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Historic Mosques in Kuwait their Conservation and Rehabilitation

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Abstract: In 1996, the Kuwait Awqaf Public Foundation (KAPF) initiated a national program for the conservation and rehabilitation of historic mosques in Kuwait. This initiative is of great importance and significance in the history of conservation for historic mosques. It has also bridged the gap between the cultural concerns of architectural conservation and the religious concerns of maintaining historic mosques. KAPF, though a religious body was and still is, keen to conserve historic mosques in Kuwait according to the accepted professional, academic and cultural international standards, without giving up any of the religious aspects of conserving and rehabilitating historic mosques.

This conservation initiative is, however, half a century too late. Very little is left of historic buildings in Kuwait. So many changes occurred to the remaining historic mosques with little or no documentation. Moreover, what is to conserve in a historic mosque, how and why is a question remains to be answered. The present paper is an endeavor to enrich the conservation debate for the conservation of the Kuwaiti mosques.

Introduction

In the seventeenth century, the tribe of Banu Khaled built a small fortification called Kuwait (hence the word Kut means a fortification). Security, availability of drinking water, a good harbor and availability of grazing lands attracted settlers around the small fortification. The whole settlement was called Kuwait. [1,p.532] The city has also been called Grane by Persians and Europeans, possibly after the nearby island of Grane. [2,p.181]

Historians differ on the exact date of its foundation. However, by the beginning of the eighteenth century Kuwait was flourishing and attracting more settlers. By mid-eighteenth century temporary city walls were built of mud at times when the danger of invasion threatened the settlement. But it was between 1771 and 1789 that the first permanent city walls were built [3,p.132] They contained six gates. According to travelers, the old city walls were standing as late as 1874, but soon after they were piecemeal destroyed to allow for the expansions of the city as its inhabitants grew in number, there were no city walls until 1920.

In 1904, the inhabitants of Kuwait were about 35000. The city was stretched for two miles along the Gulf shore. Houses were distributed in four major areas: Qibla (west), Sharq (east) and the southern suburb of Murqab and the central area of Wasat (the middle). Residential streets were between two and six meters wide. Many were dead-ended. A neighborhood was called Fareej, which was a harmonious urban unit with its own mosque and its social structure. [4, pp.1706-1715]

The port was a very important center for commercial activities. The other important location was the market area with the adjacent Safat square which was the geographical, commercial, cultural and social heart of the city.

There was one major street, which ran from south to north. Houses were mainly one story high. In 1904, there were between twenty and thirty mosques within the walls of Kuwait. Four of which were major congregation mosques (holding Friday prayers). The rest were smaller mosques in the different neighborhoods (holding the five daily prayers). It is worth mentioning that the great majority of mosques were built by wealthy individuals, whose families in many cases took pride and honor in maintaining them [4] In 1920, new city walls were built around Kuwait. They were slightly under four miles long, and contained five city gates. [5,pp.35-36]

In 1946, the commercial production of Kuwaiti oil began. And, with it, huge economic and social changes erupted, which affected the city dramatically. According to a master plan for the modernizing and expansion of the city, the city walls were demolished in 1957. The gates were kept as historic and urban landmarks. Wide roads were built to accommodate the huge growth in motor vehicles. Individual owners bought off houses and other properties inside the walls for handsome sums of money. They also substituted pieces of land in the new suburbs outside city walls. This was welcomed and seen as an indirect way of handling down the oil riches to the people. Sadly, however, by the seventies almost all the urban fabric of the old city was gone. [6,pp.95-96]

Old mosques were exceptionally not demolished for religious reasons. And whenever the master plan suggested a road or any other development on the site of an old mosque, the plan was altered to allow the mosque to survive. Some mosques, however, were demolished and replaced by "modern and more comfortable" new mosques, with the same names of the demolished ones. Some of the substitute mosques were built on the same sites. Others were built in nearby locations inside the city walls. [7]

Today the remaining old mosques stand like dwarfs amongst huge office buildings, multi-story car parks, ultra-modern shopping malls present, standing old mosques of Kuwait are of a great cultural significance. They form a good part of the very little that remains from the architectural heritage of Kuwait.

Article 1 of Venice Charter, the UNESCO document of principles for the conservation of historic buildings states: "The concept of an historic monument embraces not only the single architectural work but also the urban or rural setting in which is found the evidence of a particular civilization, a significant development or an historic event. This applies not only to great works of art but also to more modest works of the past which have acquired cultural significance with the passing of time." [8]

During the 1950's, the then Department of Public Waqf restored all mosques of Kuwait. The degree of intervention varied from demolition and complete reconstruction to minor repairs. Constructing new minarets, upgrading the ablution and toilets facilities were probably done to all old mosques.

The only available information on the fifties' restorations are a schedule of the total cost for the renovation of each mosque, [9,pp.57-59] and a set of photographs (one per mosque), taken after the completion of works. [9] Since then, the Ministry of Awqaf and Islamic Affairs with regards to their religious functional values maintained mosques. No attention, however, was

paid to their substantial part of maintaining mosques was, and still is, done by unsupervised individuals.[1]

Thus, it is unknown today what is authentic, and what is not, from the shape and fabric of each mosque. Different parts of each mosque may be from the fifties' restorations, from before those major restoration works, or from later maintenance efforts. What makes its even more difficult to assess the historic value of individual mosques, is that some of the fifties' restorations were exact copies of the original techniques, material, designs and layout.

Historic Mosques, Their Features and Characteristics

What to Conserve? Why and How?

Unless the features and characteristics of Kuwaiti historic mosques are defined and understood within their context, it would not be clear what building, or what part of a building should be conserved, why and how. Although some listing and grading attempts were done, and are still going on[2], there is no appraisal guidelines, according to which, historic mosques may be assessed hence conserved.

Article 9 of Venice Charter [8] states: "The process of restoration is a highly specialized operation. Its aim is to preserve and reveal the aesthetic and historic value of the monument and is based on respect for original material and authentic documents. It must stop at the point where conjecture begins, and in this case, any extra work that is indispensable must be distinct from the architectural composition and must bear a contemporary stamp. The restoration in any case must be preceded and followed by an archaeological and historical study of the monument."

It is not an easy task to draw a sketch of "the historic Kuwaiti mosque". The reason being that very little information is available. This is astonishing, considering the very young age of the oldest of these mosques (no more than three centuries). Moreover, the average age of less than one century for the majority of the other mosques. One can find much more information on much older historic mosques in other regions of the World.

The aim of this short study, however, is to offer a starting point to begin the conservation program. Hoping that as investigations, analysis and research are carried out on the picture, they should get clearer and nearer to the truth. Then, conservation measures should reveal more information. Taking into account that conservation is, and has always been, a unique chance to understand an historic building. Understanding the traditional Kuwaiti mosque is necessary to adopt the right attitudes for its conservation. Moreover, conservation on Kuwaiti historic mosques should uncover more information, which should allow a better understanding of, and appreciation for, the traditional Kuwaiti mosque in particular and the Kuwaiti architectural heritage in general.

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[1] The first formal attempt to conserve cultural and architectural heritage in Kuwait was made in the year 1960 by the first law for cultural heritage (Princely Decree No. 11) for the year 1960 for the law of cultural heritage.

[2] In 1986 the Urban Design Section in Kuwait Municipality embarked on a project of assessment for the historic buildings within Kuwait city (Project Head was Eng. Evangelia Simos Ali). Results of this effort were published in 1988 (the document is currently out of print). In present Eng. Ali Al-Yoha (from the National Council for Culture, Arts and Letters) initiated a new project to assess and list the different historic buildings in Kuwait. However, it is left to the personal judgement and conviction of each individual involved in this project to assess an historic building according.

The Regional Context: General Features

Concepts and general features, which characterize Kuwaiti mosques, are, to a great extent, those of the Gulf region in general.[3] Generally speaking, until the first half of this century, mosques in the Gulf region were not very much different from the mosque of the Prophet (PBUH) in Madinah.

In regions such as Egypt, Turkey, Maghreb, India, Iran and Central Asia, Muslims adopted features from Pre-Islamic architecture in these countries to build mosques. In the Gulf region, however, this was not the case. As there was not much of an architectural achievement in the region before the advent of Islam, the nomadic nature of the society and culture in the region and the very harsh climate of the area.

Another influence that mosque architecture of the Gulf region escaped, is the Western colonial influence during the nineteenth and twentieth centuries[4]. As British colonial presence in the region was kept to the absolute minimum[5], no large European communities lived in the area as they did in India, Egypt and the Maghreb for example.

This is not to say that architecture of the Gulf region evolved with no external cultural influences whatsoever. An architectural influence of a subtle nature penetrated the region through seaborne commercial ties with Iraq, Iran, the Indian sub-continent and the east coast of Africa (Fig. 1).

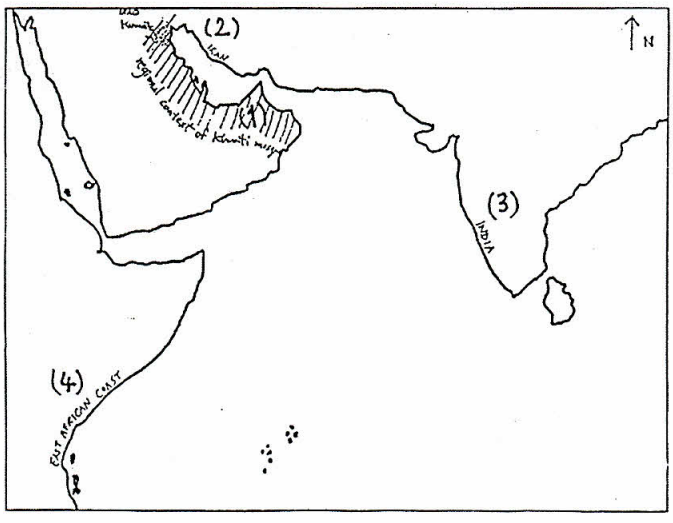


Fig. 1: The regional context of Kuwaiti Mosques.
(1) The west coast of the Gulf
(2) Iraq and Iran
(3) Indian sub-continent
(4) African east coast

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3 The term is used here to indicate the Arabic speaking societies living on the West Coast of the Gulf.

4 Oman should be exempted form this general statement. As early Portugueses and Dutch architectural influences can be traced in its historic buildings.

5 Although workers of oil companies constituted sizable communities in many cases, they were always kept to their own isolated settlements, with almost no contact with their immediate environments and societies.

General features of mosques in the Gulf region are:

- Serious addressing to climatic needs (e.g. heat, humidity, and sand storms).
- Clever recycling solutions and effective environmental management.
- Extensive use of local materials in ground and in sea (e.g. mud, gypsum, palm trees and coral stone).
- The adoption and development of some architectural features from Iraq, Iran and India (e.g. decorations, windcatchers).
- The extensive use of some building materials imported from Iraq, Iran, India and the east coast of Africa (e.g. chandelle, wooden beams and columns, reed mats, Ajur tiles).
- Highly efficient mobilization of socio-economic local resources.
- Efficient day-to-day management and maintenance program and availability of needed funds through the Waqf System.
- Simple and straightforward application of Islamic value system and instructions.
- Aesthetic integration with the natural and the urban environment, with a vernacular and practical down-to-earth charm.

Observations on the Typology of Kuwaiti Mosques

Mosques in Kuwait, before the 1950s, were not built nor managed by a central governmental body or person. Individual donors built them from different families out of their own initiative. Who also donated money for investment, as Waqf, the revenue from which would go to maintaining and managing their mosques. [11] Pre-fifties mosques, therefore, differed according to their builders' differences in character and wealth.

According to an elderly builder, some donors were so poor that they could not afford to use but mud in constructing walls and foundations for their mosques. Others were wealthy enough to use coral stone for foundations and walls, and fine timber imported from India or Iraq for columns and beams. It is, however, possible to speak of a "Kuwaiti Mosque" as a type of building. Limited available building skills, techniques and materials and the persistence of the "Kuwaiti Mosque" as a type, are the common manners and customs of the Kuwaitis. Where for instance, the much needed ablution facilities in a mosque, dictated interesting architectural features throughout the mosques.

The problem of defining the traditional Kuwaiti mosque is that there is no single mosque exists today exactly as it did before the 1950s. The sweeping restorations and reconstruction of the fifties were not recorded. The author intent is to look at the different parts from different mosques, which seem authentic, or at least reconstructed according to the original theme. To draw a sketch of the traditional Kuwaiti mosque, in many instances, a picture is patched up with bits of information derived from old photographs, a historian's or a traveler's accounts, an elderly man's memory or simply by use of common sense and cautious speculation.[6]

Location

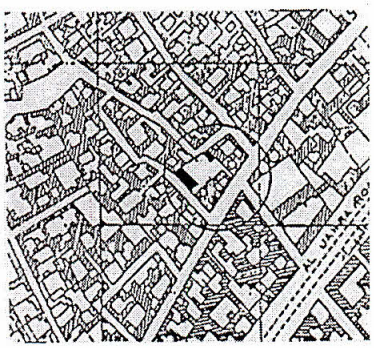
Location is essential for the formation of Kuwaiti mosques. The great majority of mosques in Kuwait were located in residential areas (fareejs). The size of the population living in a certain fareej, as well as their social and economic positions determined the size, structural strength and richness of decoration for their mosque. [7]

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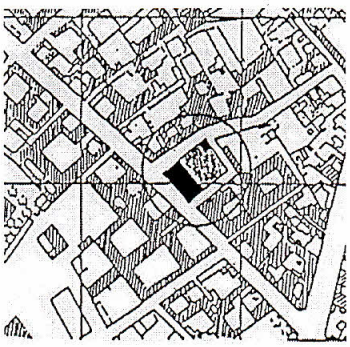
[6] The later is kept to an absolute minimum. And only when no other means are available.

Moreover, the popularity of a certain preacher (Imam) in a mosque may have influenced its design (the Imam was usually a volunteer from the same neighborhood, if not the same family, which built the mosque). Other factors, related to the location, but of physical nature also determined the way a mosque was shaped (Fig. 2).

- The proximity of the nearest mosque (any others in the same fareej).
- The shape of the plot o land allocated to building the mosque at the time of its construction.
- The number and nature of streets, from which the mosque could be accessed.
- The difference between the shape of the site, the direction of the site, the direction of the streets surrounding the mosque on one hand, and the direction of qibla (direction towards Makkah) on the other [12].



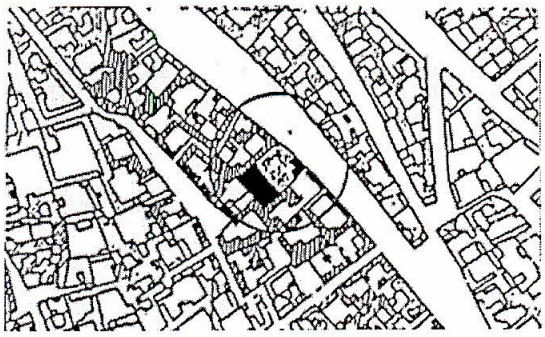
(a) **The Mosque of Bin Hamad, Qiblah: Irregular site with access from three streets.**



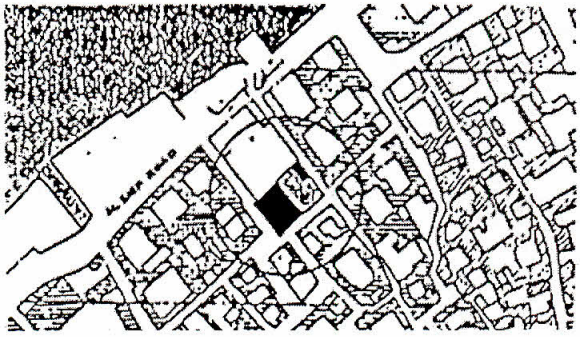
(b) **The Mosque of Al-Jassar, Qiblah: Freestanding mosque, surrounded by four streets.**



(c) **The Mosque of Al-Awfan, Sharq: The site overlooks three streets.**



(d) **The Mosque of Al-Shamlan, Murqab: The site overlooks one street.**



(e) **The Mosque of Al-Nisf, Sharq: A regular site surrounded by three streets.**

Fig. 2: Examples of different mosques' locations within the historic urban fabric of Kuwait. [12]

Building Materials and Techniques[7]

Once a donor bought the plot of land to build a mosque, he appoints a builder (ustadh), who had his own team of builders. The ustadh advised the donor on the amount of building materials needed.

[7] Technical information in this section is mainly based on interviews with two elderly *Ustadhs*.

In some cases the builder participated actively in the purchase of the needed materials. Without any paper work, and with no plans on paper, the ustadh started the operation after an oral agreement with the donor concerning the mosque's design. The ustadh would then mark the land and his team dug it up until they reached the natural earth for foundations. At the end of each working day the donor paid the ustadh. Then the ustadh advised him in how much to pay different workers. [13]

The water reservoir was dug for in the middle of the courtyard and built as an underground dome with an opening in its middle. The reservoir then was plastered smoothly with a mud, ash and lime mortar to prevent water leakage. A well was usually dug in the early stage. The resulting mud was used in the building process when needed or was transported away on donkey backs at a cost when not needed.

The materials for constructing the foundations and walls depend on the finance available. Coral rock is used with mud for the foundations and walls, when budget allows it [14]. Coral rock is brought by special boats from a location on the coast of Kuwait called "Ras 'Ishairej" to certain locations were they are bought by the heap by the donor and transferred to the building site on donkey backs. The mud used for building is brought from known locations outside the city walls and transferred to the building site on donkey backs.[8]

Columns are bought from the market according to availability and affordability. As an ustadh and his team raise the walls and erect the columns. They build up basic scaffolding from mangrove poles (chandal) to help them bring the construction to the roof level. Chandal is also bought from the market of building materials. Wooden columns, beams and chandal were imported.[9]

Once walls are brought up to the ceiling level and beams had been fixed on top of the columns. Chandal is laid, with spacing from 10cm to 30cm on the smaller span of each room (Fig.3), it is then fixed with mud mortar with the possible use of gypsum which was burned in certain locations outside the city walls and brought to the site on donkey backs. On top of the chandal, a grid of vertically split bamboo (basjeel) is nailed in the chandal at an inclination of 45 degrees from the walls and the chandal. Both basjeel and chandal were painted with an oil-based solution (tari) to protect them from termite attack. Before the availability of tari in Kuwait, a red colored material (dameror maghar) was used for the same effect. [15]

On top of the basjeel, from one to three layers of palm leaf mats (bawari) are laid down. It is the same kind of mats used as prayer mats in the mosque. Both bawari and basjeel were brought from Basra, Iraq by boat. About 5cm of mud is spread over the mats. About 25cm of ash is then spread to offer water proofing. A final layer of about 8cm of lime and mud mortar is spread. Very steep slopes are made towards the rain water chutes (marazim) to guarantee a quick disposition of rain water from the roof. A particular person whose job was to collect ash from houses and sell it in the building materials market collected ash from houses. This was a great service for households to rid them from the ash remaining from cooking operations.

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[8] Holes in the ground, which resulted from digging the mud for construction, were used later to collect rainwater in. Water was then transferred from these locations to various places in the city.

[9] Chandal was bought from the coasts of India and East Africa and brought to Kuwait by boats. It was cut into lengths no more than four meters so that it can be efficiently stored in the boat. Wooden columns and beams were brought also by boat from India or Iraq. Sometimes they were imported as blocks of timber and crafted in Kuwait.

Sometimes imported cement was mixed with mud mortar for harder water-resistant outer surfaces (vertical and horizontal). Once the building shell was finished the joiner moved in a tailor the doors, windows and look cases needed. In many instances joinery pieces were bought ready-made in an early stage and the ustadh had to base his building on their number and dimensions.

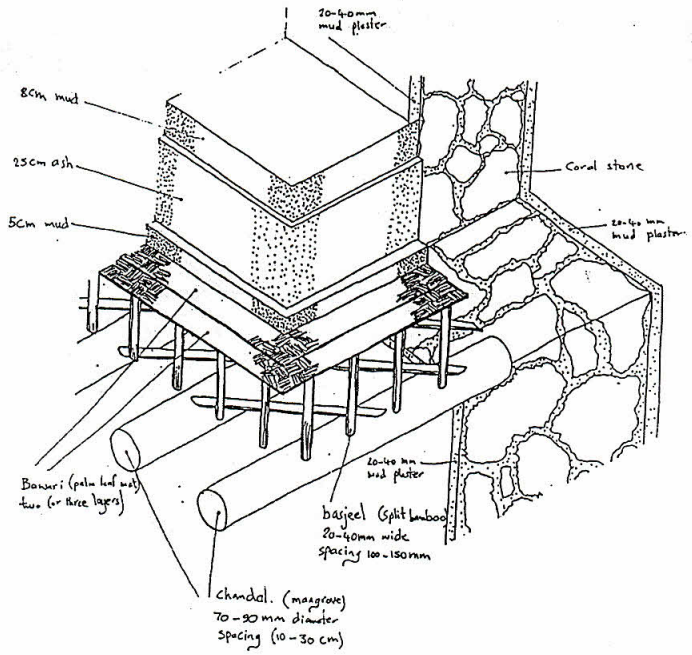


Fig. 3: A detail of the traditional roof construction in a historic mosque.

General Arrangement

A Kuwaiti mosque is simple, functional and in great harmony with the natural environment of the region. It reflects, in many direct ways, Islamic concepts and preferences. [16]

Generally speaking, a mosque consists of a rectangular sanctuary (Bayt-ul-salah) entered, by many doors from a loggia (Iwan), usually of the same size as the sanctuary. The loggia is open to a courtyard, which is entered from the street(s) by one, two or three doors. A fairly small ablution room (garw) is accessible from the courtyard. In some mosques there is one room or more allocated to the imam, storage and any other services needed. This (room)s is accessible from the courtyard. A water reservoir may be built in the middle of the courtyard, to collect rainwater. In the courtyard there are stairs, open to the sky, leading to the roof and the tiny minaret, almost at the top of the stairs. The stairs are usually adjacent to, and supported by, the wall of the main façade of the mosque. The entrance to the mosque may be from under the stairs where sometimes, this area is used as a storage room. The courtyard is surrounded and enclosed by the loggia, the ablution room, other rooms and the outer walls (Figs. 4, 5 & 6).

There is a possibility that the roof was used during summer nights, either for night prayers (al-'ishaa'), ramadan prayers (qiyam), living in the mosque during the last ten days of ramadan (i'tikaf) or for the sleep of guests and wayfares. [17] According to an elderly man, at least two mosques (Al-Khalifah and Al-Souq Al-Kabir) had guest room facilities.

According to a European traveler to Kuwait in 1868, [18] out of almost thirty mosques in the city, only four were Friday mosques. Difference between Friday mosques and daily prayer mosques is in size and the inclusion of pulpit (*minber*). Friday mosques consisted of bigger sanctuaries, loggias and ablution rooms. They were installed with a pulpit for the preacher to mount while giving his Friday speech (khutbah).

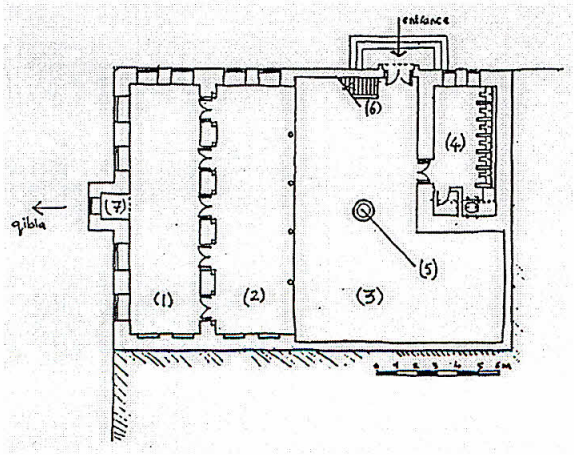


Fig. 4: General Arrangement for a Traditional Kuwaiti Mosque (for daily prayers only).

1. Sanctuary, 2. Loggia, 3. Courtyard,
4. Ablution room, 5. Water reservoir,
6. Stairs leading to the roof and Minaret,
7. Mihrab.

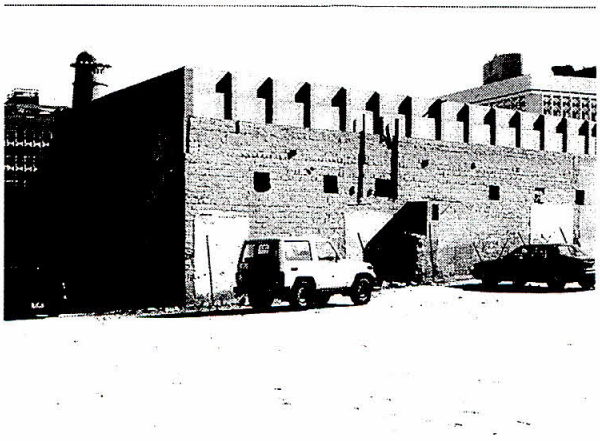


Fig. 5: The exterior of Al-Sa'eed Mosque, Which seems to be the nearest to the original plan and façade arrangement.

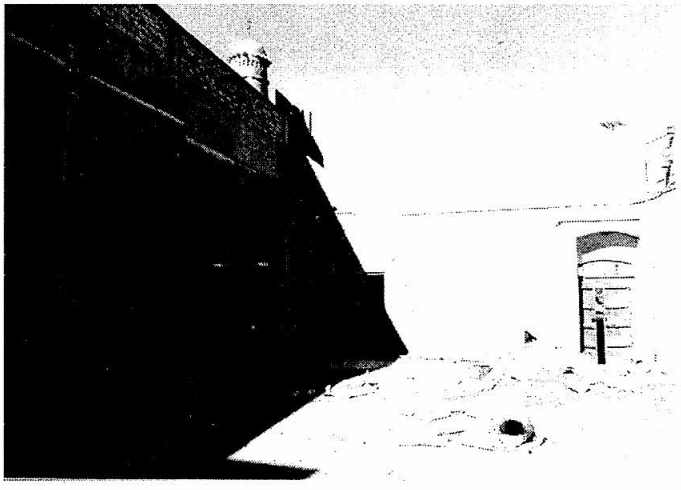


Fig. 6: The courtyard of Al-Sa'eed Mosque showing the Loggia, the stairs and the Minaret.

Sanctuary (Bay-ul-Salah) and loggia (Iwan)

The sanctuary is a rectangular room. Its longer walls are perpendicular to the direction towards (Makkah (qibla). In the middle of the qibla wall (the wall nearest to qibla) is a niche for the Imam (miharab), (Fig.7). In small mosques, the width of the sanctuary is determined primarily by the length a mangrove beam (chandal), which is the major roof structural element (Figs. 8 & 9). In big mosques, columns divide the width of the sanctuary. The

columns carry a beam perpendicular to the qibla wall. The spacing between the columns in the long direction (parallel to the qibla wall) is determined, again, by the length of a mangrove beam (Figs. 10 & 11).

Windows are generously distributed in the sanctuary. The number of freestanding walls mainly defines their number. A detached sanctuary usually contains windows from three sides. Blind alcoves (rawshana) usually replace windows in a wall adjacent to a neighbor.

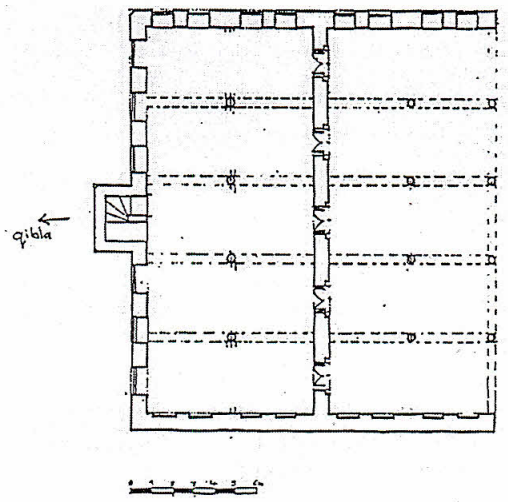


Fig. 7: The sanctuary and loggia of a Friday Mosque.

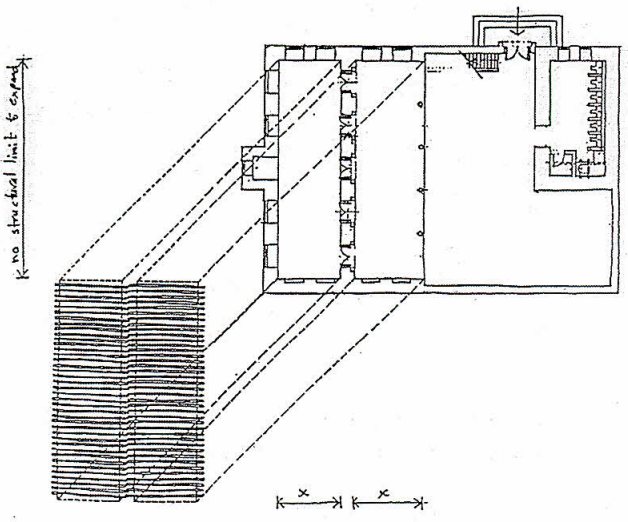


Fig. 8: The sanctuary and loggia of a small mosque for daily prayers.



Fig. 9: The sanctuary for a mosque for daily prayers: A small room without columns in the mosque of Abdullah.

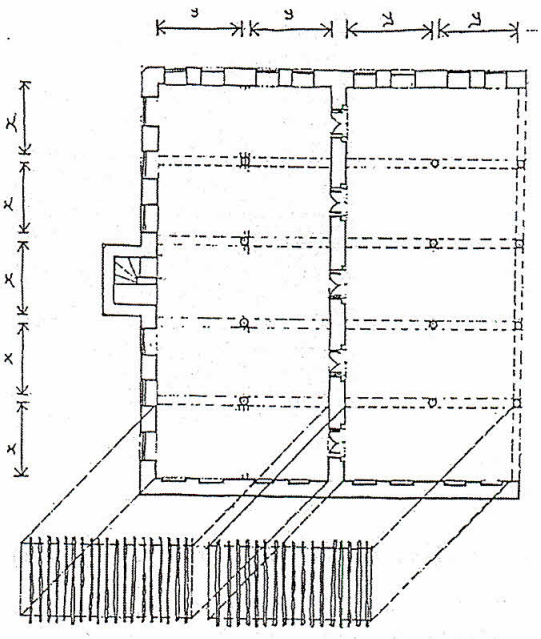


Fig. 10: The sanctuary and loggia of a mosque for Friday prayers. The width of the room is expanded by the introduction of columns.

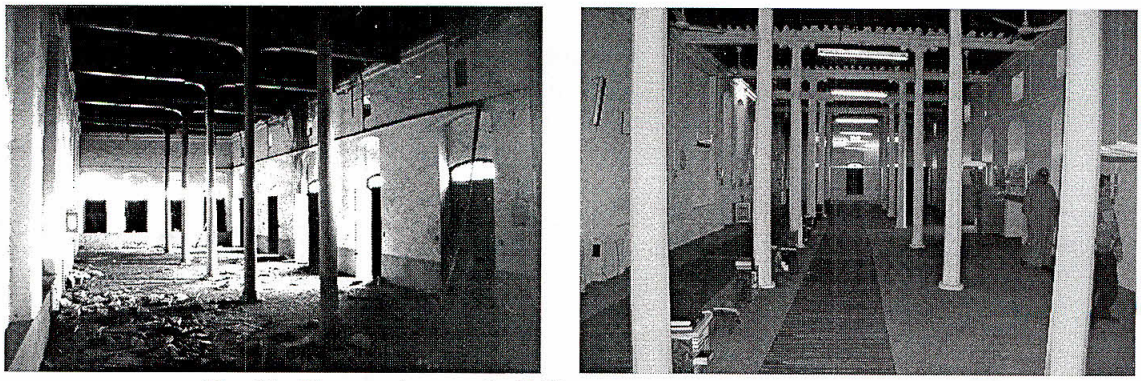


Fig. 11: The sanctuary of a Friday prayers mosque:
(a) A modestly big room with one row of columns in the mosque of Sa'eed.
(b) A bigger room with two rows of columns in the mosque of Bin Khamis.

Some of these alcoves are connected to a cavity above it leading to a wind catcher above the roof level (bagdeer), (Fig. 12).

The loggia is similar to the sanctuary with the exception that it is open to the courtyard. One of its longer sides (the farthest from the sanctuary) consists of a raw of wooden columns, which carry wooden beams. Wooden plates are used to transfer the load from the beams to the columns. The distance between the columns is the allowable span by mangrove beams. The shape and size of the columns varied from one mosque to another. As they were imported from Iraq, Iran or India, budget and availability in the market probably dictated the type of columns acquired for a mosque.The floors of the sanctuary and the loggia consisted of the natural soil level and covered with woven palm-leaf mats. Paraffin lamps lighted the mosque. Although there is a sort of metal hanger, which seems to have been used for hanging the lamps, an elderly told me that the lamps used to be loosely put on the windowsills.

Niche and pulpit (mihrab and minber)

The mihrab is projected out of the qibla wall to offer room for the imam to pray completely out of the sanctuary area (Fig. 13). Rows of prayers have to stand behind the imam. Which means that without the mihrab being out with the sanctuary, the imam would have used the area for a whole row of prayers.



Fig. 12: A windcathcer (bagdeer) within the thickness of the wall in the loggia of the mosque of mekki Al-Jom'ah.

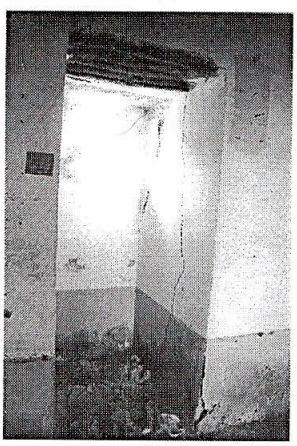


Fig. 13: A Mihrab in daily prayers Mosque (Abdul llah).

The same concept is applied for the minber in Friday mosques. The minber is included in the mihrab niche, keeping the sanctuary area for the rows of prayers (Fig.14). Which allows the best use of space. This should be particularly appreciated when the sanctuary area is small. A quick comparison with the mihrab and minber in an average mosque from other parts of the Islamic world should emphasize the point (Figs. 15&16).

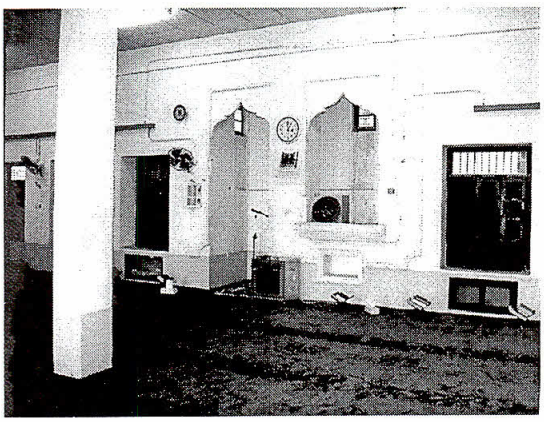


Fig. 14: A Mihrab-Minber in a Friday prayer mosque.

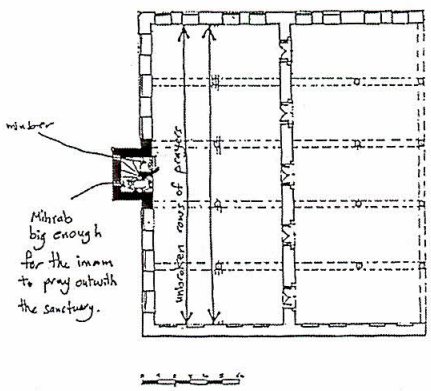
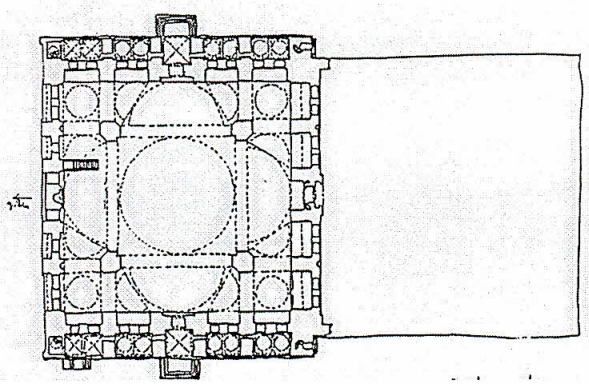


Fig. 15: The Mihrab-Minber arrangement in Kuwaiti mosques.



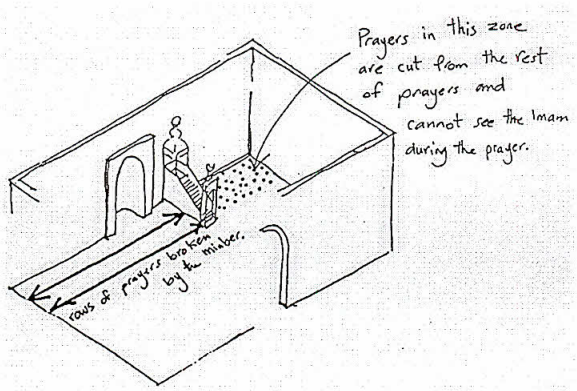


Fig. 16: The Mihrab-Minber arrangement in most mosques of the Islamic world (out the Gulf region), even master pieces by Sinan the famous Ottoman architect, were less successful from a functional-religious point of view.

Minaret

The strong relationship between the Kuwaiti mosque and its social and urban immediate environment made it almost a semi-private, semi-public building. It served the people who lived or worked very near to it. [19] The minaret, therefore, needed not to be very tall (Fig.17). And as Islam was not competing with any other religion in the city, a show of power, as was the case in Anatolia and India for example, was not needed.

The little minaret of the Kuwaiti mosque, sitting on top of simple easily approached stairs, was very practical. Before the days of the electrical load speakers, the volunteer mue'zen used to climb up the stairs and stand in the door of the minaret to call for the prayer five times a day. Minarets of Friday mosques did not differ in any way from the rest of the

mosques according to travelers and historians. It seems that the majority of minarets in Kuwait used to be of a square plan, according to the available old photographs and what I could gather from talking to a few elders (Fig. 18 & 19).

Ablution Room (Garw)

The ablution room (garw) is very distinctive. It is a room at the farthest end of the courtyard from the sanctuary and the loggia. It is accessed by a door from the courtyard near the entrance from the street. Its door and one or two small windows above human height light it. Its room is of mangrove (chandal), like the sanctuary. And therefore the width of the room is limited to the available length of the chandal. The *garw* is supplied by water from a well at a corner of the room. Adjacent to the longer wall of the room[10] is a little closed channel (almost like a basin) made with indication for the water to run through it from its end near the well to the other end (Fig. 20).

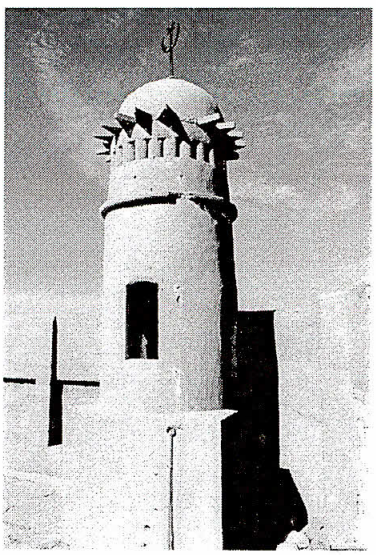


Fig. 17: The minaret of Sa'eed mosque.

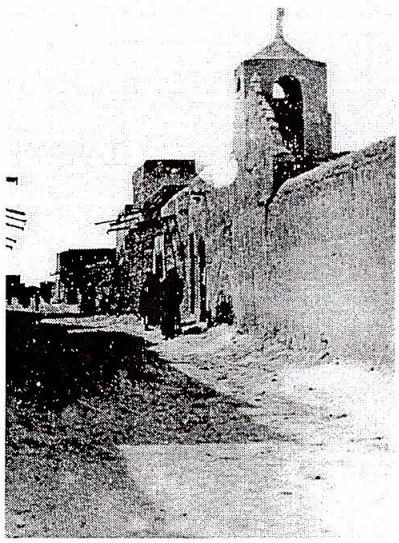


Fig. 18: An old photograph showing a traditional Kuwaiti minaret (late 1930s).



Fig. 19: Another old photograph (late 1930s), showing another traditional Kuwaiti minaret.

[10] According to as drawing by Ayyub Hussain, the channel can be in the middle of the room, and approached from both sides.

Out side the channel are little holes, spaced so that in front of each one, a man can sit and perform his ablution. There are low partitions between the different places for ablution. So that if one needs to urinate before starting his ablution, there is a specially designed rectangular hole in the ground, which is connected to the hole under the water opening for ablution. The wastewater is directed out of the garw, underground, together with other sewerage from other buildings to a collective septic tank.

Next to the well, there is an enclosure for a man to perform purification (ghsul) which is a religious requirement before prayer in certain circumstances. It is also a preference to be done on a Friday. A young man would volunteer to fill the water channel for those who want to perform ablution and also for anyone inside the enclosure wishing to perform ghusul.

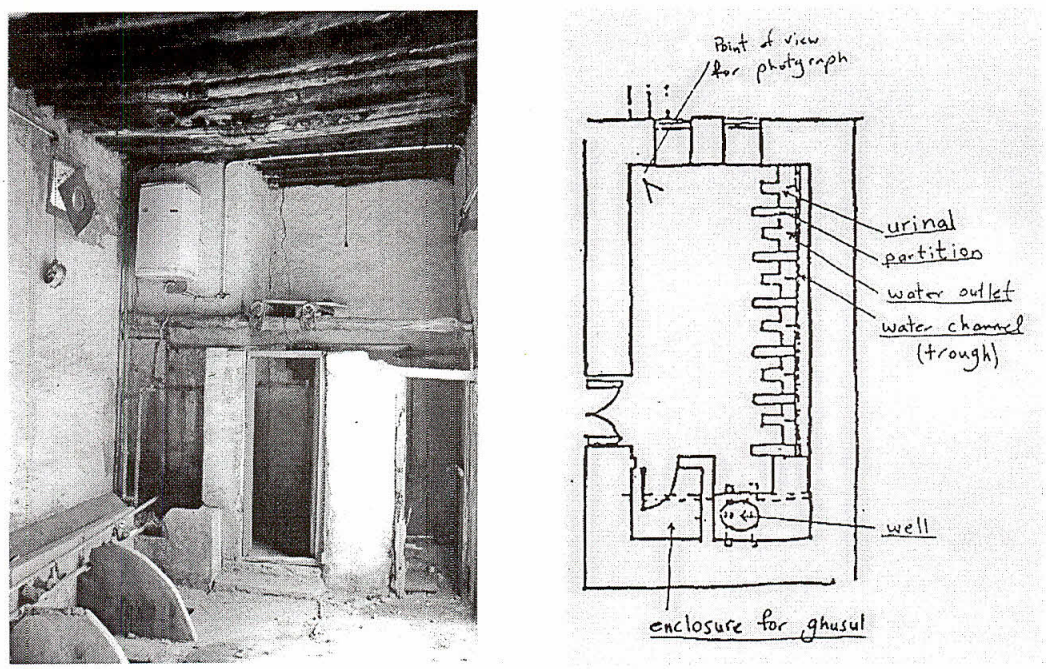


Fig. 20: Ablution room: A diagram showing its components, and a photographs showing the ablution room in the mosque of Abdul llah (note that pipes, heater and exhaust fan are modern additions).

Dealing with Rain Water

As mud is a major component in all mosques, dealing with rain water is a crucial aspect for the maintenance and safety of mosques. The upper layer of the roof is usually made of hardened lime mud layer, which is fairly waterproof. The slope in roof floor is quite steep leading to wooden chutes (*marazim, s. mirzam*) onto the courtyard and the street (see old photograph Fig. 18).. Chutes go at least half a meter out of the wall to guarantee that water fall from it well away from the mosque walls and foundations.

Water which fall into the courtyard from the roof of the sanctuary-loggia and other rooms are either directed out of the building or gathered in a water reservoir in the middle of the courtyard for later use. Periodical maintenance and maintenance after each heavy rain was a feature in the old Kuwait daily life. Maintenance was done collectively by the inhabitants of each *fareej*, led by those who have more experience in building techniques.

Decoration and General Appearance

Mosques are almost bare of any decorations. The *mihrab*, in most cases, is the only piece of architectural decoration in a whole mosque (Fig. 21). And even that is very modestly decorated when compared with traditional mosques in other regions. Strict following of Islamic discouraging the elaborate decorations of buildings in general and mosques in particular may cause this. Another reason for the lack of decorations in Kuwaiti mosques may have poverty.

Column capitals (Fig. 22) doors and water shuts are sometimes beautifully decorated. These wooden pieces were imported and installed as they were skillfully crafted by local joiners (*galaleef, s. gallaf*) who were usually occupied with the much more sophisticated job of building the Kuwaiti well known sailing boats *(boom)*.

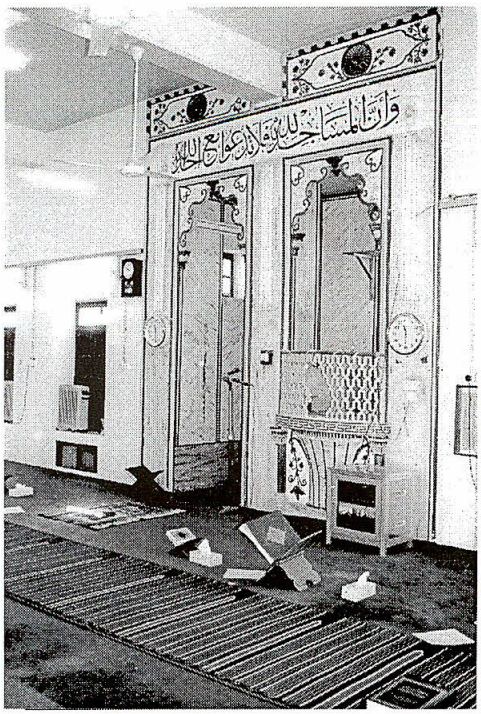


Fig. 21: Decorations of Mihrab and Minbar of Al-Matabbah Mosque.

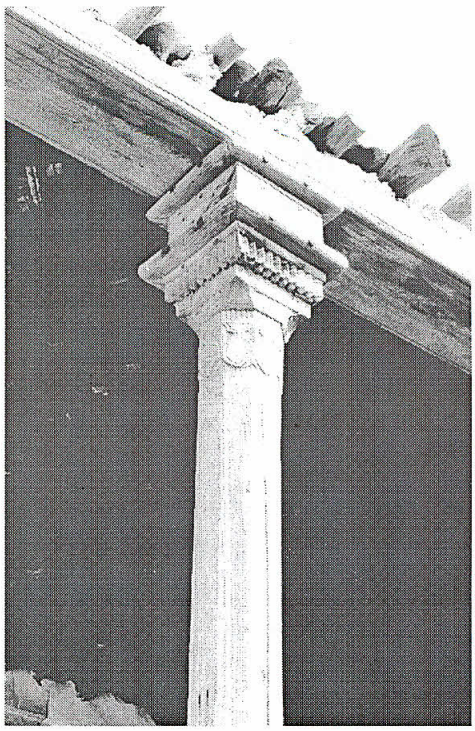


Fig. 22: Decorated capital of a column in the Mosque of Mekki Al-Jom'ah.

Cooling Systems

Building materials used in mosques offered a high degree of heat insulation. Mud walls were at least 60 cm. thick. Roofing layers contained at least 40 cm. of mud, ash and lime.

The general arrangement of the building created a microclimate inside the mosque cooler than the outside climate. The courtyard, the loggia and other shaded areas and the big number of doors and window mainly cause this.

Wind catchers were used to trap desirable wind into the building. It is not clear, however, to what extent this system was used in mosques. A wind catcher (*bagdeer*) contained in the thickness of the wall can be seen today in the mosque of Mekki Al-Jom'a (Fig. 12). Another one for the roof area can be seen in the mosque of Sa'eed (Figs. 23 & 24).

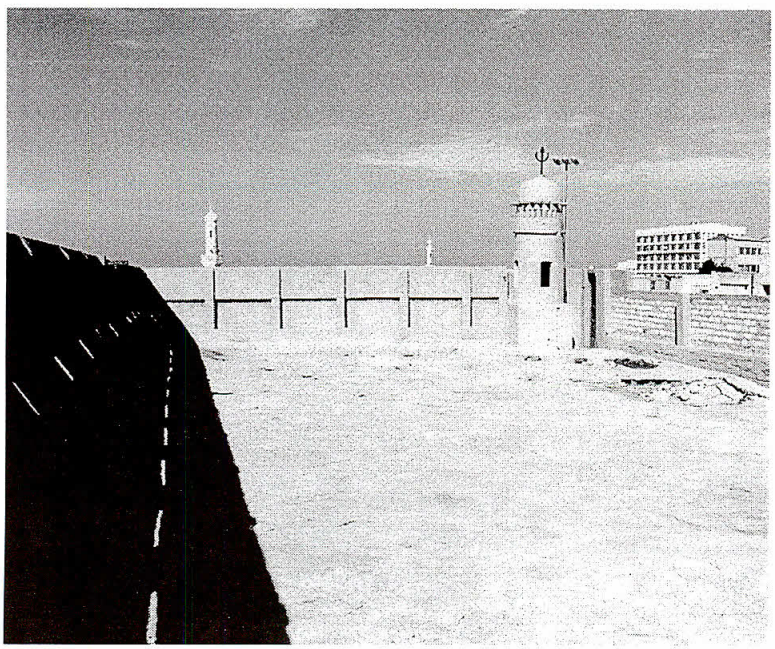


Fig. 23: Roof enclosure in Sa'eed mosque.

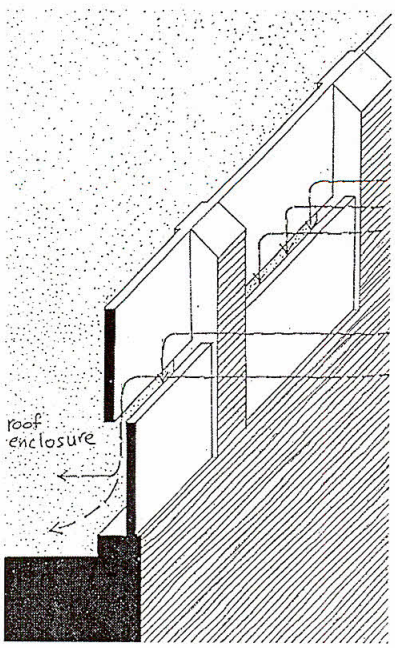


Fig. 24: Roof enclosure detail.

Changes of the 1950s and after

The Importance of Modern Changes

It is essential to understand the changes occurred to mosques in the 1950s and thereafter, for two reasons. Firstly, so that it is possible to locate the more important earlier features of historic mosques. Secondly, because these change have become "historic" themselves and should be accepted as a stage in the history of the traditional Kuwaiti mosque.

Furthermore, locating the post-fifties changes is not purposely to attempt to remove them. On the contrary, in many cases, they should be kept and protected. These changes, in themselves, tell the story of modernizing Kuwait. A balance should be sought, however. The aim should be to conserve the historic mosque with the least loss possible of its different qualities. If keeping modern changes affects the harmony and integrity of a historic mosque, it is not desirable to keep them. Venice Charter and various attempts all over the world to address this question should be used as general guidelines in this respect.

Article 11 of Venice Charter states: "The valid contributions of all periods to the building of a monument must be respected, since unity of style is not the aim of a restoration. When a building includes the superimposed work of different periods, the revealing of the underlying state can only be justified in exceptional circumstances and when what is removed is of little interest and the material which is brought to light is of great historical, archaeological and aesthetic value, and its state of preservation good enough to justify the action. Evaluation of the importance of the elements involved and the decision as to what may be destroyed cannot rest solely on the individual in charge of the work."

Location

Changes occurred to the locations of historic mosques are probably the saddest and most significant modern changes, not only to mosques, but to all architectural heritage of Kuwait. A quick look at the excellent study conducted by Kuwait Municipality in 1988, [12] shows the present urban context of historic buildings as opposed to the urban context of the early 1950s (Fig. 25).

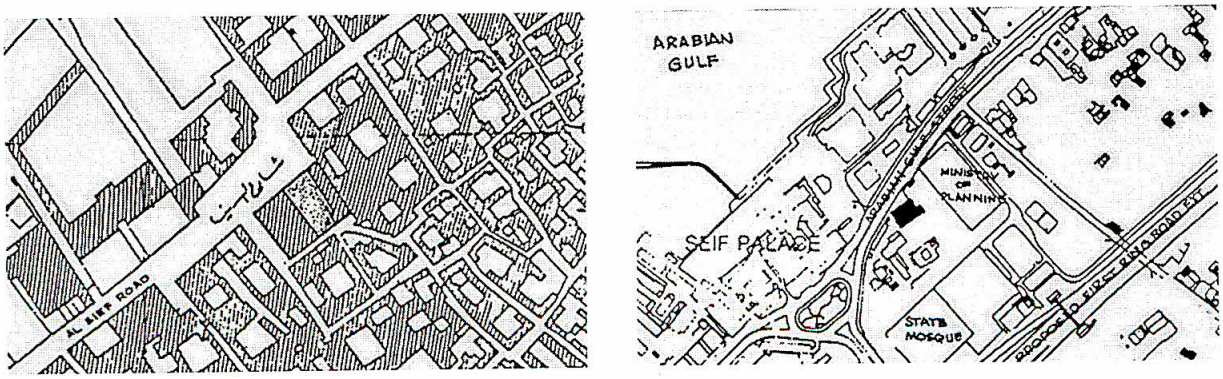


Fig. 25: The changes of urban fabric.
(a) The urban context of Al-Khalifah Mosque in 1951.
(b) The urban context of the same mosque in 1988.

Historic mosques today are almost devoid. Their social and urban roles as almost all *fareejs* were destroyed. Furthermore, they are affected by the following problems from the modern urban developments of the city:

- The ground level surrounding mosques has risen inducing in a horizontal load on outer walls of the mosques and the penetration of soil moisture into the old wall fabric.
- The very high level of vibration created by the excessive car traffic and the construction of huge new buildings.

General Arrangement

Although all mosques of Kuwait were extensively rebuilt in the fifties, the general arrangement of most of the buildings remained the same. The old aerial photographs and maps showing historic mosques in the early fifties can trace this fact. It can also be traced from the mosques as they stand today. One finds, for example, reinforced concrete column and beam structure with less than 4 meter span. Which indicates that the columns and beams are most probably placed in the same arrangement of the old wooden ones, with all its span limitations.

Sanctuary (*Bayt-ul-Salah*) and Loggia (*Liwan*)

The sanctuary and loggia became more luxurious. They were built, or at least plastered and painted with modern materials making straight surfaces and right angles. They tiled with modern cement tiles and sanctuary is carpeted from wall to wall. It also fitted with false ceiling. Either to offer space for the air conditioning ducts or to hide the *chandal* ceiling, which seems to have been considered undesirable in the fifties and sixties. The introduction of electricity and P/A system was another major change to the sanctuary and loggia. Neon lamps mainly did lighting. Which took away a great deal of the atmospheric charm of the

interior. In some cases replicas replaced windows and doors. Occasionally, simple modern ones replaced them. In some unfortunate unsympathetic aluminum windows and doors replaced them.

Niche and Pulpit (*Mihrab and Minber*)

The one practice, which was not given up, even in the construction of new mosques, is the combined *minber - mirhab* feature. It seems that it is too logic to abandon or may be practiced until today as by religious motivation, rather than appreciation to a historic achievement. Religiously speaking, the clearance of the first rows from any obstructions is favored. Because the first rows of the prayers are the best seen by God, it is always a priority to offer the biggest praying room nearer the *qibla* (hence the longer side of the sanctuary room is parallel to the *qibla* wall to accommodate the biggest number possible in the first rows).

Minaret

Most old minarets were replaced by taller and more elaborate ones, imitating Egyptian, Iraqi and Iranian models (Fig. 26). Some minarets, however, seem to have been an exact replacement of the old ones but with the modern materials of cement blocks, concrete, cement mortar and plaster and modern paint. For some reason the square plan minaret seems to have been completely abandoned for the circular plan one.

One obvious factor contributed heavily to the modifications of minarets. That is abandoning the mu'zen to climb the stairs and perform a "live adhan" from the minaret five times a day. In the days of electricity and loud speakers this ritual is gone forever. It should be stated, however, that even if there were no loud speakers to be used, the mu'zen's voice would reach no one. Since nobody lives in the vicinity of historic mosques anymore.



Fig. 26: The minaret of the mosque of Mudaf and Ibrahim Ishaq. An example of a modern minaret. [12]

Ablution room (*garw*)

In a few mosques of the old garw survives, but does not function. It was fitted in the fifties with municipal water supply. So the well was not used any more. Toilet cubicles replaced the enclosure for ghusul and the well. The water channel was fitted with taps. The small barriers were kept. Although the urinating facility was cancelled, the room was fitted with water heater and electrical lights.

In the majority of mosques, however, the whole room was rearranged to imitate ablution rooms in other parts of the Muslim world, which were modernized much earlier than Kuwait, such as Iraq, Egypt and Turkey.

Dealing with Rain Water

In some cases bitumen based layers of waterproofing were laid on roofs. In other cases a light gabled roof of corrugated sheets covered the roof. Carried by simple steel structures. Gutters made out of tin were introduced to collect rainwater from the roof. A vertical pipe takes the water from the gutter to the courtyard floor where it runs to a modern system discharging water into a public network outside the mosque.

If any water reservoir survives, today it is definitely out of use. Maintenance is now carried out at much longer intervals than before. The Awqaf authorities and not any more by volunteers from the public organize it.

Decoration and General Appearance

Immigrant workers introduced Internal and external decorations to historic mosques. Apart from totally new parts of a building, such as a new minaret or a new mihrab, decorations were cautiously applied to mosques. On the other hand wooden parts of the building became much less decorative as opposed to their older counterparts.

Cooling Systems

In the fifties ceiling fans were fixed. Later window air conditioning units were introduced to mosques. These were succeeded by huge central air conditioning systems, which required false ceilings for their ducts to travel and a structurally sound base for their huge machine. Air conditioning systems required also that the interior should be sealed all the time. Some historic mosque is fitted today with air conditioning split units.

The Urban versus the Rural

It is interesting to notice that during the fifties, when constructing inside the city walls was witnessing great changes, some buildings in the villages continued to carry the distinctive traditional Kuwaiti characteristics of construction. For example, the square plan minaret of the mosque of Nabi Al-Duwailah shows great similarities with the minarets of the *intra mura* mosques before the fifties restorations (Fig. 27). One would think that Nabi Al-Duwailah mosque is a pre-fifties construction. However, after talks with the elder head of Al-Duwailah family, it became clear that the mosque was built no earlier than 1957.

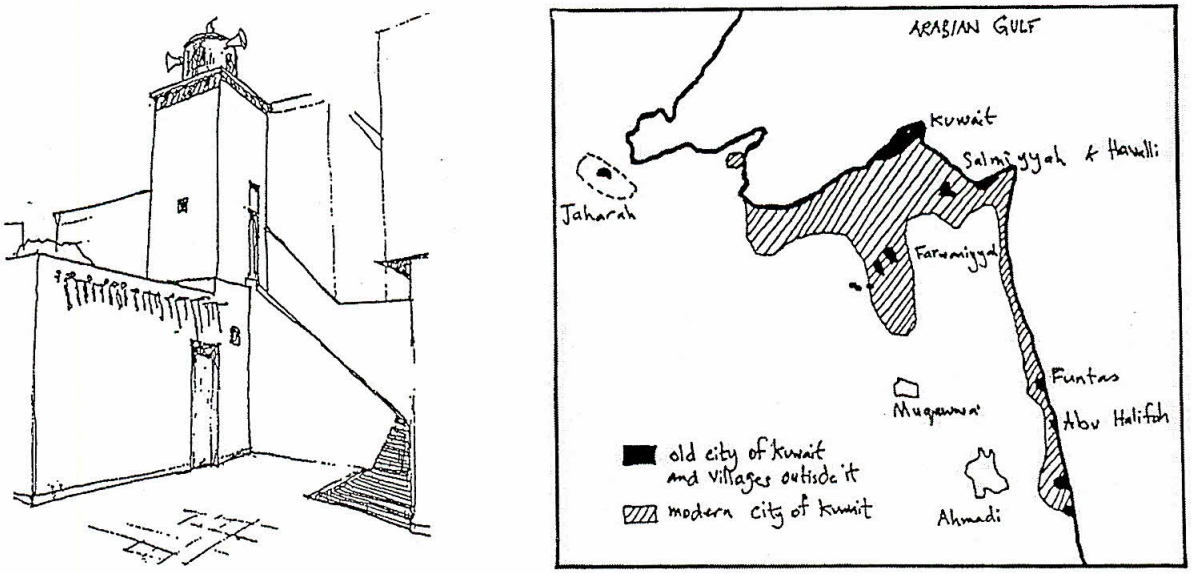


Fig. 27: The minaret of the mosque of Nabi Al-Duwailah. A continuation of the pre-fifties urban tradition of Square plan minarets. A sketch map showing the encroachment of Kuwait city over the village outside it, based on information from Ibrahim (1982).

The Conservation and Rehabilitation Initiatives by KAPE

Some old mosques are today in a dilapidated condition. Others are functionally unfit. Moreover, three old mosques are to be demolished and rebuilt on substitute sites. Because they stand in the way of a new urban development, which is due to be executed in the very near future. Consequently, KAPE as the present owner of old mosque faces the urgent need to act. The "Committee for the Rehabilitation of historic Mosques" was formed by KAPE including a representative from each of the other bodies responsible for old mosques: Ministry of Awkaf and Islamic Affairs, Kuwait Municipality and National Council for Culture, Arts and Letters. A technical team was formed by the Committee to assess the situation. Then the committee requested from UNESCO to participate in the conservation efforts. The technical team identified 30 mosques in need of intervention, and divided the mosques into three different categories:

Category one: Mosques which most urgently in need of conservation (5 mosques).

Category two: Less urgent cases (7 mosques).

Category three: Least urgent cases (18 mosques).

A Summary of the Proposed Action Plan

Long Term

Long term planning is the most important part of the proposed action plan. It is essential to establish a well-defined strategy according to a clear concept of old mosques and the importance of their conservation. The strategy and the concept must be agreed upon and adopted by the different bodies and individuals involved in the conservation of historic mosques. Otherwise, contradicting actions may occur. Article 4 of Venice Charter States: "It is essential to the conservation of monuments that they be maintained on a permanent basis."

Medium Term

Repair or restoration of an historic building is merely the beginning of its conservation. Architectural conservation is a continuous commitment. Integrating conservation within medium term planning on the levels of government and local authorities should be achieved. It is only possible to plan for medium term when the concept and strategy are defined. The present recommendations and proposals, therefore, are for the two other levels of planning, long term and short term.

Short Term (urgent action plan)

Two problems must be addressed without delay. Firstly, the lack of proper level of information necessary for planning and decision making with regards to the historic mosques of Kuwait. Secondly, the prevention of further deterioration of the mosques which are in a dangerously dilapidated state. Urgent measures are suggested concerning the above two problems. This should go parallel with long term planning.

Specialized firms should be invited to investigate and suggest measures for conservation for the endangered mosques. A draft specification is suggested to set standards for the invited firms.

Strategy (for long term planning)

Concept

A clear and persistent concept of an historic mosque, its definition, its value, why and how to preserve it should be achieved. This concept should be accepted and adopted on a national level in Kuwait. The different aspects of a mosque's role in the society should be clear with no contradictions. That is to say that a mosque's religious and functional roles in the society should go hand in hand with its cultural role as a part of the architectural heritage of Kuwait. The suggested concept should be broad minded enough to see historic mosques of Kuwait as a part of the cultural heritage of the Gulf region in particular and of the world in general.

Value System

There is no available document to define the different characteristics, aspects and values of a Kuwaiti and mosque. Thus, it is left to the different individuals to evaluate different mosques according to their personal knowledge, experience and value systems.

A professionally and academically accepted value system should be established. According to which, different mosques may be evaluated. And also different parts and aspects of a mosque may be evaluated.

Methodology

The concept of an historic mosque should define the methodology with which historic mosques in general shall be preserved. Whereas the value system for evaluating historic mosques should define the methodology with which individual historic mosques shall be preserved. This is according to the different values they stand for (archaeological, historic, architectural, artistic, functional, economic, political, social...etc.).

There are many options for conservation to be considered for an old mosque. A well developed and justified methodology should guarantee that the right option for the right circumstances is adopted. Methodology should also guarantee persistence in dealing with a particular mosque over a long period of time.

Different Strategic Aspects

Legal and Legislative Aspects

There is a pressing need to expand the law for preservation of cultural heritage in the State of Kuwait (Amiri Decree number 11 for the year 1960 and its modification by law number 9 for the year 1994). There is also an urgent need to develop a system of enforcing the cultural heritage preservation law(s).

Political and Financial Aspects

The strategy for preserving historic mosques should have a place in the Kuwaiti political arena, so that it does not contradict with other strategic objectives of the state. The preservation of old mosques should also has its fair share in the cultural budget of the state, so that it is possible to find the needed finance for conservation plans.

International Professional and Academic Aspects

The different bodies and individuals involved in the preservation of historic mosques in Kuwait should develop contacts and cooperation channels with their counterparts in the rest of the world. This should be done through conferences, seminars, publications and active presence in regional and international bodies and organizations.

Education and Public Awareness

Educating and raising awareness of cultural heritage and its preservation should guarantee positive local participation in the different conservation initiatives. In the case of mosques the importance of education and raising public awareness is greater than other conservation causes because of the important role mosques play in the social and cultural lives of Muslims.

Historic Mosques Data Base

Availability of the right information at the right time is crucial for any decision to be taken, particularly on strategic level. It is, therefore, essential to build a data base for the preservation of historic mosques. This database should be updated and accessed by all bodies (governmental and non-governmental) and individuals working on any aspect of the conservation of historic mosques in Kuwait.

Training for Necessary Skills and Techniques

Skills and techniques needed for the preservation of historic mosques differ substantially from those needed for the building of new mosques. This goes for all the different levels (decision-makers, architects, civil engineers, craftsmen and skilled workers). Without the availability of the necessary skills needed no conservation plans would be possible to implement.

The Availability of Building Materials

No conservation operations can be done without the availability of traditional building materials, modern alternatives for traditional building materials and different materials for curing or treating technical problems in old buildings. On a strategic level, creating local markets and uses for materials needed for conservation would not only make it possible to undertake any conservation operation. But also this would bring down the cost of conservation of historic mosques.

Coordination and Cooperation between Different Authorities

The necessity of coordination and cooperation between the different authorities responsible for the preservation of historic mosques cannot be over emphasized. The establishment of a permanent coordination committee and the appointment of a full-time coordinator, a database accessible, can do this by all authorities (perhaps via a computer intra net).

Urgent Action Plan (short term plan)

Shoring, Waterproofing and Other Urgent Measures

The dangerous structural state some mosques are in, requires shoring as soon as possible (e.g. Mekki Al-Joma'a, Al-Sane', Abdul llah Al-Qina'ee, Sa'eed, Marzuq Al-Bader).

Parts of the roofs of some mosques had collapsed, leaving rainwater to penetrate through the roof layers (e.g., Sa'eed, Mekki Al-Joma'a, Al-Sane', Murzuq Al-Bader). A light water proof protection must be applied as soon as possible.

The floor level of all historic mosques is below the street level. In some cases the difference is more than one meter. This causes the penetration of rainwater from the soil into the external walls. It also causes serious structural horizontal pressure on external walls. This pressure caused serious cracks and structural defects in a few mosques (e.g. Bin Khamis). A clearance area around each mosque should be claimed and the ground level of this area should be brought down to the initial level, to expose the full facades of the mosques.

Toilets and ablution facilities are causing serious threat because of the amount of water which penetrate the fabric of the historic mosques. Also the limited floor area of most old mosques means that most toilets and ablution facilities are not enough for the users of the mosques. This causes a great pressure on these facilities. It is suggested that toilets and ablution facilities should be transferred to a nearby location where it would not affect the fabric of old mosques.

In all old mosques water tanks are mounted either on the roof of the toilets or on a purpose built steel structure in the courtyard of the mosque. These tanks do pose structural and

aesthetic threat to historic mosques. It is suggested that they should be transferred in a location nearby, may be on top of the outside toilets and ablution facilities suggested above.

A steel structure is built to carry a light metal and asbestos roof above the courtyards of some mosques. This is inconvenient, not only aesthetically, but also they darken the interior dramatically as they prevent natural light from entering the different parts of the mosque. These structures should be taken down. An alternative more sympathetic solution should be sought. Alternatively, historic mosques should be used for daily prayers and not Friday prayers (hence, it is during Friday prayers where only these structures are needed to protect prayers form the sun).

Deserted mosques should be fenced off. Firstly, to protect the public from any sudden collapse which is a high probability at the moment. Secondly, to protect the building from any possible vandalism or theft.

A temporary team should be formed to observe that any further deterioration of historic mosques is prevented. This is particularly needed in the case of the deserted mosques.

Building a Conservation Data Base

There is a great lack of information concerning historic mosques of Kuwait. This must be attended to as soon as possible. Because it is not possible to reach any realistic understanding of the situation, let alone to diagnose problems and offer solutions, without enough information.

The following information should be gathered in both hard copies and digital form. Needless to say information should be cross-referenced for ease of use (it is advisable to use a GIS system for this purpose to allow the different media of information to be cross-indexed):

Location: Locations of different historic mosques of Kuwait should be marked on the map of Kuwait city (scale 1:5000). Old and modern a real photographs should be used. Also description of the location in the past should be recorded by oral history methods taken from the elderly. For each mosque an individual location plan should be made (scale 1:500).

Photographic records: For each mosque a complete photographic record should be made, including general views of the building from outside and inside. Photographic records of each mosque should also include details and special features of the building from architectural, artistic, archaeological, historic and structural points of view. Any existing old photographs of a mosque should also be added to its photographic records.

Historic information: The history of each mosque and any related events and persons should gathered. It is of great use to find out from historic sources what was done during different restoration operations.

Architectural drawings: Plans, sections and elevations (scale 1:100), details for special features (scale 1:5, 1:10 or 1:20). A written architectural description of each building should be prepared.

Structural system: Each mosque should be studied, analyzed and assessed structurally. Diagrams for clear explanations should accompany this.

The conservation state: A written description, analysis and assessment of the conservation state of each building should be accompanied by the necessary sketches and photographs to establish the conservation needs of the building.

Mosques in Urgent Need for Conservation (category one)

The following five mosque were identified by the technical team for the rehabilitation of historic mosques as the mosques in urgent need for conservation:

- Sa'eed mosque, Qibla.
- Al-Sane' mosque, Hawalli.
- Al-Khaleefah mosque, Sharq.
- Abdul llah Al-Qina'ee, Sharq.
- Mekki Al-Jum'a, Sharq.

A thorough conservation study is suggested for the above mosques. The aim of the study is threefold. Firstly, to gather information necessary for correct conservation decisions for the five mosques. Secondly, to develop a better understanding of Kuwaiti historic mosques in general. Thirdly, to try to establish the pattern of restoration practices executed in the fifties.

The proposed study should consist of topographic, geotechnical, architectural and structural surveys as well as historic and archaeological investigators. This should be carried out by specialized firms' experience in the field.

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المساجد التاريخية في الكويت ترميمها والمحافظة عليها

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الكويت

ملخص البحث: في عام ١٩٩٦م، بدأت جمعية الأوقاف العامة الكويتية في تنظيم برنامج الترميم والمحافظة على المساجد التاريخية في الكويت . تأتي أهمية هذا البرنامج من حيث أنها تربط بين الحرص على جهود المحافظة على العمارة من جانب وبين الأهمية الدينية لهذه المساجد من الجانب الآخر، ولكن المشكلة تأتي من حيث أن هذا التوجه بدأ متأخرا، لأن أغلب المباني التاريخية ومن ضمنها المساجد إما أنها أزيلت أو أن كثيرا من التغيرات قد طرأت عليها دون توثيق لهذه المباني التاريخية، وحيث أن الحوار قد شرع في تعريف ما هو تاريخي و بالتالي ينبغي أن يحافظ عليه وما لا يستحق ولماذا، فإن هذه الورقة تهدف إلى المساهمة في إثراء هذا الحوار القائم حول المحافظة على المساجد التاريخية وترميمها.