CONSERVATION OF HISTORIC DISTRICTS: CHALLENGES OF INTEGRATION IN MODERN CITIES WITHIN SUSTAINABLE PERSPECTIVE

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Abstract

Architecture is a significant product of civilization that represents culture and retains history as culture is the reaction of mankind to nature. The development of architecture is a result of mankind’s need to survive and its continual survival with today's sophisticated life style. Cities and regions with diverse and rich architectural heritage have been exposed to extensive deterioration and destruction, due to the rapid modernization and economic, social, and cultural changes.

Dependency on cars and other means of transportation caused most modern cities to expand rapidly. This uncontrolled expansion transformed major cities into metropolitan areas and changed the traditional life style into a modern one. During the past few decades, many architectural heritage symbols and historic buildings as well as historic districts were demolished due to several reasons: modernization and urban development, deteriorated conditions, and unsafe construction situations or they were just not viable economically.

During this period, development and following the international modern typology subjugated urban planning and architecture. Historic buildings and districts faced extreme challenges to survive and cope with the modern urban patterns where cars and grid-iron streets patterns dominated city planning while new buildings were mainly constructed using modern construction technology and building materials such as reinforced concrete, steel, and glass.

One of the main objectives of this research is to explore conservation of historic buildings, in an architectural level, and historic districts, in an urban level, within a sustainable perspective as a multi-layered process with a lot of challenges. Being raised and educated in a region with very rich heritage and witnessing the destruction this valuable immense heritage suffered due to modernization, wars, neglect, and unprofessional conservation policies, was one of reasons that motivated the authors to investigate conservation of historic buildings/districts within modern cities. This process requires planning, knowledge, strategies, research of architectural styles, and professional skills. Conservation of historic buildings and districts has inestimable value for people; however, it can be a costly process. One of the major concerns of historic buildings conservation is how to make these buildings worthwhile financially, viable socially, and vital publically to maintain historic features and cultural value.

This research investigates the impact of modernization on architectural heritage in historic districts in cities with rich heritage in different regions. The research aims to explore how historic buildings/districts can go beyond being just monuments to visit through playing pivotal roles in societies’ daily activities as vital living parts that are integrated within modern cities. To accomplish that, the research examines the adaptive reuse of several case studies in different regions with a focus on community connectivity strategies within sustainable approaches that conserve resources, unique architectural characteristics, and local identity within economic viability.

The research methodology is based on field case study observations and a qualitative analysis of literature review to the main discussed concepts: urban conservation, culture, vernacular architecture, conservation methods, rehabilitation of historic buildings, and sustainability. Using comparative analysis method, the research examines a number of case studies through investigating the conservation policies, strategies, and methods that allow of integration of historic buildings/districts within modern cities fabric and its people everyday life.

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Through analytical approach, the research concluded that city development should not be in expense of losing historic buildings/districts; it can be achieved efficiently through applying urban conservation policies within sustainable perspective environmentally, socially, and economically. The research intensifies the role of individuals, society, and local communities in getting involved as well as investing in the adaptive reuse of historic buildings and rehabilitation of historic districts to revitalize the heritage and cultural identity of the society.

Furthermore, the research set some guidelines for planning urban conservation policies that enhance integration of historic districts and old city cores within modern cities planning to preserve the characteristics of society and reveal identity of the region.

**Key words:** Urban Conservation; Historic Districts; Rehabilitation; Sustainability

### 1. Introduction

Conservation of architectural heritage and historic buildings and districts means revitalization of cultural values in an environmentally sensitive manner that is an ongoing commitment to the region identity through a sustainable approach. Preserving the identity and special characteristics of a place requires in-depth understanding of the natural systems in place and immersion into the time-tested cultural responses to that environment's assets and liabilities, which contains the essence of sustainability. It is not just nostalgia that draws people to architectural heritage and historic buildings. Much of what is valued in this architecture is its sustainability and response to the climate, natural setting, available building materials, local culture, and social values.

Numerous cities embracing a diverse and rich architectural heritage for centuries had been exposed to extensive deterioration and destruction, due to the rapid modernization and drastic economic, social and cultural changes that took place worldwide in accordance with technology, transportation, and urban sprawl - Figure 1. The uncontrolled expansion transformed major cities in different parts of the world into metropolitan areas that altered the traditional life style into a modern one leading to lose of identity architecture and urban fabric (Salman, 2018, P.3).

![Figure 1. Traditional and Modern Architecture in Cities with Rich Heritage](source: Dr. Maha Salman, 2003)
2. Heritage, Culture, Identity, and Collective Memory

Architecture is a significant product of civilization that represents culture and retains history as culture is the reaction of mankind to nature. The development of architecture is a result of mankind's need to survive and its continual survival with today's sophisticated lifestyle. Architecture, vernacular, is a product of people, place, and culture; it is one facets of identity.

Symbolism of architecture can be related to the realization of identity personally and socially. Architecture the mirror of culture, regions, locality and/or individuals, as well as construction practices, embracing meanings that evolved over time in terms of form, situation, materials, and building systems (Canada's Historic Places, 2010, P.127). This can be seen as an indicator of the collective memory that represents the shared bundle of knowledge, experience, memories, and culture of a community that is meaningfully reflects the group's identity.

Identity can be defined as being unique and distinguished from others. Societies, as a group of people, can be recognized and reveal through collective memory that is challenging to disentangle from cultural heritage, Heritage, like memory,” ...is experienced and perceived, or to use the neurological term 'inputted', at the level of the individual, through the senses. And yet it is only through social interaction —whether at familial, national or ‘world’ level.” (Viejo-Rose, 2015).

International Council on Monuments and Sites defines traditional historic buildings as the capital of architectural experience: “...They are an inexhaustible universal source of inspiration for modern and innovative architecture, in terms of materials, construction methods, layout and design, contributing to a high quality of life.” (ICOMOS, 2011, p. 4).

It is now widely agreed that heritage - with its value for identity, and as a repository of historical, cultural and social memory, preserved through its authenticity, integrity and ‘sense of place’ - forms a crucial aspect of the development process.

In setting policies for revitalising of cities and local economies, Paris Declaration on Heritage as a Driver of Development, suggest to: “encourage the selective retention and reuse of built heritage in towns and rural villages in order to foster socio-economic regeneration; increase the density of urban cores to contain the anarchic spread of new buildings” (ICOMOS, 2011, P.3).

3. Conservation of Architectural Heritage: Nostalgia or Necessity

Preserving cities is a vital goal against negligence, pollution, and destruction. The focus should be on harmonizing between the necessities of preserving the urban and architectural style, in which cities and traditional buildings and districts derive their value. Reviving these urban spaces and merging them through modern dynamics, is essential to be adaptable to what the technologically advanced lifestyles and meeting modern needs. (Alquzairi, 2007, pp.17-22).

Unfortunately, in several cities with rich heritage, development and modernization led to the negligence of architectural heritage; numerous historic buildings underwent deterioration due to neglect, misuse, unprofessional preservation, lack of adequate procedures, and shortage of financial aids.
What took place in Al-Kadhemeya district, one of the unique traditional areas in Baghdad/Iraq, due to the expansion of infrastructure over the traditional urban fabric, and the residential project in Haifa Street is a clear example of heritage loss. Al-Kadhemeya suffered mostly from the removal of the traditional houses surrounding Al-Kathemeya during the late 1970s. The intent was to construct a multi-floor parking lot, which hasn’t been carried out until this day, as shown in Figure 2. The area was spacious surrounding the shrine, which was constructed on the rubble of traditional houses. Even though the residents were given compensation, nobody compensated Baghdad and Al-Kathemeya for its lost heritage (Al-Maliki, 2011).

Figure 2. Al-Kademeya district before and after removing and destroying the urban fabric around Al-Kathemi shrine, Baghdad-Iraq

Source: Al-Maliki, 2011

Conservation process unfold several levels; it includes all actions or processes that are aimed at safeguarding the character-defining elements of an historic place so as to retain its heritage value and extend its physical life. As defined by Canada’s Historic Places, conservation may involve Preservation, Restoration, Rehabilitation, or a combination of these actions or processes (Canada's Historic Places, 2010, pp.15-17).

Preservation involves protecting, maintaining, and stabilizing the existing form, material and integrity of historic building, while protecting its heritage value. This will keep the place serviceable through routine maintenance and small repairs, rather than inoperable during intrusive interventions, extensive replacement and new construction. *Preservation* tends to be the most cautious of the conservation treatments and retains the most materials. It is therefore more appropriate when heritage values related to physical materials dominate. *Restoration* is more focus on accurately revealing, recovering or representing the state of an historic place or individual component as it appeared at a particular period in its history, while protecting its heritage value. *Rehabilitation* needs to be considered if the building/site need to be adapted for certain function/use. The process will involve sensitive adaptation of a historic place or individual component for a continuing or compatible contemporary use, while protecting its heritage value. However, rehabilitation is a sensitive process; it should involve adaptation of the new uses and functions to existing heritage, rather than the reverse.

Heritage preservation theories are changing as organizations, such as Historic England, are tending towards flexibility in the way to deal with heritage and conservation as dynamic in favour of “Constructive Conservation which acknowledges that heritage is a dynamic force” and that “protecting it is not enough. Historic places need to be used, re-used, adapted, and developed if they are to have a future” (Historic England, 2014, p. 3).

One of the major challenges when investigating the impact of modernization on architectural heritage in historic districts of cities with rich heritage in different regions, is how to reserve
historic buildings and districts sustainably to retain their value in a way that copes with the modern life necessities. Another challenge of historic buildings conservation is how to make these buildings: worthwhile financially, viable socially, and vital publicly to maintain historic features and cultural value. This leads to inquire if conservation of architectural heritage is nostalgia or necessity and if new generations are interested in their heritage.

Based on an online survey of millennials conducted by National Trust for Historic Preservation, it was concluded that Millennials connect with the historic preservation where 97% of the participants indicated that it is important to preserve and conserve buildings, architecture, neighbourhoods, and communities. More than half of participants are very interested in getting involved with conservation process – Figure 3 (National Trust for Historic Preservation, 2017, p. 3).

Figure 3. National Trust for Historic Preservation Survey Results

Source: National Trust for Historic Preservation, 2017

Conservation needs to be seen as a comprehensive process within a holistic view. The public, as Fram states, has a growing sense that conservation is essential to neighbourhood or district planning, beyond preservation of single buildings. The character of an area, with its buildings, landscapes, and streets, has become of considerable value, even though no single person owns or controls this amenity and even though its boundaries may be difficult to determine (Fram, 2003, P.80). Chicago, Illinois –USA is full with distinguished historic buildings that were adapted to fit new reuses such as Carson building designed by Louis Sullivan and built in late 19th century. The building now hosts multia-use commercial, educational, and corporate activities- Figure 4.

Figure 4. Carson Building by Louis Sullivan became a modern brand store, Chicago-USA

Source: Dr. Maha Salman, 2019
4. Rehabilitation and Adaptive Reuse within Sustainable Perspective

Rehabilitation is coincided with *Adaptive Reuse*, which is a process by which older and/or historic buildings are developed for their cultural value while receiving economically, socially, and culturally viable new uses of a sustainable nature. Dynamic relationship within cities can be promoted through conversion of old buildings and of course with the insertion of new architecture in old settings (Mutal, n.d., pp.1, 2). Adaptive reuse is the process of adapting old structures for purposes other than those initially intended. Adaptive reuse, along with brownfield reclamation, is seen by many as a key factor in land conservation and reducing the amount of sprawl with sustainable perspective.

Several cities worldwide managed to co-exist the old with the new through sensitive adaptive reuse to historic buildings to the new uses within modern life needs. We must preserve the old urban structure while constructing new buildings, not to mention, the importance of the harmony between both the old and modern architectural styles, in the city of Paris. We can notice the synchronization between its urban structure and roads of the 19th century with the present, and the harmony between both architectural styles (Cohen, 2001, p. 44).

Adaptive reuse preserves the character of an area, creates a sense of place, and improves the quality of the public realm (Hill, 2016, P. 35). Conservation of historic buildings and districts has inestimable value for people; however, it can be a costly process. Assessment of adaptive reuse process in the long run, an existing building has less impact than a new one; it is already there and can been adapted. The longer the service life of a heritage building results in an often intertwined relationship with the local community, culture, and economy. Marshall Field and Company building designed by Daniel H. Burnham in early 20th century, is a living sample for that era that is still vibrant until now. The architectural and historic value of the building led to be designated a Chicago Landmark - Figure 5.

*Figure 5. Marshall Field and Company Building became a modern Department Store-Chicago-USA*

Source: Dr. Maha Salman, 2019
Both heritage conservation and sustainability aim to conserve resources. The role of building conservation has changed from preservation to being part of a broader strategy for urban regeneration and sustainability. The most successful adaptive reuse projects are those that respect and retain a building’s heritage significance as well as add a contemporary layer that provides value for the future (Bullen & Love, 2011, pp. 411, 414).

One of the major challenges of adaptive reuse is finding a suitable future use that is technically feasible, viable, deliverable, appropriate for its heritage significance, and sustainable (Hill, 2016, P.35). Another challenge is related to environmental performance where heritage buildings may not be as efficient as new buildings even after adaptive reuse. Additionally, historic building adaptive reuse might not be uneconomical or the building layout is unsuitable for any change of function, particularly commercial buildings (Bullen & Love, 2011, P. 414).

To explore how historic buildings/districts can go beyond being just monuments to visit; the research conducted comparative analysis for several case studies that were integrated within societies’ daily activities as vital living parts in modern cities.

5. Adaptive Reuse and Integration within Modern Cities: Case Study Analysis

To investigate the impact of modernization on architectural heritage in historic buildings/districts, various case studies were selected from cities with rich heritage in different regions. All these case studies were based on field observations and analysis; case studies were two levels: architectural (historic buildings) and urban (historic districts). The case studies were selected as a manifestation of how historic buildings/districts can go beyond being just monuments to visit through playing pivotal roles in societies’ daily activities as vital living parts that are integrated within modern cities.

To accomplish that, the research examines conservation methods and strategies used in these case studies to be integrated within society daily life within different context. The focus was on urban conservation strategies within sustainable approaches that conserve resources, unique architectural characteristics, local identity, and economically viable. Case study analysis is built upon the following criteria:

- Historical Review
- Location and Ease of Access
- Design
- Activities
- Economic Viability
- Connectivity with Society

5.1 Design Museum, Helsinki-Finland

Historical View: The building is part of Helsinki historic district.

Location and Ease of Access: The building is located in the vibrant Eteläsatama area that is a touristic hub in Helsinki. It is located near the sea that plays an important role in the relationship between Finnish architecture, design, and nature. It is accessible by cars and public transportation and few meters away from the Architecture museum.
Design: The building became Design Museum that brought a unique aspect to the historic building. A report posted in March 2019, indicated that the design Museum is an integral part of reforming the Eteläsatama area. The exterior elevations kept the historic features and architectural details with integration of modern art work. The amalgamation of historic and modern is evident in the interior spaces. Within the historic structure and architectural details, interior design elements were contemporary with strong industrial colours, unique furniture, and avant-garde exhibited objects – Figure 6.

Figure 6. Design Museum Integration of Modernism and Heritage –Eteläsatama -Helsinki-Finland

Activities: The building is used as a design museum tracking creative designs and innovative ideas by Finnish designers and architects with service areas.

Economic Viability: In addition to attendance fees, the museum conducts social and cultural activities such as workshops, galleries, and children camps with cafes, bookstore, and a gift shop specialized in Finnish products and designs (social and economic sustainability).

Connectivity with Society: The building is an attraction hub for families and children. It hosts children activities within different spaces such as painting and crafts areas – Figure 7. Additionally, the museum includes interactive fascitis where visitors experience virtual reality (VR) tours to different buildings. The museum also offers the option to explore/touch some exhibited elements to enhance the interaction between visitors and objects creating social connectivity between design, community, and culture (environmental and economic sustainability).

Figure 7. Design Museum: Children Activities and Exhibitions Areas-Helsinki-Finland

Source: Dr. Maha Salman, 2019
5.2  Montgomery Inn- Etobicoke, Ontario-Canada

**Historical View:** The Montgomery Inn was built and established in 1830 and catered towards Irish Immigrants. Operated by Thomas and Margaret Montgomery, it was run on the farm the Montgomery’s owned. The building played an important role in political and social life in Canada history especially in Ontario province.

**Location and Ease of Access:** The building is located in the vibrant area of Etobicoke, Ontario within commercial and residential neighbourhood. It is accessible by cars and public transportation.

**Design:** The building was a Georgian-style inn with unique features. The new extension was added during renovation as an office and small gallery area. However, the new addition kept the style through using traditional building materials such as stone and wood – Figure 8.

**Activities:** The building is used as a museum for life in Canada in mid-19th century.

**Economic Viability:** In addition to attendance fees, the museum conducts social and cultural activities such as weddings, social events, workshops, and summer and spring students’ camps.

**Connectivity with Society:** The building hosts a weekly farmer market all year round (indoor and outdoor depending on the season). In this market, farmers in Ontario exhibit their local fresh products that create more economic viability for these farmers (environmental and economic sustainability). Additionally, creates social connectivity between communities in Ontario (social sustainability).

![Figure 8. Montgomery Inn: Children Activities and Weekly Farmer Market, Etobicoke -Canada](source: Dr. Maha Salman, 2019)
5.3 Suomenlinna Island, Helsinki-Finland

**Historical View:** Suomenlinna is an old sea fortress island and UNESCO World Heritage site. Built in 1748 when Sweden begun fortification work on the Susiluodot islands off Helsinki (Warkentin, 2018).

**Location and Ease of Access:** The site is a big island within set of smaller islands near Helsinki at Gulf of Finland. The island is connected to the main land by boats and ferries with regular schedule every day.

**Design:** Most of the buildings in the island are set as part of the historic fortress using stone and wood as the main building materials. Architectural styles vary as buildings were erected in different eras with more functions in addition to its original purpose as a fortress – Figure 9.

**Activities:** Suomenlinna embraces several cultural and entertainment activates in addition to residential sectors.

**Economic Viability:** The Island has six museums, including a submarine museum and a toy museum that is a hub for tourists and locals due to its cosy café. Also it has convenient stores, gift shops, and 13 restaurants and cafes that mostly serve local food and products (environmental and economic sustainability).

**Connectivity with Society:** The Island has an easy-going vibe with a genuine sustainable lifestyle that promotes connection with nature (environmental sustainability). Bicycles and light vehicles are the main transportation method in the island. It is the home to 800 eco-conscious residents, all of whom have undergone an application process, and appeals particularly to hobby sailors and hipsters (social sustainability) - Figure 10.
5.4 Ulus District, Ankara-Turkey

Historical View: Ulus is a quarter in Ankara, Turkey. The name means it is “nation” in Turkish. Ulus hosts a rich cultural, historical and architectural heritage dating back to Ancient and Ottoman Periods (Historic Ulus District, n.d).

Location and Ease of Access: The district is located at the center of the capital city. It was once the heart of old Ankara. It is accessible by cars and public transportation.

Design: Most if the buildings in the district are part of the historic city using stone, brick, and wood as the main building materials. While architectural styles vary as buildings were erected in different eras, buildings embrace the unique Turkish Islamic touch. The urban structure and roads network were used while maintaining unique buildings and limiting vehicle entrance times.

Activities: Tulus is a predominately a commercial and tourist area made up of banks, malls, shops, hotels, businesses, restaurants, and many historical sites.

Economic Viability: Ulus has been the center of Ankara in terms of finance, bureaucracy, culture, politics and commerce. It is still an important cultural and commercial centre (environmental and economic sustainability). Adaptive reuse of former khan buildings to museums and a boutique hotel with shops, café, and restaurant facilities increased the financial value of the buildings (Disli, 2018, p.16). This initiated a fine socio-cultural precinct in this part of Ulus district and brought new job opportunities (social and economic sustainability).

Connectivity with Society: In addition to being a commercial center, the district host Social Sciences University of Ankara that plays a pivotal role in prosperous of social connectivity for all society promoting Ulus an intellectual and cultural centre (social sustainability).

Figure 11. Ulus District: Adaptation of Old Planning to Modern Life Requirements - Ankara-Turkey

Source: Dr. Kabila Hmood, 2014

The combative analysis conducted for the previous case studies upon certain criteria, highlights the importance of understanding the economic and social impact to maximise the value of heritage. These cases, with their new use also demonstrate: “… the importance of functional change and need for modernization for sustainability, as well as reveal the role of heritage conservation in urban revitalization. Such that they became important meeting and visiting points in the area attracting both local and tourists, thus positively increased the quality of the vicinity and contributed to the economic, cultural, and social development of the local community” (Disli, 2018, p.16).
6. Discussion

Conservation of architectural heritage and historic buildings and districts means revitalization of cultural values in an environmentally sensitive manner that is an ongoing commitment to the region identity through a sustainable approach. However, it should be apparent that for heritage building/district to survive, it must have an economically viable use and user. In turn, such use depends on the more general economic conditions of a community and its region (Fram, 2003, P. 207).

Economic and social viability should involve society and stakeholders in the creation of management plans for heritage sites, tourist destinations, and historic urban districts. Some of the questions to be addressed: who are the users, to whom this building/district is dedicated, and for what reason? This will assist in setting a long-term vision for the sustainable development of heritage conservation as agreed by all the stakeholders.

Local communities need to take ownership of their heritage and related adaptive reuse projects. This will encourage empowerment and participation in heritage conservation in the planning process and in decision making (ICOMOS, 2001, P. 4). This helps to promote environmental sustainability through resources preservation, social sustainability by connecting community and young generation to their history, culture, and identity, and economic sustainability by creating job opportunities for locals and encourage traditional craftsmanship – Figure 12.

Figure 12. Preservation of Traditional Craftsmanship-Pioneer Village, Ontario-Canada

It is evident and clear that within a market economy cultural/urban heritage could be considered as a financial asset. Investment in historic areas is now closely related to the new uses to be given to a series of buildings with a view to get economic gains and at the same time protect and preserve and sustainably conserve not only the individual buildings, but in most cases, the urban fabric as a whole (Mutal, n.d., p.1).
7. Conclusions

The commencement of adaptive reuse projects can be an added incentive for economic revitalization. The discussed case studies were successful examples of the possibility of making revenue while preserving the value of historic buildings and districts on architectural and urban levels. This economic viability was built on selecting functions that align with demographic groups, vibration of the area, type of neighbourhood, type of use in the area, and most importantly be innovative in creating activities that attract visitors and users in unique ways. Furthermore, creative design and integration of latest technology are essential factors to address children and young generations as noticed in Design Museum in Helsinki.

Based upon literature review, discussion, observations, and case studies analysis, the research concluded that planning conservation policies should identify a comprehensive vision to enhance integration of historic buildings and old city districts within conservation planning to preserve the characteristics of society and reveal identity of the region within suitability perspective. This comprehensive vision should consider the adaptive reuse of historic buildings and districts as a key point of community and economic empowerment within the three dimensions of sustainability- Figure 13.

Figure 13. Adaptive Reuse as a Manifestation of Sustainability Dimensions

![Diagram of sustainability dimensions](source: Dr. Maha Salman, 2019)
7.1 Environmental Sustainability

Environmental Sustainability that endorses longevity of valuable resources through preservation of these resources through using local materials and techniques that are compatible with ambient environment.

7.2 Social Sustainability

Social sustainability reveals originality of the society through creating bridges to connect with history and heritage and communication within diverse components of the society to preserve identity and cultural values.

7.3 Economic Sustainability

Economic sustainability empowers economy and financial enablement of people through creating new job opportunities to gain financial profit and enhancement of local craftsmanship.

It is not just nostalgia that draws people to architectural heritage and historic buildings. Much of what is valued in this architecture is its sustainability and response to the climate, natural setting, available building materials, local culture, and social values.

City development should not be in expense of losing historic buildings/districts; it can be achieved efficiently through applying urban conservation polices within sustainable perspective environmentally, socially, and economically. The research intensifies the role of individuals, society, and local communities in getting involved as well as investing in the adaptive reuse of historic buildings and rehabilitation of historic districts to revitalize the heritage and cultural identity of the society.

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