

## A SUSTAINABLE APPROACH FOR URBAN INTEGRATION OF HAMMĀM SAMĀRAH IN THE HISTORIC CITY OF GAZA

**Nihad Almughany, Mohammad El-Wazir, Farid Al-Qeeq & Hosam Dawood**

### Abstract

Throughout historical ages, Gaza has been viewed amongst the most important cities of Palestine. The historic centre of Gaza is among the most important sites in the city as it bustles with business activities and is the place of major historic sites, and cultural and architectural legacy in the region. The city of Gaza used to have several public baths which were built to meet the hygiene and health needs of the local inhabitants. Furthermore, they played an important social role as gathering places for socio-cultural events, parties and meetings. It is most unfortunate that a large number of these baths have disappeared, apart from the Samarah bath in Al-Zaitoun neighbourhood at the heart of the old city. Hence, the preservation of this unique genuine heritage building is of high importance. This paper attempts to establish key scenarios to integrate the hammām into the Old City urban fabric. The study is based on the hypothesis stating that a sustainable approach can be achieved by associating the hammām to its urban context. Thus, the hammām will constitute an important part of a touristic tour including the main urban entities composing the old City: Al-Omari Mosque, Qisaria Market, Pasha Palace and Khan Al-Zait. Three main scenarios will be proposed, analyzed and explored. The study concludes by suggesting an appropriate scenario for the adaptive re-use of the building, in order to preserve the hammām.

### Keywords:

Hammam / Public bath, the old city of Gaza; architectural conservation, urban heritage.

### Introduction

Heritage is considered as one of the constituents that preserve cultural and national identity of a community. Preserving the architectural heritage of our community is an important endeavour. Culturally, historic buildings remind us of our roots and add depth and character to the built environment by providing a unique identity for the urban structure of a city. Historic buildings deliver unique styles and technical innovations, highlighting ongoing creativity and ingenuity, as well as reminding communities of their distinctive lifestyles from the past. The conservation and restoration of historic buildings and sites will increase awareness about the city great assets, and encourage the utilisation of ancient architectural elements in contemporary architecture to be responsive to cultural heritage. Awareness of cultural heritage would help preserve and achieve a balanced environment which reflects both past originality and actual modernity.

Architecture is viewed as one of the basic landmarks of humanity because of its distinguished material, emotional and human existence. Therefore, the conservation of the historic Samarah bath is of high importance for the city of Gaza. Samarah hammam is considered as a heritage building and an urban landmark characterised by a specific architecture and a disappearing urban function. The research carried out on hammam Samarah is based on a systematic study of the existing status of the structure, in order to provide an assessment of the present situation of the bath's different aspects according to the proposed methodology which aims to develop an advanced analysis of the functionality of the building. It offers alternatives which would help preserve this historic structure as one of the most important buildings in the Gaza Strip. It identifies the damages incurred therein and finally draws guidelines to ensure a sound methodological documentation of the bath and the application of practical solutions in the preservation process by including adaptive re-use scenarios.

## Background

### Historical development of the Old Town of Gaza:

Gaza was founded during the Canaanite age (3000 B.C.), and has a long history and ancient civilization. As a Canaanite city, Gaza is considered as one of the oldest cities in the world at large as described by many historians. Gaza was said to mean strong, treasures or stores. Persians called it (Hazato), while the Arabs called it (Gaza of Hashem) after Hashem bin abd Manaf, grandfather of the prophet

(PBUH) who died on his return from Syria. His tomb is in the mosque named after him Said Hashim Mosque in Al-Daraj old neighbourhood. The oldest known inhabitants of Gaza were the Canaanites, thereafter the Palestinians (Al-Mubaid, 1995). Old Gaza was built on a hill 45 m higher than sea level. When the city grew, buildings extended north, east and south (Al-Aref, 1943). Old Gaza is divided into two parts: the eastern part which includes Al-Shijaiya neighbourhood named after "Shujauddin Othman bin Alkan Al-Kurdi" who met martyrdom there during the crusades wars. The western part includes the walled old town with its old quarters Al-Tuffah, Al-Zaitoun and Al-Darj (Al-Dabagh, 1996).

Due to its strategic position between Asia and Africa, Gaza was a prosperous trade centre, located on the ancient coastal road linking Egypt to Palestine and beyond. Gaza was built and continuously developed to become a transit place where the traders can rest before continuing travelling to Asia and Africa (Skaik, 1980). Throughout historical ages, Gaza has been viewed amongst the most important cities of Palestine. It underwent many historical changes during the various ages. The historical centre of Gaza city is amongst the most important sites in the city and accounts over four hundreds historic buildings. Given the increase in the population and various activities during the Ayyubid era, the core of the old city expanded beyond the limits of the surrounding wall, thereby forming the four known old neighbourhoods of Gaza city: The Tuffah (Apple), The Zaitoun (Olives), Al-Shuja'iyya (Braves) and Al-Daraj (Steps) (Dawod, 2005).

Today, Gaza strip is still the location of several

historical sites in spite of the aggressive demolition processes of its architectural heritage and history. These sites are mainly located in the central historic part of Gaza city (Al-Mubaid, 1987). Mosques, churches, public buildings and private residential houses constitute the main historic buildings. However the majority of historical sites in Gaza are residential areas composed of houses built during the Ottoman period with an age ranging from 100 to 400 years. Only a small number of these houses are still in use while many others have been either misused or deserted. Aggression, demolition, misuse, the neglect of historical buildings, and the lack of awareness of the general public and local authorities constitute the main dangers

threatening this heritage. It is believed that, if this situation remains for few more years, many historical buildings and sites will totally disappear, and thus will be wiped from what is left in the history of Gaza. Therefore, all efforts should be combined to save the remaining architectural heritage and to leave it in the best situation for the next generations.

The old city of Gaza used to accommodate several baths spread throughout its quarters. The traditional bath had the double role of hygienic and entertainment space, which reflects a lavish style of social life as the Muslim scholar Ibn Khaldoun looked at it being a criterion of the welfare of a city.

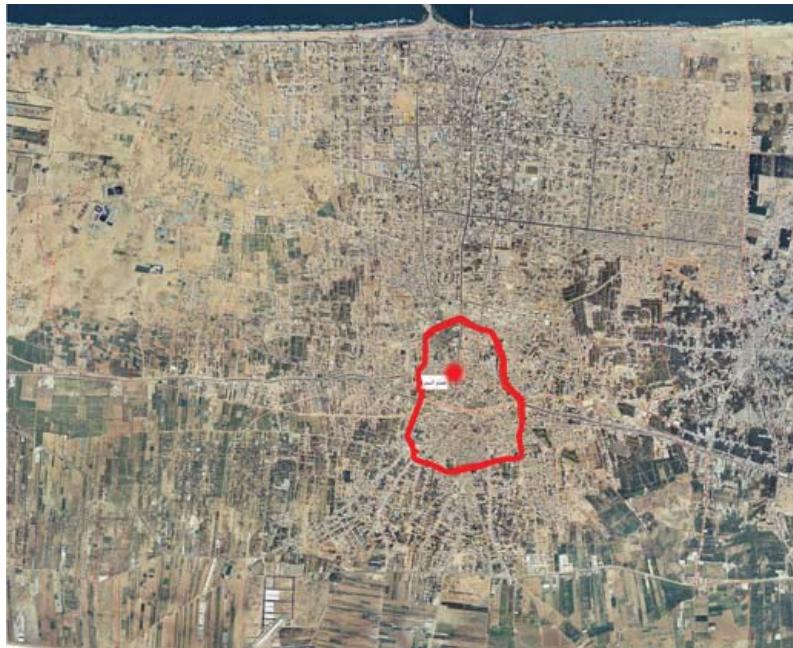


Figure 1: Aerial photo of Gaza City showing the old town (limits in red lines) and Samarah Bath (red spot) (Source: Authors).

The list of the existing and vanished baths of Gaza is as follow:

- Al-Askar (troops) Bath, located to the west of Al-Omari Mosque - (vanished).
- Al-Pasha Bath: The Pasha private bath, located at the end of the Bosta (post) road. The Pasha used to commute between the palace, the mosque (Al-Sa'ada Mosque) and the bath – (vanished).
- Al-Suwaihi Bath in Al-Shujai'ya quarter- (vanished).
- Al-Suk Bath neighboring Qisaria market- (vanished).
- Samarah Bath: The only remaining bath in Gaza and is located directly behind Khan Al-Zait at the southern side (presently South of Abu Rahma commercial building).

The bath features differ according to the nature of its end users who could be military troops or city inhabitants. They are mainly public amenities, located within the urban complexes, which are



Figure 2: The street leading to Samarah Bath (Source: Authors).

usually composed of housing buildings, markets, inns and agencies such as the Suk (market) bath or Samarah bath, while a small number of these baths were very private such as that of the Pasha.

### Description of the socio-economic and demographic distribution of the neighbouring region

Samarah Bath is located in the historic Al-Zaitoun Quarter which is considered one of the busiest and overpopulated areas of the city.

Area name	Total
North Gaza	265980
Gaza	492621
Deir Al-Balah	202707
Khan Younis	271787
Rafah	166701

Table 1: Gaza Strip Population in 2004 according to Areas. Source: Palestinian Information Center(2005).



Figure 3: The entrance of Samarah Bath (Source: Authors).

It is apparent from the table 1, that Gaza City district with a population nearing half a million person is the largest populated area in the city, it is neighbouring Samarah bath. The rate of the urban population in Gaza strip amounts to 63.7% of the total population while rural inhabitants rate amounts to 5.1%, and refugee camps (relatively urban) rate amounts to 31.2%. In addition, the population increasing rate in Gaza Strip reaches approximately 3.2%.

Another important aspect the demographic conditions in Gaza is the age structure. Gaza Strip population is mainly young, as the rate of individuals in the category of 0-14 (years) amounted to 49.1% in mid 2005, and 48.3% are between 15-64 years, while only 2.6% of the total are over 65 years of age.

#### Tangible and intangible architectural legacy

Architectural and urban heritage has recently turned into an important issue preoccupying all governments and local communities, particularly in Arab countries. Furthermore, a modern theory in architecture has recently emerged, and which emphasizes the role of contemporary architecture to link memory with history and revive the sense of place.

There used to be several public baths in Gaza city. In addition to their health and hygiene roles, they offered spaces for social gatherings and events. As a sign of their they were social integration in the neighbourhood, baths used to close their doors as a way of showing respect in cases of death in the locality. It is most unfortunate that nothing of these baths has remained except the Samarah bath in Al-Zaitoun neighborhood at the heart of the old city constituting an important part of the

architectural fabric comprising the Great Omari Mosque, Qisaria Market, Ahmadia Zawia, Pasha Palace and Khan Al-Zait, as well as the Greek Orthodox Church which was built in 425 A.D (MOG, 1996).

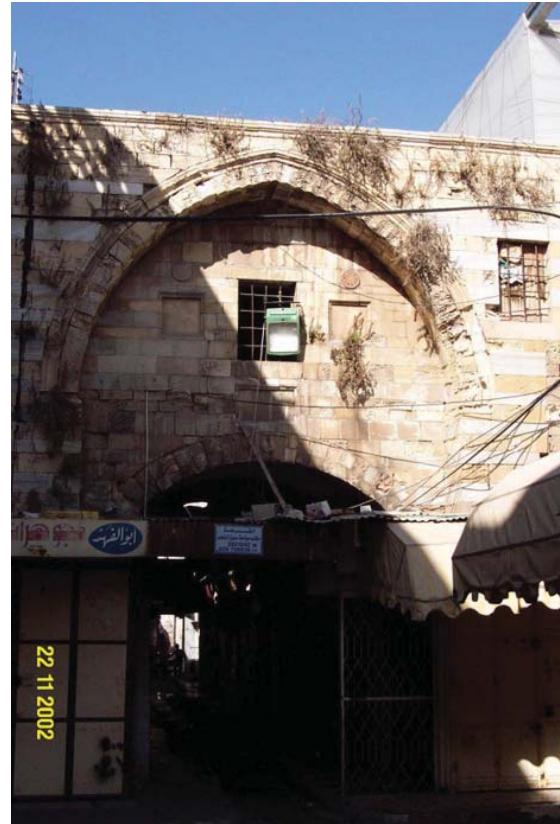


Figure 4: Qisaria Market(eastern entrance)- the old city of Gaza (Source: Authors).

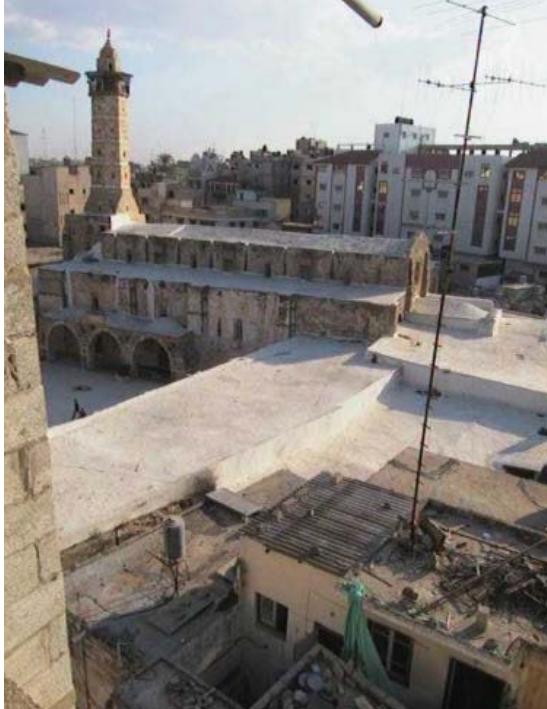


Figure 5: Great Omari Mosque – the old city of Gaza (Source: Authors).

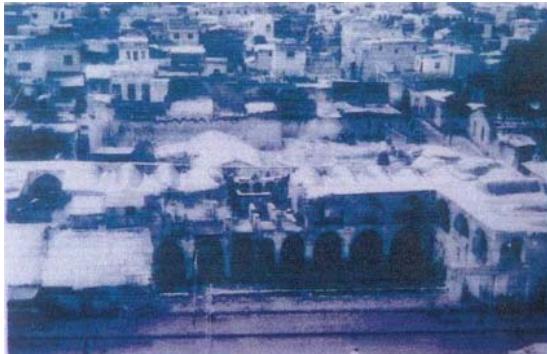


Figure 6: Khan Al-Zait - the old city of Gaza (Demolished in the 60s) (Source: Authors).



Figure 7: Pasha Palace (Al-Radwan) - the old city of Gaza (Source: Authors).

### Local competent authorities and the bath

The bath is a privately managed by its owners. There are other official and unofficial parties which are still concerned with the bath such as the Municipality of Gaza and the Ministry of Tourism and Antiquities. Furthermore, there are rules and ethics for taking care of this bath which could be wrapped up in the following (Al-Qeeq & Al-Wazir, 2007):

- o There are laws emphasizing the necessity to preserve and protect heritage buildings -like Samarah bath- as an important cultural antiquity.
- o The present bath plays a central and important role in the city and performs an important function being the only remaining washing facility in old Gaza.
- o Governmental institutions such as the Ministry of Tourism and Gaza Municipality focus the necessity to activate antiquities as tourist attractions to revitalize the concept of entertainment-cultural tourism in the area.
- o The necessity of keeping the historic bath as one of the most important historical, architectural

and cultural landmarks in Gaza Strip in respect of its specific traditional architecture.

o The ministry of tourism and the municipality support this kind of projects for its importance and vitality in providing public services to the neighbourhood population in specific and the inhabitants of Gaza and the province in general.

## Existing Situation

### Architectural development of the Samarah Bath

There is no accurate dating indicating the exact date of founding the Samarah Bath. However, it is estimated that the building goes back to the early period of the advent of Islam to Gaza, but was later completely demolished and underwent many operations including reconstruction and later on, revival. It was revived by Alamuddin Sonqor Ibn Abdullah, a Mamluk prince as the name was mentioned several times on stone scripts found in many places in the city of Gaza. By analyzing the historical scripts found on a marble stone at the Bath's entrance leading to the lounges before the Caldarium, it reads as follows:

"This blessed bath was set up, revived and constructed by poor worshipper of Allah, Almighty, the Ayyubid brother Sonqor bin Abdullah Al-Muayyedi, Guard of the Veil in the guarded Gaza, Allah may support his supporters in the year "550" Five Hundred and fifty, Allah may forgive him." It can be noticed that the text attributes the process of setting up, revival and construction to Al- Muayyedi. This does not bear the meaning of the beginning of foundation since revival means improvement and development of something already in

existence, a thing which is most likely.

The text of stone scripts carry a date going back to the year 550 Hijri. This does need verification because the date coincides with the destruction of Gaza at the hands of Crusaders, who entered the city, retreated and then occupied it once again. Therefore, there are some reservations that the act of bath revival could have taken place at this date. The stone tile which carried the script of the revival and construction date does not indicate the full construction of the bath but could only point to parts of that. Apart from that, the study of whether the tile is original and genuine or has been moved from another building is crucial. The date might be 550 or 750 Hijri, but the latter is more likely if we consider that Sonqor is the same Sonqor mentioned in other places. Certain historians view that the real reviver of the bath was "Oweis Pasha" who, during the Ottoman rule, gave it as a present to his wife of Al-Radwan family – a governing family during the Ottoman Empire. Another marble stone was found, which it is believed, was placed in the water supply at the western part of the bath. According to the bath landlords, the water supply was destroyed in the early sixties as a result of demolishing parts of the western façade which was turned into textile shops. This stone carried the script: " In the name of Allah, most merciful, most compassionate: This blessed bowl has been constructed seeking the satisfaction of Generous Allah by Al-Muqqir Al-Shamsi Emir Sonqor Ibn Abdullah Al-Muayyidi, Guard of the Veil in the guarded Gaza, May Allah support his supporters, Peace be upon Mohammed."

In addition to the aforesaid, it is noticeable that the bath is approximately two meters lower

than the present city street level and is parallel to the level of Al Omari Great Mosque, State Clerk Mosque and Perferios Orthodox Church. This confirms the historical relationship that goes back to the Mamluk and Ayyubid eras which increases the importance of the building (Al-Qeeq & Al-Masri, 2007).

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### Architectural description:

#### Plan

Like its Roman and Byzantine predecessors, Islamic baths were composed of three main rooms or spaces which are the disrobing (changing) room, the first room (intermediate), and the caldarium (hot room). The hammam uses a hypocaust heating system and accommodates other secondary spaces (Lam'ie, S., and Bases of Architectural Design in the Islamic ages).

The entrance is usually in the form of L-shaped corridor. It leads to the disrobing room. The space is designed for changing clothes and waiting before and after bathing. Bathers usually talk and socialize therein, while drinks and smoking pipes (argela) are served. In Samarah bath, the disrobing space comprises of a square hall in the midst of which stands a pentagonal marble fountain. Two patios (iwan) open towards the main changing room space and their floor is

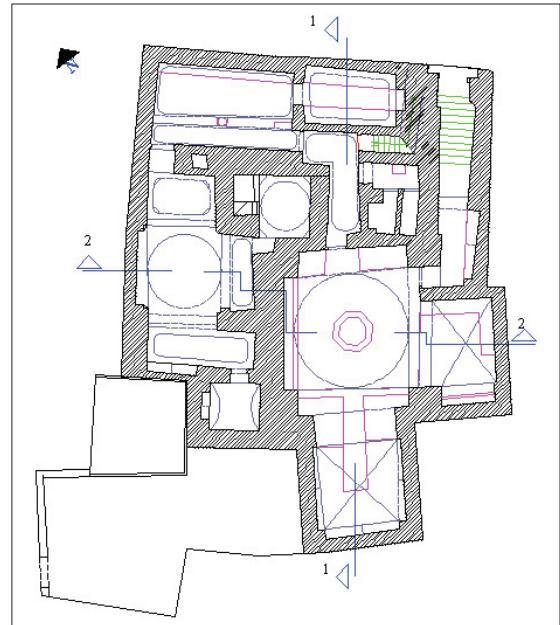


Figure 8: Plan of Samarah Bath. ( Source: Center for Architectural Heritage, IUG).



Figure 9: The domes cover the take off space (Source: Authors).

one step higher than that of the central space. The ceiling is covered by a dome pierced and decorated with coloured glass bulbs, and is topped with a smaller dome. In the Northern side of the disrobing space, there is a door with a horse shoe arch. It leads to the toilets on one side, and on the other side to the first room which is an empty space for sitting before and after bathing in the hot room. This space is for the bather to adapt to the heat inside the hot room or caldarium. It is a rectangular lounge with a raised floor.

The first room is covered with a half-circle parallel vault with glass bulbs openings. The equivalent space in Roman baths is called the *tapedarium*. At the far end of the first room, there is a small door opening, which leads to the caldarium which is a rectangular space with two private small rooms one of them has the hot plunge pool (*maghtas*).



Figure 10: The South patio (*iwān*) opens towards the take off space (Source: Authors).

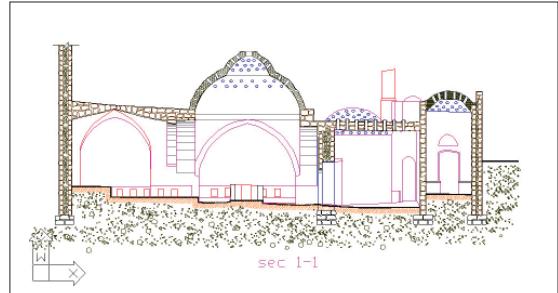


Figure 11: Section 1-1 - Samarah Bath. ( Source: Center for Architectural Heritage, IUG).

The rectangular caldarium in which people bathe is covered by a huge shallow dome of average height, with openings pierced by coloured glass bulbs. This space resembles to the Caldarium in the Roman baths. As used in most of Arab baths, the Samarah Bath does not have the Roman so-called *Frigidarium* which consists of rooms with cold water to be used after the hot bath. The method of heating is similar to that used in Roman baths by using the steam resulting from heating the water. The so called *Hypocaustum* by the Romans (fire house) exists in the South Western part of Samarah bath. Water is heated in a copper pot over an oven, and flows to the bathing places in pipes, while smoke resulting from combustion is pulled out through special chimneys.

### Analysis of the plan

The plan of the Samarah bath shows that it is oriented towards inward and keeps privacy. The height of spaces is different according to the difference in functions. The bath is uniquely distinguished from others built during past Islamic ages by the fact that the take off space comprised only two lounges instead of three or four as present in the Cairene hammam al-

Tambali (12th Hijri Century / 18th Century A.D).

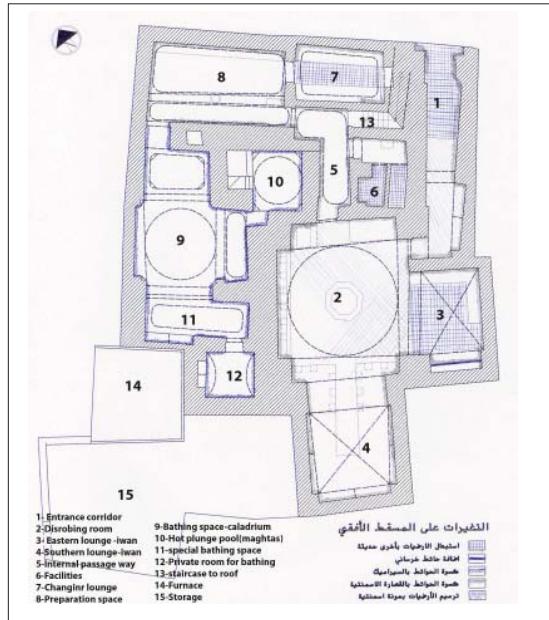


Figure 12: Plan of Samarah bath illustrating internal space. (Source: Authors).

### Management and maintenance activities

Regular maintenance of the bath depend on the operational cost as owners carry out periodical maintenance work depending on financial circumstances and resources. The maintenance mainly consists of construction items in the bath such as internal plastered fronts, repairing water supply piping, sewage networks, whitewashing, fixtures maintenance and floor repairs to suit their use and within the available financial resources. It should be indicated that maintenance activities are undertaken according to an annual program

when business is low in receiving visitors of the bath during the summer season or the month of fasting "Ramadhan", and consequently time would be then suitable for carrying out required maintenance operations without neither affecting the users convenience and nor the hammam usage. The nature for which the bath is used as well as the constant high humidity in the internal spaces due to the nature of usage cause fast corrosion of the traditional layer of plaster of the internal fronts which prompts regular maintenance in traditional plaster to preserve the original material of the stones.

### Main Scenarios of Future Conceptions

#### Challenges facing the sustainable usage of the hammam

##### Decision-making trends:

The investigation carried out in this study, shows that the hammam stakeholders such as the hammam owners and the relevant competent authorities are strongly willing to see the bath properly protected and preserved against the causes of wearing out and extinction. In fact, there is a trend showing the desire to increase and improve the efficiency of the bath as a public service provider for local inhabitants, and to improve its services. There is a strong keenness shown by the bath owners and the competent authorities to revive the architectural and social character of this facility and activate its role as a link with the community.

##### Challenges of sustainability:

The hammam owners exerted great efforts in the cause of its preservation all along the past period through the good use, preservation of its facilities, and protection against all types of outwear that may cause damage to it. They

contacted the parties concerned with the protection and renovation of the historical buildings and succeeded in renovating parts of the bath at several stages.

Stage 1: Restoration of the main spaces of the changing room (the southern lounge and the eastern lounge of the bath) was accomplished through the Heritage Architecture Renovation Centre (previously Architectural Renovation Unit) thanks to a generous donation from the Quakers foundation, Palestinian Youth Service Program and in cooperation with the bath owners.

Stage 2: Restoration of the middle space of the changing room, intermediate room, internal corridors, toilets, insulation of the ceilings, the fire room, logs store, heating pots and the chimney was accomplished. Among the most important aspects of a sustainable future for the hammam is the necessity to renovate the remaining parts of the bath together with maintaining the already renovated parts, as five years have already passed since the last restoration work was completed.

Stage 3: Restoration work needs to be carried out on the bathing spaces (hot room), sinks, and internal walls, which suffered intense damages. The need for an immediate and quick restoration is important for the survival of the hammam.

### **Main Scenarios for the Integration of Samrah Bath in the Urban Fabric of the Old City**

Because of its incomparability and its socio-historical importance, the conservation of Samarah bath has to include two complementary themes. The first one is the

preservation and maintenance of the bath itself, and the second is the integration of the bath in the old city's urban fabric through different types of interventions. The following are some of the interventions that aim to the preservation of the bath and its integration in the old city.

The development of a traditional tourist circuit: Hammam Samarah is located in the centre of the old city of Gaza and intermediates some of the most important and well lasting historic buildings in the area such as Porforius Orthodox church, Kateb Wilaya mosque, Al Omary Great mosque, Al Qissarea gold bazaar and Al Basha palace. These historic buildings are separated by scattered and alien urban entities that affect the original character of the historic area and its buildings. The proposed project is to create a traditional route (about 400 m long) inside the old city that paths through the mentioned historic buildings with the Hammam as a central focal point. The route could be created by the establishment of information points and souvenir shops adjacent to each historic building, traditional elements and streetscape that characterizes the route from other parts of the area. Finally, elaborate a tourist map and brochure for the historic quarter in general and the touristic route in particular. The discovery path could be a domain for local cultural and social activities. Moreover, Samarah bath will play a major role in such activities and celebrations. The project could be implemented with a wide variety of local participation and without any restrictions or frustrations facing its execution, implementation or maintenance.



Figure 13: The proposed traditional tourist tour in the old city of Gaza with samara bath as a centre (Al-Mughani, 2007).

The proposed project aims to the development of the nearby roads by changing the physical character into an original genuine one through the upgrade of roads pavements using traditional patterns, and enriching the area with traditional streetscape like lighting units, seats, souvenir shops and other elements to attract more people. The project aims to encourage property owners to refurbish their shops to serve the route activities and to match with the new conception of the urban spaces.

#### Development of the adjacent land plot; the Zemo property

Zemo property is about 100m<sup>2</sup> piece of land adjacent to the hammam. It has an attractive setting, particularly in the Eastern part of the hammam. To the north of the site is Abu Rahma

office block, a five storey building which replaced Khan El-Zeit, one of the most prominent historic buildings in Gaza and destroyed in the middle of the last century. Providing the proposal does not prejudice the comprehensive development of this adjacent land, this area is of significant landscape and visual amenity and is of historical and landscape importance and value to the Samarah bath. It can also be considered as an area of townscape character which is designated around the historic core of the Old City of Gaza. Temporary structures such as souvenir kiosks, and landscape elements will only be permitted, provided the scale, layout and detailed design of the development are compatible with the scale and character of the hammam and the neighbourhood. Land development proposals for will be assessed in

accordance with Gaza Municipality Planning Policy and other relevant policies contained within the Specific Plan. Property development proposals may be subject to phasing in accordance with the implementation of the municipal infrastructure works.



Figure 14: The adjacent land ( in red) to the Samarah bath (Source: Authors).

This proposal is designated to protect the heritage buildings and their surroundings. In addition, the adjacent buildings facades and important entrances need protection. The design of development proposals within this site should protect the original characteristics of the area, in terms of scale, form, materials and style. The characteristic built form displayed in the proposal can also help inform developers in preparing development proposals elsewhere in the Old City to reinforce local identity. The external finishes and detailing, such as traditional windows and colour, should create a homogeneous surrounding, linking structures of varying ages and architectural styles. The use of traditional architectural elements can give the

site a distinct and specific urban feel.



Figure 15: Schematic proposal for the development of adjacent land to samara Bath (Source: Authors).

### The restoration and adaptive reuse of the hammam

The project proposes to support students from secondary schools and others to visit the hammam to help increase general public awareness of the Palestinian community towards cultural heritage as a major step of its conservation. Exhibitions inside the Hammam (within the entrance hall and disrobing room) will be held for the craftworks and awareness products (e.g. signs, brochures, booklets, photographs, etc.). This project can improve the skills of those who are considered as good candidates to become professional craftsmen. Raising public awareness for cultural heritage may include the development of new web resources by providing means of remote engagement with the cultural heritage. These may range from simple image-rich web sites to sophisticated three-dimensional virtual reality

visualizations, including sound and lighting effects. Such sites can foster collaboration between computer scientists and cultural heritage professionals to work on these areas. IT can also be used to virtually reunite parts that have been dispersed. For example, a virtual reconstruction of the bath and the surrounding area can provide a complete vision of the urban fabric of the Old City. It is one of the best examples to improve access to and understanding of cultural heritage. IT provides excellent frameworks for improving access to Gaza architectural heritage.

### Revival of traditional craftworks

Gaza as other old towns in the area used to be famous for its traditional handicrafts that played a role in both physical and socio-economic life of its citizens. The famous handicrafts in Gaza are pottery, glass, bamboo, embroidery and textile. Other handicrafts were also used in construction such as woodworks, copper, iron, gypsum and other construction materials. The invasion of modern materials and techniques has caused the vanishing of handicrafts and the ending of profession succession from father to son, except for few cases in which there are rare artisans who still hardly fight to keep the handicrafts alive.

The proposed project aims not only to the revival of traditional handicrafts in Gaza, but also to encourage their use in buildings and social life in the city. It includes the establishment of work spaces in the land plot adjacent to the hammam and alongside the access routes. The work spaces are for artisans to produce products and to train interested trainees to follow up the production and development of the handicrafts. Periodical exhibitions for the

products could take place in the main hall of the hammam.

### Conclusion

It could be concluded that Samarah bath is of a vital importance at regional, national and local levels. It has an influencing cultural, social, architectural and historic importance. Therefore, the conservation of the bath is an urgent matter. It should be classified as a high priority action at both national and local levels decision-makers agenda. The conservation of the bath should include not only the maintenance and preservation of its spaces, structure and systems, but also includes the responsible integration of the bath in the old city's urban fabric through a group of interventions as stated in the proposed scenario. The interventions will help revive the original character of the old city of Gaza, activate the social, cultural and economic activities and overpower Samarah bath as a central space for the proposed scenario.

### References

- Al-Aref, A. (1943) History of Gaza. Orphan House for Publishing, Jerusalem.
- Al-Dabagh, M. (1996) Palestine, Our Country. Al-Talia Printery. Beirut, Lebanon.
- Al-Mubaid, S. (1987) Gaza and its Strip. General Egyptian Assembly for Books, Cairo, Egypt.
- Al-Mubaid, S. (1995) Islamic and Historic Buildings in Gaza City and the Gaza Strip. General Egyptian Assembly for Books, Cairo, Egypt.
- Al-Mughani, N. (2007) Developing the Cultural Tourism Through Preserving the Architectural Heritage. The International Conference on Preserving

the Architectural Heritage, 22-23 April 2007. The Islamic University, Gaza, Palestine.

Al-Qeeq, F. & Al-Masri, A. (2007) An Approach to Conserve Gaza Architectural Heritage Through Digital Technology. The 2nd International Engineering Conference on Construction and Development, 18-19 June 2007. The Islamic University, Gaza, Palestine.

Al-Qeeq, F. & Al-Wazir, M. (2007) Assessment Study for Hammam El-Samra Future. The 2nd International Engineering Conference on Construction and Development, 18-19 June 2007. The Islamic University, Gaza, Palestine.

Dawod, H. (2005) Master dissertation titled "Preservation of Cultural Heritage for Historic Buildings in Gaza Strip". Al-Azhar University, Cairo, Egypt.

Municipality of Gaza – MOG (1996) Specific Plan of Gaza City, Gaza, Palestine.

Skaik, K. (1980) Gaza Through History, First Part. General Egyptian Assembly for Books, Cairo, Egypt.

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