

Interruption of Urban Style of Old Baghdad's Hub: A Case Study of the Urban Fabric of Historic Baghdad- Al Rusafa



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ABSTRACT

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This study examines the role of urban style in preserving the memory, cultural heritage, and social values of a city, with a particular focus on Baghdad. Previous research has primarily addressed architectural styles; however, this paper argues for the importance of studying urban style, a concept shaped by the amalgamation of various architectural styles over time, contributing to a city's unique identity and language. The research scrutinizes the rich historical tapestry of Baghdad, a city with a diverse array of historical structures from different periods, collectively constituting its cultural and artistic heritage. However, the urban landscape has been adversely affected by the multiplication of disparate visual images, leading to a disconnection between historical buildings and urban style within the city's historical axes. Therefore, the research problem emerged (what caused the interruption in the relationship between the historical buildings and urban style within the historical axes). The aim of the research represented in (clarifying the concept of urban style and its relationship to historical buildings within the general urban scene found around those buildings and the old Baghdad's centre). And achieving this aim was through the hypothesis of the research (interruption occurs in the urban style as a result of the sudden appearance of multiple visual images within the urban scene), then the research reached a set of recommendations and conclusions in defining the relationship between the style and the historical structures and spatially adapted it to the urban scene of the region.

1. INTRODUCTION

Many of the previous theses dealt with the architectural style and reached a practical classification of its types through the styles that appeared throughout the history of architecture, while previous studies dealt with the urban style through methods and technique or through urban design architecture, when Moughtin et al. [1] outlined the meaning of and role played by the main elements of urban design discussing, in particular, the form and function of street and square, and dealt in detail with the ways in which the elements of the public domain are embellished. It outlined the general principles for the decoration of: floor plane, or pavement; the façades of street and square; roofline; roof scape; skyline; and street corners, relates the main components of urban design to a general theory of urban structuring, paying particular attention to the city and its form, the urban quarter or district and the street block or insulate. The urban design method dealt with the logic and imperative of sustainable development and then formulated principles of urban design based upon this particular architectural styles of environmental code.

The Congress for the New Urbanism (CNU) [2] outlined principles applicable to new developments, urban infill, revitalization, and preservation. These principles are rooted in traditional city-building practices: walkable streets, proximate housing and shopping, and accessible public spaces. A human-scaled urban design is at the heart of New Urbanism, focusing

on the creation of streets that accommodate various modes of transportation and public spaces that encourage daily interaction.

Mustafa et al. [3] dealt with urban style through urban design architecture as the process of defining architectural style and the characteristics statement focuses on the specific pattern that considered the most important part in shaping the identity of the city and identify privacy of architectural style. In addition to that, this type of functional lost the privacy as the internal structure has changed dramatically from what was in the past through the advent Western culture concepts, which occurred in early of this century and led to change its features gradually and dramatically. The style has been defined in architecture in the light of the literature and ideas that it is language embodied sense physically, it has the fundamentals and rules of synthetic and formulation basis in the mind and requires them out into the world presence physical means or system to reflect the merits of building materials and construction techniques and other elements of the physical configuration.

Gražulevičiūtė–Vilenišké and Urbonas [4] referred to the encouragement of comprehensive sustainable renewal and the restoration of the historical environment by reusing the values owned by the historical buildings and preserving the cohesion of the precious urban fabric, and that's why the buildings that extend over time are the unique historical urban nuclei with what they achieve of visual integrity and extension from the

past to the present and preserve the urban fabric from Dispersion so that it achieves a positive impact on the development of the historical environment and works to increase the welfare of local communities.

Li [5] pointed out that the process of restoring the historical urban fabric relies on the architectural styles that make up the urban style of the fabric and knowing the distinctive characteristics of the fabric and the type of visual relationship between urban spaces (whether axis or squares) and the masses blocks forming the spaces to control the transformations of urban patterns and achieve the organic unity of the fabric and give a new life that has the ability to growth and development, and that the process of transmitting urban patterns through the urban style requires determining the quantity and type of inherited architectural elements based on the historical culture of the urban fabric and enabling the continuous restoration of architectural styles in it.

Despite the aforementioned studies, a gap remains in the literature concerning the urban style characteristics in the traditional architecture of Baghdad. Most prior studies offer general descriptions and analyses without comprehensive examinations. This paper attempts to address this gap by identifying the unique traits of Baghdad's urban style, aiming to inform future designs and preserve the city's architectural identity. The above problem showed that there is a need to have studies showing the characteristics of urban style of the traditional hub.

The methodology of this research is based on a main hypothesis, which states that (the interruption occurred in the urban style of the old Baghdad axes as a result of the sudden appearance of multiple visual images within the urban scene), to verify this hypothesis. This research objectives focused on examine how modern development in Baghdad's Al-Rusafa district has disrupted the historic urban fabric, creating isolated architectural icons. The central hypothesis is that sudden interventions have interrupted the continuity of visual images along historical axes like Al-Rasheed and Al-Mutanabbi Streets. The methodology was carried out in following stages:

- Analyse the models that make up the city of Baghdad within the historical centre of Al- Rusafa and clarify the relationship between its extended axes between Al-Rasheed Street, and Al-Mutanabbi Street.
- Measuring and comparing the urban style of the two axes through the variables and values that the research determined.
- Explaining the changes and renewal that have occurred and their accompanying interruptions beside the emergence of isolated icons within their serial scene.
- Reaching the presentation and discussion of the results of the practical study, and then presenting the conclusions.

2. CONCEPTUAL FRAMEWORK

2.1 Architectural style

The style is the method that helps in producing artworks because it is considered the characteristics of the artist, or the characteristic of the time in which they live and represent the distinct form of an art. In architecture, it's a specific type by a group of characteristics of the building and its assembly or related to the display of the outer cover [6].

In its general sense, the urban style represents all kinds of spaces between buildings related to the various basic human activities. As such, it represents a meeting place for people.

Al-Birmani [7] points out that the model determines the shape of the urban space as a result of the impact of the modelling structures of buildings and the extent of their visual, psychological effects on people.

Al-Azzawi [8] pointed out that the urban space changes with the diversity of architectural forms and styles within the cultural, artistic, historical references and metaphors used by them. He also believed that it is necessary to search for symbolic conceptual dimensions of the existing signs and indications in urban spaces. Schulz points out that the distinctive identity of an urban space depends primarily on the nature of the formal character which depends on the method of combining different patterns constituting the place and how to achieve basic cognitive principles such as unity, continuity, stability, elegance, containment, openness and creativity.

2.2 Architectural styles and sequential urban scene

The urban scene represents a set of visual images and visual presentations of the ways in which the components and the architectural products related to each other are combined, a pattern that is relatable to the people who make and use them [9]. Cullen [10] defines it as: the art of relationships that bring buildings together to achieve a single scene with aesthetical dimensions and with certain characteristics, dependent on the visual relationships of the patterns that make up the urban scene as a whole and the crystallization of its integrated sensory characteristics. The reading of the urban scene in a coherent manner depends on the extent of the consistency of the details disconnection with the visual images. The disintegration refers to the disruption of the public order, visual arrangement, and the harmony of the urban structure [11, 12].

The serial scene is formed within the urban scene through the continuity of the models on a regular basis, and the relations between the part and the whole with the necessity of harmony of materials, texture and the creation of unity and visual continuity of the diversity resulting from mixing the models (Figure 1) [13].



Figure 1. Showing the sequential urban scene within historical urban axes

(DOI: <http://alzawraapaper.com> Al-Rasheed Street. Source: <https://almadapaper.net/Details/121400>)

In that way, it gives the urban style its importance and value characterized by the building model that exists within the scene and the extent of its compatibility with the context around it, thus creating a consistent visual image and series. But it seem that the total urban scene consisting of combination of models of different structures and interfaces and their interconnection with the constituent parts of the overall context, the diversity of those scenes considered as a result of the different time periods that formed those places, which sometimes helps to create disintegration and discontinuity of patterns within the urban scene, thus creating

isolated icons within the same scene, and eventually causing a kind of disconnection with the visual images. The disintegration refers to the disruption of the public order, visual arrangement, and the harmony of the urban structure.

2.3 The historical buildings and the insulated icons

Historical buildings are a part of the cultural heritage and an important witness to the civilizational creativity of any city, which is the essential part constitutes the identity of the city enduring through episodes of qualitatively distinct and environmentally distinct [14].

In the matter of the connection of the historical building's to architectural styles, Kalman [15], has classified the criteria related to historical building, namely: it's values and originality of the architectural style are carried by the building, its history, the building's connection to its surroundings, the building's uses, and building's integration with the urban landscape. There are certain contextual characteristics that determine the amount of continuity, and they give buildings the ability and continuity to establish identity and urban character of the region.

Al-Maliki [16, 17] explains the importance of historical buildings in the style as next:

- Highlighting the distinctive architectural characters and unfamiliar style.
- Highlighting the distinctive design details and treatments that would increase the aesthetical value of the building and increase its connection to the place, as an active icon for the place.
- Highlighting the architectural value of the urban fabric through the uniqueness of buildings.

Historical buildings are the group of complementary buildings that collectively constitute the urban space that carries its own historical and cultural value, and it is the integrated structure of the distinctive visual image of a place, and its strongest high social values that a group of buildings usually carry the same style. It is also divided into complementary buildings, which give the interconnectedness

of the urban scene and its value within the historical axis, and complementary contributing buildings that are syndrome, age-appropriate, and repetition of architectural details [18, 19].






Unfortunately, some historical buildings couldn't keep playing the role and value of complementation with the surrounding context and couldn't integrate with the urban scene and couldn't belong to the urban style of their context, that create an insulated icons of the historical buildings. on the same topic, Rossi [20] classifies isolated icons based on the theory of survival, in which he classified isolated icons as those elements isolated from the surrounding context, and hardly related to the urban system, despite having the characteristic of continuity (physical, functional) and it is more like it is the embalmed body that doesn't have any meaning in life and regeneration, but has the ability to continue through time.

The chaos of juxtaposition of architectural styles within the urban scene results from the production of forms that are far from the identity of the place and out of usual and circulating system, which causes a state of irregularity and occurrence of a defect in the architectural styles of the place. Sometimes, it accesses to the discontinuity and separation of the place from its component products [21, 22].

Schulz [23] points to the chaos in the models as: It is the process of using shapes outside the systems to which they belong due to inconvenience and harmony with the relationships used. He said that the most prominent causes of chaos and disorder is the individual actions, and to avoid the state of disorder must be the elements used belonging to the system of any model, whether individual or collective (local or global) or model dependent for a period exact time.

This research focused on urban style within urban scene of the historical axes and to accomplish the objectives of the research mentioned above, and because of the richness and differentiation between the historical buildings of old Baghdad's hub, it was helpful touched upon some iconic buildings that have great values in the district of the case study region Al-Rusafa (Table 1).

Table 1. Historical buildings of old Baghdad's hub, source by researchers

Building	Architectural Style	Creation Year	Function	Picture
Al-Mouradia Mosque	Abbasid style	1570	Religious building	
Al-Mustansiriyah school	Abbasid style	1242	The oldest university in Islamic world	
Al-Daftar Dar Building	Modern style	1953	Administrative building	
Baghdadi museum	Ottoman style	1869	Museum Biograph features of the life of Baghdad inhabitant	
Baghdad Mutasarrifiya Building	English Victorian style (colonial time)	1934 destroyed in 2003	Old Baghdad municipality	

3. MATERIAL AND METHOD

The measurements of the variables and their indicators are the qualitative measures that define through three basic aspects must be clarified:

- The type of measurements that are used to measure the variables.
- Way to collect the information for the measurement purpose.
- The selection of samples.

Through the foregoing, the most important indicators were reached to measure the extent of harmony or discontinuity in the urban models of the historical axes of the study area, and these indicators were applied to evaluate these axes (Table 2).

The application methodology of measuring the indicators of the urban style will be through clarifying the urban scene of the elected historical axes since their inception era to the present day and the extent of the change of the visual images within the historical axis and the emergence of different models between one axis and another. Table 3 and Table 4 depict results of the case study, showing the possible values of the variables.

4. DESCRIPTION OF THE URBAN STYLE OF THE AXES OF OLD BAGHDAD (STUDY AREA)

4.1 Historical hub

The Historical hub present the vital roads in the organic structure of the old city, and that imbedded in the five main axes for the pedestrians in the old center of Al-Rusafa [24] (Figure 2).

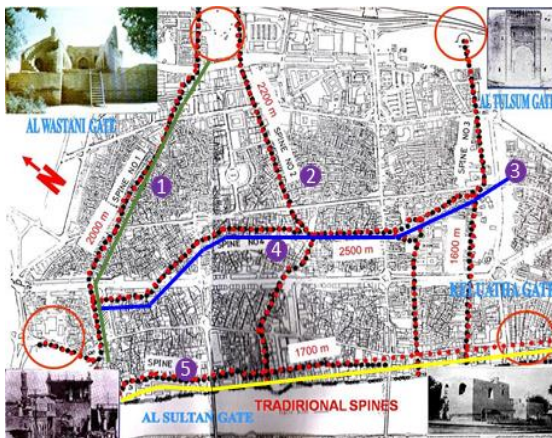


Figure 2. Showing the five main axes for the pedestrians in the old center of Al-Rusafa [24] (DOI at e-space (mmu.ac.uk))

The complex form of ancient cities, and thus it offers the potential to reconnect historical areas that have frayed or fragmented by modern methods that penetrate their system. So, the research will deal with the area near Al-Shuhada bridge and two historical axes there (Figure 3).

4.1.1 Al-Rasheed Street style

There are adjacent and contiguous portico buildings forming an urban edge on both sides of the street and a percentage 70% of the total street buildings, forming a perpendicular walkway and these rounded columns give a sense of unity and continuity to the street and thus represents a distinctive characteristic of it. Street's buildings vary

dramatically in age, style, number of floors, and use. Most of these buildings need repairs and facades restoration. The standard characteristic of Al-Rasheed Street is mainly a ground floor with a corridor with one or two upper floors, which gives a height to the buildings between 9-14 meters [25].

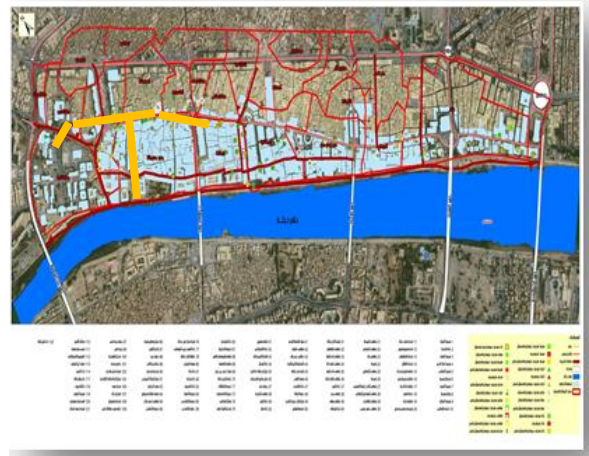


Figure 3. The case study area showed in yellow (1- part of Al-Rasheed Street, 2- Al-Mutanabi Street) [24] (DOI at e-space (mmu.ac.uk))

The street is divided into five distinct areas because of the bridges, which led to cutting the visual images of the street, with the addition of a group of new visual images, some of which are the richest of the urban scene of the street and some of them led to the interruption of its visual image and sometimes inconsistency in the patterns that make up the sequential scene of the street. The second floors of street buildings appeared decorated with chanachiles depend on the pillars of the street before most of them reached by the hands of change and the transformation of that wooden plaited block based on interlocking wood together into other architectural blocks [26-29].

4.1.2 Al-Mutanabi street style

It was known in the past as Al-Akmakhana Avenue, and it is located between the Tigris River and Al-Rasheed Street and dates back to the period of Ottoman regime rule. This street is considered as one of the richest styles distinguished from other streets because its visual images are mixed between contemporary styles added to those original ones that formed the street. The new models came as a result of development projects after the destruction of Al-Mutanabbi Street, and despite the presence of some buildings that distort the visual image of the street, it carries common characteristics and features that make most of the street scenes be sequential, interconnected and connected to the historical axis associated with it.

The new models of style adopted the simulation of the old visual treatment of the street and the movement of the facades with architectural elements inspired by the local heritage, with taking into account the layout of the portico and its unification to be a colonnaded portico that extends along the street with the facades being clad with carved bricks and inlays with satin areas with a color consistency that go along with the color of the bricks [26, 28, 30].

4.2 Critical analyzing the urban scene of the elected historical axes

To impose stronger linkages between the conceptual

framework and this analysis section, the application methodology of measuring the indicators of the urban style will be through clarifying the urban scene of the elected historical axes since their inception era to the present day and the extent of changes in visual images, and the emergence of different models between one axis and another, the analysing discussions directly related to (continuity of styles, visual harmony and isolated icons) to the indicators (Tables 2-4).

For the space of the research, the measurement of the indicators of (Table 2) was reduce to concise the repetitions of some text in analysing the urban scenes of the elected historical axes (shaded in yellow in Figure 3 (Table 3 and Table 4)).

Table 2. Measuring urban style indicators by researchers

The Main Indicator	The Secondary Indicators	Possible Values
Distinguish features of the architectural style	select the model language X1	x1-1 knowing the model time
		x1-2 determine its creation technology and materials
	model continuity X2	x2-1 style replication within urban façades
x2-2 the rhythmic boundaries of the sky line and the architectural details within one axis		
Read the sequence of the urban scene	foster affiliation X3	x3-1 building style harmonizes its adjoining in context
		x3-2 rejecting the complete contradiction within one axis
	visual pleasure and a sense of comfort X4	x4-1 the diversity of visual images by combining the different ones within one scene
x4-2 the presence of deviations and protrusions		
Relation of the historical building to the urban scene style of the historic axis	complementary buildings X5	x5-1 its chronology completes the historical axis
		x5-2 it holds high social values
	complementary contribution buildings X6	x6-1 repeating its architectural details within the urban scene of the axis
		x6-2 age is consistent with the age of the historical axis
	isolated icons X7	x7-1 isolated from neigh-boring surroundings
		x7-2 interruption of visual images associated with it
		x7-3 the differentiations of meaning in the urban scene

Table 3. Measuring the urban style indicators of Al-Rasheed street related to Table 1 (the inception era and the present day) by researchers (see Figures 4 and 5)

Possible Values	The Application with Its Inception Era	The Application with Its Present Day
x2-1	the arches and motifs are repeated in the street axis as a whole with variety and some differentiation enriching the urban scene	the difference in the styles that make up the street within the same scene and the emergence of individual buildings that do not belong to the place are few, and the predominant style of the axis is the style of historical buildings
x2-2	the sky line is uniform, with the emergence of the mosque building, with a harmony in the details of urban blocks and the continuous portico of street	the sky line is interrupted by some tall buildings, with the difference in architectural details between the new and the old in some scenes of the historical axis
x3-1	the buildings are integrated with each other and give a sequential urban scene that belongs to the identity of the place	the added buildings are inconsistent with the style of the general context of the urban scene in terms of finishes, details, heights
x3-2	there are no buildings that bear a contradiction and difference in style or height except what is rare	there are some contradictions, but few within the general scene
x5-1	Al-Haidar khanna mosque, dating back to the abbasid era, was established by the caliph Al-Nasir li din allah Al-Abbasi	Al-Haidar Khana mosque
x5-2	linked to the emergence of the region and its prominent features, a platform for national actors during previous periods	arches and alleys -related markets with the main street
x6-1	most of street's buildings are contribute to the completion of urban scene	most of the street's buildings are buildings that contribute to the completion of the urban scene
x6-2	most of the buildings of the street have a historical age dating to the founding of it	the street still maintains the complementary buildings that give it its own identity
x7-1	there are no isolated icons	some of the old inns (khans) and historical buildings
x7-2	there is no interruption in visual or kinetic images	the visual images leading to mosque were cut off due to the emergence of new buildings and interruption of urban scene

Al-Mutanabbi Street was exposed to a terrorist incident that led to the destruction of a large part of it, and this called for its rehabilitation and transfer of sound architectural elements to preserve the identity of the Urban style of the axis, without separating the new urban scene from what the old was previously (Figures 6 and 7).

5. RESULTS AND DISCUSSION

The practical findings of the research are specific to the city of Baghdad, and the models that have been identified are as follows:

Al-Rasheed Street still in most of its area retains the distinctive features of the architectural styles, and the rhythmic line of its skyline, and absence of complete contradiction within the one axis in addition to the fact that most of the street buildings contribute to the completion of a sequence of urban scene in it, so no isolated icons appear, which achieves clarity for its urban style and the state of discontinuity is limited and partial.

The development process of Al-Mutanabbi Street showed contemporary techniques which results a discontinuities in the sky line of the axis and the fabric around it, reaching some buildings up to 6 floors sometimes and using the concrete and structural system, but the external surfaces of the façades remained trying to simulate the old style of the historical center despite the different details, that's why no contradiction appeared within the axis where the new addition tried maintaining the level of the projections and the portico, but unfortunately, the identity of this axis no longer shows its ottoman and Abbasid style by using construction and finishing materials other than bricks.

Through the case studies, the research reached to the attitude of the urban style in enriching the urban fabric and its connection with the historical buildings and their synchronization to produce serial events of different cultural origins, especially since the historical buildings within the historical centre of Baghdad possess a clear personality and a clear architectural style transmitted through time in complete harmony but sometimes separate from the context and urban style that is around it, which make them separate and independent entities.

In a discussion to the results came from the practical study, the research reached to the next:

The city of Baghdad is distinguished by the diversity of the architectural styles that constitute its urban scene, which dates back to different time periods. its distinct entity and models composed by the sequence of visual images and the formal characteristics of the serial scene (kinetic and visual) and the continuation of the urban style and its harmony with other models that make up the place. The research reach to the obvious changes in the patterns of historical urban axes within Al-Rusafa area as a result of development and change processes.

Despite the interrelationship of the old functions of the fabric and historical axes with their new functions and their functional non-interruption, the visual relations are different from one part to another as a result of unstudied interventions and the emergence of sudden visual images that do not belong to the place, and the iconic historical buildings still give a high architectural value to the place, but the new buildings - some of them - have a different value, but these iconic buildings work to strengthen the spatial structure of the fabric by preventing gaps from dominating the place. But, that causes

neglecting of many historical architectural icons that have a prominent role in activating visual images and harmony with the general context of the place. As a result of the break between those buildings from their context, they become isolated icons that have no value within the urban scene as a whole despite their individually in value, style or function, and thus the absence of plot in weaving the urban style of the urban style as a whole.

The distortion appeared in the visual images of the elements inherited within the architectural style itself as a result of the absence of correct rules for adding iron elements and details.

6. CONCLUSIONS

The task of the style is to highlight the distinctive architectural character, the details and distinct design treatments that will increase the aesthetic value of the building and its link to the place, to look like an activating Icon, and since the urban space is defined as a place when it contains the activities of the individuals, it is affected by the size of the influence of models that form the buildings and the extent of its visual and psychological impact on individuals. Obviously, the clarity of the urban style is what gives the kinetic urban axes a distinct identity.

The reason for the interruption that appears in urban style is due to the lack of harmony in the relationship between the urban style and the historical structures, which negatively affected the discontinuation of the visual image of the urban scene within the tracks and their sudden emergence within other tracks, on the other hand, the emergence of multiple urban scenes within the same axis, and buildings that do not belong to the same style nor it blends in with it, creating isolated icons and a single style within the urban fabric.

The difference that enriches the place must be strengthened as a result of the specificity of the historic centre in its commercial diversity and in the nature of the social and physical relations between its activities on one hand and the people who visit the place on the other hand, and this difference lies in creating a framework in which the heritage integrates with the contemporary in a way that enhances and strengthens the specificity of urban style.

Despite the state of discontinuity that the research has proven, the real reason behind the cohesion shown by the historical fabric of the city of Baghdad is the organic urban pattern with its soft, lumpy texture and its symmetrical axes within the old Baghdad markets, creating the connection of the main and secondary axes and the fluidity of movement that emphasizes the value of the structural coherence of the place, and the state of interruption that appeared is the result of the absence of regular optical nodes within the urban landscape of the same style.

The research recommends that the rich language of the place is, in fact, an urban architectural language that carries many visual images that work to create an urban scene that has a completely consistent relationship with the buildings of the single axis and the details of its architectural facades with the difference in what enriches the place and shows its temporal development and determining the type of change if it is integrated with the heritage or disconnected to control any single interference that might distort the place.

There should be efforts on creating an urban system unifying the different details in one harmonically system as in the individual renewal projects, besides bridging the relationship between the traditional and new architectural

styles and elements.

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