the importance of the ethic of *qarâba*

“closeness”, which representatively divides the society between “kin” and “foreigners” (Miller, 2006).

Rural lifestyle

Most of the Upper Egyptian villages are inhabited by rural society that mainly depends on agriculture as the main source of income. They are hard workers, familiar with long work hours for cultivating their crops.



Figure4- 8 Mud brick house aside by a concrete house in Ghawassa village (Source: (ElMoeulhi, 2014)



Figure4- 9 Mud Bricks' House (Source: Masr ElKheir foundation,2014)

Those who migrate to work in Cairo usually work as street vendors, or in the construction field. *El-Safti* says that the migrants usually bring their *rural lifestyle* with them when they migrate to the city, which is apparent in some of their use patterns of space. For example, the extension of internal living space outside the house is not only due to a lack of space, as in the village the use of *open space* is maximized (e.g., a courtyard inside the traditional mud-brick house), while in the city the use of closed space is maximized (figure 4-8, 4-9).

Upper Egypt norms and traditions could be summarized as follows:

Conservative society, strong family kinship relations, respect for elders, male dominated community and gender inequality⁸. In addition, honor has a very high value, especially if related to feminism and sexuality (G.Zohry, 2002).

The kinship traditions of Upper Egyptians place great importance on the respect for elders, and each group of people who belong to the same origin has a leader.

These leaders intervene in conflicts between households. These inter-family and intergeneration links also strongly influence economic and social networks in the area. (G.Zohry, 2002) tries to address the motives for rural urban migration by Upper Egyptians.

4.4.2 Ethnics (Religion)

For the Egyptian society ethnics is only divided to the two types of religions (Islam & Christianity). The Egyptian culture is substantially influenced by religion.

Religion has played an important role in the life of Egyptians in general throughout history, and has impacted many sides of their lives, including economy and political systems. Egypt converted to Christianity (predominantly Coptic Orthodox), which was the majority religion during the 4th to 6th centuries A.C (Zaafarany, 1998)

Egyptians profoundly believe in God and His ultimate control over events. Muslims and Copts are confident about the totality and virtue of their religion – their ‘world view’ – and it is part of their daily life (Hafez, 2004:17). Throughout history, Egyptians’ way of understanding and practicing Islam used to be moderate Sunni (Deighton, 1946).

In 1992, *Gama'a Islamiyya* (Islamic Group) in the North Giza ‘*ashwa*’eyat of



Figure4- 10 Muslim’s pilgrimage of House’s owner on the façade (source: Mahmoud Sakr, 2012)



Figure4- 11 Christian’s pilgrimage of House’s owner on the façade (source: Mahmoud Sakr, 2012)

MuniraGharbiyya declared themselves a “state within a state” before they were attacked by the police, which is a proof of how powerful such groups at that time were spread within different Upper Egyptian rural villages, as well as in ‘*ashwa’eyat* (Dorman, 2009). This raised the issue of the importance of keeping ‘*ashwa’eyat* under the surveillance of the state to avoid the repetition of such events (Dorman, 2009).

Another change in the perspective of religion in the life of Egyptians is related to the migration to Gulf countries. Amin (2011) argues that the emergence of superficial religious features in Egyptians’ daily life is an influence from the way Gulf countries interpret Islam, affiliated with the materialistic consumption lifestyle. With regards to the place of origin, Religion in Upper Egypt is represented as it is in the entirety of Egypt with Muslims and Christians composing the two main factions within Egyptian society sharing many common values (Amin, 1998). Upper Egyptians are a conservative, religious society, meaning that religion has a place in their daily life as they refer to their inherited identity with its norms, traditions and customs. Religious expression is represented on the walls of some of the Muslim residents in Upper Egyptian villages. Also Christians express their religious identity. The pilgrimage journey is a good example, as it is usually represented on the façades of houses. Mosques play a role in the daily life in the village.

It is not only a place for prayers, but also it has a social organizational role within the residents. Religion is considered a source of certain values that are practiced by the residents. For religious Egyptians, regardless of the level they practice Islam, religion has a role to play in many life aspects: starting with Egyptian laws that are to a high extent extensions of the rules of Islam — the code of ethics, or the value system of Egyptians (what is fine to do and what should not be done, referred to as ‘*aeab*’) stems from Islam. Religious perception of income as something distributed by God, or “*Rezq*” is also known in Egyptians way of thinking, fig.4-10, and 4-11. Religious institutions, in this case the mosque and the church, form a part of this factor, playing an active role in the

daily life of the residents through the role of the religious leaders (Sheikhs and priests).

4.4.3 The relation to urban society

The relation to the city means; how the residents adapt to and deal with the new fact that they are living in the city. As a cultural factor, this is tested by analyzing each of the areas residents' relations to the government, represented in the decisions taken by the government for their area, their relation to Cairo residents in planned formal districts, and how they perceive each other (Shawkat, 2013).

Also the researcher examines *the media* and the way they – as '*ashwa'eyat*' residents- and their areas are presented, the modern lifestyle, and how it is practiced in each of the areas, and last but not least, the political transformation and the January revolution and the interrelation to each of the studied case study areas.

4.4.3.1 The Government

It carries the responsibility of the city management. The amount of trust in the state by the residents influences the type of relation. Ghannam (2002), in her ethnography conducted in one of Cairo poor urban areas "*El Zawya El Hamra*",⁴ discussed the state policy and its impact on the urban life of Cairo's residents; people's views on the state and the state's roles were shown through many examples taken from daily life of the area's residents. She argues that "*People also often view the government as a unified entity, especially when they discuss the government's role in providing and limiting their access to services and resources*" (Ghannam, 1998)

Although her research is not about '*ashwa'eyat*', it presents an in-depth analysis about the lifestyle of *Cairo's* urban poor, who have almost the same living conditions of the well-established urban informal areas, with the only difference being the legal situation and the security of "land tenure".The

4 A public housing project initiated within Sadat's era.

residents perceive the government, its officials and its police as if they are one entity “*Elh’ekouma*”— meaning the government. Residents think they are neglected and deprived of services because they are poor. She argues that the formation of urban spaces and cultural identities are strongly influenced by *local, national, and global forces*, and ordinary practitioners in the city have an important to understand all this (Ghannam, 1998).

Government affects the development of ‘*ashwa’eyat*. Hassan (2000) claims that the relation between government and ‘*ashwa’eyat* residents is controlled through several factors, including access to housing, which is a problem, then through the security of tenure of their self-help residence. In many cases ‘*ashwa’eyat* residents, whether they are “impoverished” rural migrants or low-income former Cairo residents, “live in constant fear of private and public harassment” (e.g., from police, arresting drug dealers or developers who have plans for “*this particular spot and are sending the bulldozers*” (Hassan, 2000).

4.4.3.2 The Media and formal Cairo residents

The role of the Egyptian media, especially television, has played several roles in the context of formal/informal relations – or ‘*ashwa’eyat* on one side, and the rest of the society on the other side, including *Cairo* residents of formal districts. Television presents how formal society, including the state, portrays ‘*ashwa’eyat* areas and their residents. This rendered marginalization and not integration, according to Elsheshtawy (2006, p. 297): “*or cities in developing countries, in this case the Middle East, the danger is not from external forces (also known as orientalist, colonialist, imperialist, etc.) but from the inside, since local decisionmakers view the general public as a threat that has to be dealt with and contained. In doing that a large segment of the population is precluded from certain rights (such as enjoyment of outdoor activities and socializing in urban historic areas), which become symptomatic of more serious infringements leading to their disenfranchisement, with its potentially dangerous drawbacks (e.g., fundamentalism).*”

A reference can be made to the concept of *blaming the victim* (Perlman, 1976) that is clear when monitoring the way the Egyptian governments used to deal with or discuss that phenomenon. In the Egyptian media through the last decade, starting mid-90s, the gap between the rich and the poor has been reflected and emphasized in Egyptian television and movies.

Many movies were produced showing parts of the lives of ‘*ashwa’eyat* residents. *El Minyawy* argues that the Egyptian *media* formed the perception of ‘*ashwa’eyat* and their residents in the eyes of the rest of the Egyptians, either in planned richer areas or in rural villages. This is illustrated by Safey El-Deen (2009), where the media showed to shape the negative perception of young generation of Cairo residents about ‘*ashwa’eyat*. Films and television series have presented ‘*ashwa’eyat* and its residents in two different ways: either normal people who have their own dreams, ambitions, feelings and good human relationships, but had tough lives or aggressive behavior because of their bad economic and financial conditions; or people living in places with very miserable and bad physical conditions (shanty districts).

Its residents are shown as a marginalized social class, which is living under the pressure of harsh economic conditions. It depicts them as behaving in very bad, immoral and unethical manners without discussing the reasons behind their behaviors, and showing only minimal good sides to their lives, if any. Modern lifestyle is related to the concept of modernity, which in turn is usually linked to life in cities (Robinson, 2004). In the case of *Cairo*, the formal parts of the city are where formal systems dominate, and laws and regulations are applied (or are supposed to be followed). Residents of formal districts are more affiliated to middle-higher classes; they acquire a certain level of education, get certain types of jobs based on networks of connections and exchanges of benefits. Technology, including the latest means of communication (i.e., satellite dishes, internet and mobile phones), when first introduced to Egypt, always arrived to the formal parts of the city with the upper-middle class groups; then it spread through the rest of Egypt.

Consumption is a common attitude within the concept of “modernity” within Cairo (Abaza, 2006; De Koning, 2009). Shopping malls throughout the richer Cairo

districts show how consumption is a feature of modern Cairo . *Globalization* and the improvements in the means of communication may cause frustration and disappointment for poor urban dwellers in the media (Ghannam, 2002). Abou El-Ela (2003) argues that people, especially those who belong to traditional cultures (i.e., the case of *Egypt*), are struggling to balance the culture that they are being exposed to in the urban city and their own original traditional culture, and that they have to go through self-adjustments to survive in the new context.

Communities living in Cairo '*ashwa'eyat* are struggling to position themselves within "urban" and "modern" life on one hand, and "traditions" coming from their rural background on the other. Hafez points out that a common concern among Egyptians is to filter "*western innovations*" and to adopt features that are useful, such as "*new scientific knowledge and technologies*", and at the same time to discard "*those that are thought of as harmful*" (such as weakening family cohesion) (Hafez, 2004, p. 6). This mix and perplexity has an effect on shaping their activities and lifestyle in the city. "Modernity" in the eyes of traditional community members is an issue that deserves further research (Abu-Lughod, 1997). Lerner (1958), in his study about the Middle East tries to monitor the *modernization process* of traditional societies including Egyptian society. He argues that it is a certain path that traditional societies are going through to reach modernity, which follows the modernization theory.

Mentioning modernization as a process through which traditional societies are argued to experience, individualism is a feature to be questioned. Modern societies focus on the individual as the most important unit within a society that apparently contradicts concepts like *social networks* and *social capital*.

The struggle between the forces of *tradition* and *Modernity* is a problem that contemporary Egyptian society in general faces (Taha et al., 2011). *Modern lifestyle* and *traditional origin* together play a role when they confront or mix. The impact of information technology (e.g., Internet and satellite dishes) in '*ashwa'eyat*' could play a role in the cultural change process, and of course, this differs from one generation to another. *Individualism* is the opposite term for collectivism as defined by Hofstede: "*Individualist cultures assume individuals look primarily after their*

own interests and the interests of their immediate family (husband, wife, and children). Collectivist cultures assume that individuals, through birth and possibly later events, belong to one or more close "in-groups", from which they cannot detach themselves. The in-group (whether extended family, clan, or organization) protects the interest of its members, but in turn expects their permanent loyalty. A collectivist society is tightly integrated; an individualist society is loosely integrated." (Hofstede, 1984, p. 390)

4.5 Concluding Summary

- This Chapter is considered the cornerstone of the research, where the researcher highlights the main non-physical attributes for the inhabitant's behavior. Moreover, the culture of various Citizens is discussed, especially the Egyptian. And more focused on the upper Egyptian society and their entire culture.
- The rehearsal of the chapter is trying to reach the major objective of the research; which is the conversion of the non-physical aspects like (Culture and Behavior) to physical attributes can be illustrated and measured to experiment the substantial Behavior and Cultural patterns of an entire space figure 4-13

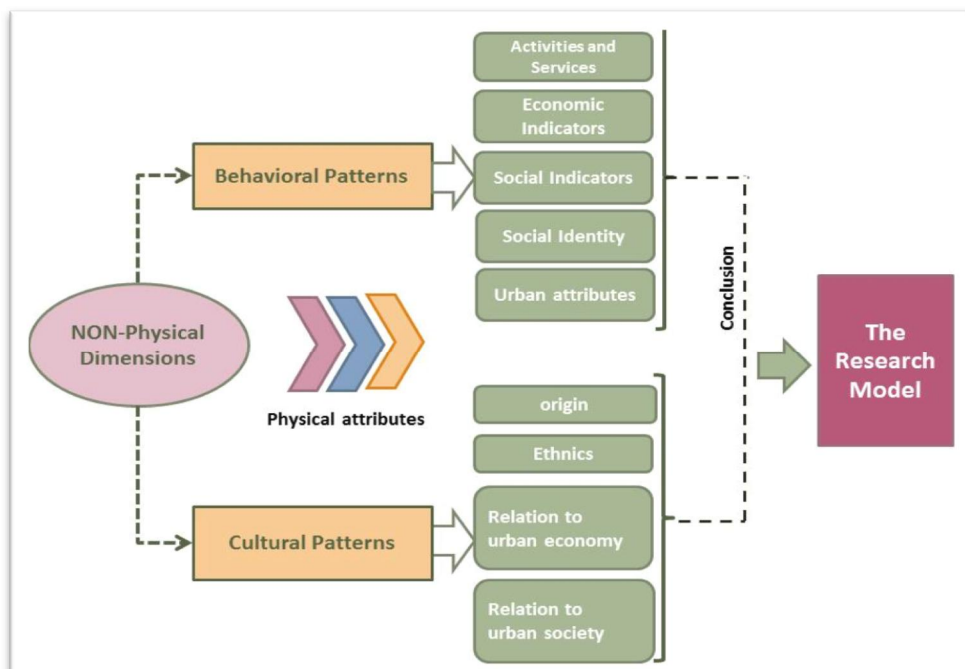


Figure4- 12 Shows the main objective of the research where the non-physicals are converted to measured physical attributes to form the research model.

- The hypothesis of the research suppose that the non-physical attributes can be measured by the concluded physical attributes , which will be filled in a physical matrix with certain measured aspects in the chosen urban spaces. That will be explained in the case studies in the following chapters.

Chapter Five

**The Empirical research and the
research model presentation**

Chapter Five: The Empirical Research and the Research model

5.1 Introduction

The following sections present an explanation of the hypothetical conceptual framework adopted in this research, including the studied aspects of *ashwa'eyat* and the investigated constellation of selected cultural and behavioral factors. Then the case study fieldwork is introduced including the case study areas' selection, fieldwork objectives and analysis methods.

5.2 Hypothetical conceptual framework

The researcher presents the hypothetical conceptual framework of this research, which is built upon the literature discussed in both theoretical parts (Chapters II and III), in addition to preliminary case study findings. It is presented here in order to make the purpose of the research clear. The construct of the hypotheses links between two main notions of *culture* and *informality*, and compiling this to knowledge about Cairo and its '*ashwa'eyat*'. The aim of this framework is to aid in the understanding of '*ashwa'eyat* dynamics and informal urban development process's mechanisms in relation to cultural factors leading up to it, therefore a development base can be concluded due to the priority of the cultural and behavioral patterns .

5.2.1 The physical attributes

The current research is interested in community attitudes and behavior as a major research variable, the physical characteristics of the built environment is the main focus of analysis. It is important to point out the major concerns of the research which is the physical and space characteristics of the outdoor spaces, consequently, investigating the physical attributes of the trio; Personal identity, social identity, and the urban attributes.

The first parameter in The physical attributes is to involve the personal identity and the individual requirements of protection and secure. The Personal identity's physical attributes can be classified into *objective (real) physical attributes and subjective (cognitive) physical attributes*. The subjective

(cognitive) attributes are: the sense of possession , imageability, and the meaning of place according to **activities and users**. These requirements vary in accordance with activities and personalities.

The interval scale is distributed due to the experts' contributions in measurements where the interval scale reach level (3) that means the satisfactory level, thus, more or less is around the satisfaction level.

The second parameter is concerned of the **social identity** and the civility of the academic community, which are presented in several indicators which highlights, how the community is entirely related with the place and various communities as a whole.

Table5- 1: Checklist of Physical attributes and Indicators of Ein El Sira (behavioral Pattern) (Source: Researcher)

Checklist of Physical attributes and Indicators of Ein El Sira (behavioral Pattern)							
Type	Physical Attributes		Interval Scale				
		Indicator	None (0)	Low (1)	Normal (2)	High (3)	very high (4)
Basic Information of an Informal settlement	Basic Information						
	Time	no of generations	0gen.	1gen.	2gen.	3gen.	more
	Legal Situation	Degree of legality	illegal	legal ownership,illegal buildings		legal	
	Building conditions	Degree		Bad	average	good	new
	Proximity to richer areas	Connectivity	No connect.	L. connect.	N.connect.	H.connect.	v.h. connect.
	Infrastructure	Availability	not avail.	Partially available		Complete	
	Accessibility	Degree	none	medium accessibility		Strong Accessibilty	
	Attractiveness to	Degree	Repelling	Medium Repulsion		Strong attraction	

	residents						
	External Investments		None	Medium	Strong		
	Total						
Behavioral Patterns	Activities and services						
	Movement	Paving (availability)	None	Partial pavement	Total pavement		
		Stairs or slopes	None	Partial availability	Total availability		
		shade and shelter	None	Partial availability	Total availability		
	Transportation	Private	None	Partial availability	Total availability		
		Public	None	Partial availability	Total availability		
		Semi-private	None	Partial availability	Total availability		
	Total						
	Economic Indicators						
	Annual income per person	no\$/person		>9700	9700<x<14400	14400<x<21600	21600<
	Unemployment rate	4-17%		>40%	40<x<20%	x<20%	
	Women subsistence	no of families %		<40%	around 30%	around 20%	<10%
	Total						
	Social Indicators						
Population	no. person/fedd an		>120/fed.	120/fed.	<120/feddan		

	Sociability	space/person(m ² /p)	>0.28 extreme danger	0.28	12	25	46	
	The built environment	Percentage %		deteriorated (>60%)	Partially deteriorated (<60%)		New settlements	
	Community Centers	Availability	none	Available (not active)		Available (active)		
	Total							
	Social Identity							
	Trees (Green areas)	Availability %	none 0%	Few 10-20%	Medium 25-50%		High >50%	
	Change of Levels	Availability %	none	Few	Medium Range		High	
	Mosques & Churches	Availability	none	Far needs transport	Medium	Near		
	Community areas	Availability (coffee shops)	none	Far needs transport	Medium	Near		
	Total							
Urban Structure	Urban attributes							
	Residential areas	Percentage % built area/plot		>90%	around 80%	around 70%	around 60%	
	Facades conditions	conditions	totally deteriorated	<70% deteriorated	<50% deteriorated	<20% deteriorated	V.good condition	
	Services	Schools	none	available deteriorated	Partially deteriorated		V.good condition	
		Hospital	none	available deteriorated	Partially deteriorated		V.good condition	
		Club or youth center	none	available deteriorated	Partially deteriorated		V.good condition	
		Recreational areas	none	available deteriorated	Partially deteriorated		V.good condition	

Streets	Percentage %		>15%	nearly 15%	<15%	
Urban pattern	% mass percentage		>66% (highly condensed)	nearly 66% (average)	<66%	
Total						
Spatial attributes						
Occupied Territory	Area m ² /family		>50m ²	50<x<70m ²	75<x<90m ²	90<x<120
Enclosure						
Outdoor landscape						
Focal point						
Social	space/person (m ² /p)					







5.2.2 The Ethnographic criteria







It is important to understand that what people do and say in a particular culture or subculture, are not haphazard and spontaneous, but are consistent with their *values* and what they believe in. It could be possible to better understand their activities within urban space in their area by knowing more about residents' culture and its core values and beliefs. Moreover, once one accepts that people behave the way they do for a reason, regardless of what one may think of that reason; one can go beyond simply reacting to that behavior and can figure out how to work with it.

Within the urban development process of the area, the following 4 aspects are interrelated: cultural factors of 'ashwa'eyat' residents, the urban characteristics of the area, the way they use urban space, and power relations between residents. In the empirical research, the case studies are presented and analyzed based on this hypothetical conceptual framework. The following aspects are to be investigated with regards to the studied cultural factors.

Therefore, the researcher created an imageable anthropological matrix, which illustrates the main cultural attributes of each community like, the origin of the inhabitants, the ethnic groups, their entire relation with the surrounding social groups, the life style, which is actually completely variable from a community to another, and finally their relation with the urban economy, which include their profession or crafts and. how they participate in the whole economy. In addition, the matrix contains the political influence on the chosen community, thus their entire relation with the government, NGOs and the founded political parties. The Anthropological matrix is shown as follows;

Table5-2: The Cultural patterns’ matrix and anthropological attributes (Source: Researcher,2016)

Cultural patterns and anthropological attributes				
Ethnographic Indicators (Anthropological Image)	Origin			
		Upper Egyptian	Rural Village	Cairo's old district
		mostly/Avg./none	mostly/Avg./none	mostly/Avg./none
	Life Style			
		Weddings or Funerals	Outer living areas	animals or birds breeding
		mostly/Avg./none	mostly/Avg./none	mostly/Avg./none

Ethnics			
	Muslims (Sunni)	Christians (Orthodox)	Integrated (Muslims & Chris.)
	mostly/Avg./none	mostly/Avg./none	mostly/Avg./none
Relation to Urban economy			
	Crafts (Car maint., Truck)	driver, within construction, seller	Other (Owners for shops)
	mostly/Avg./none	mostly/Avg./none	mostly/Avg./none
Political Influence			
	The government	The political parties	NGOs
	relation (high/Avg./none)	(high/Avg./none)	(high/Avg./none)

5.3 Fieldwork

The fieldwork is the core of this research. As mentioned previously, for such a research with research questions that searched for understanding certain interrelations with a society, without knowing too much about the problem (due to lack of available published information or researches about the topic), then grounded theory and case study research would provide an appropriate solution. Thus, several techniques were used to reach the objectives which will be explained as follows:

specific objectives for the fieldwork, which are as follows: Explore the relation between the residents and their urban space, how they use it, how they construct their area, their relation to the formal Cairo and the behavioral patterns on the entire space, *which the researcher assumes that it will result in major concepts for the development process*. Within the fieldwork, certain procedures to reach the research's constellations by four main steps:

- **Surveying:** it depends on the data collection to fill in the (B.C)s matrices by using the research's techniques (previously explained).
- **Analysis:** this step depends on analyzing the research findings and illustrating the satisfaction percentage, which shows the weak attributes and the lowest satisfaction.
- **Synthesis:** after finding the satisfaction percentages, interrelations between the illustrated behavioral and cultural patterns to find the development entries with priorities of development.
- **Upgrading Proposal:** after finding the needs of users by (B.C)s approach a proposed 3d proposal would be constructed with the development entries, figure5- 3.

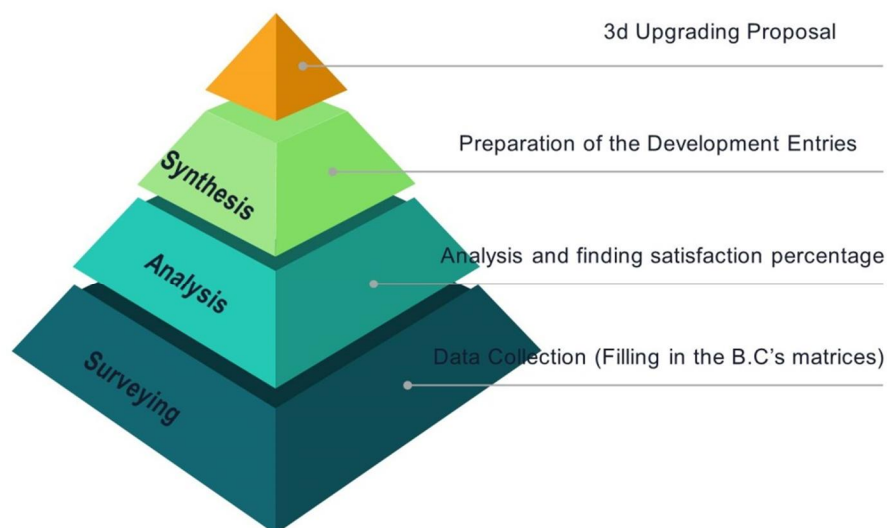


Figure5- 2 showing the steps of fieldwork to reach the research constellations and objectives, source: (Researcher)

5.4 Case Study areas of Cairo ‘ashwa’eyat

Based on the achieved and presented hypothetical framework, and according to the different typologies of Cairo ‘ashwa’eyat that have been discussed, certain areas are selected for the empirical research within two case studies.

5.4.1 Selection criteria: Urban physical characteristics

The selection of the case study areas is conducted carefully to be appropriate for testing the proposed framework. The selected areas should have minimum intervention so as to monitor the natural development that takes place due to the interaction between the tested factors and the urban physical characteristics, without formal intentional development intervention, other than infrastructure provision.

Case study areas are selected according to certain criteria. The selected main case study areas have certain common characteristics to achieve successful scientific comparative analysis. Although this is not easy, based on the research assumption that each of the ‘ashwa’eyat areas have its own specific circumstances. For the selected main case study areas, the selected criteria are:

- **Origin:** of the targeted residents Upper Egyptians and Old Cairenes. In identifying the cultural factors, a “Place of origin” in Upper Egypt (rural village) and Old Cairenes (whose consolidation period of time exceeded 100 years) are selected to act as a constant in selected case study areas, and as a reference for analysis among other cultural factors in relevance to use patterns of urban spaces and informal urban development.
- **The time of emergence:** is more than (35 years), where the consolidation is mostly crucial to prove how behavior and culture have a recognized impact on the urban space.
- **Variable ownership:** A complex between illegal and legal ownership is important in the case studies to show the proposed development in all the two cases.

Based on the criteria for selection and categorization of Cairo’s ‘ashwa’eyat areas, the main selected case study areas are:

- **Ein El Sira** ;It is considered formal housing converted to informal due to encroachments from residents and *Ezbet AbulWafa* area is indulged within the area which is completely informal.
- **Darb El Labbana** ; It is considered the type of Deteriorated historic core, however, it's a complex type in legality and high consolidation residence.

The distance between the two selected areas is about 2.5 km, which is considered a short one, whereas the research development criteria will try to prove the variable communities which will result in various , thus a different proposal. Figure5- shows the location of each area in old Cairo with significant features around

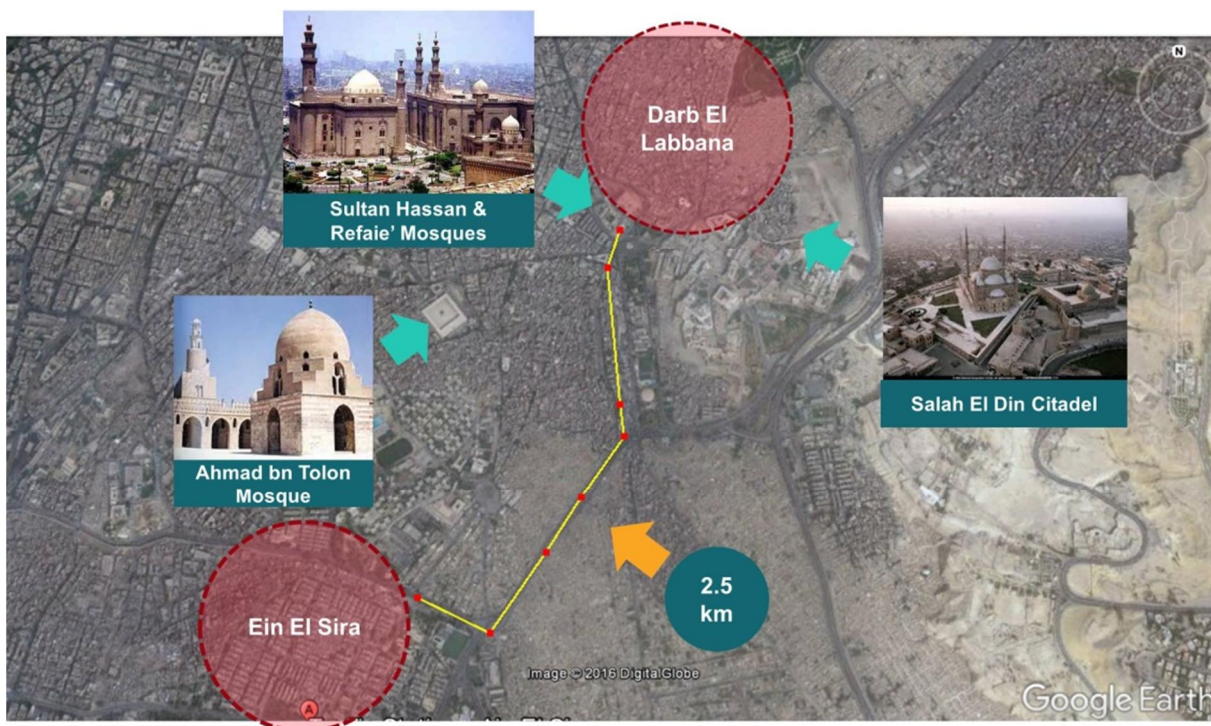


Figure5- 3 Shows the selected areas and the significant monuments around them, Source: (Googleearth,2016 edited by researcher).

Chapter Six

**The Empirical research and the
research model on Case One:
Ein El Sira area, Old Cairo**

Chapter Six: The Empirical research and the research model on Case One: Ein El Sira area, Old Cairo

6.1 Introduction Facts

This case is of particular importance because it provides a good example of

“*informalization*” of a formal, social planned housing project. It is located in the center of Cairo, close to several important older urban areas: *El-Sayeda Zainab*, and *Masr El Qadima*. The northern part of the area borders of “*Magraa El ‘Eoyoun*” (Aqueduct) and is fenced. In addition to the main focus area of this research, which is the popular housing blocks in *Ain El-Sira*, there are two sub housing areas: the *Welad Abul Wafa* area/ *Ezbet El-Sa’ayda* and the transitional/ emergency shelters “*Masaken El Eywaa’*”.



Figure6- 1 The social housing in Ein El Sira area Source: (ElMoeulhi, 2014)

Ain El-Sira blocks (social housing) consists of, according to interviews with the residents, total of 185 blocks (though, according to the available master plan, it is 144 blocks), between 4 to 5 floors built in two phases in the 1960s (66 blocks 1957/60 and 78 blocks 1960/62). The blocks vary from “*Wahayed*” (single apartment building/floor), “*Etnenaat*” (double apartment building/floor), and “*Talataat*” (triple apartment building/floor). Most of the blocks consist of ground floor and three upper floors and in the last phase of the project there are some blocks with four upper floors. It suffers from the lack of maintenance of street lighting, garbage collection, care for the green areas and cleanness of public spaces



Figure6- 2 The master plan of Ein El Sira area at the year 1965 Source: (GOPP,2012)

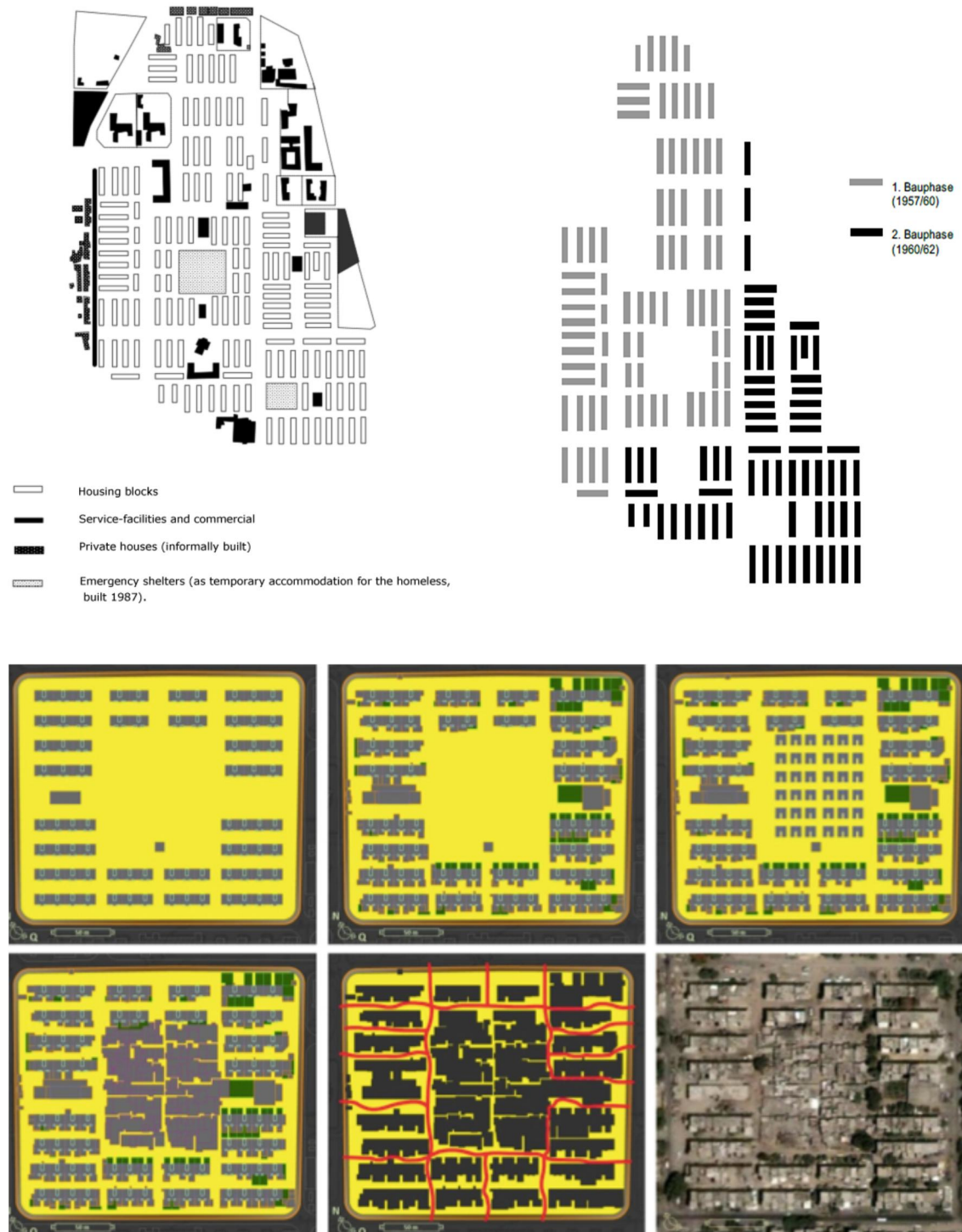


Figure6- 3 The phases of the housing project and the agglomeration of AbulWafa area
 Source: (Abdelrahman, 2004)

6.2 Ein El Sira place approach

As shown in the Figure Magra EL Eyoun Monument is considered the boundary of the place. The reseach will deal with the place as two areas have some common activities with each other, which are; the social Housing and Ezbet Abul Wafa.

The figure shows some significant images in the 2 areas like, the leather works, the facades of the social housing the roof animals' breeding and the different between the social housing and abulwafa's houses

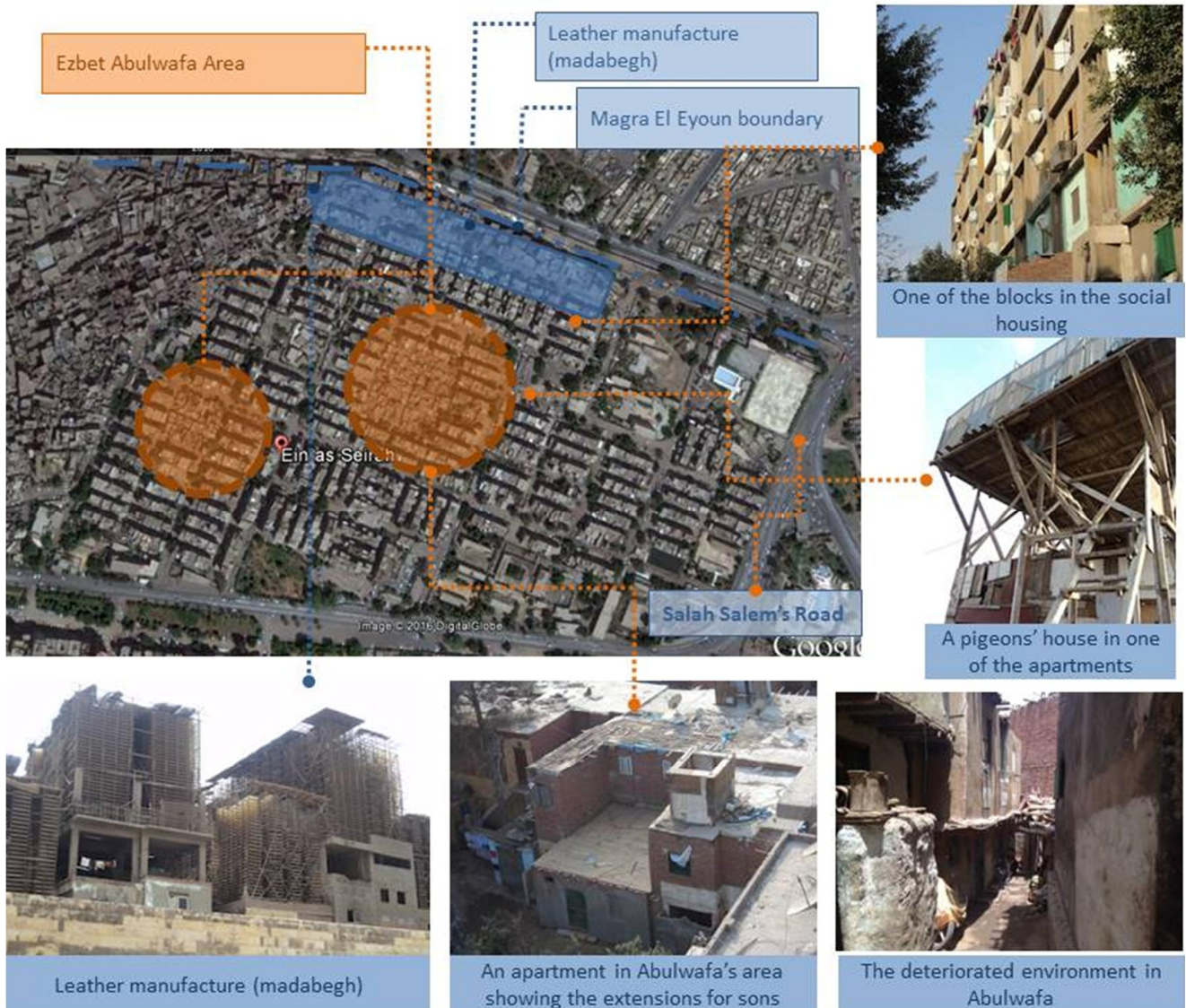

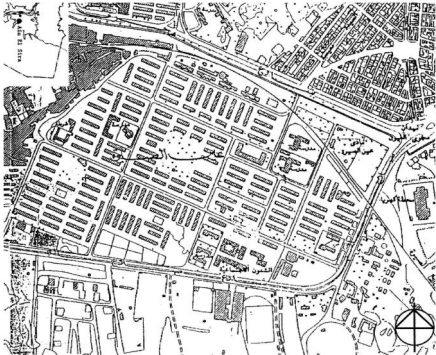



Figure6- 4 The main approach of Ein El Sira area Source: (Researcher, 2016)



6.3 The explanation of the Checklist of physical attributes of Ein El Sira area

The following table presents the explanation of the physical attributes of the behavioral patterns, which illustrates the measurement conditions.



Table6- 1: The explanation of the Checklist of physical attributes of Ein El Sira area (Researcher, 2016)


Basic Information		Pictures
Basic Information of an Informal settlement	Time	The residents in the social housing and Ezbet Abulwafa reached the 3rd generation by approximate calculations and interviews with the residents as the place was built in the late 60s
	Legal Situation	The social housing had a legal situation, however for the infringements occurred to the upper floors and also for the ground floor for building a shop to be a source of a livelihood.
	Building conditions	The building conditions of the social housing were in a good condition, however for the lack of maintenance.
	Proximity to richer areas	The region is approximately far away from richer areas. The nearest richer area is muquattam city which is mostly oriented to the middle class.
	Infrastructure	Infrastructure is available for the social housing even if it needs serious maintenance; however it's not available in Ezbet AbulWafa.
	Accessibility	Accessibility is considered easy from Magra El Eyoun Street or Salah Salem to reach the social housing, however it was hard to reach the Ezba.
	Attractiveness to residents	Ezbet AbulWafa is averagely attractive to residents although the degraded conditions because of the high rentals beyond the area
		  

External Investments	no investments in both areas.
Conclusion	The basic information for the area indicates the presence of two aside areas which are the social housing and Ezbet Abulwafa with a dramatic difference between the type of the inhabitants and the poverty level as well.


Activities and services			Pictures	
Behavioral Patterns	Movement	Paving (availability)	Paving is completely available in the social housing, however it needs maintenance. Whereas it's completely not available in Ezbet abulwafa	 
		Stairs or slopes	There are no stairs within the territory of Abulwafa's area while slopes are available, however it's highly deteriorated. Thus, stairs and slopes are available in the social housing but need maintenance.	
		shade and shelter	shades and shelters are normally available in Abulwafa due to the accumulative agglomeration in such area. While weakly available by shading trees	
	Transportation	Private	No private cars are owned by abulwafa residents, however some private cars were observed in the social housing.	
		Public	Public transportation actually is very rare in the area.	
		Semi-private	Most of the residents use this type of transportation whether using the microbus or the tok-tok for transportation.	




Conclusion	Observation and analysis proves the appropriate opportunities of activities and services in the area with total 18 out of 30 which is basically acceptable and highlights the need of intervention in maintenance of available opportunities.
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Economic Indicators			Pictures
Annual income per person	no\$/person	The questionnaire proves that the annual income of the families in Abulwafa do not reach 9700 egp due to the lack of steady jobs.	 (Source:Researcher) 
Unemployment rate	4-17%	Unemployment rate reaches more than 60% in Abulwafa , while it reaches around 20% in social housing, mostly the residents depend on the daily and unsteady jobs.	
Women subsistence	no of families %	The women subsistence in the social housing reaches around 30% while in Abulwafa is less which reaches 20%	
Conclusion	AbulWafa's area economic conditions are considered mediocre and the unemployment rate reached a high rate, which indicates to certain poverty in the area. Also in the social housing the annual income didn't reach 14000 e.g.p, which is considered a low income rate.		


Behavioral Patterns	Social Indicators			Pictures
	Population	no. person/feddan	The population in both areas is more than 120 persons per feddan	 (Source:Researcher)
	Sociability	space/person (m2/p)	Extreme danger appears in Abulwafa within the sociability indicator which alarms the occurrence of violence behavior.	
	The built environment	Percentage %	Abulwafa's area is highly deteriorated which is exposed to ramshackle, while the building conditions of the social housing is accepted, whereas maintenance is needed	

Community Centers	Availability	not available for both areas	
Conclusion	The social indicators in the social housing outweigh Abulwafa's area due to the accumulative agglomeration which hardly reached 12.5% from the total satisfaction of the indicator.		

Social Identity			Pictures
Trees (Green areas)	Availability %	Almost no green areas or trees in AbulWafa, whereas few canopy trees are found in the social housing with no green areas.	 <p>(Source: Researcher)</p>
Change of Levels	Availability %	none availability for both	
Mosques & Churches	Availability	moderate distances for both.	
Community areas	Availability (coffee shops)	Community areas are presented in both areas in coffee shops which are basically available in coffee shops	
Conclusion	The social identity indicator is nearly the same in both areas, except for the availability of some recreational areas in the social housing.		

Urban attributes			Pictures
Residential areas	Percentage % built area/plot	the built area in Abulwafa exceeds 90% of the land lot which presents a dangerous percentage	   <p>(Source: Researcher)</p>
Facades conditions	conditions	Abulwafa's buildings are almost ramshackle reaching a percentage of <80%, whilst the social housing's blocks needs maintenance.	
Services	Schools	nearly both areas go to the same school.	
	Hospital	nearly both areas go to the same hospital.	
	Club or youth center	A youth center within the peripheries of Ein-Elsira overlooking Salah Salem's road and partially deteriorated.	
	Recreational areas	None in Abulwafa, however in social housing inhabitants use the youth center as a recreational area.	
Streets	Percentage %	in Abulwafa streets are not more than 7% of the total area, whilst in social housing streets are approximately 15%.	
Urban pattern	%mass percentage	The blocks are highly condensed in Abulwafa's area, however in social housing slightly condensed which is above 57% of mass area.(solids and voids)	



Conclusion	The urban indicators varies tremendously within Abulwafa and the social housing, thus the social housing which targeted a satisfaction of 62% outweighs Abulwafa which reached only 28% satisfaction due to deteriorated urban environment
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Behavioral Patterns	Spatial attributes			Pictures
	Occupied Territory	Area m2/family	The occupied territory in Abulwafa begins from 50m2 to 120m2 divided into 2 floors or 3, however in Social housing begins from 90m2 horizontally.	 <p>(Source: Researcher)</p>
	Enclosure	Type	No enclosures available, just linear housing.	
	Outdoor landscape	Availability	not available for both areas	
	Focal point	Availability	No focal points available	
Conclusion	The spatial attributes are eventually which scored below 20% satisfaction which is considered in high desperate deficiency of repair.			

6.4 Checklist of Physical attributes and Indicators of Ein El Sira (Behavioral Patterns)

The table 6-1 was the explanation how the physical attributes of the behavioral patterns were illustrated by the fieldwork procedures, which was explained in the previous chapter. Consequently, the following matrix is filled in as follows, in table 6-2;

Table6- 2: Checklist of Physical attributes and Indicators of Ein El Sira (behavioral Pattern)
 Source (Researcher,2016)

		 Ezbet AbulWafa		 Social Housing			
Type	Physical Attributes		Interval Scale				
		Indicator	None (0)	Low (1)	Normal (2)	High (3)	very high (4)
Basic Information of an Informal settlement	Basic Information						
	Time	no of generations	0 gen.	1 gen	2 gen.	3 gen	more
	Legal Situation	Degree of legality	illegal	legal ownership, illegal buildings		legal	
	Building conditions	Degree		Bad	average	good	new
	Proximity to richer areas	Connectivity	No connect	L connect	N connect	H connect	V.H connect
	Infrastructure	Availability	Not avail	Partially available		Complete	
	Accessibility	Degree	None	Medium accessibility		Strong Accessibility	
	Attractiveness to residents	Degree	Repelling	Medium Repulsion		Strong attraction	
	External Investments		None	Medium		Strong	
	Total					20	8
Behavioral Patterns	Activities and services						
	Movement	Paving (availability)	None	Partial pavement		Total pavement	
		Stairs or slopes	None	Partial availability		Total availability	
		shade and shelter	None	Partial availability		Total availability	
	Transportation	Private	None	Partial availability		Total availability	
		Public	None	Partial availability		Total availability	
		Semi-private	None	Partial availability		Total availability	
Total					18	7	

Behavioral Patterns	Economic Indicators						
	Annual income per person	No\$/person		>9700	9700< x <1440 0	14400 <x<21 600	
	Unemployment rate	4-17%		>40%	40<x< 20%	x<20%	
	Women subsistence	No of families %		<40%	around 30%	around 20%	<10%
	Total					6	4
	Social Indicators						
	Population	No. person/ Fadden		>120/fe d	>120/f ed	>120/fed	
	Sociability	Space/pers on(m2/p)	>0.28 extreme danger	0.28	12	25	46
	The built environment	Percentage %		Deterior ated (>60%)	Partially deteriorated (<60%)	New settlemen ts	
	Community Centers	Availability	None	Available (not active)		Available (active)	
	Total					6	2
	Social Identity						
	Trees (Green areas)	Availability %	None 0%	Few 10-20%	Medium	25-50%	High >50%
	Change of Levels	Availability %	None	Few	Medium	Range	High
	Mosques & Churches	Availability	None	Far needs transport	Medium	Near	
	Community areas	Availability (coffee shops)	None	Far needs transport	Medium	Near	
	Total					5	4

Urban Structure	Urban attributes						
	Residential areas	Percentage % built area/plot		>90% 	around 80% 	around 70%	around 60%
	Facades conditions	conditions	totally deteriorated 	<70% deteriorated	<50% deteriorated 	<20% deteriorated	V.good condition
	Services	Schools	None	available deteriorated	Partially deteriorated 		V.good condition
		Hospital	None		Partially deteriorated 		V.good condition
		Club or youth center	None 	available deteriorated 	Partially deteriorated		V.good condition
		Recreational areas	None 	available deteriorated 	Partially deteriorated		V.good condition
	Streets	Percentage %		>15% 	nearly 15%		
	Urban pattern	% mass percentage		>66% (highly condensed) 	nearly 66% (average)		
	Total					20 	9
	Spatial attributes						
	Occupied Territory	Area m2/family		>50m2 	50<x<70m2 	75<x<90m2	90<x<120
	Enclosure	Type	N.A 	Flat linear enclosures 	levelled long enclosures		leveled Radial
	Outdoor landscape	Availability	N.A 	Low 	Partial		Good
	Focal point	Availability	N.A 	Low 	Partial		Good
Total					9 	2 	

6.4.1 Analysis of the physical attributes findings

After the physical attributes were measured the satisfaction percentage is calculated afterwards , by adding the total measured sub-factors and then divided by the total scale, thus the percentage of satisfaction is calculated, figure6-5

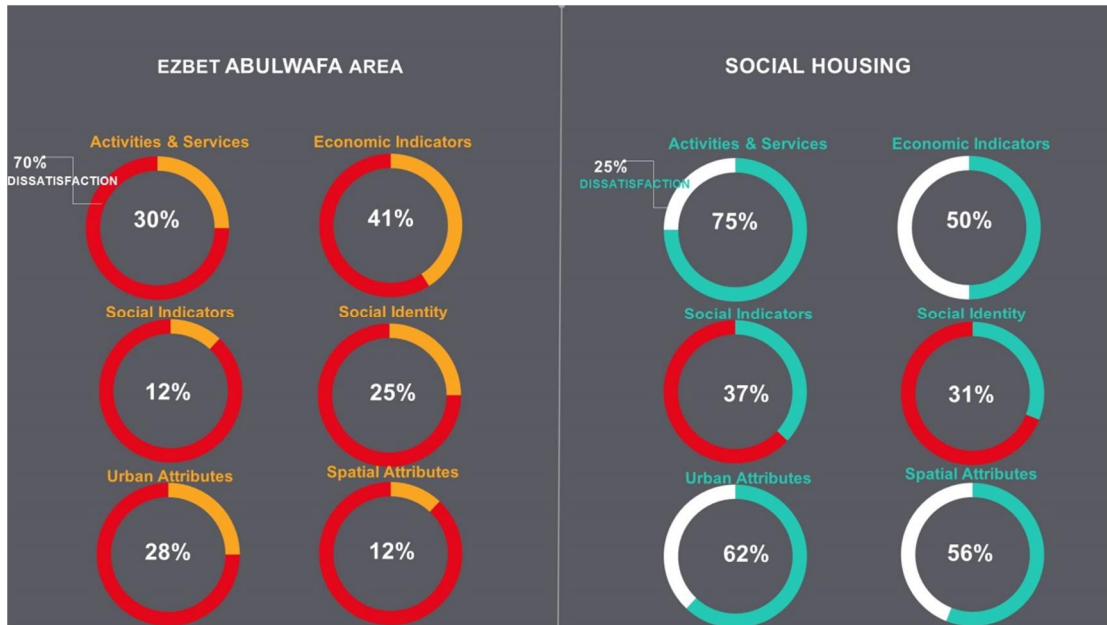
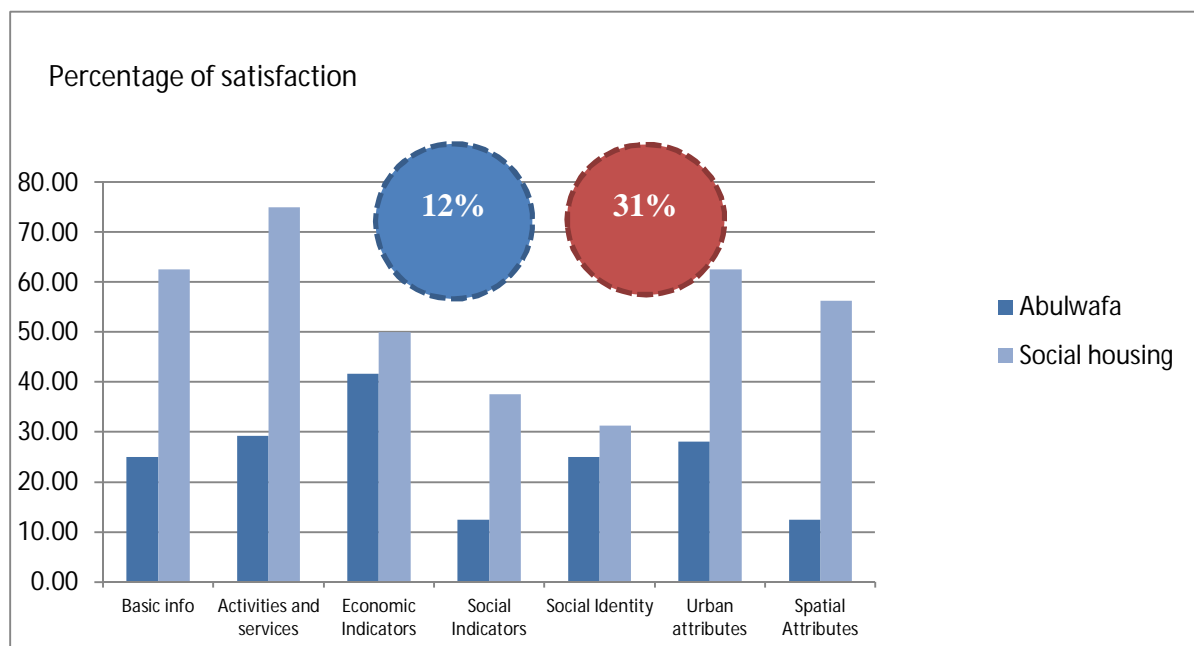


Figure6- 5 The satisfaction percentage of Ein EL Sira area’s physical attributes source: (Researcher)

	Basic info	Activities and services	Economic Indicators	Social Indicators	Social Identity	Urban attributes	Spatial Attributes
Abulwafa	25.00	29.17	41.67	12.50	25.00	28.13	12.50
Social Housing	62.50	75.00	50.00	37.50	31.25	62.50	56.25



- The analytical graph illustrates the percentage of satisfaction of each area, Abulwafa and the social housing, thus the figures show a hike in satisfaction percentage in Activities and services of the social housing due to the governmental planning of such area, on the contrary is the the satisfaction of the AbulWafa which reaches only 29% which is considered a low satisfaction. As a result a high priority of a development entry in such field in Abulwafa.
- Furthermore, the analysis shows a severe shortage in the satisfaction,(only 12% satisfatcion) of abulwafa area in the social indicators which presents a high danger in the social area, that may cause violent reactions. Therefore, a high priority of development is needed in the area to reduce the violent actions and to ensure safety in the place.
- Moreover, the study illustrates a high shortage in the elements of the social identity of the Social Housing which reaches only 31%. Thus, the priority of develoment entry is crucial in the social identity elements, like, green areas, recreational area, walking pathways, and community area.







6.5 Cultural patterns and anthropological attributes





The Ethnographic or Cultural Patterns are formulated due to the research procedures that were explained before in the previous chapter and also the researcher had visited the location and stayed a long interval of time to illustrate the culture of the residents in the area.

The cultural image of the area was mainly dependent on the interview occurred with the inhabitants and the researcher observation which was sometimes clear within the use of the urban spaces.

Table6-3 explains the illustrated cultural patterns and its impact on the urban space.

Table6- 3 :The Cultural Patterns of Ein El Sira area, (source:Researcher)

Cultural patterns and anthropological attributes			
Origin			
	Upper Egyptian(City)	Rural Village	Cairo's old district
	<p>mostly/Avg./none</p> <p>Ain El-Sira blocks, Many of them are of Upper Egyptian origin, but they do not come from a certain village or governorate. Many of them belong to Sohag, Qena and Asyut, as well as other places.</p>	<p>mostly/Avg./none</p> <p>Awlad Abul Wafa was from the “El Sawam’a” village in Sohag (UpperEgypt), other families came from other villages: “El Zohary” from “El Beet El Abyad”-Sohag, others from El-Menya, so almost all off the area’s residents came from Upper Egypt.</p>	<p>mostly/Avg./none rare</p> <p>N.A</p>
			

Life Style	Weddings or Funerals	Outer living areas	animals or birds breeding
	<p>mostly/Avg./none</p> <p>Wedding ceremonies takes place between blocks, however sometimes for some families they use the roof tops for funerals mostly</p>	<p>mostly/Avg./none</p> <p>Sitting in the streets in front of houses could be attributed to the residents' rural origins.</p>	<p>mostly/Avg./none</p> <p>since the rural background of the residents and need for income could be the reasons for the practice of breeding animals for house and commercial use.(wooden pigeon house)</p>
Ethnics		No special features	no sectarian strife or any problems between both poles
	Muslims (Sunni)	Christians (Orthodox)	Integrated (Muslims&Chris.
	<p>mostly/Avg./none</p> <p>Religious groups have some bases in the area, mainly through mosques. They provide services and financial assistances to low-income families, as in several other areas in Cairo.</p>	<p>mostly/Avg./none</p> <p>The Christians are very rare in the area, and actually there are no investigated problems between either religious groups</p>	<p>mostly/Avg./none</p> <p>none</p>
Relation to Urban Economy			
	Car maint., Truck driver, within construction, seller-breeding		(Owners for shops)
	mostly/ Avg ./none		mostly/ Avg ./none

	<p>It was believed that the area of EinElsira was mainly dependent on the leather works in 'Madabegh". However, most of the residents depend on varoious crafts which are mostly rural, like, breeding animals, drivers, labours within construction.</p>	<p>The higher income in the area are the shop owners who are financially higher than the others who have no steady jobs.</p>	
Political Influence	<p>The residents have a problem with the government due to the intensions to convey the residents to Badr City, thus a negotiation occurred between the government, business men and residents with no conclusion.</p>	<p>The Muslim Brotherhood was the major influential political party before the 2011 revolution and and its dominance increased after the revolution especially when Morsy became the legitimate president, however after 30/6 their dominance was nearly eliminated.</p>	<p>Efficient Ngo's in Egypt have direct relations with the political parties where funds are direct from the parties, thus the dominant NGO's in the area were also branches from Muslim Brotherhood after the revolution, however the authorities had decreased their control by ending their license to control their dominance on the area.</p>
	<p>The government</p>	<p>The political parties</p>	<p>NGOs</p>
	<p>relation (high/Avg./none)</p>	<p>(high/Avg./none)</p>	<p>(high/Avg./none)</p>

6.6 The Development Guidelines process due to the Behavioral and Cultural patterns (B.C.s) of Ein El-Sira

1. Ezbet AbulWafa is extremely deteriorated and the buildings are already ramshackle. Thus destruction process should occur in the place.
2. There is actually no women substitution in both areas (due to the upper Egyptian origin), even in the poorest families, where the annual income is below 4000 e.g.p.
3. People has complete refusal to live in badr city after the transfer of the leather factories (*Madabegh*), however they agree to live in any place nearby their living area.
4. Green and open areas are very rare due to the high agglomeration, also. There is no place for football playgrounds which is highly preferred by the youth there.

5. Spaces their warn of violence behavior due to the high density of population in Abulwafa.
6. The market place has a special location, which will be preferably developed within its place. Weddings and funerals need wide spaces and they usually build their partitions between 2 buildings (semi-private space) .Most of people do not depend on the main leather works , actually they depend on the secondary crafts, like, driving, transportation, and building

6.7 The Development Guidelines application due to the Behavioral and Cultural patterns (B.C.s) of Ein El-Sira



Figure6- 6 The Development Guidelines application due to the Behavioral and Cultural patterns (B.C.s) of Ein El-Sira (Researcher, 2016)

6.7.1 The Development Entries due to the Behavioral and Cultural patterns (B.C.s) of Ein El-Sira

The development entries are constructed due to the interrelations between the behavioral and cultural attributes to form the required input to the development project.

Table6- 4: The interrelations between the cultural and behavioral patterns to form the development entries

	Behavioral Patterns	Development Entry	Weight	Cultural Patterns
Basics	Time	Infrastructure	Basic	Origin
	Legal Situation	Eviction	38%	Upper Egyptian
	Building conditions	Façade maintenance	√	Rural Village
	Proximity to richer areas	New Investment	13%	Cairo's old district
	Infrastructure	Stairs& Slopes	Excluded	Life Style
	Accessibility	Shade & Shelter	√	Weddings or Funerals
	Attractiveness to residents	Bus Stop	1%	Outer living areas
	External Investments	Car Park	2%	Coffee shops
		Shops	3%	animals or birds breeding
		Market Place	8%	
Activities&Servic.	Paving (availability)	Coffee shop	1%	Ethnics
	Stairs or slopes	Community Centers	1%	Muslims (Sunni)
	shade and shelter	Women Craft	Excluded	Christians (Orthodox)
	Private	Open Spaces	4%	Integrated (Muslims & Chris.)
	Public	Crafts Training	3%	
	Semi-private	Crafts Center (prod.)	3%	
	Annual income per person	Façade development	√	Relation to urban Economy
	Unemployment rate	Roof Garden	√	Car Maintainance
	Women subsistence	Focal point	1%	Copper works
	Annual income per person	Mosque	Available	Steel works
Unemployment rate	Church	Available	Leather Works	
Social Identity	Population	Residential units	29%	Carpentry
	Sociability	School	Available	Construction works
	The built environment	Hospital	Available	Shop Owners
	Community Centers	Youth Center	Available	Coffee shop
	Population	Recreational areas	5%	Car Drivers
	Sociability	Streets	13%	
	The built environment	Massing (minimize)	Basic	Relation to urban Society
		Enclosure	Excluded	The government
		Territory	Basic	The political parties
		Façade skin		NGOs
Social Indic.	Trees (Green areas)	Removal of encroachment	Basic	
	Change of Levels	Heighten blocks	√	
	Mosques & Churches	Trees	2%	
	Community areas	Leveling	Excluded	
	Residential areas	Boulevard	2.10%	
Urban attribut.	Facades conditions			
	Services			
	Streets			
	Urban pattern			
	Occupied Territory			
Spatial	Enclosure			
	Outdoor landscape			
	Focal point			

6.7.2 The Development project due to the Behavioral and Cultural patterns (B.C.s) of Ein El-Sira

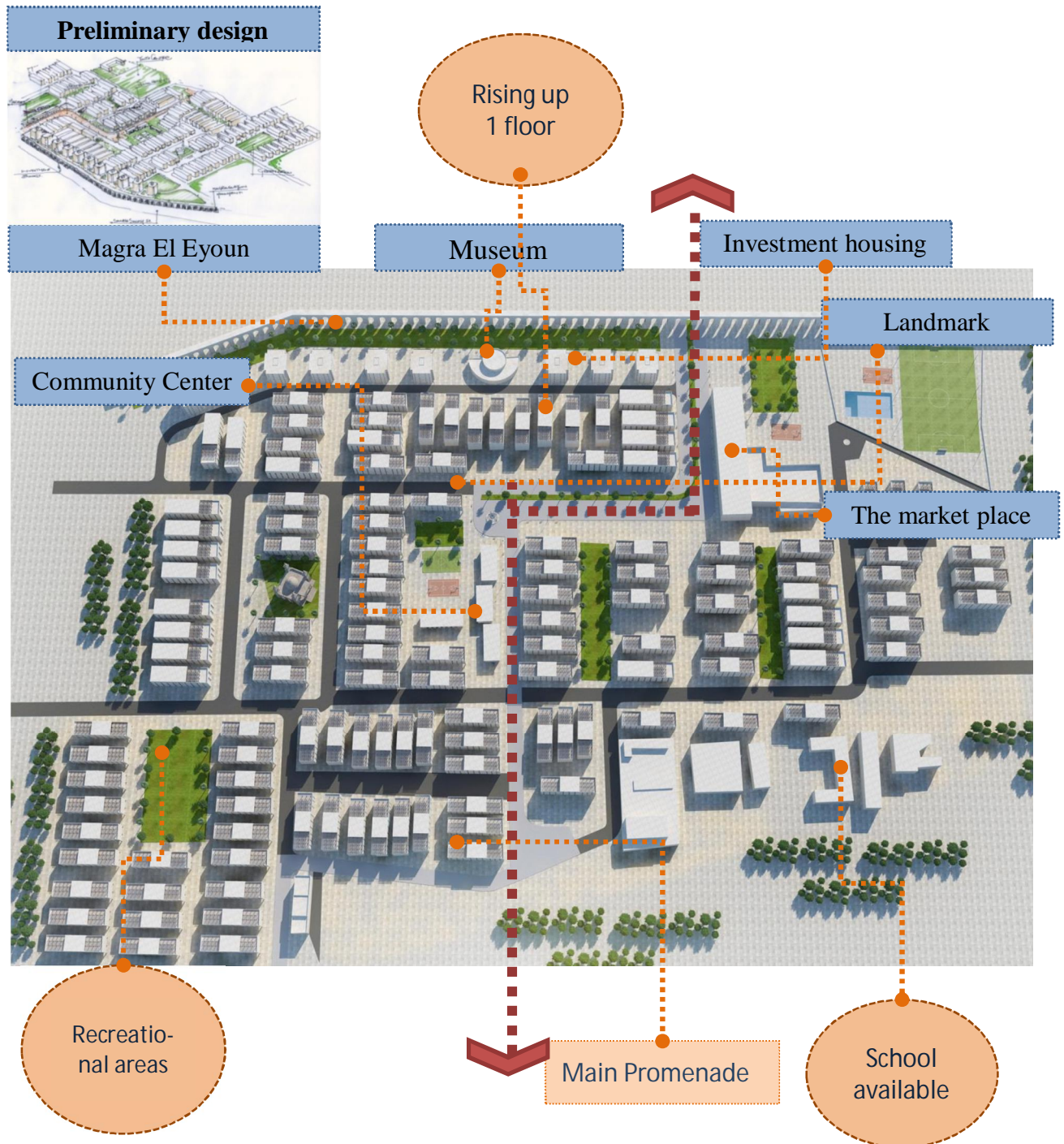


Figure6- 7 The Development project due to the Behavioral and Cultural patterns (B.C.s) of Ein El-Sira



Figure6- 8 An aerial view of the suggested development project . source: (Researcher, 2016)

- Encroachments were all dismissed from the social housing buildings.
- A boulevard is designed to connect between the boundary streets with a landmark surrounded by a space.
- Community center is aligned with the boulevard and the recreational area which replaced Abulwafa place.
- the social housing blocks are heightened by 1 floor and a roof garden with pergolas are placed.
- The market place stayed at the same location.



Figure6- 9 Shot showing the extra floor with the roof Garden source: (Researcher, 2016)



Figure6- 10 Shot showing the investment buildings, the green areas and the museum source: (Researcher, 2016)

-The museum was already proposed by the Government; however the researcher suggested the design and its place, the leather industries were conveyed and replaced by the investment buildings of 6 floors height.

-Walkways and recreational areas are designed in front of the monumental gates



Figure6- 11 Shot showing the landmark with the space surrounding it source: (Researcher, 2016)



Figure6- 12 Shot showing the relation between the upgraded existing buildings and the new ones (Researcher, 2016)

6.8 Concluding summary of Chapter Five

- This Chapter sections presented an explanation of the hypothetical conceptual framework adopted in this research, including the studied aspects of *ashwa'eyat* and the investigated constellation of selected cultural and behavioral factors.
- The final dissertation of the development project mainly depended on the findings of the B.Cs matrix, as the satisfaction percentage was weak at certain entries. Thus, the development entries were the priorities of upgrading.
- Also, the cultural matrix presented a visual anthropological pattern to the inhabitants' community, and introduced a peculiar list of their life style, origin, their profession or craft, their relation with the surrounding community and finally their relation with the political representatives, whether, those delegates are the governmental authorities, NGOs or even political parties.
- The behavioral patterns made an axial annex to the requirements and needs of the residents; it presented a numerical value for each physical attribute which have a certain influence on the behavior of the social group. The figured values introduced the urban problems including, the massing percentage, the streets' width, facades conditions, and the social identity, which includes more attributes andetc.

- The development entries matrix is then concluded which create interrelations between the B.Cs to find the final entries to the upgrading design.
- After studying the social group of Ein El sira area, it was discovered that an average percentage of 80% of the community had upper Egyptians origin, which had a great influence on the B.Cs patterns and thus, certain physical entries were implemented, like the gender orientation development where the community centers were mostly dependent on men, as most women do not have a job or profession in this community.
- The leather industries were all conveyed from e place (according to the intentions of the Egyptian authorities), thus investment buildings and a museum replaced the land in order to add value to the place and at the same time to cover the number of families who were transferred from *Ezbet AbulWafa*, or others who were in the ground floor of the chosen buildings in the social housing.
- Extra floor was added to the social housing buildings to compensate the dismissed floor , also The roofs were converted to roof gardens shaded with pergolas.
- A walking way boulevard was created to connect between the components of the project and the two major streets *Salah Salem* and *Magra El Eyoun* and also presents an entrance axe to the invented market place , moreover the boulevard was centered by a landmark which centers a space.

Chapter Seven

**The Empirical Research and the
development model on Case
Two: Darb ElLabbana, Old
Cairo**

Chapter Seven : The Empirical Research and the development model on Case Two: Darb ElLabbana, Old Cairo

7.1 Introduction

This chapter presents an explanation of the hypothetical conceptual framework adopted in this research, in a unique part of Egypt, which is the heart of Old Cairo, Darb El Labbana.

Darb El Labbana presents a different culture than other parts of Cairo, and illustrates the origin of the old Cairenes identity. Even if, this part presents a type of informal settlements which is the old and deteriorated core, however this part of the research will implement the major hypothesis of the research to prove whether the results are applicable and peculiar from the other part (Ein El Sira).

The case study fieldwork is introduced including the case study areas' selection, fieldwork objectives and analysis methods. This part includes the analysis of each of the two case study areas based on the different aspects.

7.2 The evolution of Cairo city in 19th century

The city of Cairo developed at the base of the Moqattam Hills, away from the Nile stream that moved slowly to the west through time, consequently, providing land for city development. The French Expedition map is the first analyzed cartographic document describing the urban's morphology in the year 1807. The below elements were highlighted for the sake of comparison with other maps from the succeeding periods:



Figure7- 1 The mosque of Sultan Hassan and Refaie (Kamel, 2010)

- Major spines in the street network, (for example alMu'izz street).

• Remarkable monuments as the city gates (Bab al-Futuh, Bab al-Nasr and Bab Zuwaila), mosques (al-Hakim, al-Azhar, al-Aqmar, Ibn Tulun), the Citadel, the Aqueduct and the Nilometer on the southern tip of al-Rhoda Island. The urban structure shown in the French Expedition map is bordered to the north and east by the city fortifications and the Citadel, beyond which outstretch the large cemeteries. The western part is mostly famous with the presence of canals and lakes that indicate the relationship of the city to the Nile.⁵ apart from the continuous urban area but closely related to the Nile, al-Fustat⁶ settlement to the south-west and the harbour of Bulaq to the north-west of the site complete the “pre-modern” structure of the city.

7.2.1 The evolution of the city: 1807 – 1888

The Cairo map drawn by L. Thuillier¹ in 1888 represents the stage of development of the city during Khedivial period, with its impressive modernization and cosmopolitanism efforts. The western urban models introduction is best expressed in the Downtown development, which boasted new landmarks that reflected the importance of new institutions and economic structures to the city, and social changes as well. This process introduced new ways and diffused processes of building renovation into the pre-modern fabric. However, it did not change the structure of the historic city.



Figure7- 2 Darb El Labbana area (UNESCO, 2012)

¹The Historic map of Cairo, made by L. Thuillier. Original: “Le Caire, Itinerare de l’Orient, Egypt, Dresse par L. Thuillier, Paris Hachette, 1888”

. Due to the analysis of the 1888 map, the following attributes were highlighted with reference to the existence of the pre-modern urban morphology, and the character of the modern city which had developed towards the Nile banks:

New “focal points” that reflected European urban models (such as al-Azbakeya Square, Abdin Palace, the Opera) that was created at the edge of the historic city, to showcase the development of modern city centre.

- New Canals and lakes creating new thoroughfares and residential quarters.
- New roads cutting the historical urban fabric, such as Mohammed Ali Street, connecting al-Azbakeya Square to the Citadel.
- Urban expansion towards Nile banks, such as port of Bulaq, the Qasr al-Nil Barracks and the Qasr al-Nil Bridge, first bridge that connected the Zamalek island to the mainland.
- New urban patterns that continued the pre-existing fabric, featuring a different urban morphology based on regular grids and extroverted housing typologies (UNESCO, 2012).

7.2.2 The evolution of the city: 1888 – 1948

The two sheets of : “Map of Islamic Monuments” by the Egyptian Survey Authority (ESA) in 1948 were assembled and compared to the earlier maps of 1807 and 1888. This map represented the evolution of Cairo in the early and mid-20th century, after the fall of the Ottoman Empire and the British Mandate. Cairo developed at this time as a capital city of an independent nation with efforts at modernization and an international identity, characterized by the encouragement of administrative functions and population increase. the focal points and the landmarks reflected changing role of the metropolis, with new structures adding to the cultural and social changes that affected the city. Within this new framework of development, the following changes were very clear:

- The completion of the modern city in the lands between the historic city and the Nile.
- The completed street pattern of Downtown Cairo with modern focal points and landmarks.
- Further urban development between the historic city and Khedivial Downtown.
- The development of the Garden City quarter, discontinued developments along the banks of the Nile between Bulaq and al-Fustat, and the construction of a second bridge connecting the island of Zamalek to the mainland.
- An expansion to the north of the historic city, connected to the railway station at Ramses Square and new industrial settlements.
- The opening of new streets such as al-Azhar in the pre-modern urban fabric. In this phase, Historic Cairo was linked to the modern city through a continuous urban pattern and new street network, with the historical fabric largely preserved (UNESCO, 2012).

7.2.3 The evolution of the city: 1948 – 2006

"CAPMAS" Cairo map in 2006 highlighted the fact that the modernization process continued in contemporary times. No major changes happened in the morphology of the pre-modern city; though, nevertheless, the historical fabric was affected by the interventions and reconstructions with inconsistent architectural typologies, while the street pattern was modified by minor and diffused street widening and re-alignment programs (CAPMAS, 2010).



Figure7- 3 Darb El Labbana Gateway. (UNESCO, 2012)

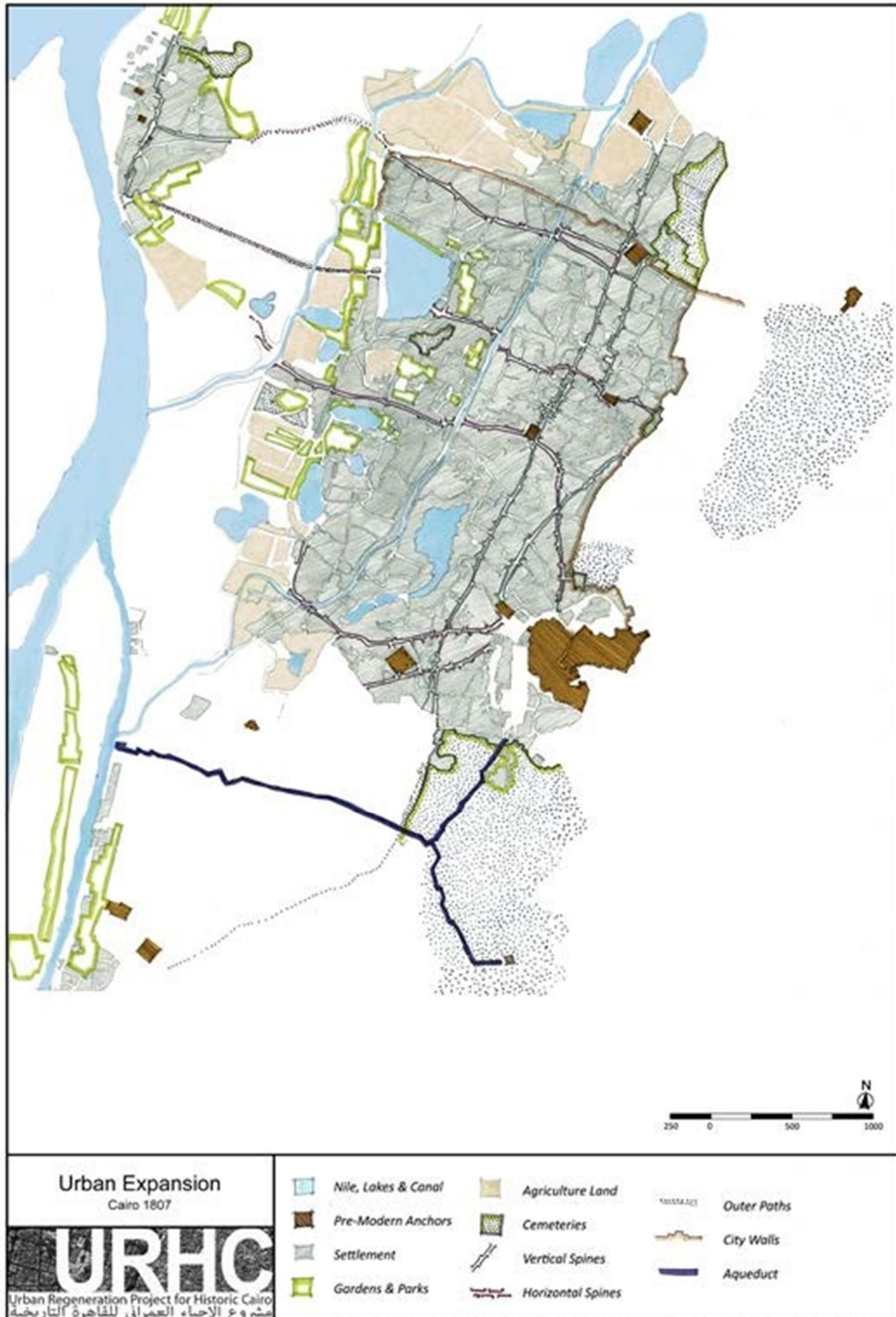


Figure7- 4 Urban Fabric as in the plan of Cairo in 1807 drafted after the plan of “Description de l’Egypte” (UNESCO, 2012)

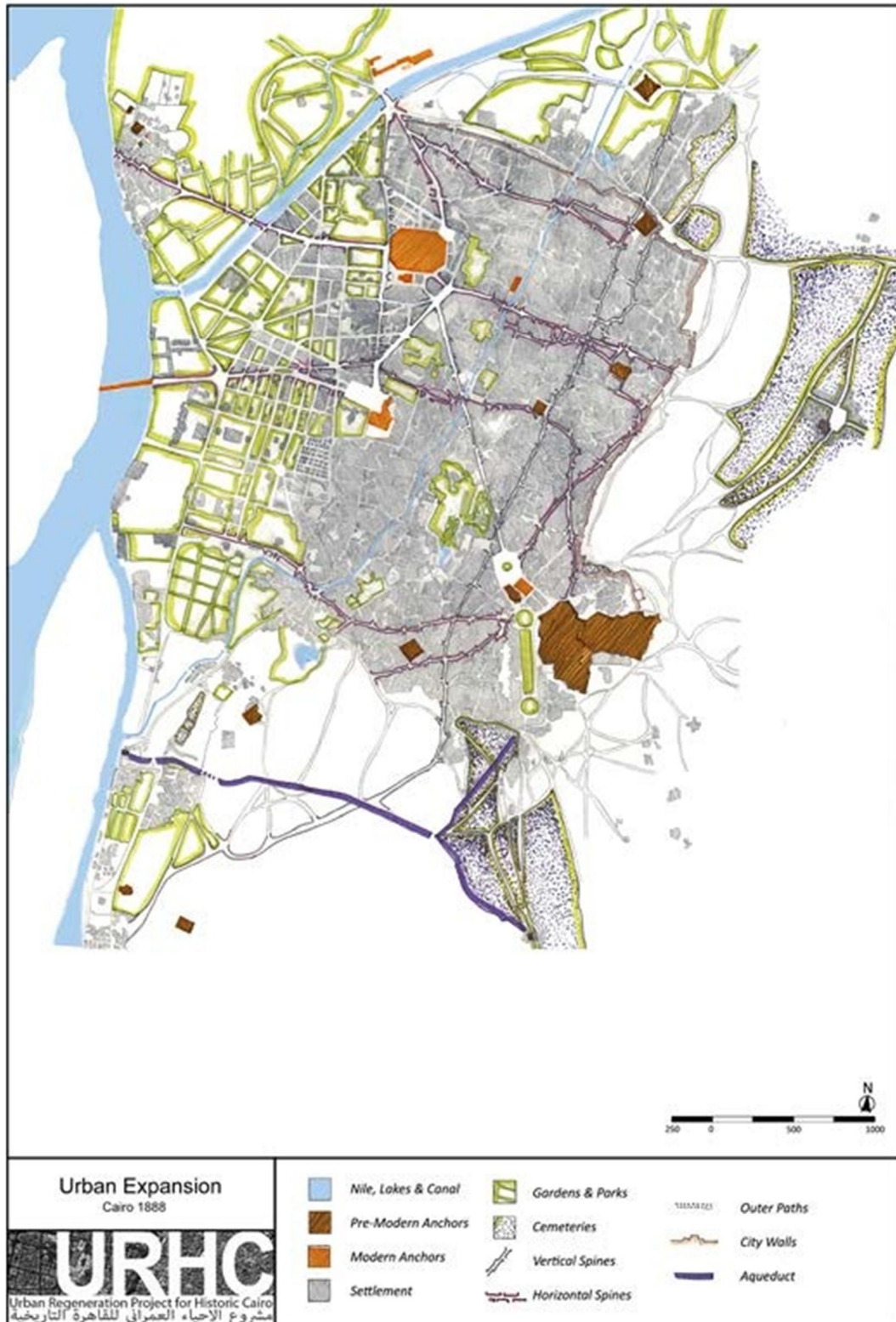


Figure7- 5 The plan of Cairo in 1888 drafted after the plan of “L.Thuillier” (UNESCO, 2012)

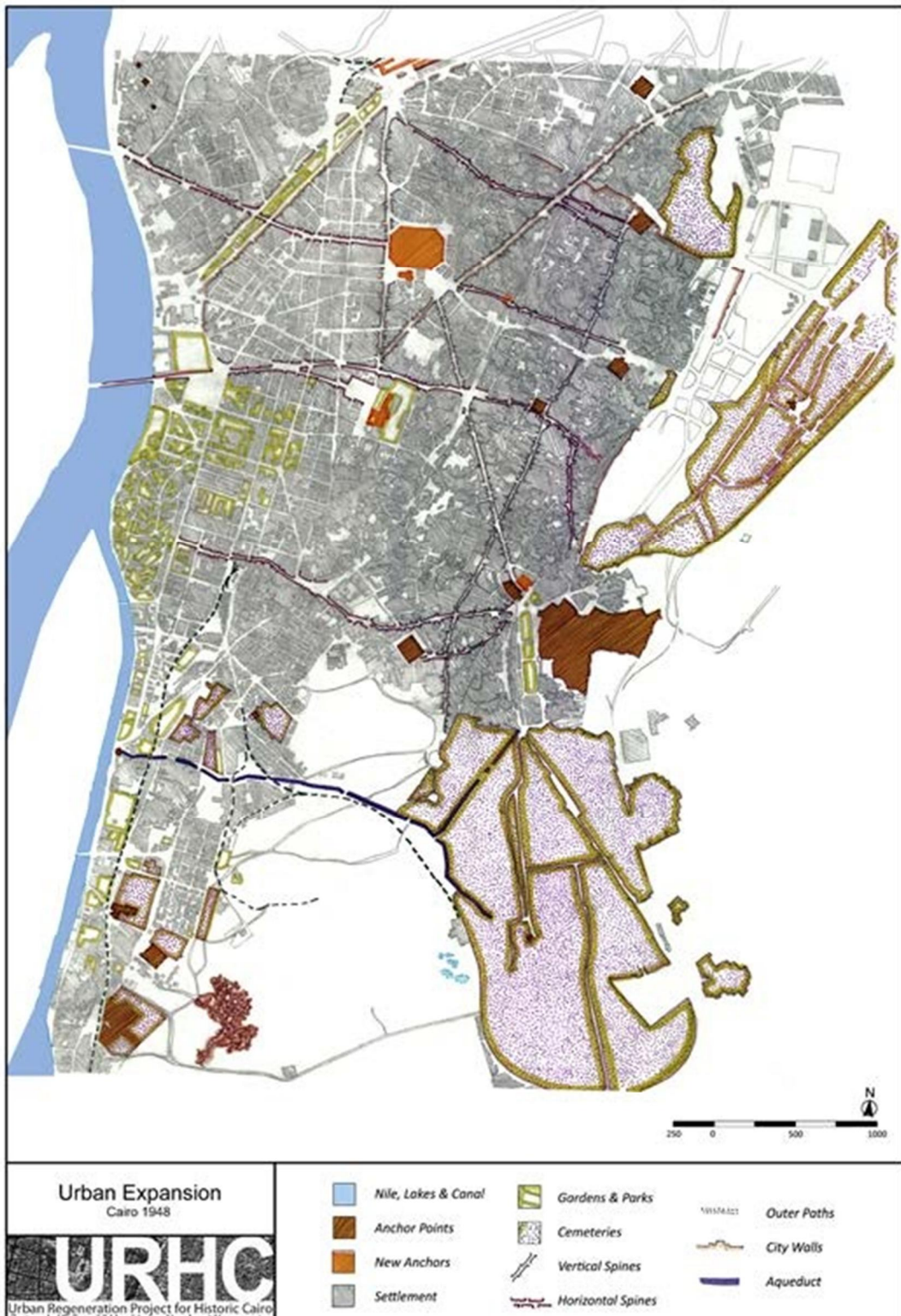


Figure7- 6 Urban fabric in 1948, drafted after the plan of Islamic monuments map (Egyptian Survey Authority, 1948)

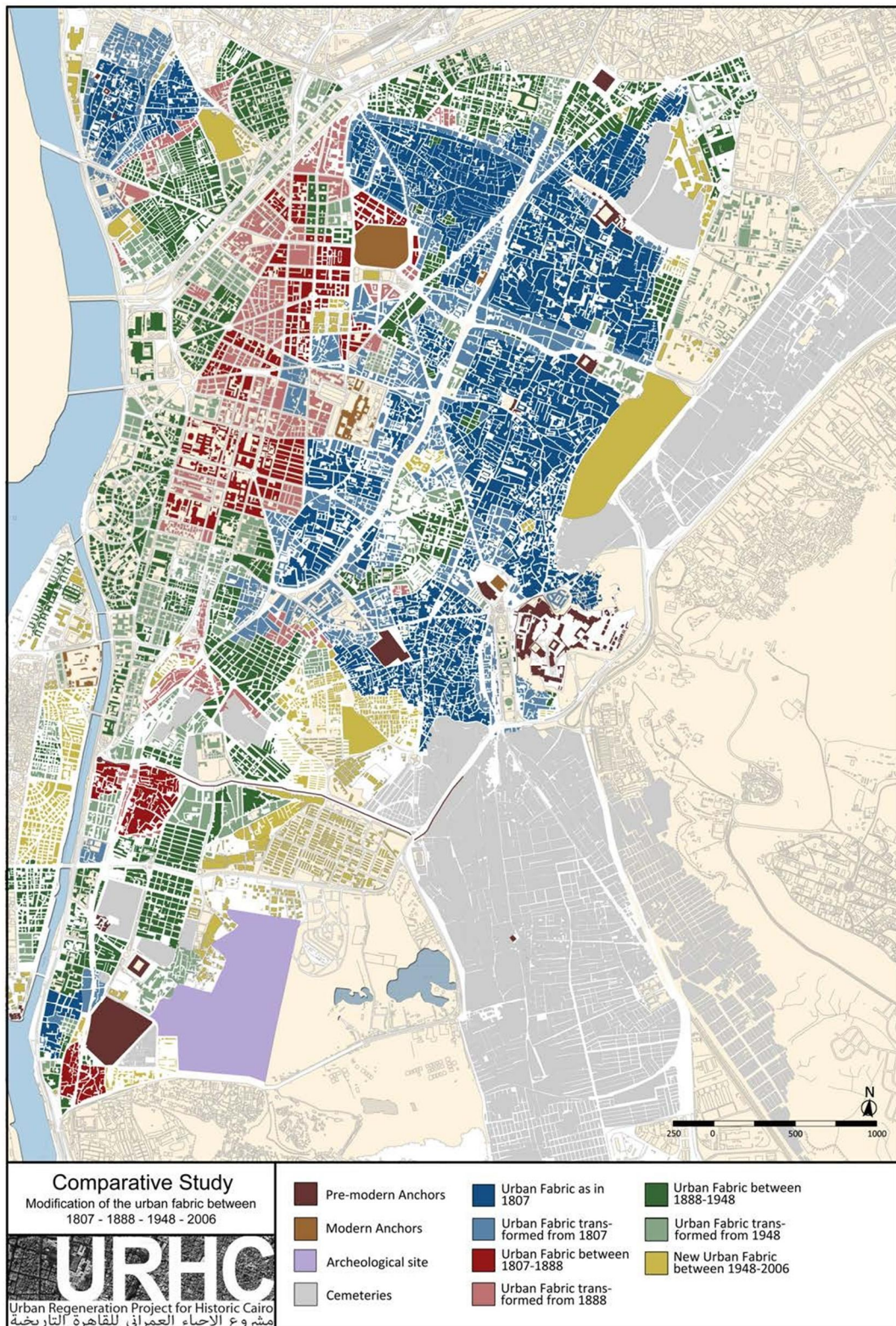


Figure7- 7 Comparative study within the modifications of the urban fabric from 1807 to 2006 (UNESCO, 2012)

7.3 The approach of Darb El Labbana area

Darb El Labbana area begins from *salah El Din* square, on the eastern side of *El Sultan Hassan* mosque and *Refaie*, which begins from *Darb El Labbana* Gateway or *Bab El Wazir*. The area is a complex of monuments, old buildings, new buildings, and workshops, Figure 7-8.

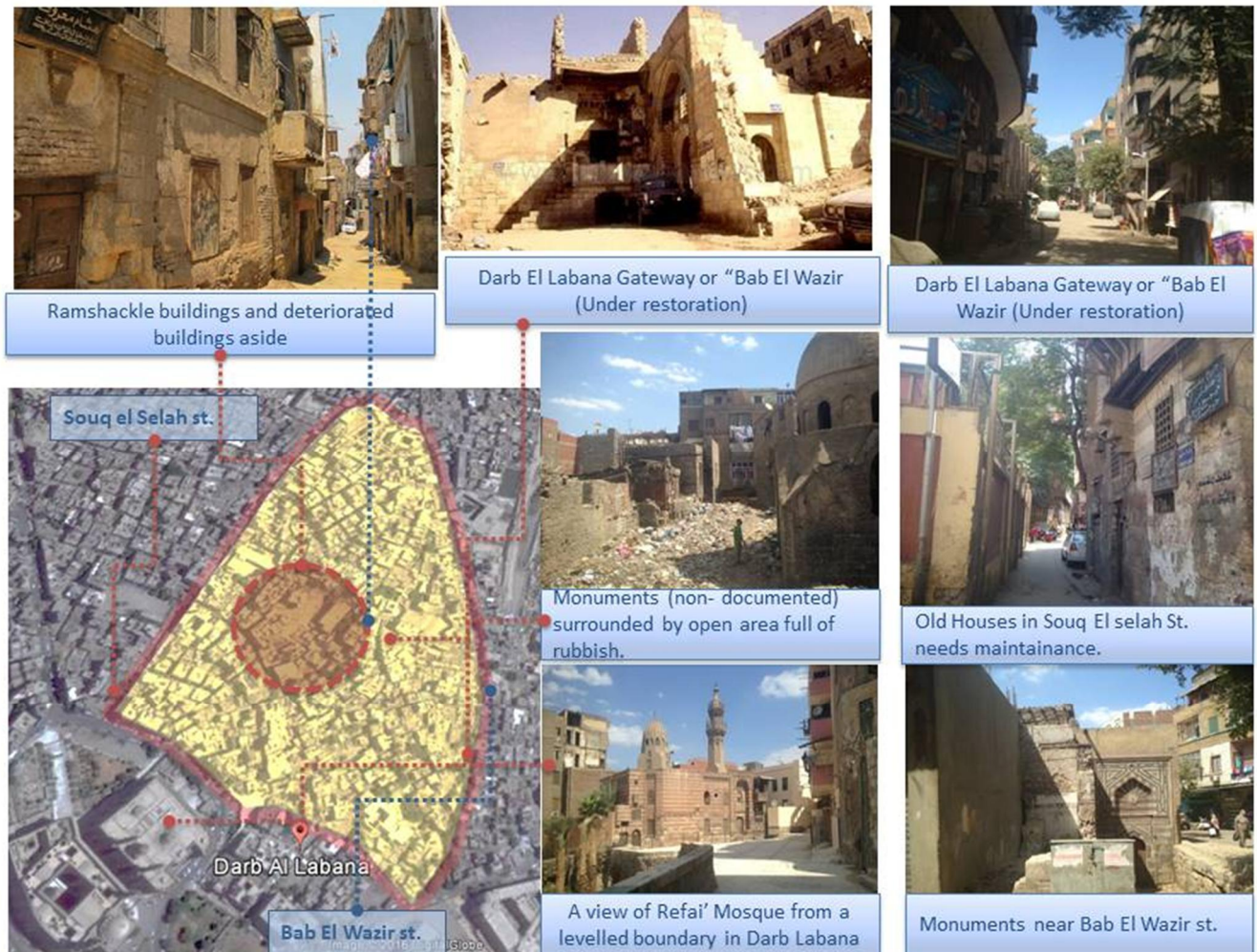


Figure 7- 8 The approach of Darb El Labbana area including the main features which construct the place (Researcher, 2016)

7.4 The Islamic monuments in Darb El Labbana area

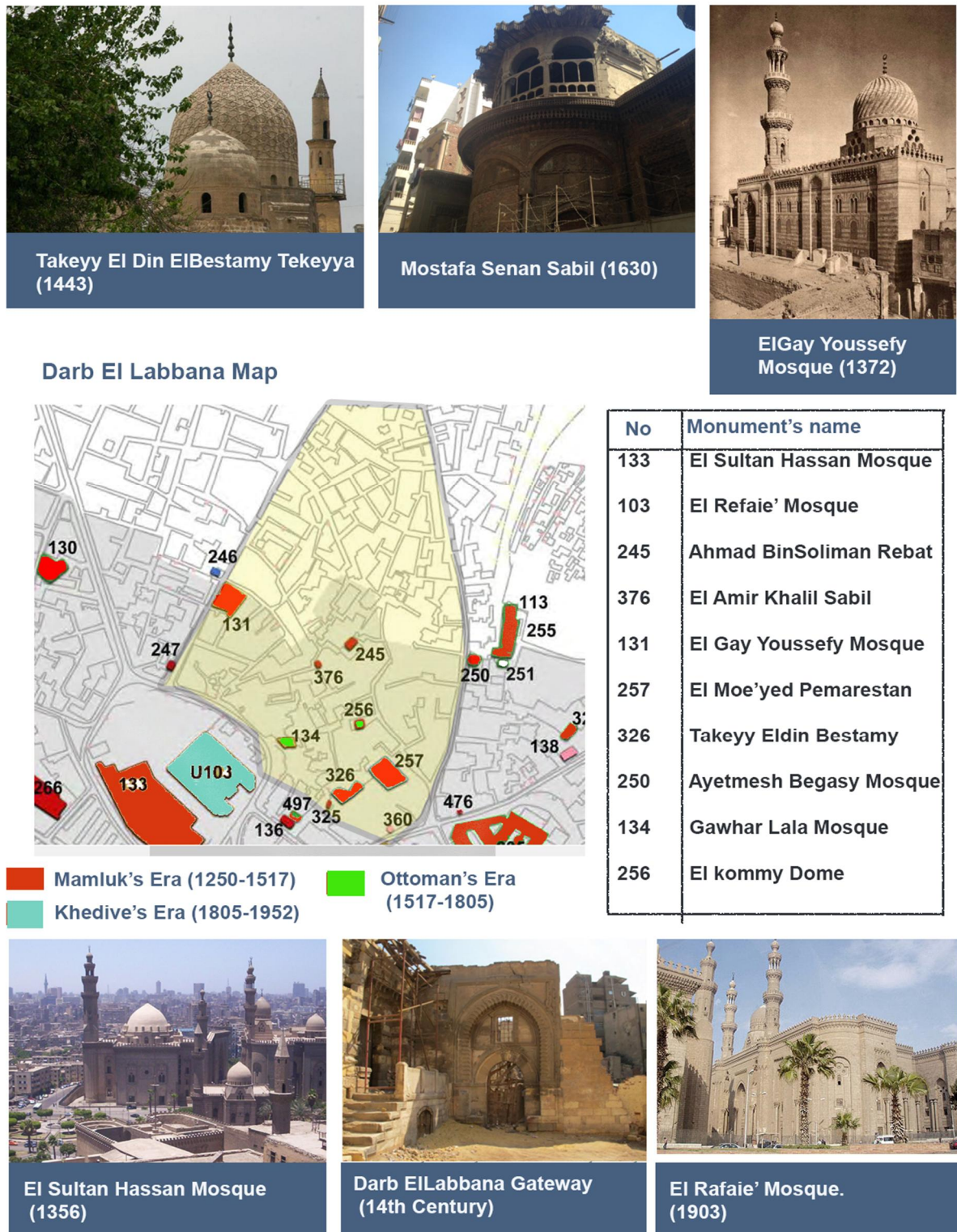


Figure7- 9 The Islamic monuments in Darb El Labbana area (Researcher ,2016)

7.5 The Land Use of Darb El Labbana area

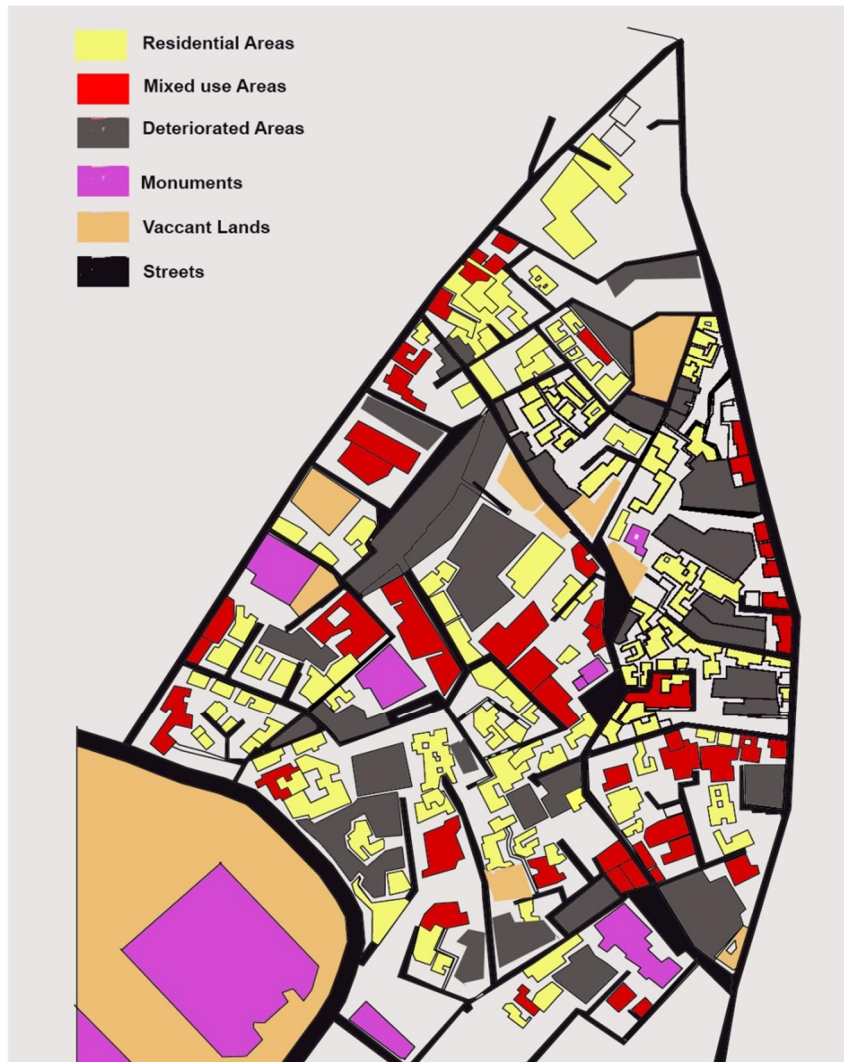



Figure7- 10 The Land Use of Darb El Labbana area (Researcher, 2016)

- The land use of Darb El Labbana area shows a high mass percentage reaching about 74%, and also the deteriorated buildings' mass reach about 30% which is considered a high percentage. Also the mixed use presents a high percentage reaching 40% of the built area. The streets are extremely narrow with broken edges, its percentage of the land is nearly 10% of the whole area

7.6 The explanation of the checklist of the physical attributes



The following table presents the explanation of the physical attributes of the behavioral patterns ,which illustrates the measurement conditions

Table7- 1: The explanation of the checklist of the physical attributes for Darb El Labbana area (Researcher,2016)

		Basic Information	Pictures
		Basic Information of an Informal settlement	Time
Legal Situation	Darb El Labbana residents had a legal situation ,however for the infringements occurred to the upper floors and also for the ground floor for building a shop to be a source of a livelihood.		
Building conditions	Around 50% of the buildings are in a bad condition that's for the lack of maintenance. Also some of them are ramshackle.		
Proximity to richer areas	The region is approximately far away from richer areas. The nearest richer area is muquattam city which is mostly oriented to the middle class.		
Infrastructure	Infrastructure is available for the area even if it needs serious maintenance.		
Accessibility Attractiveness to residents	Accessibility is considered determined from the square of Salah EIDin which is highly landmarked by The Refaii and El Sultan Hassan Masjids, Also the entrance of the area is well-known by El Labbana Gateway which is highly deteriorated now. Darb El Labbana is averagely attractive to residents although the degraded conditions because of the high rentals beyond the area.		

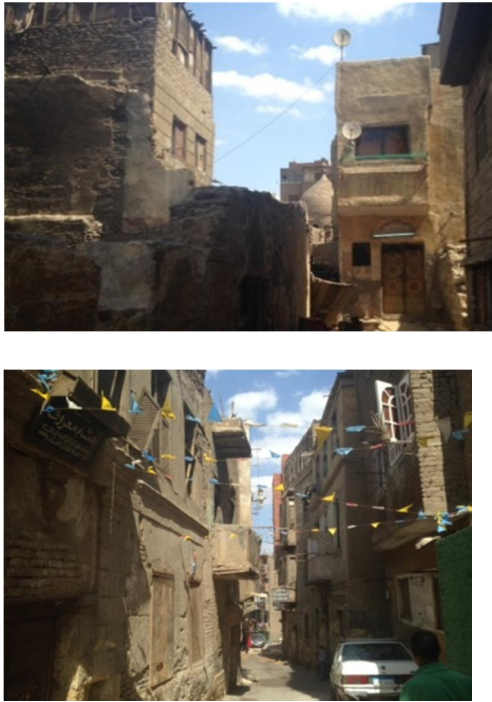
(Source: Researcher)

External Investments	Investments are highly concentrated on the inhabitants of the place.
Conclusion	The basic information for the area indicates the presence of a main area with inhabitants of very analogical conditions. The area is a historical area where the consolidation period reached 400 years or more.



Activities and services			Pictures
Movement	Paving (availability)	Paving is partially available in Labbana's area, however it needs maintenance.	
	Stairs or slopes	There are many leveled areas within the territory of Labbana area while slopes are partially available.	
	shade and shelter	shades and shelters are normally available in Labbana due to the accumulative agglomeration in such area. While weakly available by shading trees	
Transportation	Private	some private cars were observed in Darb El Labbana.	
	Public	Public transportation actually is available in the area.	

(source: Researcher)


		Semi-private	Most of the residents use this type of transportation whether using the microbus or the tok-tok for transportation.
	Conclusion	Observation and analysis proves the appropriate opportunities of activities and services in the area with total 18 out of 30 which is basically acceptable and highlights the need of interventions in maintenance of available opportunities.	


Economic Indicators			Pictures
Annual income per person	no\$/person	The questionnaire proves that the annual income of families in Labbana reaches around 14000 egp due to the lack of steady jobs.	 <p style="text-align: center;">(source: Researcher)</p>
Unemployment rate	4-17%	Unemployment rate reaches approximately 12% in Labbana ,however most of jobs are non-steady.	
Women subsistence	no of families %	The women subsistence in Labbana reaches around 20%.	
Conclusion	The economic indicators shows the problem in the annual income, although the unemployment rate is not as high as many areas due to the practiced crafts.		



Social Indicators			Pictures
Behavioral Patterns	Population	no. person/fed dan	The population in the area is more than 120 persons per feddan
	Sociability	space/person(m ² /p)	Sociability in the space reaches 12 m ² /p due to the absence of residents
	The built environment	Percentage %	A high percentage of the buildings in the area are extremely deteriorated.
	Community Centers	Availability	not available
Conclusion	The social indicators reached about 37% which indicates a low percentage due to the deteriorated conditions and dismissed areas.		






(Source :Researcher)

Social Identity			Pictures
Trees (Green areas)	Availability %	Some old trees are found in the El Labana area, however no new planted trees are found	
Change of Levels	Availability %	highly available which sometimes reaches -3 m under street level	
Mosques & Churches	Availability	Mosques are highly available, however churches are rare.	

	Community areas	Availability (coffee shops)	Community areas are presented in both areas in coffee shops which is almost oriented to male gender.	
	Conclusion The social identity indicator is high in the area due to the presence of the leveled boundaries, historical trees and mosques every 300 meters max. thus the satisfaction in the social identity reached 13 out of 16.			

Urban attributes				Pictures	
Urban Structure	Residential areas	Percentage % built area/plot	the built area in Darb El Labbana exceeds 80% of the land lot which presents a high agglomeration.		
	Facades conditions	conditions	some of the buildings in the area are ramshackle, others are historical and need maintenance, and others are new.		
	Services	Schools	most of the children in the area go to the same school.		
		Hospital	nearly most of the residents go to the same hospital.		
		Club or youth center	No youth centers are available in the area		
Recreational areas	rare recreational areas.				
Streets	Percentage %	approximately 10%			

<p>Urban pattern</p>	<p>%mass percentage</p>	<p>The blocks are highly condensed in Labbana's area, which is above 70% of mass area.(solids and voids)</p>	 <p>(Source :Researcher)</p>
<p>Conclusion The urban indicators show the low satisfaction of the urban structure, which reaches 12 out of 32, as many of the buildings are deteriorated and streets are narrow and the urban pattern is highly compact.</p>			

<p>Spatial attributes</p>			<p>Pictures</p>
<p>Occupied Territory</p>	<p>Area m²/family</p>	<p>The apartments occupied by the residents are averaged between 50 and 70 m²</p>	 <p>(Source :Researcher)</p>
<p>Enclosure</p>	<p>Type</p>	<p>Enclosures are basically linear and levelled by stairs, where the difference between levels exceeds 3 m</p>	
<p>Outdoor landscape</p>	<p>Availability</p>	<p>rarely available within the area.</p>	
<p>Focal point</p>	<p>Availability</p>	<p>Focal points and landmarks are fully available within the area in an average distance of 400 m due to the historical conditions of the area</p>	
<p>Conclusion Due to the historical area, variable heights were found which made levelled enclosures with differential heights reaching 3m. The place is highly rich with focal points due to high number of monumental landmarks.</p>			

7.7 The Checklist of the physical attributes of Darb El Labbana Area

The table 7-1 was the explanation how the physical attributes of the behavioral patterns were illustrated by the fieldwork procedures, which was explained in the previous chapter. Consequently, the following matrix is filled in as follows, in table 7-2;

Table7- 2: The Checklist of the physical attributes of Darb El Labbana Area, source: (Researcher)

Checklist of Physical attributes and Indicators of Darb El Labbana (behavioral Pattern)							
● Darb El Labbana							
Type	Physical Attributes		Interval Scale				
		Indicator	None (0)	Low (1)	Normal (2)	High (3)	very high (4)
Basic Information of an Informal settlement	Basic Information						
	Time	no of generations	0 gen.	1 gen	2 gen.	3 gen	more ●
	Legal Situation	Degree of legality	illegal	legal ownership, illegal buildings ●		legal	
	Building conditions	Degree		Bad	average ●	good	new
	Proximity to richer areas	Connectivity	No connect	L connect ●	N connect	H connect	V.H connect
	Infrastructure	Availability	Not avail.	Partially available		Complete ●	
	Accessibility	Degree	None	Medium accessibility		Strong Accessibility ●	
	Attractiveness to residents	Degree	Repelling	Medium Repulsion ●		Strong attraction	
	External Investments		None ●	Medium		Strong	
	Total : 32						19 ●
Behavioral Patterns	Activities and services						
	Movement	Paving (availability)	None	Partial pavement ●		Total pavement	
		Stairs or slopes	None	Partial availability		Total availability ●	
		shade and shelter	None	Partial availability		Total availability ●	
	Transportation	Private	None	Partial availability ●		Total availability	
		Public	None	Partial availability		Total availability ●	
Semi-private		None	Partial availability ●		Total availability		

Total : 24							18 ●	
Behavioral Patterns	Economic Indicators							
	Annual income per person	No\$/person		>9700	9700<x<14400	14400<x<21600	21600<	
	Unemployment rate	4-17%		>40%	40<x<20%	x<20%		
	Women subsistence	No of families %		<40%	around 30%	around 20%	<10%	
	Total : 12							6 ●
	Social Indicators							
	Population	No. person/Fadden		>120/fed	>120/fed	>120/fed		
	Sociability	Space/person(m2/p)	>0.28 extreme danger	0.28	12	25	46	
	The built environment	Percentage %		Deteriorated (>60%)	Partially deteriorated (<60%)		New settlements	
	Community Centers	Availability	None	Available (not active)		Available (active)		
	Total : 16							6 ●
	Social Identity							
	Trees (Green areas)	Availability %	None 0%	Few 10-20%	Medium 25-50%		High >50%	
	Change of Levels	Availability %	None	Few	Medium Range		High	
	Mosques & Churches	Availability	None	Far needs transport	Medium	Near		
Community areas	Availability (coffee shops)	None	Far needs transport	Medium	Near			
Total : 16							13 ●	

Urban Structure	Urban attributes						
	Residential areas	Percentage % built area/plot		>90%	around 80%	around 70%	around 60%
	Facades conditions	conditions	totally deteriorated	<70% deteriorated	<50% deteriorated	<20% deteriorated	V.good condition
	Services	Schools	None	available deteriorated	Partially deteriorated		V.good condition
		Hospital	None		Partially deteriorated		V.good condition
		Club or youth center	None	available deteriorated	Partially deteriorated		V.good condition
		Recreational areas	None	available deteriorated	Partially deteriorated		V.good condition
	Streets	Percentage %		>15%	nearly 15%		<15%
	Urban pattern	%mass percentage		>66% (highly condensed)	nearly 66%(average)		<66%
	Total : 32						12
	Spatial attributes						
	Occupied Territory	Area m ² /family		>50m ²	50<x<70m ²	75<x<90m ²	90<x<120
	Enclosure	Type	N.A	Flat linear enclosures	levelled long enclosures		levelled Radial
	Outdoor landscape	Availability	N.A	Low	Partial		Good
	Focal point	Availability	N.A	Low	Partial		Good
	Total : 16						10

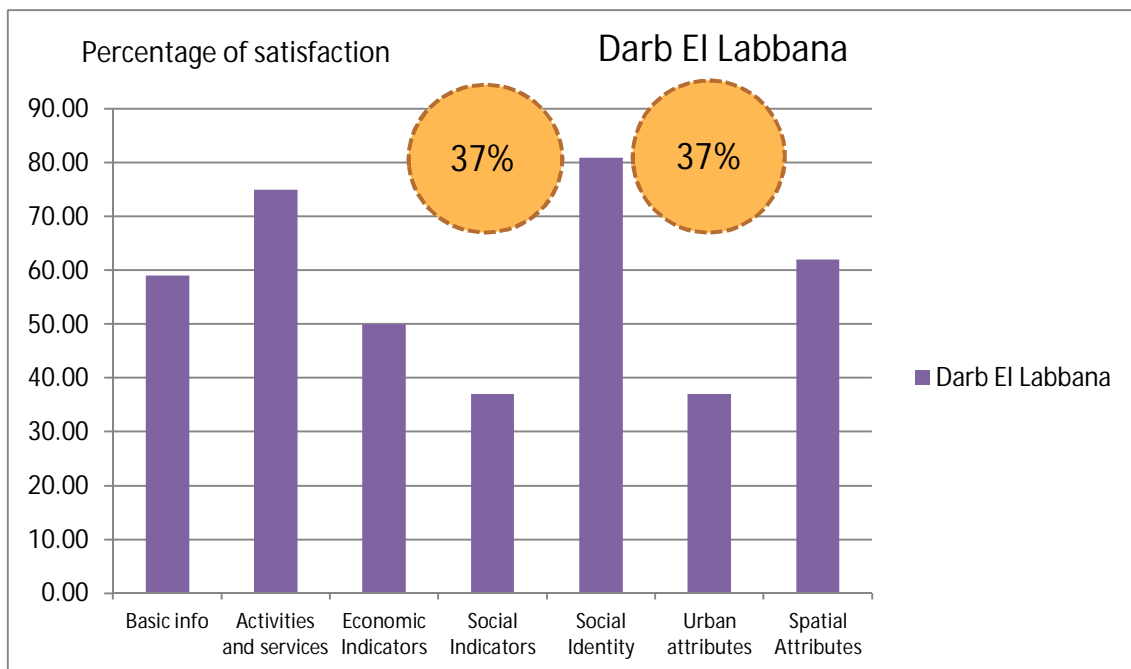
7.7.1 The checklist of the physical attributes analysis

After the physical attributes were measured the satisfaction percentage is calculated afterwards , by adding the total measured sub-factors and then divided by the total scale, thus the percentage of satisfaction is calculated,figure7-



Figure7- 11 The satisfaction percentage of Darb El Labbana area’s physical attributes
 source: (Researcher)

Area	Basic info	Activities and services	Economic Indicators	Social Indicators	Social Identity	Urban attributes	Spatial Attributes
Darb El Labbana	59.00	75.00	50.00	37.00	81.00	37.00	62.00



- The analytical graph illustrates the percentage of physical satisfaction of the area of Darb El Labbana, thus the figures show a hike in






satisfaction percentage in **Social Identity (81%)** due to the historical identity of such area. Each street in the place has its own character, which landmarks all streets which give a spirit of identity to the area. Streets and spaces are easily recognized and identified by either historical monuments or by special workshop like the Oyma makers (Oymangy) or the shell carpenters or the furniture makers.





- On the contrary is the the satisfaction of the **social indicators** and the urban attributes alike as they reach only **37%** which is considered a low satisfaction. As a result a high priority of a development entry in such field which has an entire relation with physical urban elements, like minimizing the mass percentage of the area, deteriorated facades , widening streets, creating open areas..etc.
- Furthermore, the analysis shows an average percentage of satisfaction of the **Economic indicators**, reaching a percentage of 50% which is considered a low ratio in a place of craftsmen. Mostly the reason of the low satisfaction is the low marketing of the products which are only sold to certain clients with no alternatives of the type of clients.
- Moreover, the study illustrates a satisfactory percentage of the activities and services which reaches **75%** due to the presence of the levelled enclosures as the difference of levels between the linear enclosures reach 2m , which create a spirit of privacy and a disguised boundary for places.

7.8 Cultural patterns and anthropological attributes in Darb El Labbana area

The Ethnographic or Cultural Patterns are formulated due to the research procedures that were explained before in the previous chapter and also the researcher had visited the location and stayed a long interval of time to illustrate the culture of the residents in the area.

Table7- 3 : The visual Cultural patterns’ matrix of Darb El Labbana area (Researcher,2016)

Cultural patterns and anthropological attributes			
Origin	 <p>(Source: www.Brittanica.com)</p>	<p>Rural Village</p>	 <p>(source:www.URHC.org)</p>
	Upper Egyptian(City)	Rural Village	Cairo's old district
	<p>mostly/Avg./none rare</p> <p>Only (3%)of the chosen sample had origins from upper Egypt</p>	<p>mostly/Avg./none</p> <p>Some of the residents (9%) have origins of rural villages, though, they don't present high percentage. They also didn't try to show a physical impact on the entire space. On the controversy, they interfered with the old Cairenes and became a part of the community.</p>	<p>mostly/Avg./none</p> <p>Most of the residents (88%) are old Cairenes, and they don't even remember the first owner of their houses. Moreover, the ramshackle houses were demolished and rebuilt by the entire owners. Also some of the original owners were property tenants and they disappeared due to the extremely low rentals, and they cannot benefit from their properties.</p>
 <p>(Source: Researcher)</p>	 <p>(Source: Researcher)</p>	 <p>(Source: Researcher)</p>	

Life Style	Weddings or Funerals	Outer living areas	animals or birds breeding
	mostly/Avg./none	mostly/Avg./none	mostly/Avg./none
Ethnics	 (Source: Researcher)	No special features	no sectarian strife or any problems between both poles
	Muslims (Sunni)	Christians (Orthodox)	Integrated (Muslims&Chris.)
Relation to Urban Economy	mostly/Avg./none	mostly/Avg./none	mostly/Avg./none
	Religious groups have some bases in the area, mainly through mosques. They provide services and financial assistances to low-income families, as in several other areas in Cairo.	The christians are very rare in the area, and actually there are no investigated problems between either religious groups	none
Relation to Urban Economy	 (source: Researcher)	 (source: Researcher)	 (source: Researcher)
	Furniture making, Wood Carving (Oymagy), Shell boxes&drums		(Owners for coffee shops)
	mostly/Avg./none		mostly/Avg./none

	<p>It's well known that the area of Darb El Labbana has an experienced group of craftsmen, as well as special crafts which are susceptible to extinction, like Oyma makers, Shell boxes, and Arabesque furniture decorated with shell. However, the crafts need marketing as the research proved their income shortage, as well as, the low marketing of their products.</p>	<p>One of the most popular features of the informal settlements is the presence of the coffee shops and the distinct relation with the urban economy. In the area it's presented in a linear way due to the narrow streets.</p>	
<p>Political Influence</p>	<p>The resident's main issue in the area with the authorities is the refusal of the government to heighten the blocks to more than 4 floors so the buildings won't exceed the monuments' heights. Also the authorities refuse to compensate the ramshackle buildings to new ones.</p>	<p>The political parties were not recognized in such area and had no implementation or an illustrated activity in the area.</p>	<p>It is recognized that the NGOs that participated in the development of the area have an entire relation with the historical monuments existing there, like, the URHC (urban regeneration project of historic Cairo). Also AgaKhan had a development project in El Darb El Ahmar. However, all the NGOs gave the first priority to the monuments not the people.</p>
	<p>The government relation (high/Avg./none)</p>	<p>The political parties (high/Avg./none)</p>	<p>NGOs (high/Avg./none)</p>

7.9 The Visual map of the main Crafts and the hand-made products in Darb El Labbana area



Figure7- 12 Mapping of the main Crafts and the hand-made products in Darb El Labbana area, source: (Researcher)

7.10 The development Entries due to the Behavioral and Cultural patterns in Darb El Labbana area

The development entries are constructed due to the interrelations between the behavioral and cultural attributes.

Table7- 4: The development Entries in Darb El Labbana area, Source: (Researcher)

	Behavioral Patterns	Development Entry	Weight	Cultural Patterns
Basics	Time	Infrastructure	Basic	Origin
	Legal Situation	Eviction	11%	Upper Egyptian
	Building conditions	Façade maintenance	√	Rural Village
	Proximity to richer areas	New Investment	3%	Cairo's old district
	Infrastructure	Stairs& Slopes	Available	Life Style
	Accessibility	Shade & Shelter	Available	Weddings or Funerals
	Attractiveness to residents	Bus Stop	1%	Outer living areas
	External Investments	Car Park	2%	Coffee shops
		Shops	6%	animals or birds breeding
		Market Place	8%	Ethnics
Activities&Servic.	Paving (availability)	Coffee shop	1%	Muslims (Sunni)
	Stairs or slopes	Community Centers	1%	Christians (Orthodox)
	shade and shelter	Women Craft	2%	Integrated (Muslims &Chris.)
	Private	Open Spaces	5%	Relation to urban Economy
	Public	Crafts Training	1%	Car Maintenance
	Semi-private	Crafts Center (prod.)	5%	Copper works
Economic Indic.	Annual income per person	Façade development	√	Steel works
	Unemployment rate	Roof Garden	√	Leather Works
	Women subsistence	Focal point	Available	Carpentry
	Annual income per person	Mosque	Available	Construction works
	Unemployment rate	Church	Available	Shop Owners
		Residential units	12%	Coffee shop
Social Identity	Population	School	Available	Car Drivers
	Sociability	Hospital	Available	Relation to urban Society
	The built environment	Youth Center	Excluded	The government
	Community Centers	Recreational areas	3%	The political parties
	Population	Streets	11%	NGOs
	Sociability	Massing (minimize)	Basic	
Social Indic.	Trees (Green areas)	Enclosure	Excluded	
	Change of Levels	Territory	Basic	
	Mosques & Churches	Façade skin	Basic	
	Community areas	Removal of encroachment	Basic	
	Residential areas	Heighten blocks	√	
	Residential areas	Trees	2%	
Urban attribut.	Facades conditions	Leveling	Available	
	Services	Boulevard	Excluded	
	Streets			
	Urban pattern			
Spatial	Occupied Territory			
	Enclosure			
	Outdoor landscape			
	Focal point			

7.10.1 Darb El Labbana Development proposal due to the Behavioral and Cultural patterns (B.Cs).

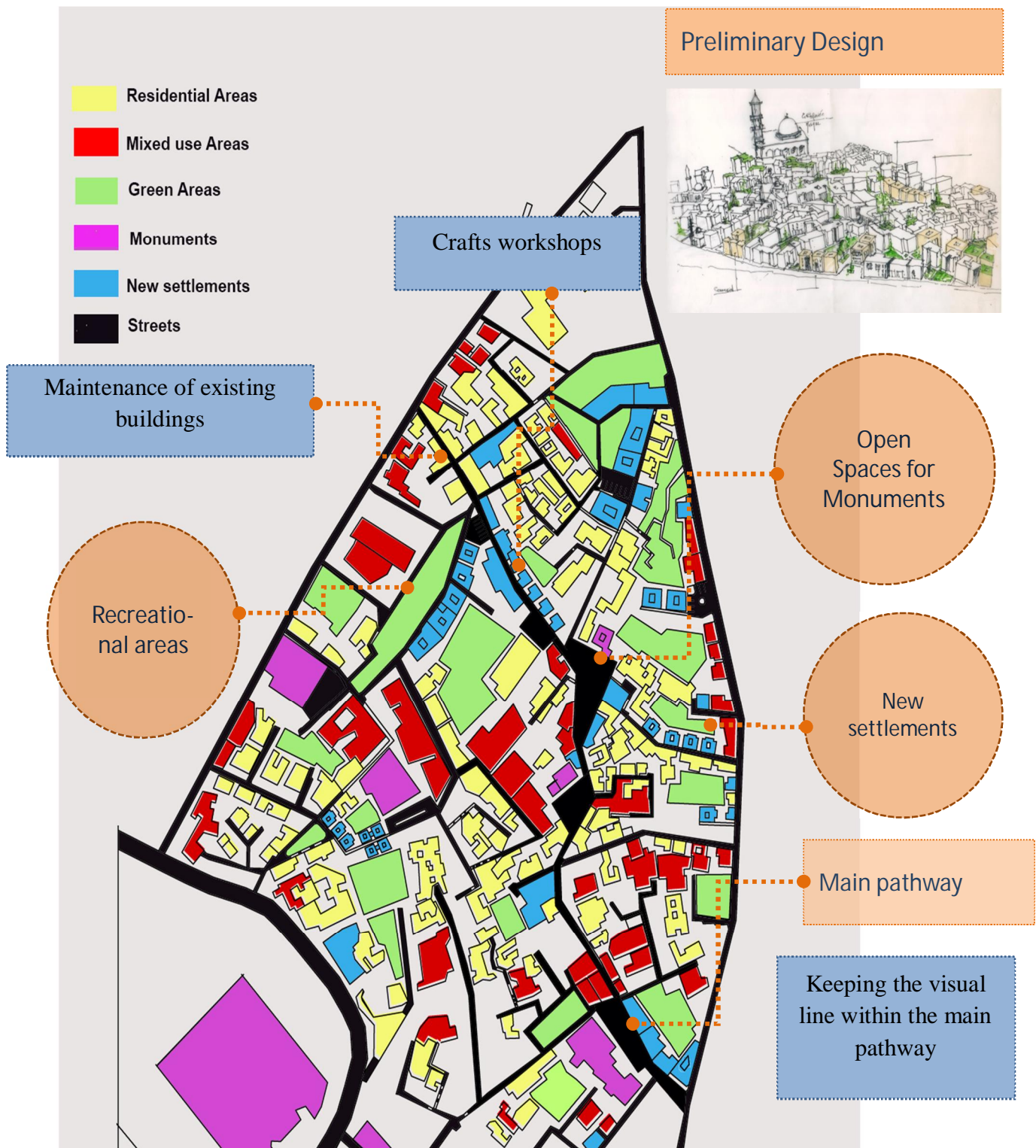


Figure7- 13 Darb El Labbana Development proposal due to the Behavioral and Cultural patterns (B.Cs)(Researcher, 2016)

7.10.2 Darb El Labbana Development proposal Guidelines due to the Behavioral and Cultural patterns (B.Cs).

1. Darb El Labbana is a historical area with a completely different community which is considered totally different from Ein El Sira area, that's why the development strategies were variable.
2. The community of Darb El Labbana area is majorly related to the crafts and Workshops founded there, the research investigated the variable crafts in the area and their own problems and requirements.
3. The main development strategies due to the B.Cs findings are;
 - Adding value to the workshops and the crafts their and also increase their annual income within marketing their products.
 - Redesign of spaces in front of the monuments buildings.
 - Enhancing the touristic investments in the area by visiting the Islamic monuments there and also marketing the various crafts in the area.
 - Elimination of deteriorated areas and compensation of the families with units in the new settlements.
 - Creation of open spaces and new enclosures in the area.
 - Design of walkways and decrease the streets within the area and creation of main pedestrian promenade passing through the various monuments and the crafts center.
 - Conversion of the roofs of the old buildings to green roofs.
4. Women had a certain role in the area and a number of families are substituted by female members, thus in development criteria, they have to be taken in consideration.
5. Rehabilitation of buildings which suffer from lack of maintenance and attaining sustainability by green roofing and wooden screens, which is compatible with the place's identity.

7.10.3 Darb El Labbana 3D Development proposal due to the Behavioral and Cultural patterns (B.Cs).

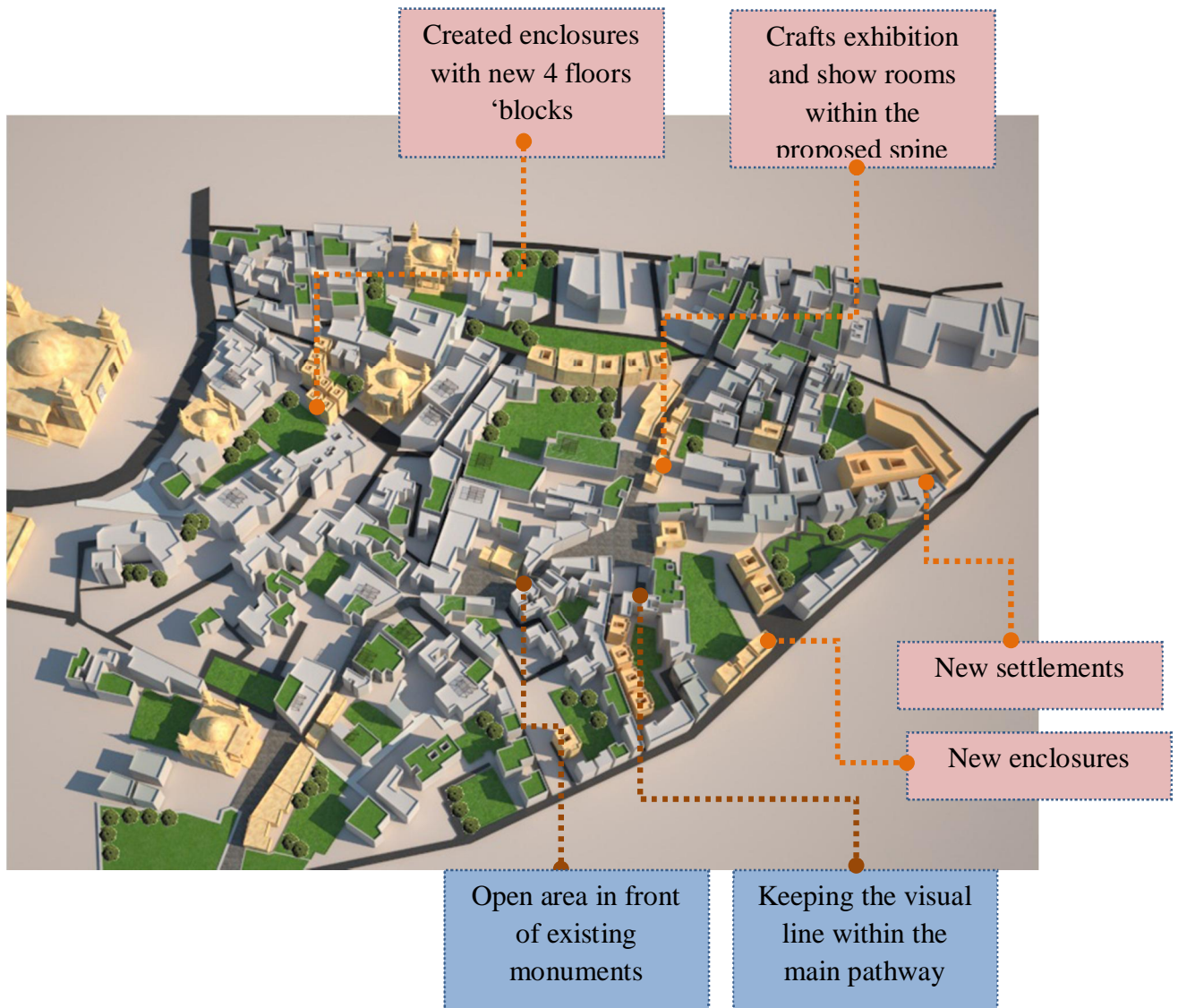


Figure7- 14 3D Development proposal of Darb El Labbana area according to (B.Cs) (Researcher,2016)

Figure 7-14 shows how the B.Cs development entries were interpreted into a 3d development proposal, with the concluded development entries, like, eviction of 11% of the built area which were deteriorated, and creating a new walkway passing through the monuments in the area. Also, crafts' exhibition show rooms are created within the new spine to indulge the visitors to know the special crafts . Moreover, enclosures are created after the eviction of the deteriorated buildings and implementing new blocks which are shown clearly in figure 7-15.

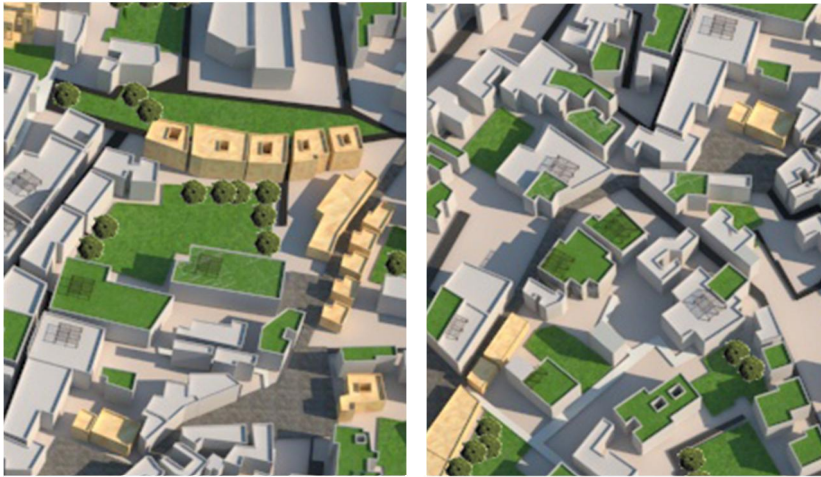


Figure7- 15 Shot showing the designed enclosures and the green roofs (Researcher,2016)

Figure 7-15 shows the relation between the new settlements and the old ones, with an enclosure that encompasses the new blocks and the old.

Green roofs and pergolas cover the old buildings with maintained facades.

Also the figure shows the main walkway with constructed spaces in front of the monuments.

Figure 7-16 shows the space in front of the monument and a part of the broken walkway (which was El Ghandour st. before).

Also, the figure shows workshops show rooms on the walking promenade to be easier to the visitors to buy from them and to identify their special work where some of the crafts are endangered oo distinction like, the *Oyma* makers and the Arabic



Figure7- 16 Implemented enclosures and Rehabilitation of workshops

Figure 7-17 showing a zoomed perspective in the walking promenade and the relation between the mosque, the workshops showrooms and the residential buildings with the new façades and also the invented space which interrelates the various uses together.



Figure7- 17 Façades Rehabilitation and new (Researcher,2016)



Figure7- 18 An aerial view showing the relation between the developed area of Darb El Labbana with the entire context (Researcher,2016)

Figure7-18 shows an overview of the proposed development of Darb El Labbana within the entire context which describes the following;

- Development proposal conserved the entire compact pattern of the old Cairo area.
- The upgrading design added value to the craftsmen, where showrooms are constructed within the walkway of the visitors which was before ElGhandour street.
- Sustainable development was interacted due to the participation of the real inhabitants and illustration of their major problems, thus the development project found acceptable solution to the residents.
- Roof gardens are designed to revitalize the use of the roofs, where the consistent community use it in their own weddings and funerals.

Chapter Eight

Comparative analysis of case studies, Final Conclusions and Recommendations

Chapter Eight : Comparative analysis of case studies, Final Conclusions and Recommendations

8.1 Introduction

This chapter is considered a concluding summary to the whole research, which begins with a comparative analysis between the chosen case studies in chapters 6&7. Consequently, the comparison addresses the studied aspects of the behavioral and cultural patterns in Ein El Sira and Darb El Labbana areas, and finally the development projects within the various communities.



















Moreover, the researcher discusses why the B.Cs approach is recommended to find solutions for upgrading informal areas, thus, the advantages of dealing with the B.Cs approach is clarified in certain points.

Finally, a discourse of understanding informal areas is demonstrated, presenting the conclusion of the research, and recommendations for further research.













8.2 Comparative analysis between case studies

It was immensely crucial to illustrate a comparative analysis with the chosen case studies; *Ein El Sira* and *Darb El Labbana* areas. The distance between two areas is only 2.5 Km, however the two communities are completely variable, thus the development is different, this is explained in table 8-1.

Table 8-1: Comparative analysis between Ein El Sira area and Darb El Labbana area, Source : (Researcher)

	The Development of Ein El Sira Area (Social Housing)	The Development of Ein El Sira Area (Ezbet AbulWafa)	The Development of Darb El Labbana Area												
Current Situation	 <p>It is located in the center of Cairo, close to several important older urban areas: El-Sayeda Zainab, and Masr El Qadima. The northern part of the area borders of "Magras El 'Eyouun" (Aqueduct) and is fenced. In addition to the main focus area of this research.</p>	 <p>Ezbet Abulwafa is one of the sub-urban areas in Ein El Sira, which was before shelter housing for those who lost their houses.</p>	 <p>Darb El Labbana area is one of the old areas in Cairo, where the place was most probably constructed at the Mamluk's era from 400 years ago. As many houses have the mamluki's ornaments and style.</p>												
History	 <p>The area was constructed in the early 00's where the age of socialism and the dominance of the government. It was one of the social housing projects which consisted of 4 floors and 3 units per floor.</p>	 <p>Ezbet Abul wafa was constructed as a temporary solution for homeless workers. It was constructed to be a single floor with a single unit, however the inhabitants built 1 or 2 floors and the government didn't concern about their infringements.</p>	 <p>Darb El Labbana was constructed from more than 400 years. The encroachments occurred due to the building of extra floor for the family members.</p>												
Physical attributes of Behavioral patterns															
Basic Attributes of space	 <p>The percentage of satisfaction is considered moderate (62.5%), due to the legal situation of the area, the availability of infrastructure, however for the lack of maintenance and the encroachments occurred.</p>	 <p>The percentage of satisfaction is considered low (25%), due to the illegal situation, lack of infrastructure, the poor building conditions, and the difficulty of reaching the entire area.</p>	 <p>The percentage of satisfaction is considered moderate (59%), due to the legal situation of the area, the availability of infrastructure, however for the lack of maintenance and the encroachments occurred.</p>												
	<table border="1"> <tr> <td>Evaluation of Satisfaction</td> <td>Good</td> <td>Moderate</td> <td>Weak</td> </tr> </table>	Evaluation of Satisfaction	Good	Moderate	Weak	<table border="1"> <tr> <td>Evaluation of Satisfaction</td> <td>Good</td> <td>Moderate</td> <td>Weak</td> </tr> </table>	Evaluation of Satisfaction	Good	Moderate	Weak	<table border="1"> <tr> <td>Evaluation of Satisfaction</td> <td>Good</td> <td>Moderate</td> <td>Weak</td> </tr> </table>	Evaluation of Satisfaction	Good	Moderate	Weak
Evaluation of Satisfaction	Good	Moderate	Weak												
Evaluation of Satisfaction	Good	Moderate	Weak												
Evaluation of Satisfaction	Good	Moderate	Weak												
Activities and services	 <p>The percentage of satisfaction is considered Good (75%), due to the availability of pavement, the availability of private cars. Public transportation, however for the lack of shade and shelter.</p>	 <p>The percentage of satisfaction is considered weak (29%), due to the lack of services, pavement and poor accessibility to the area.</p>	 <p>The percentage of satisfaction is considered Good (75%), due to the availability of pavement although it's partial, also the availability of shade and shelter, and also the accessibility is highly applicable.</p>												
	<table border="1"> <tr> <td>Evaluation of Satisfaction</td> <td>Good</td> <td>Moderate</td> <td>Weak</td> </tr> </table>	Evaluation of Satisfaction	Good	Moderate	Weak	<table border="1"> <tr> <td>Evaluation of Satisfaction</td> <td>Good</td> <td>Moderate</td> <td>Weak</td> </tr> </table>	Evaluation of Satisfaction	Good	Moderate	Weak	<table border="1"> <tr> <td>Evaluation of Satisfaction</td> <td>Good</td> <td>Moderate</td> <td>Weak</td> </tr> </table>	Evaluation of Satisfaction	Good	Moderate	Weak
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Evaluation of Satisfaction	Good	Moderate	Weak												
Evaluation of Satisfaction	Good	Moderate	Weak												
Economic Indicators	 <p>The percentage of satisfaction is very near to AbulWafa reaching (50%) due to the low monthly income of the inhabitants, that's why many of them had to breed animals.</p>	 <p>The percentage of satisfaction is (42%), most of the residents have no monthly income but they have daily ones.</p>	 <p>The percentage of satisfaction is very strange which is (50%) although the existence of certain crafts. That is due to the weak marketing of the products.</p>												
	<table border="1"> <tr> <td>Evaluation of Satisfaction</td> <td>Good</td> <td>Moderate</td> <td>Weak</td> </tr> </table>	Evaluation of Satisfaction	Good	Moderate	Weak	<table border="1"> <tr> <td>Evaluation of Satisfaction</td> <td>Good</td> <td>Moderate</td> <td>Weak</td> </tr> </table>	Evaluation of Satisfaction	Good	Moderate	Weak	<table border="1"> <tr> <td>Evaluation of Satisfaction</td> <td>Good</td> <td>Moderate</td> <td>Weak</td> </tr> </table>	Evaluation of Satisfaction	Good	Moderate	Weak
Evaluation of Satisfaction	Good	Moderate	Weak												
Evaluation of Satisfaction	Good	Moderate	Weak												
Evaluation of Satisfaction	Good	Moderate	Weak												
Social Indicators	 <p>The percentage of satisfaction is considered low (37.5%) due to the lack of maintenance of the buildings and the high encroachments of the existing blocks and the lack of community centers.</p>	 <p>The percentage of satisfaction is considered very low reaching (12.5%) due to the high agglomeration in a certain area in Abulwafa.</p>	 <p>The percentage of satisfaction is considered low (37%) due to the deteriorated built environment as well as the existing monuments, which declined the percentage of social indicators.</p>												
	<table border="1"> <tr> <td>Evaluation of Satisfaction</td> <td>Good</td> <td>Moderate</td> <td>Weak</td> </tr> </table>	Evaluation of Satisfaction	Good	Moderate	Weak	<table border="1"> <tr> <td>Evaluation of Satisfaction</td> <td>Good</td> <td>Moderate</td> <td>Very Weak</td> </tr> </table>	Evaluation of Satisfaction	Good	Moderate	Very Weak	<table border="1"> <tr> <td>Evaluation of Satisfaction</td> <td>Good</td> <td>Moderate</td> <td>Weak</td> </tr> </table>	Evaluation of Satisfaction	Good	Moderate	Weak
Evaluation of Satisfaction	Good	Moderate	Weak												
Evaluation of Satisfaction	Good	Moderate	Very Weak												
Evaluation of Satisfaction	Good	Moderate	Weak												

Chapter Eight: Comparative analysis, Conclusion, and Recommendations

Social Identity			
	The percentage of satisfaction is considered low (32%) due to the lack of green areas, lack of enclosures or levels and also the lack of community areas.	The percentage of satisfaction is considered very low reaching (23%) because of the high agglomeration and weak built environment.	The percentage of satisfaction is considered high reaching (81%) due to the availability of levelled enclosures and the Islamic identity in the place, which cope with the community living there.
	Evaluation of Satisfaction: Good, Moderate, Weak	Evaluation of Satisfaction: Good, Moderate, Weak	Evaluation of Satisfaction: Good, Moderate, Weak
Urban Attributes			
	The percentage of satisfaction is considered moderate (62%) the agglomerative mass didn't reach 35% and the streets percentage were nearly 15%. The basic urban validity is good within the area.	The percentage of satisfaction is considered very low reaching (28%) the built area in Abulwafa exceeds 90% of the land lot which presents a dangerous percentage, which decline the entire satisfaction.	The percentage of satisfaction is considered low (37%) The built area in Darb El Labbana exceeds 75% of the land lot which presents a high agglomeration.some of the buildings in the area are ramshackle and others have weak maintenance.
	Evaluation of Satisfaction: Good, Moderate, Weak	Evaluation of Satisfaction: Good, Moderate, Very Weak	Evaluation of Satisfaction: Good, Moderate, Weak
Spatial Attributes			
	The percentage of satisfaction is considered low (56%) The occupied territory in Social housing begins from 90m2 horizontally.No enclosures available, just linear housing.	The percentage of satisfaction is considered very low reaching (12%) The occupied territory in Abulwafa begins from 30m2 to 120m2 divided into 2 floors or 3.No focal points available.	The percentage of satisfaction is considered moderate reaching (62%) The apartments occupied by the residents are averaged between 50 and 70 m2.Enclosures are basically linear and levelled by stairs.Focal points and landmarks are fully available.
	Evaluation of Satisfaction: Good, Moderate, Weak	Evaluation of Satisfaction: Good, Moderate, Very Weak	Evaluation of Satisfaction: Good, Moderate, Weak
The Ethnographic or Cultural patterns			
Origin	Ain El-Sira blocks,Many of them are of Upper Egyptian origin, but they do not come from a certain village or governorate. Many of them belong to Sohag, Qena and Asyut, as well as other places.	Awlad Abul Wafa was from the "El Sawam'a" village in Sohag (Upper Egypt), other families came from other villages: "El Zohary" from "El Beet El Abyad"-Sohag, others from El-Menya, so almost all off the area's residents came from Upper Egypt.	Most of the residents (88%) are old Cairenes, and they don't even remember the first owner of their houses. Moreover, the ramshackle houses were demolished and rebuilt by the entire owners. Also some of the original owners were property tenants and they disappeared due to the extremely low rentals, and they cannot benefit from their properties.
	Mostly Upper Egyptians.	Mostly Upper Egyptians & rare rural village origins.	Mostly Old Cairenes.
Life Style			
	Wedding ceremonies takes place between blocks, however sometimes for some families they use the roof tops for funerals mostly. Also breeding animals is available	Sitting in the streets in front of houses could be attributed to the residents' rural origins. since the rural background of the residents and need for income could be the reasons for the practice of breeding animals for house and commercial use.(wooden pigeon house)	Wedding ceremonies takes place on the roofs of the blocks due to narrow streets and the discreet society.Also Due to the discreet community, it was hard to find outer living areas, also streets are narrow. Thus the outer living area is not available.
	Mostly UpperEgyptians' Life style within the Weddings & Funerals.	Mostly UpperEgyptians' Life style within the breeding animals and the use of Space.	Discreet Old Cairenes Life Style within the narrow streets and the private use of roofs.
Ethnic	Religious groups have some bases in the area, mainly through mosques. They provide services and financial assistances to low-income families, as in several other areas in Cairo.The christians are very rare in the area, and actually there are no investigated problems between either religious groups	Same Ethnic Features of Social Housing	Religious groups have well known features in the area, mainly through mosques. They provide services and financial assistances to low-income families, as in several other areas in Cairo.
Relation to Urban Economy			
	It was believed that the area of EinElSira was mainly dependent on the leather works in "Madabegh". However, most of the residents depend on varoius crafts which are mostly rural, like, breeding animals, drivers, labours within construction. The higher income in the area are the shop owners who are financially higher than the others who have no steady jobs.		It's well known that the area of Darb El Labbana has an experienced group of craftsmen, as well as special crafts which are susceptible to extinction, like Oyma makers, Shell boxes, and Arabesque furniture decorated with shell. However, the crafts need marketing as the research proved their income shortage, as well as, the low marketing of their products.'
	Car maintenance, Truck driver, within constrution, seller,breeding animals & Owners for shops	Furniture making, Wood Carving (Oymagy),Shell boxes&drums ,Owners for coffee shops.	
Political Influence	The residents have a problem with the government due to the intensions to convey the residents to Badr City, thus a negotiation occurred between the government, business men and residents with no conclusion. The Muslim Brotherhood was the major influential political party before the 2011 revolution and and its dominance increased after the revolution especially when Morsy became the legitimate president, however after 30/0 their dominance was nearly eliminated. Efficient Ngo's in Egypt have direct relations with the political parties where funds are direct from the parties, thus the dominant NGO's in the area were also branches from Muslim Brotherhood after the revolution, however the authorities had decreased their control by ending their license to control their dominance on the area.		The resident's main issue in the area with the authorities is the refusal of the government to heighten the blocks to more than 4 floors so the buildings won't exceed the monuments' heights. Also the authorities refuse to compensate the ramshackle buildings to new ones. The political parties were not recognized in such area and had no implementation or an illustrated activity in the area.

The Development Entries and The Upgrading Project

Main Development Entries and Strategies		<ul style="list-style-type: none"> Leather manufactures are transferred Substitution of the manufacturers by investment buildings from 4 to 10 floors Adding Walking Promenade connecting between boundary streets. Partial Eviction of totally deteriorated areas. Adding Landmark within the walking promenade. 	<ul style="list-style-type: none"> Maintenance of existing Open Spaces for monuments. Adding Recreational Areas. Creation of Walking way for visitors Creation of Crafts' center within the walking street
Open Areas	<p>The leather factories were transferred away from the area and substituted by the new blocks and the Islamic museum.</p>	<p>Community center is aligned with the boulevard and the recreational area which replaced Abulwafa place, a Landmarked square was created.</p>	<p>New enclosures were created and green areas as well. Also the places in front of the monuments were created to visualize the walkability.</p>
Partial Eviction	<p>Partial Eviction occurred to the leather factories, which were transferred and investment buildings were substituted by 6 storey buildings.</p>	<p>Eviction occurred to the area and the families (04 families) were allocated within the heightened floors in the social housing.</p>	<p>Ramshackle buildings were evicted and abandoned spaces were used to create crafts' showrooms and open spaces antecedent to the monuments.</p>
Walk ways	<p>A boulevard is designed to connect between the boundary streets with a landmark surrounded by a space.</p>	<p>Pathways in the new recreational area are directly connected to the boulevard and surrounding the community center.</p>	<p>Broken pathway was upgraded. It was before El Ghandouf street then converted to a walking way and developed by creation of open spaces aside the monuments</p>
Facades maintenance	<p>Encroachments were all dismissed from the social housing buildings. A floor was added and also green roofs.</p>	<p>Abulwafa area was evicted and substituted by green areas and community centers, as well as play grounds. Ground floor was dismissed.</p>	<p>Facades are developed and clad by artificial stones to be compatible with the place's identity, and roof gardens were created.</p>
<p>The Final Estimated 3d Proposal shows the final product of the whole <i>Ein ElSira</i> area including <i>Abul wafa</i> area and the social housing area, which presents the complex area that has two types of informal settlements-The formal which was converted informal and the completely informal one- and how the place's opportunity was used to enhance the upgrading process using the (B.C)s matrix to find the real needs of the inhabitants.</p>		<p>The 3d development project of <i>Darb Elkabbana</i> area shows a sample of upgrading the informal historic area which suffered from several encroachments and lack of maintenance, were the area kept its organic pattern using the B.C.s upgrading system to reform the new enclosures and to settle the main walkway which enhance the visitors to go to the place and buy the products of the crafts men there.</p>	

8.3 Understanding the informal settlements in Cairo

One of the most important objectives is a better understanding to the various communities by illustrating the inhabitants' need. Accordingly, figure 8-1 explains the advantages of dealing with such approach. The B.Cs system presents a contemporary understanding of the participation principle, where the concepts of the urban designer correlate with the community understanding.



Figure8- 1 Advantages of B.C's upgrading system, Source: (Researcher)

Informal Settlements, represent the informal areas in Cairo, which are generally perceived as chaotic urban spaces with no order and rules and outside the formal system. Based on the findings of this research however, these areas should be reframed as a product of interaction between different actors – mainly the residents and their behavioral & cultural factors and power relations among each other - and the urban physical characteristics to find the real

requirements and needs of the inhabitants, thus development strategies are performed.

The research starts by the aim to understand the relation between ‘ashwa’eyat informal settlements and behavior. Taking it to another step, the research works at exploring how the interrelation between the urban physical characteristics and the Behavioral cultural factors produce the informal urban development process. The research assumes that urban informality in the case of Cairo consists of two parts: the use of urban space and the process of informal urban development. Behavioral & Cultural patterns are used to analyze both parts, and interrelations have been shown.

According to the evidence found in Cairo case, Urban Informality is the result of informal urban development processes of which the use of urban space is an intrinsic and crucial component. Both the development process and the use of space reflect residents’ Behavior and culture (i.e., Behavioral & cultural factors) as a part of their daily life. Urban informality is a way by which the residents, as the main actors in the city, find a mechanism to exist in the city, and to provide themselves with houses and means for earning money. It reflects the needs of the residents, based on their own culture, and fit with the urban physical characteristics.

For the Ashwa’eyat residents, informality becomes the ordinary. It carries many binaries and sometimes contradictions, and contains a considerable amount of complexity. This will be discussed in the following section.

8.4 Urban Physical Characteristics: Initiator and Indicator for Informal Urban Development

The role of some characteristics starts from the first days of any area: the location and its relation to the city, which might help the area to be linked to the urban society and urban economy leading to the area’s development. Later on, other characteristics play other roles.

Through the change that occurs over time, certain urban physical characteristics shape the Perception of the city (authorities and residents of formal parts of the city) about any of the *'ashwa'eyat* areas (i.e., building heights, building conditions and infrastructure).

These physical characteristics also define the characteristics of urban space, and the residents' use patterns. If an area is functioning well, with an almost complete infrastructure and social services, and with a flourishing housing market, the question arises regarding what is missing for these areas so as to be *formal*.

The researcher argues that it stays perceived as *informal* due to the circumstances of its emergence, and the informal path of development that it has passed through. Any decision by the government or a step towards "formality" leads to a rise in prices (e.g., providing infrastructure). This leads to the drawing of real estate investors to the area and more residents from *Cairo*, which changes the supply and demand equilibrium needed for the stability of land prices and rents.

In addition, the security of tenure and infrastructure provision is related. Security of tenure is different than legal ownership. Through infrastructure provision, land ownership is partially legalized, or tends to be more "formal".

This leads to increasing the perception of the residents' security of tenure. After some time, more services start due to the residents' needs (e.g., shops, clinics...etc.). Thus the prices escalate, and the demand gets higher (Soliman, 2010).

Real estate investors then hurry to buy what they can, build more and higher buildings, and the choice will go to the owners as to whether they sell, take the money and find somewhere else to live, or stay in the area.

Improvements, is the natural consequence of this process. As a consequence of the increase in land/apartment prices and rents, lower income residents thus cannot afford to pay the higher rents¹.

Available classification approaches fail to consider changes that occur over time. Due to the rapid change in the physical characteristics of each area, typologies are consequently not successfully represented.

8.4.1 Use of Urban space: A need in daily life and for urban development

Use of urban space in Cairo's '*ashwa'eyat*' is normally described using the term "informal". Behavioral & Cultural factors are expressed in the urban space by the residents through the use patterns, forming a part of the so-called *urban informality*. Most probably, when there is no law that bans or prohibits a certain activity in space – as far as it is not against the collective values or beliefs – then those activities can occur.

A clear example for this could be sitting in the street in front of the house. In the formal planned, higher standard districts some patterns do exist, and in others it would be rarely observed. In the rural context, use of space is considered by villagers to be normal or ordinary activity.

In Cairo's popular formal districts, it is also easily observed in "hara" - the streets. Most '*ashwa'eyat*' residents originate directly from rural areas.

Some residents have moved there from Cairo popular areas, whereas many of them also originate from the rural areas. Almost all the observed and analyzed patterns of use of urban space are related to *social cohesion*, which is partly driven by certain values based on origin and long-time neighboring relations, and partly by the fact that use of space leads to good relations between residents and craftsmen-neighbors, shop and workshop owners, even if they do

¹ This might lead to the emergence of new encroached '*ashwa'eyat*' areas.

not belong to the same origin (e.g., not Upper Egyptians) or the same religion (i.e., Muslims and Christians).

Regarding the residents' limited financial resources, the common shared space is produced physically through the self-help construction process (Turner, 1968; Harms, 1982, 1991) that takes place along a time spectrum and based on the residents' priorities. Then, based on the kind of use of urban space found therein, urban space helps social relations and networks to be established, and supports the *social cohesion* to be preserved, consolidated and enriched.

Relation to urban economy is directly linked to use of urban space, as it is used as a working space, an asset for the residents' business and earning money. The *relation to urban society* is another influential factor on use of urban space within 'ashwa'eyat areas, particularly relation to richer residents of formal districts.

Many services are provided to those neighboring districts' residents as they come to the area. Another dimension of the 'ashwa'eyat's *relation to urban society* is that most of the residents are deprived of their right to the urban space of the city in general, and stigmatized as informal.

They practice this right in their local urban space (e.g., streets and plazas). It is the space where they express themselves, and reclaim their right to the city. It is a gain in itself for the residents, as long as the formal system has no control over it, and as long as the residents know this. They refer to their own rules and regulations grounded in the values from their culture away from the formal legislations.

The researcher tried to convert the non-physical attributes of the Behavioral patterns to a physical attributes to be measured and identified in the checklist of the physical patterns' matrix to find the satisfactory percentage, and thus a development entries matrix which make interrelation between the B.Cs to finally find the main development entries of each place separately.

Each place has its own identity , and this is actually proved by the differential development entries of each place, due to the requirements of each community which is considered variable. That was clear in the two different projects with the various elements in upgrading due to the different society.

8.4.2 'Ashwa'eyat Complexity

'Ashwa'eyat gains its complexity due to different reasons. It is grounded in the unclear processes of urban development that takes place, unplanned and undocumented. The complexity of informality is expressed through the interrelations between cultural factors, urban physical characteristics, use of space and power relations that changes over time.

8.5 Further Research

More empirical research is needed in the field of understanding Behavior and Culture of 'Ashwa'eyat' area residents. More 'ashwa'eyat areas with different urban physical characteristics need to be studied, analyzed and compared with each other as done in this research to give more insight about dealing with the issue of 'ashwa'eyat.

More focus on each of the B.Cs presented in this research might give more explanation for the informal urban development process. There is a need for more empirical work to present a better understanding and answers for the development discourse.

Tracing the different cultural factors through time leads to understanding the current power relations. This is supported by understanding the relation between current use patterns of urban space and the studied B.Cs factors. It is argued that this would lead to the recognition and estimation of the future of urban development of the area.

In the context of an ongoing transformation process, there is a need to monitor the changing relationships between state, development agencies and civil society initiatives that are in transformation.

Empirical research is needed to shed light on this ongoing transformation through integrated urban upgrading projects, which play an important. More comparative studies are still required for different areas within *Cairo*. In addition, more cases of cities from different countries might bring more understanding of local residents, the relation between cultural factors, the roles of governments, and the relevance to informality.

Cities being studied might drop clues on how things could be resolved, and how this could be pushed forward in the direction of better development and planning policies. More study regarding management skills in the field of construction within '*ashwa'eyat*' is needed. In addition, the issue of developing Upper Egyptian urban centers and rural villages to attract migrants instead of driving migrants to move to *Cairo* has not been thoroughly researched. This could encourage migrants to return back to their place of origin (which is a policy question).

And last but not least, further research should be conducted to find tools and techniques for empowering different groups of '*ashwa'eyat*' residents (the most vulnerable groups) to be a part of their development projects , by understanding then implementation.

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Appendix

Appendix

Questionnaire for B.Cs Patterns' analysis

no	Questions	Categories	B or C Patterns
1	How old are you now?years	-----
2	What is your current marital status?	1. Single 2. Engaged 3. Married 4. Divorced 5. Widowed	B
3	What is the highest level of schooling which you successfully completed?	1. None 2. Primary 3. Preparatory 4. Secondary (General) 5. Secondary (Technical) 6. University	B.C
4	Do you have an occupation or you are an ordinary laborer?	1. Have an occupation 2. Ordinary laborer	B.C
5	What is your occupation?		C
6	From where did you come? From which governorate, district, and village?	Village: District: Governorate:	C
7	Do you have a long-term contract with a company or do you work on daily basis?	1. Contract 2. Daily basis 3. Task-based	B
8	How long is your current contract?	Months Years	B.C
9	How often do you receive your wages?	1. Daily 2. Weekly 3. Monthly 4. Occasionally	B.C
10	What is your current wage per day on average?	Egyptian pounds	B.C

11	How long have you been working away from your village?	Months Years	C
12	Why did you come to Cairo for work?		C
13	Have you worked in different jobs in Cairo before?	1. Yes 2. No	C
14	What were your previous jobs in Cairo?		C
15	Did you work in other places in Egypt before? (e.g., Port Said, Alex., etc.)	1. Yes 2. No	C
16	What social activities do you engage in in Cairo?	1. No social activities 2. _____ 3. _____	B
17	How many persons are sharing the same room?persons	B
18	Do your children go to a school?	1. Yes 2. No	B
19	Where is the school?		B
20	Is there a nearby Hospital?		B
21	Is it suitable or not sufficient		
22	Does your place of residence in Cairo have electricity?	1. Yes 2. No	B
23	Does your place of residence in Cairo have piped water?	1. Yes 2. No	B
24	Is your place of residence connected to the sewage-disposal network?	1. Yes 2. No	B
25	How much do you spend on housing in Cairo?	Per day Per week Per month	B.C

26	For Women: Do you have an occupation or job?	1. Yes 2. No	B.C
27	If yes: What's your job or occupation		B.C
28	For Women: Do you help your husband financially?	1. Yes 2. No	C
29	For Women: Do you want to have an occupation or Job?	1. Yes 2. No	C
30	For Women: Do you like having a training course on some professions?	1. Yes 2. No	C
31	Do you often attend weddings or funerals?	1. Yes 2. No	C
32	Can you describe nearby weddings or funerals?		C
33	What about the market place? Is it satisfactory?	1. Yes 2. No	B.C
34	When you describe your place to a visitor, what do you tell him? does he arrive easily?		B
35	What's your opinion about the government?		C
36	Did the Government try to develop your place anyways?	1. Yes 2. No	C
37	Do you agree to substitute your house by a better apartment in Badr City?	1. Yes 2. No	B

General comments: (the place, the cleanliness, health and fitness of worker, etc.)

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Arabic Summary

مهنيـــــــــــــــــ مدرس: ايمان أحمد صالح الدين عبد الحليم

تاريخ الميلاد: ١٩٨٣ / ١١/٢٥

الجنسية: مصريه

تاريخ التسجيل: ٢٠١١ / ٣ / ١

تاريخ المنع: / /

القسم: الهندسه المعماريه

الدرجة: دكتوراه

المشرفون : أ.د محمد مدحت حسن دره

د. نهال عبد الوهاب عامر (مدرس بكلية هندسه جامعة أكتوبر للعلوم الحديثه و الاداب)

المتحنون :

أ.د. مايسه محمود عبد العزيز

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لبحوث الاسكان و البناء)

عنوان الرسالة :

أنماط الثقافه و السلوك كوسيله معاصرة لتطوير المناطق الغير الرسميه

في القاهره الكبرى

الكلمات الدالة : المناطق الغير رسميه-أنماط الثقافه-أنماط السلوك- ثقافه المجتمع-تطوير المناطق العشوائيه

ملخص البحث :

التعامل مع العشوائيات كواقع يعانى منه جميع بلاد العالم النامى والمتقدم ايضاً والتي فشلت جميع محاولات ايقاف نموها و على الصعيد القومى فلا تزال جميع الجهود المبذولة لتطوير المناطق العشوائية و تحسين حاله المعيشيه لسكانها بعيدة عن التأثير المراد. أنماط التدخل من هذه الجهات تتراوح ما بين توفير الخدمات والتطور الجزئى أو التطوير المرحلى للقطاعات إلى إحلال بعض المناطق . ومما لاشك فيه ان كل من هذه الحلول له النمط المناسب من المجتمعات تبعاً لمستوى البيئه المبنية وخصائصها الإجتماعية والإقتصاديه. لذا يقوم البحث باكتشاف أنماط ثقافيه و سلوكيه كوسيله معاصره للتطوير و ذلك لمعرفة المتطلبات الحقيقيه و الإحتياجات لسكان المنطقه المراد تطويرها و ذلك للحصول على إستراتيجيات أساسيه للتطوير بدون الإحتياج للوسائل التقليديه ، مثل الهدم و إعادة البناء و نقل السكان بصوره مؤقتة مما يؤدي إلى زياده كبيره في حجم الإنفاقات على الجهات المنوطه بالتطوير و أيضاً عدم الحصول على النتائج المرجوه.

ملخص

التعامل مع العشوائيات كواقع يعاني منه جميع بلاد العالم النامي والمتقدم أيضاً والتي فشلت جميع محاولات إيقاف نموها و على الصعيد القومي فلا تزال جميع الجهود المبذولة لتطوير المناطق العشوائية و تحسين حاله المعيشيه لسكانها بعيدة عن التأثير المراد. حيث أن سرعة نمو المناطق العشوائية أكثر من سرعة استجابة جميع الجهات لإحتياجات هذه المناطق كما أن سرعة توفير إحتياجات الفئات الفقيرة من الإسكان الإقتصادي لا تمثل الطلب الهائل على سوق الإسكان المتوسط و الإقتصادي مما يساهم أكثر في نشأة مناطق عشوائية جديدة تضاف لرقعة الإسكان اللارسمى بالقاهرة خصوصاً مع تأخر تطوير السياسات الخاصة بتطوير المناطق اللارسمية فإن هذا يزيد من المشكلة. فعلى سبيل المثال انه مع تطوير سياسات التتميط و توحيد الحلول و معالجة البنية التحتية و دعم الإسكان الذاتي فإن هذه السياسات لم يتم دعمها إلا جزئياً عام ١٩٩٤ و قد تم الإهتمام بتطوير البنية التحتية على حساب تطوير البيئة العمرانية.

أنماط التدخل من هذه الجهات تتراوح ما بين توفير الخدمات والتطور الجزئي أو التطوير المرحلي للقطاعات إلى إحلال بعض المناطق . ومما لاشك فيه ان كل من هذه الحلول له النمط المناسب من المجتمعات تبعاً لمستوى البيئة المبنية وخصائصها الإجتماعية والإقتصادية. لذا يقوم البحث بإكتشاف أنماط ثقافيه و سلوكيه كوسيله معاصره للتطوير و ذلك لمعرفة المتطلبات الحقيقيه و الإحتياجات لسكان المنطقه المراد تطويرها و ذلك للحصول على إستراتيجيات أساسيه للتطوير بدون الإحتياج للوسائل التقليديه ، مثل الهدم و إعادة البناء و نقل السكان بصوره مؤقتة مما يؤدي إلى زياده كبيره في حجم الإنفاقات على الجهات المنوطه بالتطوير و أيضاً عدم الحصول على النتائج المرجوه.

يتناول البحث تاريخ تطور ظاهره العشوائيات في مصر من بدايه ظهورها عام ١٩٥٢ متعاقبه مع الثوره وماتبعه من السياسات الإشتراكيه التي ساهمت في تقسيم الاراضى الزراعيه وتحويلها الى مناطق سكنيه وانتهاءً بالعصر الحالى من زياده النمو السكاني وتدهور أوضاعها ثم سرد لأنواع العشوائيات الحاليه بمصر بإختلاف اشكالها وخصائصها العمرانيه والفترات الزمنيه لإسقرارهاز ثم يتناول البحث سياسات التعامل مع المناطق غير الرسميه فى الفترات الماضيه الى الحاليه ودراسه مدخل التتميه بالمشاركه و عرض مميزاته و عيوبه فى عمليه التتميه .

و أيضاً عرض مشروعات التطوير بمصر مثل مشروع تطوير مساكن زينهم بالسيد زينب ومشروع تطوير منطقه ماسبيرو وأخرى بمناطق العالم الثالث. وينتهى بمقارنه بين مشروعى تطوير منطقه زينهم ومنطقه روكينها بريو دى جانيرو بالبرازيل .

كما يقوم الباحث بعرض طريقه إستنباط الانماط الثقافيه والسلوكيه عن طريق التحليلات الخاصه ببعض المتخصصين فى هذا المجال حول العالم للوصول الى خصائص حسيه لمعرفة ثقافة وسلوك المجتمع وينتهى الفصل بالمصفوفه المستنتجه لأنماط الثقافه والسلوك .
و يعرض الباحث التطبيق العملى بالمنهج الاستقرائى والتحليلى لإستنتاج أنماط الثقافه والسلوك الخاصه بالمجتمعات المتدهوره بصفه عامه للوصول الى المصفوفه المرجعيه لإستنتاج المدخلات التصميميه لعملية التطوير .

ثم يبدأ التطبيق العملى بالمنهج الاستقرائى والتحليلى لإستنتاج أنماط الثقافه والسلوك الخاصه بمجتمع منطقته عين الصيره و درب اللبانه بالقاهره القديمه . ليصل الباحث الى مدخلات تصميميه لعملية التطوير وإخراجها بمنظور إفتراضى لعملية التطوير النهائى . و بالأخير يعرض المقارنه بين مشروعى التطوير بمنطقة عين الصيره و درب اللبانه باستخدام أنماط الثقافه و السلوك و ما ترتب عليه من اختلاف في مشروعات التطوير ثم ينتهي البحث بالاستنتاجات النهائيه و التوصيات البحث .

أنماط الثقافة و السلوك كوسيلة معاصره لتطوير المناطق الغير
الرسمية في القاهرة الكبرى

اعداد

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كجزء من متطلبات الحصول على درجة الدكتوراه
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كلية الهندسة - جامعة القاهرة
يناير ٢٠١٧