

## CAIRO'S LIVABLE STREETS: A SOCIO-CULTURAL STUDY OF HUMAN BEHAVIOR PATTERNS IN ACCORDANCE WITH EXISTING STREETSCAPES IN GREATER CAIRO

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### Abstract

Cairo is one of the most condensed cities in the world. In spite of the many attempts to de-centralize the city and to decrease the density of the centre by providing new cities to the East and West of Cairo, the case remains the same and the new extensions merge with the city core. Accompanying these mega expansions, the interferences to provide a collective architectural character and identity in the city by the authorities is minimal. This resulted in what can be seen nowadays as a chaotic result of the residents or shop owners to their own personal tastes or to their business benefits in the treatments of the outer skins of the buildings or the setting of the streetscape itself. This reaction has a dual effect on the city. From one side, the streets truly reflect the needs and character of its users and residents, related to sidewalk treatments, parking adjustments, formal and informal settings of vendors, all this to a great extent marking very lively, vivid and socially sustained communities. However, from another side, the collective identity of the places are lost or even deformed, where with the absence of proper taste, streets turn into chaos, both aesthetically and functionally. Thus, in order to study the dilemma related to achieving the difficult balance between providing a margin for community interaction and setting the proper order to unify and legalize streetscapes, this study has been conducted on twenty different streets located in different district inside great Cairo. The study aims to analyze the current streets condition in relation to the sidewalk treatments, parking spaces, frequent informal vendors, shop frontages, buildings entrances, landscapes, capacity of traffic, most notable human activities occurring in the street as well as the treatments of the facades of the buildings in the street.

### Key words

Behavioural Patterns, Cairo's Public Space, Street Mapping, Informal versus Formal, Cultural Patterns.

### 1. Introduction

Cairo is one of the oldest and most condensed cities in the world. In spite of the many attempts to de-centralize the city and to decrease the density of the centre by providing new cities to the East and West of Cairo, the case remains the same and the new extensions merge with the city core creating an even bigger and more condensed capital. Accompanying these mega expansions, the interferences to provide a collective architectural character and identity in the city by the authorities is minimal, leaving several decisions related to the perception of neighbourhoods or districts uncontrolled. This resulted in what can be seen nowadays as a chaotic result of the residents or shop owners to

their own personal tastes or to their business benefits in the treatments of the outer skins of the buildings or the setting of the streetscape itself. This reaction has a dual effect on the city. From one side, the streets truly reflect the needs and character of its users and residents, related to sidewalk treatments, parking adjustments, formal and informal settings of vendors, all this to a great extent marking very lively, vivid and socially sustained communities. However, from another side, the collective identity of the places are lost or even deformed, where with the absence of proper taste, streets turn into chaos, both aesthetically and functionally. Thus, in order to study the dilemma related to achieving the difficult balance between providing a margin for community interaction and setting the proper order to unify and legalize streetscapes, this study has been conducted on twenty different streets located in different district inside great Cairo. The study aims to analyze the current streets condition using a qualitative descriptive first hand study based on the analysis of the sidewalk treatments, parking spaces, frequent informal vendors, shop frontages, buildings entrances, landscapes, capacity of traffic, most notable human activities occurring in the street as well as the treatments of the facades of the buildings in the street. All this has been conducted by field visits and actual human behavioural mapping of the selected streets. Following this analysis, the most dominant human behavioural patterns are referred to the theoretical studies of Amos Rappoport and Jane Jacobs to discuss the origins of the reactions studied in literature. Finally a cross-reading between the different selected streets will be made to reflect on the pros and cons of the current situation based on the study and also to mark the common similarities which can be grouped as a collective pattern of use. The paper ends with a conclusion which aids in reading collectively the current needs and human behavioural patterns in the contemporary streetscape in Cairo, which is very important in our era in order to avoid the same repeated problems in nascent communities intended for expansions.

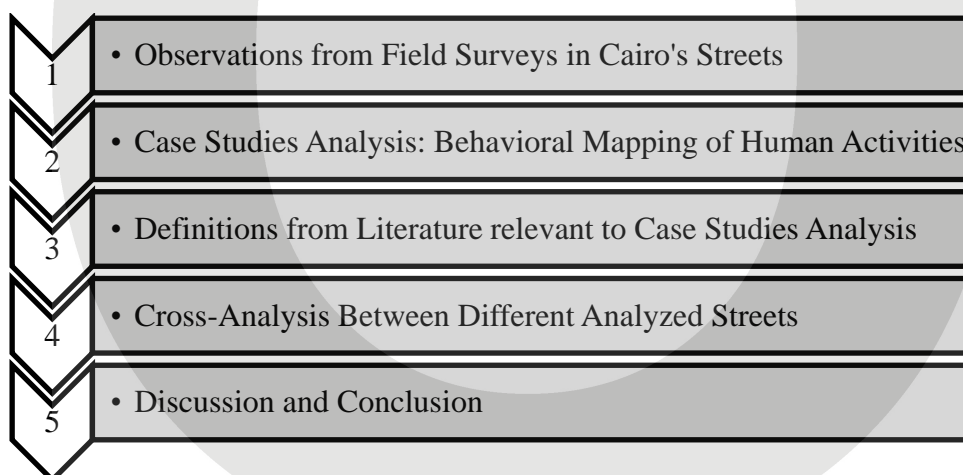


Fig. 1: Research Methodology, Author, 2018

## 2. Observations Based on Field Surveys of Cairo's Livable Streets

To start with, it is beneficial to conduct some observations based on readings from different streets in Cairo. This will aid in formulating an image of the nature of the different streetscapes and the different behavioural patterns which can be observed. The observations as well as the analysis are part of an on-going research aiming to map the behavioural patterns in Cairo's streets, conducted by the author with the aid of research groups from Cairo University, Faculty of Engineering, Architecture Department. The criteria of selecting the streets and the criteria of analysis will be further referred to in the beginning of the in-depth analysis. Whereas, the observations highlighted here reflect a sample of the diverse streetscape patterns which are present in Greater Cairo. The samples are chosen from the condensed city core, in suburbs and near transportation hubs, as will be discussed below.

Although the streetscape in Cairo is very diverse in nature, both as to the urban setting of the streets; meaning width, ratio of masses, landscape, sidewalk treatments...etc, which certainly vary according to the standard of social and economic classes utilizing the streets; however, the observations here pinpoint some traits that are common between the various streets located in different districts, whether old districts inside Cairo or newer districts in the new extensions to the East and West. The first observation is the spread of street vendors on the sidewalks. The presence of the street vendors is very critical between the need they provide and the economic capital they represent from one side, and from another side, the unpleasant effect they cause. This affects the pedestrian use of the sidewalk, (figs. 2, 3, 4), as well as in many cases extends the commercial activities in the streets which decreases traffic flow and result in traffic condensation.

Another observation associated with this is the overly mixed usage of different activities, which not only occur inside the buildings, but usually extend to the sidewalk and the streets too when needed. For instance, the extension of Friday prayers during the weekly prayer, which takes place in almost all streets in Cairo, due to the lack of extendable spaces which are adequate beside the mosque. This also takes us to another issue concerning the role of public spaces or public parks which can provide an alternative to the usage of sidewalks and the street itself for the lively activities. The common pattern for parks, which are the open green spaces located in the neighbourhoods, whether small or large in area, is their disconnection from the neighbourhood. This disconnection is either physical via creating fences by the municipalities to avoid the extension of the activities inside the parks (fig. 2, 3), or non-physical yet, behavioural by banning usage and merely leaving the parks as landscape without any social or economic activities.

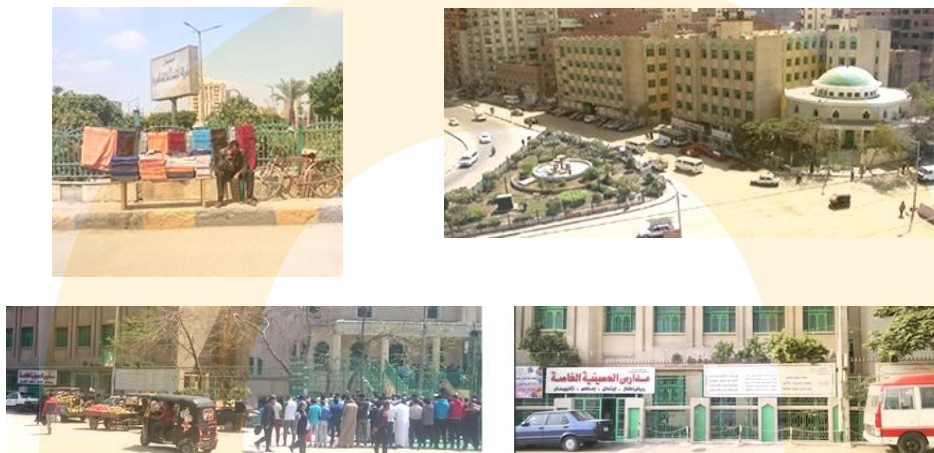


Fig. 2, 3, 4: Omraneya Bridge Street in Giza, Alaa Ramadan, 2018.

In more deteriorated streets in the districts which suffer from lack of proper infra-structure and quality of life, the alleys or streets with a more compact and narrower nature, some different patterns and problems start to take place. First it can be observed that the sidewalk disappears all together, without giving any option for pedestrians except to walk inside the street itself, turning it into a shared space, however, without adequate ratios of usage between cars and pedestrians. Shops usually extend on the sidewalks, and during night, a common pattern is the extension of the popular coffee shops to occupy the streets themselves leaving only one lane to function, (fig. 5, 6, 7). Also the parking spaces available for the residents of street who own cars remain the sole responsibility of the users to manage to provide spaces for parking amid the excessively vivid streetscape.

Other important patterns to observe are those occurring next to Metro Stations, (figs. 8, 9, 10, 11). It was observed that exists of the stations are one of the most crowded and mixed spaces which behold extensive mixed use activities. This stems from two main different aspects, first is the presence of informal transportation facility, which is the (Tok-tok) to provide a cheap means of transportation from the station to the vicinity of various neighbourhoods. The other aspect is the extensive presence of street vendors who target the users of the stations. As can be observed from the figures, the presence of those two aspects result in over crowdedness, affecting the individual personal space as well as the right of the users to develop a clear and full advantage of an adequate streetscape.

The last observations to be discussed in this part are conducted in one of the new extensions of Cairo, in order to track the similarities and differences between the new case and what was observed before. As shown in the figures (12, 13, 14), the new extension of 6<sup>th</sup> of October city has a less condensed nature resulting from the horizontal expansion of the city and the relatively

wider streets. However, it can still be observed that the problems of the efficiency of usage of the public park or the effective sidewalk are still present. In addition to this, no clear guidelines can be deducted regulating the buildings facades, the advertising banners or the shop frontages in order to provide a better quality of streetscape in the new extension.



Fig. 5, 6, 7: Terae't EL-Dakar Street in El-Zawya El-Hamra, Rana El-Sayed, 2017.



Fig. 8, 9: Surrounding of Metro Station in Shobra El-Kheima, Yoa'na Ghaly, 2018.



Fig. 10, 11: Surrounding of Metro Station in Hadayek El-Maadi, Eman Tarek, 2017.



Fig. 12, 13, 14: El-Mehwar El-Markazi Street, 6<sup>th</sup> of October, Zeinab Abdel\_Aziz, 2017

The observations tackled a number of issues which are common in Cairo's street and which form a sort of behavioural pattern affecting the quality of urban life. To further emphasize and study those behavioural patterns, an in-depth study on a selected number of streets has been done. This will aid in formulating a deeper analysis of the current case of the streets and how users adapt within the current situation. Also, this aids in providing some solutions which related to the development of the current case to a better condition, taking into consideration the needs and behavioural activities of the users.

### 3. In-Depth Analysis of Streets Allocated with Cairo's Diverse Districts

This part is concerned with the behavioural street patterns mapping, which zoom in to the current case of the demonstrated streets. The mapping aimed to cover the physical environment and patterns of use of the streets based on how the actual users see, react to and adapt the street and sidewalk to accommodate their daily lives. The criteria of analysis have been conducted from the literature review as well as the classification of the most common and repetitive patterns based on the human behavioural mapping of the streets. The points covered in the analysis are the different treatments of the sidewalk, the parking spaces, the frequent presence of the informal street vendors, the different treatments of building entrances and parking space, the treatments of shop frontages, the capacity of traffic and the most notable human patterns and activities which take place in the streets, meaning the most common and influential activities which take place in the public space. The selection of the cases analyzed was based on providing a wider scope of geographical spread of the streets in order to track the similarities and differences between various districts and trace what can be considered a behavioural pattern in Cairo's streets. The selection was also based on the coverage of various socio-economic standards which helps in presenting a comprehensive study of the repetitive patterns occurring in the Cairene society.

#### 3.1. Sidewalk Treatments

One of the most notable aspects to study in Cairo's streets is the sidewalk. As presented in the observations, the excessive activities that occur in the street mainly occupy the space supposedly tailored for the pedestrian usage. Since this is considered one of the most influential aspects in the streetscape, seven

cases have been mapped with the most common activities and features as shown in figures (15, 16, 17, 18, 19, 20, 21, 22, 23). The first case study is located in a secondary street branching from Faisal Street in Giza. The most dominant feature of the sidewalk is its narrow width. In addition to this the sidewalk features several un-assigned activities which are permanent, leaving even the foldable selling units during non-operational hours. Also the functioning formal shops occupy and extend into the streets, which leave the pedestrians with only the sole option of using the street itself as a shared space (fig. 15).

The second case shown in figures (16, 17, 18) show another common case of the sidewalk treatments in Cairo. This case located in Bolaq El-Dakror, shows that although the sidewalk is present, it is not functional for many reasons. The different levels and high steps between each level create a constraint. The presences of manholes which are not sealed by a proper cover create another constraint, in addition of course to the shops extensions, and the obstacles in movement created by the private cars.

The third case demonstrated in figure (fig. 19) is another typical case in one of the new extensions of Cairo, the third settlement, East of Cairo. Although the actual new district apparently shows the presence of a proper scaled width of the sidewalk in relation to the street width, however, very similar patterns of misuse also take place. For instance, the corner shop would overtake the sidewalk in front of it in an informal extension. The chaotic setting of landscape and lighting fixtures obstruct usage too. However, this remains not a form of total obstruction of the function, yet, ringing a bell if not taken action for.

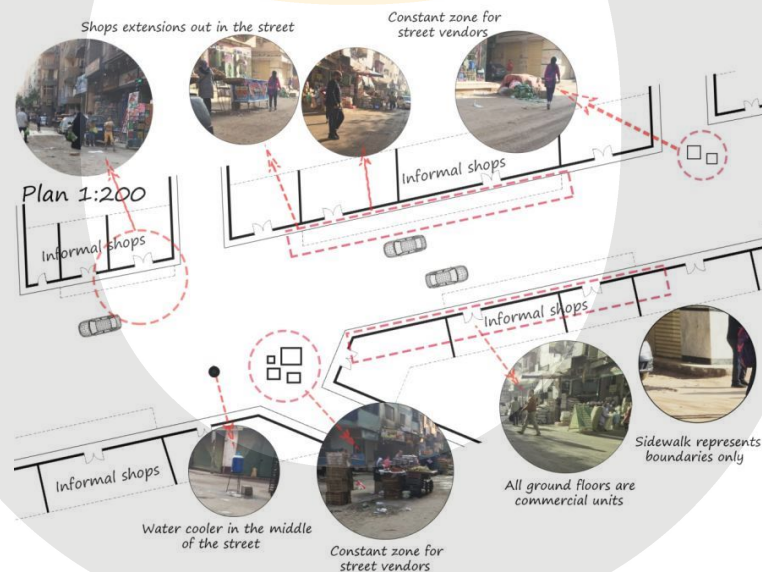


Fig. 15: Activities on Sidewalk in Dr Lasheen Street from Faisal Street in Giza, Dina Maher, 2018.

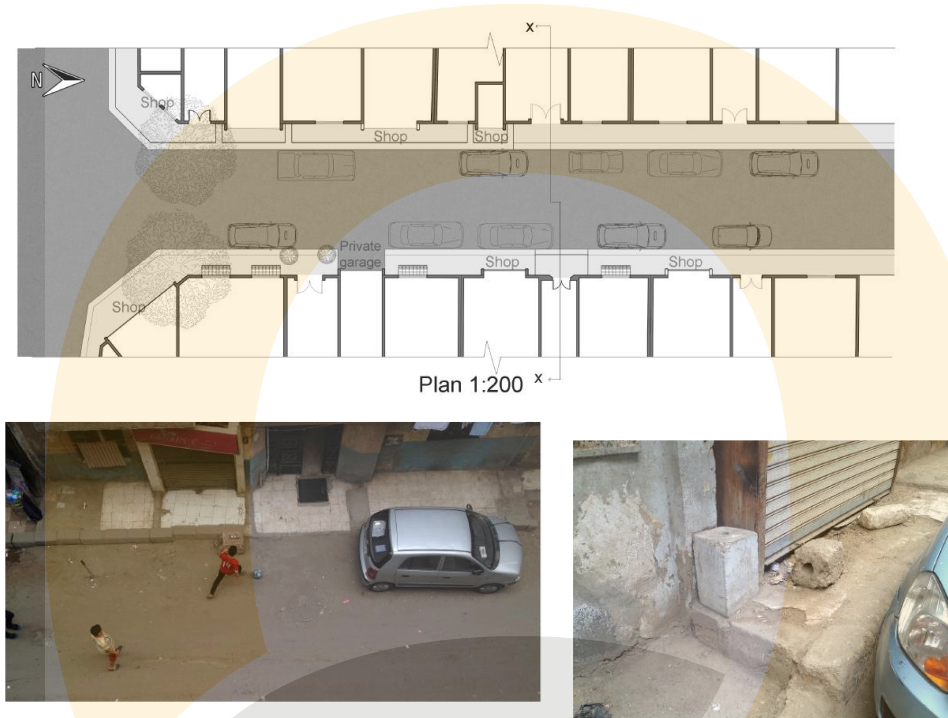


Fig. 16, 17, 18: Sidewalk Treatments in El-Gazaer Street, Abo-Katada, Boulak El-Dakroor, Peter Erian, 2018.

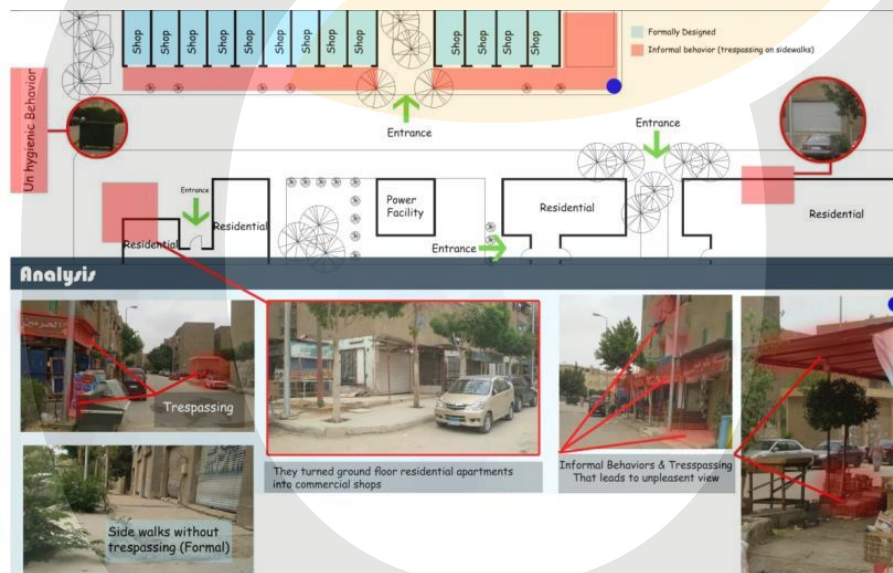
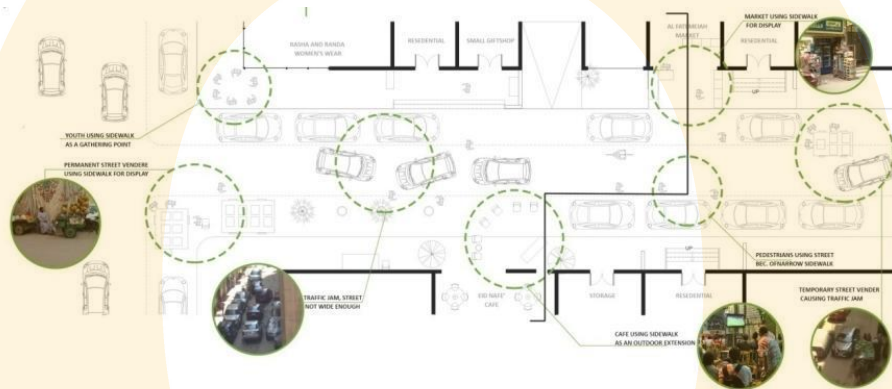


Fig. 19: Sidewalk Treatments in Eskan El-Nekabat, 3<sup>rd</sup> Settlement, New Cairo, Ahmed Yasser, 2018.

The next case represents another prototype of excessively dense and active street; and consequently sidewalk, activity. The case is a side street branching from Faisal Street in Giza, shown in figure 20. In this case, the sidewalk

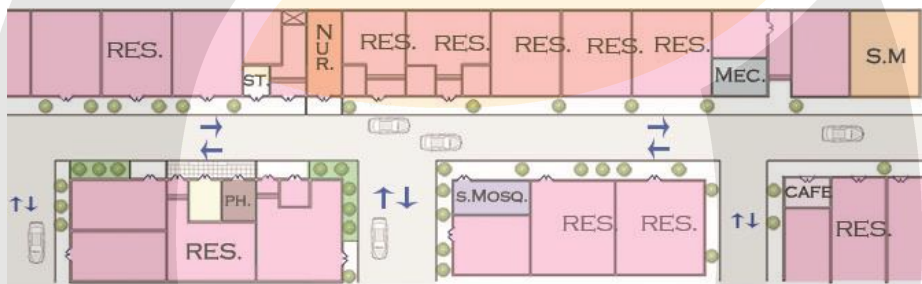


merges with the street to adopt various activities such as becoming part of the coffee shop, extension of formal shops, entrance ramp for buildings parking and entrances to apartment blocks. In addition to that, the width of the street with the parking of cars in a double loaded pattern leaves only a single lane remaining for both pedestrians and vehicles passing by.



**Fig. 20: Activities on Sidewalk and Treatments of Eid Nafae' Street from Faisal Street in Giza, David Berty, 2018.**

The next case is located in Helwan, which is considered a suburb of Greater Cairo. As shown in figure (fig. 21), the same problems are still present. The width of the sidewalk with the chaotic placing of the landscape elements, leave the sidewalk with an un-functional nature.



**Fig. 21: Sidewalk Treatments in Ali el-Sayes Street in Hadayek Helwan, Merna Mounir, 2018.**

The next two cases were selected as being in districts of better income class than some of the previously discussed cases, (figures 22 and 23). The case shown in figure 22 is located on the main street of El-Dokki district, while the other in El-Manyal street. However, very similar informal, unassigned and chaotic behaviour take place in both studied cases. The main difference is present in the width of the street, however, during rush hours, and with the constant presence of the informal activity on the sidewalk, the traffic congestions are even higher resulting in a worse quality of use of the street for pedestrians.

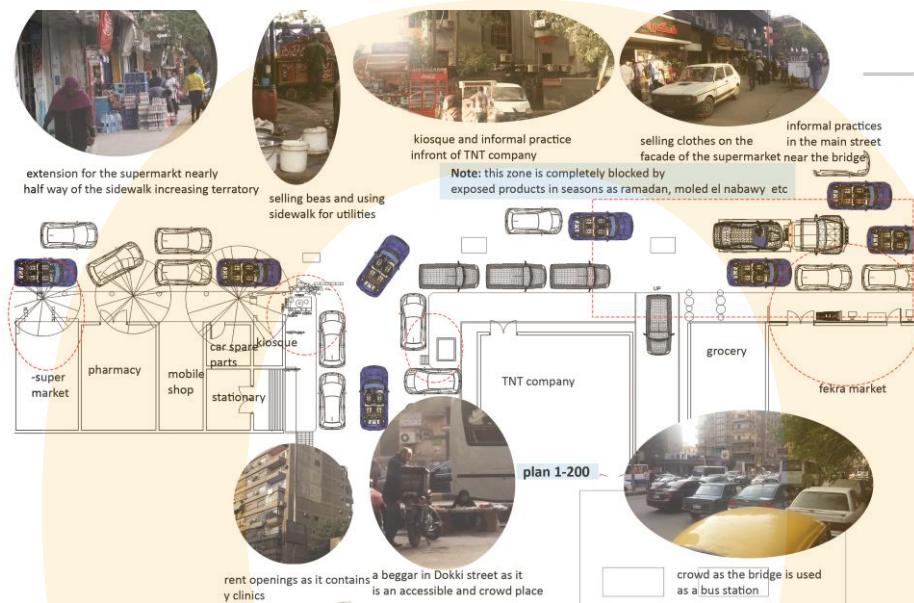


Fig. 22: Activities on Sidewalk in El-Dokki Street, Merna Abdel-Halim, 2018.

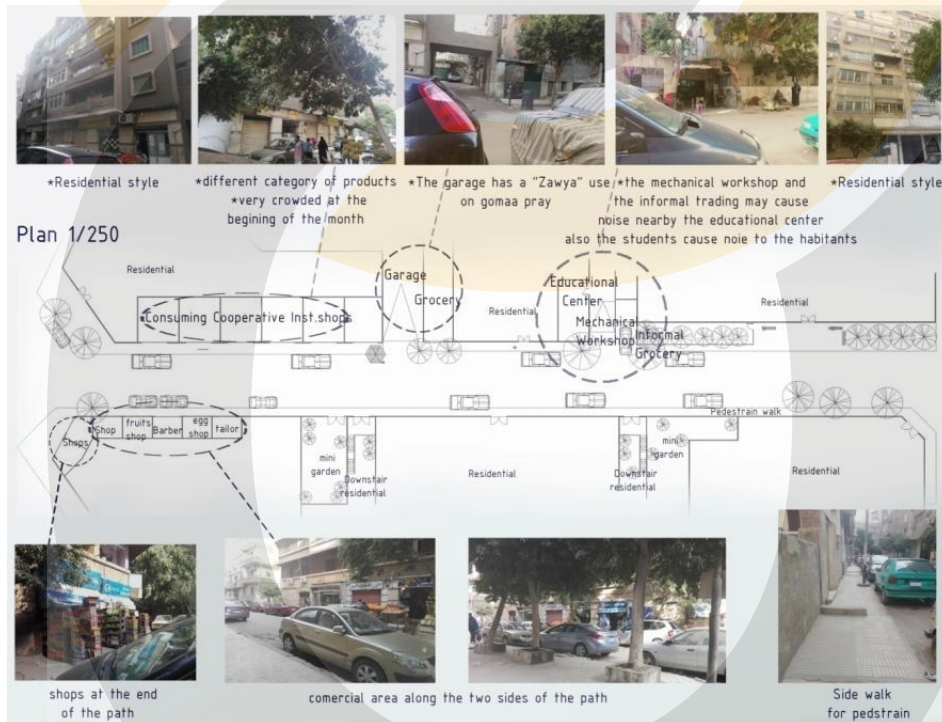


Fig. 23: Activities on Sidewalk in El-Manyal Street, Nada Yasser, 2018

### 3.2. Parking Spaces

The influence of the parking spaces on the streetscape will be studied based on five different cases expressing varying patterns. The first case was pre-

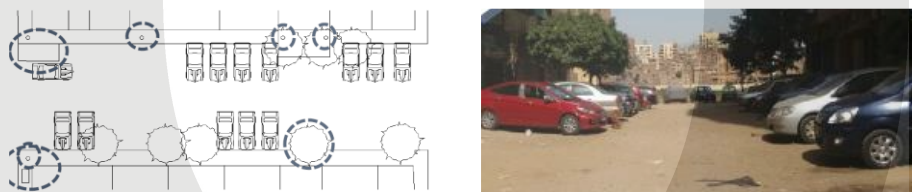
sented above in Boulaq El-Dakroor shown in (fig. 24). The intensity of private parking spaces obstructs the flow of vehicles as well as proper use for pedestrians, leaving the street with a poor urban image. This condition also takes in Helwan, shown in (fig. 25), however, with the difference that the flow of vehicles is not as dense being not in the core of condensed Cairo, and that the width of the street remains wider than the first case. The third case is in Giza, located in a street branching from Faisal Street. This particular case shows the excessive use of parking spaces for private cars located in the street (fig. 26).



**Fig. 24: The Effect of Parking Private Cars in El-Gazaer Street, Abo-Katada, Bou-lak El-Dakroor, Peter Erian, 2018.**



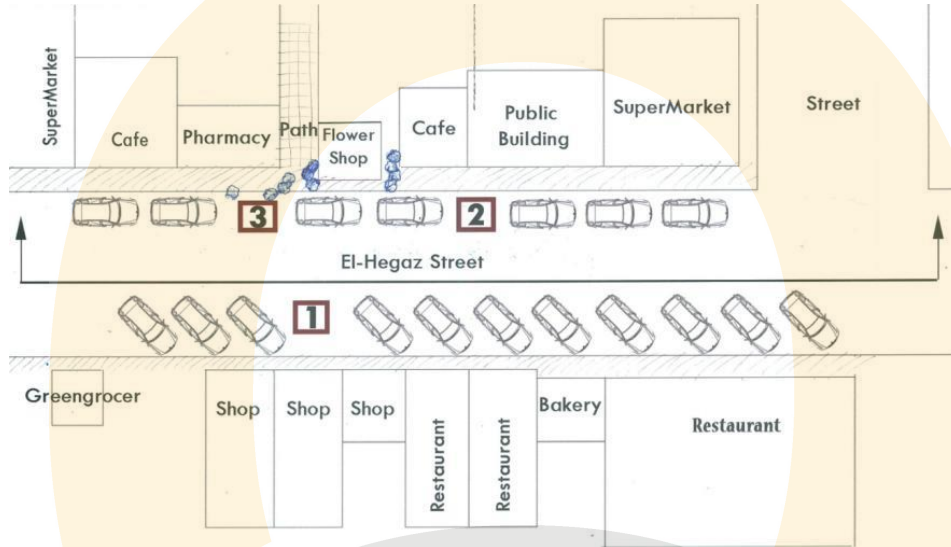
**Fig. 25: Parking Treatments in Ali el-Sayes Street in Hadayek Helwan, Merna Mounir, 2018.**



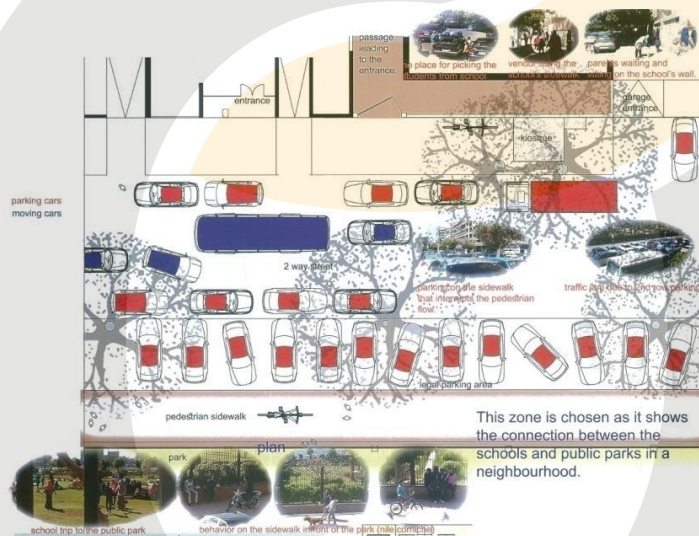
**Fig. 26, 27: Parking Treatments in Dr Dessouky Street from Hassan Mohamed St., king faisal, Giza, Hoda Ibrahim, 2018.**

The next two cases are located in streets in Mohandseen and Manyal districts. The figures show the presence of the same problems associated with high density of parking spaces for private cars, with even more difficulties associated with the excessive mixed use nature of the districts. This is from one side, from another side, the streets (El-Hegaz and Abdel-Aziz Al-Soud) are considered min arteries of traffic in the districts, thus, the flow of traffic is

higher than the above cases. The lack of presence of solutions to accommodate the parking deficiency leads to traffic problems during rush hours.



**Fig. 28: Parking Treatments in El-Hegaz Street, Mohandseen, Giza, Amira Shams, 2018.**



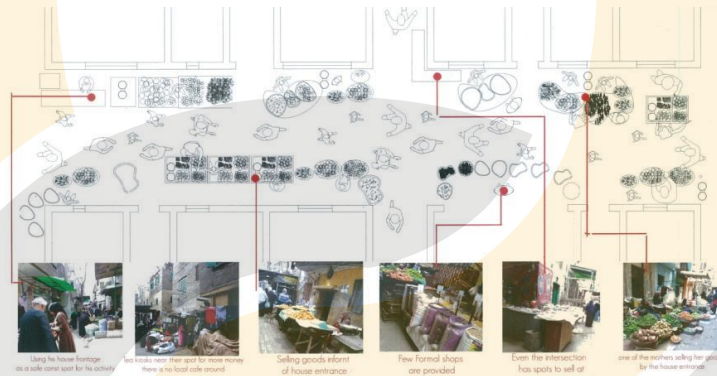
**Fig. 29: Parking Treatments in Abdel Azziz Al Soud Steert, Manyal, Giza, Mai Loay, 2017.**

### 3.3. Frequent Street Vendors

This part of the analysis is concerned with the study of the permanent or most specifically frequent spots and behaviour of street vendors. The pattern as shown in the analysis before is a very common one in the Cairene streets, without differentiation between economic or social classes. However, the intensity, nature, physical boundaries and proximity differ among the studied

featuring groups. Thus this part will expose six different cases to explain the differences.

The first case is located in Shobra, in a street which is dominantly a marketplace, not cars are granted entry, but motorbikes and small van can use the street. As shown in (figure 30), the street vendors are grouped according to the product they sell. Categorized according to product each group allocated the setting based on creating a definite boundary through proximity not through physical settings. Also, the lane remaining to passers-by can be defined even if not with a specific boundary or specific dimensional width. This case can be sometimes repeated in major streets during specific timings and days. As shown in Dr Lasheen Street from Faisal Street in Giza, (figure 31), the street is blocked and turned into a marketplace by street vendors after the Friday prayers.



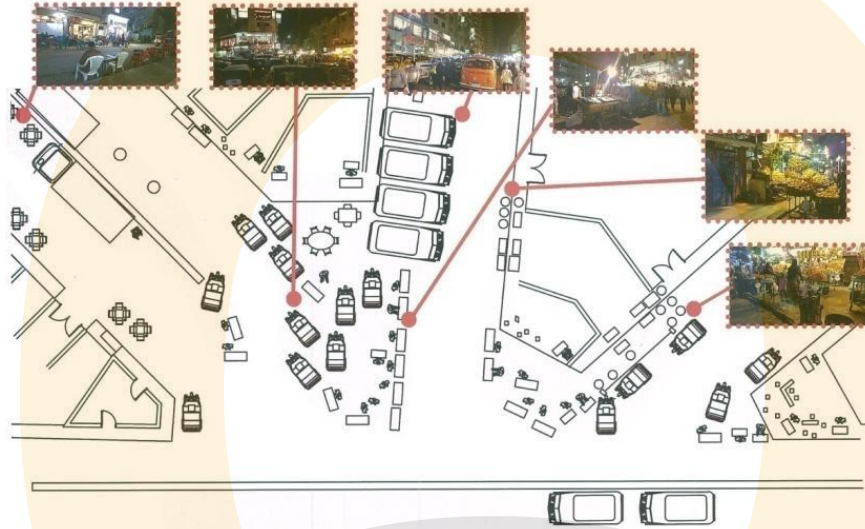
**Fig. 30: Street Vendors Overtaking Street in Ibrahim Mabrouk Street, Shobra, Ibrahim Osama, 2017.**



**Figure 31, Street Vendors on Friday Markets in Dr Lasheen Street from Faisal Street, Dina Maher, 2017.**

Another common case presented in the study in (figure 32) is the nightlife based on street vendors in El-Tawabek Intersection from Faisal Street. The node of intersection of three main streets is turned into vending outlets for various products, accompanied by a coffee shop and a public transportation parking lot, turning it into one of the dominant hubs in the district. The figures shows the order within chaos created by the display of the vendors. Also, it is shown in the analysis mapping the proximities of each group of vendors and

the boundaries created by the individual to help in exposure to the main street and create a sort of self-organization.



**Fig. 32: Street Vendors Overtaking Street in El-Tawabek Intersection from Faisal Street, Giza, Yasser Attiya, 2017.**

From another side, the next case in figure 33, shows the presence of frequent or permanent spots for street vendors in a higher economic district located in Mohandseen. The nature of the street vendors vary in this case, since the street is not turned into a hub-form zone, however, lighter sorts of vending can be observed. The spots can be either cars used as mobile vending spots, or scattered spots offering products like groceries which target the residents of the district.



**Fig. 33: Informal Vendors in El-Hegaz Street, Mohandseen, Giza, Amira Shams, 2018.**

The other case to be studied here is located in the suburb of Helwan. It can be noticed from the analysis in figure 34, that the street vendors select strategic spots for the self allocation of their display. Also in this case, due to the relative lower density of flow of pedestrians and vehicles, the points of allocation are scattered all over the street not condensed in a specific zone.

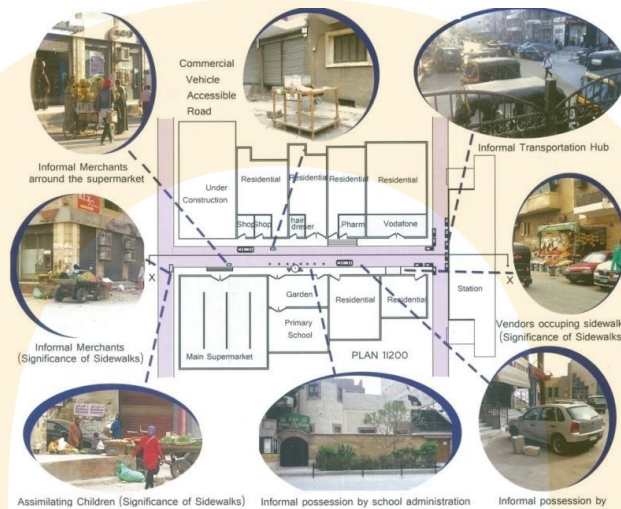


Fig. 34: Informal Vendors in Hadayek Helwan District, Habiba Mostafa, 2017

Finally, the last case to be reviewed in the understanding of the patterns of informal vendors is the case studied below in (figures 35 and 36), highlighting a different aspect of the pattern of street vendors which is their presence around the boundaries of one of the most crucial transportation means, which is the Metro Station in El-Dokki district. As shown in the mapping, the street vendors are self allocated around the major spots from the exit of the Metro station. The target group of the vendors are the different users of the station, thus the products displayed are various, including clothes, carpets, accessories, cigarettes and snacks. The settings too shown below demonstrate the location of the vendors in the pathway pedestrians use to exit, not densified so as not to create proximity friction, however, still on the vibrant axis of motion.

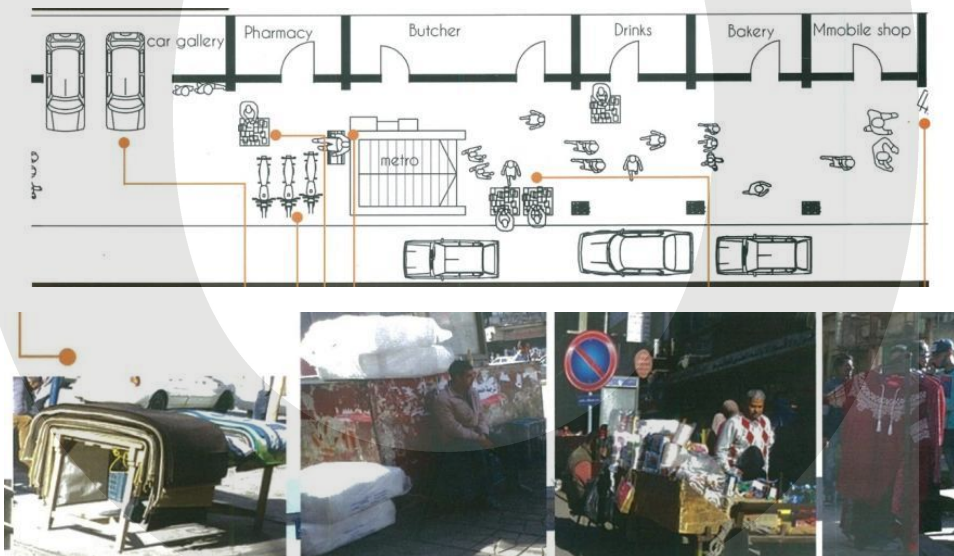


Fig. 35, 36: Informal Vendors in the Proximity of the Metro Station in Dokki, Al-Hussein Ben Aly, 2017.

### 3.4. Shop Frontages

Shop frontages play a great role in the creation of the urban image of the street. And with the excessive activities, mainly based on commercial activities taking place in Cairo’s streets, it is noteworthy to pay attention to the detailed setting the formal assigned shops attain. Thus, this part of the analysis will shed light on different cases, highlighting the relationship of the shop frontages to the street.

The first cases is Eid Nafae’ Street from Faisal Street in Giza shown in figure (37), where the most dominant feature is the un-designed, or rather, non-harmonious selection of shops side to side with one another. This is evidenced in the selection of colours, display methods and choices of materials. this reflects to a great extent the individuality expressed by each shop owner, creating a source of competition by being more eccentric in order to attract customers. This individuality is further present in the three other cases studied, demonstrated in figures (38, 39, 40), located in Helwan, Bolaq El-Dakroor and Dokki. Even the architectural language and treatment in the sole shop frontage has been adapted, re-changed and left to create a chaotic urban image within the same street.

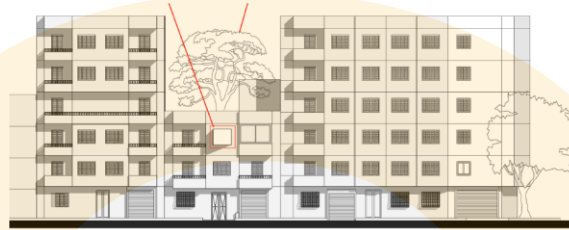


Fig. 37: Significance of Shop Frontages in Eid Nafae’ Street from Faisal Street in Giza, David Berty, 2018.



Fig. 38: Shop Frontages in Ali el-Sayes Street in Hadayek Helwan, Merna Mounir, 2018.





**Fig. 39 and 40: Significance of Shop Frontages in El-Gazaer Street, Abo-Katada, Boulak El-Dakroor, Peter Erian, 2018.**



**Fig. 41: Shop Frontages Significance in Hussein Kamal Street, El-Behos, Dokki, Sara Samir, 2017.**

In the next case, the aim is to represent how the individuality of self-expression has been more prevailing in the culture of Cairene locality, not only influencing the shop frontages but also the whole buildings in the street. As seen in figure 42, representing a street branching from Faisal street, the varying heights, proportions, colours as well as ratio of opening is totally non harmonious and can be even considered chaotic. Although the buildings in this case represent the users own selections, even as to the ratio of shop frontages which appear to be given a large ratio of the street elevation, the overall impact effect the quality of life which can be enhanced by regulating the user's needs in accordance with architectural qualities.



**Fig. 42: Significance of Shop frontages in Dr Lasheen Street from Faisal Street in Giza, Dina Maher, 2018.**

### 3.5. Buildings Entrances

The building entrances represent another important aspect in the image of the street, both on the urban scale and also on the behavioural level, since they reflect the sense of belonging of the residents to their building and can possibly also represent a source of pride and social distinction. However, this has not been the case in most of the current studied streets. The building entrances have turned into a sort of no man's land, neglected and at some times deteriorated and left un-attended. The case shown in figures ( 43, 44, 45) reflects the prototype of the studied cases, where the approach to the buildings entrance is not present, the relation between the sidewalk and the building entrance is not defined and the architectural qualities of the entrances are not properly effective. This unfortunately adds more to the sense of disengagement between the residents and their own neighbourhood due to the lack of a strong mental image associating their daily patterns with the architectural assets of the spaces they dwell in.



**Fig. 43, 44, 45: Relation of Building Entrances to the Street level and approach, Abo-Katada, Boulak El-Dakroor, Peter Erian, 2018.**

### 3.6. Capacity of Traffic

Another important aspect to reflect upon in the study of Cairo's streets is the capacity of traffic, with special reference to the case of Metro Stations, since they represent one of the most dominant means of transportation to the large population. The case demonstrated here is another prototype extracted from

various studied cases, which show the vicinity of the Metro Station in Helmeyet El-Zaytoon in Cairo. The mapping implemented during the rush hour reflects the high density of pedestrians, private cars, informal transportation means (Tok-tok), as well as minibuses and vans. All this in addition to the previously studied informal means of vending create a very deteriorated urban setting, lacking to a great extent the quality of proper living for a large proportion of the population.

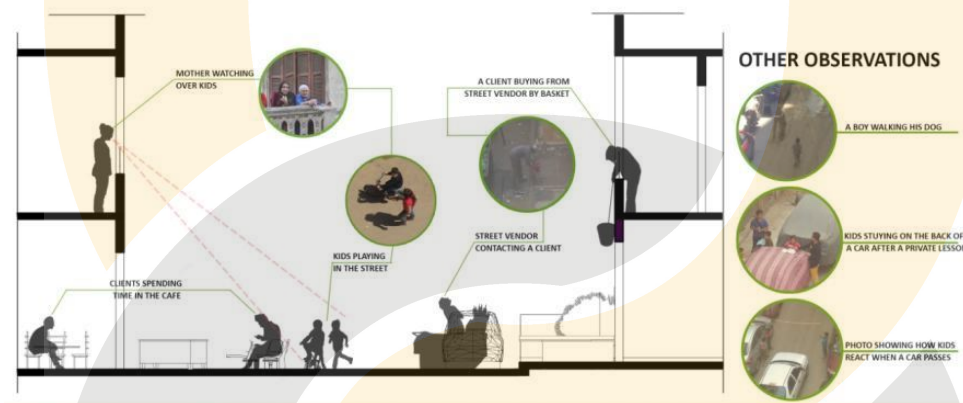


**Fig. 46: Sample of the Traffic Flow during Rush Hour in the Proximity of Helmeyet El-Zaytoon Metro Station, Mostafa Abdel Ghany, 2017.**

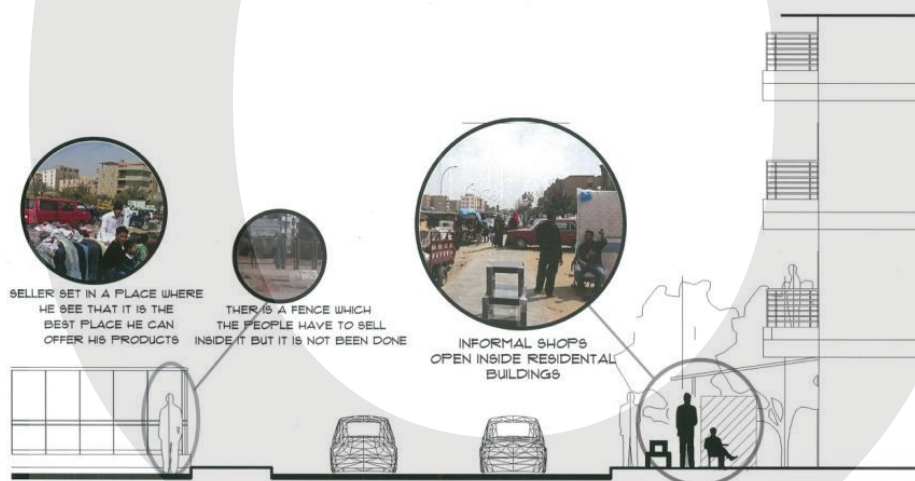
### 3.7. Most Notable Human Activities

The final point to be covered in the in-depth mapping and analysis of the patterns and activities in Cairo's streets is the most notable human activities occurring without planning, without previous setting, but stem directly from the culture and way of life of the users of the city. To expose some of those activities, two prototype cases have been analysed, and shown below in figures (48 and 49). Those two cases embody common features which give life to the street amid the rigidity, chaos and mixed uses of the city. One of the activities spotted in this analysis are the use of the street by children for free play, in the shadows of the absence of proper public spaces to accommodate this need. Another featuring activity is the natural surveillance mechanism generated by female residents using the adjacent balconies as spaces of socialization. This is also used as a method of buying from the street vendors by traditional means of using "a basket" to deliver goods from the street to

the balconies directly. The natural surveillance also occurs through shop owners who usually occupy a significant plot in the street and use it as a means of “keeping an eye on the street”. Amid all the negative issues studied previously featuring Cairo’s over dense and sometimes unpleasant streetscape, those activities still enable the residents to generate a strong bond with their neighbourhoods. Those types of unplanned activities also encourage the creation of individualization stemming between various residents, and certainly help in social cohesion and the creation of a strong social capital in the areas which still manage to preserve those patterns of social interaction. Thus, as will be later highlighted in the discussion, not all sorts of un-planned patterns in the Cairene case need to be handled; however, some strong negative patterns can be resolved while other patterns which add to the individuality of the spaces can be capitalised upon.



**Fig. 48: Section in Street showing some of the Most Notable Behavioural Patterns in Eid Nafae' Street from Faisal Street in Giza, David Berty, 2018.**



**Fig. 49: Section in Street Showing Some of the Most Notable Behavioural Patterns in Souq El-Gomaa Public Space in 10<sup>th</sup> of Ramdan City, Ahmed Ali, 2017.**

#### 4. Definitions from Literature Relevant to the Case Studies Analyzed Patterns

The literature review in this section is concerned with two main aspects. The first part aims to provide an understanding for the literature covering the case of Cairo, specifically, Cairo's streets and public space. The second part of the literature review is the understanding of the definitions related to livability and human behavior in urban communities.

As Peterson (2011) explains, localization is a cultural process that produces locality by contrasting things that are "local" with those that are from elsewhere. Localization produces identities as people link themselves; or is linked by others, through consumption, labor, discourse, and other forms of social action to particular places. Furthermore, localization, so understood, is inevitably a "metacultural" process through which people reflect on, question, interpret, reproduce, and revise their cultural categories and social actions, (Peterson, 2011, p.5).

From this respect, Sassen (2001) regards Cairo as a global city, a node in the rising transnational service economy, a strategic site for the acceleration of capital and information flows in North Africa and the Middle East, and a space of increasing socioeconomic polarization. It is also a multilayered place marked by the juxtaposition of different images of Egypt and the West, "the local and the global, modernity and tradition, linked together by tourism, consumerism, and enhanced mobility".

Peterson (2011) points out to a specific aspect marking the localization of Cairo in spite of its multi-layered culture. This is the "Ahawi", traditional coffee houses, which are visible as presented in the previous mapping in every street throughout Cairo. Peterson (2011) also adds to this that "Only one Cairo institution is more common than the mosque: the *qahwa* or coffee house. (Peterson, 2011, p. 144) Based on this, "Ahawi" are examples of institutions comprising the public sphere, places "where private individuals come together as public". But such public spaces are not the transparently social sites. Rather, while creating the public, they do so in ways that reproduce such social phenomena as gender and class differentiation, (Peterson, 2011, p. 145).

From another point of view, (Bayat, 2012), sheds light of the issue of overcrowdedness in the Cairene locality. He presents that the low-income people are cramped in housing units, which are too small and insufficient to accommodate their spatial needs. With no courtyard, no adequate rooms, nor any spacious kitchen if there is any at all, the inhabitants are compelled to stretch and extend their daily existence onto the public out-doors spaces: to the alleyways, streets, open spaces, or roof-tops. It is in such outdoor places where the poor engage in cultural reproduction, in organizing public events; wed-

dings, festivals and funerals. In this respect, out-door spaces serve as indispensable assets in both the economic livelihood and social/cultural reproduction of a vast number of urban residents (Bayat, 2012).

Those assumptions based on the readings of public space in Cairo's locality, introduce the facts extracted by the United Nations Human Settlements Programme (UN-HABITAT), (2011), that the level of street crime is relatively low in Cairo. In the SRC/UN-HABITAT survey, respondents were asked about their perception of security around their neighbourhood in general. The level of feeling insecure was highest among residents of medium-quality *districts* (24%) followed by the low, (20 %) and high-quality (10 %) *districts*. One reason for this may be that residents of low-quality *mantiq* have a sense of community and enjoy mutual public surveillance and residents of high-quality *mantiq* have public policing and private guards, while medium-quality areas, as transitional neighbourhoods, lack these advantages. There were no significant differences by household poverty level. Other empirical studies employing complimentary measures of perceptions of safety and security (child play, children participating in daily shopping, trips to school) reveal the role of the urban fabric, distribution of non-residential uses and community building in safety and perceptions of safety. Residents of newly designed communities seem to harbour the highest levels of perceived insecurity, (UN-HABITAT, 2011).

The other scope of interest the paper aims to focus on is the perception of livability of public space in a more general realm after regarding the localized case in Cairo. As Madanipour (1999) exposes, much of the recent interest in urban design has focused on the creation and management of public spaces of cities. For years the public spaces of cities have been the subject of debate, from concerns about privatization of space to the contested nature of public space (Zukin, 1995) and the various ways in which public space can be designed and developed. The spaces around us everywhere, from the spaces in which we take shelter to those which we cut across and travel through, are part of our everyday social reality. Our spatial behaviour, which is defined by and defines the spaces around us, is an integral part of our social existence. As such we understand space and spatial relations in the same way that we understand the other component parts of our social life, (Madanipour, 1999).

The social fact about the cities, however, is that these objects and their relationships have been created by human agreement and bear particular significance and meaning for people. The physical presence of roads, schools and houses does not make them meaningful. It is the collective intentionality, the capacity of humans to assign functions, to symbolize these objects beyond their basic presence that makes them part of the social reality. As different groups give different meanings to space, it becomes a multilayered place, reflecting the way places are socially constructed, (Madanipour, 1999).

Also, where individuals can or cannot go in a city is conditioned by the organization and management of space, which determines some of the main patterns of spatial behaviour and social life in general. One of the main ways of organizing space is through defining some places as private and others as public. Some places are protected and set apart from the rest by a complex system of signification: by spatial means such as signs, boundaries, fences, walls, and gates; or by temporal means such as predetermined working hours. This complex system of codes, expressed through physical objects and social arrangements, signifies private places, where strangers cannot enter without permission or negotiation. Public places, on the other hand, are expected to be accessible to everyone, where strangers and citizens alike can enter with fewer restrictions, (Madanipour, 1999).

Urban designers therefore seek to create lively enclosures in urban space, nodes which bring people together for various activities. Through their political and economic significance as well as their aesthetic value, these nodes of human environment are expected to act as an infrastructure for social life. Public space mediates between the private spaces that make up the bulk of the city and plays a role in confronting this process of socio-spatial fragmentation. Without it, the spatial movement across the city becomes limited and subject to negotiation. As in the medieval factionalism of the Mediterranean city, where neighbourhoods were separated by walls and gates or in the gated neighbourhoods of today, passage across the space (and subsequently communication in social life) of the city is limited and compartmentalized, (Madanipour, 1999).

Again, Rapoport (1969), links the basic entity constructing urban life which the house to a border sense of social codes; "house form is not simply the result of physical forces or any single causal factors, but is the consequence of a whole range of socio-cultural factors seen in their broadest terms." Rapoport argued that "primitive" buildings were produced by "primitive" societies which had a "diffuse knowledge of everything by all" with elementary technology. He demonstrates a link between both "primitive" and "modern" times which both have myths that may be different but are commonly motivated by being "primarily socio-cultural" – however still claiming that the "neglect of traditional cultural patterns may have serious results."

Neal, (2010), also focuses on the socio-spatial perspective of public space, claiming that it seeks to identify what such spaces do or should look like and how they are used. Much of the recent research in this stream adopting the socio-spatial perspective may more properly be considered as examining not public space, but public place. These public places can serve as "third places", which are the social gathering spots that lie between home and work and provide individuals with the opportunity to form bonds with one another and with the location itself, which can be severely disrupted if the place dissolves. Over long periods of repeated patterns of interaction, they can also give rise to a type of civil order structured around norms and behavioural codes. Public

places can also serve as the basis for individual and place identity and the foundation of local culture (Zukin, 1995).

In assertion with that, Goheen, (1998) adds that the “values attaching to public space are those with which the generality of the citizenry endows it”. Citizens create meaningful public space by expressing their attitudes, asserting their claims and using it for their own purposes. It thereby becomes a meaningful public resource. The process is a dynamic one, for meanings and uses are always liable to change. Renegotiation of understandings is ongoing; contention accompanies the process. Urban public space reflects in a particularly creative way the changes and continuities that characterize a dynamic urban public life which reflects both celebration and contention.

Finally, the last part of the literature review focuses on the role of the public space inside the basic entity of the neighborhood to provide a better quality of livelihood. As (Al-Hagla, 2008) argues, the neighborhood is the basic planning entity in modern residential planning theories. However open spaces as a vital constituent of the neighborhood’s physical structure, have an important role to play. They are the arena of both, neighbors’ outdoor interactions—consequently building the neighborhood’s sense of community, and the micro ecological sphere, setting its parameters and configuring its fundamentals.

From the social perspective point of view, sustainable communities are those which “meet the diverse needs of existing and future residents, their children and other users, contribute to a high quality of life and provide opportunity and choice. They achieve this in ways that make effective use of natural resources, enhance the environment, promote social cohesion and inclusion and strengthen economic prosperity”. It concludes that there are seven components of sustainable communities drawn from this definition; governance; transport and connectivity; services; environment; economy; housing and the built environment; sociology and culture. Open spaces in neighborhoods are defined as ‘any Un-built land within the boundary or designated envelope of a neighborhood which provides, or has the potential to provide, environmental, social and/or economic benefits to communities, whether direct or indirect.’ (Campbell, 2001).

The public space inside the neighborhood could be classified according to a number of criteria, first is “Greenspace”, consisting of any vegetated land or structure, water or geological feature within urban areas; second is “Greyspace”, consisting of urban squares, market places and other paved or hard landscaped areas with a civic function. Also, there is “*Parks and gardens*”, which are areas of land, normally enclosed, designed, constructed, managed and maintained as a public park or garden. They can be either urban parks or country parks depending primarily on their location. And finally, “*Children’s play areas*”, which should be designated and maintained



areas providing safe and accessible opportunities for children's play, usually linked to housing areas and therefore normally set within a wider green environment, however, as previously presented in the in-depth analysis of the cases in Cairo's streets, those spaces are not present in the locality studied, where all types of uses and spaces are highly mixed and inter-wined together in an unprecedented way.

As a final reflection on the literature associated with the topic, it is noteworthy to review the theories of the "Defensible Space", by Newman, (1996), which along with the quick review of Jacobs (1961) work provide a better understanding of the hidden values of the Cairo's livable spaces in spite of their complexity and chaos. Newman, (1996) presents that "Defensible Space" can provide an introduction to the benefits of mainstream life and an opportunity to see how actions can better the world around and lead to upward mobility. A family's claim to a territory diminishes proportionally as the number of families who share the same claim increases. The larger the number of people who share a territory, the less each individual feels rights to it. Therefore, with only a few families sharing an area, whether it be the interior circulation areas of a building or the grounds outside, it is relatively easy for an informal understanding to be reached among the families as to what constitutes acceptable usage.

Newman, (1996) further claims that The more residents who have to share common areas, the more difficult it is to lay claim to them; the more difficult it is to distinguish other residents from intruders; and the more difficult it is to agree with other residents on the care and control of these areas. In his new approach, he calls for increasing community mobilization, more social interaction and creating more cul-de-sac, and dead-end streets inside neighbourhoods.

With the very first calls for socio-spatial re-considerations, Jacobs (1961), emphasized on the significant importance of the uses of sidewalks and its crucial role in providing safety. She asserts that a city sidewalk by itself is nothing. It is an abstraction. It means something only in conjunction with the buildings and other uses that border it, or border other sidewalks very near it. The same might be said of streets, in the sense that they serve other purposes besides carrying wheeled traffic in their middles. Streets and their sidewalks, the main public places of a city, are its most vital organs.

First, Jacobs (1961) asserts that there must be a clear demarcation between what is public space and what is private space. Public and private spaces cannot merge into each other as they do typically in suburban settings. Second, there must be eyes upon the street, eyes belonging to those we might call the natural proprietors of the street. The buildings on a street equipped to handle strangers and to insure the safety of both residents and strangers must be oriented to the street. They cannot turn their backs or blank sides on it and leave it blind. And third, the sidewalk must have users on it fairly continuously,

both to add to the number of effective eyes on the street and to induce the people in buildings along the street to watch the sidewalks in sufficient numbers. Nobody enjoys sitting on a stoop or looking out a window at an empty street. Almost nobody does such a thing. Large numbers of people entertain themselves, off and on, by watching street activity. Thus, a lively street always has both its users and pure watchers. Also, with important relevance to the scope of this research, Jacobs (1961), explains that Children in cities need a variety of places in which to play and to learn. They need, among other things, opportunities for all kinds of sports and exercise and physical skills. However, at the same time; they need an unspecialized outdoor home base from which to play, to hang around in, and to help form their notions of the world.

### 5. Cross-Analysis between Different Analyzed Streets

This part provides a wrapping-up to the studied cases of the liveable streets in Cairo, after the review of the relevant literature, including definitions and theories linking the liveability of streets with socio-spatial codes of behavioural activities in public space. In order to achieve this, first, a Google Earth map, (figure 50) is shown below marking the streets which have been studied in the in-depth analysis in order to have a better perspective of how spatially diverse the studied sample has been distributed. This is also important to regard in respect to the similarities of the behavioural patterns of uses in the streets in spite of their locations in distant and diverse districts and neighbourhoods.



**Fig. 50: Google Earth Image Showing the Locations of the Studied Streets in the Analysis, Google Earth, 2018.**

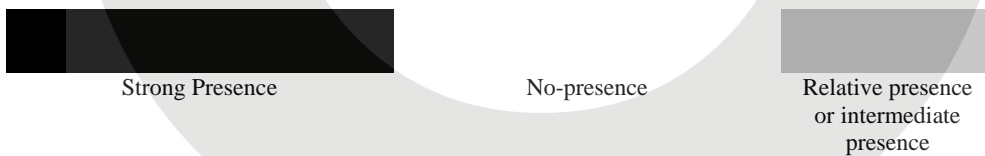
The following table (table 1), aims to inter-relate the findings from the observations, in-depth analysis and the literature review in order to track the most dominant and prevailing patterns of usage of streets in Cairo and how this is related to the socio-spatial behavioural understandings studied in the literature review. This table will aid in the next discussion and the summing conclusion of the research.

**Table 1: Cross- Analysis based on in-Depth Analysis and Literature Review according to the case of the Studied Streets in Cairo**

Street Name	Side-walk mixed use	Street Vendors Activities	Children Play in street or side-walk	Coffee-shop presence and extension on side-walk	Defining public and private usage of space	Behavioural pattern of Eye-on-the street	Environmental Quality of the Street and public space
Om-raneya Bridge							
Dr Lasheen							
Eid Nafae'							
El-Gazaer Street							
Dr Des-souky							
El-Ta-wabek							
Dokki St							
Dokki Metro							
Hussein Kamal							
Al-He-gaz							
Al-Man-yal							
Abdel-Aziz Al Soud							
Teraet El Da-kar							
Shobra El-kheima							

Street Name	Side-walk mixed use	Street Vendors Activities	Children Play in street or side-walk	Coffee-shop presence and extension on side-walk	Defining public and private usage of space	Behavioural pattern of Eye-on-the street	Environmental Quality of the Street and public space
Metro Station							
Ibrahim Mabrouk							
El-Mehwar El-Markazi							
Hadayek El-Maadi Metro Station							
Eskan El-Nekabat							
Ali EL-Sayes Street							
Helmeyet El Zayton Metro							
10th of Ramda: Souq El Gomaa							

Table Key:



## 6. Discussion and Conclusion

The paper aimed to generate a comprehensive and bottom-up analysis of the patterns of behavioural activities accommodate within Cairo’s dynamic and

overly lively streets. The observations as well as the in-depth analysis provided mapping of the formal and informal activities which are taking place in most prevailing times of the day as well as some references to the night life of some streets. The patterns extracted from the mapping, observing and analyzing the current cases of the streets in distant districts helped in re-reading the literature associated with liveable communities, social sustainability, communities' cohesion and other concepts in a different point of view.

Although Cairo's public spaces; which have been turned into public places by the un-assigned community interaction and participation, feature a significant portion of what theorists have pointed out to, however, the complete absence of any interferences to adapt and harmonise the patterns have turned from a case of self-organization into a case of overdose of activities which interfere which the creation of a hierarchy of semi-private and private sense of place. The dominance of the street activities, although seemingly accessible to all, however, is dominated by who has the ability to occupy the spaces earlier, or even by hidden agreements between beneficiaries. This leads the spaces to deteriorate even more, and the condensed core to get denser, leaving the individual normal user with a deteriorated quality of spaces and consequently quality of life. Thus, the sense of belonging of the individual to their neighbourhoods decreases. This leads the more financially capable population to de-centralize from the city centre and look for better opportunities of places in the new communities to the East or to the West. However, this has a twofold aspect of threats. First are the further deterioration of the city core, and the emergence of more problems of chaos, worse quality of life for the middle and lower income classes, which results in problems that will be more difficult to handle in the future. And from another side, again with the absence of real solutions for the self-organizing culture of space adaptation, the patterns of usage of public spaces are re-generated in the new communities, leading us to a viscous circle of deterioration of neighbourhoods and thus the search for new communities with better quality of life. This besides the huge misuse of resources, will lead to even more social segregations between the community.

Stemming from this, it is highly recommended to enhance the role of urban researchers, NGOs and the enhancement of local community key individuals to collaborate with governmental entities in order to find solutions through self-help processes and enabling the communities to create better living conditions for their neighbourhoods, in accordance with the positive behavioural patterns already taking place. Solving the equation of providing support to a better environment and at the same time respecting the cultural needs of the local community will be the only solution to real development and the sustainability of the development beyond merely planting trees or painting the facades of the buildings. This will be the key to a better Cairo, which can possibly re-locate the city locally and globally.

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