The Transformations in the Urban Fabric of Traditional City Centers
(Lebanese Experience: Case Study)

Abstract
Most of our residential neighborhoods suffer from a clear shift in their planning and design characteristics on one hand and functional and behavioral aspects on the other hand, and even in their economic and environmental performance from the traditional to the modern. This is a good phenomenon in case of control of the mechanism of positive transformation but in case of non-controlling, the Stuttering will be a natural result.

because of the acceleration in the functional and technological variables, which are more rapid flowing than adaptability and acceptance of traditional space, and tries to contemporary with all the aspirations of the concept to intrude into urban space in a way that is almost coercive, making it difficult to achieve good performance of contemporary requirements on one hand and the decline and deterioration in values Inherited on the other hand.

Keywords: Traditional fabric, Urban transformations, Intervention strategies, Cities with traditional heritage, Model for future generations.
The Research problem

The lack of clarity of knowledge related to the concept of transformation in urban space from traditional to contemporary, and whether this transformation is positive or negative.

The research Goal

The main objective of the study is studying the extent to which the traditional environment of city centers can adapt to the flexibility and ability to accept the other, to meet the needs of the inhabitants and the requirements of the modern era functional, technological, economic and psychological, without harming the overall values inherent in these environments, and reaches to urban space with a traditional fabric that fits in with the identity of the place on the one hand and contemporary in cultural, social, economic and urban terms in the traditional city centers.

1. Introduction

The centers of the traditional Arab cities have a unique architectural heritage that resulted in the architectural achievements that took place through several historical stages, to emerge as a unified entity and to become the hallmark of the progress of the city’s personality and it’s heritage, and the nucleus that has grown, developed and expanded to a wider area outside the City, but the city in general and residential neighborhoods in particular, has suffered and continues to suffer from a range of changes at all economic, urban, social and cultural levels, all of which lead to disparity in the nature of the urban fabric, threatening the disappearance of the unique character of the city’s fabric. The neighborhoods must be flexible to accept all changes and employ them correctly. Ensure safe and healthy living for all living individuals.

2. The traditional urban fabric of cities

1) Characteristics of the planning and urban of the centers of the traditional Arab cities:

a-The compact urban fabric: A characteristic of this fabric:

- The traditional architectural styles are centered around a particular destination, the Qibla, The structure of the building consists of (one or two floors) with a focus on the rise of religious centers on the sky line, such as lighthouses and domes high, The
skyline of the city was protrusions, The mosque represents a major positive point in the skyline of the city.

- The similarity between residential neighborhoods because most buildings belong to the same morphological era.
- The construction of residential units in the traditional city is in line with the network of transport roads, especially in the residential neighborhoods, noting the presence of the emergence on the second floor to achieve climatic and privacy.
- The increase in the coverage ratios of the plots of land and the high building density, with emphasis on the human scale and its adoption as the basis for forming the relationship between mass and vacuum, to produce the nature of the space configuration.
- Lack of external wall openings, noting the proportion of window openings to achieve visual continuity in the urban landscape. (Al-Musawi, 2007, p. 89)

Figure 1: Demonstrates the group of alleyways and courtyard in residential neighborhoods Source: (Planning of spaces in cities, 1426 H).

Figure 2: The urban fabric of the Islamic traditional city Source: (Planning of spaces in cities, 1426 H).
b-The gradual gradient:

The spaces in the traditional city range from a clear and specific pyramid hierarchy, which is important to the least important, with a main road representing the artery of the city (the Kasbah) and the presence of many major buildings and important to it, in addition to the continuous movement of people and its connection to all entrances and exits of the city. The public street is divided into semi-public spaces, and semi-private spaces, which are the alleys, which eventually pour into the houses with the special spaces of the interior. All these spaces are graded in dimensions.

( Ministry of Municipal Affairs, 1426 H, p. 27)

Figure 3: The hierarchy of spaces from public to private and how they are organic Source: (Planning of spaces in cities, 1426 H).

c-Low height and high density:

The traditional Arab city was characterized by high population densities and low elevations. This helped to provide privacy. Only the mosque was visible in the city as a distinctive sign. The overlapping jams also appeared in the buildings in addition to the roofing part of the streets which helped overcome Climatic conditions. (Judy, 1998).

d-the road network:

Roads have been constructed in a manner consistent with the human scale. Therefore, the road networks have disappeared and merged with the urban fabric of the city. The main roads were allocated to the markets and to the various commercial activities. Secondary roads are allocated for the division of neighborhoods. These roads intersect the residential areas. To serve a range of private homes.

(Mullah, 2002, p. 3)

And the roads can be divided into 3 levels as follows:
• The public roads:
This road allows all people to walk, and the possibility of opening a window overlooking it, and allows to take it as a place for sale and purchase on condition that they do not harm the pedestrians.

• The privat public roads:
It is the road that is the least of the public road, and in this way the dominion of the occupier and its privacy increases.

• The privat roads:
A road that belongs only to its inhabitants, and some people have set up a gate for the purpose of informing other people along the way.

(Azab, 2011, P: 15)

Figure 4: Showing the gradation in the streets from public to private Source: (Planning of spaces in cities, 1426 H).

e- Human scale:
It is one of the distinguishing features of traditional Islamic architecture, which gives a sense of the humanity of space. The group of blocks and buildings with medium heights and the size of different spaces (Al-Maliki, 2004).

2) Factors that have led to the deterioration of traditional city centers:
The distortion that is seen today in the old cities is a tampering with the heritage of the past and its aesthetics and authenticity. The city without its historical center is a city without memory, so it is necessary to mention the reasons that led to the emergence of negatives in the traditional city centers and their reflection on archeological sites, Aesthetic, artistic and historical values, and can be summarized as follows:

• Indigenous migration:
The continued migration of the population from the old neighborhoods led to the disintegration of the social structure, and began to decline in the center of the city
because of the influx of new residents of cities with multiple cultures, low incomes, and migration is one of the most important factors that accelerate the deterioration of buildings and destruction, and the disintegration in The neighborhood unit has caused a major imbalance in the urban fabric of the city.

- **Deterioration caused by citizens due to neglect of maintenance:**
  
  This deterioration is due to the lack of understanding of the historical and technical value of the area containing the monuments, and the lack of awareness among the citizens, especially if these neighborhoods do not benefit the residents of the region, which does not encourage attention and preservation.

- **Human beings in general, and the Arabian man in particular, change his needs and desires faster than the speed of change in the urban fabric, which creates a gap between the form and the job required, and this leads to the demolition of some of the planning units unjustified to make it compatible with new jobs.

  There is another aspect that stands in danger of urban fabric which is the investment, where competition between different jobs increases to occupy the important sites in the city, which in turn leads to a change in residential uses to commercial uses that harm urban heritage.

  *(Abu Hantash, 2007, p. 28)*

- **Time and Economy factors:**

  These two factors affect on materials of the buildings and their structural state, and the corresponding lack of maintenance and restoration of these buildings, due to poor capacity and financial support, or owners undertaking alterations for purely commercial purposes.

- **Lack of infrastructure services and lack of efficiency is one of the main reasons that led to the deterioration of the urban fabric of city centers, especially when they are introduced randomly and without study, in addition to the inefficiency of roads and problems related to traffic in that areas.**

  *(Al-Bayati, 2011, p. 21)*

- **Performance of traffic and transportation:**

  With the natural growth of the population and their own needs, and with the emergence of various new functions for the city center, these factors lead to growth in the urban mass at the city level as a whole, or at the center level, and with the emergence of the car as a major vehicle in addition to various modes of transport, From services such as waiting areas and stations, so the urban fabric of the center is unable to accommodate this type of traffic and transportation. *(Al-Tawil, 2004, p. 138)*
In summary, the centers of traditional cities are important and essential areas in the city. Throughout its history, it hides most commercial, residential, economic and cultural activities, as well as its role in emphasizing the historical, cultural and heritage dimension of these cities. The negative impacts on the traditional centers by rehabilitating it with different methods and policies. The Lebanese experience will be treated as a case study because the city’s traditional center has undergone a series of changes that have affected the heritage center

- (Case Study - Beirut City Experience) / Rehabilitation of the Traditional Center of Beirut City:

- A descriptive study of the historic center of Beirut:

The history of the historic center of Beirut is more than 5000 years old. It was followed by various civilizations from the Canaanites to the French Mandate through the Ottomans. All these civilizations left traces on the urban fabric of Beirut’s historic center, which has historically and culturally enriched it. The Central Beirut area is now the hub for regional and national activities, such as commercial offices, bank headquarters, government ministries, hotels and administrative offices. The area also includes the Grand Serail, the Parliament building and the Beirut Municipality building, as well as many places of worship. The site is located in the heart of the capital Beirut, in addition to being the waterfront heritage of the city. (UN-Habitat, 1998)

- The deterioration of the city center: the civil war in Lebanon:

The project allows for the reconstruction of the heart of the city of Beirut, which was devastated by the war that Lebanon suffered from 1975-1990. The infrastructure was completely destroyed, in addition to the total destruction of the heritage center of Beirut and the destruction of about 900 heritage buildings. And the heritage center lost its importance as the center of the city of Lebanon. The war also led to the migration of population, economic activities and government buildings from the heritage center.

- Defect in the urban fabric:

The lack of regularity in the height of the buildings in the street, the presence of irregularities and infringements in the facades of the buildings does not fit the heritage of these buildings, the use of poor materials in the maintenance of facades, in addition to building does not meet the specifications and conditions of the heritage. (Saliba, 2003)
- **Environmental problems:**
  A huge environmental problem has arisen on the coastline of Beirut, where the landfill of the Normandy landfill extended to the sea with an area of more than 250,000 square meters and a height of 14 meters. *(UN-Habitat, 1998)*

- **Economic problems:**
  Most of the ancient markets of downtown Beirut were destroyed. These markets were the economic base of the heritage center and the economic vitality of the heritage center over the previous years. This was manifested by the emergence of a number of alternative substitutions of the destroyed center, During the civil war, the commercial port was moved eastward away from the city center. The passenger movement moved to and from Beirut airport instead of the port. *(Saliba, 2003)*

In addition to environmental, urban and economic problems, and the problems created by the devastating Lebanese civil war, more than 800,000 claim to be owners and tenants of the 900 heritage buildings in the city center and reach agreement with hundreds of residents on how to build a single building A complex task, if not impossible, as the population has different views and interests, some may be uninterested or not present after many of the owners of heritage buildings have moved abroad, and the center of Beirut is of special national importance and can not be left hanging and depends on many Of people, most of them The population is unable to meet or make a decision.

*(UN-Habitat, 1998)*

![Figure 5: the level of destruction of architecture and urban fabric of the post-war heritage area of central Beirut Source: (Gabriel 1992 - Peter & Sarkis1998).](image)

From the above, the most prominent problems were identified in the area of the heritage center of the city of Beirut, which extended on the level of urban, economic,
environmental, so it was necessary to draw the attention of the local government to the need to draw attention to this center and rehabilitation.

Beirut City Center redevelopment:

During the Lebanese civil war of 1975-1990, the conflict that took place divided the population into two sects and divided the city into two parts: East Beirut, which was inhabited by Christians and Western Beirut inhabited by Muslims. The period of reconstruction that followed the Lebanese war is a necessary condition for the return of the renaissance of the city, and therefore the Renaissance in the city of Beirut acquired a kind of symbolic significance.

- Due to the special location of the city of Beirut, the economic and symbolic effects it enjoys and the extensive damage it suffered. The Central Beirut area was considered an independent item in the reconstruction program. A company called Dar Al-Handasa prepared a project for the government, but the project was not implemented because of the state budget deficit. And later a real estate company Solidere was established for the purpose of developing the city center and the sources of the company’s money from the cash contributions of the investors. The other part concerns a group of shares to confiscate the perimeter of the central area of Beirut.

The reconstruction and development of downtown Beirut made it possible to make the most of the war-torn capital of Lebanon, turning a desolate area into what many Lebanese believe is likely to become the future hub of the region. The creation of thousands of new jobs directly and indirectly, and linking nearly 100,000 people as shareholders, the project revolutionized business practices in Lebanon.

Figure 6: The development plan for downtown Beirut Source: (Annual Report, 2001, p.10).
At the end of the war in 1990, Lebanon faced a large reconstruction program estimated at tens of billions of dollars. The government faced a long list of priorities, including the development and reconstruction of the central region in Beirut. The central region of Beirut includes parliament, a number of ministries, The traditional banking area, the city’s most famous public squares and places of worship. This area is of particular importance to the city because, unlike other regions, it was a traditional textile area and home to all Lebanese communities. (UN-Habitat, 1998)

**Strategy of dealing with the traditional center:**

After launching the idea of renovating the traditional center of Beirut, the Lebanese government issued Decree (7031), which includes a set of conditions governing the building as follows:

Set the center of Beirut with clear borders bordered by the sea to the north, Fakhurdin Street to the west, Fuad Shehab Avenue to the south, and to the east is George Haddad Street.

Divide the area into ten sectors that reflect the urban nature and desired functions.

The conditions relating to buildings and areas of preservation have been adopted, inter alia, for the future arrangement of infrastructure and the transport network.

A number of regulatory provisions have been allocated to the new building law. These articles establish regulations and regulatory requirements for building in the traditional center of Beirut city, and have adopted in their content to identify all possible controls that clearly and accurately coordinate the relationship.

The area of construction allocated for development (4.69) million square meters, and proposed a range of development projects of a commercial nature, tourism and cultural, and one of these projects: (Annual Report, 2008, P: 16-82)

Redesigning the urban area of Al-Shuhadaa Square, where it was directed as an open urban space towards the sea without limits, and the adoption of this unloading (as a sea gate) for the city of Beirut overlooking the sea as a natural extension of Martyrs Square.

Providing parking spaces in line with the proposed uses and spaces, and the allocation of several positions below the level of land, in addition to the participation of more than one apartment building basement.
### Table 1: Comparison between the traditional center of the city of Beirut (ancient times and nowadays) In terms of schematic and urban characteristics, Source (the researcher).

<table>
<thead>
<tr>
<th>The name of the paragraph</th>
<th>in old times</th>
<th>now</th>
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| Urban fabric              | The lack of regularity in the height of the buildings in the street, the existence of irregularities and infringements in the facades of the buildings does not fit the heritage of these buildings, the use of poor materials in the maintenance of facades, in addition to buildings does not meet the specifications and conditions of the heritage. | • Urban upgrading.  
• Rehabilitation of residential buildings and public buildings and improvement of the facades of buildings.  
• Urban redesign of Martyrs’ Square area.  
• Rehabilitation of traditional markets of a contemporary nature and enhancing the effectiveness of shopping through the addition of some recreational support activities and the establishment of private offices to protect consumer rights.  
• Rebuilding a war-torn city center. |
| The gradual gradient      | The spaces in Beirut city center range from a clear hierarchy to a specific one, from important to the least important, and so on. | Emphasize the hierarchy of the city’s traditional and contemporary center. |
| Height and density        | The elevations are not homogeneous in the center, in addition to the relatively high density and lack of clarity of the optical axes to accommodate the urban environment. | The homogeneity of building heights in the traditional center due to adherence to building laws and legislation and preservation of the heritage of the center. |
| Blocks of buildings       | The blocks are compact and the finishes are poor, in addition to the construction of upper floors above the roofs of the buildings, which has distorted the sky line in the center of the city. | A set of regulatory provisions has been established in the law, which sets conditions and regulatory regulations for building in the central Beirut commercial area, which has relied on the content of all possible controls that accurately coordinate the relationship. |
| the road network          | The complexity of the traffic system with severe bottlenecks in them, in addition to the lack of a clear system of parking, and the lack of isolation between pedestrians and vehicles. | • A perpendicular mesh fabric that reflects modern design standards with its organizational dimensions.  
• Provide parking spaces in proportion to the proposed uses and spaces, and the allocation of positions below the level of land and the participation of more than one apartment building in one basement.  
• Reduce vehicle emissions by reducing dependence on cars and encouraging walking. |
| Human scale               | The center is humane and depends on the social and cultural dimensions of the population in the stages of construction and implementation. | Adopting the human scale and highlighting the social and human cultures of the population. |
Table 2: Intervention strategies in rehabilitating the Traditional Center of Beirut City, Source (the researcher).

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<td><strong>economical</strong></td>
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<td>• The development of Beirut’s heritage city center has had a positive effect on the development of the city as a whole by raising the indicators of economic and tourism growth, attracting various investments to the region and working on the flow of capitals to the region.</td>
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<td>• Make the spaces acceptable to tourists and reflect the civilized face of the city.</td>
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<td>• Provide job opportunities up to 5,000 direct jobs and tens of thousands of jobs indirectly.</td>
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<td>• Reviving the stagnant economy in the city center after the reconstruction process.</td>
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<tr>
<td><strong>Urbanism</strong></td>
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<td>Upgrading the place in terms of architecture.</td>
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<td><strong>social</strong></td>
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<tr>
<td>• The contribution of the project to enhancing the community’s confidence and pride in the city.</td>
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<tr>
<td>• In addition to enhancing the sense of identity and belonging among the population.</td>
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<tr>
<td>• Enhancing urban economic performance by attracting more people, encouraging greater participation in community and cultural activities and commitment to the national identity of the community, enhancing personal safety and increasing the use of public spaces.</td>
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<td><strong>cultural</strong></td>
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<tr>
<td>Demonstrate the characteristics of the architectural space in a manner that matches the identity of the place.</td>
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<td><strong>Environmental</strong></td>
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<td>The landfill has been rehabilitated and the area will be 150 feddans dedicated to development projects including a marina, a residential area and a variety of gardens overlooking the sea.</td>
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The reconstruction of the heritage area of downtown Beirut included the neighborhoods of several residential neighborhoods:

1. **Al-saifi Village Project: A Model on New Urban Development in Beirut City Center:**

Al-saifi village is located on the southeast edge of central Beirut. The village is located on the south side of Dabbas Street, George Haddad Street to the east, Gorod Street to the north and Aris and Kanani to the west.

The village is designed by Nabil Ghulam on an area of 135,000 square meters. The houses occupy an area of 10,000 square meters, 670 square meters for commercial projects and a sector consisting of 5 buildings with facades along the street, these gathering around the garden courtyard, which occupy 30% of the total area of the site, when the apartments were designed, the Mediterranean climate was considered, the apartment consists of one to four bedrooms, these apartments are equipped with the latest amenities, the commercial success of the Al-saifi village project led to the adoption of Solidere’s decisions regarding the expansion of this village.

Landscape elements were used to restore the character of the urban village, and the network of central squares and corridors helped to create an enjoyable living
environment. The pavement was paved with basalt, in addition to the use of gravel in the pedestrian corridors, and the furniture was used in the streets to increase the sense of the spirit of the place, such as street lighting, signs and billboards.

On the other hand, the use of wooden window frames, arabesque, wrought iron, pedestals and various decorations, red clay tiles in colors ranging from yellow to red to white and blue reveal the charm of buildings while preserving the unique local character. *(Hagla, 2008, P:7)*

As part of the old market in downtown Beirut, which included the carpenters’ market in a local bazaar, the Saifi area has been transformed into shops, and small shops that are now art galleries, antique museums, libraries, cafes and restaurants.

![Figure 7: The modern facades of the houses of the Al-saifi Village with a modern character (WWW.wikipedia.org).](image)

In order to understand the extent to which the traditional environment of the city centers can be adapted to meet the needs of the residents and the requirements of the modern era, the traditional center of Beirut will be compared to the historical characteristics of the city in order to reach the most important conclusions regarding contemporary urban space.

By comparing the traditional center of Beirut to the old and recent, the following conclusions can be reached:

1. Through the reconstruction of the traditional center of Beirut, urban space with a traditional tapestry has been reached on the one hand, and a contemporary of cultural, social, economic, urban.

2. The Lebanese experience in the project of reconstruction and development of the city of Beirut was characterized by some other experiences of the countries due to
the difficult and Cairo conditions that prevailed in the city, especially the civil war that lasted for 15 years and the complete destruction of infrastructure and urban fabric.

3. The architectural details and the architectural identity of the center have been preserved to the extent possible, with emphasis on the integration and integration with the modern elements (both the final materials used in paving roads or construction materials used in construction).

4. Rehabilitation of the city’s dilapidated center, after the buildings were hit by artillery shells and the effects of fire, as well as the abandoned vehicles in the streets.

5. Provide job opportunities with up to 5000 direct jobs and tens of thousands of jobs indirectly.

6. Reviving the stagnant economy in the city center after the reconstruction process.

7. Contribution of the project to enhance the confidence and pride of the community in the city.

Arabic References


**English References**


[16] www.wikipedia.org..

**The researcher’s opinion regarding the observations**

Regarding the cases of comparison with other projects related to the reconstruction process.. It was possible for the researcher to deal with the process of restoration in the city of Birzeit, for example, rehabilitation of Aleppo or the preservation of the historic city of Mostar... etc and other experiences can be identified and inspired from its solutions This will be done in subsequent research without doubt... However, the main point of the research is to examine the change in Beirut city before and after the civil war and how to rejuvenate the society from the destruction and to keep the past in mind in order to the human being commit himself to a better future and a new vision about it.