



**Ain Shams University**  
Egypt

# **Towards an enhanced people-place relationship**

## **Investigating the factors affecting place attachment in Cairo's neighborhoods**

**A Thesis submitted in the Partial Fulfillment for the Requirement of the Degree  
of Master of Science in Integrated Urbanism and Sustainable Design**

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**2021**



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11/08/2021

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# Acknowledgment

After coming to the end of this challenging, and life changing experience, that was full of challenges, hard and good times First thank you God ultimately, for your shower of blessings and guiding me throughout this journey.

It is a genuine pleasure to express my sincere thanks and warm gratitude to the following persons who have contributed much in guiding, supporting and helping me through these two years.

For my parents. Thank you for always believing in me, thank you for the endless support, love, care and prayers. I am who I am today just because of you. I hope I made you proud.

For my younger sisters and friends, Aalaa and Basmala. Thank you for always being there for me no matter what, for always having my back, and for giving a good laugh when needed.

For my all-time best-friend, partner in everything and husband, Mustafa. I wouldn't have made it without you and your constant support. I am blessed for sharing every step with you, to many more achievements together.

For my Friends, especially Yara, Maya, Nehal and Basma. Thank you for being who you are, for keeping me sane, and for always lifting me up.

For the IUSD family and friends, Sandra, Salma, Mariam, radwa and Engy. you all inspired me in different means. I am lucky I get to know each and every one of you. You made this journey fun, inspiring and worth it.

Last but not least, a very special gratitude for my Supervisors Dr. Salheen, and Dr ayat. Thank you for your precious support, time and effort and for always inspiring me. I have learnt a lot from you not only on the professional and academic level, but also on the personal level. Dr Salheen, thank you for always pushing me forward, and for being my mentor. Dr Ayat, thank you for being the kind, inspiring and supportive person who you are, and for your precious guidance.





# Abstract

Place attachment and Place identity have been discussed in different research especially through the last 50 years. The sense of Place attachment is the bond developed between people and their physical environment. That reflects their sense of identity and form the meaning of their communal life. Place attachment is conceived of as an affective/cognitive bond between people and their environment. Cairo has a diverse and various neighborhood with diverse Planning and designing concepts and strategies, which have changed through time. These changes resulted from globalization, modernization, decline of the traditional neighborhoods and the increasing role of cars. Which have a direct impact on the residents of each neighborhood, their sense of place attachment and place identity.

Despite These urban changes that differ in their effect, intention and their way of implementation, forming the image of the city of Cairo as we witness nowadays. There was limited research about its impact on the local residents and how it affected their interaction with each other and with their physical environment. Thus, affecting the place attachment. That is why in this research is studying how to enhance the people-place relationship through investigating the qualities and features of the neighborhoods in Cairo that affect place attachment. In order to help the architects, urban designers and planners to create new neighborhoods with a strong sense of place attachment and identity, or turn the existing neighborhoods to be more interactive, walkable, livable, and more socially stable.

This study was carried out by studying and analyzing two neighborhoods in Cairo, through investigating the tripartite framework of place attachment proposed by Scannell and Gifford (2010) and the indicators affecting this bond. The investigation will be conducted through Online Questionnaires, Observations, as well as desktop research. The findings come up with the social and physical factors affecting the place attachment in Cairo's neighborhoods.

## **Keywords:**

Place Attachment – Place Dependence – Place Identity – Neighborhoods.



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# Chapter 1

## Introduction

A place is a space with a meaning. It is the setting for the everyday routine, actions, and travels. The bond between people and a particular place is defined as place attachment. (e.g., Cuba & Hummon, 1993; Fullilove, 1996; Giuliani, 2003; Hidalgo & Herná'ndez, 2001; Manzo, 2003, 2005; Mesch & Manor, 1998; Riley, 1992). It can be also defined as "the authentic and emotional bond with an environment that satisfies a fundamental human need" (Relph 1976). There is a rising interest in studying place attachment and place identity especially in the last 50 years. As they are crucial for people's social sustainability -and stability. And preserving this identity is becoming a real challenge in terms of globalization, standardized products and modernization that created similar places in different contexts, with different people and cultures. That results in complaining many authors including Relph's work that started from 1976 and introducing the concept of placelessness, non-places, the loss of the essence of place in the cities, decline of traditional neighborhoods, the destructive role of cars as a result of modernization and the pressure of urban development.

The scope of this research is crucial for understanding the bond between residents and their physical environment in Cairo's neighborhoods, especially due to the undergoing developments and transformations taking place in Cairo's neighborhoods, changing its existing features And its mental image in the Residents' minds. In addition to creating new residential neighborhoods too.

## Introduction

This research will be carried out through investigating the induced framework, which is based on the tripartite framework of place attachment proposed by Scannell and Gifford (2010) and the indicators affecting it, in the selected residential neighborhoods. The tripartite framework is composed of the three dimensions of person, place and process. The investigation will be conducted through online questionnaires that will explore the person and process dimensions of place attachment, while the place dimension will be investigated through observations and desktop research.

### **1.1 The research problem**

Despite the recent urban development and construction of new cities and neighborhoods and developing the existing neighborhoods. there is a lack of research about the qualities and features of Cairo's neighborhoods that make the residents attached to the place and interactive with each other and their environment, as well as its impact on the community.

### **1.2 The research objectives**

Investigating the social and physical factors affecting the interaction and place attachment in Cairo's neighborhoods

- To come up with recommendations that will help urban designers, planners and architects to create an interactive neighborhood or to turn existing neighborhoods to be more interactive, walkable, livable, and socially integrated.

### **1.3 The research questions**

- What are the personal, social and physical factors that promote the interaction and place attachment in neighborhoods?
- How it affects the community?
- How does different contexts affect the place attachment and residents' interaction with each other and with the physical environment?

## 1.4 Conceptual Framework

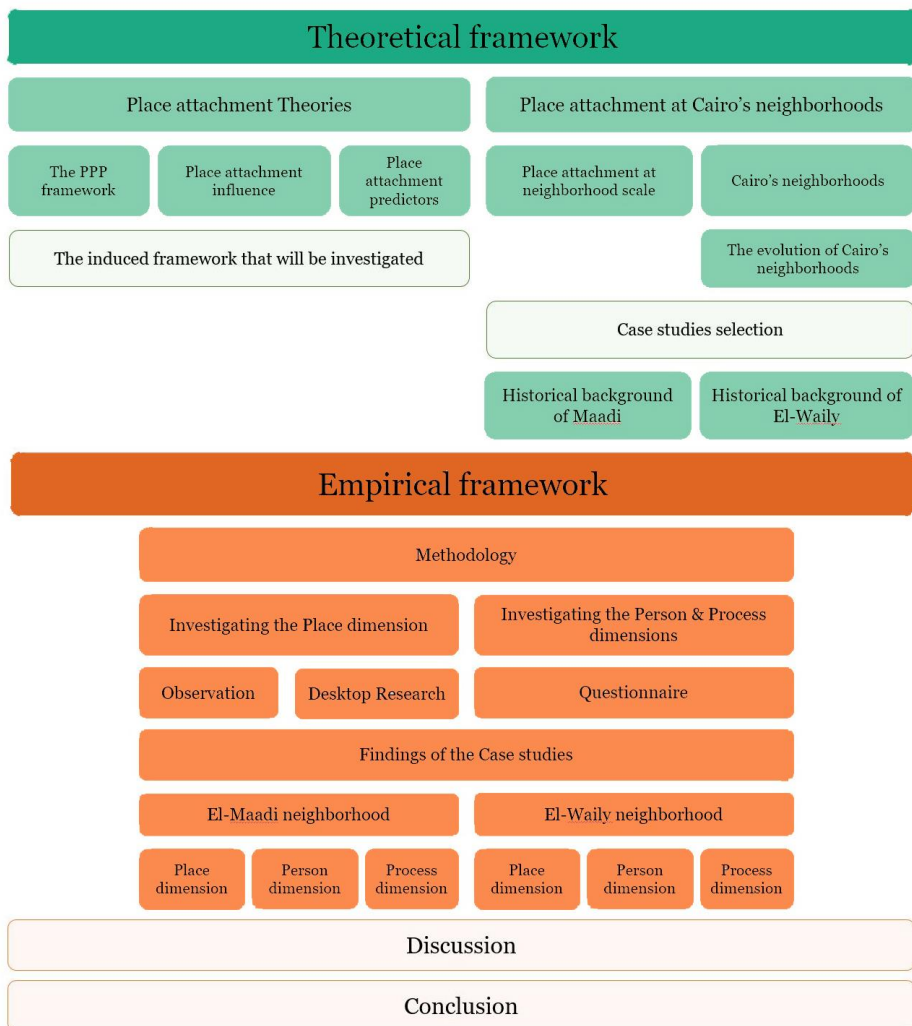


Figure 1: The conceptual Framework (Author)

This research addresses two main parts: the theoretical and empirical frameworks. The first consists mainly on secondary data, that includes the reviewing of literature that deals with place attachment, its importance and influence on individuals and communities. As well as reviewing the social and

## Introduction

physical predictors affecting it. In order to induce a framework that will be used later for the investigation of place attachment in the selected neighborhoods in Cairo. Also, it includes place attachment at neighborhood scale and the reviewing of the evolution & diversity of Cairo's neighborhoods through time, to be able to choose two different case studies suitable for the research. Which are El-Waily and El-Maadi neighborhoods. And to get a deeper understanding for the social and cultural background of each neighborhood, it requires a historical background about the selected cases.

The knowledge gathered in the first part of the research is used for investigating and understanding place attachment in the selected case studies. The second part of the research is the empirical framework. It consists mainly of primary data from site visits' observations and Online Questionnaires, supported by Secondary data from the desktop research. This part includes investigating and analyzing the person, place and process dimensions of Place attachment in the selected case studies.

Consequently the findings of this research is crucial for a better understanding of this bond, and finding out the personal, social and physical factors affecting it. Which helps in maintaining the place attachment and helps the decision makers and planners to know the factors that will help them in making the existing neighborhoods or the new ones to be more interactive, livable, and walkable.

# **Part I**

## **Theoretical Framework**





## Chapter 2

# Theories of Place Attachment

Place is a space imbued with meanings as argued by Relph(1976) cited in (SEAMON AND SOWERS, 2008; UJANG AND ZAKARIYA, 2015). The relation between people and places is described by different concepts as: place attachment, place satisfaction, place identity, place dependence, sense of place, community attachment, sense of community, each of them has a somehow different meaning, but the difference between them is not clear. Although there are many definitions

## Theories of Place Attachment

and researches describing their relation with each other. some researchers think that place attachment is a part from place identity, others consider that both place attachment and identity are part from the sense of place , also others think that place attachment is considered of place identity , place dependence and social bonds as shown in (Figure 2) . (HERNÁNDEZ ET AL., 2007; GÜR AND HEIDARI, 2019).

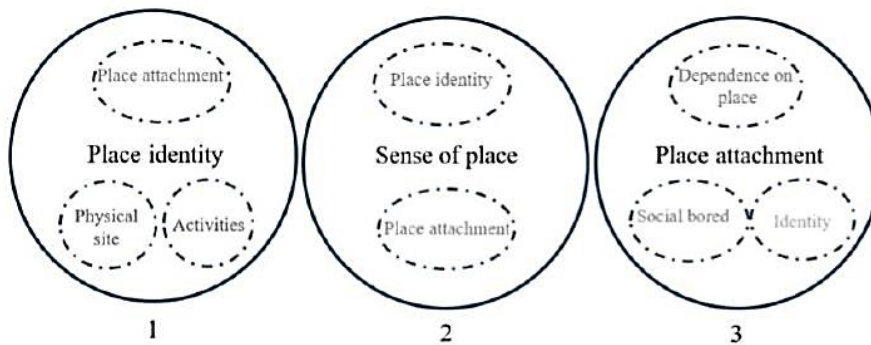


Figure 2: Place attachment, sense of place and place identity relations. (Gür and Heidari, 2019)

Although we can define Place attachment as the bond created between the individual and his/her meaningful place. It has various definitions and many researches have been studying it especially in the last 50 years. Due to modernization, globalization and raising the image of the global cities, the place attachment and place identity of cities and neighborhoods has been affected. thus, the interest in studying the topics related to them and how individuals perceive their surrounding environment have raised. According to Christopher M. Raymond (2010) some studies on place attachment have classified it according to the context: personal context, natural environment context and community context. The personal context includes place identity, place dependence and rootedness. The natural environment context includes connectedness to nature, environmental identity and affinity to nature. The community context includes neighborhood attachment, belongingness and familiarity (KAMALIPOUR, YEGANEH AND ALALHESABI, 2012). However, in 2010 the tripartite organizing framework of place attachment has been proposed by L. Scannell, R. Gifford. That proposed place attachment in a comprehensive

framework that is composed of the three dimensions, of place, person and the psychological process.

## 2.1 The PPP framework

This framework describes the way people is attached to a place manifested by affect, behavior and cognition, who is attached, and what are they attached to and what is the nature of this place as shown in (Figure 3).

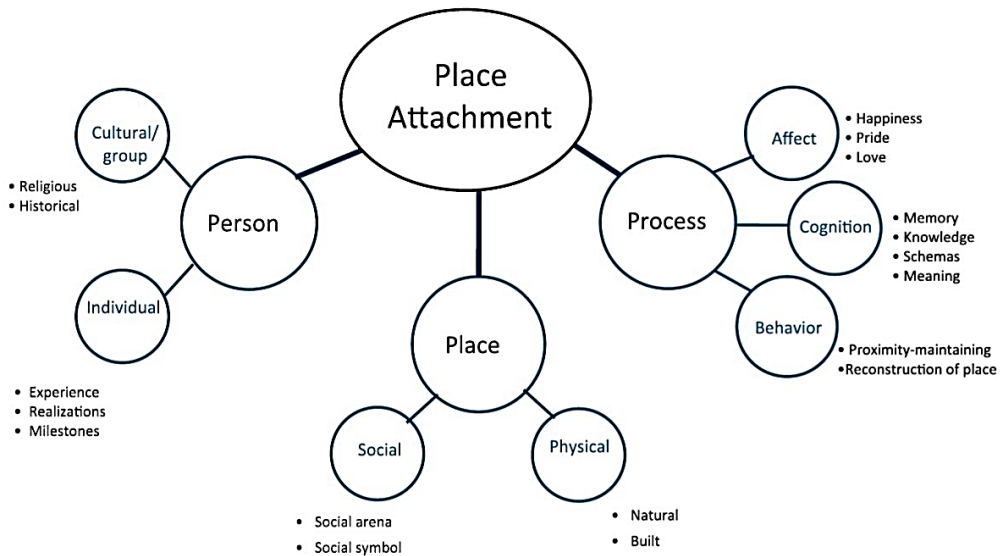


Figure 3: The tripartite framework of place attachment. (SCANNELL AND GIFFORD, 2010).

### 2.1.1 2.2.1 Person dimension

Firstly, the dimension of person in place attachment (who is attached), it is represented individually and in groups, as individually the person is affected, perceiving and reacting related to his/her personal experience, and the milestones in his life that took place in that place that made him attached in some way to that specific place and made it meaningful for him. Whether there is a happy or sad event that took place in that specific place. And in the group level, the place should represent and reflects their culture, history or religion. The place attachment is the spontaneous feeling and bond created between people and that specific place. Like how people hallow places that represents their religious background and believes like the mosque, the church, and Mecca...Etc. and if there is a historical event related to the place. According to the main author of

## Theories of Place Attachment

“The pattern language” (Alexander et al., 1977), ninety percent of the feeling we feel are the same and we feel the same things, the ten percent is the part of the human feeling that differs from one individual to the other, this part people tend to concentrate on when they are about their feelings and comparing feelings. That means that within the group there are common feelings as well as the different feelings on the individual level, understanding these facts helps us in understanding how people feel and react with their surroundings, thus it is reflected in the designing and planning anything used by people. That common feelings that make chairs settable, places livable and cities walkable.

### **2.1.2 Place dimension**

As the place dimension (to what they are attached) that represents the physical environment whether it is natural or built environment that individuals are attached to them and also the social bond between people and the built environment, if the place represents a social symbol or arena. Studies of place attachment have been examined at various geographic scales like cities, neighborhoods and home.(Hidalgo and Hernández, 2001). they found that both the physical and social attachment affects place attachment, and they stressed on the importance of the spatial analysis in place attachments’ studies. The place attachment is directly relevant to the social and physical attachment. that according to Riger and Lavrakas (1981), social attachment can be represented by boundedness which consists of the belongingness to the neighborhood, the social ties and familiarity with fellow residents and neighbors and that physical attachment (rootedness) is predicted by the length of residence, the ownership and the plans to stay in the same place.

### **2.1.3 Process dimension**

While the psychological process that is manifested by cognition, behavior and affection. The bond between the person and place is an emotional relationship. As this bond is represented by the feeling of happiness if this place is related to a happy experience or personal event, or by the feeling of pride for belonging to this place or city for example, or by the feeling of fear and grief if the individuals

were forced to relocate or immigrate and missing their meaningful place. And place attachment as cognition includes the memories, meanings and knowledge represented by this place. these cognitive elements that are represented or subconsciously driven from the people's perception about the place on the individual level like personal memories and experiences, and on the group level as the historical and cultural meanings .and the behavioral level of place attachment is expressed by maintaining and reconstruction of the place.

Thus, the tripartite framework differs from the other concepts and frameworks as it is more comprehensive and most of the definitions and theories of place attachment fit well within it. Unlike, most of the theories that mention parts of the whole.it represents a comprehensive and inclusive, yet simplified, description of people place relationship (Scannell and Gifford, 2010).Taking into consideration that the emotional attachment can be defined as the place identity while the functional bonding between person and a place is known as place dependence. Which means that the place provides services or opportunities to the people that makes them attached to the place and help them in achieving their goals and needs.(Ujang, 2012; Anton and Lawrence, 2014)

## **2.2 Place attachment influence**

Place attachment worth studying as to humanistic geographers, People's bonding with meaningful spaces represents a universal connection that fulfills fundamental human needs (Relph, 1976). As the sense of belonging and the cognitive needs regards the need for meaning and predictability. As well as that attached people have a higher sense of security and safety even when their place is situated in a war zone. (e.g., Billig,2006), and feels less fear of neighborhood crimes (Brown, Perkins, & Brown, 2003). Also, according to community psychologists and sociologists, it affects people's interaction with each other and with their neighborhood, as it motivates them to spend more time in the outdoors, to participate in the local planning and development, and to preserve and develop their community. (Manzo & Perkins, 2006). So, it results in social continuity and stability. Most psychologists believe that man's positive

## Theories of Place Attachment

attachment to his/her environment is crucial for a healthy personality (Allport, 1955; Fromm, 1941 & Maslow, 1967). Also, The studies of place attachment declares the feeling of grief expressed by those who are forced to relocate (e.g., Fried, 1963; Fullilove, 1996), understanding the disaster psychology (e.g., Brown & Perkins, 1992), and how people feel and react to the places in the cases of immigration (e.g., Ng, 1998), and Mobility (e.g., Giuliani, Ferrara, & Barabotti, 2003; Gustafson, 2001), also it is relevant and important factor in planning and encouraging the usage of public spaces (e.g., Kyle, Graefe, & Manning, 2005; Moore & Graefe, 1994; Williams & Stewart, 1998). As well as, in the study of environmental perception.

### **2.3 Place attachment predictors**

As the objective of this research is to come up with the qualities and features that affects place attachment in Cairo's residential neighborhoods, thus in the first place the indicators of place attachment should be extracted from the literature, in order to help in investigating and analyzing the tripartite framework proposed by Scannell & Gifford in different neighborhoods in Cairo's context. So, after reviewing that there are three broad, interrelated components that form a place and give meaning to it: the physical setting, the individual's internal psychological and social processes, and activities that have been undertaken (Relph, 1976; Stedman, 2003). Also (Goličnik Marušić & Nikšić, 2012 at, 2008) declared that the place identity has two main approaches, one approach emphasizes on aesthetics and physical elements in the natural and artificial context. And in the other approach, the focus is on the social notion of place and identity; considering the activities, functions, and perception of place beyond its physical aspects.

So, the indicators of the place attachment can be divided among the three dimensions of Place, People and process. That indicates the physical features, the factors affecting the person dimension on individual and group scale as well as the predictors affecting the process dimension too.

### **2.3.1 Place dimension predictors**

As mentioned, that the physical feature has an important role in affecting the sense of place and the place identity, as they contribute in making places more legible, which means that people can have a clear memorable image of the place that may help them in recalling the place, navigating through it influenced by paths, edges, districts, nodes and landmarks. Proposed by LYNCH (1960)(Ujang, 2012).which makes them attached to the place and increases their community attachment by feeling at home.

Moreover, it is claimed that the success of urban places is influenced by the ability of these places to accommodate human activity effectively (Jacobs, 1961). .as when designing a neighborhood with public spaces that accommodate activities for the elderly as well as the young, this shall increase the place attachment., also the theory of Nasar and Julian 1995; Plas and Lewis claims that creating walkable streets, commercial and social activities promotes the social cohesion and interaction in the outdoor activities hence increase place attachment. (Anton and Lawrence, 2014).as well as Comfort and safety are recognized as indispensable predictors for attachment (Hidalgo and Hernández, 2001). Accessibility, legibility and diversity are indicators for a successful public space too. As well as the physical features that makes the place unique tends to increase place attachment (Shamsuddin & Ujang, 2008)(Kamalipour, Yeganeh and Alalhesabi, 2012). In addition to the services facilities that provide people with their needs, thus the effect of satisfaction with these services reflects upon the behavior of the attached ones. It is also believed that place attachment is stronger for the physical settings that evoke personal memories, and this type of place attachment is thought to Contribute to a stable sense of self and securing the sense of place identity (Twigger-Ross & Uzzell, 1996,Ujang, 2012), also the theory of Nasar and Julian 1995; Plas and Lewis reclaims that creating walkable streets, commercial and social activities promotes the social cohesion and interaction in the outdoor activities hence increase place attachment. (Anton and Lawrence, 2014).

### **2.3.2 The person dimension predictors**

Firstly, the individual data as the socio-demographic data like Age and Gender. Rootedness that includes the length of residence which is one of the main Indicators of place attachment. As In most cases, people who have lived in a place for a long time show greater attachment to the place (Hidalgo and Hernández, 2001; Brown, Perkins and Brown, 2003; Lewicka, 2011; Anton and Lawrence, 2014). As over time, the place starts to provide the resident by a sense of continuity and it is known as place referent continuity(Scannell and Gifford, 2017). However it is hard to figure out if they are attached because they lived there for a long period of time, or they lived there because they are emotionally attached to the area. (Brown, Perkins and Brown, 2003). Although the length of residence is an important indicator for place attachment, but there is some cases that contradicts this phenomenon, place attachment occurs very quickly as if it is love at first sight. This occurs most likely if this person is experiencing congruence. That this person may get attached to a certain place if it resembles the qualities of a pervious place of attachment.(Scannell and Gifford, 2017).Number of relatives in a place and ownership of the house also increase place attachment. As those who own their houses tends to be more attached to their neighborhood, however it is not clear which of them caused the other. In other words, we don't know exactly whether when someone gets attached to a place will invest and purchase it, or when someone owns a place , he will develop a sense of attachment and commitment towards it.(Manzo and Perkins, 2006; Scannell and Gifford, 2017). As well as boundedness that includes the social ties among the neighbors and the daily encounters of the residents with their environment, seasonal celebrations, and continued physical personalization. (Brown, Perki & Brown, 2003).

### **2.3.3 The process dimension predictors**

The process dimension is manifested by affection, cognition and Behavior. The affection is indicated by the feelings people have towards the place. It can be represented in the willingness to stay/live in that place.(Hidalgo and Hernández,



2001; Brown, Perkins and Brown, 2003; Anton and Lawrence, 2014), as well as the feelings of love, pride and belonging towards the place and feeling sorry and sad to leave (Scannell and Gifford, 2010). While the behavior process has various indicators like the participation in the local planning, development and maintenance is considered a social behavior as a result of feeling attached to a place, as well as spending a lot of time in the outdoors and walking in their neighborhood. However, Behavior is believed that it requires more effort and high degree of commitment and involvement. It is also affected by limitations concerned with the opportunities and surrounding circumstances. Which is not the case in the emotional aspect, which is less dependence on the external limitations and restrictions. (Ajzen and Madden 1986). Behavior process can be also defined as place dependence, Which is also known as the functional attachment, that refers to the significance and the ability of the physical setting of a place to satisfy their needs, goals and allowing them to carry out their activities (Ujang, 2012; Scannell and Gifford, 2017). as if one is satisfied with his neighborhood, he will tend to continue living there, and will get attached to it. Consequently, it affects his behavior towards the surrounding physical environment. (Lewicka, 2011; Casakin, Ruiz and Hernández, 2021). Thus The satisfaction with the services and qualities of someone's neighborhood shows The level of perception and his/her residential well-being, which is directly related to the place attachment. (Casakin, Ruiz and Hernández, 2021). Place dependence can also be in the form of financial investments, social cohesion and experiencing a higher sense of safety, security and comfort. (Kamalipour, Yeganeh and Alalhesabi, 2012). While the cognition process regards the memories people have in these certain places that provide a sense of continuity over time and sometimes helps them to recall positive emotions too. And knowledge as those who are attached perceive the place differently and they get to know more details about it and starts to develop detailed mental maps of it as well as the meaning of this certain place to them. (Scannell and Gifford, 2010, 2017).

## 2.4 Summary

This chapter aims to review the place attachment different definitions and to select a certain framework to be later investigated in the selected case studies. Thus, the PPP framework proposed by Scannell and Gifford (2010) is chosen for the research purpose. Also, it aims to study the indicators affecting the three dimensions of person, place and process that are interrelated together. However, the indicators were divided among the three dimensions according to its direct relation to it. Hence a comprehensive framework of place attachment is induced to be later investigated and validated in the empirical research. The mentioned Framework is illustrated at (Figure 4).

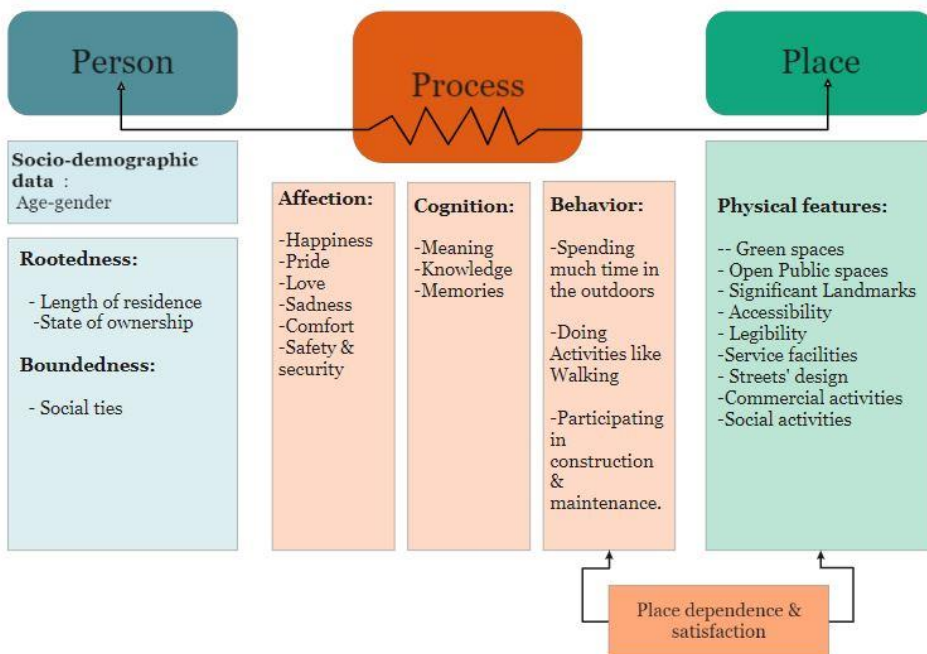


Figure 4: the framework induced from the PPP framework & the place attachment indicators (Author).

# Chapter 3

## Place attachment at Cairo's neighborhoods

This chapter will be reviewing the relation between place attachment and different place scales and why the research focuses on the neighborhood scale. As well as exploring the diversity and evolution of Cairo's neighborhoods through time, developing criteria for choosing the case studies and giving a historical background for each in order to take it for further step in the empirical study.

### **3.1 Place attachment at neighborhood Scale**

Place attachment's researches have dealt with different place scales, starting from home scale, neighborhood, city, regions, countries, till the continents scale. However Approximately 75% of all work that deals with residential place attachment concerns the attachment towards the neighborhood scale, as the scale of the neighborhood can be directly personally experienced by most of the

## Place attachment at Cairo's neighborhoods

people, despite the scale of region or a city which is too big to be directly and frequently experienced by most of the people, yet it is not too small like the scale of home. As it includes the familiarity with the neighborhood and its street blocks, as well as the walking distance and the socio-interactive aspects. That explains why high percentage of people (from 40% to 60 %) are attached to the scale of neighborhood rather than any other spatial levels. (Cuba & Hummon, 1993; Gerson et al., 1977; Guest & Lee, 1983).as well as it is highly linked to the residential satisfaction studies.(Lewicka, 2011)

### **3.2 Cairo's neighborhoods**

As Cairo has diverse and rich neighborhoods. The planning, designing concepts and strategies of these neighborhoods have changed through time, and have a direct impact on the residents of each neighborhood and the community. In addition to the current massive urban development and transformation taking place, whether in the existing neighborhoods, changing its physical features including its buildings and streets or the construction of new residential neighborhoods. All of this took place, without doing enough research about the influence of these places and changes on the resident's place attachment and interaction with each other and with their environment and how this affects the community. Thus, this research is done to enable the planners and decision makers to know what the physical and social features in Cairo's traditional neighborhoods that affect the place identity and place attachment.

#### **3.2.1 The evolution & diversity of Cairo's neighborhoods**

As Cairo has witnessed a lot of major political, economic, and social changes that have reflected upon the image of its streets and buildings, thus it is reflected upon the significance of its residential neighborhoods and how they are diverse, starting from the old Islamic Cairo, that has gone through different phases: Fatimid, Ayyubid, Mamluks and Ottomans, resulting in the existence of el-fustat , el-Askar, el-Qata'I , the old walled city and the area around the citadel. Which is considered by the UNESCO in 1979 as a world heritage site as it is one of the world's oldest Islamic cities. The beginning of the 19<sup>TH</sup> century (1805) was the

end of the Islamic era in Cairo, when Mohamed Ali took over, announcing the virtual independence of Egypt from the ottoman court, and that was considered the beginning of Modern Egypt. He started national projects improving the infrastructure, education and reinforcing the army of Egypt. And so did his successors after him. (Salama and Essam, 2014; Salheen, 2001)

Some neighborhoods have appeared in the era after Mohamed Ali, which was early developed on agricultural lands like Abbassiya that was founded by Abbass Helmi I. These neighborhoods developed in an organic / natural way, with compact streets with high densities.(Ghonimi, 2021).

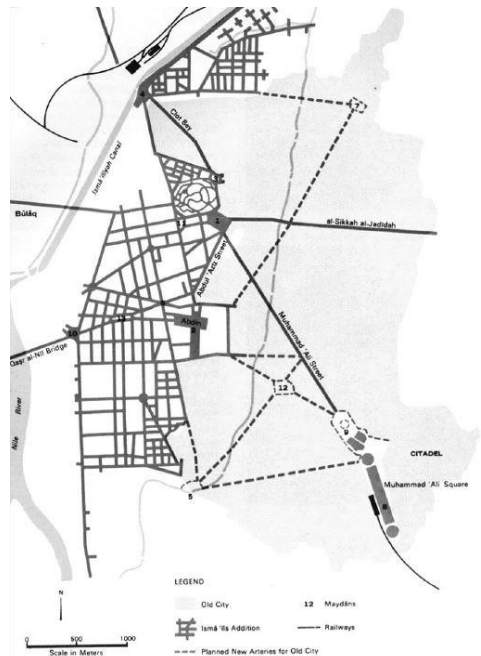


Figure 5: the ismaili addition as declared by Abu-Lughod (Salheen,2001)

Until 1863 when khedive Ismail, Mohamed Ali's Grandson, was the ruler of Egypt. He was influenced by the years he spent in Europe and decided to establish a city that resembles Paris. To make Cairo look more European than African. especially before the opening of the Suez Canal, that will host rulers and royalties from all over the world. So, the first city planning is presented by a French architect, inspired by Haussmann's planning for Paris. That introduced the wide large radial grid streets, unlike the existing narrow and compacted streets existing in the old Islamic city.as shown in (Figure 5) (Salheen, 2001).

By the beginning of the 20<sup>th</sup> century, it was the start of the early planned neighborhoods that includes old suburbs like Maadi and Heliopolis that are planned by foreign developers.as an extension for Cairo in the south and east respectively as shown in (Figure 6) (Salheen, 2001; Ghonimi, 2021)

## Place attachment at Cairo's neighborhoods

Then after the revolution of 1952 and announcing Egypt as a republic. the urbanism and the housing sector were influenced by the political changes. Neighborhoods like Nasr city was initiated by Gamal Abdel-Nasser as a result of the socialist movement. And other neighborhoods were allowed to extent like Heliopolis and Abbassiya .(Salheen, 2001; Ghonimi, 2021).And there was whole new vision and plan for the expansion of Cairo's metropolis. However the war of 1967 have a negative impact on the conditions of the country, that many illegal unplanned expansions have took place caused by the increasing population growth.(Edeisy, 2020)

Nevertheless, at the last couple of decades starting from 1980s, the establishment of the new planned neighborhoods prototype as new suburbs was evolved, like new Cairo city and 6<sup>th</sup> of October city. In order to reduce the population growth in the city center and creating new attraction points for investments and residents. It was built based on the modern theories of residential neighborhoods with segregated pure residential clusters, while the services are concentrated on the peripheries, and the streets were hierarchical loop system pattern. That aims to exclude all the traffic and the entry of non-residence.

While in the last two decades, the contemporary private gated neighborhoods like Madinity have been developed by private developers .it is established as a simulation of a pure residential clusters that have their internal gardens within their blocks and the services are completely separated at the peripheries too.(Salheen, 2001; Edeisy, 2020; Ghonimi, 2021).

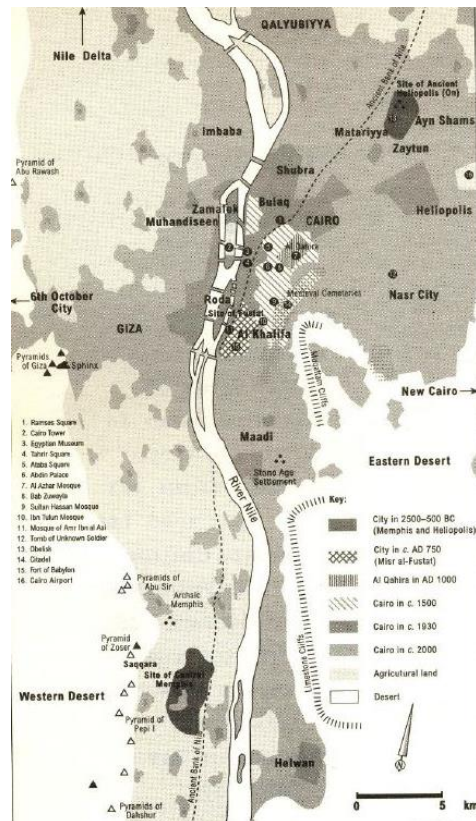


Figure 6: historical development of Cairo

(Salheen, 2001)

The evolution of Cairo's neighborhoods is represented in the following timeline

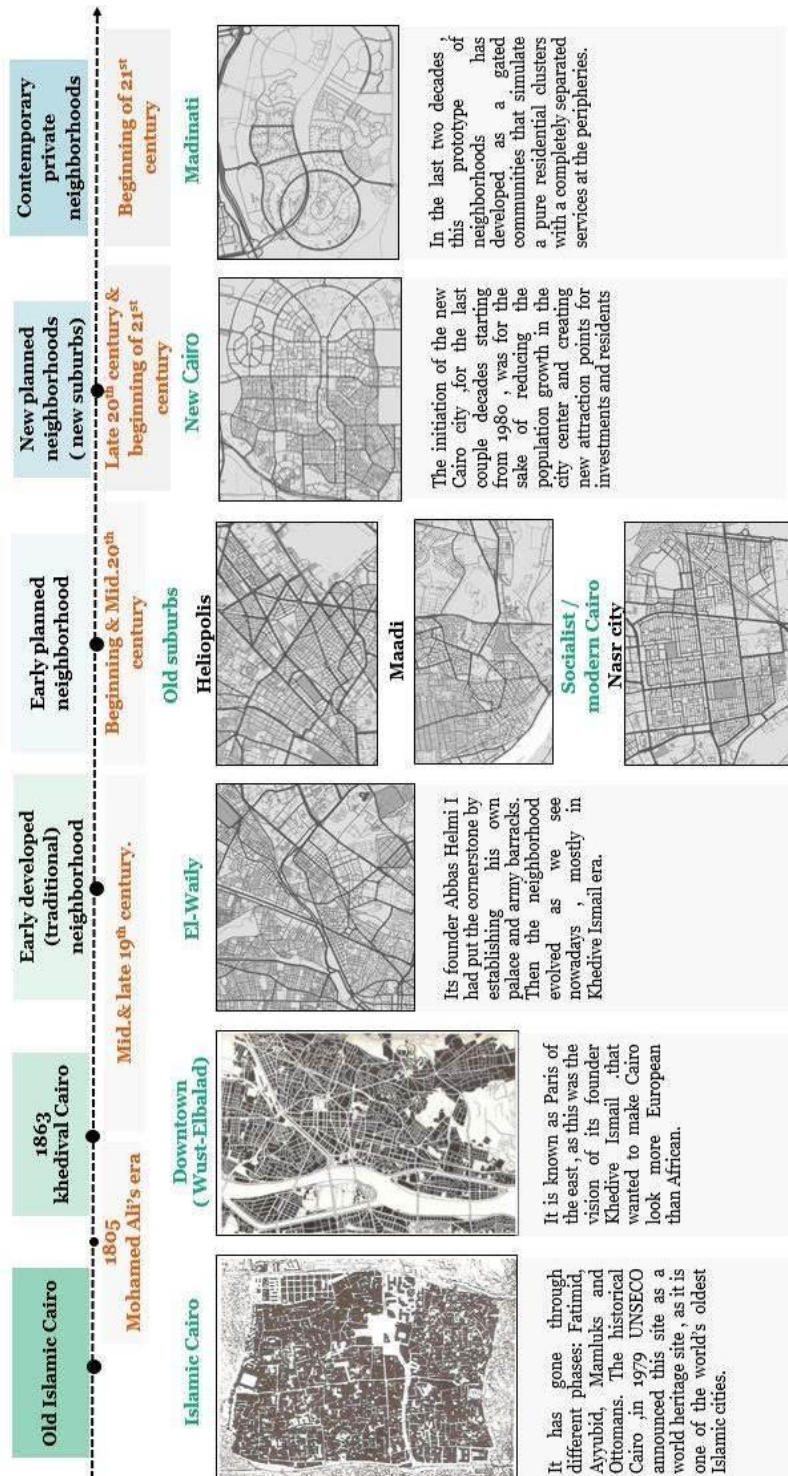


Figure 7: the timeline of Cairo's neighborhoods (Author)

### **3.2.2 The case studies selection**

First of all, the study will be focused on Cairo. The case studies were selected by excluding the neighborhoods' prototypes that are unsuitable for the research objectives for different reasons as the khedival and Fatimid Cairo. That were excluded as most of their residents have moved out and they transformed into commercial or touristic districts, while the early planned neighborhoods, Heliopolis and Nasr city are unsuitable for the research because of the recent urban transformation that took place, changing a lot in their physical context and mental image. On the other hand, the new suburbs or new planned neighborhoods are excluded too as they are relatively new, and one of the main indicators of place attachment is the length of residence, same goes for the prototype of the contemporary private neighborhoods. Additionally they are gated communities, thus the results of the research will be inaccurate if compared to the other ungated neighborhoods.

So, the two case studies selected for this research are representing the early developed neighborhoods and the early planned neighborhoods, which are el-Waily, Maadi neighborhoods respectively. Both neighborhoods were initially started as military barracks, yet were maturely developed as residential areas by the beginning and mid of the 20th century. However, the political and economic conditions of the country had reflected upon its buildings and streets, as in the era after revolution of 1952 that transformed many villas into mid- and high-rise buildings. Also, both of them have significant landmarks and historical buildings. And were popular for the diversity of their population of multi-nationalities and religions.

They are common in some more physical features as both of them are similar in the radial and grid fabric in some of their areas. Both have an intimate street, but with different land uses. Consequently, Encouraging the walkability and social outdoor activities.





Figure 8:location of the case studies in Cairo.

### 3.2.3 Historical background of Maadi's neighborhood

Maadi is one of Cairo's old suburbs that lies on the east bank of the river. Maadi's name stands for the ( Ma'adiya ) ferry boats, as it was an important crossing point through the Nile back to the late 19<sup>th</sup> century. (Finding *et al.*, no date).Where a rural village called Maadi Khabiry was located within the agriculture lands. That many of the Sudanese army had stayed there.as well as the private land owners who owned large agricultural areas as shown in Fig. (9). That was until 1904 when the railway connecting Cairo to Helwan was built. Consequently,

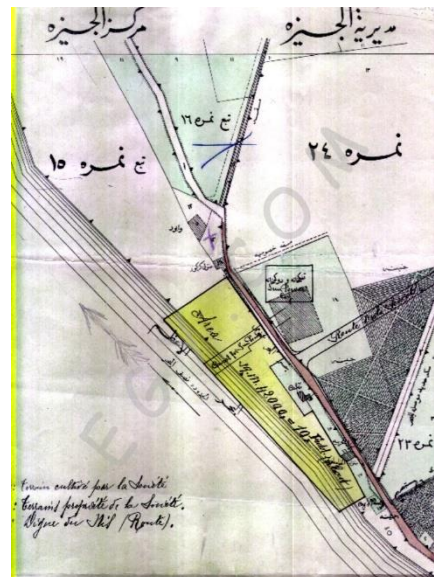


Figure 9:Maadi in 1901 source: AUC Rare books and Special collection Digital Library

## Place attachment at Cairo's neighborhoods

encouraging the establishment of the suburb in 1905 when it was planned by a retired Canadian officer Captain Alexander J. Adams. There were a very strict rules regarding the percentage of the built and green areas, even the size of the sidewalks. The new company of delta land for investment was established .that took advantage of the economic crisis in 1907 and bought large areas of the land, subdivided them, then sold them to the residents as shown in (Figure 10) then it was developing



Figure 10:Maadi in 1925 source: AUC Rare books and Special collection Digital Library

over years as shown in (Figure 11) After the revolution of 1952, the company was nationalized and the expansion that took place had changed from villas into high rise buildings. (Badawy, Abdel-Salam and Ayad, 2015).

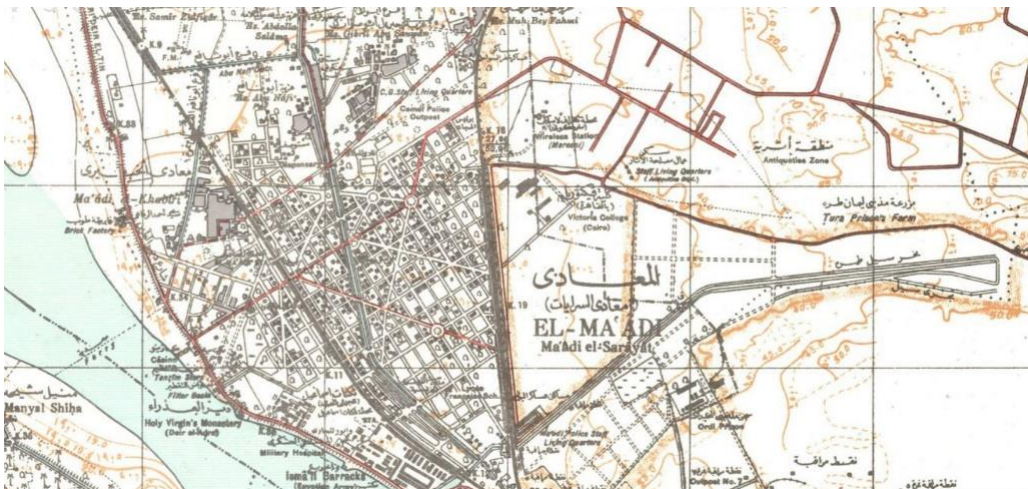


Figure 11:Maadi in 1945, source: AUC Rare books and Special collection Digital Library

### 3.2.4 Historical background of el-waily's neighborhood

Firstly, in the 13th century the mosque of el-Zaher Baybares was established in the mamluks' era. That was mostly surrounded by water and greenery. Then by the time of the French campaign in Egypt by napoleon Bonaparte in 1798, they turned the mosque into a fort, after it was already transformed by the ottomans



as an army storehouse. Until the time of Mohamed Ali who took over in 1805, he turned the mosque into a government bakery. When Abbas helmy I established barracks for the Egyptian army and built his own palace in 1849 in Abbassiya that was called after his name. That will be later developed into a residential area. Later it was further developed by khedive Ismail, who established various national projects there. In the 1890s, many buildings were built in the area, as well as the founding of several synagogues and church complex that became known as “Tur Sina”. Then in 1897, the

Significant palace of Gabriel Habib Sakakiny was established near this area. By the beginning of the 20<sup>th</sup> century, the number of synagogues and churches had increased, so there was a significant population of Jewish and Christians living in this area. By then the area was improved and it became better connected. Numerous schools and cinemas were established.

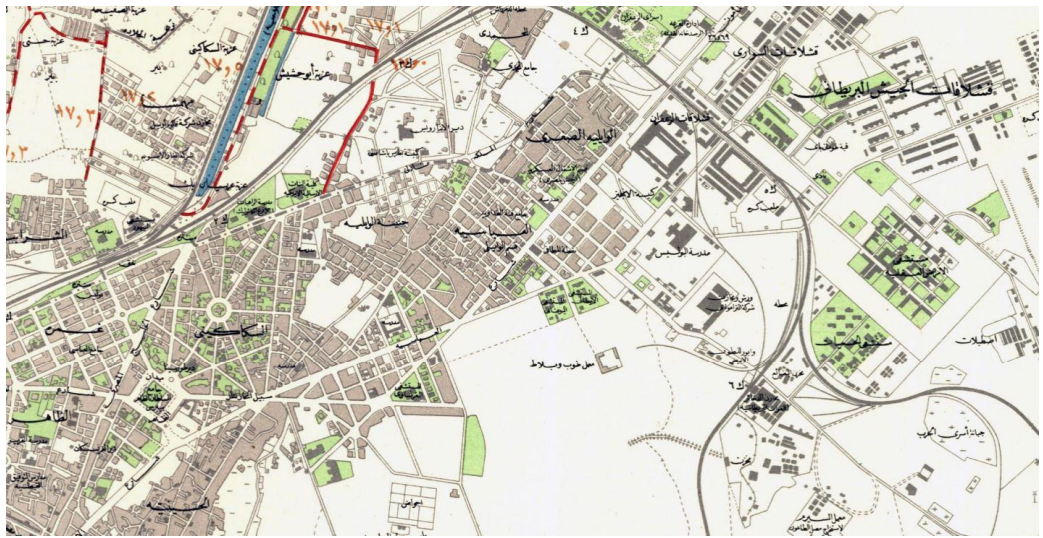


Figure 12: Elwaily in 1945, Source: AUC Rare books and Special collection Digital Library

### **3.3 Summary**

This chapter demonstrated the relation between place attachment and the scale of neighborhoods. The case studies were selected by excluding the unsuitable neighborhoods prototypes and finding out the similarities between them. That will help in reinforcing the investigation later in the empirical research.

## Part II

# The Empirical Research



# Chapter 4

## Methodology

The research's main objective is to come up with the social and physical features that affect the place attachment in Cairo's neighborhoods and how it affects the community. In order to help the architects and planners in taking decisions when designing any new residential neighborhood or intervene in an existing neighborhood. The research objective was carried out by investigating the induced framework mentioned in chapter 1 upon the two selected neighborhoods. In that manner, this research was carried out by applying Qualitative and quantitative analysis on primary and secondary data. As The quantitative research identifies and predicts phenomena within a sample that will generalize to a larger population, while the qualitative research generates a deep understanding of the phenomena, but they are limited in their generalizability. Both qualitative and quantitative approaches were applied in this research, so as to balance the strengths and weaknesses of each method.

As the investigation of the physical context (place dimension) was through observations and desktop research which are qualitative analysis. While the person and process dimensions of place attachment was investigated through a Questionnaire. As Questionnaire is a feasible way to gather information especially those relevant to the cognitive-emotional processes that are not easily observed. (Lewicka, 2011). Which helped in systematically collecting and analyzing the data. It is supposed to be answered by the residents or the former resident's only, as they are the social group that is directly and personally affected by their neighborhoods. The questionnaire is designed to be composed of 26 questions divided into five sections. The first two sections of the questionnaire investigated the personal and social data including socio-demographic data, rootedness and boundedness among residents. While the three other sections investigated the process of place attachment occurring between the person and

## Methodology

place. This process will be analyzed in terms of affection, cognition, behavior, and place dependence as illustrated in (Figure 13). 25 out of 26 questions are closed ended questions that can only be answered by selecting one or more answers, using multiple choice, Likert assessment scale (5 points scale) and Frequency scale (5 points scale) As shown in the Appendix (A).

After the investigation, the data coming up from the Questionnaire is compared with the features of the physical context in both neighborhoods. At last, comparing and validating the findings of the two neighborhoods together, to develop a wider understanding of Place Attachment at community Level. In order to come up with this,

- In first place the level of attachment: by measuring the attachment of the residents manifested by cognition, emotional and behavioral process. In other words, if people are attached that is reflected upon their feelings, familiarity, memories, comfort and their behaviors, and then comparing the findings of both neighborhoods together, in order to get a fuller and deeper understanding for place attachment processes at community level.
- Understanding the relation between the socio-demographic data and place attachment processes. As well as the personal and social data like rootedness which includes the length of residence and the ownership state and boundedness which includes social ties between the neighbors.
- Investigating the physical features in the neighborhood that promotes place attachment, interaction, thus affecting the community. Based on investigating Residents' reasons for living in their neighborhood, their satisfaction level of services provided by their neighborhood, the level of perception they have of their neighborhood and how this influences the place attachment bond.



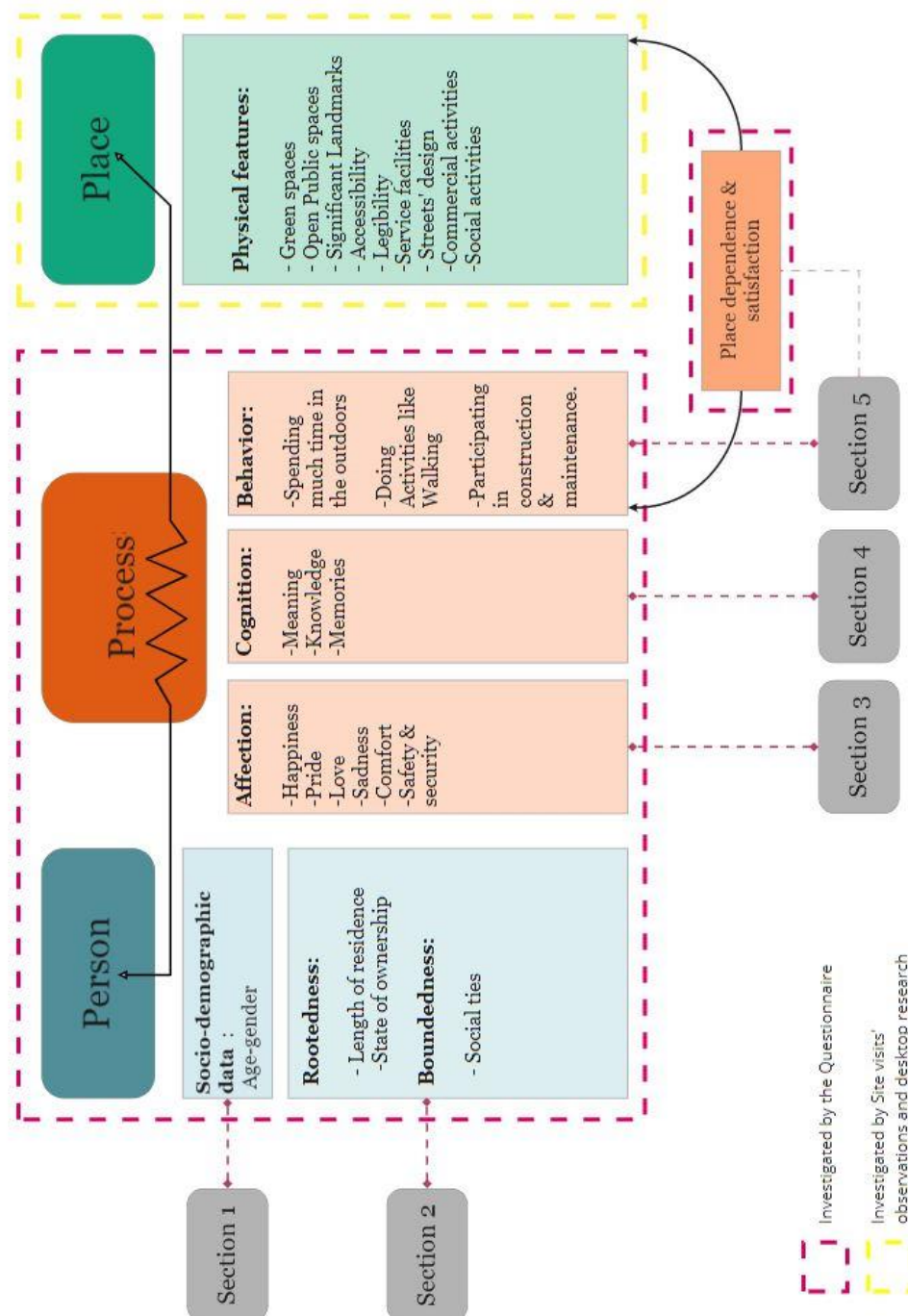


Figure 13: Conceptual framework for the investigation methodology (author).

### **4.1: Investigating the PPP at the selected case studies**

The investigation of the place dimension of place attachment was conducted through observations and desktop research, while the person and process dimensions were investigated through the online questionnaire, as declared in the following.

#### **4.1.1 Investigating the Place dimension**

The investigation of the physical environment of each neighborhood mainly depends on the site visits' observations, that were recorded by photos and note-taking, and supported and validated by desktop research based on analyzing the data extracted from the satellite maps. This physical investigation will include the independent variables as the community size, urban morphology, street network, green spaces, land use, and significant landmarks.

#### **4.1.2 Investigating the Person dimension**

The investigation of the independent variables, as (age, gender, length of residence and ownership state) as well as the social ties among residence, was conducted by the first two sections of the questionnaire as illustrated at Fig. 14. And these two sections are:

- **The First section (Personal data)**

It inquired the socio-demographic data like their gender and age, that is divided into social groups that have access for answering the online survey, starting from teenagers' age ranging from 12-17 years old, then the age of university students (18-24 years old), then the working category is divided each 10 years to these age groups of (25-34), (35-44), (45-60) years old, and at last above 60 years old, which is the age of retirement. In addition to asking about where they live or used to live if they are former residents. The answers for this question were classified into the districts of each neighborhood, to ease the correlation between the answers of the survey and the features and data of each district. Which were illustrated on the map.

- **The Second section (Rootedness & Boundedness)**

This section inquired their length of residence and the state of ownership of their home whether it is rent, old rent, or private property. As well as their social ties with their neighbors and how familiar they are with their neighbors. As they were asked to rate their familiarity at a scale from 1 to 5.

#### **4.1.3 Investigating the Process dimensions**

While the investigation of the dependent variables of the process place attachment, as affection, cognition, and behavior, was conducted by the other three sections of the Questionnaire. As illustrated at Fig.14. these three sections are:

- **The Third section (Affection /Feeling)**

This section's main objective was to indicate the general feelings of the residents about their neighborhood, feelings like love, sadness, happiness, pride and belonging. By using the Likert scale at a scale of 5 ( 1: strongly disagree, 2: Disagree, 3: Neutral, 4: Agree and 5: Strongly agree), based on (Scannell and Gifford, 2010; Lewicka, 2011). They were asked to rate the following statements: "I like my neighborhood", "I will feel sorry to move out ", "I feel proud about living here", "I am happy that I am living in my neighborhood", "I think my neighborhood is a good place to live in", "I feel like I belong to this place". These statements not only refer to the emotions they have towards their neighborhood, but also its meaning to them, their satisfaction and tendency to still living there.

- **The Fourth section (Cognition)**

This section aimed to know how familiar the residents are with their neighborhood and to know the elements in their neighborhood that have meaning to them. As when someone is attached to a place, they start to develop a mental representation of the place as well as information and memories that make this place meaningful to them. (Scannell and Gifford, 2017). That was carried out by asking about the name of some places that are located on a map of their neighborhood, and giving them options to choose from. Also, by making

## Methodology

them choose from a group of photos of their neighborhood, the photos which they recognize as places located in their neighborhood. As well as asking them to name places that they have memories in and what makes these places memorable to them. Moreover, they were asked about how they navigate through the streets of their neighborhood and also what the first element that captures their attention while walking down the streets of their neighborhood. These questions aim to know how familiar they are with their neighborhood and how they perceive the surrounding environment.

- **The Fifth section (Behavior & Place dependence)**

This section aimed to know how much the residents are dependent on their neighborhood, how it helps them in satisfying their needs and easing their life. Thus, affecting their behavior. Which can be also defined as place dependence. That was carried out by asking about their work location, why they still live there, make them rate their satisfaction with the services provided by their neighborhoods, by using the Likert scale at a scale of 5 (1: strongly disagree, 2: Disagree, 3: Neutral, 4: Agree and 5: Strongly agree). The services they were asked about are the daily needs shopping, entertainment services, medical services, educational services and transportation network. Also, they were asked to rate the qualities provided by their neighborhood at a scale of 5 (1: very poor, 2: poor, 3: neutral, 4: good, and 5: very good). These qualities were privacy, green spaces, public spaces, pedestrian movement, accessibility, street sound, safety and security. As it is believed that the satisfied residents tend to live there and become attached to it .and how often they spend their free time in their neighborhoods and what activities they carry on. Then asking about how often they participate in maintaining or developing their neighborhood. And what kind of activities they participate in and about their involvement with neighbors.

### **4.2 Procedure**

The site visits were carried out on two days for each neighborhood .in order to cover the whole neighborhood. The Questionnaire was designed to be bilingual, so as to reach a wider spectrum of people. It was carried online. Using the private

groups of the residents on social media and public groups to spread the survey among the residents of each neighborhood. The responses were gathered from the 8th of June, 2021 till the 24th of June, 2021. That made the total responses 141, 96 responses from Maadi and 45 responses from el-Waily. The difference in the number of responses of the online questionnaires was expected due to the variance between the natures of both neighborhoods. And for further research it is recommended to use offline surveys and interviews in neighborhoods like el-waily.

### **4.3 Calculations and analysis**

The findings of the questionnaire were obtained by comparing the data of the independent variables which are the personal data and the physical features with the dependent data which concerns the processes of place attachment. The result of the evaluative scales as the Likert and frequency scale questions were obtained by calculating the mean of each variable. Then comparing the findings of each case study with the other to validate and understand the relations between the dependent and independent variables of place attachment.

### **4.4 Summary**

In the previous chapter, after inducing a framework of place attachment from the literature, based on the tripartite framework proposed by Scannell and Gifford specifically and the predictors of these three dimensions of place, people and process. That was then investigated in the selected case studies in Cairo, which were El-Maadi and El-Waily neighborhoods. The investigation was carried out by using observations and online questionnaires. Resulting in finding out the main personal, social and physical indicators affecting Place attachment, thus affecting the community.



# Chapter 5

## Findings of Case Studies

This chapter reviews the findings of the analysis of data gathered on both neighborhoods. Where it will be divided into the three dimensions of place, person and process. The place dimension findings are based on the observations and Desktop Research. While the findings of person and process dimensions are based on the Online Questionnaire.

### **5.1 Maadi Case study:**

It is one of Cairo's neighborhoods, of total area is 126.24 km<sup>2</sup>, total occupied area is 2.48 km<sup>2</sup>, and Number of populations is 92378 (Cairo Governance Gate). The administrative border is divided into 6 districts: El-khabiry el-wsta, El-khabiry el-Gharbia, Elkhability elSharqia, El-Sarayaty el-Gharbia, El-Sarayaty El-Sharqia, and Zahraa Maadi (Cairo Governance Gate).

## Findings of Case Studies

Yet these names are observed to be unpopular among the residents and non-residents, as these districts are known as Old Maadi, Hadayek elMaadi, Sarayat elmaadi and Degla Maadi as shown in (Figure 14).

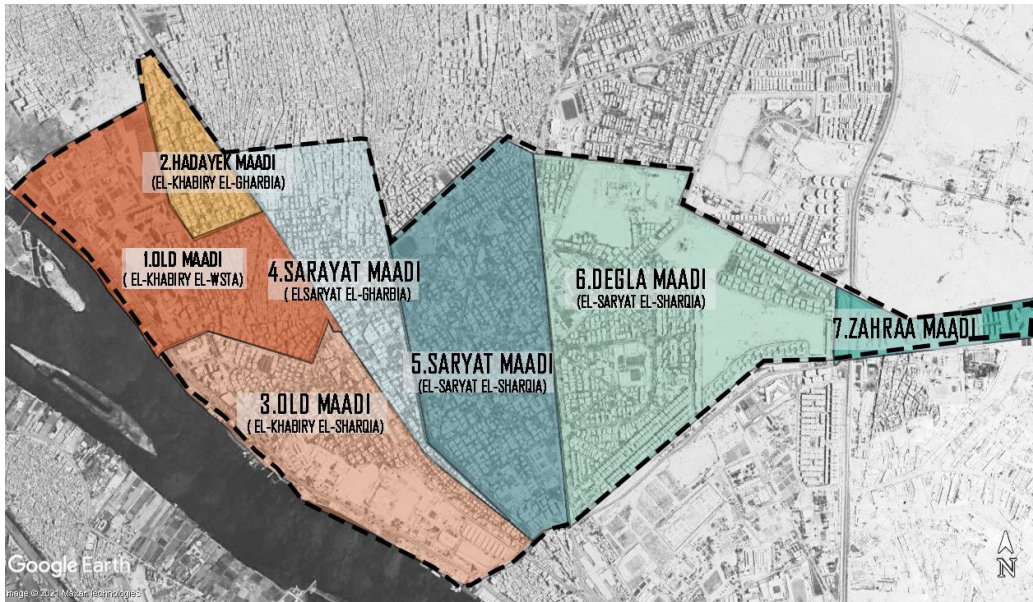


Figure 14: The administrative borders of Maadi, By Author based on Cairo's Governance Gate

Also, some areas are out of the administrative borders of Maadi neighborhood, but people consider them related to Maadi, like EL-Lasilky district, new Maadi and Nasr Street. However, this research focuses on the districts within the administrative borders, to ease the analysis process of the Questionnaire's findings.



### 5.1.1 PLACE DIMENSION of El-Maadi

The physical environment of Maadi neighborhood is analyzed using the site visits' observations that were recorded by photos and note-taking. And supported by desktop research based on analyzing the data extracted from the satellite maps. Starting with the urban morphology study, Maadi was first designed in a garden city style in 1905. However, over the years the urban fabric has developed and transformed in some areas, till the status we see nowadays. So, the neighborhood of Maadi can be divided into different districts according to the differences in the urban morphology. Despite that most of the urban fabric of Maadi Consists of Grid and radial street network like the areas of 4, 5 and 6 shown in (Figure 15) that represents Old Maadi, Sarayat el-Maadi and Degla, where the oldest parts of Maadi are the old Maadi and Sarayat, and then Degla was developed later following the same urban fabric.



Figure 15: The Urban Morphology of Maadi, By Author

Yet Area number 3 is an area inside old maadi which has natural / organic developed streets, and old deteriorated buildings. On the other hand, Hadyek El-Maadi and Zahraa consist of Grid Street networks. Zahraa Maadi is the newest area of Maadi neighborhood that varies a lot in the physical features from the rest of the neighborhood.

It is observed that the commercial activities in Maadi, are located on main streets as shown on the map of vibrancy presented (Figure 16) highlighting the most

## Findings of Case Studies

vibrant and main commercial spines in Maadi neighborhood. It was found that street 9, main streets in Degla Maadi, Nasr Street and Corniche Street are the most significant vibrant streets there. The map also shows that the commercial activities are partially concentrated in specific locations. This may result in Partial exclusion of the crowdedness of the non-residence (Ghonimi, 2021).

However, the most common and significant physical features observed in the streets of Maadi are the trees and green areas, as represented (Figure 17). Most of these trees are more than 100 years old, and of unique species.



Figure 16: Vibrancy map in Maadi (Author)



Figure 17: Green areas in Maadi (Author)

The green areas there are central and hierarchal spaces in the form of public gardens islands surrounded by the streets. (Ghonimi, 2021)

The streets are also observed to be for both pedestrians and cars. As most of the streets of Maadi consist of one or two lanes with parking lanes on one or both sides of the street, which limits the cars speed, consequently it might be safer for pedestrians.(Ghonimi, 2021). Although it is observed that most of Maadi's streets

and squares are similar to the limit that it might be difficult to navigate through them. Yet there are some differences among its streets. For example, in Sarayat El-Maadi District the buildings are mostly residential Villas with a significant architecture style Except for street 9 which is a well-known commercial spine in Maadi. Where many shops, restaurants



*Figure 18: Street 9 in Maadi, (Author).*

and coffees exist. However, Degla Maadi's buildings are a bit different as it varies from mid- and high-rise buildings, some of them have a significant architecture style with commercial activities in the main streets. While Old Maadi district 's buildings are mid- and high-rise residential buildings with commercial activities in the main streets too, same goes for Hadayek el-maadi. On the other hand, Zahraa Maadi is different from the rest of maadi, as most of its buildings are high rise-buildings. And most of the land uses are mixed use, in addition to the significant vanishing of the greenery in its streets, which are the most significant physical feature in Maadi. That makes a big difference between Zahraa El-Maadi and the rest of Maadi in terms of the street image and user experience.

These differences and variances among the districts have been documented also by taking pictures of them, as shown in the Appendix (B). They declare the differences mentioned in street width, buildings' heights, and green element as well as the significant landmarks.

### 5.1.2 The results of Person dimension

The findings of these two upcoming sections are extracted from the responses of the online Questionnaire held and was answered by residents or former residents.

Most of the participants who responded to the questionnaire were women by percentage 72.9%. As shown in (Figure 19) this distribution varies from the population distribution of Maadi, where females are 51% and males are 49 %. (Cairo governorate population distribution, 2019).

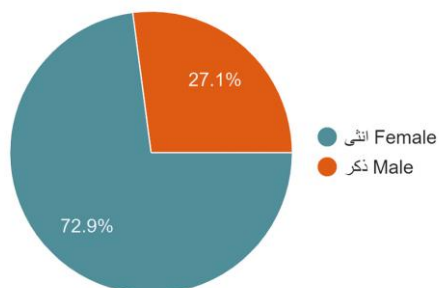


Figure 19: Gender distribution Graph, Maadi.

While there was a wide range of age groups that replied to the Questionnaire, yet most responses were between 25-34 years old.as shown in (Figure 20) While, there was one response from age group from 12-17 years old, and no

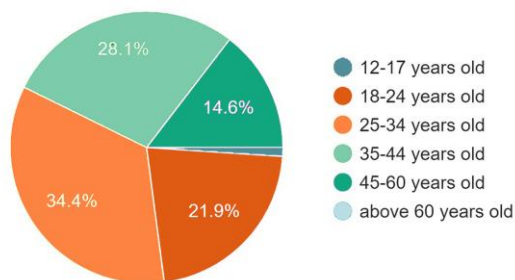


Figure 20: Age distribution graph, Maadi

responses from the age group above 60 years old. This might have happened because according to the world population review of 2021, that Egypt has a very young population, and just 3% are over the age of 65. In addition, the questionnaire was carried online, and commonly the youth are more involved with social media than the older ones.

Most of the volunteers live or used to live in degla Maadi (el-sarayat el-sharqia) and Zahraa el-Maadi, by percentages 25.6% & 36% respectively.

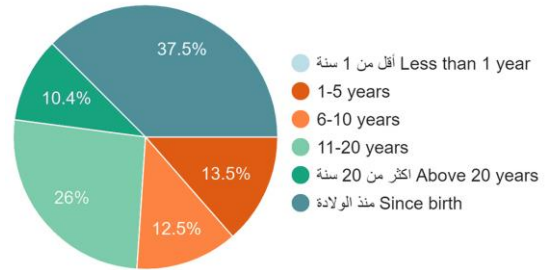


Figure 21: The length of Residence Graph, Maadi.

Most of the responses shown that the residents who answered the survey are rooted according to literature, the length of residence and the state of ownership are from the main indicators of place attachment ((Manzo and Perkins, 2006; Kamalipour, Yeganeh and Alalhesabi, 2012), as 37.5 % of the

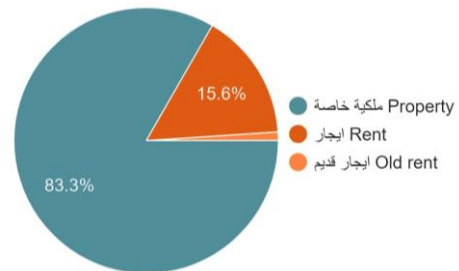


Figure 22: The state of ownership Graph, Maadi.

responses are living there since birth. While 36.4 % live there for more than 10 years.as shown in (Figure 21) And as represented in (Figure 22), that 83.3% of their homes are private properties. While the boundedness among residents is as shown in (Figure 23) more than half of the responses that are related to how familiar the participants are with their neighbors are above average.

Nevertheless, most of the responses show that the participants who live there for more than 10 years, or were born there, are the ones with higher level of familiarity with their neighbors.

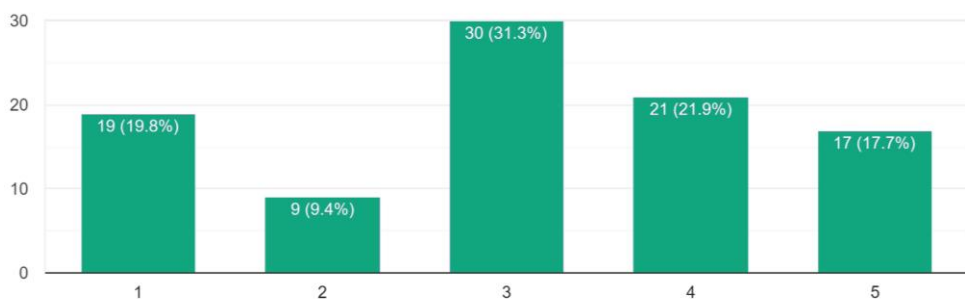


Figure 23: the graph represents the familiarity among neighbors in Maadi.

### 5.1.3 The results of Process dimension

#### • Place dependence and Behavior:

The findings of this section show how people behave towards their neighborhood and how they perceive the physical environment as well as the services provided by their neighborhood and how much they are satisfied with them.

Although 25% of the respondents work in Maadi while 46.2% take less than 30 mins to reach their workplace. However, the most frequent reasons, for why they are still living there, were memories they have there, the proximity to their relatives and friends, community and proximity to work respectively. As shown in the following (Figure 24).

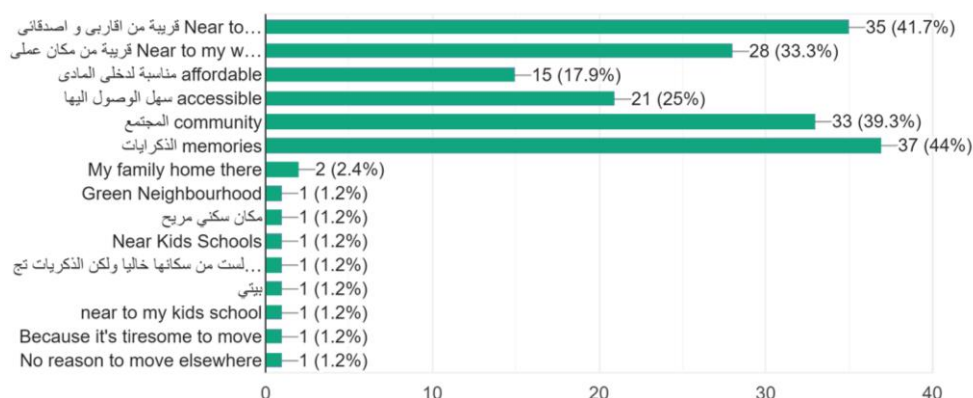


Figure 24: the graph represents the reasons for why they still live in Maadi neighborhood.

And about their satisfaction with the services in their neighborhood, the highest level of satisfaction goes for the daily needs shopping, followed by the Educational and entertainment services. As shown in the graph (Figure 25) although the satisfaction level of all the services is above neutral, yet the lowest level of satisfaction towards the services were those of the residents living in Sarayat el-Maadi. While the highest levels were from Hadyek el-Maadi and Degla Maadi respectively. On the other hand, they were asked to rate the qualities and features in their neighborhood as shown in (Figure 26), the rating was the lowest in Sarayat el-Maadi. And the highest was responses from participants who live in Degla Maadi. Nevertheless, the highest ratings are for accessibility, privacy,



safety and security, then green spaces respectively. As shown in the (Figure 27) When asked about their behaviors, most of the respondents show that they spend 76% of their free time in their neighborhood. As shown in graph (Figure 28) Those times are mainly spent in outdoor activities like sitting at cafés and restaurants (71.9%), walking (66.7%), shopping (61.5%) and cycling (14.6%) respectively. As presented in (Figure 28).

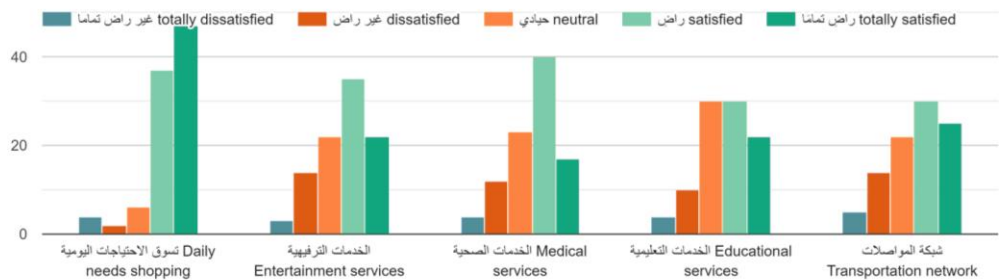


Figure 25: The satisfaction levels of the mentioned services in the neighborhood of Maadi.

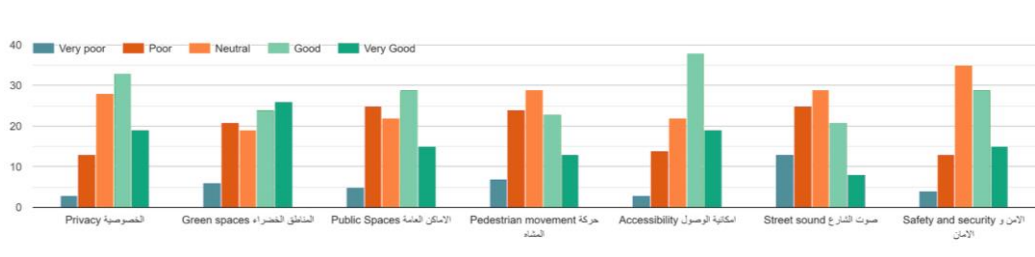


Figure 26: Ratings of the qualities mentioned in Maadi.

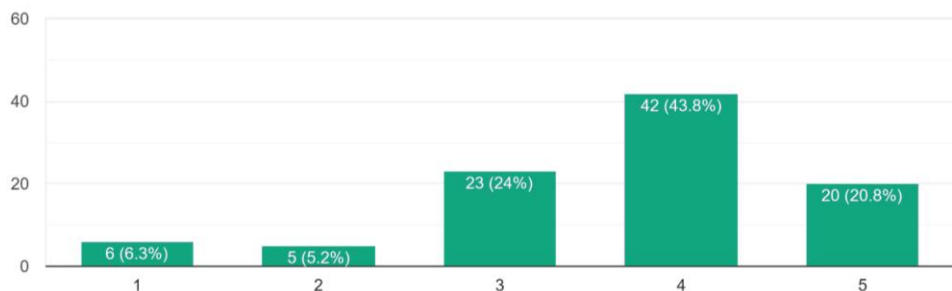


Figure 27: how often people spend their free time in Maadi neighborhood (1= never, 5 = always).

## Findings of Case Studies

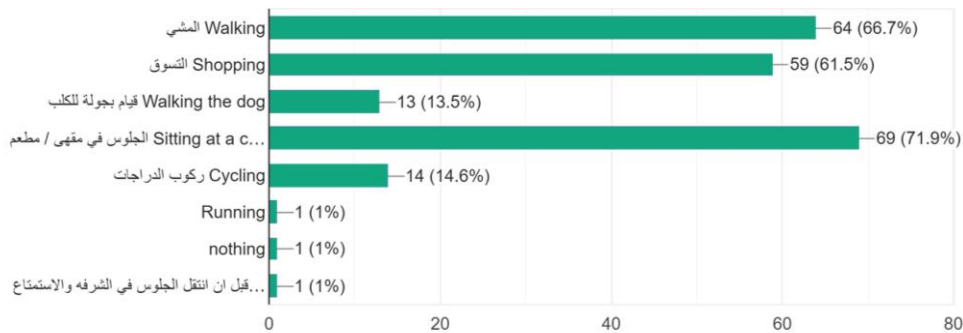


Figure 28: Activities the respondents carry out in Maadi neighborhood.

While there was a low participation level in activities regards maintaining and preserving their neighborhood. As shown in the following graph (Figure 29) Actually about 30 % of the participants do some activities like raising awareness, maintaining the streets and planting. And only 17.7% of them are involved with their neighbors in doing these activities.

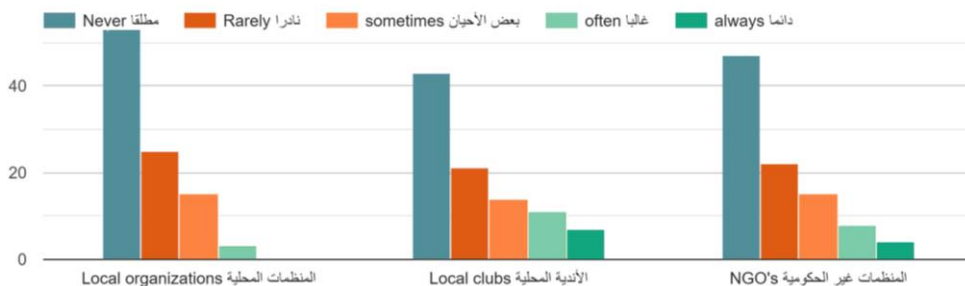


Figure 29: Participation with organizations in El-Maadi.

### • Affection and cognition

This section aims to know what people feel towards their neighborhood, how familiar they are with it and what it means to them. After asking the participants about their feelings, the responses delivered were as shown in graph (Figure 30) that shows the significance of their emotions towards the place they live in, that most of the responses strongly agree on the feeling of love, happiness and pride



that they live in their neighborhood. And that they would feel sad to leave. That shows that they are emotionally attached to their neighborhood.

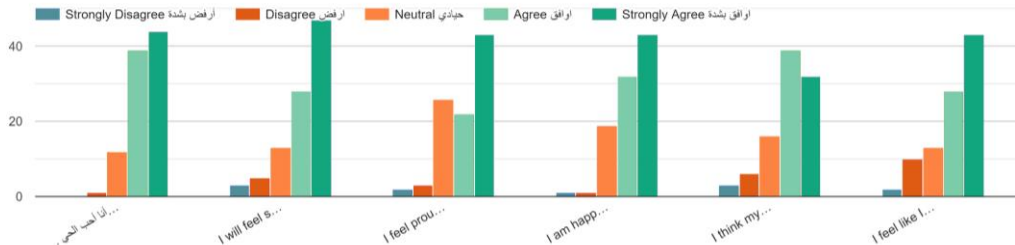


Figure 30: the graph shows what the respondents feel towards El-Maadi.

The participants were asked to name 9 places in Maadi located on a map, and half of the participants succeeded in getting them all right. While the question that includes photos of Maadi different streets and places, in which they were asked to choose photos they recognize that are places in Maadi. People could significantly recognize photos that include trees, and mid-rise buildings, as well as photos of villas. While fewer participants choose photos that include high-rise buildings, or deteriorated old buildings.

However, the trees were chosen as the first element that captures their attention while walking down the streets of Maadi by 70.8% of the responses, 13.5% of them choose landmarks and 8.3% of them choose shops, as represented in (Figure 31). While about 60% of the participants chose trees too, as the element that

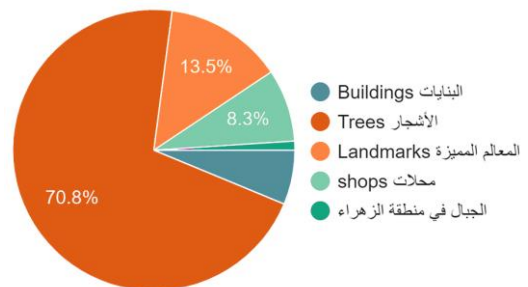


Figure 31: the graph shows the first element that captures their attention in the streets of Maadi.

makes streets memorable from their own perspective. In addition to the social activities by percentage 42.7% and commercial activities they carry on by 30.2%. And 26% chose buildings, as shown in (Figure 32) that explains why most of the mentioned streets in Maadi that residents have memories in, were streets with a commercial and vibrant nature, which is street 9 by 65.6% and Degla by 47.9%.

## Findings of Case Studies

especially street 233. In addition to Sarayat district, especially Kanal Street that has large green spaces existing there.

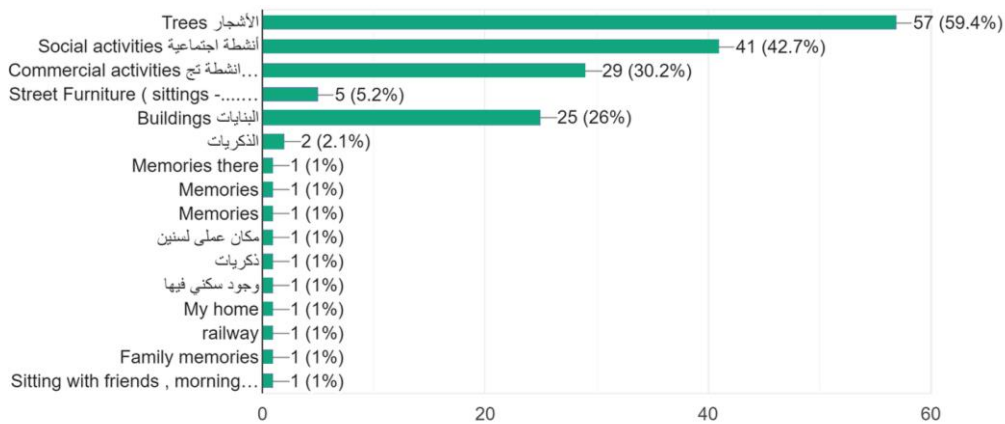


Figure 32: the graph shows the elements that makes streets memorable to them in Maadi.

People have chosen that they used to navigate by using maps in the first place by percentage 49%, and by observing the landmarks and buildings by percentages 47.9%, and 44.8% respectively. as shown in (Figure 33).

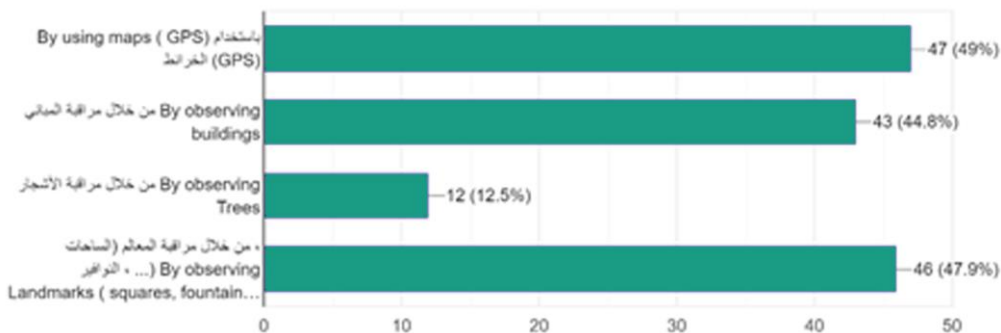


Figure 33: How the respondents navigate through El-Maadi

Finally, participants chose the things they are attached to the most in Maadi, which were green spaces, neighbors that include friends and relatives, community and the intimate scale of the streets respectively. as shown in (Figure 34).

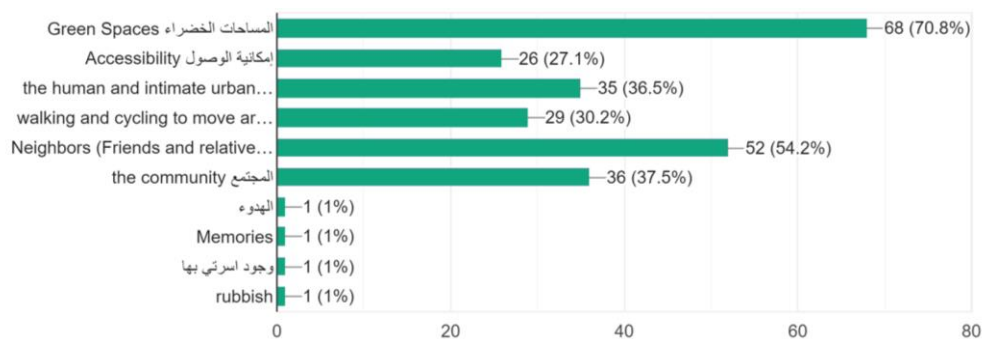


Figure 34: Things respondents are attached to the most in Maadi

## 5.2 El-Waily neighborhood

It is one of Cairo's neighborhoods, of total area is 13.94 Km<sup>2</sup>, total occupied area is 2.86 km<sup>2</sup>, and Number of populations is 157651 (Cairo Governance Gate). This neighborhood is divided into 2 districts (aqsam) El-Waily and El-Zaher. And into 18 districts. But these districts is observed not to be well-known among the residents as in the following map (Figure 35) as zaafran, Kobry el-Qubba, El-Demerdash, El-Abbasiya, and El-Sarayat in Qism El-Waily, while Ghamra, El-Sakakiny, El-Ganzoury and Elzaher in Qism El-Zaher.

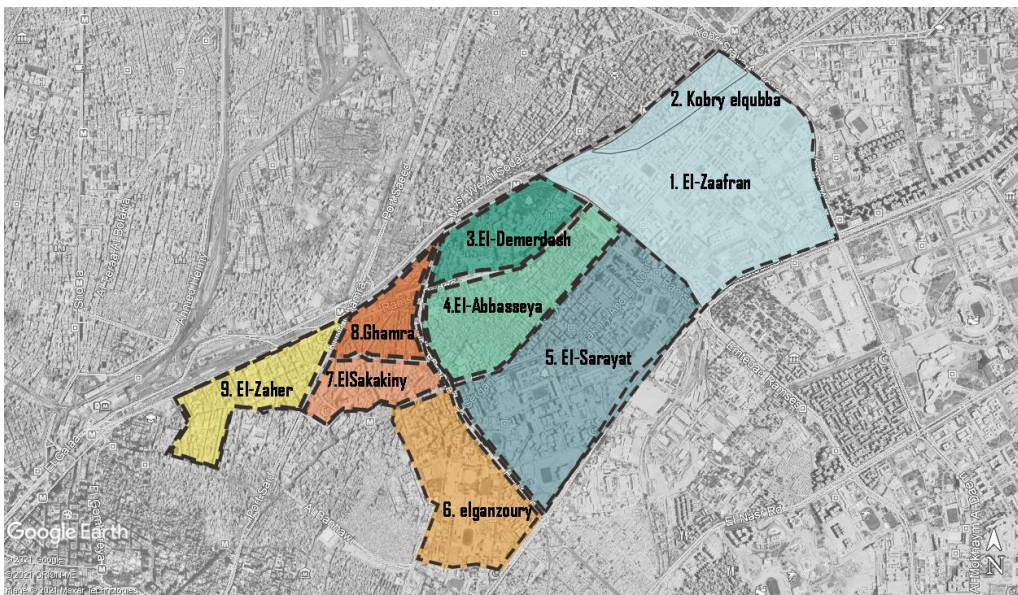


Figure 35: this map shows the administrative borders of El-Waily neighborhood as realized by the residents (Author)

### 5.2.1 The place dimension of El-Waily:

The physical environment of El-Waily neighborhood is analyzed using the **site** visits' observations that were recorded by photos and note-taking. And supported by desktop research based on analyzing the data extracted from the satellite maps. El-waily neighborhood is the location of Ain Shams University Campus, and campuses of the faculties of engineering and medicine of Ain-Shams University. In addition to diverse governmental buildings. Aside to the residential areas that represent 25% of the area of Qism El-Waily. And 30 % of

the area of Qism El-Zaher (Cairo Governance Gate). The residential area of the neighborhood can be divided into 6 areas according to the differences in their urban morphology as shown in the map (Figure 36) where Areas 1 and 2 are from the oldest areas in the neighborhood that consist of radial and grid street networks. That represents the El-Zaher and El-Sakakiny districts. While the areas 4 and 5 are of grid pattern. That represent the Abbassiya, El-Saryat districts and the residential area in El-Demerdash district. However, there is an organic /natural developed area represented in area number 3, with old deteriorated buildings.

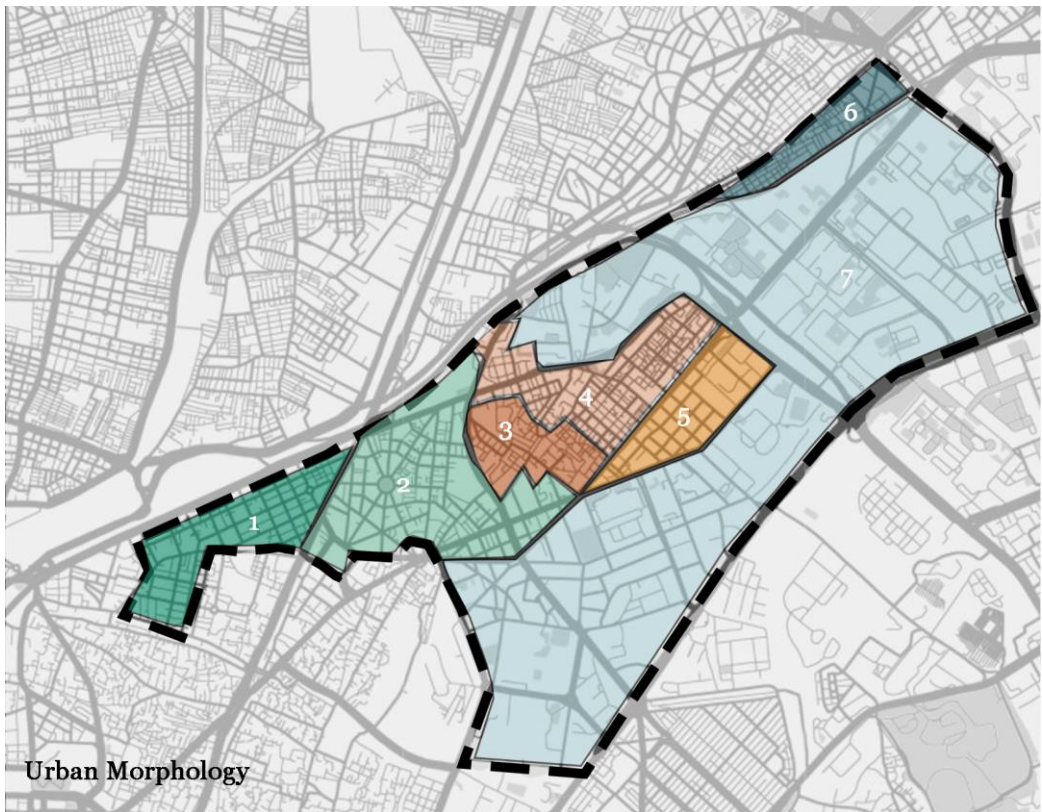


Figure 36: the urban morphology of El-Waily neighborhood. (Author)

While the commercial activities in Elwaily are observed to be located mainly on the main streets like shown in the map of vibrancy presented (Figure 37) that shows the most vibrant and main commercial spines in El-Waily neighborhood. Where El-Abbassiya Street appears as the most significant vibrant street. Meanwhile, it is observed that the services of the neighborhood are at the ground floor of the residential buildings, consequently the streets are considered as



## Findings of Case Studies

public urban spaces. (Ghonimi, 2021). In addition to the green public spaces like El-Qubba El-fedaweya's front plaza and Arab Mohamadi Park .which are considered as the gathering and entertainment places in the neighborhood.



Figure 37: the vibrancy of El-Waily neighborhood. (Author)

Meanwhile, most of the other green spaces are fragmented and scattered among the streets.as shown (Figure 38) The streets are observed to be for both pedestrians and cars. As most of the streets of El-Waily consist of one or two lanes with parking lanes on one or both sides of the street. Which limits the cars speed. However, the streets and the building environment of elwaily are diverse. As it is observed that the buildings existing in el-abbassiya district are mainly midrise buildings. And there is a number of historical and significant buildings still exist there, as the case of the buildings in el-sakakiny and el-daher area. While, the high-rise buildings existing in El-Sarayat, el-Daher and elsakakiny areas are relatively new. These variances and differences in the built environment is also documented through photos shown in Appendix (B).

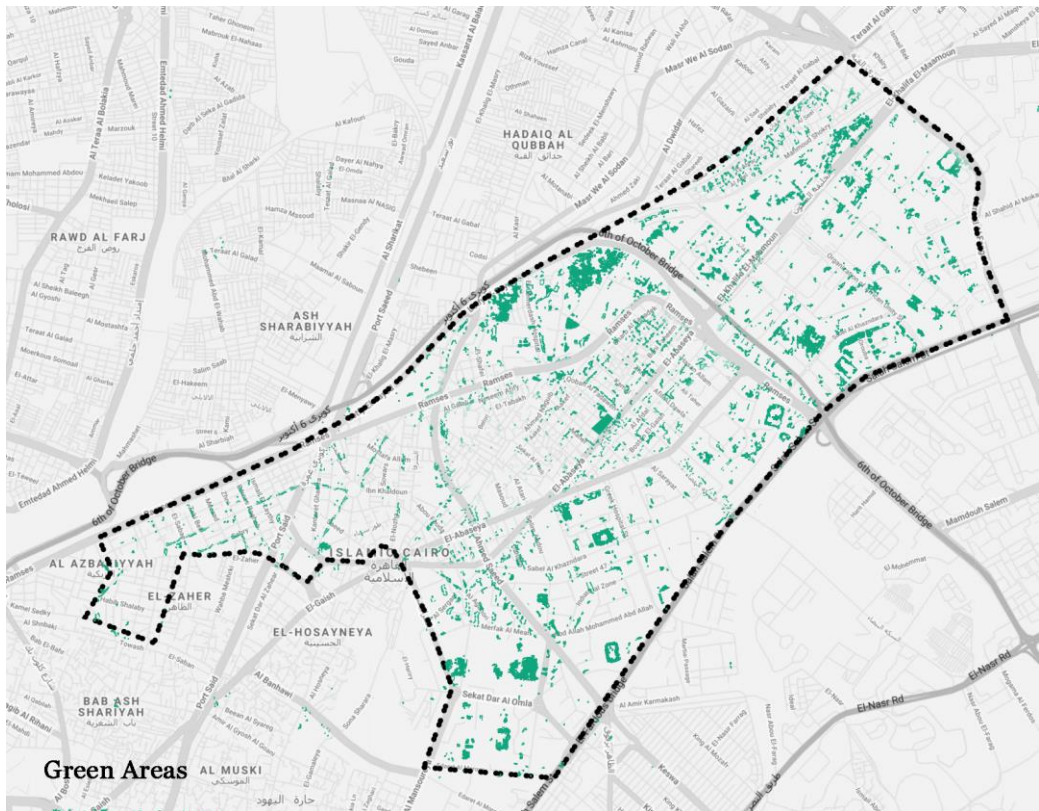


Figure 38: the Green areas in El-Waily neighborhood. (Author)

### 5.2.2 The results of Person dimension

First of all, the gender distribution of the respondents' gender was nearly equivalent, that women's percentage was 52.1% and men's percentage was 47.9%. As shown in Fig. (39). This distribution is close to the El-Waily neighborhood population distribution at 2019 which claims that the women percentage is 50.4% and men percentage is 49.6%. (Cairo governorate population distribution, 2019).

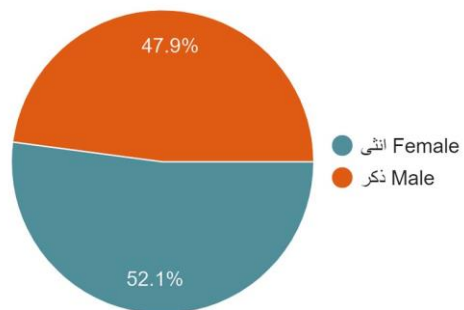


Figure 39: Gender Distribution in El-Waily neighborhood. (Author)

## Findings of Case Studies

There was a wide range of age groups that replied to the Questionnaire. As shown in the graph (Figure 40) Where most of the responses were from 25-34 years old by percentage 33.3%, then the age group from 18-24 years old. While only 6.3% were those who are above 60 years old.

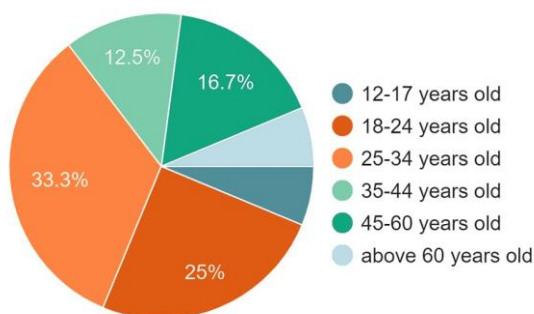


Figure 40: Age Groups in El-Waily neighborhood.

(Author)

This might have happened because according to the world population review of 2021, that Egypt has a very young population, and just 3% are over the age of 65. In addition, the questionnaire was carried online, and commonly the youth are more involved with social media than the older ones. Despite that, only 6.3% of the responses were from 12-17 years old. Almost 41.7% of the respondents live or used to live in Zaher district, while the rest of the participants live or used to live in El-waily district.

Most of the responses have shown that the residents who answered the survey are rooted according to literature, the length of residence and the state of ownership are from the main indicators of place attachment (Manzo and Perkins, 2006; Kamalipour, Yeganeh and Alalhesabi, 2012), as 39.6 % of the responses are living there since birth. While 31.3 % live there for more than 10 years as shown in (Figure 41) In addition, more than have of the

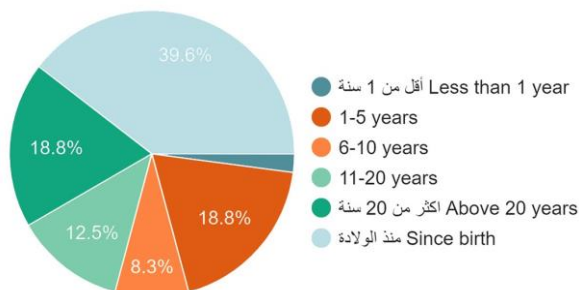


Figure 41: the length of residence in El-Waily neighborhood.

(Author)

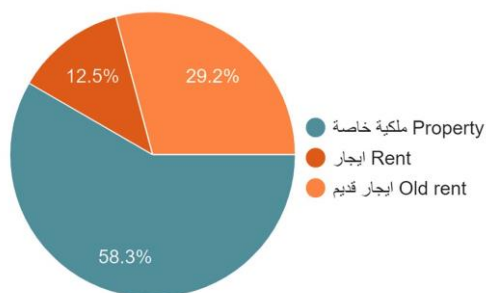


Figure 42: The state of Ownership in El-Waily neighborhood.

(Author)



participants live in private properties by 58.3% and 29.2% live in old rented homes. As shown in (Figure 41).

While The boundedness among residents is as shown in (Figure 43) that 41.7% of the responses were above average, on the other hand the responses of el-Zaher residents shows that they are more familiar with their neighbors by mean factor 3.5 while the mean factors of those living in el-Waily is 2.6.

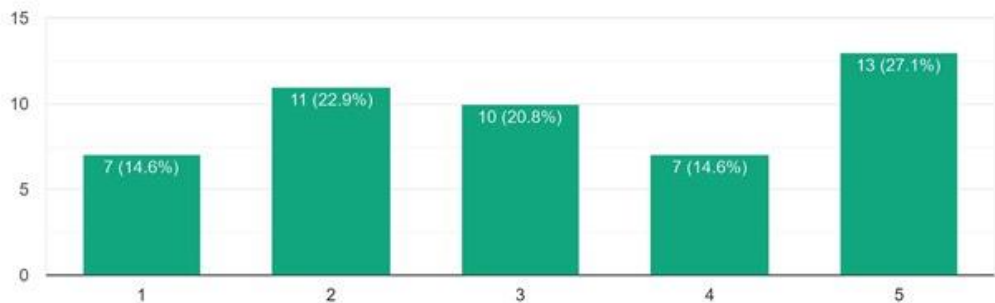


Figure 43: the boundedness among residents in El-Waily neighborhood. (Author)

### 5.2.3 The results of Process dimension

#### • Behavior and Place Dependence

It was found that 75% of the respondents work outside el-Waily, and 60% of them take less than 30 minutes. However, when asked about why they are still living there, there were various reasons like proximity to their family and friends, accessibility, proximity to work and memories by percentages 50%, 41.7%, 27.8% and 27.8% respectively see (Figure 44).

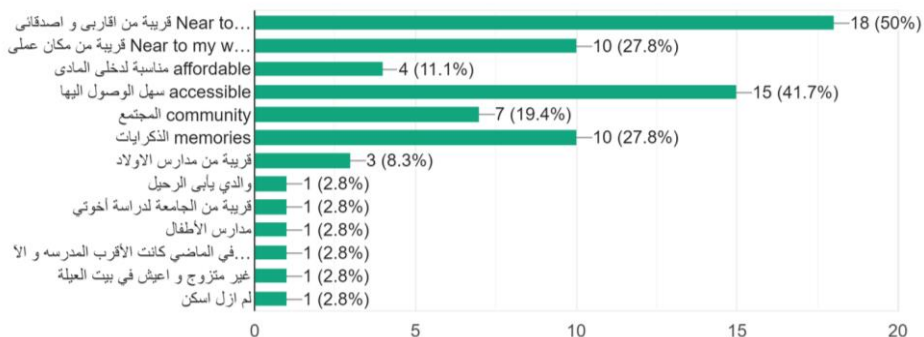


Figure 44: the reasons why they still living in El-Waily neighborhood. (Author)

## Findings of Case Studies

While the satisfaction level of the services provided by their neighborhood is above average in both el-Zaher and el-Waily districts (Aqsam). As shown (Figure 45) Where the highest levels of satisfaction were for daily shopping services and transportation network, although the satisfaction level with all the services facilities was above average except the entertainment services that had the least satisfaction level. And when asked about their rating for the qualities in their neighborhood, the highest score was for the accessibility, then came the safety and security, while the rest of the qualities were below average, where the least scores were for pedestrian movement, green spaces then the public spaces. As shown (Figure 46).

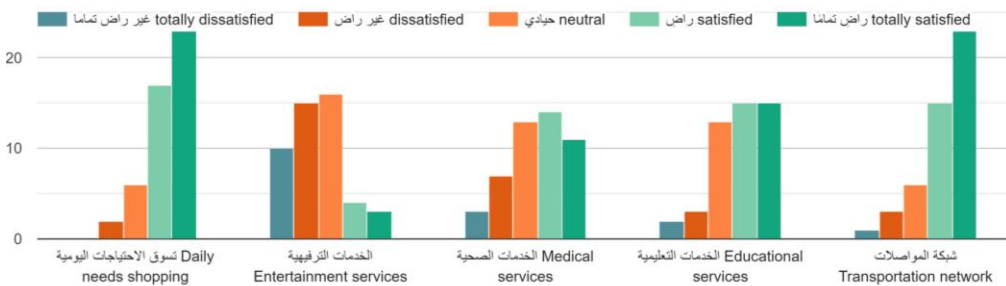


Figure 45: the satisfaction levels of El-Waily's services facilities. (Author)

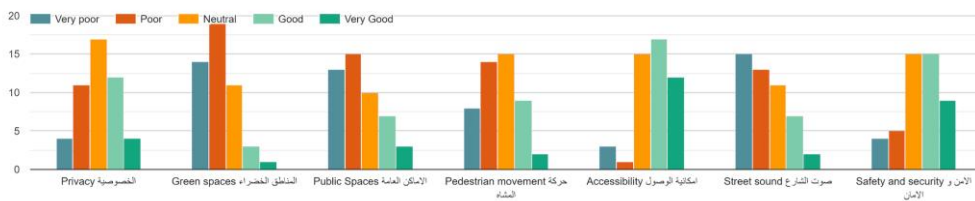


Figure 46: the satisfaction levels of Qualities of El-Waily neighborhood (Author)

Most of the participants spend about 60% of their free time in their neighborhood. as shown in (Figure 47) Spending it in walking, shopping and sitting at a café or restaurant by 60.4%, 52.1%, and 37.5% respectively. .as shown in (Figure 48).

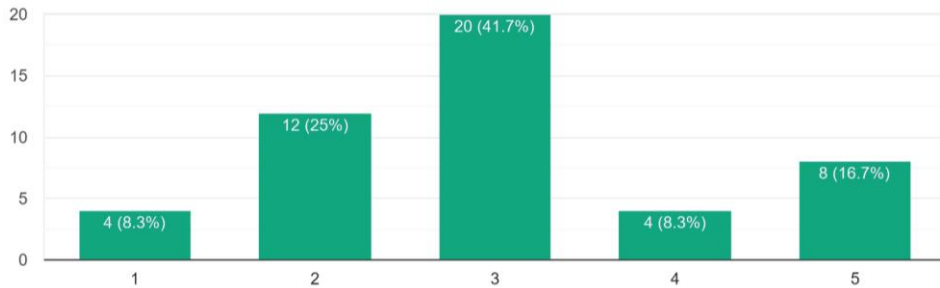


Figure 47: how much time they spend in El-Waily neighborhood. (Author)

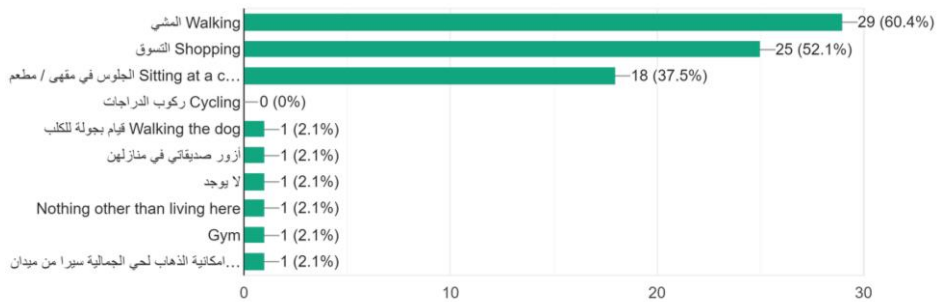


Figure 48: The activities they carry on in El-Waily (Author)

On the other hand, 75% of the respondents don't participate in any kind of activities, as shown in (Figure 49) regarding maintaining or developing their neighborhood or raising awareness. While only 10.4% participates in preserving the local heritage, 4% participate in maintaining the streets. 16.7% of them are carrying out these activities with their neighbors.

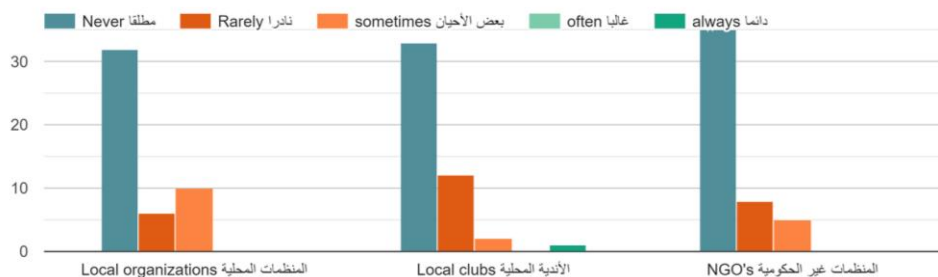


Figure 49: the respondents' participation with organizations in El-Waily. (Author)

## Findings of Case Studies

### • Affection /cognition

Most of the responses were above average by mean factor 3.5. That most of the responses agree on the feeling of love, happiness and pride that they live in their neighborhood. And they would feel sad to leave. That shows that they are emotionally attached to their neighborhood.as shown in the following Graph (Figure 50)

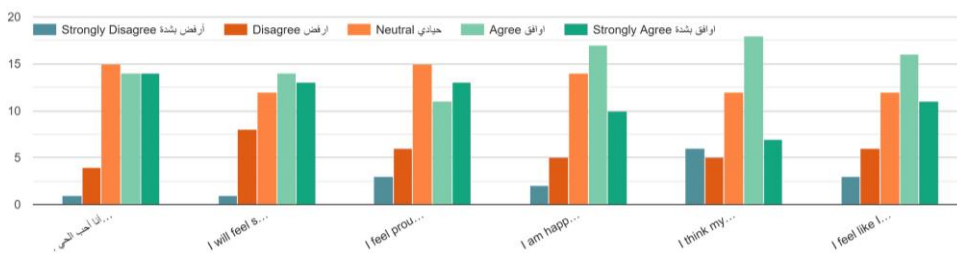


Figure 50: the respondents' participation with organizations in El-Waily.(Author).

The respondents were asked to name 10 places in El-Waily located on a map, the most recognized places were Abbassiya Street and sakakiny palace square that 60.4% of the participants could recognize them, while 58.3 % recognized the Greek hospital, and 52% recognized Zaher Papers Mosque. And half of the participants could recognize Portsaid Street.

While in question of the different images of El-Waily district, they were asked to select the images of places in their neighborhood. The most chosen pictures were the ones that contain significant buildings. Which may explain why People have chosen that buildings by 41.7%, as the first element that captures their attention. Then come the shops by 33.3% as shown in (Figure 51).Furthermore, Buildings were also the most chosen element that makes streets memorable for them by 43.8%, then the commercial and social activities respectively by 29.2% and 27.1% respectively.as shown in (Figure 52)

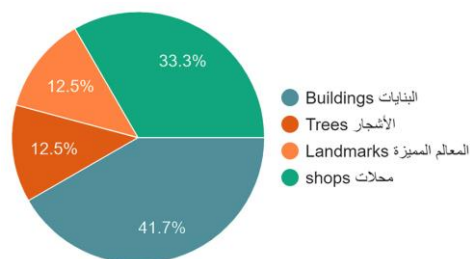


Figure 51: the graph shows the first element that captures their attention in the streets of El-Waily (Author).

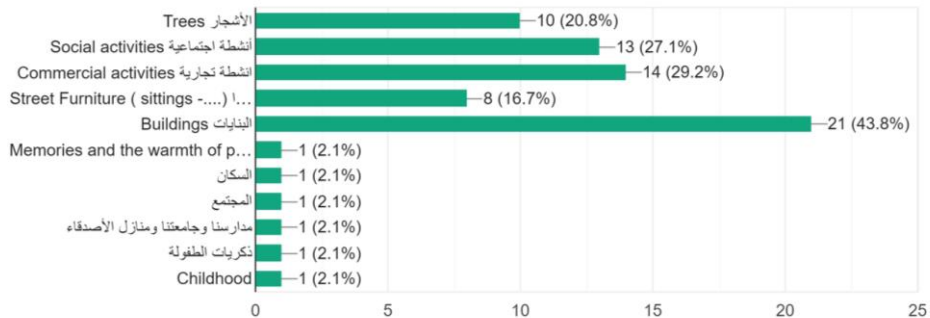


Figure 52: the elements that makes the streets memorable for them. (Author).

Also, the most mentioned streets that they have memories in were El-Abbassiya and El-Zaher streets. Which are known for their commercial and vibrant nature.

The respondents chose that they navigate by observing the buildings in the first place by percentage 58.3%, then by observing the landmarks by percentage 43.8%, while by using maps by percentage 22.9%. as shown in (Figure 53) Which shows how they are dependent on the physical environment of their neighborhood to navigate through it.

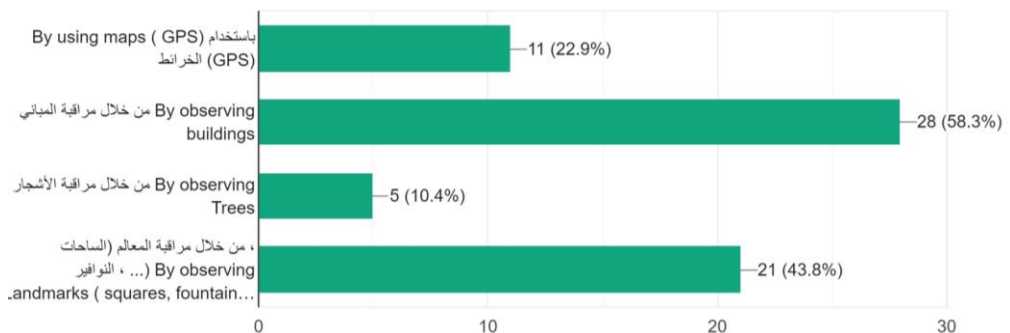


Figure 53: How the respondents navigate through El-Waily neighborhood. (Author).

On the other hand, neighbors (including friends and relatives) and accessibility were the chosen elements that makes them attached the most to el-Waily, by percentages 62.5% and 52.1 % respectively. As shown in (Figure 54) which were

Findings of Case Studies

the main reasons behind their stay in their neighborhood too, then the community and human and intimate scale came after respectively.

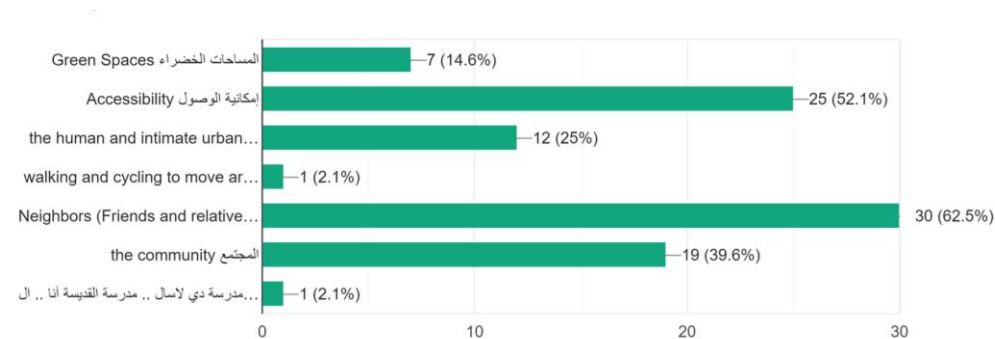


Figure 54:the reasons why they still live in El-Waily.. (Author).

### 5.3 Summary

The investigation of the place, person and Process dimensions in both neighborhoods of El-Maadi and El-Waily was conducted to measure the place attachment in both neighborhoods, through identifying the correlations between the socio-demographic factors and place attachment. As well as studying the physical characteristics that may influence the Place attachment. Starting with the place dimension it was studied in terms of the age of each neighborhood, their urban morphology types, their street network, and functions. As well as the services location, types of public urban spaces and green spaces. Their investigation depends on Observations and Desktop research. And they are summarized as shown in the following table (Figure 55).



	El-Waily neighborhood	Maadi neighborhood
Age	Started since (1848-1854)	Planned in 1905
Urban Pattern		
Types	Grid/ Radial/ Natural organic	Garden city style ( Grid / Radial )
Street Network	Grid network pattern that consists of high no. of intersections	Grid and Radial with reduced no. of entrances and intersections
Street Functions	Cars and Pedestrians	Cars and Pedestrians, Partial pedestrian safe by excluding crowdedness of non-residence
Services	In the ground floor of the residential buildings	the commercial activities are concentrated in specific streets
Public Urban Spaces	Streets are used as public urban spaces	Public garden islands surrounded by streets
Green Areas	Fragmented	Central and Hierarchal

Figure 55: the comparison between the two neighborhoods (Author).

## Findings of Case Studies

Moving on to the person and process dimensions' findings, they can be summarized as follows:

### **The person dimension's findings**

- Length of residence: There is a significant correlation between the length of residence and Place attachment. As participants of both cases who have lived there since birth, or more than 10 years, are more likely to be more emotionally attached to their neighborhood. However, some of the newcomers also showed high levels of emotional attachment.
- The state of ownership: Despite the importance of this indicator, the results showed that it is not necessarily that people who don't own their houses are not attached to it. As shown in the case studies of Maadi and El-Waily, that even people who rent their houses may be emotionally attached to their neighborhood too.
- Boundedness: The responses showed that residents with length of stay more than 10 years are more familiar with their neighbors. While there is no direct relation between boundedness and emotional attachment.

### **The process dimension's findings**

- Affection: the respondents of Maadi neighborhood were of higher emotional attachment than those of El-Waily neighborhood. That the mean factor of the affection variables in Maadi was 3.9, and was 3.5 in El-Waily.
- Behavior: there was a relation between the emotional attachment and the time spent outdoors in their neighborhood. That the higher people are emotionally attached to their neighborhood, the more time they spend there. Both Groups of respondents spent their free time mainly in doing outdoor activities like walking, shopping or sitting at a café' or restaurant with different percentages between both case studies. However, behaviors like maintaining and developing their neighborhoods in both case studies, there were only about 25 % of the volunteers participate in these kinds of activities and approximately 17% were involved in these activities with their neighbors.



- Services' Satisfaction levels: In both case studies the satisfaction with the services provided by their neighborhood were above average, as their mean factor was (3.6). Where in Maadi, the highest satisfaction levels were for the Daily shopping services followed by the Educational and entertainment services. While in El-waily neighborhood, the highest levels of satisfaction were for daily shopping services too and transportation network, although the satisfaction level with all the services facilities in this neighborhood were above average except the entertainment services that had the least satisfaction level, unlike the case of Maadi neighborhood.
- Qualities' satisfaction levels: In maadi neighborhood, when they were asked about the qualities in their neighborhood, the highest ratings were for accessibility, privacy, safety and security, then green spaces respectively. However, all the ratings for the qualities were above average, as their mean factor was (3.3). Unlike the case of El-Waily neighborhood, where most of the qualities' ratings were below average (2.7), especially those for the pedestrian movement, green spaces and the public spaces, Except accessibility and safety & security. their ratings were above average.
- Cognition and environment perception:
  - In Maadi neighborhood, 70.8% of the respondents chose trees as the first element that captures their attention while walking down the streets of Maadi, 13.5% of them chose landmarks and 8.3% of them chose shops. While in el-waily neighborhood, respondents choose buildings by 41.7% as the first element that captures their attention. Then came the shops by 33.3%.
  - In the case study of Maadi neighborhood, respondents chose that they mainly use maps for navigating through their neighborhood by 49%, then comes the other methods like observing the landmarks and buildings, by 47.9% and 44.8% respectively. Which wasn't the case in El-Waily neighborhood that the most selected methods for navigation were "by observing the buildings" in the first place by 58.3% and "by observing the landmarks" by 43.8%. while the usage of maps for navigation was only 22.9%.

## Findings of Case Studies

- The buildings in El-Waily neighborhood are the element that makes streets memorable for them, in addition to the commercial and social activities by 29.2% & 27.1% respectively. On the other hand, in Maadi neighborhood, the trees are the element that makes streets memorable to them in addition to the social and commercial activities by 42.7% and 30.2% respectively as well.
- The respondents were asked to name 9 places in their neighborhood located on a map, and half of the participants from Maadi neighborhood succeeded in getting them all right. Which is higher than the percentage of participants in Waily who succeeded in answering this question.
- The most frequent reasons, for why they are still living in Maadi, were memories they have there by (44%), the proximity to their family and friends by (41.7%), community by (39.3%) and proximity to work by (25%) respectively. While in El-Waily the most frequent reasons were the proximity to their family and friends by (50%), and accessibility by (41.7%), proximity to work and memories by (27.8%).
- Respondents chose the things they are attached to the most in Maadi, that were green spaces, neighbors that includes friends and relatives, community and the intimate scale of the streets respectively. While those living in El-Waily neighbors (including friends and relatives) and accessibility were the chosen elements that makes them attached the most to el-Waily, by percentages 62.5% and 52.1 % respectively, then comes the community by 39.6% and human and intimate scale by 25%.

# Chapter 6

## Discussion

In this research, two of Cairo's residential neighborhoods were chosen to be studied in terms of place attachment and the indicators affecting it. To find out the physical and social factors affecting place attachment and interaction in Cairo's neighborhoods, in order to be considered in the process of decision-making and planning of new residential neighborhoods or intervening in an existing one. This was achieved by analyzing place attachment at the individual level of analysis in both neighborhoods, by using the induced framework of place attachment, which is based on the tripartite framework proposed by Scannell and Gifford (2010), and the indicators affecting these three dimensions of place, people and process. Then comparing both neighborhoods' results, bringing the study further beyond individual level, to the community level of analysis. To reach a more precise and fuller understanding of the person-place relationship. Derived by the importance of place attachment on both individual and community levels (Manzo and Perkins, 2006).

## Discussion

However, the results of the predictors and factors affecting place attachment are not always decisive, though they might differ from one case to another as they are relative and sensitive to many interrelated factors as to be discussed in the following sections of this research. Meanwhile the findings answer the research question of determining the physical and social factors affecting place attachment in these neighborhoods and how place attachment affects the community. As well as how different contexts affect the place attachment and residents' interaction with each other and with the physical environment. That will be discussed later in terms of the person, place and process dimensions.

### **6.1 Person Dimension**

The analysis of the findings of both neighborhoods has proven the importance of the social and personal indicators in predicting and measuring place attachment. The indicators regarding the person dimension includes the socio-demographic data as well as the length of residence, house ownership and the social ties. Where the length of residence and emotional place attachment are correlated, which emphasizes on the studies of (Bonaiuto et al., 1999; Hernandez et al., 2007; Lewicka, 2005, 2010; McCool & Martin, 1994; Raymond et al., 2010; Stedman, 2006).as participants of both cases who have lived there since birth, or more than 10 years, are more likely to be more emotionally attached to their neighborhood. as it was explained in the literature before, that over time, the place starts to provide the resident by a sense of continuity and it is known as place referent continuity(Scannell and Gifford, 2017). Although the length of residence is an important indicator for place attachment, but there is some cases that contradict with this phenomenon, when place attachment occurs very quickly, This occurs most likely if this person is experiencing congruence, that this place has the same qualities of other previous places of attachment..(Scannell and Gifford, 2017). And this case was shown in El-Maadi and El-Waily neighborhoods. Some of the newcomers also showed that they are emotionally attached to their neighborhood too.

Also the state of ownership is one of the main indicators of place attachment, as those who privately own their houses tend to be more attached to their

neighborhood, (Manzo and Perkins, 2006; Scannell and Gifford, 2017). The respondents from Maadi showed a higher sense of place attachment than those from El-Waily, and the percentage of respondents who privately own their houses is higher in Maadi than El-Waily. Which may support the theory emphasizing on the importance of the state of ownership in the process of place attachment. Despite the importance of this indicator, but it is not necessarily that people who don't own their houses are not attached to it. (Scannell and Gifford, 2017). This hypothesis is emphasized in the case studies of Maadi and El-Waily, that even people who rent their houses may be emotionally attached to their neighborhoods.

However, the analysis of each neighborhood's findings shows that the residents with longer length of stay and private ownership are not necessarily more familiar with their residents. Meanwhile, most of the responses show that the participants who lived there for more than 10 years, or were born there, were the ones of higher level of familiarity with their neighbors. So, in some cases there might be a relation between the length of residence and familiarity among residence.

## **6.2 Process Dimension**

The process of place attachment is manifested by the affection, cognition and behaviors. Respondents from both neighborhoods showed to be emotionally attached to their neighborhood. this bond is declared by their feeling of love, happiness and pride that they are living there, as well as their tendency to still living there and the feeling of sadness if they moved out. In addition to the sense of belonging and thinking that their neighborhood is a good place to live in. However, those living in El-Maadi neighborhood showed higher level of attachment towards their neighborhood than those living in El-Waily.as the mean factor of the emotional attachment variable in Maadi was 3.9 while that of elwaily was 3.5.

On the other hand ,the Behavior dimension of place attachment is declared in terms of some behaviors towards that certain place , as that the attached

## Discussion

residents are more likely to spend more time in the outdoors of their neighborhood (Brown, Perkins and Brown, 2003). That was emphasized by this research findings, as respondents from Maadi, who are more attached to their neighborhood, spend almost two thirds of their free time in their neighborhood. While those from El-Waily spend almost 60% of their free time in their neighborhood too. Hence, that shows the relation between the emotional place attachment and the time spent in the outdoors of their neighborhood. That the higher the people are emotionally attached to their neighborhood, the more likely to spend more time there. Both Groups of participants spent this time mainly in the outdoor activities like walking, shopping or sitting at a café' or restaurant with different percentages. That in Maadi, the percentages were sitting at cafés and restaurants by (71.9%), walking by (66.7%), shopping by (61.5%) and cycling by (14.6%) respectively. While in El-Waily, the percentages were walking, shopping and sitting at a café or restaurant by 60.4%, 52.1%, and 37.5% respectively. These activities may be influenced and facilitated by the physical features of the place like the walkable distance among the activity buildings, and the existence of trees and green spaces. (Lewicka, 2011).

However, behaviors like maintaining and developing their neighborhoods, there were only about 25 % of the respondents participated in these kinds of activities and approximately only 17% were involved in these activities with their neighbors. Which can be explained As Behaviors are believed that they require more effort and high degree of commitment and involvement. They are also affected by limitations concerned with the opportunities and surrounding circumstances. That is not the case in the emotional aspect, which is less dependent on the external limitations and restrictions. (Ajzen and Madden 1986).

Also from the main manifestations of place attachment is the satisfaction with services and qualities provided by neighborhoods, as it describes the bond between the places with these services and place attachment, also the effect of the satisfaction with these services and qualities on the behaviors of the attached ones. Literature claims that if one is satisfied with his neighborhood, he will tend

to continue living there, and will get attached to it. Consequently, it affects his behavior towards the surrounding physical environment.(Lewicka, 2011; Casakin, Ruiz and Hernández, 2021). The satisfaction level of the services and qualities shows how people perceive their surrounding environment and their residential wellbeing, which is directly related to place attachment, this bond can be defined as place dependence. Which refers to the significance and the ability of the physical setting of a place to satisfy their needs, goals and allowing them to carry out their activities.(Ujang, 2012; Scannell and Gifford, 2017).

However, in both case studies the satisfaction with these services were above average, as their mean factor was (3.6). Where in Maadi, the highest satisfaction levels were for the Daily shopping services followed by the Educational and entertainment services.. While in El-waily neighborhood, the highest levels of satisfaction were for daily shopping services too and transportation network. However, the satisfaction level with all the services facilities were above average (their mean factor greater than 3), except the entertainment services. That had the least satisfaction level, unlike the case of Maadi neighborhood. It is claimed that the existence of entertainment facilities enhances social interactions. Hence enhances the bond of place attachment.(Scannell and Gifford, 2017).

While when they were asked about the qualities in their neighborhood, the ratings varied a lot in both case studies. In maadi neighborhood, the highest ratings were for accessibility, privacy, safety and security, then green spaces respectively. However, all the ratings for the qualities were above average (their mean factor greater than 3), unlike the case of El-Waily neighborhood. Where most of the qualities' ratings were below average (their mean factor less than 3), especially the pedestrian movement, green spaces and the public spaces. Except for accessibility and safety & security, their ratings were above average. Despite the importance of the satisfaction level indicator, in some cases People who are emotionally attached to their neighborhood are not necessarily satisfied with the services and qualities provided by their neighborhood and vice versa.

Place attachment is also defined as a cognitive-emotional bond between individuals and places. As mentioned in literature, that the cognition is an

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important part of place attachment bond that includes the memories formed in certain places that provide a sense of continuity over time and sometimes helps them to recall positive emotions too. And knowledge as those who are attached perceive the place differently and they get to know more details about it and starts to develop detailed mental maps of it as well as the meaning of this certain place to them (Scannell and Gifford, 2017). Which was emphasized by the questionnaire's question about the names of places in their neighborhood located on a map, half of the respondents from Maadi neighborhood succeeded in getting all the places right. Which is higher than the number of respondents from El-Waily who succeeded in answering this question, as well as the question asking about selecting the photos that belong to places in their neighborhoods. And this question shows how they perceive their neighborhood and how much they know places there. In Maadi neighborhood, residents could significantly recognize photos that include trees, and mid-rise buildings, as well as photos of villas. While fewer participants choose photos that include high-rise buildings, or deteriorated old buildings. While in El-Waily, the most chosen pictures were the ones that contain significant buildings.

### **6.3 Place Dimension:**

As the physical context has an important role in affecting the sense of place, the place identity and place attachment. Thus, the research investigates this dimension to find out the physical features that promote place attachment and interaction in the neighborhood. From the main physical indicators are the legibility and the ability to recall the place and navigate through it using the paths, nodes, edges and landmarks (Ujang, 2012). In the case study of Maadi neighborhood, respondents chose that they mainly use maps for navigating through their neighborhood by 49%, then come other methods like observing the landmarks and buildings, by 47.9% and 44.8% respectively. Which wasn't the case in El-Waily neighborhood that the most selected methods for navigation were "by observing the buildings" in the first place by 58.3% and "by observing



the landmarks” by 43.8%. While the usage of maps for navigation was only 22.9%. So, we can conclude that the navigation in El-Waily neighborhood is more dependent on the neighborhood’s physical environment in the navigation process, unlike the case of el-Maadi that its residents may need to use the maps to navigate through its streets. Despite that the participants of Maadi are more emotionally attached to their neighborhood.

It is believed that place attachment is stronger for the physical settings that evoke personal memories, and this type of place attachment is thought to Contribute to a stable sense of self and securing the sense of place identity (Twigger-Ross & Uzzell, 1996,Ujang, 2012) .consequently, the research investigates the places where people have memories in and what makes them memorable for them. For deeper understanding of the relation between the physical setting and place attachment. The findings were that the buildings in El-Waily neighborhood were chosen as the first element that captures their attention in their streets, and also was the element that makes streets memorable for them, in addition to the commercial and social activities by 29.2% & 27.1% respectively. That explains why the most mentioned streets that they have memories in were El-Abbassiya and El-Zaher streets that are known for their vibrant and commercial nature. Also, that reflects on their cognition about the pictures and location of places in their neighborhood, that the most recognized places are those with significant buildings, and streets with commercial and social activities like Abbassey Street.

On the other hand, in Maadi neighborhood, the trees were the first element that captures their attention as well as the element that makes streets memorable to them in addition to the social and commercial activities by 42.7% and 30.2% respectively. Which also has been reflected upon their choices and cognition about places in their neighborhood that the most recognized and mentioned street as a place they have memories in was street 9 .due to its commercial and vibrant nature. As well as degla especially street 233, and Sarayat district especially Kanal Street that has large green spaces existing there. Which resembles the theory of Nasar and Julian 1995; Plas and Lewis that creating walkable streets, commercial and social activities promotes the social cohesion

## Discussion

and interaction in the outdoor activities hence increase place attachment. (Anton and Lawrence, 2014).

However, the most frequent reasons, for why they are still living in Maadi, were memories they have there by (44%), the proximity to their relatives and friends by (41.7%), community by (39.3%) and proximity to work by (25%) respectively. While in El-Waily the most frequent reasons were the proximity to their family and friends by (50%), accessibility by (41.7%), proximity to work and memories by (27.8%). Which emphasizes the theory of Clark et al. (2017), the presence of family and friends in the neighborhood, and the interaction among neighbors enhance the place attachment .(Scannell and Gifford, 2017; Casakin, Ruiz and Hernández, 2021).like the case of attachment in a London neighborhood, which was mainly based on the ability to interact with relatives (Scannell and Gifford, 2017).

Finally, participants chose the things they are attached to the most in Maadi, that were green spaces, neighbors that includes friends and relatives, community and the intimate scale of the streets respectively. On the other hand, in El-Waily neighborhood, neighbors (including friends and relatives) and accessibility were the chosen elements that makes them attached the most to their neighborhood. Then the community and the intimate scale of the streets came after respectively. Which highlights the importance of the physical features in manifesting the place attachment as well as the social ties and activities carried on in the place in the context of Cairo's neighborhoods. And their importance in facilitating their interaction, enabling people to create memories towards that certain place, and making places legible.

## 6.4 Implication

The findings of this research are crucial for a deeper understanding of the people-place relationship in Cairo's residential neighborhoods. Especially after the undergoing urban developments and transformations in the existing neighborhoods or developing new ones. Resulting in changing the mental image of these neighborhoods in the minds of residents. And by changing the place, the place attachment and place identity will be affected as well. Despite that, there is a lack of research about the social and physical factors affecting place attachment and place identity in Cairo's neighborhoods.

However, the findings demonstrate the importance of the place dimension as well as the social and personal dimension of place attachment. Which supported the theory that in residential context, both the physical and social dimensions are responsible for place attachment (Hidalgo and Hernández, 2001; Lewicka, 2011). And contradicts what researches used to believe about the place dimension, that sometimes they saw it not more than a container for social interaction and attachment and they would rather focus on the social and personal aspects of place attachment. (Lewicka, 2011).

This research too explores the certain social and physical factors that affects place attachment in the selected neighborhoods. As highlighted in the findings and discussion chapters. As well as the factors that enhances the residents' interaction, social cohesion and outdoor activities. That will participate in enhancing the residential neighborhoods of Cairo to be more interactive and livable environments.

The research was applied on two different neighborhoods with different contexts and social factors, in order to give a wider understanding of place attachment and interaction. That shall validate the generalizability of the findings of this research.



# Chapter 7

## Conclusions and recommendations

The research main objective was to Investigate the qualities and features increasing the interaction and place attachment in Cairo's neighborhoods, to come up with recommendations that will help urban designers, planners and architects to create an interactive neighborhood or to turn neighborhoods to be more interactive, walkable, livable, and socially integrated. Especially in terms of globalization, modernization, the urban development pressure, and the decline of the traditional neighborhoods. Resulting in losing the essence of the places, thus affecting the place identity and place attachment. Hence in this research, two different case studies of Cairo's residential neighborhoods were chosen to be studied in terms of place attachment and the indicators affecting it.

## Conclusions and recommendations

This was carried out by examining these predictors at the individual level of analysis in each neighborhood, by using the induced framework of place attachment, which was based on the tripartite framework proposed by Scannell and Gifford (2010), and the indicators affecting these three dimensions of place, people and process. That was used to generate and design the questionnaire and combining its findings with the site visits' observations as well as the desktop research. Then comparing the findings of the two neighborhoods together, that brings the study further beyond the individual's level, and his/her own experience, to be at the community level of analysis. To reach more precise and wider understanding of the person-place relationship. as the study of place attachment is important on both individual and community levels(Manzo and Perkins, 2006).

The investigation includes two different neighborhoods, with different densities, physical and social features, which might help in finding out how the different contexts affects the place attachment bond and place interaction as discussed in the previous chapter. These findings shall help in the process of decision making, and planning of the residential neighborhoods in Cairo. In order to enhance the bond between the place and people using or living in it. As well as, validating the generalizability of the findings of this research.

After analyzing the findings of the investigation of both neighborhoods, the findings prove the validity and reliability of some theories, and contradict the importance of other theories, as highlighted before in the findings and discussion chapters. That the findings demonstrate the importance of the socio-demographic data in predicting place attachment like the length of residence and the ownership of their houses. Despite that, there were exceptions. As even newcomers may get attached to that certain place. And if someone doesn't own his home, he might get attached to his neighborhood. Also, it demonstrates the importance of the social ties among the residents and the proximity to their relatives and friends, in enhancing place attachment and it is from the main reasons why they still live there.as well as memories they have in this certain place.

Furthermore, this research has declared the importance of the place dimension in the process of place attachment, as discussed in the previous chapters. as the findings of the physical aspect have shown that the existence of green spaces, trees and entertainment facilities enhances the social interaction, thus promotes the place attachment, as well as the importance of the intimate and human scale of streets and accessibility in enhancing place attachment. Also, it emphasizes the relation between the emotional place attachment and the time spent in the outdoors of their neighborhood, which the most carried out activities were walking, sitting on a coffee or restaurant and shopping, and that the buildings, trees and the social and commercial activities in the residential neighborhoods are very crucial for residents to build up memories, navigating, and behaving towards their environment.

It also highlights the relation between place attachment process and how they perceive their surrounding environment, and their satisfaction with the provided services and qualities. Despite the importance of the satisfaction level indicator in manifesting place attachment, in some cases People who are emotionally attached to their neighborhood are not necessarily satisfied with the services and qualities provided by their neighborhood and vice versa.

Although the findings of this research answer the research's question of determining the physical and social factors affecting place attachment in the selected neighborhoods and how place attachment affects the community. As well as how different contexts affect the place attachment and residents' interaction with each other and with the physical environment. but also, it declared that the predictors and factors affecting place attachment are not always decisive, and they are relative and sensitive to many interrelated factors.

## Conclusions and recommendations

### **7.1 Limitations**

The research scope is studying the social and physical factors affecting place attachment in Cairo's neighborhoods, and two neighborhoods were chosen with different circumstances, in order to give a wider understanding of place attachment and the indicators affecting it. Despite that the research tried to cover all the personal, social and physical factors affecting place attachment in the given time, each of these factors is recommended to be investigated in depth in further research.

As the physical settings that might be meaningful for individuals include a wide range of elements including the built environment such as the buildings, streets, the non-residential activities, in addition to the natural environment such as the greenery, lakes and parks. This wide range of settings was hard to be all covered in this investigation. And it is recommended for further researches.

Online questionnaire was adopted in this research to minimize physical interaction in response to COVID 19, aside with site visits' observations and desktop research. This forms a limitation in carrying out personal interviews and offline surveys with the residents. Especially in the case El-Waily, to get higher number of responses than those who responded to the online questionnaire. However, this difference in the number of responses was handled statistically, by considering the average number and percentages only in the comparison between the findings of each neighborhood.

### **7.2 Further RESEARCH**

For further research, a wider sample for this kind of research is preferable. As well as using qualitative analysis methods, that shall give a deeper understanding for place attachment and its social and physical indicators. Also, it is recommended to use offline physical tool for data collection like interviews, workshops and experiments, in the case of dealing with residential neighborhoods like El-Waily.



This research has given a wider understanding for place attachment and its affecting factors in Cairo's context, which is an important step in the journey of enhancing the bond between residents and their place in Cairo. And for further research it will be interesting to study the effect of each physical feature on place attachment and interaction. As studying walkability in terms of its effect on place attachment. Alongside applying the induced framework of place attachment in this research, on wider residential neighborhoods in Cairo and other cities.

The qualitative analysis might give a deeper understanding for this bond; however, this was handled by asking many deep questions about place attachment to figure out the real affecting factors.



# Appendix A

## Maadi Questionnaire Template

### About you

PLEASE IF YOU ARE A RESIDENT OR FORMER RESIDENT IN MAADI, ANSWER THE FOLLOWING QUESTIONS.  
المعادي . اجب على الاسئلة التالية

من فضلك ان كنت ساكن او ساكن سابق في

1. How old are you ? \* كم عمرك ؟

Mark only one oval.

- ☐ 12-17 years old  
☐ 18-24 years old  
☐ 25-34 years old  
☐ 35-44 years old  
☐ 45-60 years old  
☐ above 60 years old

2. Gender النوع \*

Mark only one oval.

- ☐ Female أنثى  
☐ Male ذكر

3. If you are a (resident) in Maadi, Please choose where do you live there . اذا كنت (ساكن) في المعادي . اختر اين تسكن هناك .

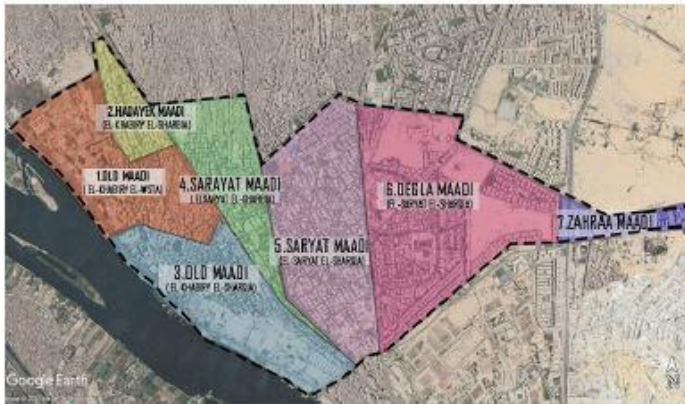


Mark only one oval.

- ☐ 1.Old Maadi ( el-khabiry elwsta) Skip to question 6  
☐ 2.Hadye2 Maadi ( el-khabiry el-gharbia) Skip to question 6  
☐ 3.Old Maadi (el-khabiry el-sharqia) Skip to question 6  
☐ 4.Sarayyat Maadi ( Elsarayat el-gharbia) Skip to question 6  
☐ 5.Sarayyat Maadi (el-sarayyat el-sharqia) Skip to question 6  
☐ 6.Degla Maadi ( el-sarayyat elsharqia) Skip to question 6  
☐ 7.Zahraa Maadi Skip to question 6  
☐ Other: \_\_\_\_\_

## Appendix A

4. If you are a (former resident) in Maadi , Please choose where you used to live there . إذا كنت (سكان سابق) في المعادي . اختر أين كنت تسكن هناك



Mark only one oval.

- ☐ 1.Old Maadi ( el-khabiry elwsta)
- ☐ 2.Hadye2 Maadi ( el-khabiry el-gharbia)
- ☐ 3.Old Maadi (el-khabiry el-sharqia)
- ☐ 4.Sarayat Maadi ( Elsarayat el-gharbia)
- ☐ 5.Sarayat Maadi (el-sarayat el-sharqia)
- ☐ 6.Degla Maadi ( el-sarayat elsharqia)
- ☐ 7.Zahraa Maadi
- ☐ Other: \_\_\_\_\_

5. If you are a former resident in Maadi , why did you move out ؟ إذا كنت ساكن سابق في المعادي . لماذا رحلت عنها ؟

Check all that apply.

- ☐ I need a bigger living space /أحتاج مساحة أكبر للمعيشة
- ☐ Far from my work /بعيد عن عملي
- ☐ Traffic /ازحمة مرور
- ☐ Far from children's school /بعيد عن مدرسة الأطفال

Other: ☐ \_\_\_\_\_

Rootedness & belongingness الجذور والانتماء

6. How long do /did you live there ؟ \* كم مضى من الوقت على وجودك بالمعادي؟

Mark only one oval.

- ☐ Less than 1 year /أقل من سنة
- ☐ 1-5 years
- ☐ 6-10 years
- ☐ 11-20 years
- ☐ Above 20 years /أكثر من 20 سنة
- ☐ Since birth /منذ الولادة

7. What is the state of your home's ownership ? ما هو نوع ملكية منزلك ؟ \*

Mark only one oval.

- ☐ ملكية خاصة Property  
☐ اجار Rent  
☐ اجار قديم Old rent

8. Please rate how familiar are you with your neighbors. ارجو تقييم مدى معرفتك بجيرانك. \*

Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Behavior & place dependence  
السلوك والاعتماد على المكان

How much you depend on your neighborhood and how you react towards it .  
إلى أي مدى تعتمد على منطقتك وكيف تتفاعل معها .

9. If you are a resident , Why are you still living there ? لماذا مازلت تسكن هناك ؟ \*

Check all that apply.

- ☐ قريبة من القاري و اصدقائي Near to my relatives and friend  
☐ قريبة من مكان عملي Near to my work  
☐ مناسبة لدخلي العادي affordable  
☐ سهل الوصول اليها accessible  
☐ المجتمع community  
☐ الذكريات memories

Other: ☐ \_\_\_\_\_

10. Where is your work ? أين محل عملك ؟ \*

Mark only one oval.

- ☐ خارج المعادي outside Maadi  
☐ داخل المعادي inside Maadi

11. If your work is outside Maadi , How much time do you spend commuting to work ? كم من الوقت تقضيه في التنقل إلى العمل ؟ \*

Mark only one oval.

- ☐ less than 15 mins  
☐ from 20-30 mins  
☐ from 31- 50 mins  
☐ 1 hour  
☐ more than 1 hour

## Appendix A

12. From your perspective , please rate you satisfaction with the following services , provided by your neighborhood: "please scroll to the right to see all answers" "يرجى التمرير إلى اليمين لرؤية جميع الإجابات" \* الإجابات

Mark only one oval per row.

	totally dissatisfied غير راض تماماً	غير راض dissatisfied	حيادي neutral	راضٍ satisfied	totally satisfied راضٍ تماماً
Daily needs shopping الشؤون اليومية	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Entertainment services الخدمات الترفيهية	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Medical services الخدمات الصحية	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Educational services الخدمات التعليمية	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transportation network شبكة المواصلات	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. From your perspective ,Rate the following items in your neighborhood in terms of quality : "please scroll to the right to see all answers" "من وجهة نظرك ، قم بتقييم العناصر التالية في منطقتك من حيث الجودة" "يرجى التمرير إلى اليمين لرؤية جميع الإجابات" \*

Mark only one oval per row.

	Very poor	Poor	Neutral	Good	Very Good
Privacy الخصوصية	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Green spaces المناطق الخضراء	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public Spaces الأماكن العامة	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pedestrian movement حركة المشاة	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accessibility إمكانية الوصول	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Street sound صوت الشارع	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Safety and security الأمان و الأمان	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. How often do you spend your free time in your neighborhood ? "please scroll to the right to see all answers" "كم تقضي وقت فراغك في منطقتك؟"

Mark only one oval.

1	2	3	4	5
never مطلقاً	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
				always دائماً

15. what are the outdoor activities that you practice in your neighborhood ? "ما هي الأنشطة الخارجية التي تمارسها في منطقتك؟"

Check all that apply.

☐ Walking المشي  
☐ Shopping التسوق  
☐ Walking the dog قيام بحولة للكلب  
☐ Sitting at a café / restaurant الجلوس في مقهى / مطعم  
☐ Cycling ركوب الدراجات

Other:

16. How often do you participate in activities done by local organizations / NGO'S / clubs ? "please scroll to the right to see all answers" \*  
\* كم مرة تشارك في الأنشطة التي تقوم بها المنظمات المحلية / المنظمات غير الحكومية / الأندية؟ يرجى التمرير إلى اليمين لرؤية جميع الإجابات

Mark only one oval per row.

	Never مطلقاً	Rarely نادراً	sometimes بعض الأحيان	often غالباً	always دائماً
Local organizations المنظمات المحلية	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local clubs الأندية المحلية	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
NGO's المنظمات غير الحكومية	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17. What kind of activities do you participate in, in your neighborhood ? \*  
ما نوع الأنشطة التي تشارك فيها ، في منطقتك؟

Check all that apply.

- ☐ Planting الزراعة  
☐ Painting walls دهان /رسم الجدران  
☐ maintaining the street صيانة الشارع  
☐ preserving the local heritage الحفاظ على التراث المحلي  
☐ Raising awareness زيادة الوعي  
☐ I don't participate in any kind of activities. أنا لا أشارك في أي نوع من الأنشطة.

Other:

18. Is your neighbors involved with you in these activities ? \*  
هل يشارك جيرانك معك في هذه الأنشطة؟

Mark only one oval.

- ☐ Yes  
☐ No  
☐ I don't know

Affect/ Feeling التأثير / الشعور

What you feel towards your neighborhood ما تشعر به تجاه جارك

19. Please indicate the extent to which each statement below describes your general feeling about your neighborhood.(  
Maadi ) "please scroll to the right to see all answers" \*  
من فضلك وضح إلى أي مدى تصف كل عبارة أدناه شعورك العام تجاه منطقتك (المعادي) \*  
\* "التمرير إلى اليمين لرؤية جميع الإجابات"

Mark only one oval per row.

	Strongly Disagree أرفض بشدة	Disagree أرفض	Neutral محايد	Agree أوافق	Strongly Agree أوافق بشدة
I like my neighborhood . أنا أحب الحي .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will feel sorry to move out . سوف أتعمر . بالأسف للمغادرة .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel proud about living here . أشعر بالفخر . للعيش هنا	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am happy that i am living in my neighborhood. أنا سعيد لأنني أعيش في هذا الحي .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think my neighborhood is a good place to live in. أعتقد أن الحي الذي أعيش فيه مكان جيد للعيش فيه .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel like i belong to this place. أشعر أنني . أنتمي إلى هذا المكان	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



## Appendix A

### معرفة Cognition

How much you know your neighborhood and familiar with it. ما مدى معرفتك بلحي الذي تعيش فيه .

20. Please choose what each number on the map represents. "please scroll to the right to see all answers" <sup>\*</sup> نرجى اختيار ما يمثل كل رقم على الخريطة "نرجى التمرير إلى اليمين لرؤية جميع الإجابات"



Mark only one oval per row.

	Victoria college school	street 9	EL-Horeya square	Maadi sporting club	street 205	elfarouk square	Kanal street	Grand mall	El-Nahda square
1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

21. How do you usually navigate through Maadi ? كيف تحدد الطرق التي تستخدمها للوصول إلى وجهتك عادة عبر المعادى ؟ <sup>\*</sup>

Check all that apply.

- ☐ By using maps ( GPS) باستخدام الخرائط (GPS)  
☐ By observing buildings من خلال مراقبة المباني  
☐ By observing Trees من خلال مراقبة الأشجار  
☐ By observing Landmarks ( squares, fountains, ...) من خلال مراقبة المعالم (الساحات ، التواقيف)



22. What is the first element that captures your attention when walking down the streets of Maadi ? ما هو أول عنصر يلفت انتباهك عند ؟ السير في شوارع المعادي؟  
\* في السير في شوارع المعادي؟

Mark only one oval.

- ☐ Buildings المبانيات  
☐ Trees الأشجار  
☐ Landmarks المعالم المميزة  
☐ shops محلات  
☐ Other: \_\_\_\_\_

23. Name the streets in Maadi that you have memories in . قم بتسمية شوارع المعادي التي لديك ذكريات فيها .

\_\_\_\_\_

24. From your perspective , what makes these streets memorable ? من وجهة نظرك ، ما الذي يجعل هذه الشوارع لا تنسى؟

Check all that apply.

- ☐ Trees الأشجار  
☐ Social activities أنشطة اجتماعية  
☐ Commercial activities أنشطة تجارية  
☐ Street Furniture ( sittings ..... ) (مقاعد .....)  
☐ Buildings المبانيات

Other: ☐ \_\_\_\_\_

## Appendix A

25. Which of the following pictures is a place in Maadi. أي من الصور التالية هو مكان في المعادي. \*

Check all that apply.



☐ Option 1



☐ Option 2



☐ Option 3



☐ Option 6



☐ Option 4



☐ Option 5



☐ Option 7



☐ Option 8



☐ Option 9

26. \* انذكر اكثر شئ تتعلق به في المعادى ؟ What are you attached to the most in Maadi ?

Check all that apply.

- ☐ Green Spaces المساحات الخضراء
- ☐ Accessibility إمكانية الوصول
- ☐ the human and intimate urban scale ( the street width , the street enclosure ...) عرض الشارع ، إحاطة الشارع (..)
- ☐ walking and cycling to move around العشي وركوب الدراجات للتنقل
- ☐ Neighbors (Friends and relatives الجيران والأصدقاء)
- ☐ the community المجتمع

Other: ☐ \_\_\_\_\_

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Google Forms

## Appendix A

### El-Waily Questionnaire Template

#### About you

PLEASE IF YOU ARE A RESIDENT OR FORMER RESIDENT IN El-Waily district ( including qism El-Waily and qism El-Zaher ) , ANSWER THE FOLLOWING QUESTIONS.  
من فضلك ان كنت ساكن او ساكن سابق في حي الويلي ( الذي يشمل قسم الويلي وقسم الزاهر ) ، اجب على الأسئلة التالية

1. How old are you ? \* كم عمرك ؟

Mark only one oval.

- ☐ 12-17 years old  
☐ 18-24 years old  
☐ 25-34 years old  
☐ 35-44 years old  
☐ 45-60 years old  
☐ above 60 years old

2. Gender \* النوع

Mark only one oval.

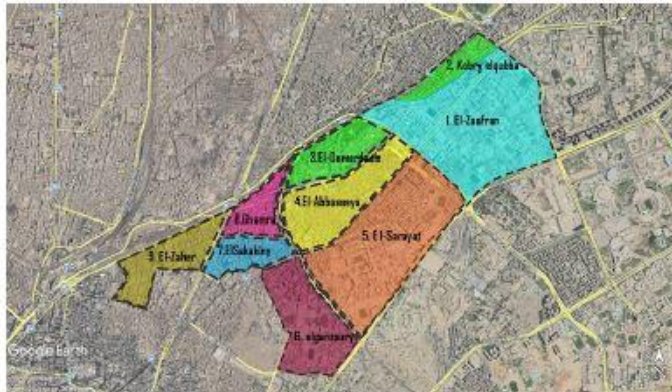
- ☐ انثى Female  
☐ ذكر Male

3. I am a ..... \* أنا .....

Mark only one oval.

- ☐ ساكن Resident  
☐ ساكن سابق Former resident

4. If you are a (resident / former resident) in El-Waily district (including qism El-Waily and qism El-Zaher), Please choose where do you live / used to live there. إذا كنت (ساكن/ ساكن سابق) في حي الويلي (الذي يشمل قسم الويلي وقسم الظاهر)، اختر ابن تسكن / كنت تسكن هناك.



Mark only one oval.

- ☐ 1.El-Zafran  
☐ 2.Kobry El-Quba  
☐ 3.El-Demerdash  
☐ 4.El-Abbaseya  
☐ 5.El-Sarayal  
☐ 6.El-Ganzoury  
☐ 7.El-Sakakiny  
☐ 8.Ghamra  
☐ 9.El-Zaher

5. If you are a former resident, why did you move out? إذا كنت ساكن سابق في حي الويلي (الذي يشمل قسم الويلي وقسم الظاهر)، لماذا رحلت عنها؟

Check all that apply:

- ☐ I need a bigger living space احتاج مساحة أكبر للمعيشة  
☐ Far from my work بعيد عن عملي  
☐ Traffic زحمة مرور  
☐ Far from children's school بعيد عن مدرسة الأطفال

Other:

الجنور والانتفاء Rootedness & belongingness

6. How long do /did you live there? كم معنى من الوقت على وجودك هناك؟

Mark only one oval.

- ☐ Less than 1 year أقل من 1 سنة  
☐ 1-5 years  
☐ 6-10 years  
☐ 11-20 years  
☐ Above 20 years أكثر من 20 سنة  
☐ Since birth منذ الولادة

## Appendix A

7. What is the state of your home's ownership ؟ ما هو نوع ملكية منزلك ؟ \*

Mark only one oval.

- ☐ ملكية خاصة Property  
☐ اجار Rent  
☐ اجار قديم Old rent

8. Please rate how familiar are you with your neighbors. ارجو تقييم مدى معرفتك بجيرانك. \*

Mark only one oval.

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Behavior & place dependence  
السلوك والاعتماد على المكان

How much you depend on your neighborhood and how you react towards it .  
إلى أي مدى تعتمد على منطقتك وكيف تتعامل معها .

9. If you are a resident , Why are you still living there ؟ إذا كنت ساكن في حي الويلي ( الذي يشمل قسم الويلي وقسم الظاهر) , لماذا مازلت تسكن هناك ؟

Check all that apply.

- ☐ قريبة من القرابي و اصدقاءاتي Near to my relatives and friends  
☐ قريبة من مكان عملي Near to my work  
☐ مناسبة لدخلي العادي affordable  
☐ سهل الوصول اليها accessible  
☐ المجتمع community  
☐ الذكريات memories

Other: ☐ \_\_\_\_\_

10. Where is you work ؟ اين محل عملك ؟ \*

Mark only one oval.

- ☐ داخل حي الويلي ( الذي يشمل قسم الويلي وقسم الظاهر) Inside El-Waiily district ( including elwaiily - el zaher)  
☐ خارج حي الويلي ( الذي يشمل قسم الويلي وقسم الظاهر) outside El-Waiily district ( including elwaiily - el zaher)

11. If your work is outside el-waiily, How much time do you spend commuting to work ؟ إذا كان عملك خارج الواييلي ، كم من الوقت تقضيه في التنقل إلى العمل؟

Mark only one oval.

- ☐ less than 15 mins  
☐ from 20-30 mins  
☐ from 31- 50 mins  
☐ 1 hour  
☐ more than 1 hour

12. From your perspective, please rate your satisfaction with the following services, provided by your neighborhood:  
 "please scroll to the right to see all answers" "يرجى التمرير إلى اليمين" "الخدمات التالية التي تقدمها منطقتك" "يرجى تقييم مدى رضاك عن الخدمات التالية التي تقدمها منطقتك" "يرجى التمرير إلى اليمين ليرى جميع الإجابات" \* لا إجابة عليه الإجابات

Mark only one oval per row.

	totally dissatisfied	غير راض dissatisfied	محايد neutral	راض satisfied	totally satisfied
Daily needs shopping تسوق الاحتياجات اليومية	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Entertainment services الخدمات الترفيهية	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Medical services الخدمات الصحية	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Educational services الخدمات التعليمية	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transportation network شبكة المواصلات	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. From your perspective, Rate the following items in your neighborhood in terms of quality: \*please scroll to the right to see all answers\*  
 \*من وجهة نظرك، قم العاير التاليه في من حيث الجوده: \*رجو التمرير الى اليمين لرؤية جميع الاجابات\*

Mark only one oval per row.

	Very poor	Poor	Neutral	Good	Very Good
Privacy الخصوصية	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Green spaces المناطق الخضراء	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public Spaces الأماكن العامة	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pedestrian movement حركة المشاة	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accessibility الوصول	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Street sound صوت الشارع	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Safety and security الأمن و الأمان	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. How often do you spend your free time in your neighborhood ? \*please scroll to the right to see all answers\* كم تقضي وقت  
\* في اخاك في منطقتك؟

Mark only one oval.

1 2 3 4 5

never مطلقاً ☐ ☐ ☐ ☐ ☐ always دائماً

15. what are the outdoor activities that you practice in your neighborhood ? ما هي الأنشطة الخارجية التي تمارسها في منطقتك؟

Check all that apply.

- ☐ المشي Walking  
☐ التسوق Shopping  
☐ الجلوس في مقهى / مطعم Sitting at a café / restaurant  
☐ ركوب الدراجات Cycling  
☐ الجولف Walking the dog

Other: ☐



## Appendix A

16. How often do you participate in activities done by local organizations / NGO'S / clubs ? "please scroll to the right to see all answers" \*  
كم مرة تشارك في الأنشطة التي تقوم بها المنظمات المحلية / المنظمات غير الحكومية / الأندية؟ "رجعي للتمرير إلى اليمين لرؤية جميع الإجابات"

Mark only one oval per row.

	Never مطلقاً	Rarely نادراً	sometimes بعض الأحيان	often غالباً	always دائماً
Local organizations المنظمات المحلية	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local clubs الأندية المحلية	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
NGO's المنظمات غير الحكومية	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17. What kind of activities do you participate in, in your neighborhood ? في منطقتك؟ \*  
ما نوع الأنشطة التي تشارك فيها ، في منطقتك؟

Check all that apply.

- ☐ Planting الزراعة  
☐ Painting walls دهان /رسم الجدران  
☐ maintaining the street صيانة الشارع  
☐ preserving the local heritage الحفاظ على التراث المحلي  
☐ Raising awareness زيادة الوعي  
☐ I don't participate in any kind of activities . أنا لا أشارك في أي نوع من الأنشطة .

Other: ☐ \_\_\_\_\_

18. Is your neighbors involved with you in these activities ? هل يشارك جيرانك معك في هذه الأنشطة؟ \*

Mark only one oval.

- ☐ Yes  
☐ No  
☐ I don't know

Affect/ Feeling التأثير / الشعور

What you feel towards your neighborhood ما تشعر به تجاه جارك

19. Please indicate the extent to which each statement below describes your general feeling about your neighborhood. (El-Waيلي) "please scroll to the right to see all answers" \*  
من فضلك وضح إلى أي مدى تصف كل عبارة أثناء شعورك العام تجاه منطقتك (الوايلي) "رجعي للتمرير إلى اليمين لرؤية جميع الإجابات"

Mark only one oval per row.

	Strongly Disagree أرفض بشدة	Disagree أرفض	Neutral حيادي	Agree أوافق	Strongly Agree أوافق بشدة
I like my neighborhood . أنا أحب الحي .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will feel sorry to move out . سوف أشعر بالأسف للمغادرة .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel proud about living here. أشعر بالفخر . أعيش هنا .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am happy that i am living in my neighborhood. أنا سعيد لأنني أعيش في هذا الحي .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think my neighborhood is a good place to live in. أعتقد أن الحي الذي أعيش فيه مكان جيد . للعيش فيه .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel like I belong to this place. أشعر أنني . أتنتمي إلى هذا المكان .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Cognition معرفة

How much you know your neighborhood and familiar with it. ... ما مدى معرفتك بالحي الذي تعيش فيه.

20. Which of the following pictures is a place in El-Wailly district ( including qism El-Wailly and qism El-Zaher ). أي من الصور التالية ( هو مكان في حي الويلي ( الذي يشمل قسم الويلي وقسم الظاهر ) \*.

Check all that apply.

☐ Option 1☐ Option 2☐ Option 3☐ Option 4☐ Option 5☐ Option 6☐ Option 7☐ Option 8☐ Option 9

## Appendix A

21. How do you usually navigate through El-Waiily district ( including qism El-Waiily and qism El-Zaher ) ؟ كيف نحدد الطرق التي \* تستخدمها للوصول الى وجهتك عادة عبر حي الويلي ( الذي يشمل قسم الويلي وقسم الظاهر ) ؟

Check all that apply.

- ☐ By using maps ( GPS) باستخدام الخرائط (GPS)  
☐ By observing buildings من خلال مراقبة المباني  
☐ By observing Trees من خلال مراقبة الأشجار  
☐ By observing Landmarks ( squares, fountains, ...) ( ... ) من خلال مراقبة المعالم (المساحات ، النوافير )

22. What is the first element that captures your attention when walking down the streets of El-Waiily district ( including qism El-Waiily and qism El-Zaher ) ؟ ما هو أول عنصر يلفت انتباهك عند السير في شوارع حي الويلي ( الذي يشمل قسم الويلي وقسم الظاهر ) ؟

Mark only one oval.

- ☐ Buildings المباني  
☐ Trees الأشجار  
☐ Landmarks المعالم المميزة  
☐ shops محلات  
☐ Other: \_\_\_\_\_

23. Name the streets in your neighborhood that you have memories in . قم بتسمية شوارع حيك التي لديك ذكريات فيها .

\_\_\_\_\_

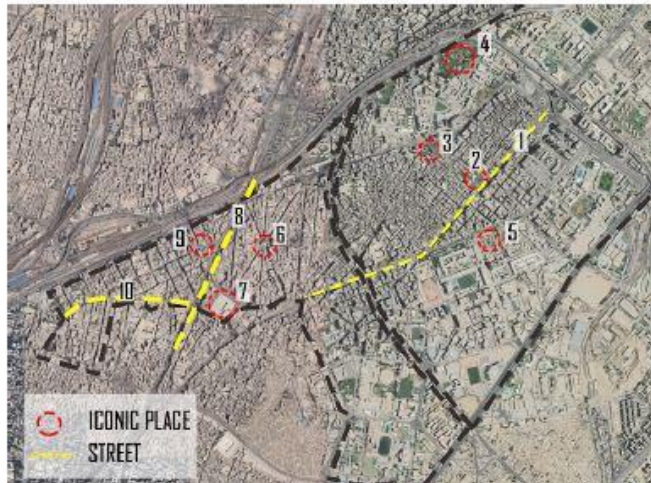
24. From your perspective , what makes these streets memorable ؟ من وجهة نظرك ، ما الذي يجعل هذه الشوارع لا تنسى ؟

Check all that apply.

- ☐ Trees الأشجار  
☐ Social activities أنشطة اجتماعية  
☐ Commercial activities أنشطة تجارية  
☐ Street Furniture ( sittings -....) (جلوسات -....)  
☐ Buildings المباني

Other: ☐ \_\_\_\_\_

25. Please choose what each number on the map represents. "please scroll to the right to see all answers"  
 نرجى اختيار ما يمثل كل رقم على الخريطة "نرجى التمرير إلى اليمين لرؤية جميع الإجابات"



Mark only one oval per row.

	Arab El-Mohamadi Park	Fakhry Square	El-Abbassiya street	El-Sakakiny palace square	El-Zaher street	Greek Hospital	El-We7da mosque	El-Quba El-Fedawia	Portsaid street	El-Zahir Bybars Mosque
1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

26. What are you attached to the most in El-Wailly district ( including qism El-Wailly and qism El-Zaher )?  
 انكر اكثر شئ تتعلق به في ( حي الويلي ( الذي يشمل قسم الويلي وقسم الظاهر )؟

Check all that apply.

- ☐ Green Spaces المساحات الخضراء  
☐ Accessibility إمكانية الوصول  
☐ the human and intimate urban scale ( the street width , the street enclosure ... )  
 المقياس العمراني البشري والمحلي ( عرض الشارع ، إحاطة الشارع ... )  
☐ walking and cycling to move around المشي وركوب الدراجات للتنقل  
☐ Neighbors (Friends and relatives) (الأصدقاء والأقارب) (الجيران)  
☐ the community المجتمع

Other: ☐ \_\_\_\_\_

## Appendix A



## Appendix B



*Figure 56: Street in Sarayat El-Maadi (1)*



*Figure 57: Street in Sarayat El-Maadi (2)*



*Figure 58: Villa with a Significant architecture in Sarayat El-Maadi*



*Figure 59: street in Old Maadi (1)*



*Figure 60: Old area with deteriorated buildings in Old Maadi*



*Figure 61: Street in Old Maadi (1)*



*Figure 62: Street in Old Maadi (2)*

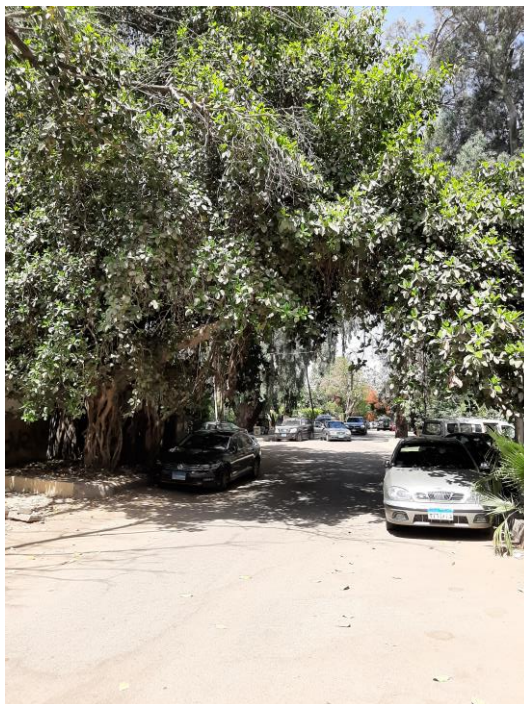
## Appendix B



*Figure 63: Street in Degla Maadi (1)*



*Figure 64: Main Street in Zahraa el-Maadi (1)*



*Figure 65: Street in Degla Maadi with dense old trees*



*Figure 66: Public green space as an island in Kanal street*

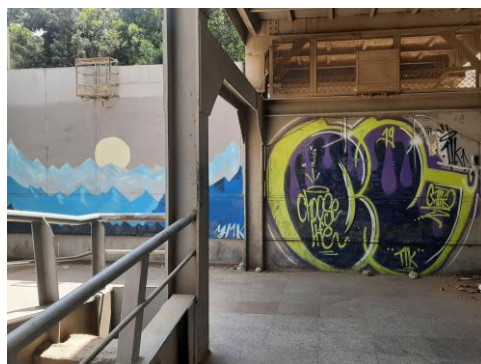


*Figure 67: Street in Degla Maadi (2)*





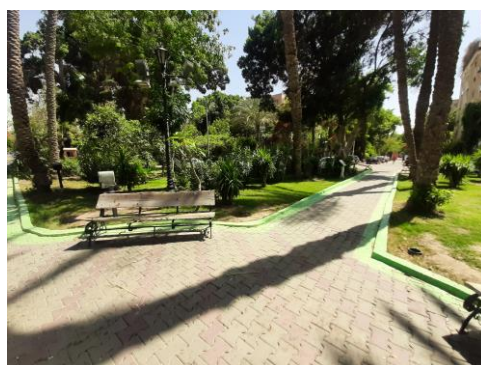
*Figure 68: Street in Zahraa Maadi with high residential buildings*



*Figure 69: Graffiti drawn on the wall of a pedestrian bridge*



*Figure 70: Graffiti drawn on a wall in Degla*



*Figure 71: Public space with seatings in Degla*

## Appendix B



*Figure 72: Street in El-Zaher(1)*



*Figure 73: Street in El-Zaher (2)*



*Figure 74: Significant church among the residential and commercial area,El-Zaher*





*Figure 75: El-Abbasiya street with commercial activities on both sides (1)*



*Figure 76: El-Zaher Mosque Square*



*Figure 77: Historical and significant buildings at El-Abbasiya street*

## Appendix B



Figure 78: Residential buildings with commercial activities in the ground floor at Saryat street (1)



Figure 79: street facing El-Qubba elfidawya, Saryat



Figure 80: Secondary Residential street in El-Abbasiya





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نحو توطيد الصلة بين الناس والمكان :دراسة العوامل المؤثرة على الارتباط المكاني بأحياء القاهرة

## المستخلص

في الخمسين سنة الماضية ناقشت أبحاث عدة موضوعي الارتباط المكاني والهوية المكانية، الارتباط المكاني هو الرابط الذي ينمو بين الناس والمكان الذي يعيشون فيه والذي يعكس هويتهم ويشكل حياتهم الاجتماعية، ويمكن أيضا تعريف الارتباط المكاني على انه الرابط الإدراكي بين لناس والبيئة التي يعيشون فيها. تتكون القاهرة من احياء سكنية متنوعة التخطيط والتصميم والتي تغيرت وتشكلت على مر السنين بسبب عوامل عدة منها العولمة، الحداثة، زيادة الاعتماد على الحركة الالية مما كان له تأثير مباشر على شكل المجاورات السكنية وبالتبعية على الارتباط المكاني لسكانها بالإضافة الى تأثيره على الهوية المكانية. بالرغم من تنوع تلك التغييرات ونتائجها المختلفة وطرق تنفيذها وأهدافها، التي شكلت صورة القاهرة التي نشاهدها حاليا، لم يتم دراسة تأثيرها بصورة كافية على السكان المحليين ودرجة تفاعلهم مع بعضهم البعض ومع البيئة التي يعيشون فيها. وبالتالي تأثر على الارتباط المكاني. لذلك تهدف تلك الرسالة الى دراسة التأثير المتبادل بين السكان والبيئة التي يعيشون فيها لتحديد اهم الصفات والملاح من حيث التأثير على سكان المجاورات في القاهرة، نتائج ذلك البحث ستساعد المماريين والمصممين الحضريين في تصميم وتحسين مستويات الارتباط المكاني بين السكان والمجاورات السكنية الخاصة بهم مما سيوفر استقرار اجتماعي وحيوية لتلك المجاورات.

من اجل تحقيق السابق ذكره اعتمدت تلك الرسالة على دراسة وتحليل حيين في القاهرة، من خلال التحقيق في الإطار الثلاثي للارتباط المكاني الذي اقترحه Scannell and Gifford (2010) والمؤشرات التي تؤثر على هذه الصلة. سيتم إجراء التحقيق من خلال الاستبيانات عبر الإنترنت والملاحظات زيارات الموقع وكذلك البحث المكتبي. واطهرت النتائج العوامل الاجتماعية والمادية التي من الممكن ان تؤثر على التعلق بالمكان في أحياء القاهرة.

الكلمات المفتاحية:

الارتباط المكاني – الاعتماد المكاني – الهوية المكانية – المجاورات السكنية.



## إقرار

هذه الرسالة مقدمة في جامعة عين شمس للحصول على درجة العمران المتكامل والتصميم المستدام.

إن العمل الذي تحويه هذه الرسالة قد تم إنجازه بمعرفة الباحث سنة 2021 هذا ويقر الباحث أن العمل المقدم هو خلاصة بحثه الشخصي وأنه قد اتبع الأسلوب العلمي السليم في

الإشارة إلى المواد المأخوذة من المراجع العلمية كل في مكانه في مختلف أجزاء الرسالة..

وهذا إقرار مني بذلك،،،

التوقيع: ليلي علاء الدين عبد الرحمن

الباحث: ليلي علاء الدين عبد الرحمن

التاريخ: 11/08/2021



# نحو توطيد الصلة بين الناس والمكان: دراسة العوامل المؤثرة على الارتباط المكاني بأحياء القاهرة

مقدمة للحصول على درجة الماجستير في العمران المتكامل والتصميم المستدام

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تاريخ المناقشة:

الدراسات العليا

أجيزت الرسالة بتاريخ:

موافقة مجلس الجامعة ...../...../.....

ختم الإجازة

موافقة مجلس الكلية ...../...../.....





# نحو توطيد الصلة بين الناس والمكان: دراسة العوامل المؤثرة على الارتباط المكاني بأحياء القاهرة

رسالة مقدمة للحصول على درجة الماجستير في العمران المتكامل والتصميم المستدام

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