

Urban Planning and Reconstruction of Cities Post-Wars by the Approach of Events and Response Images

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Abstract

The research attempts to shed light on how to invest the philosophical and intellectual concept of the event in preparing the development plans for the city. Based on it, there are three strategies to read the event (Explanation, Interpretation, and Deconstruction) that are regularly responded to it with three strategies represented by (Revitalization, Renewal, and Reform). Through the use of reading and response strategies, and the corresponding planning policies represented by: preservation, rehabilitation, and redevelopment. The research adopted an analytical and descriptive methodology for some world experiences for the eventful cities, such as Warsaw, which reflects (Explanation - Revitalization) and used preservation, Bilbao, which reflects (Interpretation - Renewal) and used rehabilitation, and Tianjin, which reflects (Deconstruction - Reform) and used redevelopment. In an attempt to benefit from these experiences and derive some indicators for each strategy. By applying the derived indicators to the traditional Mosul city, it concluded that the most appropriate strategy for the reconstruction of this city is the strategy of Explanation – Revitalization, which represents preservation because the destruction of the city was intending to crush the historical and cultural value of the city and destroy the local and national identity.

Keywords: Event; Response; Rehabilitation; Conservation; Redevelopment; Reconstruction.

1. Introduction

The urban structure of cities is affected by the factors that contributed mainly to its emergence through the moral and material aspects, where city planning is an expression of the individual's relations with society, the material elements of that city, the natural environment, material values, customs, and traditions...etc. These interrelationships between man and aspects of his urban environment are a reflection of his civilization and the vastness of the human mind from a historical perspective, and the history, civilization, and culture that the city holds, which were formed by the various events that the city experienced. Legislation of international conferences and decisions related to the maintenance and preservation of urban heritage identified many aspects that should be taken into account when dealing with valuable historical buildings and facilities and according to multiple policies that differ according to the situation concerned with the preservation and the availability of different levels of preservation and protection of the value related to the origin of its various historical, social or cultural types or economic, etc. Here, the problem of choosing the type and method of dealing with the distinguished historical monuments affected in the Mosul city arises because each case is unique in its circumstances and the reality of a situation that may differ significantly from other cases, which calls for conducting appropriate studies for each of them [1, 2]. The Mosul city has gone through the

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event of war and the destruction that affected the urban fabric of the city, and to determine the necessary ways to restore life to the city after the war, we must understand the nature of the event and its concept. An event is defined as an intellectual or physical event that occurs at a certain time, affects its aftermath, and requires a reaction towards it. Each event has its causes, the duration of its impact, the method of its spread, and the treatment of its effects, and it depends on the way the context deals with it. The event is either intentional or contingent, or it is emanating from an individual, a group, states, organizations, etc. [3]. It can be said that the urban growth of cities represents a form of transformation of events with a focus on their use as forms of display and scene, and the events at the beginning of urbanization processes were taking more regular forms as they were limited to holidays and collective celebrations of annual occasions that have an important impact on the souls of people. After the industrial revolution, cities sought to show themselves as poles at the national level and then at the global level. Where huge events (the World Cup and the Olympic Games for example) were invested to show the cities, their strength, and their polarity in the world. Thus, in the field of architecture and planning, the term "Eventful cities" appeared [4].

Eventful cities can be defined as those that arise as a result of important historical events of religious or worldly importance or that involve them. The urban fabric of those cities that arose and developed according to successive stages and in complementary relationships with those manifestations and according to their importance, as they are considered the part of the whole urban previously and its continuity and development in the future [5]. Al-Samurai and Al-Qaraghuli (2021) dealt with the importance of the concept of sustainable development and the need to adopt it when reconstructing cities after the events of wars in particular. The descriptive approach was adopted in its study of previous experiences in the reconstruction process to reach a comprehensive and integrated approach to sustainable development that takes into account its various dimensions (economic, social, and environmental) as well as Adding other dimensions such as (institutional, organizational, cultural) and adopting a set of principles, means, and techniques to reconstruct the Mosul city after the war according to a solid scientific approach [6].

Salman et al., (2021) discussed the morphological change in the urban system of cities after the events of wars as a result of the destruction inflicted on them and the importance of the reconstruction programs taking into account the preservation of the urban and architectural identity of the cities that were destroyed and vandalized due to the events of wars, taking into account the new situations after the wars and the need to highlight the events of the wars that passed through the city As it has become part of its history, and the strategies used should take into account the integration of ancient sites that must be preserved and revived and integrated with the sites that resulted from the war [7].

Bolloorani et al., (2021) dealt with the events of the ISIS war on Mosul city and its effects on the physical fabric and the social and economic situation. The study assumed that the method of re-evaluating damaged buildings after the destruction event plays an important role in resettling residents in their cities. The study relied on Synthetic Aperture Radar (SAR) techniques in evaluating and surveying damages to war-affected areas. The study found that 40% of the city's buildings were destroyed. The study was able to draw a comprehensive map of the sites of destruction, and prepare it as a tool that can be used in the reconstruction of the city [8].

Richards, G., (2020) suggested that the issue of urban events was previously neglected by researchers in urban studies. As many consider it to have a small and imperceptible impact on urban development processes. Recent studies have proven the opposite, as events have been added as a key factor in building urban development strategies for the regions, especially after the emergence of the concept of eventful cities. Event-based policies include many economic, social, and cultural indicators that can regulate and direct the growth of cities. The study relied on employing its idea by reviewing examples of the cities of Barcelona, Austin, and Hertogentosh [9].

Biao He et al., (2020) pointed out the impact of mega-events as a strategic approach that would contribute to changing the city's image and increasing urban development. The study relied on a statistical analysis method to study the development in the Chinese city (Boao) in the year 2010-2015. The study proved the existence of a clear statistical relationship between urban development indicators and the events taking place in the city. The researchers found that international events can significantly enhance urban development in host cities. The study recommended that decision-makers have the responsibility to invest in events and employ them in directing urban development in an integrated manner to serve the interests of the people and the city [10].

In their study published in (2019), Shaimaa H. Hussein et al. tried to shed light on the event of destruction caused by the ISIS war on Mosul city. The study aims to develop a strategy for the development process through which the city can be reconstructed in a way that preserves its identity and architectural heritage. The study was able to put many indicators through which it is possible to ensure the redevelopment in a way that preserves the texture of the urban environment and social cohesion, restores collective memory, and achieves economic development. The study recommended the need to preserve the buildings of historical and symbolic value, as they have a major role in restoring the urban identity and enhancing the sense of belonging to the place [11].

Devine and Quinn, (2019) pointed to the impact of social capital in achieving sustainable societies. The study relied on qualitative studies and methods and in-depth interviews about the UK City of Culture 2013 (CoC13) event as

a social event that can contribute to achieving a sustainable city. The study found that this social event had a prominent role in achieving interaction and strengthening links between the social fabric, especially among the youth group of event organizers, as the event contributed to building trust, cooperation, and goodwill between organizers and volunteers. The study found that social events can enhance the dimensions of sustainability, achieve the social pillar and build social capital [12].

McGillivray et al., (2019) focused on the impact of the sporting event represented by the Olympic Games in Rio in 2016 and its impact on the urban development processes in the entire city to accommodate different sports and cultural activities. The study focused on how this event invested in accelerating the development of the city by creating commercial enclaves to maximize the benefits of the city, As tourists can be taken advantage of to enhance the economic potential. The study found the role of employing legal force that would create appropriate conditions for managing urban spaces and developing these spaces by directing visitor flows and knowing their consumption patterns and needs [13].

Previous studies dealt with multiple and important issues in the subject of events. Some of them studied the impact of sporting events or cultural events and their role in promoting urban development, and other studies focused on the impact of war events on cities because of the bloodshed left by wars and the great social, economic, and urban effects on cities. Some studies suggested the documentation process and the preparation of a comprehensive survey and documentation plans that would be a starting point for the reconstruction of the destroyed cities. Other studies adopted building strategies by formulating a set of indicators that could contribute to the renewal and reconstruction of cities.

From the foregoing, we note that there are limited strategies in dealing with the reconstruction of cities with the emergence of new situations and problems in cities represented by wars, floods, pollution, crises, and others. This generates the motivation to search for strategies and approaches that keep pace with these developments. Hence, the knowledge addition to the research came through deriving philosophical and intellectual concepts that support decision-makers in choosing the best approaches for urban planning and city reconstruction through reading events and images of response to these events. By explaining how to deal with different events and how to read each of them and choose the strategy that fits with the event and that achieves the most reasonable and realistic in the reconstruction. Our study differs from previous studies in its attempt to find a comprehensive strategy that can be employed in the issue of urban reconstruction by adopting philosophical and conceptual binaries that enable us to build a comprehensive and new base that would cover the spatial dimensions in the processes of redevelopment and reconstruction. These strategies are based on putting forward binaries in and can be interpreted according to Figure 1.

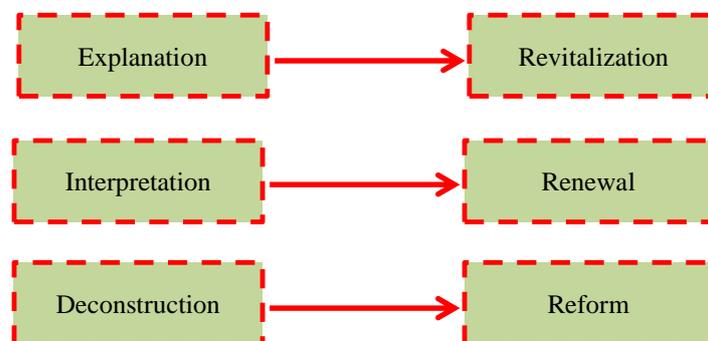


Figure 1. Reading and responding to events

2. Theoretical Approach

2.1. Strategies for the Development of Cities after the Events of Wars

A. Explanation (Revitalization): It can be defined as a conservation process used in significant areas of high quality for the function they perform, or of historical, cultural, and architectural value, where the buildings are maintained in good physical condition [14]. It does not mean preserving an entire area but may mean selecting a certain number of buildings to be preserved, either because they have historical or architectural value, and their condition or form is still good. A building may also have a religious, cultural, or social value, necessitating the preservation and restoration of the physical structure. This structure will interact with the urban fabric as a whole and thus will integrate with the social and economic aspects and remain in use within the urban fabric of the city [15].

Buildings are the reservoir of memories, so to violently and ruthlessly target and destroy these buildings is to target the memories of the residents. It is known that the identity of any cultural group is linked to the architecture and planning that represents them. Hence, any targeting of buildings and squares represents a targeting of the national identity, the targeting of which leads to the dissipation of feelings of belonging and collective memory, and feelings of separation from the place begin to appear. The strategy of targeting places that represent the national identity is used in

wars because it weakens the enthusiasm and morals among the population and thus facilitates their defeat by the enemy. Therefore, the most effective way to obliterate and defeat the identity of the community is to destroy its national identity by targeting buildings and places that bear historical and symbolic values [11]. As for places that do not bear special significance for collective memory and national identity, they are usually not targeted, because their demolition will not cause the desired emotional cultural shock, and therefore the main intended purpose of this type of war will not be achieved [16]. The places most targeted in wars and critically affecting identity are [11]:

- 1- Prepare and plan for the future by saving important documents and maps
- 2- Traditional buildings that carry deep values in the historical collective memory over the years, passed down by the residents from generation to generation.
- 3- Public buildings and places with symbolic values such as monuments, ancient forts, and city squares.
- 4- Buildings with distinctive architectural patterns and styles
- 5- Religious and cultural buildings.
- 6- Buildings that people know as service places or points of reference such as university buildings and schools.

B. Interpretation or (Renewal): is represented by the restoration of the building to perform its function again after carrying out the necessary maintenance or preparation to perform new functions or different activities that correspond to the spirituality of the building, its design, and architectural model. Rehabilitation is very important from an urban, economic and social point of view, and it can be adopted in areas where buildings have been partially damaged, or where there is an imbalance in the use of the land, such as the absence of green spaces, open spaces and lack of organization. It includes some improvements aimed at raising the efficiency of buildings and facilities, as well as removing their parts to provide some facilities and services that must be provided to the residents and the region [15]. Local urban development has been linked to the urban renewal of heritage sites and the work of the integrated concept of conservation and local community development as an innovative creative process aimed at preserving heritage, cultural and aesthetic aspects in addition to developing environmental, social, and economic aspects [16]. Renewal strategies aim to avoid the idea of static preservation and are not an attempt to “petrify” the past and turn it into a kind of open-air museum. Advocates of renewal policies stress the importance of a comprehensive and integrated approach to planning traditional areas, especially the need to consider full conservation/rehabilitation areas. Of course, certain buildings of special historical and/or architectural interest must be preserved as part of the overall scheme. But the real focus is on the activities and uses of the buildings as a whole, and the need to upgrade selectively and adaptively. This renewal approach raises a variety of critical issues [17]. Accordingly, five main indicators of the renewal strategy can be identified as follows [18]:

1. **Urbanization indicators:** include the following:

- Adapting the historical quality of the mixed-use environment in line with contemporary conditions.
- Preserving the urban pattern and textures of the historical city areas (of great importance) in the face of the necessary improvements and changes in land use.

2. **Economic indicators:** include the following:

- Enhancing the contribution of the old region to the urban economy.
- The economic role of tourism in the historical context.
- The effect of the increased land value and/or taxes.
- The efficiency of old land uses and new activities

3. **Social indicators** include the following:

- Active participation of the poor, who generally constitute the majority of those living in historical areas, in the rehabilitation process.
- Preserving low-income people in the face of changes in land use and value.
- Protecting low-income populations from the impact of “optimization”.

4. **Cultural indicators** include the following:

- Contribution of rehabilitation projects to strengthening indigenous cultural traditions and forms.
- The role of historical city centers, their physical characteristics, and their social life in the local culture.
- The importance of historical city centers as an area of special tourist interest.

5. **Political indicators:** Include the Develop a national policy to support the participation of the urban heritage community in the formulation and implementation of renovation plans.

C. Deconstruction (Reform): This method applies to destroyed areas or damaged buildings in very poor conditions, which includes removal and reconstruction of the land according to a new scheme that reflects the positive land use and population distribution pattern. The redevelopment process aims to: remove polluted areas, reduce poverty and revitalize work areas in city centers. Making room for the expansion of vital institutions, such as expanding schools and others. Providing environmentally friendly industries and expelling polluting industries. Encouraging middle-income families to continue to live in city centers [15]. The focus on redevelopment allows for an increase in the quality of the internal environment, as well as in improving mobility and enhancing local economic activity [19]. Strengthening the local economy helps improve the quality of life for the residents and promotes interest in the area, either as a commercial and service center or as a central component of heritage and cultural tourism. Strategies such as demolition, evacuating public spaces, or increasing building heights can cause inconvenience and anxiety to residents. These strategies must be properly organized and coordinated to minimize their impacts, particularly those involving the generation of construction waste, increased density in the face of value created by the occupation of existing buildings, an increase in the size of new buildings, an increase in paved surfaces and the consequent reduction in green space that may be little presence in the area [20].

2.2. World Lessons in the Planning of Destroyed Cities after the Events

A. City of Warsaw /Poland (Explanation = Revitalization): One of the most important planning examples about the war event and the systematic destruction of heritage and identity, and the resulting response represented by the neighborhoods, is what happened in Warsaw during the Second World War. The Germans systematically destroyed the city and its cultural heritage. Much of Warsaw was destroyed as a result of the war [21]. The Germans identified important monuments, memorials, and buildings of symbolic and historical value in addition to buildings with distinctive architectural styles and decorations, and then the Nazi forces destroyed these places, and they blew up legal places and set fire to all homes and streets one by one, and the result was: Demolition and destruction of more than 84% of the urban fabric in the city. This German policy (by destroying the city and the buildings in it because of its identity, history, and heritage) in Warsaw was a way to crush the spirit of resistance among the Polish people, shake the confidence of the Poles in themselves, strike identity and erase history [22].

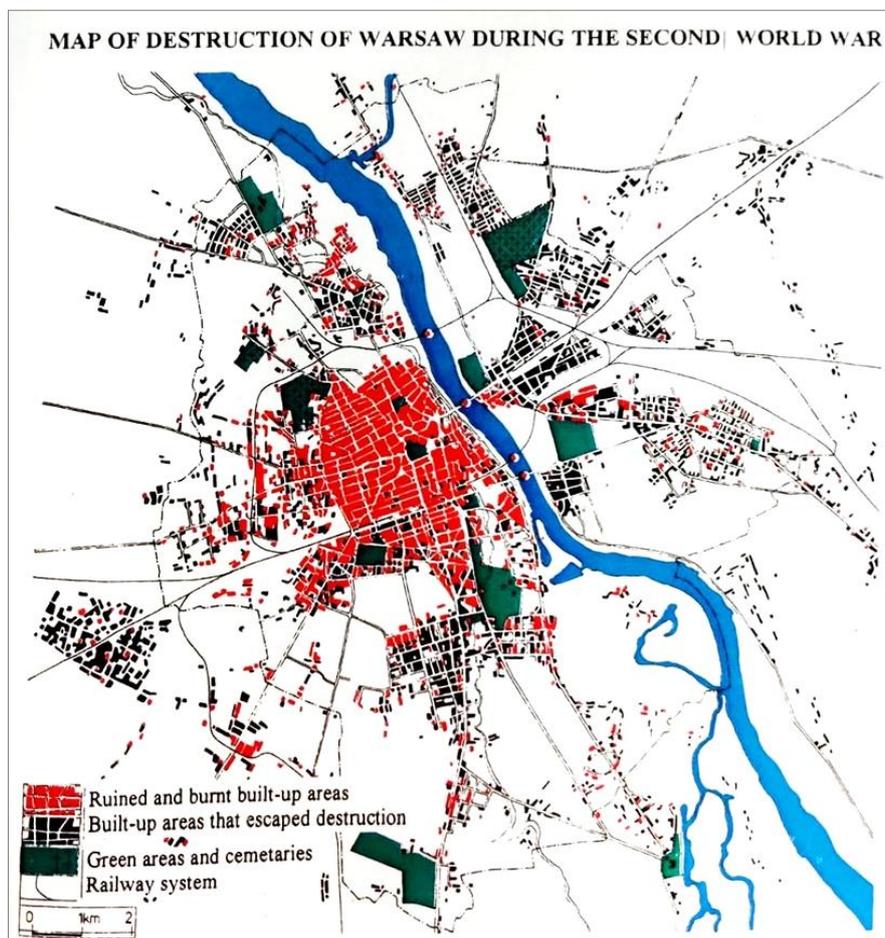


Figure 2. The destruction in Warsaw after World War II (destroyed areas - In red color)

The city of Warsaw responded to this event by interpreting it as an attempt to erase and remove its identity. It adopted a strategy of revitalization by re-planning and building all that had been destroyed without significant change. Architects, planners, historians, educators, archaeologists, and all the intellectuals of the city's people who appreciate the meaning of the city and identity, and who look forward and the future, took the initiative. Documentary plans for the historical city of Warsaw for fear of the German Nazis. After the end of the war, documents and plans were taken out, which were in good and intact condition, and were used as a basis for rebuilding the city between 1945-1966. This was done by preparing and planning for the future of the city and preparing a plan for reconstruction that guarantees the preservation of identity, the preservation of collective memory, and the disclosure of the oldest layers of history, with the help of all the institutions of society [23, 24].



Figure 3. The destruction that occurred in the Polish city of Warsaw after World War II and its reconstruction according to the revitalization strategy

B. City of Bilbao / Spain (Interpretation = Renewal): The development of the city of Bilbao came after the traditional city was subjected to an unprecedented flood disaster in the year 1983, which led to the destruction of infrastructure and distortion of urban landmarks and then the economic crisis that came after that in 1990 and hit the heavy industry base seriously, and the bankruptcy of many factories, which caused social problems Also represented by the loss of job opportunities [25]. Then the phase of building a modern city began, focusing on developing the cultural sector, rebuilding the city and building a very advanced system for public transportation, in addition to building a large number of private museums and basic facilities in the cultural, educational and entertainment fields [26]. The response to the most prominent event in the transformation was by transforming its metal industry and its port. The Bilbao strategy also relied on updated elements such as urban marketing and the creation of infrastructure and cultural facilities to develop a positive image of the city and to welcome a new economy. This strategy, which is based on the urban project, has been successful, as the announcement of the project has more impact than the project itself [27]. See Figure 4.



Figure 4. Photos for the destruction that occurred in the Spanish city of Bilbao after flood disaster and its reconstruction according to the renewal strategy

C. Tianjin Eco-city, China: (Deconstruction= Reform): The Chinese city of Tianjin extends over an area of 30 Km² and was designed by Sorbana Group for Urban Planning to be a model for Chinese cities in the future. This city was chosen because it is the largest industrial base and commercial center in North China and to treat pollution-reading the event- resulting from economic and commercial activity because this city is an important production and marketing base in northern China [28]. Where what was spoiled for the city's environment was fixed- response to event-, as it adopted the strategy of environmental sustainability and made the city to be at the forefront of environmental cities. The process of responding to the event was successful, represented in integrating economic and social plans with the environmental dimension and giving it a leading role, also taking into account the adaptation and acceptance by the community of the city. Thus, the process of reading and responding was sound and achieved the desired goals [29, 30]. See Figure 5.



Figure 5. a) The pollution in the Chinese city of Tianji; b) The response to it according to a reconstruction strategy designed by Sorbana Group for Urban Planning

The basic idea is a reading of the event, where the event contributes to the formulation of thought as much as it recognizes the facts and realities that are generated from it. Thought that denies the event turns into an illusion or a rigid belief. As for the thought that practices the event, it is an open possibility for new revealing explanations or innovative and fruitful readings. There are three strategies for reading the event: (explanation, interpretation, and deconstruction). There is overlap, coexistence, and attraction between them.

- Explanation gives priority to meaning over the text and the reader (or event), as the explainer claims that it reveals the author's intention and the significance of the discourse, so it is based on analogy and imitation.
- Interpretation is the search for lost meaning and the rebuilding of intractable understanding. It is the strategy of the self to gather meaning by contrast.

- Deconstruction gives priority to the text over the subject, meaning and reference, because the deconstructor does not care about what the text says, but rather pays attention to the discourse that hides itself and its truth, for this reason, this theory constitutes a strategy for the text-based on veiling and deception.

3. Research Methodology

The study methodology relied on the concept of the event in explaining the systematic destruction that Mosul city was subjected to (see Figure 6). The concept of the event included three pairs that were adopted as strategies in interpreting the reading and responding to the destruction event of Mosul city. The strategies are represented by (Explanation - Revitalization, Interpretation - Renewal, and Deconstruction- Reform). After that, conceptual interviews were found for these strategies in the field of urban planning and design (conservation, rehabilitation, and redevelopment).



Figure 6. The proportions of destruction inflicted on the old city of Mosul

Our study presented some examples to illustrate the application of different strategies. It was represented in the cities of Warsaw, Bilbao, and Tianjin, respectively, to prepare to enter into the analysis of the applied side (traditional Mosul city) according to the indicators derived in the theoretical side. As a result, the traditional city was severely damaged by the ISIS war, and nearly 15,000 buildings were destroyed, according to the initial assessments of the Al-Habitat Organization. A high percentage of these buildings were residential buildings, in addition to many historical sites and landmarks located on the west bank of the river, and the level of destruction has been described as unparalleled since the Second World War. (See Figure 7).

Reading the event: According to the map above, we find that 11% were destroyed and 26% sustained multiple damages, in addition to 63% of the buildings had major and minor damages [31]. Therefore, we find that the destruction targeted the entire traditional city as it represents the main center and is embodied in it. The historical and cultural dimension of the city in particular and Iraq in general, and this destruction was deliberate because the city is a mosaic of all religions, cultures, and nationalities. Therefore, the most appropriate reading of this event is the Explanation-Revitalization.

Response to the event: The response must be at the level of the damage caused to the city if we want to return it to its previous era, and since the reading was interpreted as that ISIS wanted to obliterate the cultural meaning of the city by destroying buildings that express its history and heritage and destroying its hundreds of years old signs, Therefore, the most appropriate strategy for this response is the revitalization.

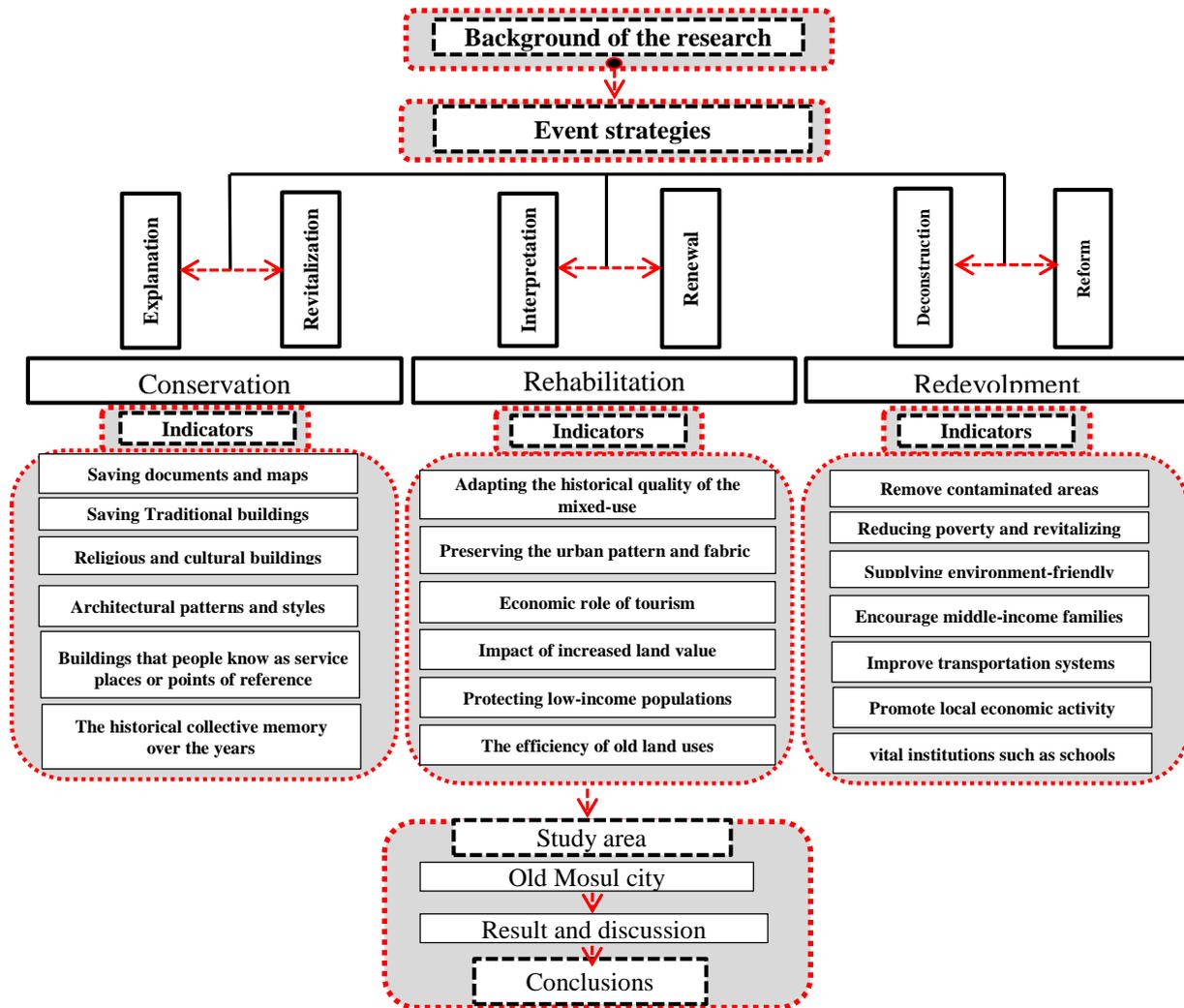


Figure 7. Methodology of the research

4. Case Study

The Mosul city is the center of the Nineveh Governorate, located in the north of the Republic of Iraq. The Mosul city is located astronomically at the intersection of longitude 43.8° east and latitude 36.12° north, i.e. in the transitional zone between the plain and the mountains, where the city occupies a focus of polarization for the various lines of movement coming from different areas in their natural characteristics. The Tigris River is one of the most important geomorphological features, as it divides the city into two unequal halves, and the lands adjacent to the course of the river are one of the most attractive areas for housing and for various land uses [32]. The city is on both sides of the river, and the river's elevation is about 210 m at sea level. The surface structures of Mosul city are part of the topographical features of Nineveh Governorate, where the height of its surface features ranges between (360-220 m). Therefore, the surface of the city is generally characterized by more hilly structures than mountainous ones, and the western part of the city is generally characterized by being higher and undulating than the eastern part (except for some of the hills) in addition to containing many valleys that flow towards the east towards the Tigris [33].

The number of archaeological sites in Mosul, according to data from the Iraqi Ministry of Tourism and Antiquities, amounts to 1,791 archaeological sites, 250 heritage buildings, and 20 huge libraries containing important Islamic and Christian manuscripts. It was a target of ISIS, which sought to obliterate the city's identity by destroying its history, heritage, and archaeological landmarks, such as the Prophet Ayyub Mosque and the Al-Nuri Mosque, to strike its rooted position in history [34]. See figure 8. The city went through a series of systematic destruction after ISIS took control of it in 2014. As a result of the military operations that the city witnessed to liberate it from the organization, the city was subjected to massive destruction, reaching 80% in its right part, which represents the originality in its heritage, roots, and architecture, which is the real starting point for the restoration of Building the features of the traditional city as the original and important aspect inherited by the city, which must be preserved on the one hand and repurposed in the construction, reconstruction and development of the city as a whole on the other hand [35]. It is also known that the urban planning process for new cities is easier than re-planning the existing cities, so how if they have gone through crises represented by wars, pollution, or others [36]. The process of reconstruction of the Mosul city

after the event of the war must take into account the importance of the urban form that expresses the physical characteristics that constitute the urban areas as well as the shape, size, density, and composition of settlements, which can be viewed at different levels starting from the regional level, the urban, the neighborhood, and even the block and the street [37]. According to these circumstances, the historical dimension and authenticity of Mosul city must be preserved, and the reconstruction process should be following a rational approach after the events of the war [38]. These circumstances necessitate the adoption of the urban neighborhoods strategy in the traditional Mosul city, to be able to reduce the damage that is still inflicted in the historical and heritage buildings in the city, where they carry out various functional activities [31].

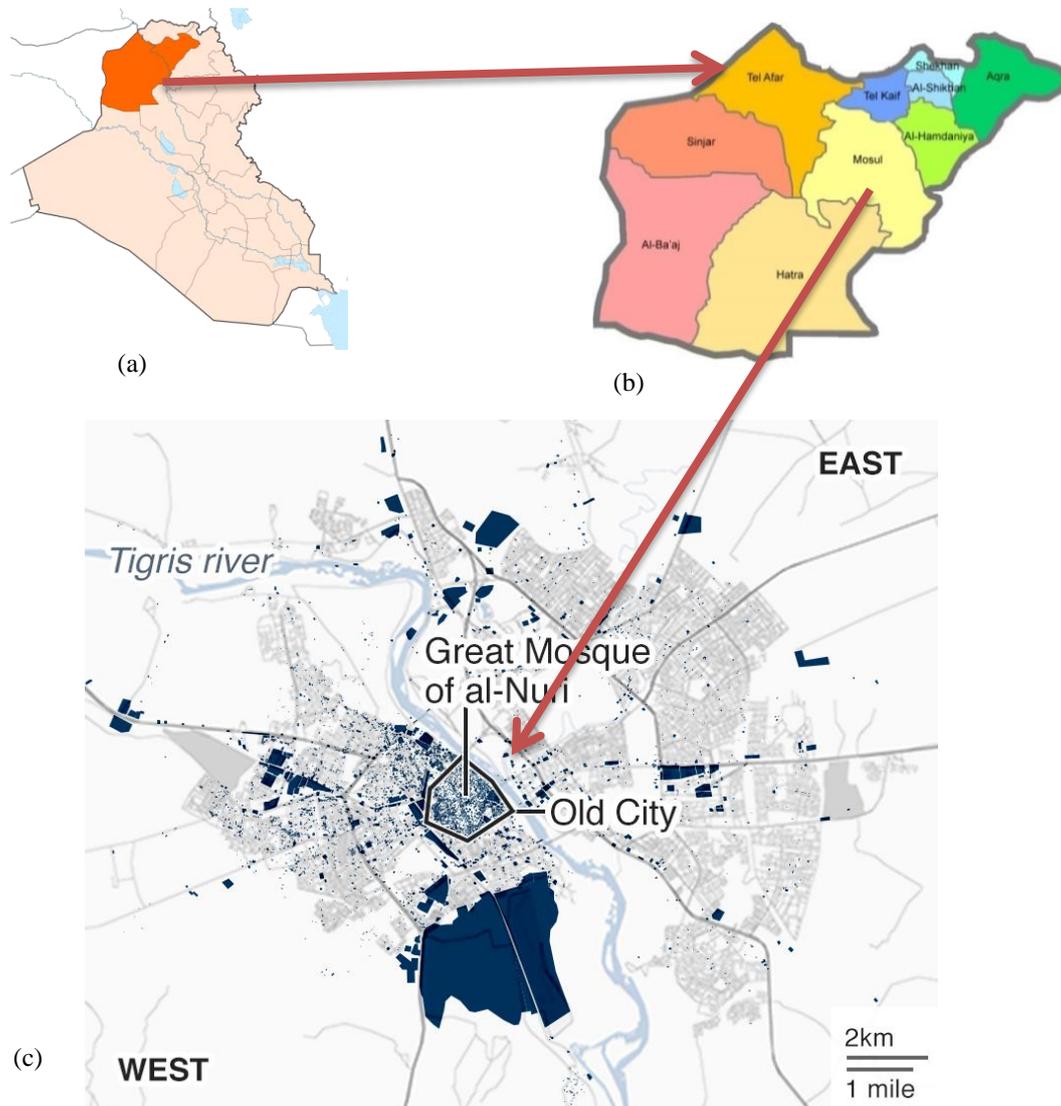


Figure 8. a) The location of Nineveh Governorate; b) The administrative units for the Nineveh Governorate and Mosul city location; c) The Built environment for the city center represented in of Mosul city

5. Results and Discussion

5.1. Prepare and Plan for the Future by Saving Important Documents and Maps

There are many maps, photographs, and documents of the traditional Mosul city, and by reviewing it, it becomes clear that the city consists of narrow alleys, organic compact fabric, traditional houses with wooden windows, and local building materials. This reflects the cultural heritage of this city ISIS has targeted all these important elements in the traditional city, and nearly 60% of the city's fabric has been destroyed [1]. The revitalization strategy of the traditional city in Mosul can be implemented by making use of all the master plans, maps, and aerial photographs that documented the heritage characteristics of the city to use them in the revitalization strategy as well as the efforts of the UN-Habitat and its experience in this strategy (See Figure 9).

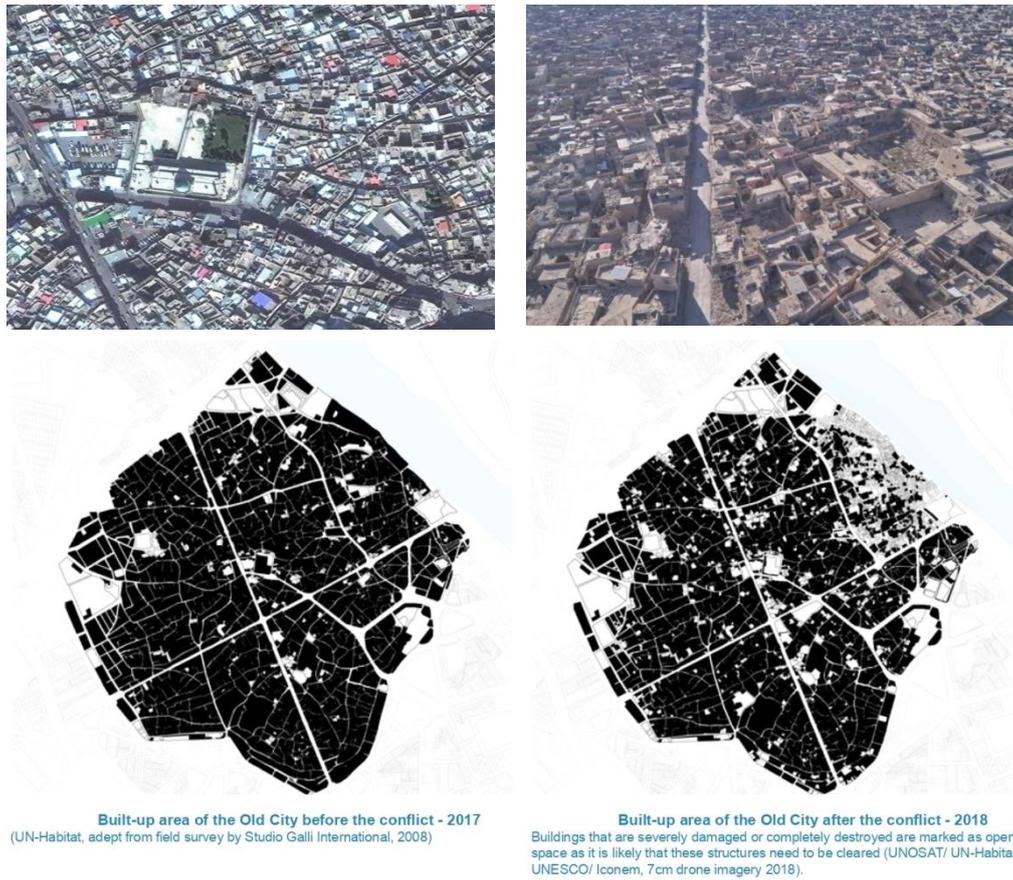


Figure 9. Mosul city before and after the destruction event as a result of the war [1]

5.2. Traditional Buildings that Hold Deep Values in the Historical Collective Memory Over the Years, Passed Down by Residents from Generation to Generation

The traditional city includes a large number of heritage houses that include the characteristics of traditional dwellings of Iraqi architecture, such as wooden doors and windows (Al-Shanashil), the opening towards the interior, and the deaf facades built of bricks [39]. What distinguishes their homes is their use of local materials, and traditional architectural methods inspired by ancient Iraqi architecture, such as the use of domes, vaults, and arches in roofing operations. In addition to these general advantages, there are special advantages in some of the alleys represented in linking some of the close-to-close houses with brick or wooden arches connecting them to consolidate the bonds of family cooperation [40]. Because of the war, many of these characteristics that affect the collective memory of the people of the city have been destroyed. Therefore, a revitalization strategy must be adopted to revive these traditional buildings through reconstruction and restoration. An example of this indicator is the Castle of Shatabia, an archaeological site in Mosul city associated with people's memory and identity for the city. The history of the castle dates back to the Atabeg era in the 12th century AD. Despite the historical symbolism of the city and its lack of reference to a religious or ethnic identity (See Figure 10).

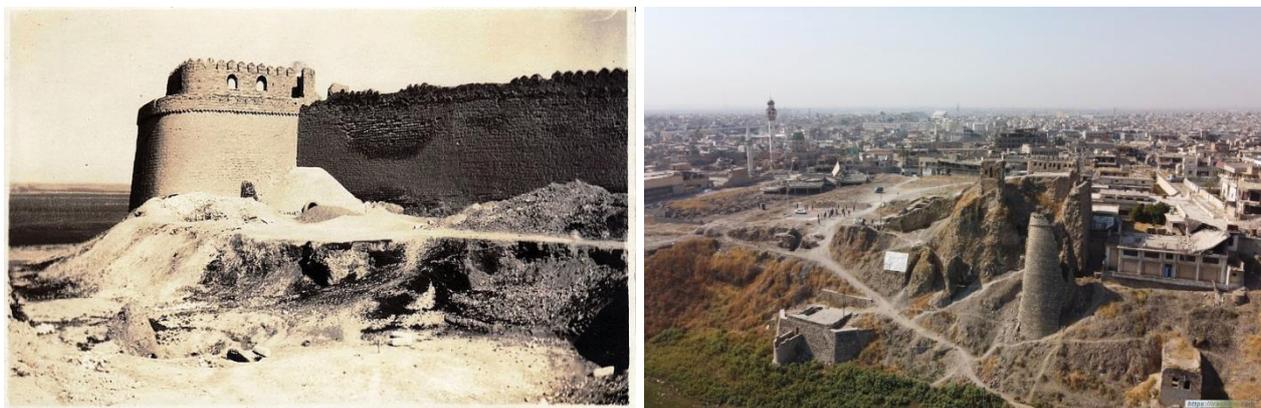


Figure 10. The castle of Bashatabia before and after the targeting and destruction by ISIS

5.3. Buildings and Public Places with Symbolic Values Such as Monuments, Ancient Castles, and City Squares

The traditional Mosul city contains many buildings that represent a great symbolic value for the city's residents and represent a mainstay in their local and national identity. An example of these buildings is the Great Al-Nuri Mosque, built in the year 1172 A.D. which contains the hunchback minaret called Al-Hadba, and it was built of bricks and its height (67m) and width (17m) [41]. It bears great historical value and represents an Islamic symbol of the traditional Mosul city. ISIS blew up the mosque and Al-Hadba minaret to strike the spiritual and historical values of this city and undermine its identity. Therefore, it is necessary to reconstruct these buildings with the same characteristics and details and to preserve their previous form as it is to enhance the symbolic dimension of the city to help the community adapt and integrate with the new reality after ISIS (See Figure 11).



Figure 11. Al-Nuri Mosque and Al-Hadba Minaret before and after the destruction and targeting operation by ISIS

5.4. Religious and Cultural Buildings

The Mosul city has a variety of sects and religions, which gives it a diverse cultural, religious and social character that represents one of the most prominent pillars of the identity of this city. For this reason, ISIS has targeted many religious and cultural buildings that represent this diversity, and it is targeting spiritual, religious, and cultural values. Iraqi archaeologists have found the remains of a 2,600 A.D. palace of the Prophet Yunus after it was blown up by ISIS in Mosul city [42]. In addition, many Assyrian imperial relics were found after the terrorist bombing in the remains of the tomb of Prophet Joseph. The tomb is located on the top Tal Nabi Yunus, east of Mosul, and is one of the two hills that are part of the ancient city of Nineveh, dating back to the era of the Assyrian Empire. The terrorist organization ISIS dug deep tunnels under the ruins of the mausoleum to search for and steal artifacts, and these tunnels lead to an undiscovered palace dating back to 600 BC. In part of the tunnel, a scientist discovered Assyrian stone statues of demigods sprinkling holy water to protect the people under their care. In the same way, ISIS destroyed the Al-Tahira Chaldean Church, which is considered a masterpiece of architecture and art from the eighteenth century and one of the most beautiful churches in the East. And that the inner part of the church was relatively spared during ISIS occupation of the area between 2014-2017 and the upper part of the building was destroyed due to heavy bombing. On this basis, the strategy of revitalization the city's religious landmarks appears urgent to restore its diverse religious identity and the prospects for the peaceful coexistence of the various sects (See Figure 12).



Figure 12. The shrine of the Prophet Yunus and the Church of Al-Tahira in Mosul before and after its destruction during the war against ISIS

5.5. Buildings with Distinctive Architectural Patterns and Styles

The Mosul city contains many buildings that represent a unique architectural style that contains many decorations on the walls and ceilings. Some of these decorations represent Islamic decoration and some of them contain geometric or plant motifs. These buildings have been greatly destroyed and lost their distinctive decorations, and therefore they must be reconstructed to preserve the aesthetic values of Mosul city. The most important characteristic of the buildings in Mosul city is their use of local materials such as Halan stone, alabaster, and plaster. The various plant and geometric decorations. In addition to animal and human carvings sometimes. In terms of the planning of these heritage houses, they are often close to the layout of the house, palace, and temple in the buildings of ancient Iraq, where the house yard alone constitutes a task overlooking the central courtyard rooms to ensure good ventilation and lighting. The buildings work to form a distinct and unique fabric and possess special features that give them an aesthetic and functional value, which leads to the fact that affluent living cities possess the richness and fecundity of character (See Figure 13).

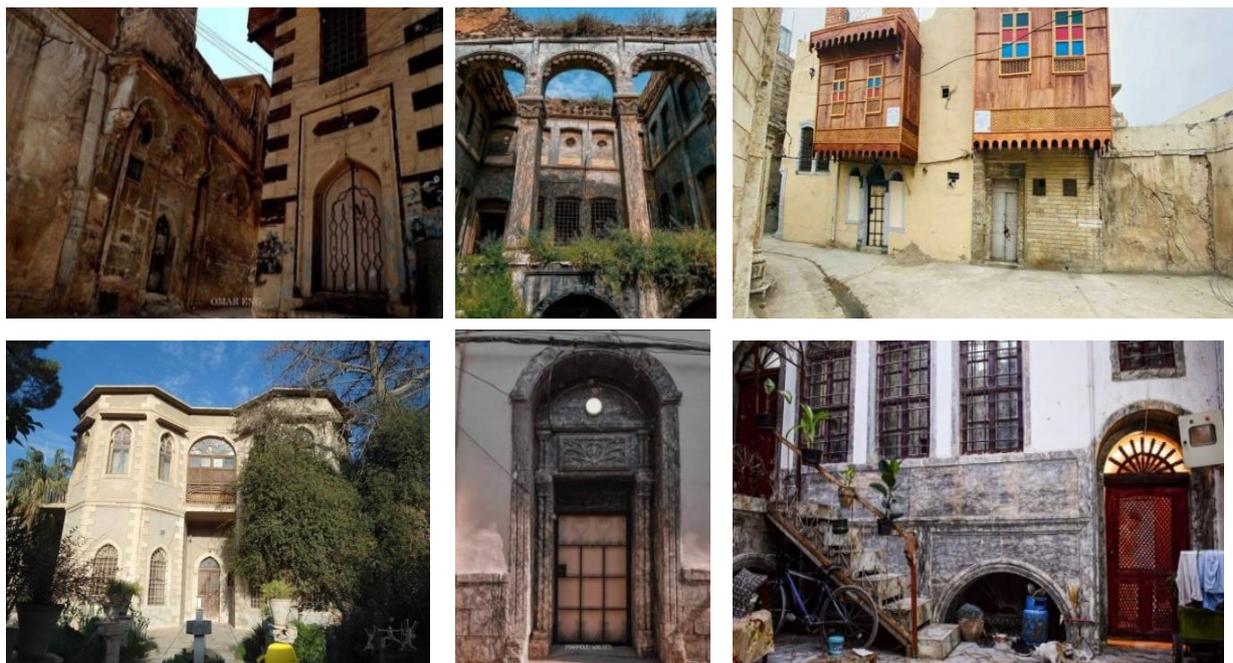


Figure 13. Different buildings with distinctive architectural patterns and styles

5.6. Buildings that People Know as Service Places or Points of Reference, Such as University Buildings and Schools

Educational buildings represent one of the most important buildings on which people rely in their spatial memory, as service places that provide education and knowledge and as points of reference. Mosul city is full of many schools and educational buildings, some of which were established for long periods. As a result of the ISIS attack on this city and during the liberation battles, it was destroyed. Many of these buildings today require restoration or reconstruction. One of the most famous was Al-Sharqiya secondary school that was built in 1905 in the Islamic architectural style with arches and spaces, and a modern method of construction was used in its construction, which is called by the architects (Sandwich_Wall), meaning the insulating wall, and this method is based on the construction of two walls separated by an insulator consisting of a different material [43]. This style of building that the arches and the inner courtyard surrounded by rows have given a kind of simplicity and uncomplicatedness, which is positively reflected on the psyche of the students and pushes them to study and receive knowledge without any problem. The Sharqiya secondary building in Mosul city is linked to the minds of the Mosulis as an important chapter of education in Iraq. Therefore, it represents a moral and symbolic value based on which a revitalization strategy must be adopted to restore the moral values of the city (See Figure 14).

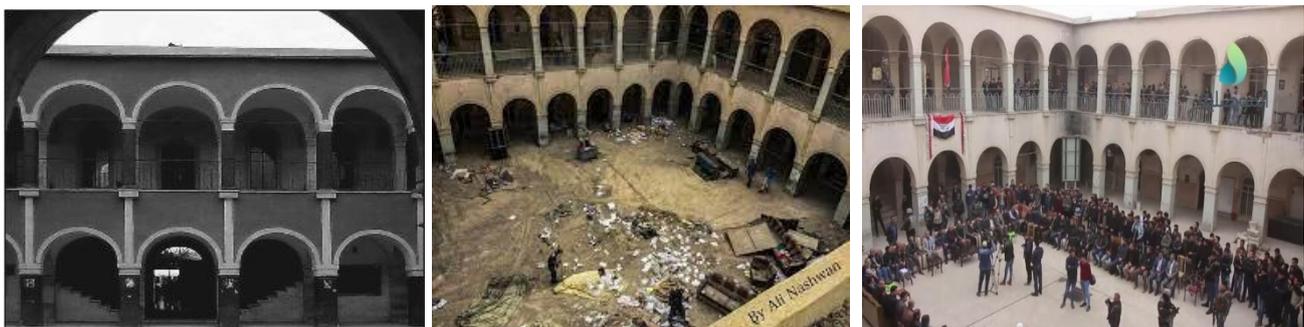


Figure 14. Sharqiya secondary school in Mosul before, during and after its rehabilitation after the war against ISIS

Table 1 shows the description of the indicates and the evaluation of the status of the urban structure for Mosul city.

Table 1. Summarizing and evaluating the indices in the case study

Indices	Description	Evaluation in the case study
Prepare and plan for the future	The revitalization strategy of the traditional city in Mosul can be implemented by making use of all the master plans, maps, and aerial photographs that documented the heritage characteristics of the city to use them in the revitalization strategy as well as the efforts of the UN-Habitat and its experience in this strategy	Saving of many maps, photographs, and documents of the traditional Mosul city, and by reviewing it, it becomes clear that the city consists of narrow alleys, organic compact fabric, traditional houses with wooden windows, and local building materials
Historical collective memory	A large number of heritage houses that include the characteristics of traditional dwellings of Iraqi architecture, such as wooden doors and windows (Al-Shanashil), the opening towards the interior, and the deaf facades built of bricks. What distinguishes their homes is their use of local materials	Many of these characteristics that affect the collective memory of the people of the city have been destroyed. As well as the Castle of Shatabia, an archaeological site in Mosul city associated with people's memory and identity for the city
Buildings and public places with symbolic values	The buildings that represent a great symbolic value for the city's residents and represent a mainstay in their local and national identity	The Great Al-Nuri Mosque, built in the year 1172 A.D. which is called Al-Hadba. It bears great historical value and represents an Islamic symbol
Religious and cultural buildings	Revitalization of the city's religious landmarks appears urgent to restore its diverse religious identity and the prospects for the peaceful coexistence of the various sects	ISIS has targeted many religious and cultural buildings that represent this diversity, and it is targeting spiritual, religious, and cultural values, as well as the palace of the Prophet Yunus and al-Tahira Chaldean Church
Distinctive architectural patterns	The decorations on the walls and ceilings. Some of these decorations represent Islamic decoration and some of them contain geometric or plant motifs	Unique fabric and possess special features that give them an aesthetic and functional value, which leads to the fact that affluent living cities possess the richness and fecundity of character
Service places or points of reference	Educational buildings represent one of the most important buildings on which people rely in their spatial memory	The Sharqiya secondary building in Mosul city is linked to the minds of the Mosulis as an important chapter of education in Iraq. Therefore, it represents a moral and symbolic value based on which a revitalization strategy must be adopted to restore the moral values of the city

6. Conclusions

The event is one of the tools of urban policy or a driver of the development process as a result of what it causes to stimulate urban development processes, and the possibility of its inclusion on the means that attract attention to urban areas, as well as the possibility of giving distinction to cities as a result of their various events. The war event is one of the major events that have repercussions on the city's planning, whether on the urban fabric or land uses distribution.

The reading of the war event varies according to its causes and results, and ISIS has deliberately targeted antiquities and heritage intending to obliterate identity, and therefore the reading relied on the strategy (Explanation - Revitalization) to preserve those areas and buildings and thus preserve its identity and the spirit of its community. The reconstruction process in this strategy requires the government to join forces with civil society organizations with a high awareness of the people.

It should be noted that the three strategies for the reconstruction of cities can coincide with defining the leading strategy according to the most influential event, as it is not limited to one strategy. We can focus the (Explanation - Revitalization) strategy in the traditional Mosul city, and the neighborhoods surrounding the traditional city can be developed by introducing updates to keep pace with modern developments through the interpretation-renovation strategy, as well as the possibility of establishing new sustainable neighborhoods through the dismantling-reform strategy to accommodate population growth. Thus, the integration of the three strategies of the Mosul city as a whole is achieved.

Determining the indicators of the three strategies allows urban planners and designers to deal with the event and respond to it with a new vision that enables to identify the major flaws that the event may cause, such as (the war event), to intensify efforts towards it, and to determine the appropriate planning policy. It also opens the horizons of research to explore the relationship between the event and the urban form, as well as the effect of the event on the spatial perception of people.

It is necessary to develop a strategy based on the principle of revitalization the urban, architectural, and heritage of the historic Mosul city through building legislation and governing conservation laws with the assistance of international expertise represented by UNESCO and the UN-Habitat, and that the rehabilitation of the historic area of Mosul requires preserving the architectural identity by preserving The collective memory and the urban character represented by the compact urban fabric, the nature of the land uses, the height of the buildings and the skyline, as well as the urban signs and symbols of the city - the main axes and nodes of the movement, as well as the architectural patterns and forms and decorations, thus preserving the moral and material values of the architectural and urban heritage.

7. Declarations

7.1. Author Contributions

Conceptualization, S.K.A and A.A.A.; methodology, S.K.A. and T.R.A.; software, S.K.A., and T.R.A.; validation, A.A.A., S.K.A., and T.R.A.; formal analysis, T.R.A.; investigation, A.S.A; resources, A.S.A. and S.K.A.; data curation, S.K.A.; writing—original draft preparation, A.A.A, and A.S.A.; writing—review and editing, S.K.A and A.S.A.; visualization, A.A.A.; supervision, A.A.A, and A.S.A.; project administration, S.K.A.; funding acquisition, S.K.A., and T.R.A. All authors have read and agreed to the published version of the manuscript.

7.2. Data Availability Statement

The data presented in this study are available on request from the corresponding author.

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The authors received no financial support for the research, authorship, and/or publication of this article.

7.4. Conflicts of Interest

The authors declare no conflict of interest.

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