

## Criminogenic Urbanism How can Urban Fabric Stimulates or Deters Crimes?

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### ABSTRACT:

Crimes rates reflect the security situation of the country. In addition to having mutual effect on many fields and aspects; such as, social, economic, humanitarian, and urban Design aspect. The crime indicator of Egypt is average in comparison to the other countries. Yet, the increasing rate of this indicator in the last years is very high. The last report of the public security, which was published in 2013, reported a huge increase in crimes rates compared to the preceding year. Urban design could be a controlling factor to deter certain types of crimes, as the physical environment represents the place (the situation) where crimes take place. This paper will deal with the compact urban fabric which forms most of the old parts of Egyptian cites and most of informal areas. This compact fabric is the most claimed to be a breeding place for criminals. First the theoretical part will contain the characteristics of compact urban fabric. In addition to defining the selected study areas from the old parts in Fayoum city characterized by this Fabric and their demographic composition. Second, the case study areas will be analyzed on the scope of crimes' types and rate. In addition to running GIS and integration analyses to define the controlling factors that can make the same urban fabric either stimulates or deters crimes. Third, this paper will list set of these controlling factors resulting from analyses.

### KEYWORDS:

Criminogenic Urbanism - Urban Design -  
Crime Rates - Urban Fabrics - Integration -  
Criminal Hotbeds - Fayoum City

### 1. INTRODUCTION

All countries seek to ensure safety and security through developing crime prevention and criminal justice. Nowadays there are international crime indicators that reflect the security situation of countries which subsequently affect other vital aspects such as economy, investment, tourism, etc. one of the most important of these indicators is "the crime rate index" which is an international indicator that is produced by the known data base Numbeo. It includes 117 countries which are ordered from the countries of the highest rates of crimes to those of the lowest ones. The indicator is half-yearly produced. The work on the report is being made throughout the year in order to rate the crimes in the countries and sometimes the capitals. In addition, the report shows the indicator rates of crime of each country separately depending on what are considered as crimes in each country's law. In another word, the cases which are considered as crimes according to each country's laws are the only cases that are taken into consideration while making the report.

The occurrence of crimes depends on various dimensions; social, economic, political and physical. Many criminologists and sociologists argued the role and the effect of each dimension in crime occurrence. Some of them ended up their researches concluding that the physical urban environment is the dominant dimension behind crime occurrence describing certain regions and cities as criminogenic cities. Could it be true? If so, this means that understanding and controlling the relation between urban design elements and crime occurrence would better deter crime.

## 1.1 History of the Relation between Urban Environment and Crime

During the 1920s and 1930s criminologists' attention focused on the "criminogenic city" and the criminology of urban places, however, by the end of the twentieth century researchers had moved away from the notion that the city is itself criminogenic. Subsequently the researches on urban crime has become more detailed and comprehensive concerning mainly with explaining why urban crime rates vary, why some social, economic, and spatial characteristics are correlated with variations in urban crime rates, and how certain crime characteristics of urban places affect individual criminality<sup>1</sup>.

The beginning of assuming that the city might have a crime-causing effect was by the European sociologists such as Émile Durkheim (1897)<sup>2</sup>, Max Weber (1958)<sup>3</sup>, Ferdinand Tönnies (1887)<sup>4</sup>, who wrote about the changes resulted from the transition of societies from agrarian and village-based forms to industrial and urban-based ones. They assumed that rapid social change, growing and expanding cities would turn these urban communities into criminogenic cities. Yet, regardless this assumption related to migrations and social change, most of eighteenth-and nineteenth-century philosophers and social scientists believed that city life itself would be criminogenic even without any changes or transition of societies<sup>5</sup>. Their motive behind such belief was that London and other major European cities at that time were difficult places to live, "to go out at night before the advent of gaslights meant moving about with a large group of men carrying weapons and torches. To

do otherwise was to invite nearly certain mayhem and robbery" (Stark)<sup>6</sup>.

Another experience was that of American sociologists associated with the University of Chicago in the period between 1920 and the World War II. They mainly concerned with why cities might have higher crime rates than the hinterland, In addition to their interest in documenting and explaining variations in crime levels within cities (Park, Burgess, and McKenzie; Shaw and McKay)<sup>7</sup>.

At that time, when there were many variation between criminologists and socialists about do cities could be criminogenic by itself, OR crime in the city was caused by the influx of immigrants and social changes. Researchers from the Chicago School observed in their studies that some sections of cities consistently had higher crime rates than others, regardless of who populated those areas. They argued and demonstrated with data that crime rates can be explained more accurately by focusing on the ecology of areas in the city, rather than on the ethnic composition of the population inhabiting those areas<sup>8</sup>.

They observed the immigration process within certain cities in the United States. They noticed that new immigrants typically moved into the poor and deteriorated neighborhoods for economic reasons. Crime rate in these areas was high due to poor living conditions, as these neighborhoods experienced great levels of poverty, racial heterogeneity, transience, and family disruption. However, as generations of these immigrant families improved their living conditions they moved to better neighborhoods, and as a result, their ethnic groups' crime rate declined. Meanwhile, new immigrants from different ethnic groups repopulated the neighborhoods that the earlier arrivals had vacated. Despite the near complete change in population composition, crime levels in these

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<sup>1</sup> Robert D.Crutchfield, Charis E.Kubrin (2002)

<sup>2</sup> French sociologist. He formally established the academic discipline and—with Karl Marx and Max Weber—is commonly cited as the principal architect of modern social science.

<sup>3</sup> German sociologist, philosopher, jurist, political economist

<sup>4</sup> German sociologist and philosopher. He was a major contributor to sociological theory

<sup>5</sup> Robert D.Crutchfield, Charis E.Kubrin (2002)

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<sup>6</sup> Stark, Rodney. *Sociology*. New York: Wadsworth, 1998.

<sup>7</sup> Park, Robert; Burgess, Ernest; and McKenzie, Roderick. *The City*. Chicago: University of Chicago Press, 1925.

<sup>8</sup>Robert D.Crutchfield, Charis E.Kubrin (2002)

transitory areas remained high<sup>9</sup>. Chicago School criminologists thus concluded that it was not criminogenic characteristics of ethnic groups that led to elevated rates of crime, but the nature of the urban ecology in which they lived.

Some of the most important theories during this era was the argument of Jacobs (1961)<sup>10</sup> that the circulation of people and appreciation of public space are crucial elements to the urban vitality and indicated that informal (natural) surveillance ("eye on the street") is a good deterrent to criminal activity<sup>11</sup>. Other study was that study examined empirically by Oscar Newman (Newman, 1972) in New York on crime prevention and neighborhood safety to elaborate the idea of defensible space and natural surveillance. He observed that hat higher crime rate existed in high-rise apartment buildings than in lower housing projects. Newman focused on explaining his ideas on social control, crime prevention, and public health in relation to community design. He defined defensible space as "a residential environment whose physical characteristics—building layout and site plan—function to allow inhabitants themselves to become key agents in ensuring their security." His theory depends on monitoring the urban space arguing that crime and delinquency can be controlled and mitigated through environmental design. And he numbered five factors that make a space defensible:

1. Territoriality: the idea that one's home is sacred
2. Natural surveillance: the link between an area's physical characteristics and the residents' ability to see what is happening
3. Image: the capacity of the physical design to impart a sense of security

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<sup>9</sup> Robert D. Crutchfield, Charis E. Kubrin (2002)

<sup>10</sup> An American-Canadian journalist, author, and activist best known for her influence on urban studies, sociology, and economics.

<sup>11</sup> Baran, Smith, Toker; *The Space Syntax and Crime: Evidence from a Suburban Community*

4. Milieu: other features that may affect security, such as proximity to a police substation or busy commercial area
5. Safe Adjoining Areas: for better security, residents obtain higher ability of surveillance of adjoining area through designing the adjoining area

Thus, we can conclude that the dominant belief at this period of time related to the relation between cities and crime was that cities could be criminogenic because of their urban ecology, regardless the inhabitants and the social changes. This conclusion expresses the belief of most of Europeans and Americans criminologists and socialists during this era.

Later on, the concept of defensible spaces and its factors provided the theoretical base for the development of another important approach in urban crime prevention which is Crime Prevention through Environmental Design (CPTED). The noticeable limitation of this approach was in its scope. It deals with micro-level design and physical changes while marginalizing the macro-level (city, neighborhood)<sup>12</sup>.

More recently, urban design researchers that uses Space Syntax techniques to analyze geographic distribution of crimes, started to pay more attention to other factors that could influence crime occurrence such as spatial and socio-demographic factors.

At the beginning of the twenty-first century, many theories that address urban crime (modern criminology) developed through using new analytic techniques, new research tools, and modified explanations relying on the earlier findings from the Chicago School. Many design researches was based on validating the relation between spatial configuration and crime occurrence using space syntax techniques such as, (Baran et al 2006, Nubani & Wineman 2005, Shu 1999, Hillier 1998).

The Space Syntax theory of Hillier depended on two measures which are integration and connectivity to measure the level of accessibility of street segments within a spatial

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<sup>12</sup> Brantingham 1981



system. The theory proposed that built environment with high integration and connectivity values will tend to attract higher densities of movement (pedestrian and car users). Moreover, most of space syntax researches showed that crimes, in particular property crime occurred in segregated areas.

## 1.2 Crime Rates in Urban Areas V.S Rural areas

Are crimes' levels higher in urban areas versus rural areas? According to international crime's statistics, community size does make a difference, as there is a massive variation in crimes rates between cities and rural areas. The Mega cities come first in the list of crimes rates. Violent and property crime rates in the largest cities (Metropolitan Statistical Areas, or MSAs) are three to four times as high as the rates in rural communities (Barkan), and then come the surrounding cities; however, the areas with the rural pattern have the lowest crimes rates.

A statistics hold for nearly all types of crime in U.S. metropolitan areas showed that homicide claims 11 victims per 100,000 inhabitants and more than 25 per 100,000 in some of the largest cities. In small cities and in rural counties, homicide claims only 5 victims per 100,000, and fewer than 2 per 100,000 in most rural states<sup>13</sup> (Federal Bureau of Investigation). This pattern also occurs for robbery and assault; they are much more common in large urban areas than elsewhere. Like violent crime, property crime is lowest in rural areas (Barkan). Further, this urban-rural difference has been found in Canada, England, Australia, and the Netherlands<sup>14</sup>. Same conclusion is proved by a recent statistics in England and wales for all types of crimes through different areas ranging from mainly rural style to mainly urban environment.

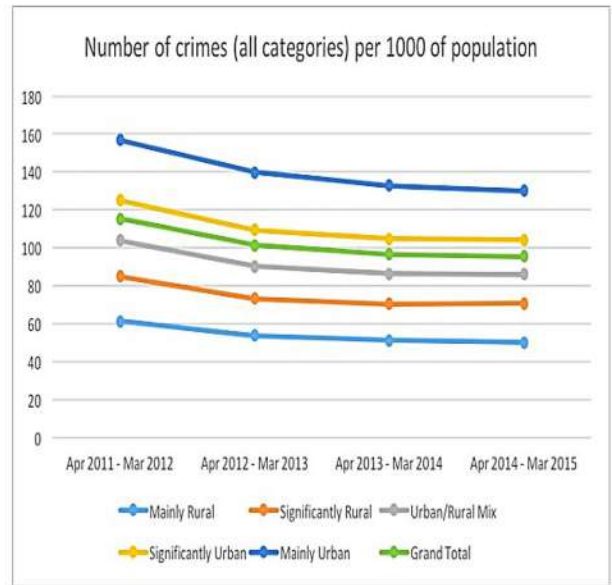


Figure 1: Urban crime rates vs Rural Crime rates - (England & Wales)

Source: locationcounts.co.uk

Thus the belief of most of eighteenth-and nineteenth-century philosophers and social scientists that city life itself would be criminogenic might be true to great extent, subsequently cities becomes more challengeable for urban designers and criminologists to understand and examine the relation between urban design and crime.

## 1.3 URBAN CRIME

Mainly the research literature on urban crime is generally of two types. The first type compares the crime rates between cities, while the second type concerns with explaining the variation in crime rates within the same city. Both types depend on the primary social theories to understand their observation<sup>15</sup>.

<sup>13</sup> statistics from the Uniform Crime Reports (1995)

<sup>14</sup> Shover, Neil. "Burglary." In *Crime and Justice*, Chicago 1991

<sup>15</sup> Robert D. Crutchfield, Charis E. Kubrin (2002)

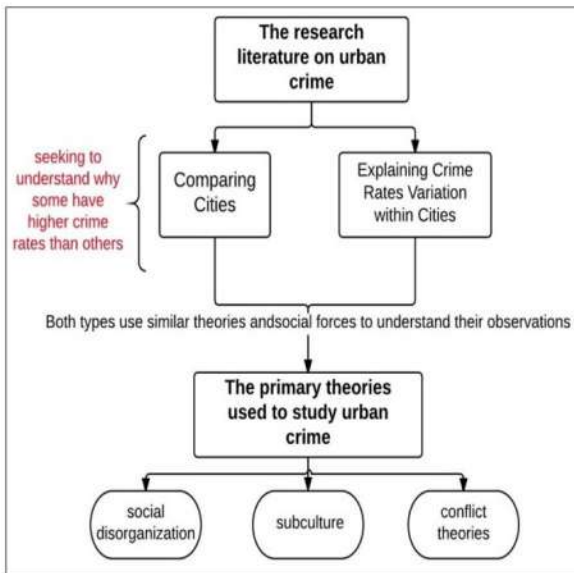


Figure 2: Research literature on Urban Crime  
Source: By Author

This paper deals with urban crime of the second type and focuses on the urban crime prevention within the same city through analyzing one dimension of the physical environment which is the urban fabric. As it is one of the essential factors affecting the type and the rate of crimes, with respect to other aspects (social, economic and demographic).

## 2. Hypothesis of the Research

The previous literature review for the history of the relation between urban environment and crime shows that not only urban design researchers, but also criminologists and socialists paid great attention to this relation since the 18<sup>th</sup> century. This brief history ended up that although there were many varying views related to this relation; most of them agreed that cities could be criminogenic because of their urban ecology with complementary attention to primary social theories. Matching with these views, the paper's hypothesis is that urban design elements can either stimulate or deter crime depending on other factors. This paper focuses on a certain urban design element which is the compact urban fabric. In addition to proposing an approach to better understand and control crime occurrence through urban design.

## 3. The Proposed Approach

There are various international theories and hypothesis depended on integrated approaches of urban crime prevention to ensure safety and security. For example, "Jacobs 1916" and "Hillier's hypothesis "eyes on the street" deterring crime". However, locally instead of direct intervention in the criminogenic communities, the most common urban crime prevention strategy (UCPS) offered is creating new satellite communities, and cutting off the citizens and their public life behind gates using private security and surveillance systems. On the local scope, Egypt has the third rank of crime rate in the Middle East area and the 28<sup>th</sup> rank globally<sup>16</sup>, the increasing rate of crime index of Egypt becomes very noticeable. The last report of the public security, which was published in 2013, reported a huge increase in crimes rates compared to the preceding year. The report showed an increase in robbery (350%), kidnapping (145%), cars burglary (500%), shoplifting (125%) housebreaking (130%), and finally homicide (130%).

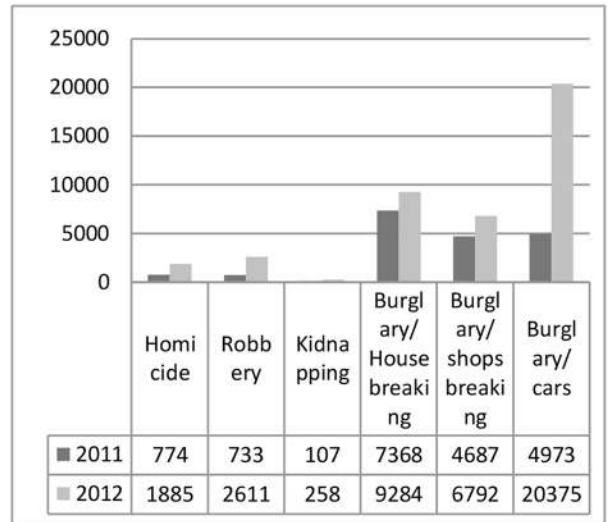


Figure 3: Crime Rate, Egypt (2011-2012)  
Source: Public Crime Report, Ministry of interior, 2013

<sup>16</sup> International Crime Index, 2017,  
<https://www.numbeo.com>



Accordingly, this paper offers an approach to reach effective urban crime prevention, through developing Hillier's hypothesis of deterring crime by spatial configurations depending on integration values.

Various hypotheses argue the correlation between crime occurrence and monitoring the urban space through integration values. Some deduced that it is a negative correlation as the high integration values means much circulation of people and traffic leading to higher perception of public space and urban vitality. Thus high integration values leads to better surveillance ("eye on the street") on the urban space which is a good deterrent to criminal activity (Hillier's hypothesis). On the other hand, other hypothesis and application on case studies deduced results and conclusion that totally contradict with Hillier's hypothesis<sup>17</sup>.

In order to verify this relation, the most common places for robbery and pickpocketing in Fayoum city were sited on roads network map. It was deduced that these places are located in areas with very high integration values. Although vital urban spaces and massive traffic (surveillance) makes sense to deter crime, pickpockets and robbers exploit the same circumstances to commit their crimes.

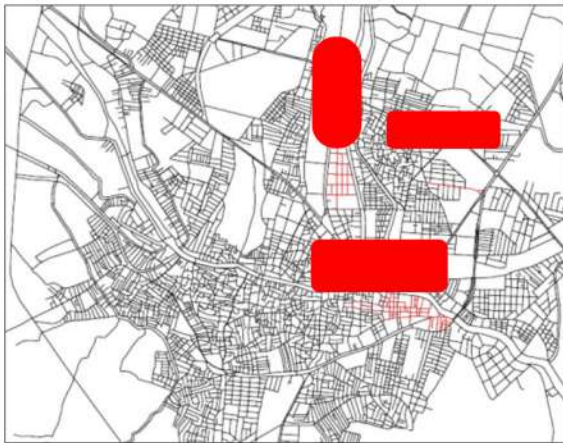


Figure 4: Common Places for Robbery & pickpocketing in Fayoum city  
Source: Ahram Online (OCT.2014)

Thus the proposed approach aims to control and monitor the urban space to deter crimes but with different ways matching with each situation and respecting the varying demographic composition from one area to another.

In order to understand the actual relation between crime occurrence rate and integration values, the concept of monitoring the urban space "Eyes on Street" needs to be classified into three categories. The first category "A" refers to the technical surveillance systems such as CCTV systems<sup>18</sup>. This category would be very useful in deterring traffic crimes, yet it could be less efficient in burglary cases as offenders to some extent know how to escape these surveillance systems. The second category "B" refers to areas with high integration values which are characterized by commercial activities, mixes-use land, well accessibility and massive traffic. Finally category "C" refers to the local residents' surveillance (natural surveillance).

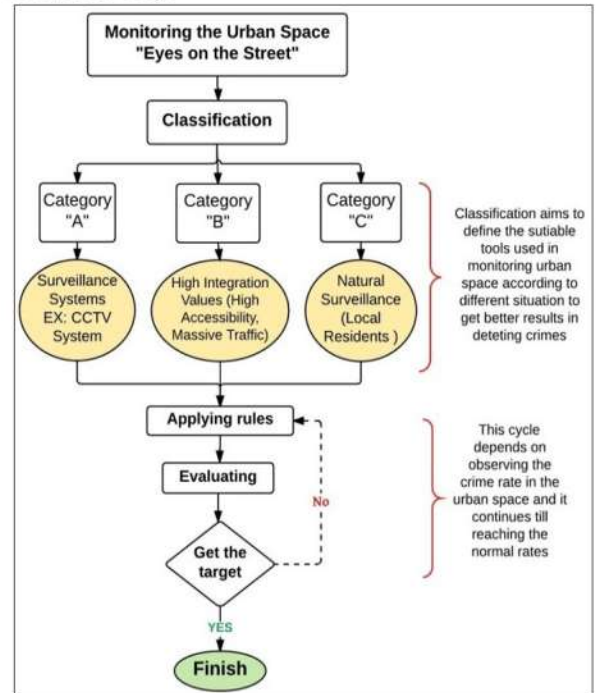


Figure 5: Proposed Approach to Deduce the correlation between Crimes and Integration Vales

Source: By Author

<sup>17</sup> Perver K. Baran, William R. Smith, Umut Toker (2006)

<sup>18</sup> Closed Circuit Television Systems

Monitoring the Urban Space			
Category	"A"	"B"	"C"
Description	Technical Surveillance Systems	High Integration values	Natural Surveillance (Local Residents)
Most Found in	New Gated compounds, Vital Buildings	Commercial and mixed-use areas	Rural areas, old parts of the city
Pros & Cons	<ul style="list-style-type: none"> <li>Very useful in deterring traffic crimes, yet it could be less efficient in burglary cases.</li> <li>High Initial costs.(Con)</li> <li>Surveillance Systems are easily damaged. (con)</li> </ul>	<ul style="list-style-type: none"> <li>The massive traffic hinders accruing certain crimes.(burglary, homicide)</li> <li>Suitable environment for some crimes (Pickpocketing &amp; Robbery)</li> </ul>	<ul style="list-style-type: none"> <li>More efficient in deterring crimes</li> <li>Limited to definite areas depending on the demographic composition and the level of local residents in distinguishing foreigners</li> </ul>
(Rules) Needed Complementary factors	<ul style="list-style-type: none"> <li>Vital movement and traffic</li> <li>Mixed-used lands</li> <li>Commercial activity</li> </ul>	<ul style="list-style-type: none"> <li>Wide side-walks</li> <li>Perfect lighting</li> <li>Nearby security services</li> <li>Vital Buildings</li> </ul>	<ul style="list-style-type: none"> <li>Perfect lighting</li> <li>Nearby security services</li> </ul>

Table 1: Categories for monitoring the Urban Space  
Source: By Author

This methodology will be applied to two case study areas in Fayoum city characterized by compact urban fabric (quite similar spatial configuration) but with contradictory crimes rates in order to deduce the controlling factors that can make the same urban type either stimulates or deter crimes. The two study areas are Dar-El-Ramad and Al-Sofy.

#### 4. Case Study

This paper will compare between two case study areas in Fayoum city characterized by compact urban fabric (quite similar spatial configuration) but with contradictory crimes rates in order to deduce the controlling factors that can make the same urban type either stimulates or deter crimes. The two study areas are Dar-El-Ramad and Al-Sofy. First the demographic composition of the two areas will

be mentioned. Then a group of comparative analysis will be shown (Urban Fabrics, Roads Hierarchy, Services, Land use and Infrastructure) in order to show the Similarities and differences between the two areas Using GIS. In addition to other analyses depends on using Depthmap Platform, to compare between the integration values of the roads network in the two areas, show the 10 % core of integration in Fayoum city and deduce the correlation between these integration values and the security index.

#### 4.1 Physical characteristics & demographic composition

The first case study area is Dar-el-Ramad which is classified as an informal area (unplanned) according to the strategic plan of Fayoum city with area nearly about 53 acres. The core of Dar el Ramad was formed since before 1800, while the whole area sprawled and originated till the 1960s as a compact urban fabric unplanned area. The estimated population is about 10,977 (2011) with negative growth rate (-1.548) and its population density is 208 p/acres.

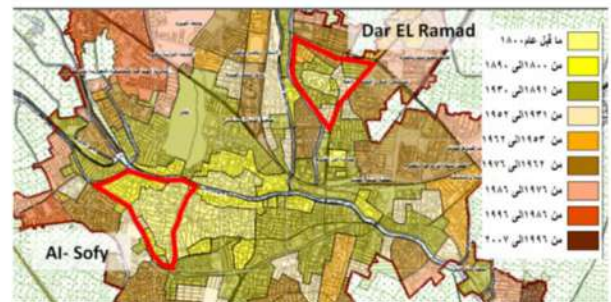


Figure 6: Urban Development of Fayoum city over TIME  
Source: Strategic Plan of Fayoum city

The second study area is AL-Sofy; one of the oldest areas of Fayoum city, as it was formed since before 1800 till 1890. this area is classified as a part of downtown Fayoum according to the strategic plan of Fayoum city, yet it characterized by a compact urban fabric and suffers from multi urban and social problems with great shortage in services and infrastructure. This situation made the Informal Settlements Development Fund (ISDF) started



to upgrade Al-Sofy area and determine it as unsafe area of the third degree in 2013. In addition to its urban deterioration, Al-Sofy area unlike Dar-el-Ramad is characterized by critical security status. Al-Sofy was known to be one of the most dangerous areas breeding criminals in Fayoum city. Its crime rate is of the highest in the city. The official statistics for 2016 showed 28 homicide case, 111 attempted murders, 39 burglary and 139 robbery cases all in Al-Sofy only during 2016<sup>19</sup>.

#### 4.2 Comparative Analysis for the two case study areas

Geographic information system (GIS) and Space Syntax are used to execute numerous comparative analysis between the two case study areas.

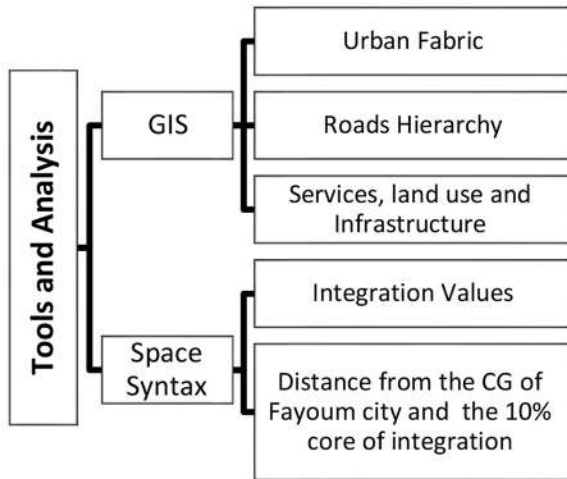


Figure 7: Tools & Analysis  
Source: By Author

##### 4.2.1 Urban fabric

Dar-El-Ramad is one of the oldest areas in Fayoum city, its core was formed before 1800 and sprawled in a random way forming unplanned informal area with compact urban fabrics especially in the core which is characterized by numerous dead end-streets, while the north and the east parts of the area have linear urban fabrics as they were formed on agricultural land. The different urban fabric of Dar-El-Ramad is due to its urban

development that took place over long period of time since 1800 till 1976. Al-Sofy area is actually the oldest part of Fayoum city, it is considered as a part of down town of the city. It was formed and developed over a limited period of time in comparison to the urban development of Dar-El-Ramad. The west part of Al-Sofy has more regular Fabric compared to the whole area which is characterized by compact urban fabric. The number of dead end-streets is clearly less than Dar-el-Ramad, yet the whole street network of Al-Sofy is more segregated.

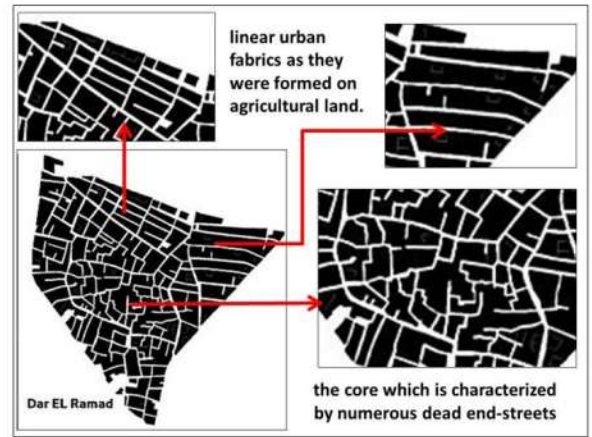


Figure 6: Urban Fabric Dar-El-Ramad  
Source: By Author

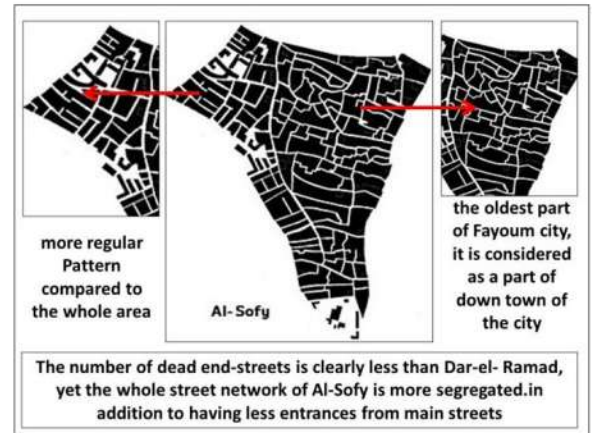


Figure 8: Urban Fabric of Al-Sofy  
Source: By Author

From comparing the urban fabric of the two study areas, it is clear that although they have

<sup>19</sup> Fayoum Police Station "Thani Police Station"



the same type of urban fabric and both started originating nearly at the same era, there are obvious differences between their urban fabrics as a result of the nature of each area that greatly affected the way of urban growth. Dar-El-Ramad area started from its core as a rural style (Daier Nahia) with numerous alleyways, while the urban fabric of Al-Sofy area which is located near "Bahr Youssef" was affected by the small canals and the segmentation of agricultural lands during developing.

#### 4.2.2 Roads Hierarchy

The roads network of Fayoum city contains a set of main roads links the various districts of Fayoum city within the ring road, yet it shows poor hierarchy on the scope of individual districts.

Dar-El-Ramad area has poor roads hierarchy represented in a set of minor unpaved secondary roads connected directly to vital and major roads. Although all roads of Dar-El-Ramad area are considered as secondary roads with numerous dead end-streets (50% of Dar-El-Ramad roads are unpaved and < 6m width), this area is surrounded by three vital main roads; one of them is considered as a regional road (Saad Zagloul road, 20 m width) which leads direct to the ring road and the Fayoum-Cairo desert highway. On the other hand Al-Sofy area has a segregated secondary roads network, but unlike Dar-El-Ramad the surrounding roads around Al-Sofy are minor secondary streets except for the main road (EL-Horeia road, 10 m width) located north the area.

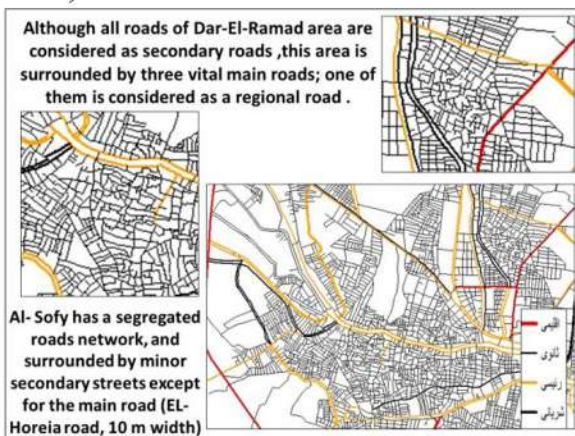


Figure 9: Roads Hierarchy  
Source: By Author

From comparing the roads hierarchy of the two study areas, it is clear that, both have a deteriorated street network (nearly alleyways), unpaved and segregated. Yet Dar-el-Ramad area has the advantage of its borders which are considered as vital roads. These borders positivity affect the crime rate of the area, as the width and the hierarchy of the roads network greatly affect the crime occurrence, and this will be better proved by executing the integration analysis to the roads network of Fayoum city.

#### 4.2.3 Services, Land use and Infrastructure

Dar el Ramad suffers from a severe shortage in public services as the land use of the whole area is residential with few scattered religious building, however Dar-El-Ramad is surrounded by multi vital services institutions; such as the general hospital of Fayoum city, the Security Directorate, primary and secondary schools, Directorate of Veterinary Medicine, directorate of agriculture, and nearby the Fayoum governorate is located. These vital services meet the needs of the residents to some extent, yet the real problem remains in the poor accessibility that prevent ambulances or firefighting service from accessing the area in emergency cases.

Like Dar-el-Ramad, the land use of Al-Sofy is mostly residential with few scattered religious building. In addition to an industrial area in the south part of Al-Sofy, medical center, preparatory and secondary schools and a small security service building on the eastern borders of the area. The services surrounding the area are much less than those around Dar-el-Ramad. Both areas are connected to the infrastructure networks (electricity, water and drainage), but the infrastructure of Al-Sofy is deteriorated, which made the ISDF started in developing the area in 2013.







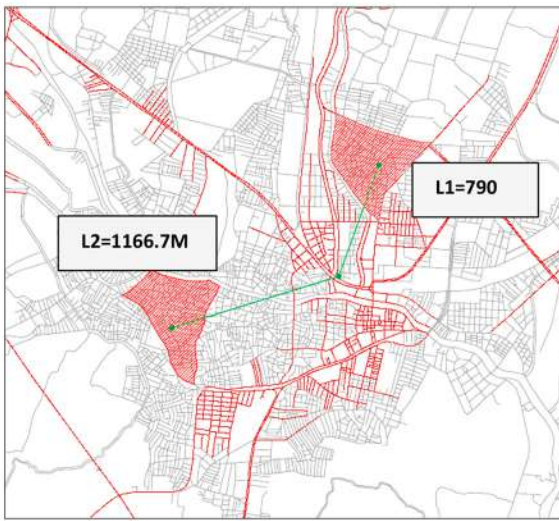


Figure 7: 10% ore of Integration, Fayoum City  
Source: By Author

## 5. Results

The "compact urban fabric" is the most urban fabric type claimed to be a breeding place for criminals that stimulates crimes occurrence due to its bad accessibility and its segregated streets network. Yet this paper presented two case study areas characterized by this type of urban fabric. One of them has a critical security status with high crime rate, while the other is much safer like the normal residential parts in Fayoum city. Various comparative analysis are executed to deduce the reasons behind this contradictory security status of the two study areas, although they are characterized by the same type of urban fabric. The analysis showed that both areas were of the oldest parts in Fayoum city, with deteriorated urban environment, miserable streets network and severe shortage in public services with a dominant residential land use. The difference between the two areas was obvious in the areas surrounding Dar-el-Ramad with their major roads and vital buildings. In addition to the integration analysis that showed discrepant results between the two areas, thus could it be the reason behind the contradictory security status?

## 6. Conclusion and Recommendations.....

- The contradicting security index of the two study areas proves that "the claim that compact urban fabric is a criminogenic

urban type stimulating crimes occurrence is not right at all". It can provide ideal natural surveillance for the urban space in some cases; on the other hand it could be a dangerous criminal hotbed depending on the characteristics of the area and the dwellers.

- The analytical and the applied parts of the paper showed that security index is quite correlated to monitoring the urban spaces, yet the concept of urban spaces surveillance needs to be classified rather than to be generalized.
- Each category of monitoring the urban spaces needs some complementary factors of urban design to effectively deter crime.
- Urban crime occurrence cannot be generalized. The type of crime depends on the situation. Some crimes exploit the crowd and the vital roads such as pickpocketing, while others need segregated and un-monitored urban spaces such as homicide and burglary.
- Dar-el-Ramad area has better security index because its urban spaces are better monitored and controlled by different ways. For example, although the core of the area is very segregated, it has a rural style and the dwellers to some extent can distinguish any foreigner. Thus the core and the backstreets are well monitored by natural surveillance (category "c"). In addition to the vital borders of the area that are characterized by high integration values, massive traffic, vital buildings and various services, all these factors monitor the borders from crime (Category "B").
- On the other hand, Al-Sofy area has a critical security index because it lacked any category of monitoring its urban spaces. In addition to the segregated informal areas surrounding it.
- Vital main roads with high integration values which are characterized by mixed

land use, commercial activities and massive traffic, need some complementary urban design elements to deter certain types of crimes (pickpocketing and robbery) such as perfect illumination, suitable sidewalks matching the activity and nearby security services.

- There is no correlation between urban type (spatial configuration) and crime occurrence unless taking into consideration some other factors such as the integration values, the surrounding areas and the demographic composition that can provide natural surveillance for the urban space.
- Monitoring the urban space will not benefit in deterring crime unless realizing and understanding that it comprises different tools, each can benefit in definite situation.
- When planning or developing residential areas, it is recommended to make a hierarchy in the integration values matching the hierarchy of the streets network, starting from high integration values for the main streets.

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