

THE ARCHITECTURE OF THE HAMMĀMS OF FEZ, MOROCCO

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Abstract

Morocco is one of the countries with the highest record of traditional living hammāms. Despite this fact, this key civic building remains poorly studied by researchers and professionals. This paper presents a research into Moroccan hammāms and shed some light on the formation and evolution of the traditional urban space. It focuses on the hammāms of the world heritage city of Fez – also referred to as Medina of Fez – and presents an analysis of the architecture of this building type and its relationship with its urban environment. It investigates the historic context of the hammām, its origin and the different influences that have contributed in shaping its architectural identity. It also assesses its current state and discusses its elements of sustainability.

Keywords:

Medina, traditional hammām, architecture, bathing spaces, heritage.

Introduction

The hammām is one key social and hygiene facility in the Mediterranean region. Despite its importance, particularly in Morocco, as a living tradition since the roman period, it is seldom mentioned in the Moroccan historical records. Few researches and studies have been recently conducted on this category of urban buildings. Most Moroccan historic urban centres had exquisite hammāms, and the old city of Fez had known its first ones during the Idrissid dynasty (8th – 10th C.E). Being the city of current 120 functioning hammāms (Raftani, Moutawakil, & Karim, 2005), the hammāms of Fez play an important role in the development of the Medina's urban and social fabric.

The urban expansion of the Medina of Fez throughout history was due primarily to the abundance of water that was supplied by sophisticated networks of water-springs and rivers. The ingenious hydraulic network of the Medina dates back to the 8th century—it connected all the buildings of the city to the potable water, river and sewer canals. The distribution of water through the dense and

twisted alleys and neighbourhoods of the Medina created an interlaced infrastructure of underground canals, which resulted in its large number of public and private fountains and springs providing focal points in its magnificent private and public courtyards and gardens. Thus, among other factors this environmental condition formed an ideal setting for the spread of the hammams in the different neighbourhoods of Fez. According to an outstanding primary source, Rawd al-Qirtas (Ibn Abi Zar', 14th Century), the number of hammāms in Fez reached 93 during the Almohad dynasty (12th – 13th century C.E).

There are currently 5000 traditional hammāms operating in Morocco (Statistics giving by the Moroccan National Federation of the Associations of Owners and Operators of Traditional Hammāms). The city of Fez – consisting of the Medina and the Ville Nouvelle – has more than 120 functioning hammāms amongst which 30 are historic and located inside the Medina. This makes Morocco one of the countries with the highest record of living traditional hammāms that are deemed as essential urban facilities. Therefore, the Medina of Fez has generated a unique culture of public bathing that unquestionably has made this city an attractive one by being the hub of the most nationally famous spas.

Origin and Evolution of Hammām

The architecture of the Islamic hammāms, especially those of the Middle East, was influenced by that of the baths belonging to earlier civilizations (Greeks, Romans, Byzantines and so forth). What is the architecture of

Moroccan hammāms? What influenced their architectural and functional identity?

Some recent archaeological excavations on the site of Volubilis, revealed the existence of an early Islamic settlement to the West of the walled Roman city. The only standing architectural evidence in this Islamic medieval site is a small structure of an Idrissid hammām (Fig. 1). This archaeological hammam is most probably a precursor of the hammāms of Fez. It shows visual similarities with the Roman baths of Volubilis, which are located nearby (Fig. 2).

An analysis of the hammāms of Fez reveals the apparent influence of the existing Roman public bath or *thermae*. Such influence is noticeable at the following levels: the hammām's layout as a linear spatial organization (Fig. 3); the same progression of three rooms with different micro-climatic ambiances with the cold room (*frigidarium*), the warm room (*tepidarium*) and the hot room (*calidarium*); the central heating system (*hypocaust*); and the canalization system (El-Habashi, 2006).

The systematic presence of three bathing spaces with varying temperatures, retained from the early existing Roman baths, can be considered as a typical characteristic of the Moroccan hammāms – and, more generally, of the hammāms of North Africa – in contrast with the hammāms of the Middle East where the cold room has almost disappeared, e.g., Egyptian and Turkish hammāms. However, the layout of this oldest Idrissid hammām at the time of first Muslim settlements in Morocco presents a spatial distinction from the previous Roman existing baths. Such distinction is highly traceable in an Almohad hammām in the site of the medina

of Qsar-Sghir. This hammām has, for instance, an axial plan with parallel-juxtaposed rooms (Redman, 1986). Henri Terrasse also confirms this layout in his study of the Marinid hammām of Mukhfiyya in Fez (Terrasse, 1950). Although these archaeological evidences of ancient baths in Morocco are providing some key information on the first hammāms, their evolution is hard to be assessed through one technique or one layout. In the actual existing hammāms, the linear configuration is widely applied.

The different variations that can be observed between the Roman bath and the early Islamic

hammām in Morocco hint at the changing of character of the latter throughout history. For example, the Moroccan hammām had a modest appearance versus the monumental character of the Roman public bath, and the Roman cold plunge pool was removed from it probably in response to religious requirements such as washing in running pure water. Thus, the Moroccans inherited the tradition of public bathing from the first Roman settlements in the country and adapted them to the Islamic bathing habits and traditions.



Figure 1: The Remaining Structures of the Idrissid Hammām of Volubilis, Morocco (Photo by Kamal Raftani – November 2006).



Figure 2: Roman Baths of Gallienus in Volubilis, Morocco (Photo by Kamal Raftani – November 2006).

Hammām Location in the Medina Layout

The Medina offers a cohesive urban structure where the hammāms are still functioning within its neighbourhoods. The hammāms are an essential component of the intricate urban fabric of the old city, which has remained almost unaltered for centuries. To gain a deeper understanding of these functioning historic buildings, it is important to understand how these were located in the

traditional urban fabric of Fez.

The urban layout of the Medina could not be understood without the distinction between two levels of its urban organization: the strategic and local. The strategic consisted of its macro urban forms and infrastructure. The local consisted of its residential, commercial, and production neighbourhoods.

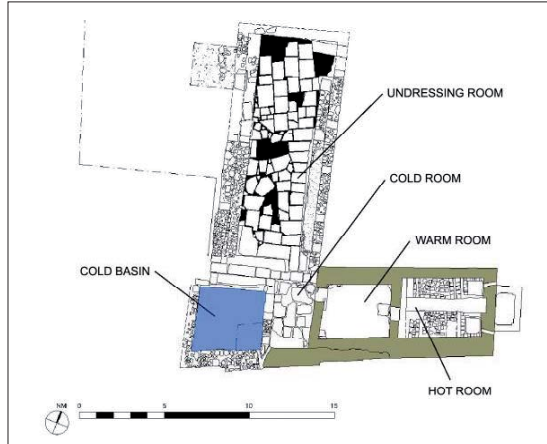


Figure 3: Plan of the Idrissid Bath of Volubilis, Morocco (Source: Alaa El-Habashi – November 2006).

The Medina covers currently an area of approximately 800 acres, and surrounded by 25 kilometres of historic walls. At the strategic level, it encompasses four urban centres: Andalus, Qarawiyin, and Bu'inaniya in the old Fez, and Fes-al-Jadid. These urban centres are connected with intricate pedestrian circulation networks. For the case of the old Fez, the two key thoroughfares, Tal'a Kbira and Tal'a Sghira, structure the whole of its urban fabric. These thoroughfares are connected to main arteries that are linked to 13 historic gateways. This hierarchical structure of circulation eases the access to the different parts of the Medina. The major urban facilities of Fez are located near these urban axes and include: caravanserais, madrassas, mosques, hammāms, and so forth.

The local level of organization is presented through intertwined neighbourhoods that constitute the urban districts. The Medina of

Fez encompasses 19 urban districts following the macro urban layout. These urban districts consist of residential, commercial, and industrial neighbourhoods. The gradual transition from the strategic level to the local one of these districts is made through multiple urban functions and forms: roads, gates, hubs, boundaries, and a particular urban and site disposition. Neighbourhoods at the local level were quintessential urban elements in the building of the organic urban framework of the Medina of Fez. The hammāms take several locations within this urban structure, which define subsequently their function and size. The largest hammāms of the Medina are located in the vicinity of the major urban hubs like that of the Qarawiyin, and the small ones in the centres of residential neighbourhoods. Hammāms are often located in such a way to avoid causing smoke nuisance (from their furnace chimney) to their neighbouring buildings. They are often juxtaposed to public bakeries in order to optimize the use of heat, and minimize thereafter the smoke nuisance.

Although they seem similar, certain hammāms were intended to serve specific groups of people or specific urban areas. For example, the tanners and other craft workers were prohibited to bath in any public hammāms except the ones designated for them not to disturb other residents with dirt and odours that result out of their work. Thus, some hammāms were named after the type of craft its customers practiced. The Saffarin hammām is an example of a hammām that used to serve a targeted clientele: the craftsmen of the Saffarin square (Saffarin meaning metal smith workers).

At present, the historic city of Fez is equipped

with 44 traditional hammams – 30 of them are historic buildings (Fig.4), 32 public latrines, and more than 70 public fountains (1). This confirms the role that it has been played for centuries as a centre of abundant water and good hygiene.

Architecture of the Hammām

In addition to its central role as a place of social gathering and ritual cleansing, and a centre for healthcare and hygiene, the hammām as a building has evolved and acquired a significant architectural and urban value inside the city. The hammām became, therefore, a major Islamic building type and an essential feature of the Islamic city.

Hammām Architecture and Urban Setting

The hammām of the Medina of Fez occupies a distinctive position in the neighbourhood as a key architectural element. Often hidden by façades of adjacent shops and workshops, the hammam building is well integrated within its urban fabric. This contrasts with the freestanding and exposed position that some hammāms have particularly in Turkey. Accordingly, the architecture of the hammāms of Fez is far from being monumental. It embraces the scale of its neighbouring buildings and is not seen immediately from outside. The physical volume and size of the hammām reveals itself only if one gets to the top of one of the neighbouring terraces.

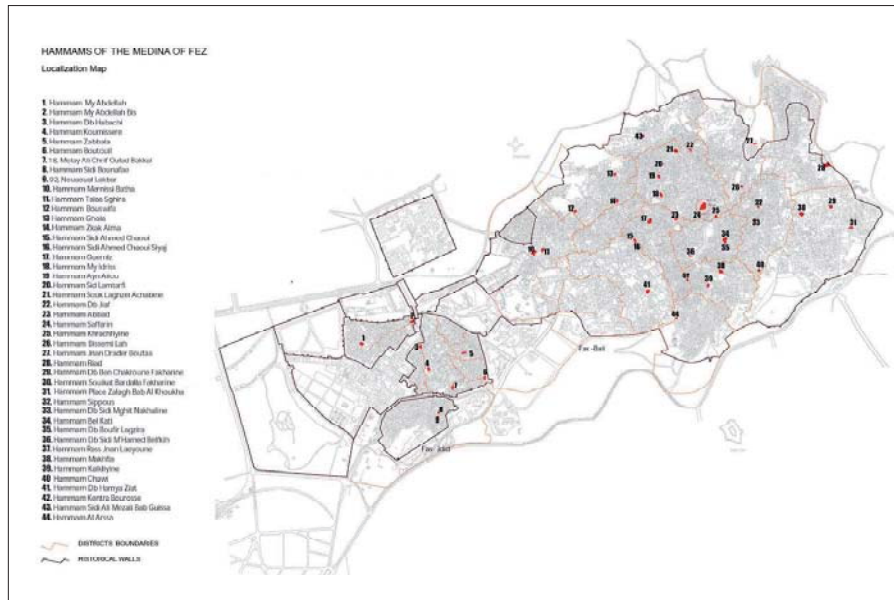


Figure 4: Hammāms of the Medina of Fez: Localization Map (Source: ADER-Fès – November 2006).

The architecture of the hammām roof terrace is very noticeable with its chimneys, pierced vaults and domes. In many cases the urban location is dictated by the direction of prevailing winds that help in directing the hammām's furnace smoke away from neighbouring buildings. The roof is usually accessible to the hammām staff and is used to dry towels. Some hammāms keep their terraces inaccessible to protect the privacy of the bathing spaces and the neighbouring houses.

The other interesting observation is that most hammāms in Fez are located next to mosques and their minarets. Hygiene and prayer are joined to fulfil the rituals of Islam in an un-separated way. Thus, the minaret is not forcibly a landmark only to mosques but also to other urban facilities such as the hammām.

The Entrance to the Hammam

The entrance to the hammām of Fez is usually a bent one and L-shaped, which permits entering discreetly to the undressing room while preserving the total privacy of the bathers. This bent entrance is typical to the hammāms of Morocco and North Africa in particular, but can also be found in some Middle Eastern hammāms for example the Cairo hammāms. However, this is not the case of some hammāms of Syria and Turkey where the entrance is more direct. In addition, the doorway of the hammām of Fez is not extravagantly decorated as in the case of some madrasa(s) or mosques. It is often an arched door that is leading to an obscure and discreet corridor (Fig. 5). From the street, the hammām door is noticeable more through the smell of steam and soap escaping from its entrance. In the case of the Saffarin hammām the entrance door is arched like the ones of its

neighbouring urban facilities such as the Saffarin madrasa and the Quarawiyyin library. However, it remains rather discreet and humble compared to the entrances of other public buildings.



Figure 5: Doorway of Bouswifa hammām in the Medina of Fez (Photo by John Bouillot – November 2006).

The Spatial Organization and Interior of the Hammām

The hammām of Fez follows a simple linear layout that is typical of the North African hammām model (Fig. 6) and dissimilar central organization

typical of the Middle Eastern model. This is probably due to the fact that Morocco, unlike other North Africa countries, remained out of the influence of the Ottoman Empire. This linear spatial organization, inherited from the Roman style, was established as a specific layout in the early Islamic period in Morocco. This layout has been constantly maintained throughout centuries. The sequential progression from the main entrance to the core room is following the gradual increase of temperature. From a functional point of view, the inner spaces of the hammām can be divided into three categories: the reception area or undressing/resting room, the bathing spaces for washing, and the furnace area for the heating of the hammām (Fig: 7).

The spatial organization of the hammām of Fez displays a single structure. Apart from the Saffarin hammām, none of the hammāms of Fez presents a double structure (one for men and one for women). The single structure is used by both men and women, bathing at different times of the day.

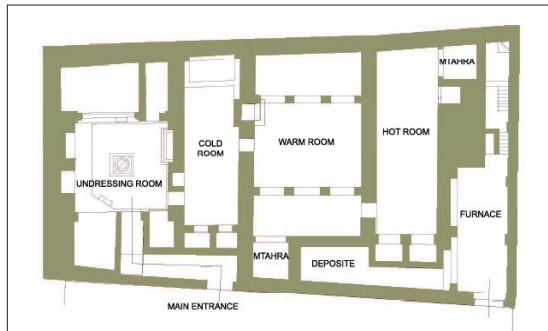


Figure 6: Plan of Mukhfiyya Hammām in the Medina of Fez (Source: ADER-Fès – November 2006).

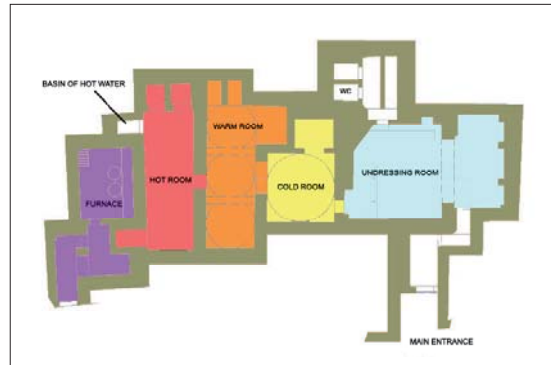


Figure 7: Plan of Hammām Moulay Driss in the Medina of Fez Showing the Sequential Progression of Rooms (Source: ADER-Fès – November 2006).

The Undressing Room

The undressing room is generally the most important space in the hammāms of Fez in terms of proportions. It is also the most decorated area inside the hammām in comparison with the modest and sober appearance of the internal bathing spaces (Fig: 8).

The undressing room is the equivalent of the Roman Apodyterium called locally in Fez the Guelssa according to the local dialect. It is also known as Mashlah or Maslakh in Egypt and Syria respectively. The undressing room consists generally of a central square space that is usually roofed with a large pierced decorated dome and subsidiary spaces on its three sides, which accommodate the dressing/undressing areas, and where benches are arranged for the bathers' use. The cashier's office and hammām reception area are also located within the undressing space. In addition, the undressing room accommodates sometimes a mezzanine level as well as storage areas.

The Bathing Spaces

The bathing spaces in the hammām of Fez follow a typical transition from the cold room to the hot room where the basin of hot water is located. The washing areas reproduce therefore a linear axial organization that is specific to the Moroccan hammām. The architecture of the bathing spaces is not based on spectacular monumental domed rooms as in other models in the Islamic world. It is rather composed of series of vaulted spaces sometimes intercepted with a dome. The bathing spaces inside the hammāms of Fez are composed of a long and narrow rectangular rooms roofed by barrel vaults.

The cold room, the Roman Frigidarium—El-Barrani in the local dialect of Fez—can be considered as an intermediate space between the passive area (the undressing room) and the heated spaces (the warm and hot rooms). As far as proportions are concerned, the cold room is usually smaller than the two other bathing spaces. The cold room is generally equipped with a cold-water basin and a subsidiary space accommodating the toilets (Fig: 9).

The warm room corresponds to the Roman Tepidarium, El-wasti in the local dialect of Fez. It is generally the biggest of the three washing rooms. The typical layout of the warm room of the hammām of Fez consists of a central large area, generally square-shaped. It is also covered by a dome, and extended by two smaller vaulted spaces on the opposite sides (Fig: 10). The latter are sometimes equipped with small spaces called Mtahra, providing more privacy to the bathers. This typical layout can be observed, with minor variations, in the hammāms of Mukhfiyya, El-Kaddan, Ibn Abbad, Ain Allu and Guerniz.

The hot room corresponds to the Roman Calidarium or Caldarium, and is locally known as Ed-dakhli. The hot room of the hammām of Fez displays a long rectangular plan adjacent to the furnace and covered by a barrel vault. The hot room is generally equipped with one or more Mtahra (private washing niches) and a wall basin for hot water, locally called Barma, where the hot water arriving directly from the furnace provides the bathing spaces with steam.



Figure 8: Undressing Room of Saffarin Hammām in the Medina of Fez (Photo by Aisha Darwish – November 2006).



Figure 9: Cold Room of Mukhfiyya Hammām in the Medina of Fez (Photo by John Bouillot – November 2006).

The Furnace

The furnace, locally named Farnachi, is usually located at the back of the hammām on the opposite side to the main entrance and displays an irregular plan with a separate entrance. The furnace accommodates large brass cauldrons, once made of copper, where the water is heated by using natural recycled materials as fuel such as wood shavings and olive pits. Unlike other countries where the traditional system of heating has almost disappeared, the hammāms

of Fez, like those in all Morocco, are still using the hypocaust system for heating the bathing spaces, reminiscent of the Roman public baths. The hot room is heated by the smoke (from the fire in the furnace) that flows beneath its floor and is then extracted through four chimneys incorporated in the four corners of the hot room (Fig: 11).

Features and Decoration

The hammāms of Fez are known by their modest and sober architecture in comparison with those of the Middle Eastern historic cities. For instance, the well decorated doorways of the Egyptian hammāms and the elaborated dome architecture of the bathing spaces of the Turkish hammāms are not found in the hammāms of Fez.



Figure 10: Warm Room of Mukhfiyya Hammām in the Medina of Fez (Photo by Jean Bouillot – November 2006).

However, there are some exceptions, for example hammām Saffarin has a richly decorated undressing room or Guelsa: carved

plaster on the dome and the arches (Fig: 12), traditional ceramic tiles or zellij on the walls, carved cedar wood furniture, and a decorated wall-fountain. However, the aesthetic qualities of the hammāms of Fez are not limited to the decorations in the undressing room as the beauty of the overall architectural volumetric composition is related to their serene harmony.



Figure 11: Furnace of Saffarin Hammām in the Medina of Fez (Photo by Kamal Raftani – November 2006).

The aesthetics of the traditional hammams in Morocco have influenced widely the conception of new villas in many cities such as Marrakech. The intricate vaulted and domed

spaces provide a feeling of rest and tranquillity around the element of water. Another aspect of the hammāms architecture that has been directly borrowed in the contemporary architecture is the technique of wall rendering using Tadlakt, an ancient lime based render with egg yolk additives used for providing smooth wall surfaces that have a high resistance to humidity. The render is applied as a wall finish using a technique of polishing the wall surface with pebbles and soap to give a smooth and shiny appearance as well as a good protection from humidity.



Figure 12: Decorated Dome Covering the Undressing Room of Saffarin Hammām in the Medina of Fez (Photo by Kamal Raftani – November 2006).

Another architectural feature of the hammāms of Fez is the star shaped openings on domes and vaults that allow the daylight to filter through the steam into the bathing spaces, giving these a cosmological dimension. These qualities have also inspired contemporary architects in Morocco.

Conclusion

This paper has presented the hammāms of Fez and highlighted their characteristics reminiscent of the small Roman baths or balnea found in Volubilis. It has discussed how these buildings are different from the public baths in other historic cities of North Africa and the Middle East. The architecture of the different spaces has been presented from inside out and vice versa as well as the relationship of this building type to its urban context. The hammām as a vernacular building type incorporates many lessons of sustainability that can inform contemporary architectural projects.

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Note

(1) These data are from the Geographical Information System of ADER-Fez, a government organization in charge of the preservation and the regeneration of the Medina of Fez.

Kamal Raftani

Kamal Raftani is a Moroccan Architect-Planner. His primary interests include regeneration of historic built environment, restoration and reuse of historical monuments of Moroccan architecture, Islamic public baths in Mediterranean historic cities, and community development and urban regeneration of Moroccan heritage cities. In July 2001, he joined ADER-Fes, a government organization in charge of the preservation and the regeneration of the world heritage city of Fez. He has been for five years the head of the Studies Department of ADER-Fes and is currently occupying the position of its Director of Development. He has seven years relevant experience as project coordinator in several development projects in the preservation program of Fez, among which the "Fez Medina Rehabilitation Project" funded by the World Bank between 2000 and 2005 and the "Artisan & Fez Medina Project" funded by the Millennium Challenge Corporation and aiming to rehabilitate and renovate major historic handicraft infrastructures inside the medina of Fez (2008 – 2013). Between 2005 and 2008, he has been local team leader in an EU-Mediterranean research project on traditional bath houses in six Mediterranean countries (HAMMAM project). His works within the HAMMAM project include architectural typologies of Mediterranean hammāms and assessment of risks to the hammām from an architectural point of view.

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