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# Proposed Urban Design of the Area Surrounding the Great Samarra Mosque

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**Abstract.** This research attempts to put a proposal Sustainable Design Development of the area around the Great Mosque & its Minaret, which it for many years has become a symbol of Iraqi architecture and its history as a result of the skill of Iraqi sculptors and architects in using local materials like bricks in their buildings. The research problem is a knowledge gap about the(SWOT) factors (strengths, weaknesses, opportunities, and threats) that faced area.. While Research methodology is descriptive and analytical. The Reasons for selecting this project is to raise the percentage of tourism in the area. Subsequently, to grow a good economic city; in addition to the importance of Samarra civilization in making it a destination for tourism for tours, students, poets, and others because it includes many cultural landmarks and needs a space to attract tourists and be a cultural outlet for the city as well as a recreational site embraces their activities and meet their needs. To the archaeological importance of the area near Al-Malwaiya, to attract tourists in the city, and it helps to identify the city heritage.

**Keywords:** Architecture, Samaritan Minaret, the (SWOT) Factors, Sustainable Design, Development, Great Mosque.

## 1. Introduction

Sustainable Urban Design is a science with an applied approach to renovate projects; it has been developed to improve the social and physical conditions of the underdeveloped urban dwellers in particular and the city community in general. Examination of the universal phenomenon of the city from a historical perspective, considering how and why cities took the shape they did[1]. The first urban development program appeared in North America in 1937, and its concept was actually embodied in 1949 in backward areas with many problems, it refers to the significance of using a series of integrated planning processes that are based on the foundations and elements of the urban environment. It works to advance the old and modern urban areas with an urban pattern, which suffers from underdevelopment within cities. This research aims to develop the area of the great Mosque in Samarra through the development of an integrated center that provides cultural events and organizes visits to archaeological sites and the importance of the addition of organizing festivals and recreating the celebrations through recreational centers Tourism and festive atmosphere, which will become a tourist destination for tourists and the importance of turning the attention of the world to that ancient civilization. In addition to its economic importance as it contributes to raising the economic level of the city and creates at the visitor a new impression and idea about Samarra city.

## 2. Literature Review

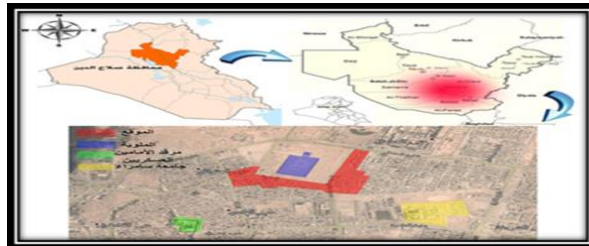
Samarra is a historic Iraqi city[6].. It was located on the Tigris River eastern bank in Salah al-Din, 125 kilometres north of Baghdad[7].. It is bordered to the north by the city of Tikrit. It is considered one of the most important holy cities in Iraq because of the presence of the Imam Ali Al-Hadi, and Hasan Al-Askari Shrine, the population[8]. of the city centre is more than 190,000 people, according to the statistics of the Ministry of Planning for 2013. In 2007, UNESCO incorporated the city of Samarra into the World Heritage List. It is the capital of the Abbasid Islamic State under the reign of Caliph Mu'tasim Billah. The city extends 41 and a half kilometres from north to south, and its width ranges from 4 to 8 kilometres. It contains ancient architecture that was developed locally before being transported to the regions of the Islamic world and beyond. Among the numerous and prominent monuments on the site is the mosque and its minaret, which was built in the ninth century AD. About



80% of the ancient city remains buried and needs to be excavated.

### 2.1. Location of the Proposed Project:

The project is located in the city of Samarra around the Great Mosque[9]. The Malawa is about a kilometre away from the Shrine of the Imam and the military project surrounding it[10]. The sustainability project is located on the borders of the archaeological area (UNESCO border) [2] because it surrounds an archaeological (see Figure 1).

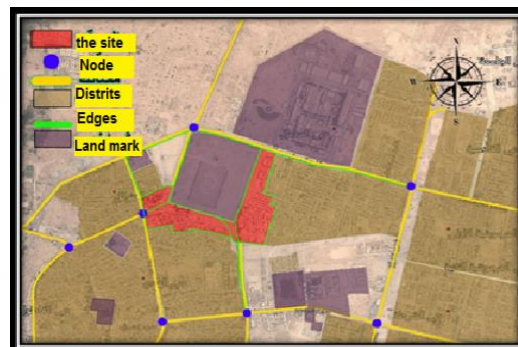


**Figure 1:** Location of the proposed project in Saladin

### 2.2. The Concept of Sustainability:

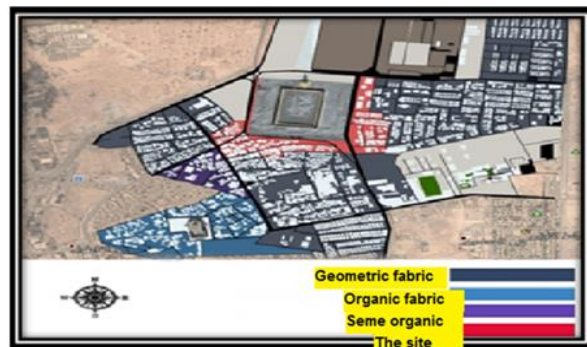
The concept is the optimal utilization of available resources. It was referred to in the World Conference on Environment and Development, Meeting the needs of the people in the present without affecting future generations to meet their needs in the future[3], the database collection about the sustainable development: which contain many points:

2.2.1. *The mental map of the site:* includes the five components of Kevin Lynch[4] (Districts, Nodes, Paths, Edges, and Landmark), (see Figure 2).



**Figure 2:** The mental map of the site

2.2.2. *Study of Urban Fabric of the Region:* the researchers use an instrumental new strategy to estimate the program's effects on city-level measures of income, property values, so the project site contains an urban fabric based on a pre-layout of the fabric) [10], unlike the organic fabric found in the old city (see Figure 3) [11].



**Figure 3:** The urban fabric of the project area

2.2.3. *Dimensions and Area of the Site:* Its area is 164,636 m<sup>2</sup>. Figure 4 shows project site dimensions.



**Figure 4:** The dimensions of the project area.

2.2.4. *Studying the heights of buildings:* The study of each of the four facades[5] of the site (east, west, north, south) and its impact on the skyline (see Figures 5, 6, 7, and 8).



**Figure 5.** East elevation.



**Figure 6:** West elevation.



**Figure 7:** North elevation.



**Figure 8:** South elevation

2.2.5. *(SWOT) Analysis*: The four-point analysis of the site (strengths, weaknesses, opportunities, and threats) includes a clarification of each part of the quadratic analysis. (See Table 1).

**Table 1:** The (S.W.O.T) factors

<b>Strengths</b>	<b>Weaknesses</b>	<b>Opportunities</b>	<b>Threats</b>
1-The site is located close to Al-Malawiya, giving a distinctive view of the project[6] and the architectural heritage of the city.	The occurrence of the project on the main roads causes high noise and traffic problems	There are sufficient spaces for the establishment of project activities	The presence of the site near the area of the historical fabric1
2-It is located near the external road line (the round road, Samarra Bridge), allowing easy access for tourists[7].	The area lacks green areas	The project can be made sustainable given the lack of public services	Distorting the visual landscape of the camouflage if the height of the project increases from the height.
3-Located near the pharmaceutical factory, which is one of the important points in the city and close to the site.	Limits imposed on the site for being near the salinity [8]	Possibility of retrieving the city's identity and heritage	the low of city prevents building that its height more than 56 meter
4-Site space is sufficient to create the project	Lack of public services (sewage services)	The absence of a multi-functional project (including commercial, cultural and recreational activities) serving the city.	
5-The site has a good urban scene on Al-Malawiya, side		The possibility of the future expansion of the project because it is overlapping with the urban fabric of the city[9]	

### 3. The architectural landmarks of the site:

The largest mosque is in Samarra, and it is one of the most important architectural landmarks in the city[10]. It is one of the largest mosques in the world, and it is still at the forefront in terms of capacity, mastery of beauty, and appearance, among the mosques of the Islamic world. It was a rectangle shape (240 m \* 158 m), to reach eighty thousand worshippers. The planning of mosques such as the layout of the mosque of Basra[11], Kufa, and Wasit, consisting of a prayer house and two wings, A fountain, consisting of one piece of granite, have been brought from Egypt. and the Minaret of great Mosque It is one of the examples that was only partially repeated at the Ibn Tulun Mosque in Cairo. The architectural richness of this monument lies in the fact that it combines the functional and the symbolic, and aesthetic at the same time, even considered one of the most beautiful features of Islamic architecture

4. **Site Indicators**The researchers select main indicators that directly affect the project design into three the on-site indicators, [12] the functional indicators, and the economic indicators according to Table 1 (see Table 2).

**Table 2.** Site Indicators

No.	The on-site Indicators	The functional Indicators	The economic Indicators
1	Environmental Effects:	Direct the site and the degree of openness to the external site.	Easy implementation of project services during work and after implementation.
2	Geographical location, wind movement, sunshine, etc.	Suitable for site activities.	Possibility for future expansion of the project.
3,	The nature of the traffic and activities adjacent to the site and its impact on accessibility to and from the site.	Functional relationship between the project and neighboring buildings. [14]	The nature and characteristics of the soil, which in turn affect the determination and type of structure.
4	The architecture used in neighboring buildings.	Sufficient space should be available on site to allow the project to be built.	The project is located near a particular person for easy access.
5	To be on a public street and within the city and near an external road for	easy access of tourists from outside the city to form a collective space between the existing activities and events[15]	The smaller economic level related to each of the behavior of the owners of individual residential units that could be affected by decline and damage if their owners give way to this due to the presence of what is known as external savings related to the effects of adjacent properties arising on the decisions of the owners to make maintenance or lack thereof, [13]

The Researcher Made the Proposal Development Project in the Site Figure 9.



**Figure 9:** The sustainable Development design

## 5. Conclusions

The city of Samarra is distinguished by its history and its architectural identity throughout the ages. This identity, which distinguished Samarra from other cities, especially since it was the capital of the Islamic State for a period of time, must start from the city's heritage and identity so that the project does not become unclassified with the neighborhoods and does not destroy the architectural identity of the city and be the start of the project.

Attention should be given to conservation policies by preserving areas of historical and cultural importance, maintaining mixed land use, and developing sustainable traffic and environmental policies.

Building and restoration of the historical and archeological buildings, renovation and maintenance, and development of the main axes of the project and having the construction and restoration according to the controls of the municipality of Samarra and identifying the uses of land and investment opportunities and the organization of architectural elements in addition to the streets and corridors are very important issues.

### 5.1. *Conflicts of Interest*

The authors declare no conflict of interest. The researcher thanks her students in the fifth class for helping her draw the graphic maps.

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