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## HERITAGE CITIES AFTER WARS: BETWEEN TRADITION AND INNOVATION - A CASE STUDY OF BEIRUT IN LEBANON

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### Abstract

Urban heritage is one of the most important aspects that identify a city's history and evolution. Rebuilding cities after war is a concept that takes into consideration several aspects of maintaining a visual memory of urban heritage. A proper understanding of heritage aspects and elements should be considered in new extensions and the redesigning of old parts of cities, especially after wars. Beirut in Lebanon is one of the Middle Eastern cities that have been rehabilitated and rebuilt successfully after suffering from several wars. This research discusses and analyses conservation approaches that have been used in old parts of Beirut city and the evolution of the approaches to rebuilding buildings, from tradition to innovation, that have been applied in the downtown Beirut district. This research aims to analyse downtown Beirut as a benchmark for the reconstruction of countries destroyed after war. Furthermore, the approaches that have been used in reconstructing the new buildings of downtown Beirut heritage are categorized in order to establish the link between the elevations of traditional buildings and newly constructed buildings, while maintaining the concept of a visual memory of urban heritage.

### Keywords

Conservation; Restoration; Beirut reconstruction; Beirut city

# HERITAGE CITIES AFTER WARS: BETWEEN TRADITION AND INNOVATION - A CASE STUDY OF BEIRUT IN LEBANON

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**ABSTRACT:** Urban heritage is one of the most important aspects that identify a city's history and evolution. Rebuilding cities after war is a concept that takes into consideration several aspects of maintaining a visual memory of urban heritage. A proper understanding of heritage aspects and elements should be considered in new extensions and the redesigning of old parts of cities, especially after wars. Beirut in Lebanon is one of the Middle Eastern cities that have been rehabilitated and rebuilt successfully after suffering from several wars. This research discusses and analyses conservation approaches that have been used in old parts of Beirut city and the evolution of the approaches to rebuilding buildings, from tradition to innovation, that have been applied in the downtown Beirut district. This research aims to analyse downtown Beirut as a benchmark for the reconstruction of countries destroyed after war. Furthermore, the approaches that have been used in reconstructing the new buildings of downtown Beirut heritage are categorized in order to establish the link between the elevations of traditional buildings and newly constructed buildings, while maintaining the concept of a visual memory of urban heritage.

**KEYWORDS:** Conservation; Restoration; Beirut reconstruction; Beirut city

## 1. INTRODUCTION

The conservation of urban heritage has become one of the top priorities of the world (Slae, Kark, & Shoal, 2012). In recent history, the Middle East has suffered from several wars that have destroyed many historical locations. These wars affect the cognitive perception of the urban heritage of historical cities. Beirut has been perceived as the image of a war-torn city, and has become an iconic example of a rebuilt and reconstructed city after war (Nasr & Verdeil, 2008). The strategies and approaches that have been used in reconstructing buildings in downtown Beirut are numerous. These approaches can help other countries destroyed by war learn how to 'rebirth' the historical sections to maintain the perception of urban heritage through a new vision.

There are three main aspects that affect the morphology and image perception of historical urban contexts: urban, buildings and community. Destruction in any of these aspects affects the entire image of the urban heritage (Felix & El-Daghar, 2019). In Beirut, as a post-war destroyed city, the efforts that have been made to re-establish its image and heritage perception have been great. In this paper, the research focuses on the approaches that have been considered in the conservation and rebuilding of the heritage district of downtown Beirut. Through observation and analysis of downtown Beirut's rebuilt buildings, this research analyses the old elements of the historical city of Beirut and the approaches to reconstruction, between the conventional and the innovative, that have rebirthed a new perception of Beirut.

The methodology of this research is divided into four main aspects. First, several conservation strategies used for heritage areas are documented. Second, the situation of Beirut city, in terms of growth, war and reconstruction, are discussed. Third, reconstruction approaches that have been used by several architects for downtown Beirut's buildings are analysed. Finally, several approaches to reconstruction – between traditional and innovative, modern styles – are criticized in order to establish an appropriate benchmark that can be used in reconstructing other war-destroyed cities.

## 2. DEFINITIONS OF APPROACHES AND STRATEGIES USED IN CONSERVED HERITAGE AREAS

The definition of the conservation of heritage is how that heritage is delivered to future generations through the process of understanding, reading and dealing with architectural heritage buildings (Hegazy, 2015). Several terminologies are used for dealing with historical and heritage conservation, and the following section will present some definitions of conservation terminology and the scope of work. The term 'preservation' or 'passive conservation' refers to a protective method used for ancient monuments to retain them as they are

(Ashworth, 2011; Zeayter & Mansour, 2018). ‘Conservation’ is a strategy defined as purposeful preservation, by preserving what is valued and influencing what needs to be changed (Ashworth, 2011; Worskett, 1969).

‘Restoration’ is a term that refers to returning a building to its original condition by repairing, removing additions and completing missing parts (Ouf, 2000). The term ‘reconstruction’ is dedicated to historical buildings rebuilt from scratch in their original place to maintain the visual perception of the city. The reconstructions are mainly made as a result of natural disasters, such as earthquakes or fires, as well as in cities after wars (Felix, 2007). Due to environmental catastrophes or the risk of other disasters that could happen, the building could be ‘saved’ by moving it to another place. ‘Removing’ is a process mainly dedicated to non-valuable buildings that surround a historical building and affect its perception (Felix, 2007).

Under the umbrella of conservation to support sustainability, there are other approaches that can add functions to buildings, such as ‘rehabilitation’ or ‘adaptive reuse’. ‘Rehabilitation’ aims to return the building to the main function it was built for; otherwise, ‘adaptive reuse’ is the process of redeveloping in order to find a new affordable function for the building (Felix, 2007; Young, 2008). In order to make the building useable, some changes are needed, and the following approaches and strategies help the building to obtain its proper function. ‘Renewal’ and ‘renovation’ are mainly used for old, valuable buildings; new elements, such as elevators, electrical supply and other features are added, in order to make the building functional. ‘Conversion’ modifies spaces and a building’s structure in order for it to become compatible with new functions. The term ‘maintenance’ is mainly dedicated to a process that aims to retain building parts in a situation in which the building can successfully perform its functions (Straub, 2012).

### 3. BEIRUT CITY GROWTH, WARS AND REBUILDING

Beirut is a city that has several types of historical heritage, such as Phoenician, Hellenistic, Roman, Byzantine, Mamluk, Ottoman, French Mandate and other styles (Lee, 2014). The area of downtown Beirut contains sites and monuments from more than 5,000 years of civilizations (Ragab, 2011). The urban growth of Beirut city has passed through five main phases (Yassin, 2012), all of which began in downtown Beirut, which contains the start of Beirut’s city growth, as shown in figure 1.

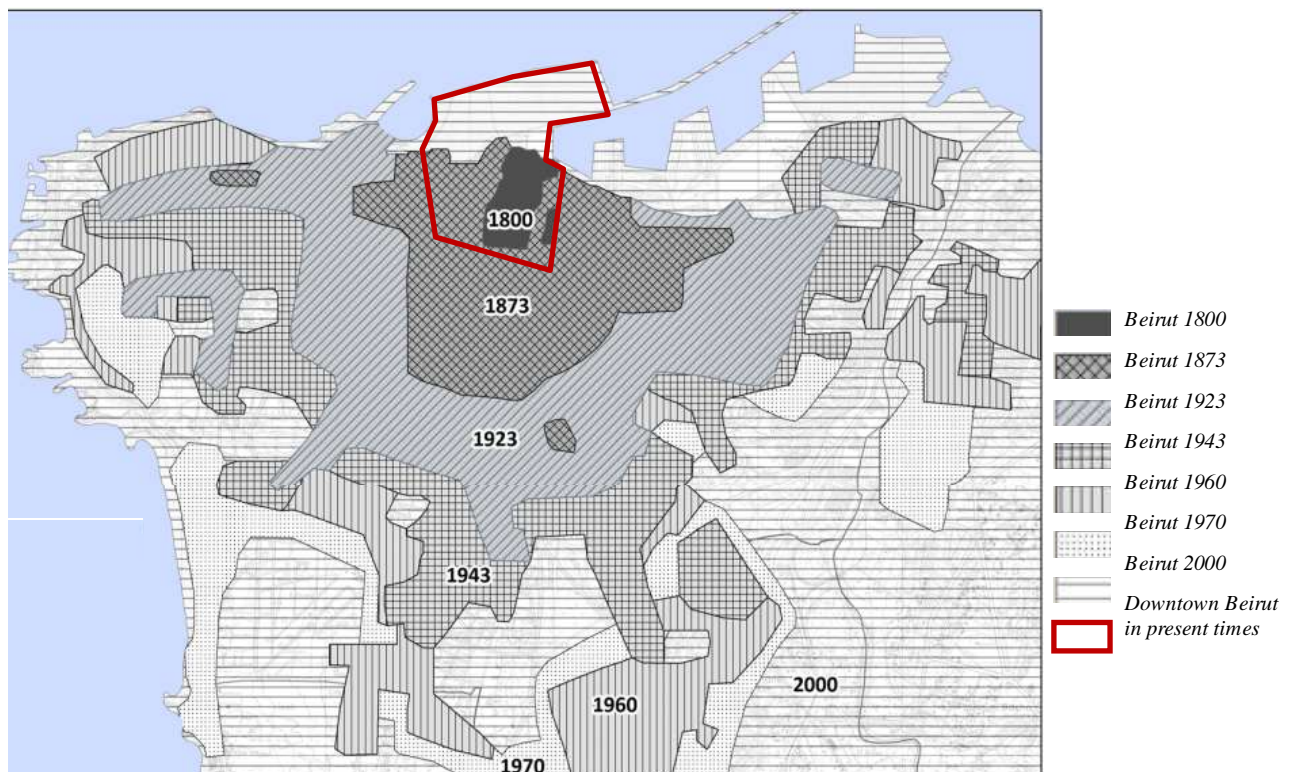


Fig.1: Growth of Beirut city and the location of downtown Beirut (Solidere).  
Reference: (Yassin, 2012)), modified by the author (June 2019)

Beirut city has suffered from several war eras: the Second World War, the Arab–Israeli war, civil war and the Israel–Hezbollah war (Lee, 2014). The Second World War brought about the full independence that was established in the country in 1946, after the Allied troops returned to Beirut. The Arab–Israeli war, from 1947 to 1949, affected the city due to the massive influx of Palestinian refugees. The war that had the greatest effect on the image of Beirut city was the civil war from 1975, which lasted about 15 years. During this war, Beirut became the main centre of conflict, directly affecting the heritage of the city and damaging many buildings of urban heritage, especially in the downtown area. In 1975–1990, during the civil war, Beirut was divided into two parts - east Beirut (Christians) and west Beirut (Muslims) - by a demarcation line known as the green line (Davie, 1993), as shown in figure 2.

Through the civil war, several Shi'ite refugees also came from south Lebanon, as well as the eastern districts of Beirut, to find accommodation, mostly in the western (Muslim) part of Beirut city centre (Schmid, 2002).

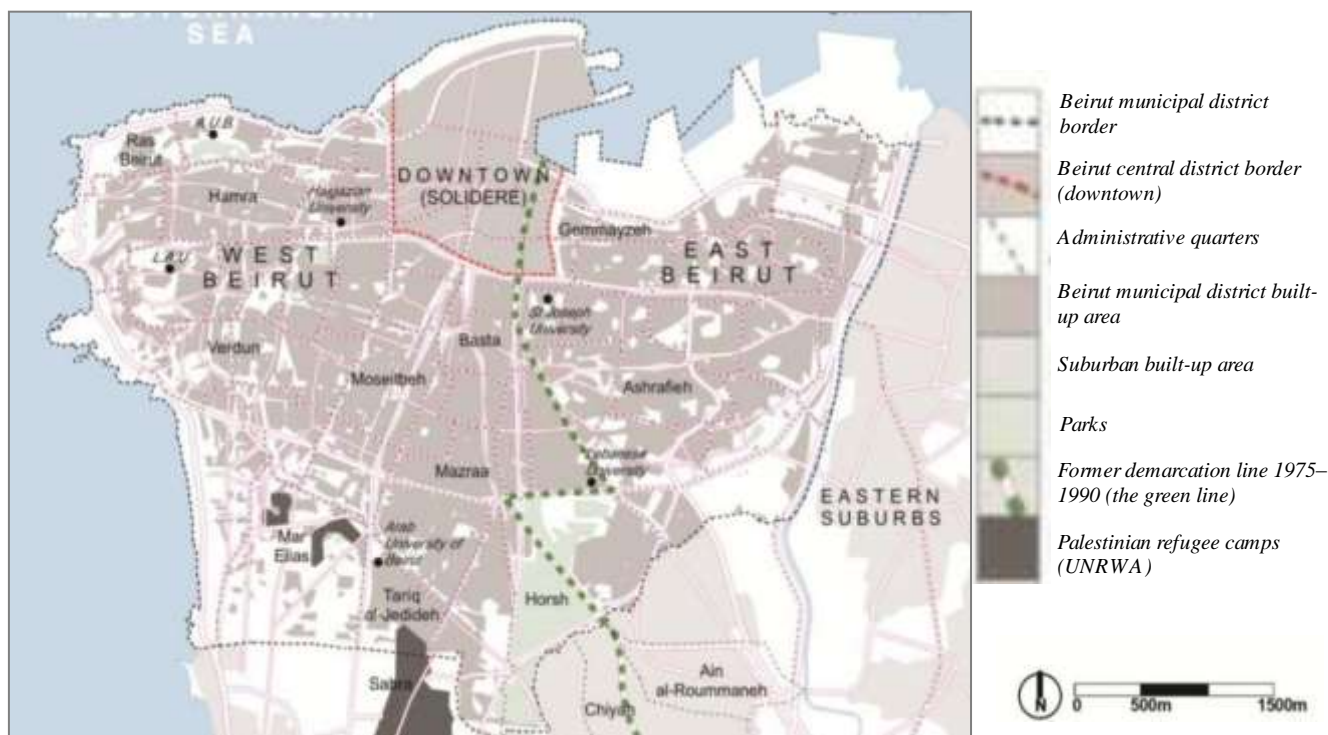


Fig.2: Location of downtown Beirut (Solidere) after the civil war.  
Reference: (Randall, 2014)



In Fig.3, the left-hand photo shows the situation of the urban tissue of downtown Beirut by the end of the civil war in 1991. Reference: (Tarraf, 2014) - The right-hand photo shows the new urban tissue in 2019. Reference: Google Earth (May 2019), edited by the author

#### 4. THE URBAN FABRIC AND SITUATION OF DOWNTOWN BEIRUT BEFORE THE CIVIL WAR

The civil war formally ended in 1989, with the Ta'if Accord. Since that time, Beirut has attracted several investments and loans from the European Union, commercial banks, the World Bank and private investors. The reconstruction of the 180-hectare core of Beirut was the focus of the renovation. The redevelopment was undertaken through a cooperation between Solidere (a public trading corporation) and the Lebanese state (Nagel, 2002). The redevelopment plan was steered by Prime Minister Rafiq Hariri, who described the reconstruction of Beirut as an icon of 'Lebanon's desire to rebuild capital' (Yahya, 2004; Yassin, 2012). The main section that was rebuilt at the time was the downtown area of Beirut, called 'Solidere'. Figure 3 shows the situation of the urban tissue of downtown Beirut by the end of the civil war in 1991 and the new situation in 2019.

### 5. APPROACHES TO MAINTAINING AND REBUILDING HERITAGE BUILDINGS OF DOWNTOWN BEIRUT

As a consequence of the wars that Beirut has suffered from, most heritage buildings have been destroyed, either partially or completely. Therefore, polices for the conservation of downtown Beirut were mainly based on rebuilding the image of a heritage-based city. Several architects have participated in rebuilding and reconstructing the downtown area under the supervision of Solidere, in order to recreate the memory of the city before the civil war period. The restoration of downtown Beirut was modified to create a sustainable traditional district that could adapt to the user needs of contemporary business and life. As shown in figure 4, the master plan of downtown Beirut shows 292 valuable buildings that were retained for conservation (Solidere, 2009). Based on Solidere’s annual reports, the valuable and heritage buildings were classified into three main categories, namely archeological, religious/public buildings and restored buildings. The conservation approach for each building was defined based on photographic and architectural investigations, damage assessment, research about the building’s history, the original design, and materials for each individual building, case by case (Solidere, 2009). Through observation, the rehabilitation and reconstruction approaches of downtown Beirut can be categorized into several types of conservation approaches related to building condition, function and history.

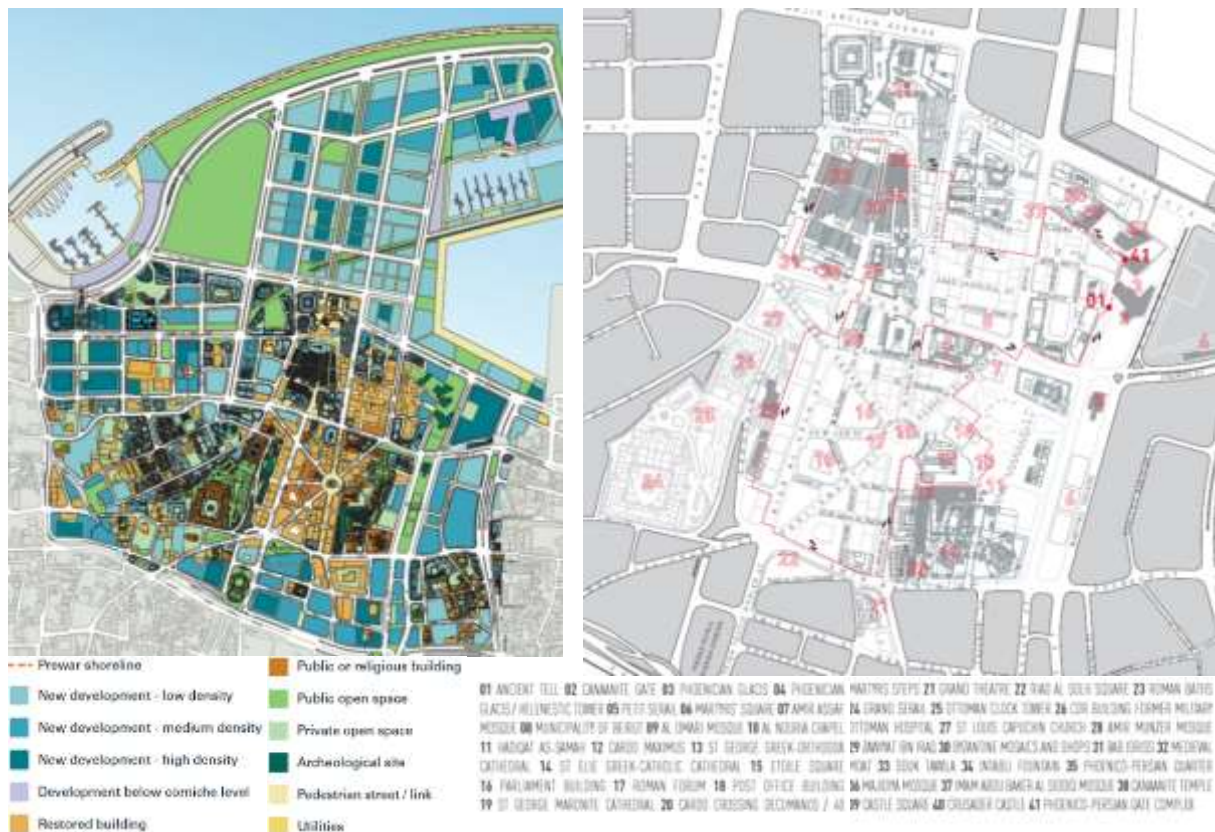


Fig.4: Downtown Beirut developed by Solidere. The left-hand map shows the master plan of downtown Beirut. Reference: (Solidere, 2006) - The right-hand map shows the downtown heritage trail. Reference: (Solidere, 2008)

During the reconstruction of the downtown area, a number of archaeological sites were discovered, consisting of monuments such as columns, foundations and parts of buildings from several historical periods. The conservation approach in these cases was preservation and clear exhibition, even if some of the monuments were underneath other buildings, as shown in figure 5.

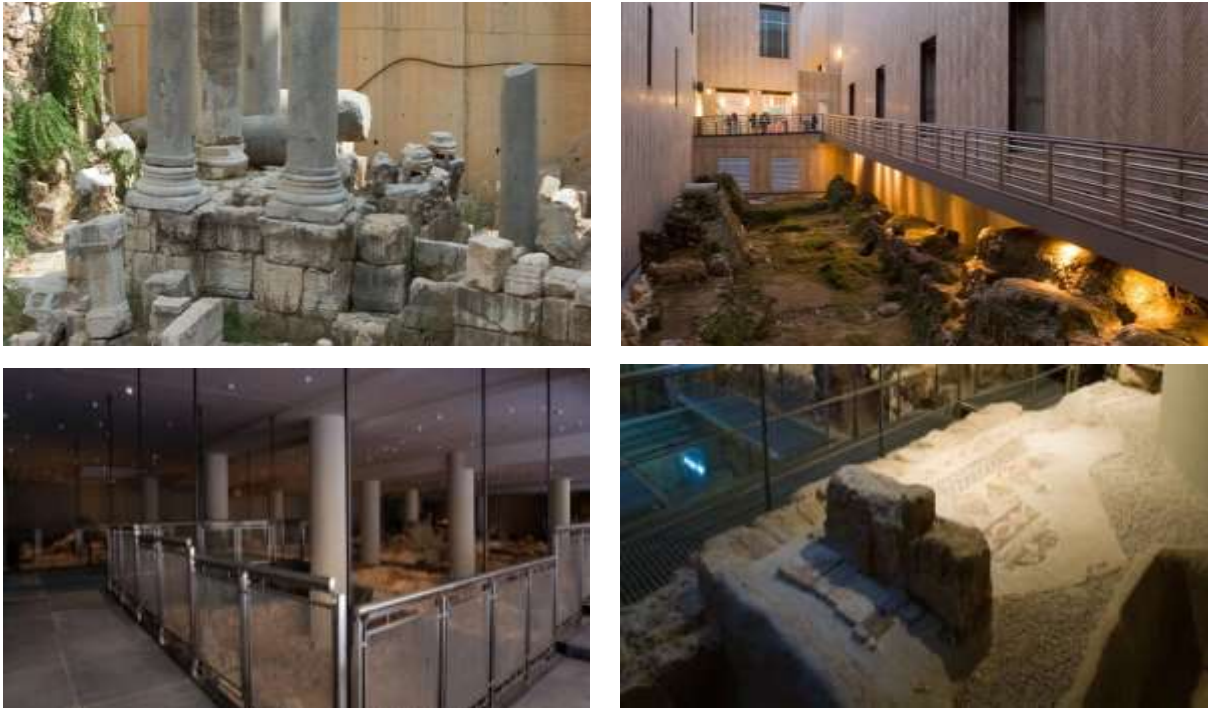


Fig.5: Several photos of archaeological sites that have been preserved in downtown Beirut.

Reference: (Solidere, 2009)

The existing valuable buildings that were partially damaged have undergone several conservation approaches, such as restoration and renovation of building elevations and the return of the image of the buildings to their original condition, through repairing, maintaining and completing missing parts. This process helps to maintain the perception of the old city as it was before war (Solidere, 2010), as shown in figure 6.



Fig.6: One of Beirut's downtown streets in 1991, and then after the conservation process in 2003. Reference: (Solidere, 2010)



The rebuilding and reconstruction of historical buildings that were completely destroyed in downtown Beirut can be divided into three main groups of strategies. The first category is rebuilding historical buildings as they were previously. The second category is for buildings that lack documentation of their historical image. In this situation, the architect generates a composition of the historical elements of the urban context to create a new building facade resembling the traditional ones in the context. The third category is a mix between traditional and contemporary elements (Mansour & Felix, 2015). The majority of reconstructed and restored buildings have several functions and uses. The rehabilitation and adaptive reuse strategies have attracted several investments, visitors and users (Omar, 2016), while conversion and renovation approaches are the basis for helping a building to obtain its function. Some additions, such as elevators and additional infrastructure, have been included in order to reuse buildings, while modifications have been carried out to adapt the inner space for new functions, such as removing or adding partitions. However, in downtown Beirut, a few buildings have not been conserved at all, and these buildings preserve the image of war.

New buildings have also been built after the war. Some of these were built to complete the urban fabric, while others are completely contemporary. One of these urban compositions is Beirut Souks, with a plan for heritage composition with innovative elements, while other buildings are completely modern, with high-rise or parametric forms. This mixture between traditional and contemporary, innovative compositions creates a unique image perception.

## 6. CASE STUDIES OF NEW BUILDINGS AND RECONSTRUCTION APPROACHES OF DOWNTOWN BEIRUT

The study methodology consists of two main phases, namely documenting the reconstruction and new building approaches for downtown Beirut and analysing the urban strategies for the distribution of approaches. These different approaches and strategies can be demonstrated through examples of reconstructed buildings that have had different approaches towards rebuilding that oscillate between tradition and innovation.

### 6.1 New buildings and reconstruction approaches of downtown Beirut

This section of the research will showcase four different strategies of rebuilding historical urban buildings that have been used in downtown Beirut. The first of these four strategies is to rebuild a copy of the original historical building. The second is to reconstruct the building with historical elements but with a new design. The third is to integrate and overlap between heritage and contemporary elements within the same building, while the fourth is to build a totally contemporary architectural building.

#### 6.1.1 Rebuilding a copy of the original historical building

The majority of valuable buildings that were partially or totally destroyed after the civil war in downtown Beirut have been surveyed from old photos and documented, in order to complete missing parts or rebuild them from scratch as a replica of the original building.

One of these buildings involved a project by architect Nabil Azar for rebuilding the Bank of Beirut in the downtown area. The building of the Bank of Beirut was restored in 1995 as a copy of the original building, which was built in 1929. Several old documents were considered in order to recall the image of the original building. The strategies used for the building included the restoration of the destroyed sections and the conservation of the building in order for it to obtain new contemporary purposes, by modifying the inner spaces and building structures to be compatible with new functions. Figure 7 shows a drawing of the designed elevation and an actual photograph of the outer section of the restored building.



Fig. 7. A drawing of the Bank of Beirut and actual photographs by the architect Nabil Azar.  
Reference: <https://www.azar-bdc.com/index.php/portfolio/bank-of-beirut-headquarters-foch-street/>

### 6.1.2 Reconstruction of the building with historical elements but with a new design

Several buildings in downtown Beirut were totally destroyed in the civil war and had no photos or documents to preserve the memory of their styles. Some of these missing buildings were newly designed using the identity of the surrounding context; elements of the heritage architecture were used, and they were reformed with a different design to match with the context's identity. The Patchi Headquarters building was reconstructed in 2004 by Said Jazairi's consulting office, and is one of the buildings that speaks the language of the surrounding context in downtown Beirut, as shown in figure 8.



Fig.8: A drawing of the reconstruction of the Patchi Headquarters building and an actual photograph by the architect Said Jazairi.

Reference:

<http://www.saidjazairi.com/english/default.asp?status=Detail&typeID=3&projectID=24&menuID=20>

### 6.1.3 Integration and overlap between heritage and contemporary elements in the same building

To complete the image of downtown Beirut, some designers integrated elements of heritage architecture with elements of contemporary architecture. One of these designers is the architect Nabil Azar, who has preferred to create an appropriate mixture between traditional and innovative elements in more than one building in downtown Beirut. In this section, the research showcases two buildings by architect Nabil Azar that demonstrate the overlapping of heritage and contemporary architectural elements within the same building: the atrium building and the Offices of the Members of Parliament.

The atrium building is located on the border of the old part of Beirut city centre, at the corner of two roads; one of the roads has a historical context, while the other is located in a totally contemporary context. The architect aimed to have the building integrate with the different, contrasting contexts that surrounded it. This building now adopts a transition between two different languages of architecture, integrating the two contexts through two different elevation designs. The first elevation matches the traditional context in the historical road by using surrounding features such as arches, arcades, a number of openings, and other elements that resemble traditional features. For the other elevation, located in the contemporary context, the architect dealt with its surroundings by using contrasting materials like metal and glass. Figure 9 shows the two elevations of the atrium building.

The building of the Offices of the Members of Parliament was built in 1998 in the centre of downtown Beirut, in the main urban node called the Place de l'Etoile. The main concept of this building is integrated traditional architecture. The future of traditional architecture lies in preserving the urban fabric of the urban node and contextual architectural elements, such as yellow stone, arcades, arch openings and other contextual elements. On the other hand, modernity appears through the use of huge areas of glass curtain walls, as shown in figure 10.



Fig.9: The atrium buildings in downtown Beirut designed by the architect Nabil Azar.

Reference: <https://www.azar-bdc.com/index.php/projects/>



Fig.10: The Offices of the Members of Parliament building in downtown Beirut designed by the architect Nabil Azar.

Reference: <https://www.azar-bdc.com/index.php/projects/>

#### 6.1.4 Development of fully contemporary architectural buildings

Outside the historical location of Beirut city centre, there were other sites that had opportunities for developing projects, especially at the waterfront of downtown Beirut. The new buildings located outside the historical centre of downtown Beirut have been built in styles of modern and contemporary architecture. Using contemporary materials and innovative forms demonstrates the ability of a city to collaborate with current architectural movements.

The contemporary buildings in the new part of downtown Beirut have their own identities. Some of these buildings have high-rise forms, while others have new parametric shapes, and this diversity of heights and forms of the buildings located in the waterfront district of downtown Beirut creates the main perception of the new section of the developed waterfront area, as shown in figure 11.



Fig.11: Diversity of heights and forms of the buildings located in the waterfront district of downtown Beirut.

Reference: author and (Solidere, 2009)

## 6.2 Distribution of urban strategies for reconstruction approaches

Beirut city centre's reconstruction and development project area is 191 hectares, divided into two main sectors: the original sector, constituting the traditional city centre, with an area of around 118 hectares, and the extension reclaimed from the sea, with an area of around 73 hectares (Ilyes, 2015), as shown in Figure 12. The strategies for the reconstruction of downtown Beirut have been numerous and varied. These strategies create an understanding of the integration between the past and future, as well as between traditional architecture and innovative forms, giving downtown Beirut its magical atmosphere. By analysing the master plan and maps of restoration and rebuilding, downtown Beirut shows, according to Solidere's annual reports and the Aleppo project report, that several aspects of generation have been understood.

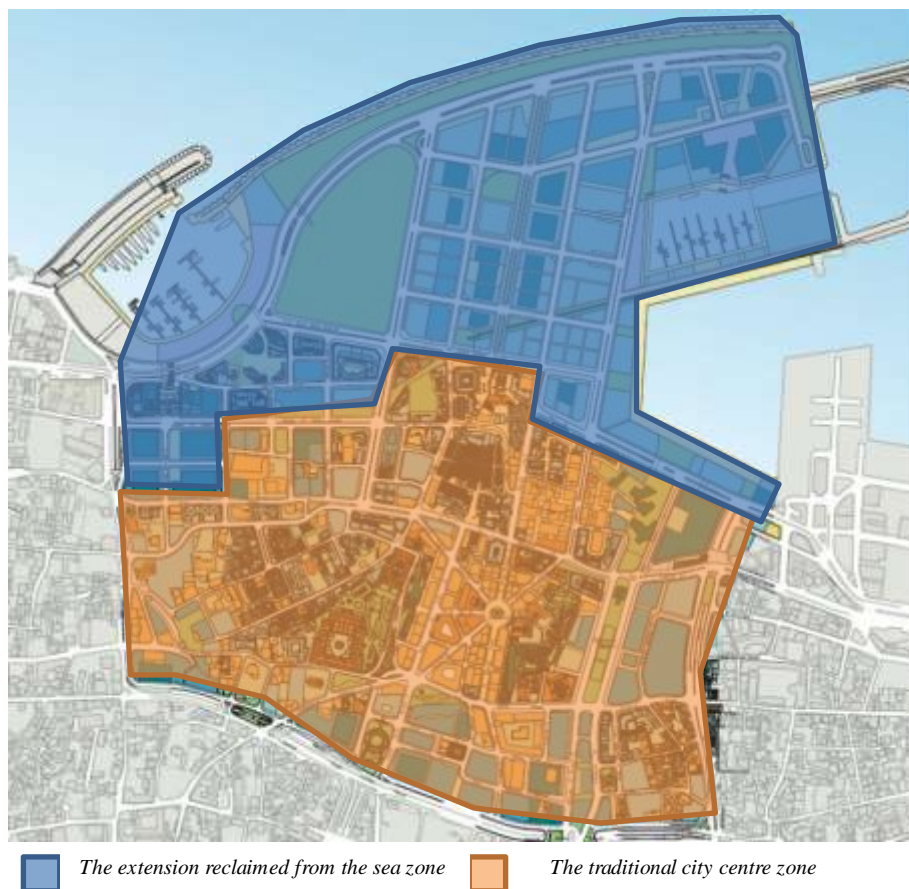


Fig.12: The areas of rebuilt Beirut city centre can be divided into two main zones.  
Reference: Solidere annual reports and Aleppo project report, modified by author

### 6.2.1 The traditional city centre zone

The traditional city centre demonstrates several approaches of reconstruction. This zone can be divided into two main parts: the central area and the outer area. The conservation and reconstruction strategies of the central part of the traditional centre are based on rebuilding the same image of the city as it was prior to war, referred to as saving memories.

This element is very important, despite the majority of these buildings having been rebuilt and completed from the beginning, in order to save the old image of the city centre. The buildings were surveyed to find old photos or any documents that could be used to recall the buildings' elevation designs. Moreover, in this zone, the conservation strategies aimed to find an appropriate use for each building to ensure their sustainability. To convert the buildings' designs in order to fulfil the target functions, several changes were carried out through the design of the buildings' inner spaces. As a summary of the historical zone of downtown Beirut, the main aim was the method of reconstructing the buildings with a historical elevation, and maintaining their heritage image by finding an appropriate use for each building, in order to acquire sustainability through modifying the design of inner spaces.

The outer part of the traditional city centre is located between the historical core and the new, developed zone. In this area, the strategies vary between conserving existing historical buildings and constructing new buildings with a mixture of traditional and innovative styles. The strategies for the historical buildings were the same as those used in the first zone. However, the innovative and new buildings were built using three different approaches. Some were built to complete the heritage urban fabric, such as Beirut Souks. Others were built as a composition of two different styles in one building. The lower floors were mainly created to complete the urban context, while the upper floors contained contemporary architecture. Few buildings in this zone were built in terms of totally contemporary architecture, with new materials and forms.

### 6.2.2 The extension reclaimed from the sea zone

The new developed zone is located in the extended area facing the downtown waterfront. The majority of buildings in this area were designed entirely through new, contemporary architecture. Each building has a unique form and character. Some of these buildings are not aligned with the context, especially in the area that is integrated with the old buildings in the transitional zone. As a general summary of this zone, the new, developed zone represents futuristic growth for downtown Beirut.

On the other hand, the archaeological sites that were found during reconstruction in several sites have been preserved as they were, even if they were found under part of new buildings. To ensure the preservation of archaeological sites, the designers were forced to change the structural systems, building inner designs and other aspects to convince others that the historical elements would be seen regardless of the buildings and the urban context.

## 7. CONCLUSIONS

The study of a city's history and heritage helps to directly select the appropriate conservation strategy to be used to maintain its urban heritage. The downtown Beirut district is a successful case study that can be used as a benchmark for reconstructing historical cities destroyed after war.

By examining downtown Beirut as a case study, the strategies that can be used in rebuilding destroyed sites can be categorized as follows. First, the main strategy for the historical core is the method of rebuilding as much of the same image of the old city as possible, through conservation by reconstructing missing parts and buildings as they were prior to war. These strategies require much effort in documenting the buildings of old cities in the period before war. The buildings located in this zone that do not have enough documentation could be redesigned using traditional elements in order to complete the image of urban heritage. Second, the area located next to the historical core of the city is a transitional zone between the old core and the new extension of the city, which has a few monuments and heritage sites. The strategies of conservation in this area are more flexible when integrating historical styles with contemporary architecture. Third is the new extension of cities. This zone is mainly based on building new, contemporary architecture for future extension. Between the three zones of a reconstructed city, there are several strategies and approaches that can be selected individually based on the history of the building for reconstruction, the situation of elements of the building and the availability of original building documentation.

Despite the destruction that the city has suffered through war, the opportunity for reconstructing these devastated cities is worthwhile for the creation of a cognitive perception that combines the historical image with contemporary architecture. This integration between tradition and innovation creates a new character for reconstructed cities.

Several countries have been destroyed during the last ten years due to various political issues, and the majority of these destroyed cities and countries have heritage sites. Future generations have a right to their ancestral heritage. Therefore, the reconstruction and rebuilding of destroyed heritage is very important in order to maintain the historical, cultural and political heritage for the upcoming generation.

Downtown Beirut is one of the districts that have suffered damage and destruction to their urban heritage. The projects of rebuilding, restoration and innovation of the urban context act in the role of rebirth of the city's image. From studying downtown Beirut as a benchmark, it can be seen that not only urban aspects and physical aspects can affect the strategies of reconstruction; the case of downtown Beirut also has many other attributes that play a part, such as political, socio-economic and financial factors.

## REFERENCES

- Ashworth, G. (2011). Preservation, Conservation and Heritage: Approaches to the Past in the Present through the Built Environment. *Asian Anthropology*, 10(1), 1-18. doi:10.1080/1683478X.2011.10552601
- Davie, M. F. (1993). A post-war urban geography of Beirut.
- Felix, M. (2007). *Value Engineering as a Key Enrolment in Architecture and Urban Conservation Process (Master)*. Faculty of Engineering, Cairo University.
- Felix, M., & El-Daghar, K. (2019). Historical Urban Fabrics and the Effect of New Building Shadings on Social Activities—Case Study Tripoli Lebanon. In D. Hawkes, H. Bougdah, F. Rosso, N. Cavalagli, M. Yousef M. Ghoneem, C. Alalouch, & N. Mohareb (Eds.), *Conservation of Architectural Heritage: A Culmination of Selected Research Papers from the Second International Conference on Conservation of Architectural Heritage (CAH-2), Egypt 2018* (pp. 179-189). Cham: Springer International Publishing.
- Hegazy, S. M. (2015). Conservation of historical buildings – The Omani–French museum as a case study. *HBRC Journal*, 11(2), 264-274. doi:https://doi.org/10.1016/j.hbrj.2014.03.010
- Ilyes, I. I. (2015). *Rebuilding Downtown Beirut*. Retrieved from The Aleppo project:
- Lee, J. (2014). *Beirut, 2nd Edition : Includes Baalbek, Byblos, Chouf Mountains, Mount Lebanon (Vol. 2nd edition). Bath: Footprint Travel Guides: Bath: Footprint Travel Guides.*
- Mansour, A., & Felix, M. (2015). فن العمارة الشاهد المادي علي التراث مفردات التشكيل و تأثيرة علي العمارة المعاصرة . Paper presented at the Francaises Colloque National III le Patrimoine dans les Ecrits
- Litteraires et Historiques., lebanon
- Nagel, C. (2002). Reconstructing space, re-creating memory: sectarian politics and urban development in post-war Beirut. *Political geography*, 21(5), 717-725.
- Nasr, J., & Verdeil, E. (2008). The reconstructions of Beirut *The City in the Islamic World (2 vols.)* (pp. 1121-1148): Brill.
- Omar, O. (2016). *(Squares'and Plazes' Role in the Cultural Renaissance of Lebanon (Vol. 23)*
- Ouf, A. M. S. (2000). *Urban conservation concepts for the new millenium in the United Arab Emirates: Zayed Center for Heritage and History.*
- Ragab, T. S. (2011). The crisis of cultural identity in rehabilitating historic Beirut-downtown. *Cities*, 28(1), 107-114.
- Randall, E. (2014). Reconstruction and Fragmentation in Beirut. *Conflict in Cities and the Contested State: Everyday Life and the Possibilities for Transformation in Belfast, Jerusalem and Other Divided Cities. Divided Cities/Contested States), Working Paper(29).*
- Schmid, H. (2002). The Reconstruction of Downtown Beirut in the Context of Political Geography. *The Arab World Geographer*, 5(4), 232-248.
- Slae, B., Kark, R., & Shoval, N. (2012). *Post-war reconstruction and conservation of the historic Jewish Quarter in Jerusalem, 1967–1975 (Vol. 27).*
- Solidere. (2006). Annual report 2006. Retrieved from <http://www.solidere.com/sites/default/files/attached/ar2006.pdf>
- Solidere. (2008). Solidere annual report 08. Retrieved from <http://www.solidere.com/sites/default/files/attached/ar2008.pdf>
- Solidere. (2009). The Lebanese Company for the Development of Beirut Central District. Retrieved from <http://www.solidere.com/city-center/history-and-culture/archeology>
- Solidere. (2010). Solidere annual report 2010 city in layers. Retrieved from <http://www.solidere.com/sites/default/files/attached/ar2010.pdf>
- Straub, A. (2012). *Maintenance and Repair.*
- Tarraf, G. G. R. (2014). *Beirut: The Story of a City Destroyed by Peace.* Lebanese American University, School of Arts and Sciences.
- Worskett, R. (1969). *The Character of Towns: An approach to conservation.*

- Yahya, M. (2004). *Let The Dead Be Dead: Memory and the post-civil war reconstruction in Beirut*. Paper presented at the Symposium Urban Traumas, The City and Disasters, Barcelona Center of Contemporary Culture of Barcelona.
- Yassin, N. (2012). Beirut. *Cities*, 29(1), 64-73.
- Young, M. A. (2008). Adapting to adaptive reuse: comments and concerns about the impacts of a growing phenomenon. *S. Cal. Interdisc. LJ*, 18, 703.
- Zeayter, H., & Mansour, A. M. H. (2018). Heritage conservation ideologies analysis – Historic urban Landscape approach for a Mediterranean historic city case study. *HBRC Journal*, 14(3), 345-356. doi:<https://doi.org/10.1016/j.hbrcj.2017.06.001>