

# Impact of commercial activities transformations on heritage areas; Case study: Heliopolis

## أثر تحولات الأنشطة التجارية على المناطق التراثية دراسة حالة: منطقة مصر الجديدة

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### Abstract

Commercial streets in heritage areas are very important elements that affect those area, as these streets contain important commercial activities with tangible heritage values represented by their distinct and diverse architectural and urban elements; and non-tangible heritage values represented by economic, social and cultural values. Therefore, these commercial streets containing those large group of values, must be preserved. The research problem arises from the fact there has been transformations occurring in the commercial activities occupying those commercial streets. Those transformation could be presented through the emergence of some new activities with that aren't matching to the heritage areas, the disappearance of other activities and the change in existing ones. This can affect the heritage values of those areas. Therefore, this paper aims to study the heritage areas, the types of their commercial streets, and the types of commercial activities occupying them, especially within Heliopolis area. After analyzing the case study, a group of transformations that occurred in commercial activities, could be observed. By studying the transformations, and their causes, the impact of transformation on the heritage areas could be deduced.

### Keywords

Commercial activities, Commercial streets, commercial activities transformations, heritage values.

## **1. Introduction**

One of the most important elements that affect the visual image of the city is the commercial streets, especially in heritage areas. Commercial streets have a great impact on the vitality of heritage areas; as they represent the attraction points that keeps those areas alive.

In the beginning of the twentieth century, many residential areas with commercial streets serving their residents have appeared. Those residential heritage areas were designed that the ground floors of their residential buildings included commercial activities; such as Heliopolis area in Cairo.

### **1.1. Research problem**

Recently, after the current urban developments, new commercial activities have appeared to cope with the new changes happening in Heliopolis. The transformations were in the types of the existing commercial activities themselves, disappearance of some types of commercial activities, or the appearance of new commercial activities. This had an impact on the heritage value of the commercial streets in Heliopolis, which affects the visual image of the heritage area, the area's urban composition, and the users' attraction to the area.

### **1.2. Research objectives**

- Monitoring and analyzing the transformations of commercial activities in heritage areas and their causes.
- Studying the impact of transformations of commercial activities and their impact on heritage areas.

### **1.3. Research methodology**

The research is based on two approaches; firstly, the theoretical approach, which reviews the literature relevant to the heritage areas to understand their clear theoretical definitions. Also, studying commercial activities types, analyzing and monitoring the transformations, and the factors causing the transformations occurred in them.

The second approach is the analytical approach, which includes a case study of the commercial streets in heritage areas as Heliopolis district in Cairo. It analyzes and monitors the commercial activities existing in Heliopolis and the transformations overtime occurred in them.

## 2. Heritage areas

### 2.1. Heritage areas definition

Heritage areas can be defined as areas characterized by their unique urban fabric, and different historical buildings. The uses of the existing buildings act as a huge part of the urban heritage as well as the buildings themselves. Also, activities done in those areas such as: trading, crafts, or any other activity are considered an important part in the value of these areas (Ali, Elborombaly, & Ahmed, 2019).

An area that has a heritage value must contribute in achieving economic return, whether it can be an attractive commercial point, touristic point, or consists of a special traditional craft industry (Hassan G. M., Oct 2016).

### 2.2. Heritage areas in Egypt

Heritage areas, according to Law 119, are determined by the National Organization for Urban Harmony (NOUH) and approved by the Supreme Council for Urban Planning and Development, which stated that the heritage area is a comprised one with more distinct values. It is required to deal with these areas as an integrated unit to ensure its preservation.

These areas should be protected in a clever and creative way that gives them opportunity for sustained development, without sacrificing their unique character and individuality that makes each one stand out individually (Farid & Abdelhady, February 2018).

According to the National Organization for Urban Harmony (NOUH), heritage areas are classified as follows: Heritage areas in Cairo (Khedival Cairo, Historic Cairo, Maadi, Zamalek, Heliopolis, and Garden City), and Heritage areas outside Cairo as (Alexandria city, Port-Foad city, Rashid city, and Siwa city) (Elshazly, Nassar, & El-sayad, 2022).

The following standards have been adopted for identifying heritage areas' locations in Egypt:

- (i) They ought to be the highest point in human ingenuity;
- (ii) They should serve as an illustration of a typical human habitation or land use, symbolizing the civilization of a people or their relationship to the surroundings, particularly when that surroundings has become fragile as a result of lasting changes;
- (iii) They must be closely related to significant historical occurrences, existing habits, ideas, or intellectual or artistic creations;
- (iv) They serve as examples of typical architectural and urban aspects. These aspects and characteristics must involve existence of recognizable architectural components; like: structures, gates, landmarks, and conventional urban forms, such as those seen in the Khedivial area of Cairo (Abdel Tawab, August 2007).

### **3. Commercial streets in heritage areas**

#### **3.1. Commercial streets in heritage areas definition**

One of the most important elements that affect the visual image of the city are the commercial streets, especially in heritage areas. Commercial streets have a great impact on the vitality of heritage areas; as they represent the attraction points that keep those areas alive (Fadda, Wahba, Kamel, & Kandil, September 2019).

A commercial street is a continuous row of adjacent blocks along a street, lined with businesses that offer a variety of options for shopping, and facilities. The Commercial Street draws visitors providing entertainment for them due to the dynamism of its commercial activities (Mehanna & Mehanna, 21 October 2019).

#### **3.2. Types of commercial streets in heritage areas**

The types of commercial streets in heritage areas are divided according to urban and architectural form of the commercial streets, and according to the types of commercial activities performed in those streets, as follows:

##### **3.2.1. Type of commercial streets in heritage areas according to urban and architectural form:**

The general composition of the commercial streets is the final result of a simplified aggregation method for adjacent module cells in a parallel assembly that generates a middle void in which the visitor know his specified path in the street. Commercial streets in heritage areas urban formation are divided according to the following patterns:

##### **(I) Linear Pattern**

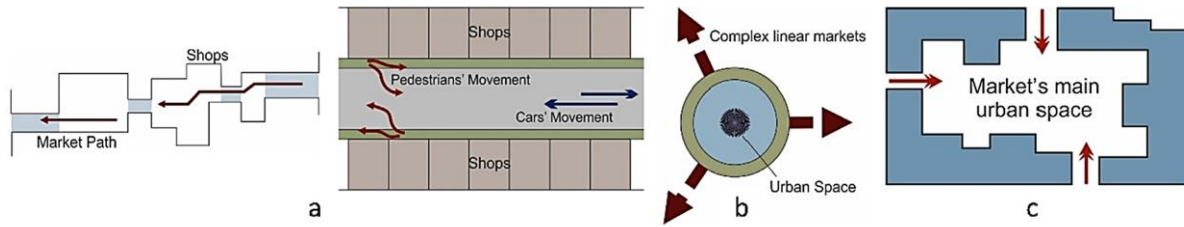
Linear patterned commercial activities are located on the main traffic axes of the city and take the shape of the street.

##### **(II) Ramified patterns:**

These are linear streets that have been ramified in a trading point or urban area that is characterized by a particular activity, such as the area in front of a mosque. This ensures that the main thoroughfares leading to this point are of commercial activities that make up the street.

##### **(III) Aggregated patterns:**

These are the commercial activities that have been gathered together around an urban area. These areas offer a safe environment for pedestrian mobility, as well as, a place to do business, where goods are bought and sold (Mehanna & Mehanna, 21 October 2019).



**Figure 1 Patterns of commercial streets (a) Linear pattern, (b) ramified pattern, (c) aggregated pattern**

**Resource:** (Mehanna & Mehanna, 21 October 2019)

**3.2.2. Type of commercial streets in heritage areas according to commercial activities:**

**Commercial activities definition**

Commercial activity is defined as independent, active, and organized economic activity undertaken by business entities with the goal of generating economic and social advantages, as well as, the financial gain.

In heritage areas, commercial activities rank among the most significant, if not the most fundamental, service activities. Increased productivity and better growth prospects, are considered as two of the benefits of commercial activities. They are the most alluring elements to the users, and they contribute significantly to the economic foundation of cities (Mohamad, Hassan, & Abd Elrahman, 2022). Commercial activities can be classified into two main categories according to the type of products, and the range areas

**Table 1 Commercial activities classification according to Product type**

Commercial activities classification according to <b>Product type</b>	
<b>Food goods, home appliances, and every day-use (short-term) goods</b>	Every day-use products that the users need on daily basis
<b>Permanente (Long-term) products</b>	Goods that users buy only one time, Such as: furniture, electric devices..etc
<b>Small industrial products</b>	Products that don't pollute the environment; such as: Bakery, car spare parts shops..etc
<b>Commercial craft services</b>	Services that users need frequently; such as: Hairdresser, dry cleaning..etc
<b>Storages and warehouses</b>	Storages and warehouses for retail services only

**Table 2 Commercial activities classification according to Range of areas they serve**

Commercial activities classification according to Range of areas they serve
<b>Commercial activities for clusters level</b> <ul style="list-style-type: none"><li>- Contain the everyday-use products that serve their residents</li><li>- Commercial craft services</li></ul>
<b>Commercial activities for neighborhood level</b> <ul style="list-style-type: none"><li>- Contain commercial activities for the clusters level</li><li>- Retail commercial activities (such as: clothes shops, shoe shops ...etc.)</li><li>- Long-term products, and small industrial products</li></ul>
<b>Commercial activities for cities level</b> <p>Commercial activities can exist in independent buildings, or merged with other existing activities.</p>

they serve, as follows:

#### **4. Transformations of commercial activities in heritage areas**

##### **4.1. Transformations of commercial activities**

They are the changes that occur in the urban environment of commercial streets reflecting the users' attempt to comply with the changes occurring in their surrounding environment to meet their needs throughout time (سيد و عبدالواحد، 2018).

Any change or transformation that occur in commercial streets, causes changes and transformations in the commercial activities they include. This leads to significant risks to both the urban and cultural identity (Yousry & Mekawy, Dec 15, 1998) .

##### **4.2. Types of transformations of commercial activities in heritage areas**

Some commercial streets underwent minimal or no transformation, while others have seen one or more types of transformation. These types of transformations are mainly due to some urban, political, social, or economic factors; which resulted in transformations in users' base and habits, commercial activities, commercial products, and heritage and cultural values. This can be illustrated as follows:

**Table 1 Types of transformations of commercial activities and factors causing them**

<b>Factors causing transformations</b>		<b>Types of resulted transformations</b>	
<b>Urban factors</b>	- Modification of commercial streets' infrastructure, and new bridges construction. - Commercial streets became approachable by public transportations, and cars.	<b>Users habits</b>	- More users were attracted with different needs leading to invasion of new commercial activities. - Those commercial streets became crowded. - Parking lots became scarce.
	- Gentrification, and displacing the lower and with those of higher income.	<b>Commercial activities</b>	- Small businesses owners struggled keeping their current clients and to attracting new ones - Disappearance of small old shops. - Switch of the activity to a different line of merchandise. - Commercial habits changed towards shopping malls.
<b>Political factors</b>	- Changes in Egyptian planning regulations towards export and import policy. - Lack of regulations and rules for preserving original activities.	<b>Commercial activities</b>	- Difficulty in protecting traditional products, causing their disappearance. - Original handcrafted goods are becoming rare.
<b>Economic factors</b>	- The increase in the prices and cost of commercial products.	<b>Users habits</b>	- Users find themselves excluded in their normal shopping environment. - Regular users tend to buy less.
	Companies became restricted to high-end, worldwide chains rather than small, local ones.	<b>Commercial activities</b>	Companies became restricted to high-end, worldwide chains rather than small, local ones.
<b>Social factors</b>	- The increase in population and change in the economic status of the users.	<b>Users habits</b>	The shopping habits changed toward a weekly stop shopping.
	Security and safety measures have been threatened by thieves, and harassers.		Users started to feel unwelcomed, unsafe, and uncomfortable in those heritage areas.
	- The socioeconomic character of the population underwent tremendous transitions. - Activities have changed from manufacturing to just trading.	<b>Commercial activities</b>	Initial activities either started to wane or completely vanish.

Factors causing transformations		Types of resulted transformations	
Cultural factors	Commercial streets have changed to the point that they are no longer familiar or users.	Users habits	Original visitors don't find them as welcoming as before.
	The change in the users' and visitors' lifestyles, consumption, and needs.	Commercial activities	Products sold in those streets have undergone significant modifications.

## 5. Case study: Heliopolis, Cairo, Egypt

### 5.1. Heliopolis area description

The brilliant Belgian Edward Empain created Heliopolis as a representation of a lifelong ambition rather than as the result of a deliberate effort (Abu Henedy, 2020). At a distance of fifteen kilometers from Cairo's downtown, he constructed the novel town with a goal to create a "city of luxury." (Elsayed, 2021).

Heliopolis was designed to be completely independent of Cairo in terms of infrastructure, including water and power, yet still be connected by a tramline. Belgian, French, and British architects from abroad designed the city to be a garden satellite, but they did it in a style that reflected the local culture. They kept the blueprints' European-influenced architecture but added numerous features and decorations based on Arab culture.



**Figure 2 Old Heliopolis, Cairo, Egypt**

Reference: Accessed online: (22/1/2023)

Ministry Of Tourism and Antiquities online website

[<https://egymonuments.gov.eg/en/archaeological-sites/Heliopolis>]



**Figure 3 Old Heliopolis, Cairo, Egypt**

Reference: Accessed online: (22/1/2023)

[<https://www.pinterest.com/pin/636485359817270610/>]






## 5.2. Heliopolis commercial streets classifications

Streets in Heliopolis were found to be pedestrian-friendly, secure for pedestrians, and compatible with alternative public transportation, making private cars an unappealing option.

The streets’ commercial use promotes walkability at any time of day, especially with clearly defined arcaded shaded walkways for pedestrians that provide safe paths for them. It also provides security and attractiveness for streets that become bustling with life. Its size and relative high density make it more feasible to promote public transit and variety (Ghonimi, 2017). The commercial streets of Heliopolis can be classified as follows:



**Table 5 Classification of Heliopolis commercial streets**

Classification of Heliopolis commercial streets	
<ul style="list-style-type: none"> <li>• <b>Retail commercial streets</b> Commercial streets that are mostly lined with stores selling a variety of goods, from clothing to electronics to homeware. <u>Such as</u> Ibrahim Al-Laqani street, and Baghdad Street in Heliopolis.</li> </ul>	 <p style="text-align: center;"><b>Figure 4 Ibrahim Al-Laqani street</b> Resource: [Author]</p>
<ul style="list-style-type: none"> <li>• <b>Food and Beverage commercial streets</b> Commercial streets that magnets featuring restaurants, cafes, bars, and food stalls. <u>Such as</u> Ahram street in Heliopolis.</li> </ul>	 <p style="text-align: center;"><b>Figure 5 Ahram Street</b> Resource: [Author]</p>
<ul style="list-style-type: none"> <li>• <b>Specialized commercial streets:</b> Commercial streets cater to specific interests. <u>Such as</u> Midan El-Gamea.</li> </ul>	 <p style="text-align: center;"><b>Figure 6 Midan El-Gamea</b> Resource: [Author]</p>

### 5.3. Types of commercial activities in Heliopolis

The ground-floor commercial uses generate immobile staying and social activities. Cafés, and restaurants are examples of businesses that stimulate activity, also the stores that allow customers to browse merchandise examples of businesses that support them. Commercial activities can be classified into: High staying activities, and low staying activities as the following:

**Table 2 Types of commercial activities in Heliopolis**

High-staying commercial activities	Low-staying commercial activities
<ul style="list-style-type: none"> <li>a) They include a variety of uses as restaurants, cafés, or window shopping.</li> <li>b) Those activities increase the ground-floor façade's accessibility.</li> <li>c) Physical and visual transparency are factors of high-staying activities.</li> <li>d) They have a disproportionately large number of small entrances.</li> <li>e) They are located on edges with recesses, corners, or steps, where people typically sat or stood in these areas.</li> <li>f) The sidewalk's width in areas with varied from three to five meters.</li> <li>g) Much parked cars exist close to the sidewalks of high staying activity.</li> </ul>	<ul style="list-style-type: none"> <li>a) They have a high percentage of empty walls. The walls exhibited a lack of features, a lack of motion, and inconsistencies</li> <li>b) Those shuttered businesses are with a small area of transparency in their frontages, with poor permeability.</li> <li>c) They can be seen in big shop units with few sidewalk doors.</li> <li>d) There are no public seats on the sidewalks in front of these activities.</li> </ul>
 <p><b>Figure 7 High staying activity in Ibrahim El-Laqani Street</b> Resource: [Author]</p>	 <p><b>Figure 8 Low staying activity in Ibrahim El-Laqani Street</b> Resource: [Author]</p>

#### 5.4. The case study zone boundaries

The case study boundaries possess heritage significance, along with a distinctive architectural and urban character. The area features commercial streets designed to cater to a diverse range of users, particularly from the middle and upper-middle classes, and have undergone various transformations. Also it is one the heritage commercial zones, Roxy square, Basilica square, and Midan El-Gamea square.

In contrast to other streets in Cairo, the case study zone streets' sidewalks, are broad enough to allow people to perform their commercial activities comfortably without being forced to cross the sidewalks and walk in the street facing the risk of being hit by a car (Maged, Moussa, & Konbr, 2022).

The case study zone focused mainly on three streets, which are Ibrahim El-Laqani Street, El-Ahram Street, and Baghdad Street. The width of these streets has been separated into two lanes. An island with tiny trees in the empty area between them contributes to the street's feeling of containment (Bassily & Goubran, 2022).

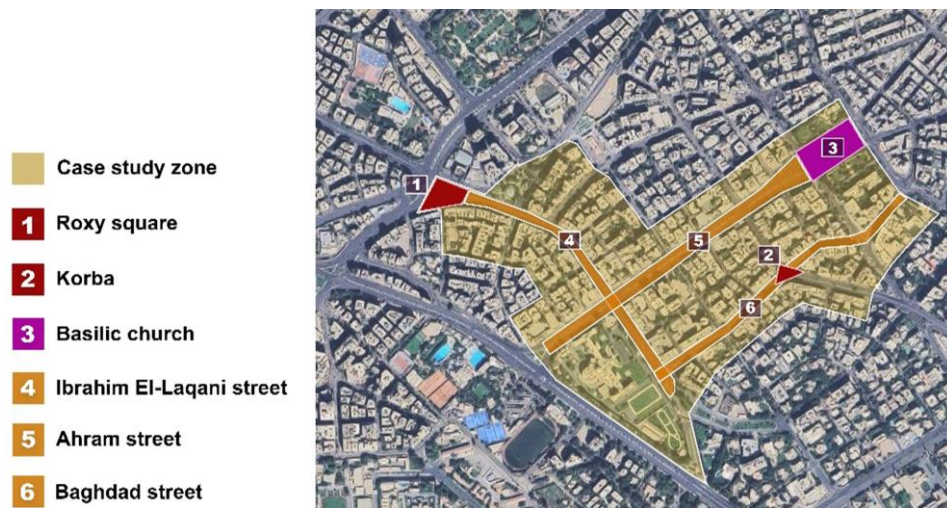


Figure 9 Case study zone

Reference: [Author]

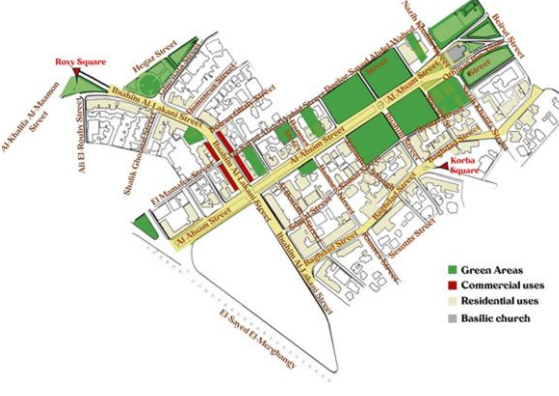
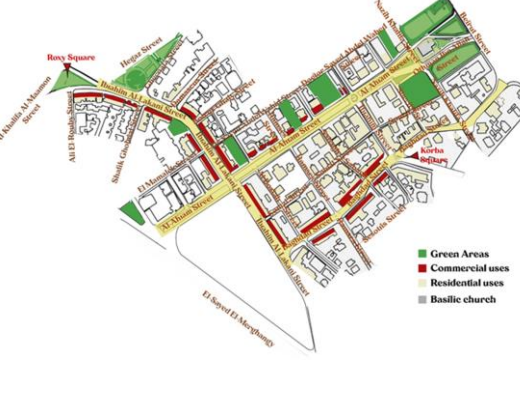

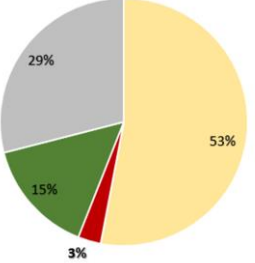
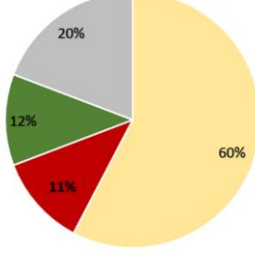
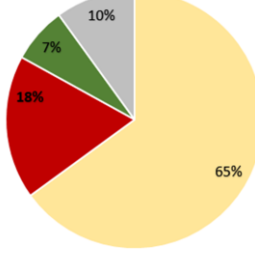
### 6. Transformations of commercial activities in the case study zone and their causes

#### 6.1. Transformations of the commercial activities in the zone

This case study focuses on how commercial activities have changed and expanded from the 1930s to the present 2024. It examines the changes that took place during periods of significant change, which impacted on commercial activities and significantly on the area's urban value.

The commercial activities in the case study zone have expanded, changed, and transformed since 1930s till 2024 as follows:

**Table 3 Commercial activities transformations in Case study zone**

Commercial activities in 1930s	Commercial activities in 1960s	Commercial activities in 1980s																														
																																
<ul style="list-style-type: none"> <li>- Most buildings had a ground and a first level.</li> <li>- Certain buildings have balconies on all three stories.</li> <li>- Buildings mostly were residential.</li> <li>- The percentage of green spaces matched the buildings.</li> <li>- The center of the business activity was a narrow stretch of Ibrahim El-Laqani Street intersection with Ahram Street.</li> </ul>	<ul style="list-style-type: none"> <li>- There has been an increase in the percentage of solid to void areas.</li> <li>- Ibrahim El-Laqani Street, part of Baghdad Street, and a portion of Ahram Street have seen an increase in commercial activity percentages.</li> <li>- Retail stores, cafes, and restaurants made up the majority of the commercial activity.</li> </ul>	<ul style="list-style-type: none"> <li>- The built-up area and the percentage of residential buildings have grown.</li> <li>- Ibrahim El-Laqani Street, Ahram Street, Baghdad Street, and Ibrahim Street were the streets occupying commercial activities.</li> <li>- The commercial activities have evolved to encompass restaurants, cafes, retail stores, and services.</li> </ul>																														
 <table border="1"> <caption>Land Use Distribution 1930s</caption> <thead> <tr> <th>Category</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Residential Uses</td> <td>53%</td> </tr> <tr> <td>Commercial uses</td> <td>3%</td> </tr> <tr> <td>Green spaces</td> <td>15%</td> </tr> <tr> <td>Voids</td> <td>29%</td> </tr> </tbody> </table>	Category	Percentage	Residential Uses	53%	Commercial uses	3%	Green spaces	15%	Voids	29%	 <table border="1"> <caption>Land Use Distribution 1960s</caption> <thead> <tr> <th>Category</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Residential Uses</td> <td>60%</td> </tr> <tr> <td>Commercial uses</td> <td>11%</td> </tr> <tr> <td>Green spaces</td> <td>12%</td> </tr> <tr> <td>Voids</td> <td>20%</td> </tr> </tbody> </table>	Category	Percentage	Residential Uses	60%	Commercial uses	11%	Green spaces	12%	Voids	20%	 <table border="1"> <caption>Land Use Distribution 1980s</caption> <thead> <tr> <th>Category</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Residential Uses</td> <td>65%</td> </tr> <tr> <td>Commercial uses</td> <td>18%</td> </tr> <tr> <td>Green spaces</td> <td>7%</td> </tr> <tr> <td>Voids</td> <td>10%</td> </tr> </tbody> </table>	Category	Percentage	Residential Uses	65%	Commercial uses	18%	Green spaces	7%	Voids	10%
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Commercial activities in 2000s	Commercial activities in 2024
<p>Legend:  <span style="color: green;">■</span> Green Areas  <span style="color: red;">■</span> Commercial uses  <span style="color: yellow;">■</span> Residential uses  <span style="color: grey;">■</span> Basilic church</p>	<p>Legend:  <span style="color: green;">■</span> Green Areas  <span style="color: red;">■</span> Commercial uses  <span style="color: yellow;">■</span> Residential uses  <span style="color: orange;">■</span> Church</p>
<ul style="list-style-type: none"> <li>- The majority of the gardens and vacant spaces in the case study zone have been replaced by stores or other structures.</li> <li>- The business activity extended to the side streets and secondary streets.</li> <li>- Restaurants, cafes, services, and retail stores were among the existing commercial activities.</li> </ul>	<ul style="list-style-type: none"> <li>- Old residential villas are demolished</li> <li>- Most middle street islands have been removed</li> <li>- New bridges have been built,</li> <li>- Gardens surrounding the residential villas have been replaced with commercial areas.</li> <li>- Side and secondary streets are occupied by commercial activities as well as the main streets.</li> </ul>
<p>Legend:  <span style="color: yellow;">■</span> Residential Uses  <span style="color: red;">■</span> Commercial uses  <span style="color: green;">■</span> Green spaces  <span style="color: grey;">■</span> Voids</p>	<p>Legend:  <span style="color: yellow;">■</span> Residential Uses  <span style="color: red;">■</span> Commercial uses  <span style="color: green;">■</span> Green spaces  <span style="color: grey;">■</span> Voids</p>

### 6.2. Causes of the commercial activities transformations in the case study zone

By analyzing the previous transformations of commercial activities occurred in the case study zone, it was found that the transformations were divided into tangible and non-tangible transformations due to some factors, including urban, political, economic, social, and cultural factors.

**Table 4 Transformations of commercial activities**

	The case study zone before transformations	Causes of transformations	The case study zone after transformations (Now)
Urban transformations	<ul style="list-style-type: none"> <li>- The zone was planned in a suburb away from the city center, with a clean environment.</li> <li>- The major streets were wide accommodating the tram line</li> <li>- There was a significant amount of open space between the buildings.</li> <li>- The area was designed based on the presence of arcades.</li> <li>- Ibrahim El-Laqani Street was the center of business activity.</li> <li>- Walking was the primary activity that users did to perform commercial activities.</li> </ul>	<ul style="list-style-type: none"> <li>- The urban developments of case study zone.</li> <li>- The overlapping of commercial activities with residential area.</li> <li>- The mix of public transportation, private mobility, and the metro station</li> <li>- Removal of green areas.</li> <li>- The three main commercial streets along with the secondary streets were not planned to include this amount of commercial activities.</li> </ul>	<ul style="list-style-type: none"> <li>- The zone moved into the city center</li> <li>- The zone lost its initial environmental advantages for conducting commercial activities</li> <li>- Conversion of many ground-floor commercial uses into commercial ones.</li> <li>- Lack of parking spaces, and traffic congestion</li> <li>- Abundance of advertisements along the middle islands and on the facades,</li> <li>- Great spread of street vendors on sidewalks,</li> <li>- New commercial activities appeared,</li> <li>- Expansion of commercial activities not only in the ground floors, but in first floors.</li> </ul>
Political transformations	<ul style="list-style-type: none"> <li>- Government strategies aimed to preserve the case study zone.</li> </ul>	<ul style="list-style-type: none"> <li>- The Nationalization of Misr Al-Gadida for housing and Development Company in 1964.</li> </ul>	<ul style="list-style-type: none"> <li>- Unwanted commercial activity started to appear.</li> <li>- The colors of the store banners and signs did not adhere to the neighborhood's identity.</li> </ul>

	<b>The case study zone before transformations</b>	<b>Causes of transformations</b>	<b>The case study zone after transformations (Now)</b>
<b>Political transformations</b>	<ul style="list-style-type: none"> <li>- The users were prevented from making interventions in front of the stores.</li> </ul>	<ul style="list-style-type: none"> <li>- Government set strategies to guarantee economic expansion.</li> <li>- Absence of regulations to govern the area by the local identity code.</li> </ul>	<ul style="list-style-type: none"> <li>- A random non-planned increase in the commercial activities occurred.</li> </ul>
<b>Economic transformations</b>	<ul style="list-style-type: none"> <li>- The zone possessed the greatest property values.</li> <li>- Specialized business zones existed (such as the Mosque Square).</li> <li>- The stores seemed to suit the needs of the people.</li> </ul>	<ul style="list-style-type: none"> <li>- Egypt tended to achieve commercial, and investments prosperity.</li> <li>- The region became prosperous and more appealing to tourists.</li> </ul>	<ul style="list-style-type: none"> <li>- New types of businesses have emerged.</li> <li>- Business owners of similar enterprises, tend to cluster together.</li> <li>- Replacing old villas with apartment complexes with ground floor commercial purposes.</li> <li>- Changes in users' income, land prices, and products' prices occurred.</li> </ul>
<b>Social transformations</b>	<ul style="list-style-type: none"> <li>- The case study area was planned for the upper middle class.</li> </ul>	<ul style="list-style-type: none"> <li>- Population growth.</li> <li>- A shift in users' needs.</li> <li>- The users' social level changed.</li> </ul>	<ul style="list-style-type: none"> <li>- Services and commercial activities became the predominant activity.</li> <li>- Establishment of foreign headquarters has increased.</li> <li>- Fusion and overlap of social classes happened.</li> </ul>
<b>Cultural transformations</b>	<ul style="list-style-type: none"> <li>- The commercial activities were practiced spontaneously.</li> <li>- The initial residents had an intense feeling of place attachment.</li> <li>- Users believed the area was an essential component of who they were.</li> </ul>	<ul style="list-style-type: none"> <li>- There has been a wave of ruralization that altered the traditions in the neighborhood.</li> <li>- Lack of cultural awareness by the value of the heritage zone.</li> </ul>	<ul style="list-style-type: none"> <li>- Awareness among individuals (investors - shoppers) and their rights and duties became difficult, as the investor looks for the best investment, while the shopper looks for a quick and efficient service.</li> <li>- Residents as a result develop a poor sense of belonging.</li> </ul>



## 7. Conclusions and recommendations

The research focused on studying the transformations of commercial activities in heritage areas, especially within the scope of Roxy Square to the Korba zone in Heliopolis. After analyzing and monitoring the transformations in the case study zone it was found that heritage areas have been affected as follows:

- Transformations and changes in commercial activities have affected the tangible and non-tangible values of heritage areas.
- The use of advertising methods that are not compatible with the architectural character caused obscured views for the ground-floor business buildings
- The expansion of the commercial activities to the first floors too, has led to some changes in the original design of the façade to cope with the new commercial uses.
- Absence of regulations, caused each shop owner to create his own façade, not following the original building's character.
- The expansion of commercial activity caused traffic congestion, sidewalk crowding, and pollution. This made some users dissatisfied, which has reduced the urban value of the heritage areas.
- Sidewalks weren't intended for shipping docks for commercial purposes causing the congestion of sidewalks next to stores, and invading public areas.
- The lack of regulations, and interest in improving the area caused unwanted commercial activity to emerge.
- The great spread of street vendors occupying the sidewalks of the streets forced the users to walk under the sidewalks to avoid the crowd, affecting their safety.
- Some of the commercial activities are not compatible with the heritage area, which has had a negative impact on the buildings cultural value.
- The shift from residential to commercial, recreational, and administrative activities made the community a community of services.

After studying the aforementioned results, a set of recommendations were concluded:

- The importance of monitoring the values of commercial streets in heritage areas in order to preserve them during the development operations.
- The importance of involving various committees in the development process as (governmental agencies, private entities and companies, and the local community).
- The importance of studying the history of commercial streets and their original design and planning, to preserve their original character and heritage spirit.
- Establishing a comprehensive data base to develop a methodology for monitoring, recording and documenting the commercial streets in heritage areas and their original status. This can happen by creating an archive for those streets with their commercial activities, buildings, facilities and architectural elements to support their preservation and development processes.
- Including commercial activities that suit the urban values of heritage areas, and limit the commercial activities that force commercial streets to lose their heritage value.

- Establishing laws to stop the encroachment on the heritage values by the new inappropriate commercial activities that appeared.
- Studying the conditions of the infrastructure and services as fire and drainage systems and cleaning companies that can increase the efficiency of commercial streets in heritage areas.
- Ensure the regular maintenance and protection of commercial streets in heritage areas from risks.

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