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Baghdad; City of Cultural Heritage and Monumental Islamic Architecture

The urban form of Baghdad city has changed as the complexity of its systems has increased. The traditional urban form of the historic core of Baghdad (Old Rusafa) has been influenced by social, cultural, and religious factors. Baghdad old centre has much neglected Islamic monumental architecture going back to the Abbasid Empire, Al Mustansiryia School, for example. These antique buildings are located in the heritage area, surrounded by old suqs, narrow alleys and traditional Baghdadi houses that were largely built during Ottoman times. Old Rusafa has a long historical span of well over a thousand years, and it has become a complex urban organism. Nowadays, the traditional core forms a contrasting mixture of the dense irregular historic urban fabric and new expansions often conflicting with each other in form, function and scale. The complex urban structure and form in the city centre of Baghdad has provided an example of how to create privacy and a healthy environment for its people, especially within district society. During the last few decades, Old Rusafa has suffered in both its architectural monuments and areas; however, enough urban fabric remains to evoke its past grandeur. This research aims to explore the architecture and monumental heritage of the traditional core of Baghdad. It will seek to analyse significant buildings, mosques, traditional suqs and private houses that emphasise both urban fabric identity and the urban form of the traditional core. This paper will apply mixed research methods to assess the physical heritage urban context of Old Rusafa. It will use qualitative and quantitative techniques to gather information and examine the case study area. The result of this research will evaluate Baghdad urban and cultural heritage and raise awareness of the importance of safeguarding Baghdadi monumental Islamic architecture and its unique urban inheritance.

Keywords:
Heritage Cities; Urban Form and Conservation; Monumental Islamic Architecture; Urban and Cultural Heritage

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1. INTRODUCTION

In recent years, cultural heritage and traditional centres in the historic cities of developing countries have suffered from many problems such as fast population growth, poor infrastructure and demolition of urban heritage. Furthermore, a very limited relevance is given citizen participation and opinion as an essential element to resolve problems that might appear in the decision-making and policy-making process (Al-Saffar, 2018b). Everard, A. J. and Pickard, R. (1997) mention that the heritage has a wide range of values: aesthetic value; value for architectural, environmental, and functional diversity; value for cultural memory or heritage; resource value; as well as an economic and commercial value (Everard & Pickard, 1997). Girard, (2013) argues, "Cultural heritage is a key component of the city system: it should be viewed as a dynamic adaptive subsystem that evolves over time (with changes) under the pressure of many different forces (due to economic growth, market pressures, decline, and regeneration processes), while still maintaining its identity, integrity and continuity". He suggests that "cultural heritage conservation and management should be characterized by a dynamic perspective, characterized by synergies, circular processes and creativity" (Girard, 2013).
Old Rusafa is the largest of all traditional areas (Kadhimiya, Karkh and Adhamiya) in Baghdad and is an integral part of the central business district located on the eastern bank of the Tigris River. The importance of the historic centre is not only local but also regional and national dimensions. Moreover, it comprises the largest concentrations of historical workshops and suqs, and some of the important mosques and governmental buildings in the country (Al-Saffar, 2016). Therefore, the traditional core will require significant processes and analyses to preserve its built heritage. Therefore, this research will argue how a better understanding of urban heritage will depend on understanding both heritage context, and the categories of heritage values derived from recent urban development. It also will debate that previous studies and literature have presented a partial solution for dealing with the assets of urban heritage and their relationship with environmental, social and economic issues, especially in an age of contemporary transformations. Moreover, it will explore the architecture and cultural heritage of Baghdad's traditional core.

2. METHODOLOGY

The research method is defined by Wilson as "a way to systemize (sic) observation, describing ways of collecting evidence and indicating the type of tools and techniques to be used during data collection". Based on this definition, he asserts that "a case study is first and foremost a research design, and it makes sense that a variety of methods could be used to collect the evidence, depending upon which angle one is taking in approaching the research question" (Wilson, 2016). Lewis defines qualitative research as "A research process that uses inductive data analysis to learn about the meaning that participants hold about a problem or issue by identifying patterns or themes. Open-ended questions are used to gather information, which grouped into codes, themes, categories, or larger dimensions" (Lewis, 2015).

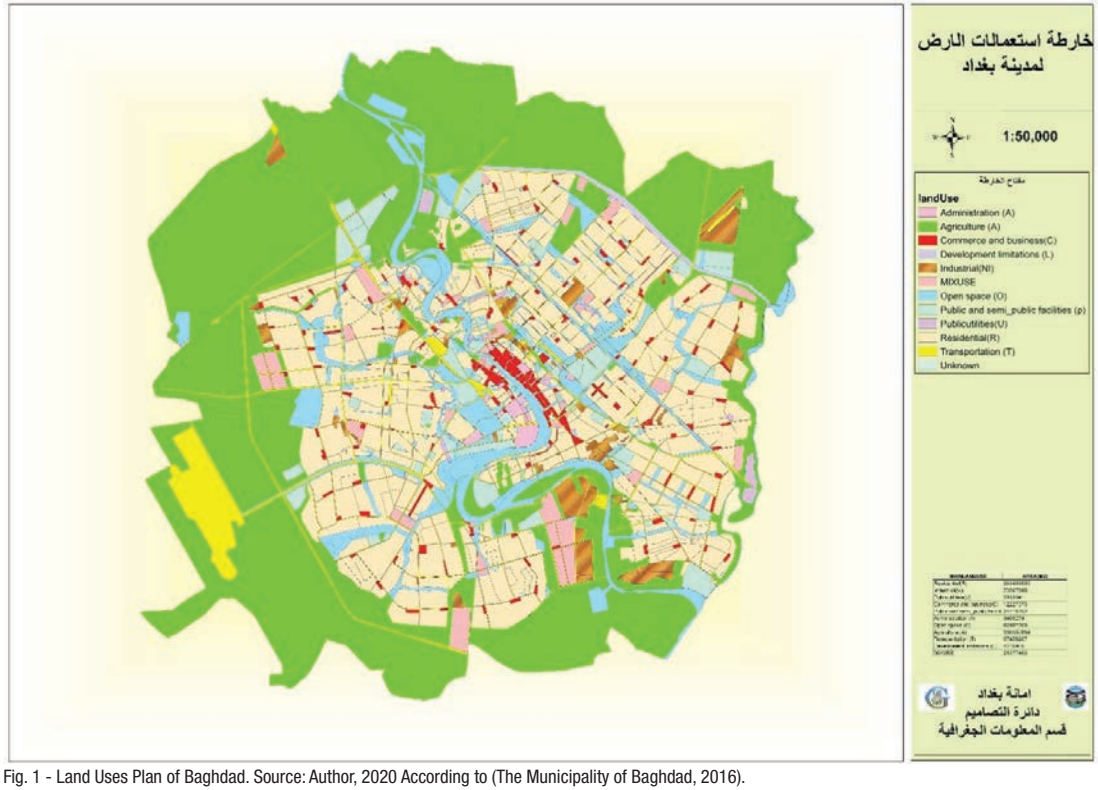

Fig. 1 - Land Uses Plan of Baghdad. Source: Author, 2020 According to (The Municipality of Baghdad, 2016).

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Whereas, Quantitative studies as Denzin writes "emphasize the measurement and analysis of causal relationships between variables, not processes. Proponents claim that their work is done from within a value-free framework" (Denzin, 2007). Al-Saffar (2018) says that the integration between of qualitative and quantitative might be influential at the research design, gathering information, and data analysis stages of the research procedure process (Al-Saffar, 2018).
This research will use mixed research methods to assess the urban context and form of Old Rusafa. The paper will show different ways of gathering data, including physical field surveys. These mixed methods will display different techniques such as the walking method, serial vision method and observation approach that will examine the built heritage of the case study. Leech and Onwuegbuzie have asserted, "mixed methods research represents research that involves collecting, analyzing, and interpreting quantitative and qualitative data in a single study or in a series of studies that investigate the same underlying phenomenon" (Leech and Onwuegbuzie, 2009). Mixed research as Johnson et al., (2007) define, "is a synthesis that includes ideas from qualitative and quantitative research" (Johnson, Onwuegbuzie, & Turner, 2007).

3. BAGHDAD URBAN AND CULTURAL HERITAGE

The historic Islamic city as Abu-Lughod argued "often achieved community, privacy and beauty. It would be wise to seek these same goals, even though the old means are no longer available. But since cities are living processes rather than formalistic shells for living, they cannot be built by us. We can only encourage them to grow in the desired direction". He said "A modest list of the forces that created the traditional Islamic city would include: a terrain/climate; a technology of production, distribution and transportation; a system of social organization; and a legal/political system which, in Islamic places and times, could vary conside" (Abu-Lughod, 1987). Bianaca debated that "the richly articulated architectural unity of these urban organisms had come about as a result of corresponding spiritual and social parameters that were fundamentally different from the ideologies that govern today's Western cities" (Bianca, 2016).
Baghdad, one of the leading cultural centres in the Middle East, has been a centre of political and economic operations since it was chosen by Caliph Al-Mansur to be his capital city for the Abbasid Empire in 762 CE (Fig. 1). It demonstrates an outstanding example of dramatic evolution. The city, which stands on the river Tigris, faced various transformation processes in the built environment due to natural and political reasons (Al-Saffar, 2017). Up to the 21st century, Baghdad has been occupied many times by different groups such as the Ottomans (1638-1917), the British (1917-1932) and the Americans (2003) who have all left their marks in varying degrees.
The beginning of the modernisation in Old Rusafa started in 1869 when the Ottoman demolished the old city walls that were built during the Seljuk rule (1052-1152 AD) and constructed the first residential extensions. The layout of the old city did not change much between the Seljuk period and the end of the 19th century. The historic quarter of Old Rusafa is one of the areas of the city where historical buildings go back to the early 13th century (Fig. 2). Traditional buildings that have resisted the power of transformation include Al Mustansiryia School,

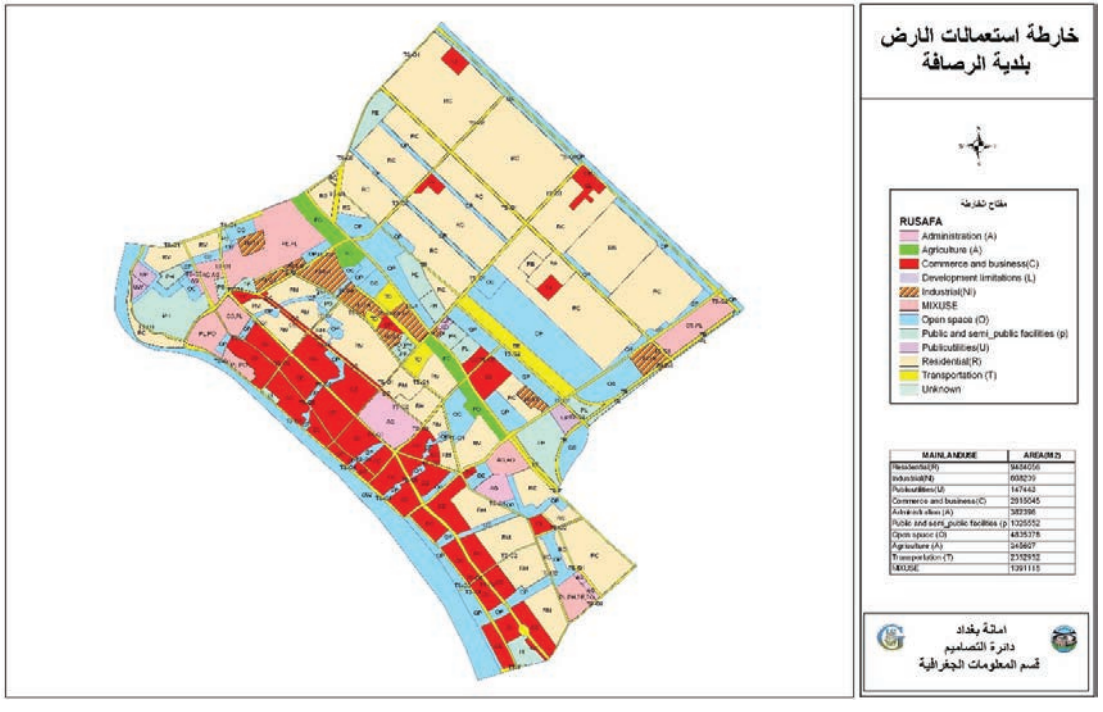

Fig. 2 - Land Uses Plan of the Boundaries of the Municipality of Rusafa.Source: Author, 2020 According to (The Municipality of Baghdad, 2016).

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Al Mustansiryia School

Tomb of Zumurid Khatun

Khulafa Mosque

Fig. 3 - Baghdad Historic Buildings Going Back To The Early 13th Century. Source: (Al-Saffar, 2018a).

Al Nasiryia palace (The Abbasid palace), The Tomb of Zumurid Khatun (Al Nasir's mother) and Al Khulafa mosque, which are still the oldest existing landmarks of Baghdad (Fig. 3). Al Khulafa mosque was built to be Dar Al Khilafa (House of the Caliphate), its minaret still exists but now stands besides a new mosque built in 1960 (Al-Saffar, 2018a).

4. EXISTING PHYSICAL CONDITION AND CASE STUDY INFORMATION: OLD RUSAFA

Old Rusafa is the historic centre of Baghdad city, and due to that, its fabric has been under pressure from modern development and has suffered tremendous losses in its traditional form. However, there is still an opportunity to preserve the rest of the unique fabric by promoting these areas with new facilities and fixing broken structures. The historic centre has witnessed some conservation inititiatives by the Municipality of Baghdad in its fundamental buildings and street such as the Al-Mustansyria school, the Baghdadi Museum, Khan Merjan, Al-Rashid Street, the historic castle which is used as the Ministry of Defence, and many tombs, mosques, houses, cafes and squares (Fig. 4).
The historic centre once enclosed within the old wall is nearly 5.4 square kilometres, comprises approximately 15,700 buildings and has a population of about 203,000 (1980). One hundred and thirty-two of these buildings are listed monuments, twenty-one belonging to the Abbasid Empire (762–1258) and the rest to Ottoman Period (1638–1917). Old Rusafa has lost 25% of its original historic fabric since World War I, by official demolition for new roads and clearance programmes alone. The area of Old Rusafa is characterised by commerce and business, hotels and restaurants with tourist and entertainment facilities, a civic centre, including the headquarters of the Baghdad municipality, supplies and technical services. Moreover, the land use of the

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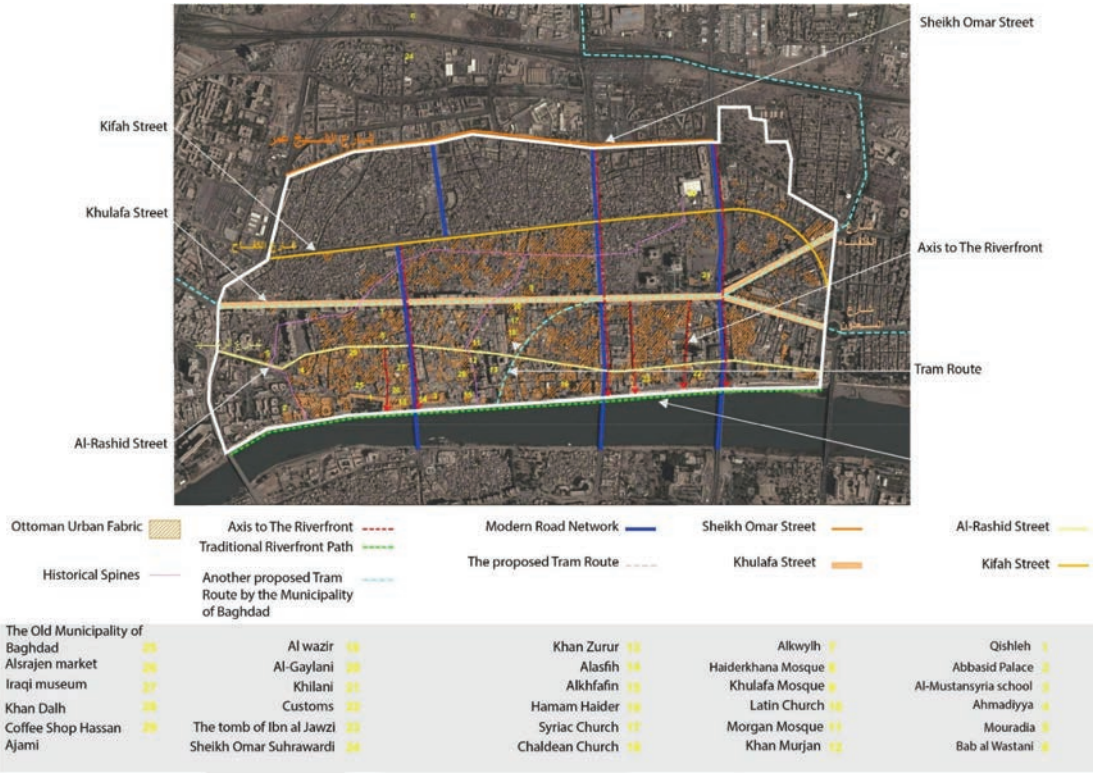

Fig. 4 - Urban Conservation Strategy in Old Rusafa. Source: Author, 2020 According to (the Municipality of Baghdad,2016).

old centre includes many activities. The industry is the one which represents two types of activity, and the Sheikh Omar zone is the first type which is related to large-scale car maintenance, whereas the other type is for traditional crafts. The second activity is commerce and business represented by Al-Rashid Street, which is considered as one of the highest concentrations of commercial and business activities. The third one is public and governmental offices were constructed between Port Said Street and Muthanna bin Harith Shaibani (Al-Saffar, 2018b).

The heritage value represented by the traditional urban fabric contains many significant mosques, monumental buildings and traditional markets plus private houses were located on the riverfront. The traditional Baghdadi house is another type of historic building in the old centre. These houses are now squeezed onto the inner part of Old Rusafa, between the service and industrial part of Sheik Omer Street and the predominantly commercial and business part of Rashid Street. One of the reasons for the deterioration of the physical and environmental conditions of old Rusafa include high population densities, clearances for new roads, and neglect of the historic urban fabric. More than 50% of all buildings in the case study were in a poor or very poor structural condition (Al-Saffar, 2018a) (Fig. 5).

One of the significant comprehensive urban conservation master plans for Old Rusafa was submitted by JCP (Japan planners, Architects, and consulting engineering) in 1984. Urban conservation and redevelopment of the traditional core were the main aims of this scheme. This project proposed a buffer zone around the old centre by promoting the advancement of a central business district (CBD). This master plan was only partially implemented due to the political condition from 1990 until now. The proposed conservation scheme designated conservation places and monuments to ensure their protection. It also offered solutions that minimized the damage as much as was possible by the removal of eyesores, development control, incentives for restoration, and by environmental rehabilitation and revitalization. JCP surveys in 1984 showed that the historic area contains 3900 houses which mostly belong to the late 19th and early 20th centuries, sixty three mosques, five tombs, six madrassas, eleven khans, six hammams, four churches, nine suq, and three gates. Of the listed 132 monuments in the old area of Rusafa, only twenty one monuments belong to the Abbasid Empire (762-1258), while the majority are of the Ottoman Period (1638-1917) (Fig. 6). The JCP plan (1984) designated conservation places within Old Rusafa, identified building by building, their typology and architectural interests, and suggests various criteria for intervention, restoration, urban repair, infill or substitution. A methodological approach for such intervention and a corresponding 'manual' for the use of The Municipality of Baghdad was proposed, to permit it to control on-going growth. They assert that conservation and development in the historic core should be implemented in the progressive stage, and can succeed only when other equally necessary legal, administrative and financial tools are provided. The importance of this plan is not envisaged as merely a passive protection of the existing historic centre. In addition to proposing the conservation, restoration or rehabilitation of

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significant portions of the historical centre, the structure plan and urban design schemes aim for active development of the historic fabric. This included the retrieval of many fundamental parts which, if realized, would significantly improve the image of Old Rusafa (Pola, 2015 p. 371) (Al-Saffar, 2018a). Therefore, to create an efficient urban conservation plan in Old Rusafa, we should consider and improve all socio-economic issues, and produce a holistic approach to revitalizing urban components of the urban system in the city centre of Baghdad.

5. COMPONENTS OF URBAN FORM IN THE HISTORIC CENTRE OF BAGHDAD

The term urban form has been used in recent literature to describe a city's physical characteristics and features that are related to land-use patterns, transportation systems or sometimes to urban design (Al-Saffar, 2018a). However, urban form is not only related to the physical sites but also might extend to social aspects such as social interaction and sense of community. The UK Government Office for Science defines urban form as "the physical characteristics that make up built-up areas, including the shape, size, density and configuration of settlements. It can be considered at different scales: from regional to urban, neighborhood, 'block' and street". It always develops in response to economic, environmental, social, and technological evolutions (Government Office for Science 2014). Urban form defined by the City Form Group covers five elements that make up a city's urban form: density, land use, transportation, housing or building types, and layout (Jenks et al., 2010).
Four main types of urban form were identified in Old Rusafa by JCP planners. The first type was the traditional homogeneous places located

Fig. 5 - The Area of Old Rusafa, Building Structural Condition. Source: (JCP, 1984).

Fig. 6 - The area of old Rusafa: Listed Fabrics to Be Conserved. Source: (JCP, 1984).

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Fig. 7 - Short Term Development Strategy for the Central Business.
Source: Author, 2020 According to (the Municipality of Baghdad, 2016).

mostly between Khulafa Street and Kifah Street. The second type was the traditional fabrics built between the two World Wars, including Rashid and Kifah Street. Modern fabric blocks were the third type starting in the banks district of Khulafa Street in the 1950s, and finally, the Sheikh Omar area developed in the early 1940s consisting mostly of large, one-story garages, stores and services workshops. JCP planners tried to achieve compatibility between these different urban forms in Old Rusafa, with conservation and urban design plans approached as complementing each other. Therefore, to attain this aim, they suggest that the Municipality of Baghdad should apply development control in two stages: firstly, by passive control with guidelines and regulations to control private growth in conformity with plans, and secondly, by active control assisting or initiating comprehensive development projects to assist the implementation of the overall concept. Several focal places in the historic centre were selected by JCP planers to illustrate these approaches such as the riverfront, Rashid Street, historical spines, the suq system and Sheikh Omar zone (JCP, 1984). To protect the historic part of Baghdad, The Municipality of Baghdad presented a study to develop the Old Rusafa that showed many problems with the historic centre, such as the demolition of buildings and deterioration of the historic urban fabric. As a result, many initiatives were started by the Union of Architectural Heritage in 2010 to rescue Baghdad's architectural heritage. Al-Akkam says, "Unfortunately, however, all these projects focused on physical aesthetics and appearance and proposed either to demolish significant parts of the historic areas or to imitate the urban development of Western countries. These studies did not deal with the local community and tried to use the term "sustainability" as a label for propaganda and no more. These studies were vague and did not follow a clear urban policy, or take into consideration public participation" (Al-Akkam, 2013) (Fig. 7). In the following, we will illustrate and assess four main urban components (traditional Baghdadi houses, the Mosque, the traditional souk, the traditional urban fabric) of the city centre of Baghdad that reflect its cultural heritage and monumental Islamic architecture.

5.1 THE RESIDENTIAL UNIT (TRADITIONAL BAGHDADI HOUSES)

The residential unit that represents the courtyard house is the most complex of all elements of urban form in Old Rusafa (Fig. 8). The majority of the traditional Baghdadi houses have been built in the nineteenth century and represent the output of a long period of development and characteristics that are the combination of experience and the intervention of environmental and cultural influences in Muslim lifestyle (Warren & Fethi, 1982:42).

The traditional Baghdadi houses consists of two floors and one courtyard (some of them with two courtyards) (Fig. 9), and they are accessible from one entrance only, which leads visitors through a series of sub-spaces before reaching the central courtyard. Due to the density of population and the limitations in land area in Baghdad, these houses are structured vertically with spaces on different floors in relation to the central courtyard (Al Sayyed, 2012). "The Muslim builds his house in order to live in it with his extended family. The house's structure usually allows for horizontal and vertical expansion to accommodate increasing needs that may arise from the marriage of one of the sons or new births, and as allowed by the topographic nature of the flat or mountainous landscape" (Shokry, 2012). The main element in these houses is a central open courtyard that

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Fig. 8 - The complexity of designing group of traditional Baghdadi houses makes separation. impossible, even shanashils reached out virtually to touch. Source: (Warren & Fethi, 1982:201).

Fig. 9 - traditional house with primary and secondary courtyards, cross-section, elevation long section above right. Source: (Warren & Fethi, 1982:161).

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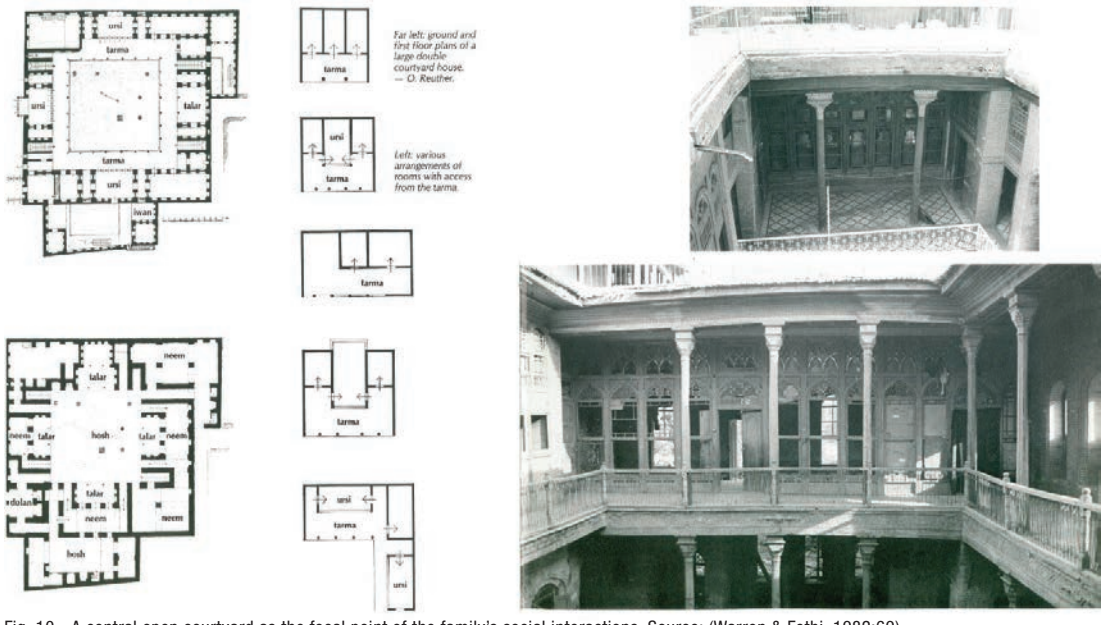

Fig. 10 - A central open courtyard as the focal point of the family's social interactions. Source: (Warren & Fethi, 1982:69).

Fig. 11 - The Courtyard is the Main Source of Air, Light and a Place Where Visitors Could Dismount, and it was Also a Place Where Women Would Not be Seen in this Semi-Public Area. Source: (Warren & Fethi, 1982:57,137).

plays a vital role as the focal point of the family's social interactions (Fig. 10). One of the essential motivations behind the choice of the courtyard as a fundamental part of a traditional Islamic house is the desire for privacy. This particular spatial thinking can be seen in most traditional areas in Baghdad, where the courtyard house was used as a significant part of the urban fabric (Bianca, 2000:80). The main source of air, light and a place where visitors could dismount in traditional Baghdadi houses is the courtyard, and it was also a place where women would not be seen in this semi-public area (Shokry, 2012) (Fig. 11).
The traditional house emphasizes the inviolability of the private domain; the interior of the house does not reveal its secrets and charms to outsiders. In fact, the exterior of these houses is very deceiving with high walls and balconies (Shanasheel). The significance of the Shanasheel is that it filters light while increasing ventilation, and allows outside observation without being seen (Fig. 12). This indicates that the interior in the Baghdadi houses was more important than the exterior. "The traditional street of the traditional quarters of Baghdad are distinguished by the elaborate overhanging screened and balconied windows, known as Shanasheel which jetty out from the upper rooms, and by handsomely decorated entrance doorways fronting on the street" (Warren & Fethi, 1982:42).

5.2 THE MOSQUE

Islamic city as Abu-Lughod said is "a city must have a congregational Friday mosque and it must have a market/chief bazaar nearby. Associated with the jdmi' suq (mosque-market) complex was a third physical feature of Islamic cities, the public bath (hammdm), of functional significance to prepare believers for the Friday prayer" (Abu-Lughod, 1987). A mosque is an axis of connections, a centre for activities and as an essential component for citizens living in urban areas (Gazi, Mikhail, Salwa, & Estamboli, 2012) (Fig. 13).

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Fig. 12 - Shanasheel Filters Light, Increasing Ventilation, and Allows Looking Outside without Being Seen. Source: Author 2020.

Fig. 13 - A mosque is an axis of connections, a center for activities and as an essential component for citizens living in urban areas. We can see many mosques in the fourth historical spine of Old Rusafa between Gailani and Maidan such as Gailani Tomb Mousq, Mnawra Khatun Mosque, Ahmadiya Mosque and Khualfa Mosque. Source: (JCP, 1984).

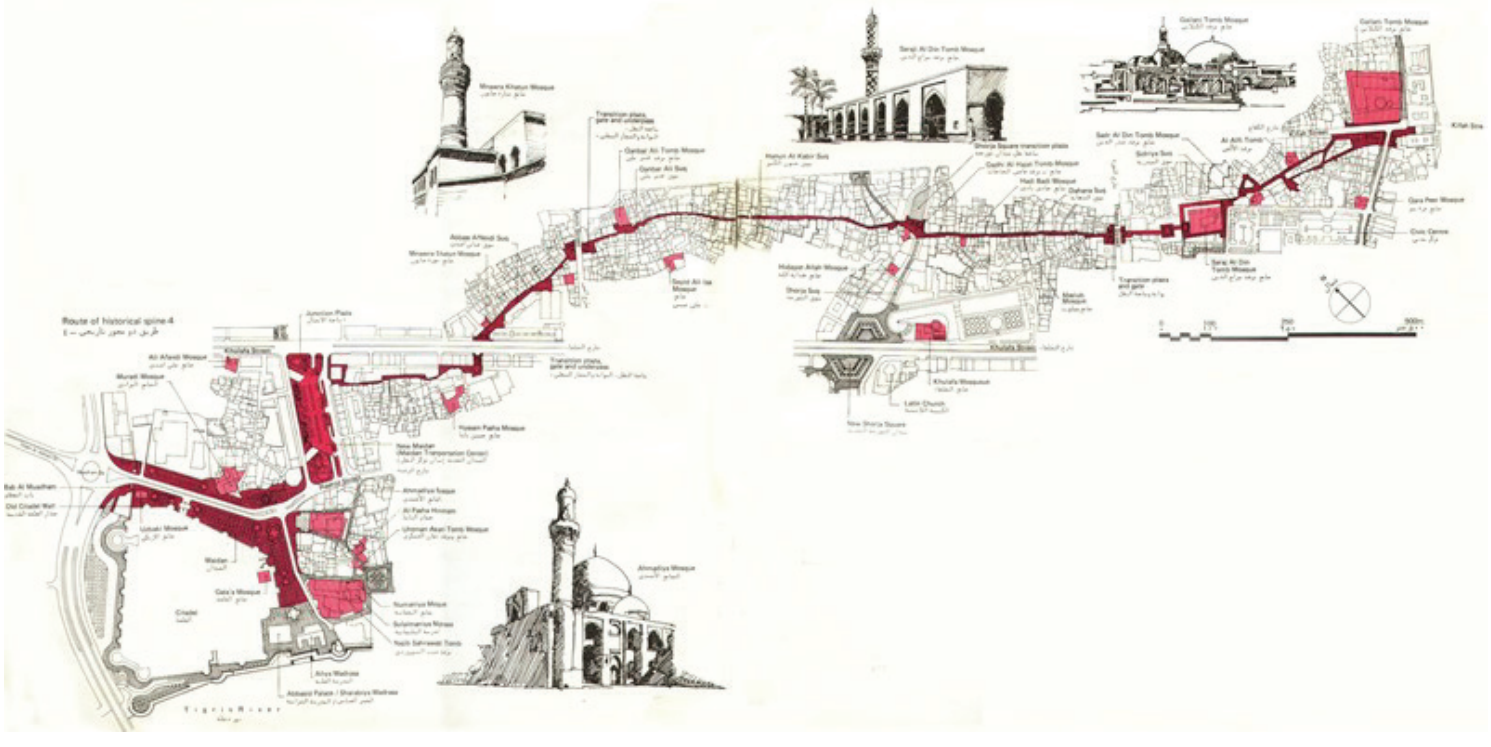

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Fig. 14 - Mosques in Old Rusafa. Source: Author, 2020.

The place of the mosque in Baghdad has played a fundamental role in the arrangement of the city's evolution. It reflected the concept of the Islamic society, which confirms the promoting of unity and social relations. This point has led to keeping the balance in a determination of land use patterns and attention to equity, as in traditional Islamic city all citizens have the right to use the religious and public spaces equally. "In the early times, the mosque was the exclusive public facility representing the complete range of social and civic affairs in the city; it later experienced a certain reduction of its scope and greater concertation on social and religious affairs, at the expense of its political function" (Bianca, 2000:110). The land use practice within Old Rusafa located the mosque first as a center and then the market and residential neighbourhoods surrounding this centre.

The urban form of many traditional Muslim cities is based on a religious sense of life and respect for family privacy. This type of privacy in these cities and especially in Old Rusafa has led to making these areas ecological through permanent boundaries of neighbourhoods and homes, dead-end streets and communal life of all people in a neighbourhood. Gazi argues that Islam, because of its value system, has determined behavioural patterns within the role of the community and humanitarian organizations such as mosques in settlement morphology. In addition, he believes that Mosques are the spiritual identity of Muslims and a place of support which started from the beginning of Islam until now and it is the most significant part of the urban environment (Gazi et al., 2012). The role of mosques in Old Rusafa creates active urban areas in terms of the economic, social and cultural environment, maintaining the hierarchy and the identity of these historical areas. The historical centre contains many traditional mosques such as Haydar Khana mosque, which was built by Dawood Pasha in the 1827 AD, A. Al-Wazir Mosque was built by Hassan Pasha in 1600 and rebuilt again by the Awqaf in 1957 after being ruined by the severe floods of 1831 and finally Morjan Mosque that was built in1356 AD (Fig. 14).

5.3 THE TRADITIONAL SOUK

Commerce was another significant and dynamic element of Muslim urban systems, which always occupied an outstanding position in the traditional city centre in conjunction with mosques and related social welfare traditional buildings. One of the hallmarks of traditional Muslim cities was the interaction between religious and commercial activities (Bianca, 2000:123,124). Souks are the main source of prosperity that provided the economic activity in Old Rusafa. They are also one of the main public functions in the urban components of Old Rusafa. Urban areas of Baghdad in 1955 indicated that the commercial distribution for both markets and small shops occupied the strip areas on the two banks of the River Tigris (Alobaydi, Rashid, & Mahbub, 2015) (Fig. 15). The souk beyond its commercial purpose is a place for social meeting and exchanging all types of news (Bianca, 2000:126) (Fig. 16). Many souks were built and demolished in Old Rusafa during the period 1973-1976 such as Mustansiriya (Souk al_Haraj) which was built in 1673 by Hussain Silandar Pasha. This souk was rebuilt in 1818 by Daud Pasha and demolished in 1974 when Mustansiriya School was cleared of its surrounding fabric. The origin of Souk al_Haraj may well go back to the Abbasid period when it was called the 'Tuesday Market' or Thilatha Souk. It consisted of small shops on both side, the souk dimension being about 130 meters in length and 5 meters in width; it was roofed by a series of domes supported by pointed arches and pendentives. The second one was Haidarkhana Souk which was built in 1700 and demolished in 1917 when Rashid Street penetrated the traditional fabric of old Rusafa. This souk was located in Haidarkhana mahalla of Rusafa and adjacent to the Mosque of the same name; it was a vaulted souk. Qaplaniya Souk was the third souk, which was built in 1818 by Daud Pasha. This was a small souk of outstanding architectural interest located near Qaplaniya Mosque and specialised in the sale of rugs and carpets. Its dimension was about 80 meters in length and 4 meters in width and was particularly popular with foreign tourists. Qaplaniya Souk was demolished in the 1974-1976 period (Fethi, 1977).

Al-Sharjah Souk is the main and oldest one which still survives. It was first called Al-Rayahin Souk then al-Attarin Souk. Traditional market was established at the beginning of the Abbasid period about 750 AD that represents the commercial activity of the historic area of Old Rusafa. Al-Sharjah Souk and its shops, stores and squares have preserved its traditional character. It is "a

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large maze like a narrow street with arcades of shops and stalls hiding large warehouses and craftsmen's workshops behind, some built on lifted wooden platforms" (Kirtikar, 2011:41) (Fig. 17). The linear arrangement of long shopping alleys that could easily be divided into unique interconnected parts created the traditional souk of Old Rusafa. Each part was protected by gates, which closed at night, so that accessibility to the central souk area could be interrupted at any time, just like the same way as in the residential unit. The duplicated individual souk sections by parallel units placed "back to back" or enlarged into wider systems by conjunction with perpendicular parts have led to more complex souk units in the city centre. The souk was combined with the main spines connecting the city gates and the heart of the city centre, complemented by several parallel alleys and cross-links in the central area. These parallel alleys were divided into various specialized sections, allowing visitors to review different goods in one single location. The transport of these people and goods from one section to another gives clear proof of this commercial network and constitute a major activity in the streetscape of traditional Muslim cities (Bianca, 2000:128,135).

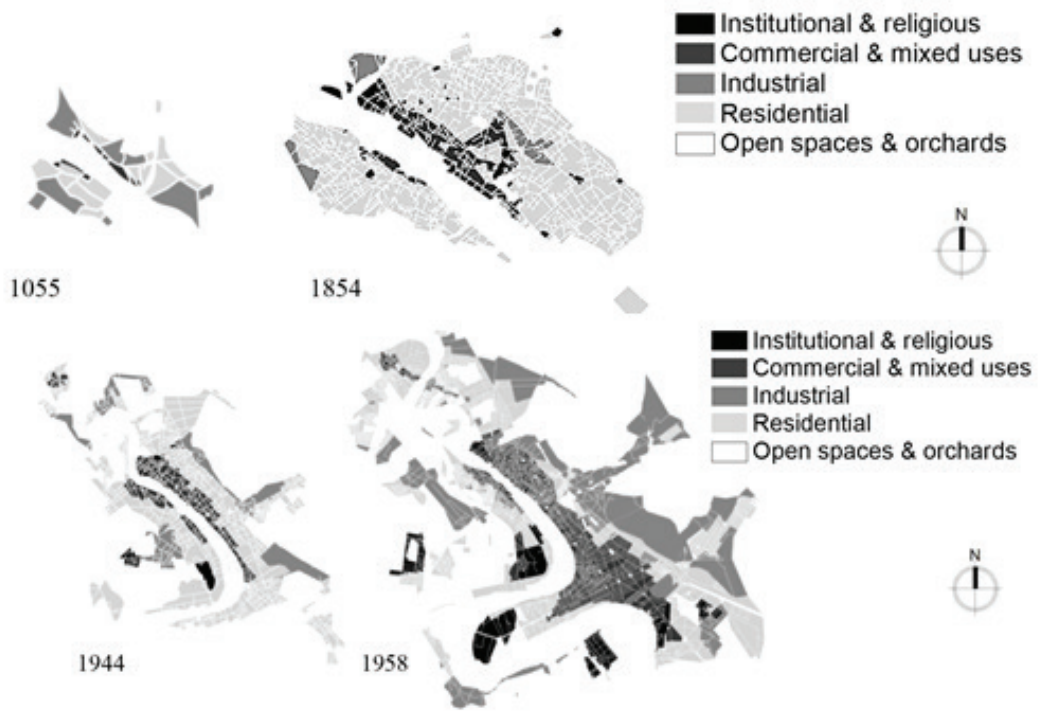

Fig. 15 - Concentrated Commercial and Continuous Residential Patterns of Land Uses of Baghdad in Between 1055-1958. Source: (Alobaydi et al., 2015).

5.4 THE TRADITIONAL URBAN FABRIC

The Municipality of Baghdad lacks a clear vision and regulations regarding urban conservation, and this usually creates many obstacles when they want to prepare a plan for conserving traditional areas. The traditional urban fabric in Old Rusafa has witnessed irreparable damage as a result of the weak definition of functions and an ambiguous formulation of what to preserve. This is one of the reasons that most urban conservation plans prepared by different groups for the city centre have been not successful. However, Al-Saffar,

Fig. 16 - Traditional Souks in Old Rusafa. Source: Author, 2020.

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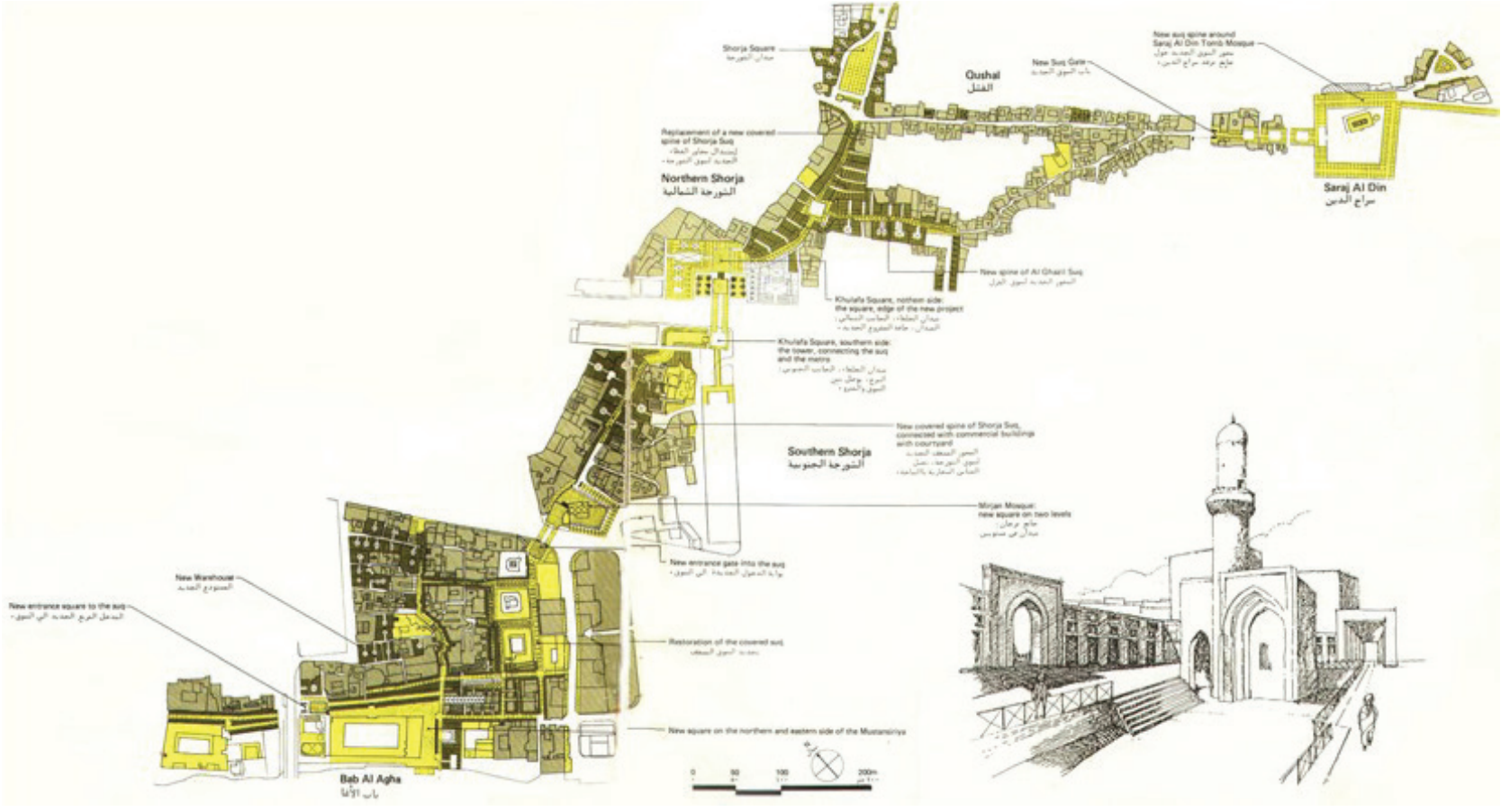

Fig. 17 - The main souks of Old Rusafa are concentrated in Bab Alagha area near Al Mustansiriya School and extend northeast through the Shorja Souk which is part of the Central Business District. Source: (JCP, 1984).

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(2018) indicated that "One of the significant comprehensive urban conservation master plans for Old Rusafa was submitted by Japan planners, Architects and consulting engineering (JCP) in 1984. Urban conservation and redevelopment of the traditional core were the main aims of this scheme" (Al-Saffar, 2018b) (Fig. 18). The unique urban fabric is the main element that represents the characteristics of Old Rusafa. It contains traditional courtyard Baghdadi houses and narrow alleys, as well as the presence of social and cultural places and historical buildings such as Al-Mustansirya School, Abbasid Palace, Baghdadi Museum, Old Defence Ministry, Saray Square, Marjan Khan, Al Qishla, the Museum of Pioneers and Artists (Albayati, Sipe, Alizadeh, & Tomerini, 2015). The traditional urban fabric is composed of small residential units interconnected onto another residential cluster; it becomes a system of hierarchical parts of differently sized units producing a complex pattern of unity and homogeneity (Kiet, 2010) (Fig. 19).

Fig. 18 - Goal Image of Rusafa Historic Centre. Source: (JCP, 1984).

Fig. 19 - Traditional Houses, Mosques, and Public Buildings that Form Traditional Urban Fabric in Old Rusafa. Source: Author, 2020.

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6. CONCLUSION AND RECOMMENDATIONS

The centre of the whole of Baghdad is Old Rusafa, whose historic fabric has been under pressure from modern growth and has lost so much from its structure. The city centre historical buildings, mosques, traditional suqs and private houses have emphasized the urban fabric identity and its urban form. This paper has illustrated an understanding and an assessment of the main components and existing physical condition that reflects the cultural heritage and monumental Islamic architecture of the historic centre of Baghdad. It also has clarified that the narrow alley together with the hierarchy of the traditional Baghdadi house provides for a series of thresholds of security, particularly visual security between spaces. Shokry says that "In physical terms, security can be seen to be provided by concentric rings of protection, the concentric rings being provided by passive design or construction elements of the building clusters and surrounding area" (Shokry, 2012). Al-Saffar, (2016) emphasis that "a better understanding of urban heritage will depend on understanding both the heritage context and the categories of heritage values derived from modernity" (Al-Saffar, 2016a). Abu-Lughod asserted that "we could not build better cities in the contemporary Arabo-Islamic world if we paid closer attention to some of the true achievements of the past and if we learned from them" (Abu-Lughod, 1987).
The complex urban structure and form in Old Rusafa have provided an example of how to create privacy and a healthy environment for its people, especially within the district society. Urban form, as Bianca, asserts, is an interaction between what individuals build and what they believe, which has led people to structure their environment. At the same time, they are also affected by it in their attitudes as an outcome of interacting with it over time. "Urban form, architecture, and cultural tradition can be seen as a natural expression of prevailing spiritual values and beliefs which are intimately related to the acknowledged cosmic order of the world" (Bianca, 2000:22). The old centre of Baghdad considered as an important heritage area that demands emergency protection for its historical identity. Conservation of historic areas has played a fundamental role in promoting economic development in cities. Thus, the significance of enhancement of Baghdad's architectural heritage is to obtain socio-economic and cultural goals (Al-Saffar, 2018b). The finding of this research has provided insights into the cases that urban designers, policy-makers, technology companies and governments should consider in devising regeneration solutions and strategies dealing with the historic centre of Baghdad, aiming to integrate traditional principles with contemporary needs and provide a new vision for rethinking the way cities are designed, built, and managed. Therefore, for a future vision of Baghdad's architectural heritage is to regenerate its urban heritage form under the light of the new principles of contemporary design models and preserving its iconic historic buildings.

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