

Planning and Managing the Preservation of Historical Buildings in the Old City of Hebron –Palestine

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Abstract— Every community and society has a very precious heritage which has to be and can be transferred to the next generation and it is the responsibility of the civil society to transfer that heritage to the next generation . The process of preserving and, reconstructing historical buildings poses several specific questions and raises problems which must be solved in the planning and management stage of the building process - from questions of architectural and art-historical significance , via the future purpose of use of the building, links to the surrounding buildings, environmental questions, questions of cost, time analysis, and quality assurance problems. Many of these problems can be solved with the help of a detailed architectural plans, elevations and sections of the historical buildings and monuments which was created by an expert team .

Keywords— architectural plans, reconstruction, historical buildings, project management, planning, building materials .

I. Introduction

The architectural heritage of an area represents a reflection of the identity and culture of the region and the link between past and present and a clear evidence on the originality and authenticity, we must maintain this architectural heritage to protect and develop it to suit our circumstances now a days and the ongoing transformation of civilization. This study aims to highlight the architectural and urban heritage in the Palestinian cities and villages, and partly an attempt to document and find solutions for the revitalization of the detailed examples.

The project is consisted of the study , analysis of the historical buildings which is located in the old city of Hebron and rehabilitation and restoration so as be reused safely, beautifully and economically .

Therefore, this study seeks to achieve many goals,, the most important are :

1. Maintain an Archaeology & Heritage.

2. Draw attention to the architectural heritage in the Palestinian villages, in particular the characteristics of this architectural heritage in the city as one of the prestigious Palestinian cities and to identify the advantages of this inheritance.
3. Work on the development of solutions and schemes to rehabilitate the old city of Hebron by the results of various studies which will take place during this study, and try to represent proposals for the rehabilitation of these buildings, the process of an integrated model for the rehabilitation of the old areas of our cities and the Palestinian villages detailed projects serve as examples can application.
4. Survey and document the old city to establish the present condition of its building and its inhabitants.
5. Draw up plans for the renovation of the building of the old city in accordance with their historical Islamic architectural style.
6. Draw up plans for the renewal of the economic, social and cultural life of the city, so that it may once again be a vibrant city center.

City Of Hebron

The city is one of the oldest cities in the world, originally built on a hill northwest of the town. Hebron is at a crossroads between Egypt across Gaza and the Mediterranean Sea (west) to Jordan through the Dead Sea(east). It is considered to be the second oldest city in Palestine and is the site of the tomb of Abraham. For this reason the city is of religious significance to Jews, Christians and Muslims.(Abu Hijer,2003)

The Name of the City

Hebron was named after the Prophet Abraham, nicknamed Khalil Al-Rahman, who arrived at Hebron six thousand years ago from Mecca to build the first house for all people (House Of Abraham Mosque). (Abu Hijer,2003) .

The city then became home for Assyrians, Babylonians, Chaldeans and the Hyksos people. However, it was the Arab Canaanites who were credited with building most of the ancient monuments. The Canaanites named the city after their

leader 'Arba'. In ancient times, people would refer to the city using different names, namely the City of Abraham and the City of Vines.

In the Roman era Hebron was a village named chepron, a Castle beside the tomb of Abraham and his family was built, and in 565 AD a church cemetery also was built during the reign of the Emperor Justinian ,after that it was demolished by the Persians in their raids on the place in 638 AD. It appears that the devastation caused to the house of Ibrahim (Hebron) because of the raid, it was great. (3), and remained so until the Saracens in 632 AD.(Amro,1987)



Figure 1.

Hebron is largely mountainous, with some areas rising 1032 meters above sea level. The Hebron mountain chain is the largest in Palestine, stretching from the Hebron mainland in the east to the Palestinian coast in the west, and Beit Ummer in the north to Al-Thahiriya in the south. Hebron mounts feature terrain diversity: ranging from flat to rugged to steep, in addition to some plateaus and hills in the west of Hebron. (Abu Rmeiles,1985) .

II. Case Study

We have chosen a historic building called Souq Al Wakala



Figure (2) : The old town 2010

A. *The first stage: surveying and documentation.*

(Historical / architectural assessment).

- **Project Introduction:** Suq Al wakala building is considered one of the Waqf buildings of profit Ibrahim .It was used to receive the visitors of merchants from the surrounding village to spend the season of commerce so they sell their goods in the ground floor and sleep in the first floor of the building.

Suq Al wakala was built on several phases the first was between 550-600 Hijri during the cressant invasion of Hebron. The ground floor was built duringthis phase.Itconsists of the main entrance in addition to several spaces surrounding an internal court these spaces were used as shop sell several goods.

The second phase was built during the Othomanrule. Between 1130-1150 Hijri during the rule of Rajab Basha, the ruler of Sham district who ordered to build a mosque over the existingbuilding on the western side and add more rooms on the northern,southernand eastern sides.

Later, the building was used as commercial and residential space.

New spaces were also added using concrete blocks to meet the new needs.

Now a days, the building is abundant except some rooms like the pray room and ablution roomin the first floor and 3 shops on the ground floor that are used to sell traditional goods.

The project aims to protect the cultural and urban heritage of the old Hebron City, reveal its historical details, rehabilitate and also providing the essential needs and services for the area

- **Project Location :**

Suq Al wakala building is located in the old city of Hebron, to the south of the Sawakneh neighborhood and to the east of Qazazin neighborhood on the Qasaba street (Qazazinst.) that links EinAlaskar area (The northern western entrance of the old city) and the Abraham mosque close to what is called square of the Suq (Eskafiyeh Suq).

The important of this building stems from its closeness to main entrance of the old city like (Khosq al far) and Al Khan (Suq Al Laban) entrances .

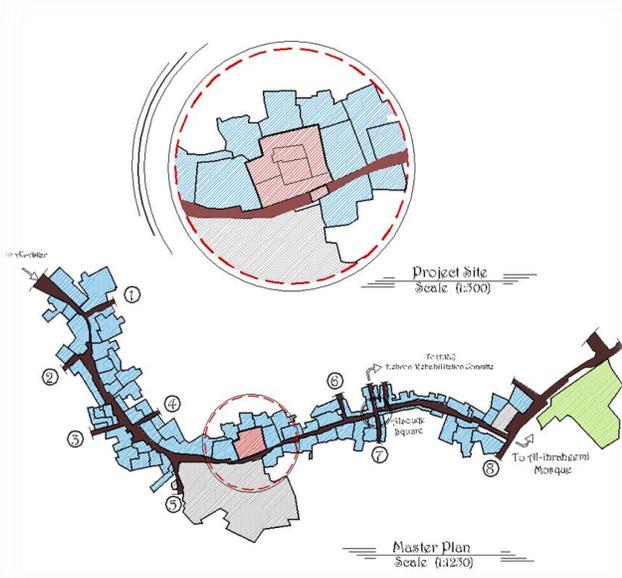


Figure 3.

- **Surveying Steps**

1. We had made several exploring visits for the building to come up with detailed photos for all the internal and external parts.

2. Accurate measurement of the building had been made in order to draw architectural plans and section in addition to drawing the main elevation and several architectural details of doors, windows and detailed section of the covering materials.
3. Studying the development of the building through the different historical phases and understanding the changes that had taken place on the form of the building.
4. Studying the surrounding area on architectural and social levels.

- **The composition of the building**

The building consists of an open court surrounded by spaces of 2 floor height. the ground floor include 12 shopsthe merchants used for selling their goods six of these stores open to the court and the other 6 opens on the Qasaba street directly .

The first floor was used as a hostel (sleeping area) for the merchants coming from outside of the city. It was then converted into offices related to the shopss on the ground floor level.This floor was divided into 3parts, each has its own court surrounded by attached rooms.

The first part consists of 6 rooms and a bathroom distribution on a corridor.The second part consists of a central court surrounded by 4 rooms 3 of them to the south and one to the north. The visitor can reach to it through 3 stairs to the eiwan then to the room. A bathroom is also added to this part using concrete blocks. The 3rd part consist of 6 bedrooms arranged around a central court that is opened to the main court in addition 2 toilets were added recently using concrete blocks,in addition ablution room and a pray room that still in use the building façade is a model for the old city building that is constructed using the Tobzeh stone the façade has small scale doors and decorated windows with decorated steel protections and stone pieces (Kamt,Alaqa, Kalb) & other ornaments that are traditionally used in the old building .



Figure 4 Suq Al wakala. This building is an example of the Arab system of vaulted ceilings, made up of intersection vaults

The building façade suffers from several problems:

1. The cracked and the drop of kohla.
2. The growing of the grass and putrefaction.
3. The use of several materials like stone and concrete blocks.
4. Visual disturbance by the pipelines.
5. The corrosion of the metallic features of the building.

• The building materials

Traditional Arab building materials have been used in this building and those are stone, lime, clay and pottery. Different kinds of stone have been used as the main material in the walls and vaults, both raw and untreated, and lime mortar has been used as a material to bind together the walls and joints.

The Facades

The external facades are built of raw stone, laid irregularly. Treated stone which has been made smooth by the use of a serrate hammer has been used in the second floor and the surrounds of apertures. Treated stone, laid regularly, can also be seen in the façade dividing the rooms from the terrace with a stone cornice in the wall at the level of the floor. Two systems can be seen in the apertures. The first is the ceiling of the main door and several of the interior doors and small windows, and the other where the roof resembles a dome, "part of a dome", with mosaic decoration on the two sides. Mosaic and artwork can also be seen on the ceiling which opens onto the skylights on the first floor. The windows, both external and internal, are protected by metal bars.

The ceilings

composed of flexible bricks (royal bricks) to form the ceiling using the lime mortar as bonding material for the bricks and the plaster of the ceiling and the walls. Several embellishments can be seen in the vaults of the big rooms in the first floor. The four vaults intersect to form the shape of an upturned dish.

• Methods of construction

The methods employed in this building are the system of load-bearing walls where the weight is transferred from the intersecting Arab vaults to the buttresses of the columns and inside the walls in such a way that all four joints make up one ceiling, a pattern which is repeated throughout the building but with different heights and sizes. Thus the weight is transferred from the walls and the columns to the foundations of the walls which stand on the block of stone visible in the floor of the existing basement. There are no spaces in the walls other than the apertures for the doors, the windows, and the cupboards. The ceilings of these apertures in the form of half circles, or domed, because the arch bears the existing pressure better than any other form, and therefore apertures can be made without any noticeable influence on the walls or the distribution of the load.

B. The second stage: The New Functional Drawings to the Project.

- **The New Function :** Suq al wakala building has its own special historical value, that's why "Hebron Rehabilitation Center" (H.R.C) focused on rehabilitating and planning to reuse it as a (Guest House) to cover the H.R.C needs to have a rest place for its guests.

Palestine Polytechnic University (P.P.U) -Which had a major part in rehabilitating and conservation projects to protect the cities' cultural heritage- had the honor of restudying the project and designing it

according to suggestions and terms set by both P.P.U and H.R.C, and the project contained many main functions, such as; Restaurant, Coffee shop, Entrance Hall, Lectures Hall, Bedrooms and the other building utilities.

• **Drawings to the project :**

1.1 Existing Ground Floor Plan: The ground floor include 12 shops the merchants used for selling their goods six of these stores open to the court and the other 6 opens on the Qasaba street directly

1.2 The Existing First Floor Plan : The first floor was used as a hostel (sleeping area) for the merchants coming from outside of the city. This floor was devided into 3parts, each has its own court surrounded by attached rooms.

2.1 Proposed Ground Floor Plan: The proposed ground floor include 4opens on the Qasaba street directly , restaurant ,toilets for men and women, coffee shop, lecture hall, manager room, reception and external seats .

2.2 Proposed First Floor Plan: The proposed furnished first floor include 11 bedroom, toilets for men and women, prayer room, ablution room and external traditional seats

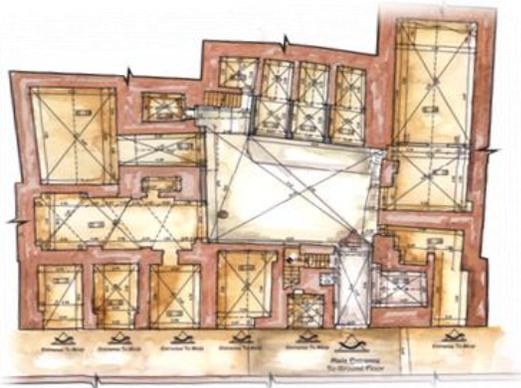


Figure 5. Existing GFP



Figure 6. Proposed GFP

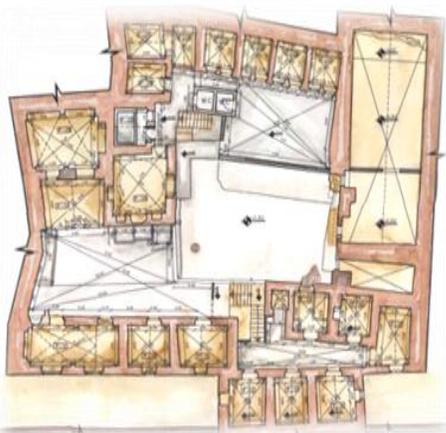


Figure 5.1. Existing FFP

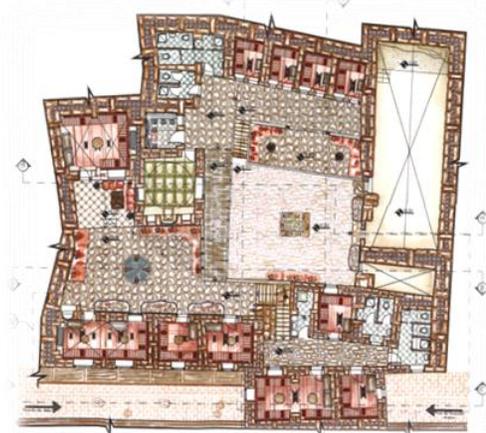


Figure 6.1. Proposed FFP

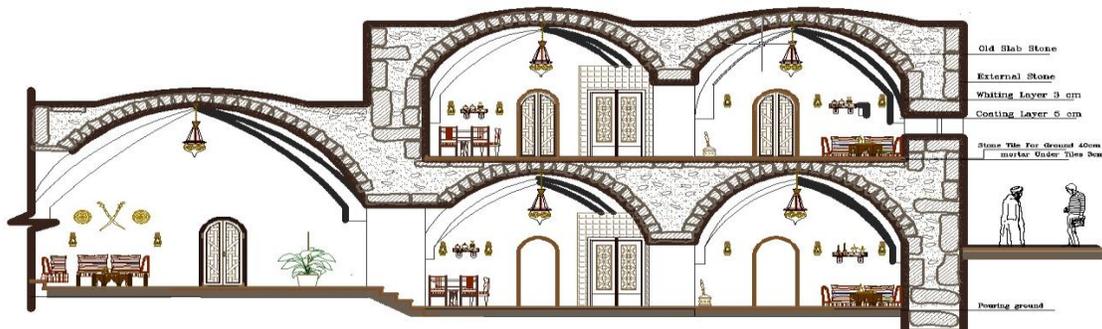
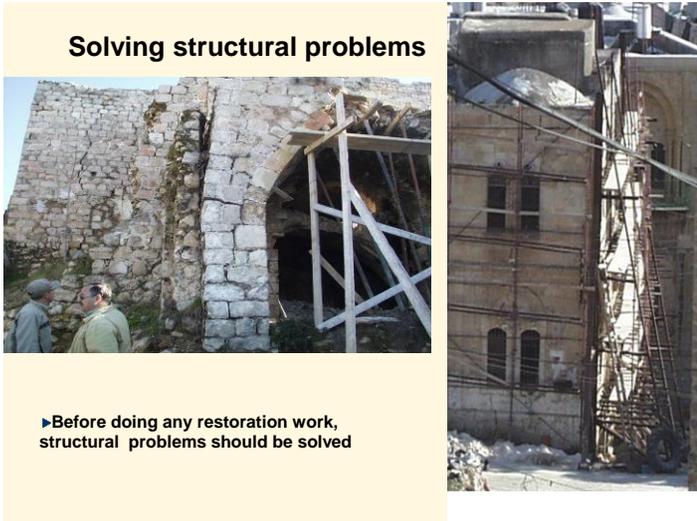


Figure 7. Typical Section
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C. The Third stage: A historic structure report which goes more depth than a conditions assessment

- c. Carry out infrastructural repairs
- d. Carry out energy conservation improvements
- e. Carry out cosmetic work



Solving structural problems

► Before doing any restoration work, structural problems should be solved

D. The Fourth stage: Implementation and estimation of cost.

Having studied the architectural plans and the documentation of the building, priorities have now been set the changes which will allow for the required building use. Studies have also been made for the preferred methods of conservation. The security of the building and the safety of the workers during process is paramount. Detailed plans for the implementation of the work with use of support frames, scaffolding and wooden moulds have been drawn up.

An estimating cost sheet were distributed to at least 12 contractors as shown in fig (xx) bellow . The total cost was estimated to be 743240\$ (US).

Before any new work is undertaken we worked on :

- a. Stabilize the building
- b. Carry out structural repairs

TABLES OF: QUANTITIES AND ESTIMATING THE COSTS

No	Activity of work	MATERIALS			Workers		Workers		No of days of work	Total cost of Workers	Total cost of Workers + Materials	Notes	
		Unit	Quantity	Price/Unit	Total	Qualif No.	Assist No.	Qualif price NO.					Assist price NO.
1.	Supporting formwork for:												
1.1	Ceilings of the second floor and roofing rooms.	m.s	666.00	27.30	18,182	1	3	35	25	22	2,420	20,622	Supporting formwork related to the shape of the rooms.
1.2	Taking down the supporting formwork (from 1.1)	m.s	666.00	-	-	-	2	-	25	11	550	550	The cost includes the transportation to the first floor.
1.3	Ceiling of the first floor	m.s	792.00	27.30	21,622	1	3	35	25	26	2,860	24,482	Supporting the ceilings from inside.
1.4	Taking down the supporting formwork from (1.3)	m.s	792.00	-	-	-	2	-	25	13	659	650	The cost includes the transportation.
1.5	Ceilings of the ground floor	m.s	726.00	27.30	19,829	1	3	35	25	24	2,640	22,460	Like pct. (1.1)
1.6	Taking down the supporting formwork from (1.5)	m.s	726.00	-	-	-	2	-	25	12	600	600	like pct. (1.2)
Total					59,624					Total	9,720	69,324	
Supporting formwork Total (2184 m.s) cost price, "31.75" \$/m.s													

Figure 8.

Conclusion and Recommendations

References

This research discussed the problematic of dealing with the monument environment and how could the local community play an important role to preserve the archaeological and historical buildings .

It is important to cooperate on all the levels in order to preserve the old cities from deterioration and to start conserving and rehabilitating the old buildings, moreover we should start promoting for these sites.

The heritage buildings and monuments in any country are mute testimonials of its glorious past . These could also become a good source of income by way of tourist attraction . This paper argues that each of these Heritage Building and Monuments should thoroughly and systematically be examined and analyzed before arriving at preservation strategy

It is recommended to :

- The new material must be chosen carefully so as to become a part of the urban fabric .
- Constructing new building in the old city must compatible with original architectural elements .
- the modern repair methods must be perfected in the laboratory before transfer of this technology for field application .

It is important to emphasize that the purpose of development is not to change of the appearance of the historical building but to preserve them as their original elements , or rehabilitate and re-use them with a suitable task taking into consideration the surrounding environment .

These Heritage Buildings and Monuments are reminder of civilization , which means that they must be preserved at all cost .

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