

**RECONSTRUCTING
THE HISTORICAL DEVELOPMENT OF
AL-MADINAH AL-MUNAWARAH**

Thesis submitted for the degree of
Doctor of Philosophy in Architecture

By

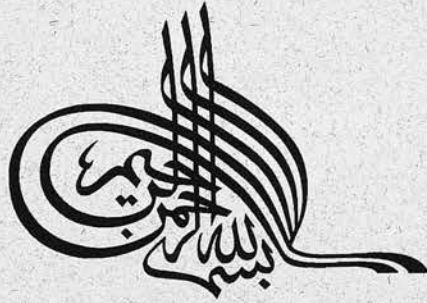
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*In the Name of Allah
the Compassionate,
the Merciful*

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ABSTRACT

Any programme that involves the redevelopment of the historical parts of a city should derive its criteria from an understanding of the cultural as well as the urban development of the area. The study of historical urban and cultural progress requires the will and effort to appreciate not only its history, recent and ancient, but to seek out those existing features that evoke and communicate the origins and transformation of the particular place. It is this evolving context to which with the alteration of the city environment should correspond. Investigating significant features and characteristics from each period of time can therefore be considered as a central requirement in outlining successful development strategies for old and historical urban quarters.

The study carries out just such an examination, applied to the city of Madina. This is the birthplace of the religion and traditions of Islam, and is where the Prophet (pbuh) established the first Mosque and planned the prototype for all Islamic cities. Yet recent changes have destroyed much of the fabric related to these beginnings and much of the written history has lost its architectural evidence and become fragmentary. This thesis therefore seeks to reconstruct the history of Madinah with reference to the historical parts of the city that remain or have disappeared, from which new criteria for developments may be extrapolated. The historical review is divided as follows:

After introducing the invariable natural context of Madinah – its climate and landscape - Part one presents a chronological study of the urban development of Madinah and the changes and diversifications of land use. This identifies features and characteristics related to each historical period. This provides a basis for extracting criteria for developing the old urban quarters. This part is considered as major reference for future research, acting as a main database for Madina.

Part two is a detailed study and analysis for the most important urban and architectural elements and abstracting the most important basics and criteria for these elements. These criteria should be considered as flexible in order to fulfil existing requirements in both planning and architecture. The study turns its focus upon various types of urban elements such as closed streets, walk-ways, courts, streets, markets and architectural elements such as mosques, schools, libraries, *arbitah*, *asbila*, bath rooms, castles, towers and traditional houses. Plans, elevations, sections and photographs illustrate these elements. These elements are not comprehensively documented, as only a summary and extracted criteria is included for these elements.

This allows the author to present some ideas on the nature of future developments in the city which can be seen as enhancing the structure of Madinah by maintaining a complete link between its historical and its contemporary issues.

DECLARATION

This thesis is my original work and has been composed solely by myself.

Abdul Aziz Kaki

DEDICATION

To my parents who brought me up, educated me and made me succeed and progress.

To Madinah (Taibah), the city I have loved since my early childhood.

To my dear brothers and children.

To my wife, whom I have chosen to be my life companion and the mother of my children.

To the inhabitants of Taibah (Al Madina).

To them I present this work hoping to express my true faith and loyalty.

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Praise and thanks to Allah who gave me all His blessings.

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¹ Hereafter referred as Madinah

² Kingdom of Saudi Arabia

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INTRODUCTION

Any programme that involves considerable redevelopment of the historical parts of a city should principally derive its criteria from an understanding of the cultural as well as the urban development of the area.

The study of historical urban and cultural progress requires the will and effort to appreciate not only its history, recent and ancient, but to seek out those existing features that evoke and communicate the origins and transformation of the particular place. It is this evolving context to which with the alteration of the city environment should correspond. Investigating significant features and characteristics from each period of time can therefore be considered as a central requirement in outlining successful development strategies for old and historical urban quarters.

The study carries out just such an examination, applied to the city of Madina. This is the birthplace of the religion and traditions of Islam, being the site in which the Prophet (pbuh) established the first Mosque and planned out a city that was to be the prototype for all Islamic cities. Yet recent changes have destroyed much of the city fabric related to these unique beginnings and much of the written history is losing its correlated architectural evidence and has become fragmentary. This thesis therefore seeks to reconstruct the history of Madina with reference to the historical parts of the city that remain or have disappeared, from which new criteria for development of the city may be extrapolated. The historical review is divided into two parts as follows:

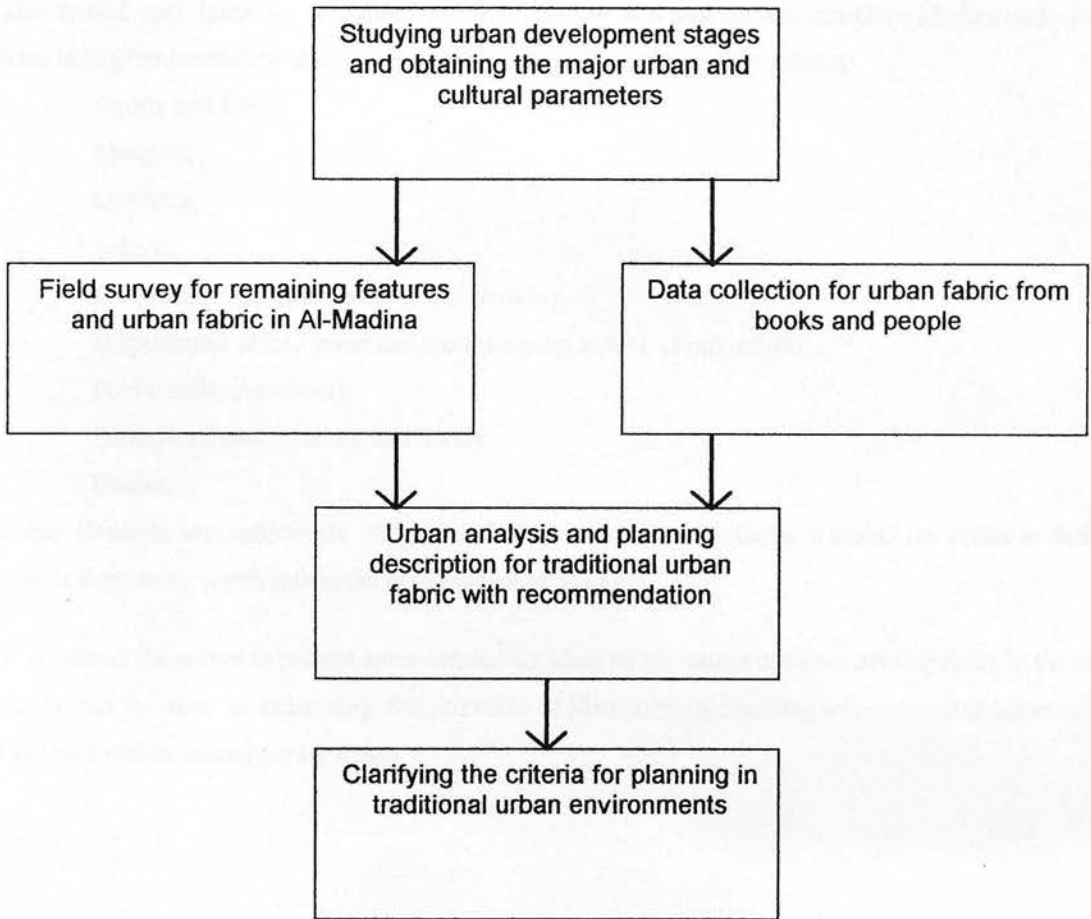
After introducing the invariable natural context of Madina – its climate and landscape – Part one presents a chronological study of the urban development of Madina and the changes and diversification of land use. This identifies features and characteristics related to each historical period. This provides a basis for extracting criteria for developing the old urban quarters. This part is considered as major reference for future research, acting as a main database for Madina.

Part two is a detailed study and analysis for the most important urban and architectural elements and abstracting the most important basics and criteria for these elements. These criteria should be considered as flexible in order to fulfil existing requirements in both planning and architecture.

The study turns its focus upon various types of urban elements such as closed streets, walk-ways, courts, streets, markets and architectural elements such as mosques, schools, libraries, *arbitah*, *asbila*, bath rooms, castles, towers and traditional houses. Plans, elevations, sections and photographs illustrate these elements. These elements are not comprehensively documented, as only a summary and extracted criteria is included for these elements.

This allows the author to present some ideas on the nature of future developments in the city which can be seen as enhancing the structure of Madina by maintaining a complete link between its historical and its contemporary issues.

Methodology of the Study



Structure of Thesis

The thesis is divided into three parts. The first part looks at the natural setting and the history of Madina. It also uses a variety of historical documents to calculate the size of the population of Madina from the pre-Islamic time to the present day, and its characteristic land use.

The historical account is presented in a series organised around the successive Sultanate dynasties as follows:

- Pre Islamic era;
- Prophetic era;
- The era of the Four Rightly Guided Caliphs;
- Ommaiad dynasty;
- Abbasid dynasty;
- Mamaluk dynasty;

Osmani dynasty; and

Saudi era.

This locates certain features and characteristics in their correct historical periods.

The second part turns its attention instead on the physical features that constitute Madina and which have been prominent throughout the historical survey. It is organised as follows:

Streets and alleys;

Mosques;

Libraries;

Schools;

Poor houses (singular *rebat*, plural *arbitan*);

Dispensaries of free water and food (singular *sabeel*, plural *asbila*);

Public baths (*hammam*);

Forts and Towers (*atam*); and finally

Houses.

These elements are sufficiently documented and illustrated in the thesis to enable the author to derive criteria from them which reflect the development of Madina.

This allows the author to present some concluding ideas on the nature of future developments in the city which can be seen as enhancing the structure of Madina by maintaining a complete link between its historical and its contemporary issues.

PART ONE

PART ONE

INTRODUCTION

SECTION A:

**Geographic, natural and population studies of the characteristics of
the region of Al-Madina Al-Munawara**

SECTION B:

Al-Madina Al-Munawara In the View of Travelers

INTRODUCTION

SECTION A:

Geographic, natural and population studies of the characteristics of the region of Al-Madinahh Al-Munawarah¹. As follows:

01 Geographic Studies:

These studies are concerned with the place of Madinahh in Al-Hijaz region and that of the Al-Hijaz region in the Arabian Peninsula, in addition to the place of the Arabian Peninsula in the world and the coordinates of these places in latitude and longitude by which these places can be determined on the earth.

02 Natural Studies:

These are concerned with the characteristics of the terrain such as mountains, volcanic areas, valleys, wells and plains, as well as with the characteristics of the climate such as the rates of temperature, humidity, wind speed and direction and rainfall. Because of the need of the reader or researcher to know some of this information in a short and simple way the author mentions here only a summation of these studies which is enough to give a quick background reference to the advantages and characteristics of Madinahh from a geographical and natural perspective.

0.1 Geographic Studies:

0.1.1 The location of the KSA² in the Arabian Peninsula and the world:

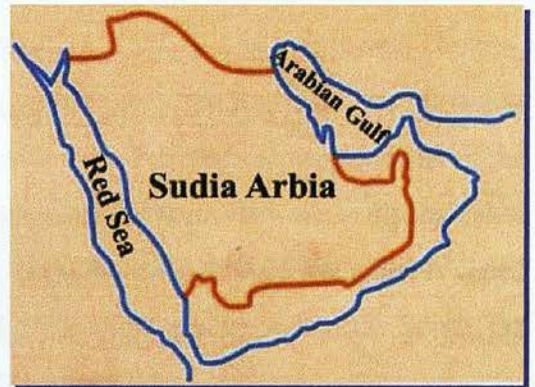
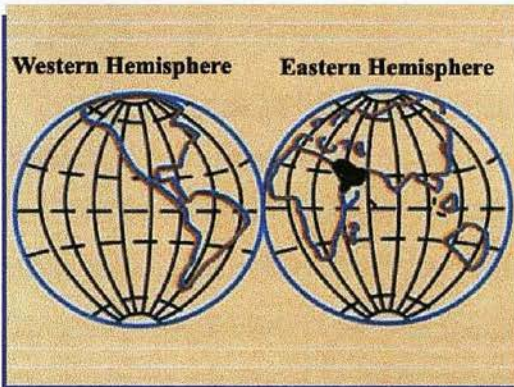
The Kingdom of Saudi Arabia occupies the vast majority of the lands of the Arabian Peninsula. It lies between the longitudes (34.40-56) East and between the latitudes (16.30-32) North. *(1) (Ministry of education 1988)*

This shows that KSA lies in the Northern hemisphere, i.e. North of the equator, and in the Eastern hemisphere because it lies East of the Greenwich line. It lies in the warm tropical and temperate areas according to the high thermal lying North of the equator. KSA also, represents the Southwestern part of Asia in being the largest part of the Arabian Peninsula.

¹ Hereafter referred to as Madinah

0.1.2 The natural and political borders of KSA:

KSA overlooks the Red Sea in the West, where a long coast extends from Al-Aqaba in the North to Yemen in the South. In the East it overlooks the waters of the Arabian Gulf extending from the borders of Kuwait in the North to the village of Salwa in the South. In the North, KSA is bordered by Al-Sham desert. In the South, it reaches the Southern parts of the Arabian Peninsula, which look upon the Arabian Sea, connected with the Indian Ocean. The political borders are as shown clearly on the opposite map.



(01) The location of the Arabian Peninsula on the earth.

(02) The Arabian Peninsula where KSA occupies most of its lands.

0.1.3- The regions of KSA:

KSA consists of six main regions which are: ² (Bundukji 1979)

- 1) *Al-Hijaz Region* and the most famous cities of it are Jeddah, Taif, Madinahh and Makkah Al-Mukarrama).
- 2) *The North Region*, its most famous cities are Tabuk, Hail and Arar.
- 3) *The Empty Quarter*, its main cities are Abaila and Shawala.
- 4) *The Eastern Region*, its main cities are Dammam, Dhahran.
- 5) *The Asir Region*, its main cities are Najran, Abha and Khamis Mushait.
- 6) *The Najd Region* its main cities are Riyadh, Al-Kharj and Al-Dariyya.

² KSA refers to the Kigdom of Saudi Arabia

0.1.4- Al-Hijaz Region:

This is the mountain area that separates the bigger part of the Arabian Peninsula from Tuhama and the Red Sea, that is why it is called Al-Hijaz, which means the dyke. The Al-Hijaz region starts from the North at the borders of Jordan and Saudi Arabia, and forms two chains of mountains continuing along the coast of the Red Sea for about 1200 km. (3) (Shaker 1991) The widest East to West part in this region is around 450 km. Its most famous cities are Makkah Al-Mukarrama, MadinahhAl-Munawarah, Taif, Jeddah, Tabuk and Qurayyat.

The terrain of the Al-Hijaz region is divided into:-

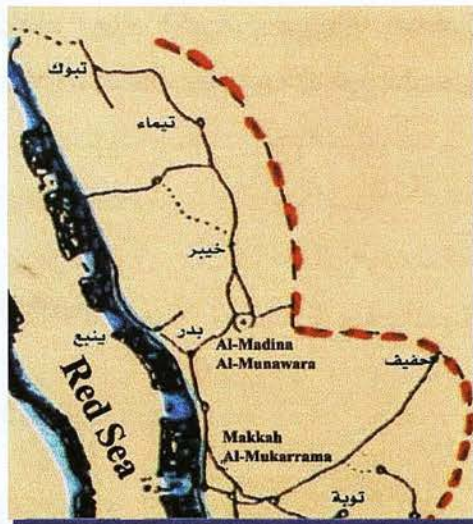
A)The coastal plain: This runs along the coast of the Red Sea. It is known as Tuhama of Al-Hijaz as the coastal plains in the Arabian Peninsula along the coast of the Red Sea are called "Tuhama". Adding the names of the areas they are in distinguishes them from each other. The low sand plain there, no more than 25 km wide, is called Tuhama (4) (Shaker 1991). It narrows the further North it heads and widens to the South. On this coast lies the city of "Jeddah", the main port of the KSA.

B)The coastal heights: Their average height is between 700 m and 800 m.

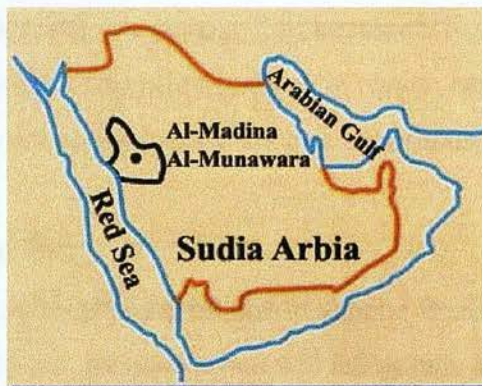
C)The Inner heights: These are to the East of the coastal heights and comprise a narrow area separated by valleys such as the valleys of Hemd and Aqeeq running North-South. Also, among these heights there are some hills and volcanic areas (Harrat) like Al-Hijaz and Kheibar (or fire) which is in the North East of the region of Madinahh. Harrat Al-Karama is in the East of Madinahh - this connects Harrat Kheibar with Harrat Bin Selim and Harrat Bano Selim. It extends from Madinahh nearly to Taif (5) (Shaker 1991). Madinahh lies among these Harrat and it looks upon them from the Southern, Eastern and Western sides.

0.1.5 The location of Madinahh:

Madinahh is 150 km from the East coast of the Red Sea and 600 m above sea level. Its longitude is (16,36,39) and its latitude is (6,28,24) (7) (Consultant Group 1972). It is an Arab Hijazi city with an ancient formation.



(03-a) The Western Region.



(03-b) Al-Hijaz fills the biggest part of this area
(6) (Consultant Group 1972)

Madinahh is about 425 km from Jeddah (the main port of the country) and around 416 km from Makkah, as if it forms the peak of an isosceles triangle whose base extends 75 km between Makkah and Jeddah (8) (Sayyed Rajab 1979). Some Harrat (volcanic areas) surround it from the South, East and West; from the East lies Harrat Reqem which is known today as Eastern Harra (singular of Harrat), from the West, Harrat Al-Wabra, known today as Western Harra, and from the South is Harrat Shoran, the Southern part of Eastern Harra. North of Madinahh is the mountain of Uhod and to the South the mountain of Eir. Floods come to Madinahh from the South and East. The most important of the valleys in the South are the valleys of Al-Aqeeq, Al-Mubarak and, in the East, the valley of Bat'han that is called Sail Abu Jaida.

All the floods converge in the natural bowl that is the area of Zeghaba (9) (Shaker 1991) which is to the Northwest of Madinahh. This location is characterised by fertile soil that was carried there by the floods. Also its low location leads to the gathering of water and

the occurrence of artesian wells which originally resulted in the formation of the agricultural oases for which Madinahh has been famous throughout history.

0.2 Natural Studies:

0.2.1- The climate in Madinahh:

0.2.1.1 Rates of temperature:

Madinahh is distinguished by its dry, desert climate running from May to September. Its minimum temperature is 27°C and the maximum reaches 47°C in summer. Its average high temperature typically reaches around 37°C because it lies among the mountains and surrounding volcanic areas. This rate decreases in winter, especially in January, when it reaches 7°C as a minimum temperature and 29°C as a maximum.

0.2.1.2 Relative humidity:

This expresses the average amount of water vapour in the air as a percentage of saturation, at which point any surplus vapour will fall as rain. High temperatures increase the capacity of the atmosphere to absorb moisture, raising the saturation point and decreasing the chance of rainfall. The higher relative humidity and temperature, the greater the possibility of rainfall. The average relative humidity in Madinahh is about 25.5%. This is low because Madinahh sits in the rain shadow of its surrounding mountains. The minimum average relative humidity is 15.7% (10) (Shaker 1991).



(04) Places of agriculture in Madinahh.

(11) (Sayyed Rajab 1979)

0.2.1.3 Windspeed and direction:

The wind comes mainly from the West from March to July, and mainly from the East in the months November to February. The windspeed is nearly the same throughout the year, between 5 to 8 knots. Madinahh is not subject to any dusty wind or sand storms because it is surrounded by mountains and volcanic areas.

0.2.2 The topography of Madinahh:

We can sum up this topography in two main sections that express all the characteristics concerning the location and advantages of it. They are the high and low areas of Madinahh.

The high area is defined as that above the contour lines 620-640 m above sea level (14) (Sayed Rajab 1979). This area lies in the South and East of Madinahh. It contains the following areas: Quba', Qurban and Al-Awali. The low area represents the rest of the city. The main features of Madinahh's topography are represented in the following elements:

The surrounding mountains;

Volcanic areas (Harrat); and

The valleys (flood gullies).

The author describes each of these elements in detail and makes use of satellite pictures and photographs for clarification of these elements for they play a significant role in forming the topographical context of Madinahh.

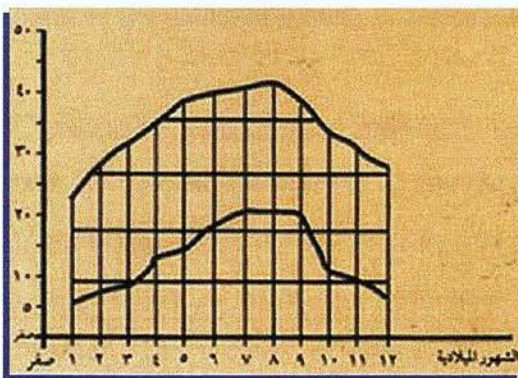
0.2.2.1- The surrounding mountains:

Madinahh is surrounded by a large group of mountain chains that are at different distances from the centre of the city. The nearest of them are to the North and South. Uhod mountain is about 5.5 km to the North. Its East end touches upon Al-Matar (Airport) Road and King Fahd Street. Its Western end looks upon Al-Oyoun area. It is surrounded by a group of small mountains, the most important ones being the Hill of

Romah (shooters) and the Hill of Eneen to the South of it. In the North, lies the mountain of Thawr which delimits the sacred area of the boundary of Madinahh from that direction.

In the North of Madinahh and about 8 km away from the centre of the city sits the mountain of Eir, itself surrounded by group of small mountains known as Dulayat Al-Quba (15) (Sayyed Rajab 1979). There are other mountains inside the Madinahh dwelling zone, such as the mountain of Sela' in the North. Next to it there is the mountain of Selayyie to the South. There are also some lesser mountains like Thaniyyat Al-Wada' that is in the North at the crossroads of Sultana (Abu Bakr Al-Sediq) Street and Sayyed Al-Shuhada' Street (may God be pleased with them).

On this mountain a Mosque called Thaniyyat Al-Wada' was built but both mountain and the Mosque have been removed entirely in the last five years. There is also a small mountain in the North of Madinahh called Al-Rayeh where the Mosque of Al-Rayeh can be found. It is also called Thebab mountain. This mountain now lies behind a group of girls' schools.



(05) The maximum and minimum temperature in Madinahh (16) (Main Executive plan 1992)



(06) A contour map of the area of Madinahh (17) (Sayyed Rajab 1979)

0.2.2.2 Volcanic areas (Harrat):

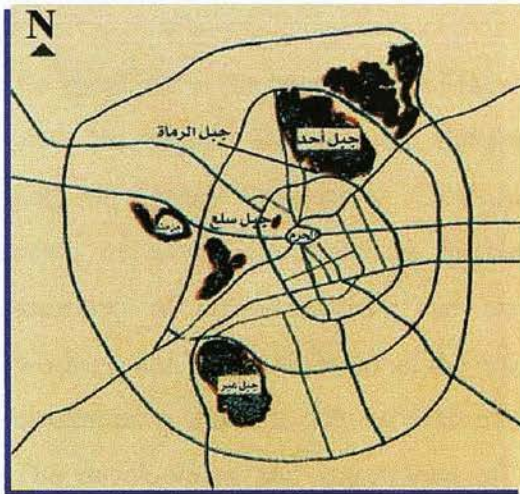
These volcanic areas appear as volcanic formations spread visibly throughout the Al-Hijaz chain between the latitudes (30,50,28) North (18) (*Sayyed Rajab 1979*). The chain of Al-Hijaz extends parallel with the coast of the Red Sea for around 1760 km between the latitudes (30,12,30,29) North. These Harrat are called different local names derived from the areas they are in.

Madinahh lies at the North end of the biggest of these Harrat. The nearest of these is Harrat Waqem (known today as The Eastern Harra). Harrat Al-Wabrah occupies the Western exposure of Madinahh (known today as The Western Harra). Studies of history say that "Harrat Waqem" was more modern and civilised than "Harrat Al-Wabrah" as it was inhabited by some Jewish tribes from Bani Quraydhah and Bani Al-Nadheer. Al-Aws tribes also lived there and their traces still remain. These two Harrat are called "Labbatain." These were the ones referred to by the Prophet, peace be upon him, in his Hadith: "Every thing between its two Labbatain is sacred."

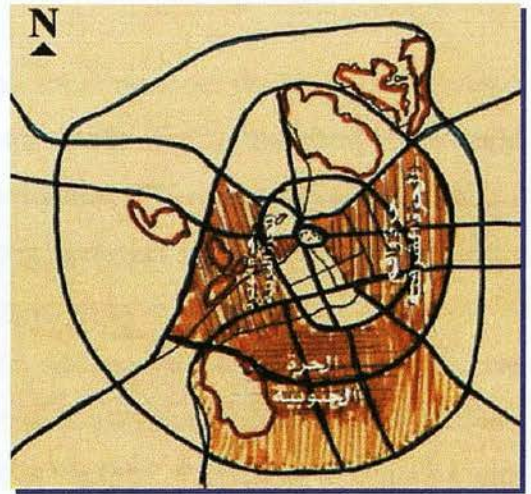
These volcanic areas are characterised by hard, black igneous rock and cooled lava. The Prophet, peace be upon him, told about the incident of Al-Harrah fire in the Hadith reported in Al-Sahihain, saying: "The Day of Judgment will not come until there is a fire in Al-Hijaz" and in Al-Bukhari: "A fire will come out from the land of Al-Hijaz that lightens the necks of camels in Persia" (19) (*Al-Samhoodi 1505*).

Consecutive earthquakes happened before the appearance of this fire. The first of them was at the end of Jumada I and the beginning of Jumada II in 654 AD. It was a slight tremor and no one felt it. Then it became stronger on Tuesday and every one felt it. It was stronger at night and continued until Friday, making a horrible noise just like thunder. The number of shakes then reached ten or, in other reports, fourteen shakes every day (20) (*Al-Samhoodi 1505*). The noise of the shaking of the rostrum, the ceiling and the lamps of the Prophet's Mosque was heard. On Friday the 6th of Jumada II in 654 AD (21) (*Al-Samhoodi 1505*) this fire came out from a valley called "Al-Ahyalayn" to the East of Madinahh. It finished on Sunday the 27th of Rajab 654 AD. This incident is one of the miracles of the Prophet, peace be upon him, because he told about it before it happened.

It was auspicious because this fire never breached the borders of the sacred area that the Prophet, peace be upon him, had previously set.



(07) A plan of Madinahh showing the locations of important mountains.



(08) A plan of Madinahh showing the location of the famous volcanic areas.

B.2.3. The valleys (flood gullies):

All the valleys in Madinahh go towards the North. They all meet in Al-Ghaba (the Forest).

The most important of these valleys are:

- 1) Wadi Qanah, in the North Eastern district of the city.
- 2) Wadi Al-Aqeeq (Al-Wadi Al-Mubarak) in the Western side.
- 3) Wadi Bat'han in the Southern side of the city.

The three less important valleys are:

- 1) Wadi Ranona' in the South West side of the city.
- 2) Wadi Muthayneb in the South East side.
- 3) Wadi Mahzur in the East side.

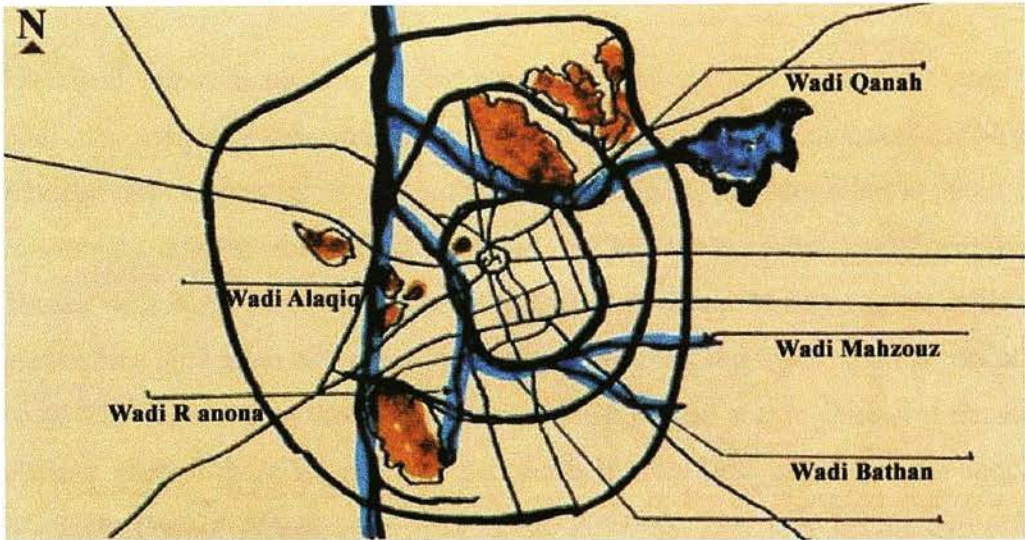
0.3 Geographic characteristics and inhabitants of Madinah:

0.3.1 Introduction:

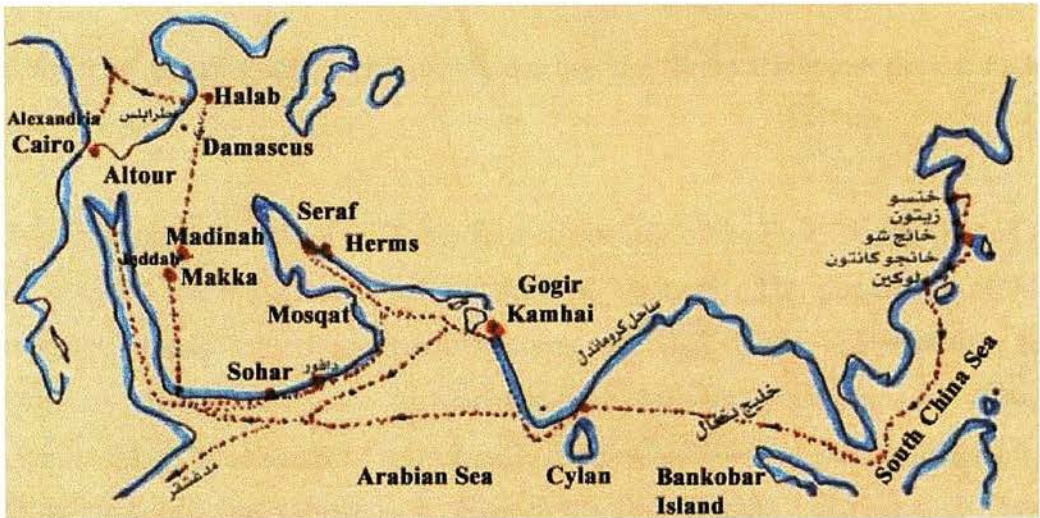
To speak about the population in Madinah means speaking about the history of Madinah since its origins. This city did not appear suddenly like many of the cities of the world and the Eastern Province in Saudi Arabia for instance. These new cities appeared as a result of certain circumstances that led to their formation and appearance, such as the discovery of oil and minerals. They were put up at speed to provide accommodation for workers and the facilities for all the conveniences and services they needed. This process developed a distinct cultural environment having its own characteristics and objectives. The development and appearance of such cities has little, if anything, in common with that of ancient cities whose roots extend across ancient history and which incorporate centuries of human endeavour in the given natural context.

Several main reasons led to the appearance of these ancient cities for example being in strategic locations or having natural advantages that attracted inhabitants like good water and soil or the connection with certain religious or historic incidents that led to the growth and flourishing of these cities. Madinah is one such city with its strategic location an ideal spot connecting the North to the South for the two journeys of summer and winter that were mentioned in the Holy Qur'an. It became an important stop for the caravans heading North to Badiat Al-Sham, and South to Yemen, and from there to different cities in the world. It also took advantage of an excellent agricultural environment that existed because of the abundant basic assets of water and fertile soil carried by floods, helped attract inhabitants and tribes; for example The Giants (Al-Amaliqah), who were the first to benefit from these natural fortunes and used them to build their civilisation.

The appearance of religious correlation between this location and heavenly books that refer to it as the place of a new Prophet for his nation encouraged the Jews to come and settle down waiting for that Prophet of whom their literature spoke. Different immigrations through history followed until the blessed one of the Prophet, peace be upon him, took place.



(09) An approximate plan of Madinah showing the lies of the main valleys.



(10) The location of Madinah on the ancient world trade route. (22) (Sayed Rajab 1979)

0.3.2 Historical clues about the inhabitants of Madinah in the past:

Historical accounts say that the first to inhabit Madinah were "Sa'î" and "Faleg", shortly after the Ark of Noah, peace be upon him. As for the Jews, Ustath (Mr.) Mohammed Shawki cites some sources that put the number of early Jewish settlers at about 9000 (23) (Shawki 1985). The number of Al-Aws and Al-Khazrag was estimated by comparing their houses with those of the Jews. The houses of Al-Aws and Al-Khazrag extended to cover most of the high areas of the city in addition to Qurban and Quba' and the rest of the low area. The dwellings of the Jews were contained in small area in Qurban at the end of the Eastern Harra where its met by the South Harra. This means that the population in Madinah (before Hijrah) was then about 209,000. This may be an over-estimation although it is not much different from that given for the previous period, 180,000.

Some writers and historians say that the population of Madinah when the Prophet, peace be upon him, died was 60,000. This figure seems reasonable because, if one supposes that the number of people in each family was six on average, and it is known that the number of those who fought for the Prophet, peace be upon him, on the day of the conquest of Makkah was 10,000, we can conjecture that all of them were married and had families, giving a population for the whole city of 60,000.

0.3.3 The inhabitants of Madinah during the Bano Umayyah period 41-132 H / 661-752 AD

The headquarters moved to Damascus after the rule of the Four Rightly Guided Caliphs to become the headquarters of the state of Umayyah. The population of Madinah remained steady subject to increases during the Hajj, Umra and pilgrimage seasons. Students and scholars came to Madinah from different Islamic cities. In this age, the Aqeeq valley flourished and many houses, palaces and gardens were built there by some Bano Ummayah individuals who came to Madinah to settle down especially during the rule of the Caliph Marwan the Second (127H-744 AD) (24) (Shawki 1985).

0.3.4 The inhabitants of Madinah during the Abbas and Mamaluk period 132-923H / 749-1517 AD

Ustath Mohammed Shawki says that many uprisings took place in Madinah during the Abbas period and the authorities then took measures to suppress them. This, however, led to the destruction of many of the city's buildings and farms (25) (Shawki 1985) leading. It can be presumed, to a decrease of the population at that time. Al-Maqdisi described the city in the fourth century H (10th AD) as being less than half of Makkah in size and of not having a large number of inhabitants (26) (Shawki 1985).

Thus, the writer goes on to describe the history of the population in the following centuries saying that at the end of the sixth century H (12th AD) Ibn Al-Najar described the city saying that the inhabitants grew beyond the city walls (27) (Shawki 1985). Some sources put the reason of this growth as the crusaders' invasion of Al-Sham that led to the immigration of people to Madinah which, naturally, implies a growth of its population. Concerning the beginning of the tenth century H (16th AD), he mentions Varthema's journey to Madinah in 908 H (1502 AD). Varthema referred to the existence of about 300 houses all inside the city walls. Ustath Mohammad Shawki calculated that if half of those houses were inhabited by two families each, and the other half by one each, and the rate of the number of each family was six individuals, the population then would only be around 3000 people. This shows a big decrease of due to the weakness and stagnancy of the Islamic State at that time.

0.3.5 The population of Madinah during the Osmani and Hashemi period (936-1344 H / 1517-1925 AD)

There was a lot of interest in Madinah in that period, in particular during the rule of Sultan Soliman (926-974 H / 1520-1566 AD), with the renewing and expansion of the Prophet's Mosque and the city wall. This required bringing labour from Turkey to carry out the construction, especially during the rule of Sultan Abdul-Majeed, who achieved the project of the railway, with its associated conveniences. The need for skilled and experienced artisans in large numbers for this job swelled the population during that period. Ustath Shawki (28) (Shawki 1985) also noted the opinions of some travelers who visited the city in 1230 H (1840 AD), concluding that the population of Madinah at that

time was between 16,000 and 20,000. Captain Sandler, who visited the city in 1236 H. (1819 AD) said that the Turkish increased the population in the city to 18,000. Richard Burton, in a visit to Madinah in 1270 H. (1853 AD), said the number was estimated to be 16,000. Also John Keen made a visit to the city in 1294 H. (1877 AD) and estimated the population to be 20,000.

The construction of the Al-Hijaz railway line, on which work began in 1326 H (1908 AD) also brought an increase to the population in Madinah, to 30,000 (29) (Shawki 1985). This number grew to reach 56,000 in 1328 H (1910 AD) and increased to between 10,000 and 80,000 in 1332 H (1914 AD).

0.3.6 The population of Madinah in the Saudi rule 1344 H / 1926 AD. to the present time

The population characteristics of this period are very complicated because of the many seasonal changes brought about by the activities of the Hajj seasons and visit times. Recent numbers of pilgrims (Hajjeej) have increased massively compared with the numbers before. This is because of the abundance of means of transport and services and the ease of reaching the Holy Places.

The oldest information about population in that period is taken from what Felbi wrote during his trip to Madinah in 1350 H.-1931 AD. He said the number of people in Madinah in that period was 15,000 (30) (Shawki 1985). Also, Libsky, who visited the city in 1379 H / 1959 AD estimated the number to be 40,000 (31) (Shawki 1985).

A population survey done by the former counselor for planning in Madinah (Robert Matthew, Johnson Marshall and co.) considered that the estimation of population depended to a great extent on the rates of birth and death and the immigration to the city as a result of the improvement of financial circumstances and the abundance of work opportunities. These circumstances led to an increase of Madinah's inhabitants, especially during the ten years between 1391-1401 H. The rate of that period was 8%. This growth is greater than normal throughout the cities of the KSA at that time as it with similar cities at 3% and other main cities at 7%.

Immigration also formed an average of 5% of the population and 4% in other cities. The birth rate reached 4.6% while the death rate was 4% of the total population. We can have an overview of the population in Madinah since the first year after Hijrah until 1398 H. The author found this in an organised table gathered and organised by Ustath Mohammad Shawki in his book, "The Population of Al-Madinah Al-Munawarah" (Sukkan Al-Madinah Al-Munawarah).

Year	Population	Source
1H / 622 AD	21,000	Edrees and the writer
11H / 633 AD	60,000	Al-Kanani
908H / 1502 AD	30,000	Ludovico Varthema
1230H / 1814 AD	16,000-20,000	Burckharat
1236H / 1819 AD	18,000	Sadler
1270H / 1835 AD	16,000	Burton
1294H / 1877 AD	20,000	Keane
1326H / 1908 AD	30,000	Wavell
1328H / 1910 AD	56,000	Ibrahim Refa't Basha
1332H / 1914 AD	80,000	Felbi
1335H / 1916 AD	30,000	Mustafa Lamie according to Ropert's report
1336H / 1917 AD	15,000	Ali Hafez
1343H / 1925 AD	6,000	Rutter
1350H / 1931 AD	15,000	Felbi
1379H / 1959 AD	40,000	Libsky
1382H / 1962 AD	71,998	First population survey
1388H / 1968 AD	90,000	Sogreah
1391H / 1971 AD	136,557	Robert Matthew Johnson Marshall prttrs
1394H / 1974 AD	198,186	Second population survey
1398H / 1978 AD	311,284	Musalli and co.

(11) Developed of Madinah's population according to different sources.

SECTION B:

Al - Madinahh Al - Munawarahh – In the View of Travelers

Different travelers, from time of the Holy Prophet (PBUH), traveled to Madinahh, some of them even narrated their journey in writing.

One of these travelers, John F. Keane disguising as a Muslim, depicting his name to Hajj Mohammed Amin made his journey to Hejaz in the year 1503 AD. He described his journey in the book “*Six Months in the Hejaz – An Account of the Mohammedan Pilgrimage to Makkah and Madinahh*”, published by Ward & Downey, London.

Following are some fascinating quotations of the part of his journey to Madinahh:

Madinahh, when first sighted, may fairly be ranked with Constantinople from the Sea of Marmora, or any one of the loveliest of the beautiful cities of the world. As seen from the distant bird’s-eye point of view to which it first presents itself to the pilgrim’s delighted gaze, its tall, snow-white, uninterrupted walls and numerous glided minarets, with the morning sun gleaming over them, and the broad green belt of cultivated ground encircling it – as seen, I say, at such a time, by the way-worn pilgrim from Makkah, it is afresh bright jewel, bounded by a vast grim barrenness of desert, an opal and pearl mosaic set in a brilliant border of shining green enamel. What a moment it was to many of us! The one aspiration of many of their lives was now accomplished. There, beneath them, reposing in the bosom of the plain, lay their goal, “Madinahh the Honoured,” the Tomb of the Holy Prophet (PBUH), by whose side they could now lay down their weary bones to rest for ever; nor cared they how soon, in their certainty of eternal bliss.

To others of us what a glad sight it was too, after days and nights of perpetual forward, forward, yet scarcely seeming to make any advance over the drear dry miles of rocky arid desolation, to see before us the end of our apparently interminable journey at last – Madinahh, which should have been named the Fortunate. Walled habitations, green fields, running water, every blessing the Eastern mind could desire, were there.

When first Madinahh came in view the whole caravan burst into the most extravagant expression of praise and thanksgiving to God for their safe arrival at their destination. Even the poor camels lifted their long drooping necks, and strained their utmost to increase their pace into a feeble staggering attempt at a "run in" the finish.

And now most assuredly the gait of our camels kept time to that "needless Alexandrine" from the Pope's "Essay on Criticism," that

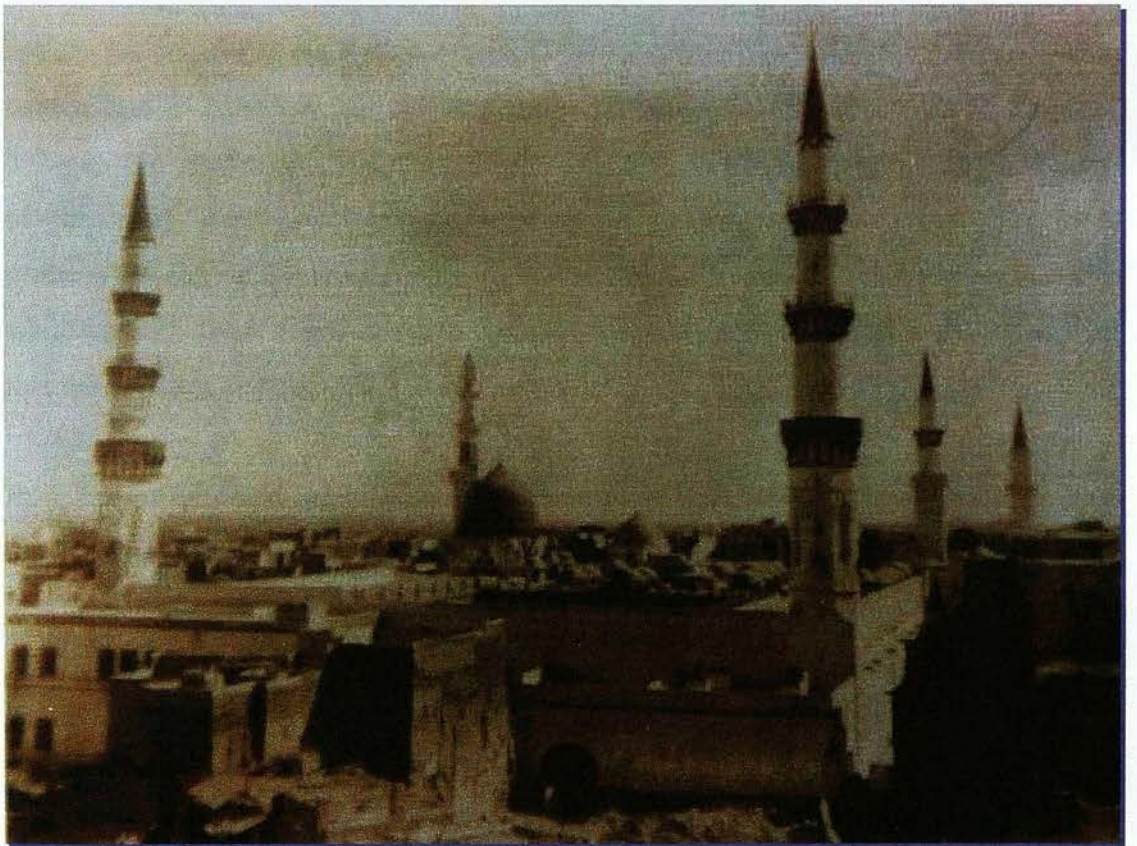
Like a wounded snake drags its slow length along.

There! It's been drummed into my ears ever since I left Makkah. I've heroically abstained, but it would out, and I must say I feel better.

Dismounting from my camel to walk into Madinahh, as others did, was of course of the question for me.

After descending to the valley, we passed over half-a-mile of sand, which gradually merged into a grassy plain; and over this the road led for about two miles up to the gate of the city, where we arrived about an hour from the time when we had first seen it. We halted close outside the gate, on an open space surrounded by Bedawi huts, and unloaded the camels, but did not form any regular camp. Crowds of Arabs came out of city to offer lodgings and sell eatables to the pilgrims, and altogether the scene became one of almost as great animation as on the day we left Wadi Fatimah.

The Ameer and most of our party went at once into the town to find a suitable house for us. The third warrior stayed with me, and assisted me out of the shugduf. I lay down on my blankets on the ground while he packed up our bundles. I told him that I had decided to make an attempt at walking into the town with his assistance, and I took the opportunity of asking him to give me back the little bit of paper I had given him, with my message to the Consult at Jeddah written on it. He soon produced it from the folds of his cummerbund, and I was in the act of tearing it up, when I changed my mind, and have preserved it ever since. Very vividly it recalls the scenes among which it was written.



(12) Al - Madinah Al – Munawarahl in 1558 – AD.

About noon – the house having been settled upon – we began to move into it; and I should have begun to dress myself. After half-an-hour's walking through the streets, with an occasional rest, we reached the house. The streets through which we had come were all, fortunately for me, perfectly level. They were clean, and kept in very good order indeed for an Eastern town. There is a general air of prosperity about the place and its inhabitants that gives a very favourable impression to a new arrival: even the dogs look less mangy and hungry than in other towns.

The room we had taken were on the ground floor of a large house, near the centre of the city, the door opening into a garden of about a quarter of an acre of date-palms. In the middle of this garden was fine large well, full to the very brim with delicious cool water, looking dark and deep, and so fresh, with the green weeds floating on it, that it made one long for just one plunge.

The room we had taken was a splendid hall – nothing less. Across the middle of the hall passed a broad paved passage; two feet below the level of the floor on each side of it, and in the middle of this lower portion of the room was a circular stone basin of water, twelve feet in diameter and self-supplying. Directly over this basin was an opening, between the rooms of the upper storeys, that led up to a large open skylight in the roof of the house. For light and coolness no arrangement could have been better. The raised portions of the room were matted over with god grass mat, and the walls were cleanly whitewashed. The whole chamber looked much too wholesome and bright for us after that we had been accustomed to in Makkah.

In a corner of the room I lay down on my blanket, and the third warrior, who had seen me in, then left me to go and indulge in a big ablution, and attend to his religious duties in the Haram, as all the others of our party were now doing. As fast as they came back from the Haram, they all set to work washing again. How I envied them as I heard them sousing their skins, parched and cracked, over and over again with large vessels of water! The Ameer spent all the day, when he was not at his prayers, having alternate hot and cold water baths. The splashing and laughing round the well in the garden was kept up until late on in the night. With the help of the third warrior, I was able to go out into the garden and have a good bathe, which had a most beneficial effect.

We were to remain ten days in Madinahh, and that would allow us fifty prayers in the Haram. But I thought it quite probable that I might have to leave Madinahh without performing a prayer in the Haram at all. I might, after all my hardships, and after having actually been in Madinahh, fail in attaining the object of my journey. No! I was determined I would see the Tomb. For the first week I lay fretting and fuming on the floor. But after a week, at the time of prayer, when all my companions were away in the Haram, I would stand up and try to walk a little with a stick, and after a couple of days of this I felt confident that should be able to go through the rites and ceremonies of a first visit to the Haram, as they are not very tedious. On the ninth day I determined to make the effort.

A good many visitors came in daily to pay their respect to the Ameer, and we had daily calls from a number of the date-merchants with samples of their fruit. One of these told me that there were fifty varieties of date cultivated in Madinahh. The *shelibi* is the finest, and is very much valued all over the East. It is said that it cannot be brought to perfection anywhere except at Madinahh. It is very large and delicious date. The Ameer purchased nearly half a ton of picked fruit of this sort. The next best date is a small one, no larger than a medium-sized gooseberry. It has no stone in it, or only a rudimentary stone like a little bit of straw, which cannot be noticed in eating the fruit.

Than Madinahh, I supposed that a more flourishing little city is not to be found anywhere in the East. It has a population of about twenty thousand inhabitants, probably two-third Arabs, the rest being Turks and a small proportion of foreign residents from most other Muslim countries. The houses are built of the same material as in Makkah, but are nowhere to be seen in the same dilapidated and neglected condition. I should think that the masonry and plaster is more easily kept in repair on account of the abundance of water in the district, which must induce a more uniform temperature than exists in Makkah. Under the ample fructifying solar heat, the well-watered suburbs of Madinahh produce an endless variety of vegetables and fruits. A list of a day's supplies from the market would comprise perhaps all the following articles: Onions, garlic, carrots, beet-root, radishes, beans, cucumbers and very fine grapes. In short, almost everything that can be thought of will grow about Madinahh, together with such cereals as maize, wheat, and barley.

One of our daily visitors was the chief eunuch of the Haram, a very old infirm Negro, who used to sit for hours telling us stories and traditions of the Tomb. One of his stories, though well known in the East, may not be so well known to my readers. It relates to the only time the Honorable Grave of Prophet Muhammad (PBUH) has been entered by a living mortal since the Holy Prophet (PBUH) was buried there.

“One day” – these two words a literal translation of the words with which the eunuch began his story; for the rest, I only remember the substance of the narrative, so must give it in my own words. “One day,” a great many year ago, the attendants of the Haram noticed a most noisome smell emanating from, in or about the Holy Prophet’s (PBUH) Tomb. Many days were spent in the most assiduous searching round the outside; but nothing could be found from which the smell could be thought to originate. At the last a few of the mullahs began reluctantly to admit the possibility of an impurity existing inside (though all had been unanimous in denying this at first), for the smell had undoubtedly been traced to a small aperture in the wall of the Tomb. Conjecture ran rampant, and the controversy among the lights of the faith reached an appalling height. Still, all the learning of all the greatest minds of the day could not explain away that smell; it not only remained, but it was ever getting worse. One unorthodox Persian suggested the heretical thought that the Holy Prophet (PBUH) himself had gone bad. He was put to such tortures that he craved to be torn to pieces with red-hot pincers as a happy release.

This wholly unexpected view, hinted at by the Persian, had the effect of uniting the wise men, though they themselves were prepared to believe the smell nothing less than the “odour of sanctity” itself, if it came to that. I would not do for such an opinion as the Persian’s to get about and pass unrefuted. They saw the urgency of the case, and felt what terrible things unkind people might say. In the great council of mullahs, assembled for all parts of the earth, to consider this matter of the smell, a decision was come to and acted upon as follows:

The goodest good little boy that could be found, active enough to get through the hole in the wall of the sepulchre, was put into training; that this is to say, was put through a course of ablutions and fastings for his extra purification, and then sent into the Tomb.

The boy came out again in a very short time with a dead pigeon, the cause of the smell, in his left hand, and he was found to have been struck deaf and dumb and blind. Many years passed, and the boy became an old man, and was just at the point of death, when his senses suddenly returned in time to allow him to relate these facts and expire. When he had entered the Tomb he had found it brilliantly lighted, and seen sitting in the middle the Holy Prophet (PBUH) with Qur'an on his knees, and an angel on each side for him reading to him. The angel on the right of the Holy Prophet (PBUH) rose up as he entered and introduced himself as Gabriel, and taking hold of his left hand closed it over the dead pigeon, and showed him out so politely that he never suspected the dreadful calamity that had befallen him until he found darkness on the outside and he had tried to speak.

Part One

Chapter One

**Cultural and Urban development of Madinah before Islam
“before 622 AD.”**

1.1.0 Introduction to the history of Madinah:

Features of urban and cultural development

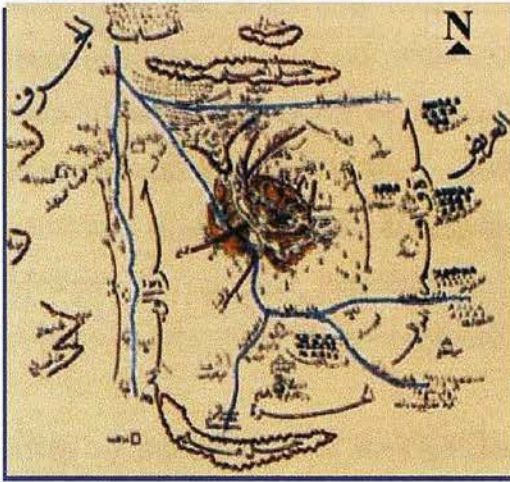
There is little information about the origins of Madinah but from hints derived originally from historic incidents. There were consecutive population changes caused by continuous immigration to Madinah. These were of great importance in transferring significant influences from the cultures and civilisations of existent nations such as Al-Sham and Yemen. Madinah was not then really a city, more a town serving a mostly agricultural community. It did have flourishing trade in some of its quarters, sustained by the caravans passing through from the North (Al-Sham, Iraq and Persia) and the South (Yemen) during the two journeys of summer and winter which are mentioned in the Holy Qur'an. "For the covenants (of security and safe-guard enjoyed) by the Quraysh their covenants (covering) by winter and summer journeys. Let them adore the Lord of this House (the Ka'ba) Who provides them with food against hunger and with security against fear (from danger)" (1) (*Surat quraysh- The Holy Qur'an*).

Madinah then consisted of merely some scattered groups of traditional houses and huts having no specific ties beyond tribal and social ones. They were surrounded by fields, palm trees, forts and atam (man-made rises in the ground for defence purposes) that the Jews had planned and built. They had brought the idea of building them from Al-Sham. The most famous Jewish tribes in Madinah at that time were Bani Al-Nadher and Bani Quraydhah who inhabited Harrat Waqem in the South and East of Madinah, known today as the Eastern Harra, and also Al-Awali area (2) (*Al-Samrai'e 1984*). This area was one of the most fertile, having the most water. The Bani Qainoqa', a Jewish tribe, inhabited the southwest of Madinah, Al-Madshoniya, and a large part of the Southwestern Harra.

Madinah was divided into areas inhabited by Jewish and Arab Tribes. It had two parts, the first included the cultivated areas with their houses and inhabitants mostly from Arab tribes. The second contained the atam, forts and high areas surrounding Madinah with their fields and inhabitants, mostly Jews who brought the idea of building the atam and forts from Al-Sham. Fifty-nine of these atam were built in Madinah (3) (*Al-Samrai'e 1984*).

The word “atam” (pl.) is Hebrew and means walls without windows from outside. In Arabic it means high buildings. The atam were of great importance for the Jews because they used to hide in them in times of danger and enemy attack. Some of them were places for worship and schools. Others were headquarters for discussing and preparing their plans. This was mentioned in the Holy Qur’an: “They will not fight you (even) together, except in fortified townships or from behind walls” (4) (*Surat Al-Hashr* verse 13 - *The Holy Qur’an*).

The fort of Al-Zubair was the most famous of Bani Quraydha’s forts. Bani Quraydha’s Mosque was built instead of this fort in Al-Awali. This Mosque still exists. (5) (*Al-Samral’e* 1984).



(01) A simplified map showing the locations of tribal Jewish inhabitants in Madinah



(02) Mosque of Bani Quraydha in the Southeast of Madinah

As for the atam of Bani Qainoqa, the otom (singular of atam) of Mariam was the most famous. Ka’b Ibn’ul Ashraf Al-Nabhani’s otom was the most famous of Bani Al-Nadheer’s (6) (*Al-Samral’e* 1984).

Al-Aws and Al-Khazrag came to and inhabited Madinah after the incident of Sail Al-Arem (torrential flood) which swept away the Ma’reb Dam because of a weakness in its construction. The Jews were there at that time. So, they made peace with them and agreed to be peaceful neighbours and not to harm each other that they may prosper

together. As several tribes, they enjoyed staying there. Some of them lived near Bat-han valley and western Hurrah. Others lived in the Eastern Harra and had many atam there.

1.1.1 The architecture of forts and atam:

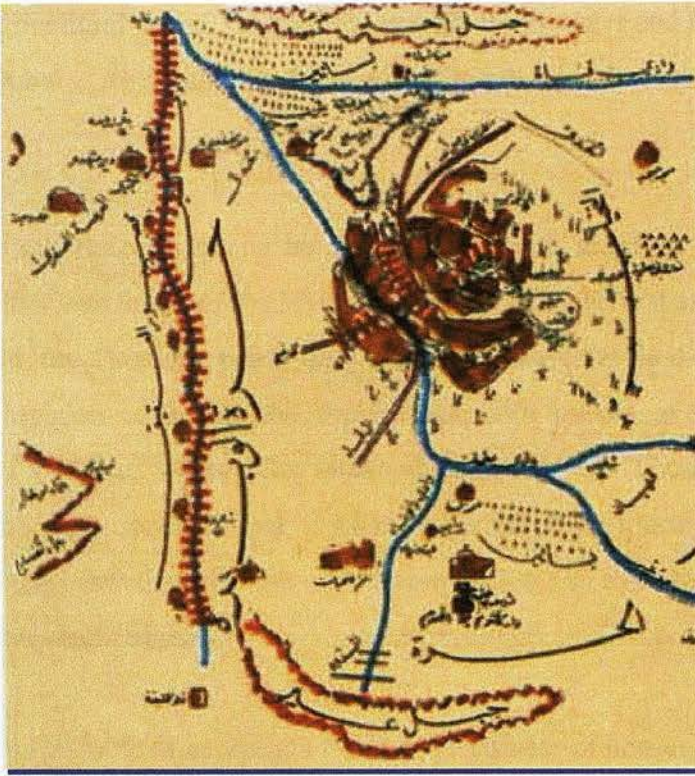
Madinah lies on the trade route that links Al-Sham with Yemen. This has encouraged many immigrants to settle there, bringing their cultural knowledge with them. The Jews, for example, came from Al-Sham to await a Prophet they had found foretold in their books. They introduced new architectural typologies such as forts and atam then characteristic of Al-Sham. The locations of these forts and atam were closely associated with the locations of the Jewish tribes, their numbers proportionate to the population of each tribe. The Arabs later used these forts and atam later and came to build more of them until they became one of the main features of the architectural texture of Madinah before Islam. The number of these forts and atam was more than 59 for the Jews of Madinah and 13 for the Arabs (Al-Ansar) who later moved to Madinah. Mr AL-Samhoudi (7) (*Al-Samrai'e 1984*) documented many Jewish monuments and ruins built in Madinah during their residence there. These clearly reflect clearly a continuous population growth and the roots of civilisation in Madinah before Islam.

Many of these forts and atam remained even after Islam and some, such as the ruins of Ka'b Ibn Al-Ashraf Al-Nabhani's fort, still remain. The author has studied this fort and drawn a plan of it to reveal the ingenuity of the designer and the accuracy of the builder, as will be shown later. The Prophet, peace be upon him, used some of these atam in Al-Khandaq (trench) battle, as Al-Samhoudi reported from Ibn Rafei: "Al-Bazzar reported, in a weak ascription, from Al-Zubair Ibn Al-Awwam that the Prophet of Allah, peace be upon him, left his wives and his aunt Safiyyah in an otom called 'Farie' and left Hassan Ibn Thabet with them" (8) (*Al-Samrai'e 1984*).

The otom of Asem, which was owned by a Jew, said to be from Bani Al-Nadheer, was among the most famous. There were two others for Bani Quraydha, one called Al-Zubair Ibn Batar Al-Quradhi's, the other Ka'b Ibn Asad's or 'Balhan', and many others like Bani Waqif's fort, that is about half a kilometer to the Southeast.



(03) The ruins of Ka'b Ibn Al- Ashraf Al-Nabhani's fort.



(04) A plan showing the areas of the tribes of Aws and Al-Khazrag in Madinah.

1.1.2 Old bazaar streets and markets

An account of its position on an old trade route, Madinah had some markets in connection with the Jewish caravans. There was the Bani Qainoqa' market and a market in the area of Quba'. These markets were connected equally with the houses of these tribes as with the old caravan routes. Mr Al-Samhoudi cites the report of Ibn Shabah: "Abu Ghassan said: Before Islam, there was a market at Zubala in Madinah in the area which was called Yathreb, a market at Al- Gesre in Bani Qainuqa', one at Safasef in Al-Osbah and a fair in the lane of Ibn- Gebain before and in the beginning of Islam. This place was called Mazahem" (9) (Al- Samra'i'e 1984).

1.1.3 Houses and dwelling zones

Many historical reports and stories tell of the existence of simple houses built of natural substances such as mud (adobe), stone and, for the ceilings, cabers (tree trunks) and branches of palm trees. These houses were positioned with no formal architectural or planning relationships in common except for their tight connection with the location of

the tribes and agricultural areas where there was plenty of water and fertile soil. Many areas, such as Quba' , Al-Awali, Qurban and Al-Oyoun were famous for having these characteristics.

Reports say that the Prophet, peace be upon him, was a guest at Kulthum Ibn Al-Hadem's house that was South of the Mosque of Quba' when he first arrived there. It is also recorded that the Prophet, peace be upon him, stayed at Sa'd Ibn Khaithama's house. The first opinion adds that the Prophet sat with people at Sa'd's house and Khubaib Ibn Asaf's house, where Abu Bakr Al-Sadiq stayed. Those houses were in Quba'. We can be sure confident that, if we trace the Prophet's journey from Quba' to for Madinah, all the tribes that met him would have invited him to be their guest at their houses along the way to Madinah.

Through this it is possible to appreciate that a large number of houses existed then and were occupied by the tribes living on the route the Prophet followed to Abi Ayoub Al-Ansari's house. Al-Ansari's words to the Prophet, peace be upon him, when he first came to Madinah were: "My house is the nearest. Allow me to take your luggage". The Prophet, peace be upon him, said: "Yes," and stopped his camel at his house (10) (Al-Samrai'e 1984). The word "nearest" here means that there were other dwellings, which support's the author's conception of Madinah during that period.

The Prophet, peace be upon him, stayed at Abi Ayoub Al-Ansari's house. Mohammed Ibn Ishaq's report shows that the house consisted of two floors. Also, the Hadith (proverb) of Abi Ayoub Al-Ansari confirms that when he says: "When the Prophet, peace be upon him, stayed in my house, he stayed downstairs and I stayed upstairs with Um [the mother of] Ayoub. I said to him I hated to be above him, I loved him just like my father and mother and even more and that we should exchange places. He refused saying it would be easier for him to stay downstairs". He continued saying, "A pot full of water broke upstairs. Um Ayoub and I ran to prevent the water from falling through the roof with a piece of velvet cloth, the only one we had then, lest it hurt the Prophet, peace be upon him" (11) (Al-Samrai'e 1984).

This report clearly demonstrates that Al-Ansari's house had two floors which would have been built of cabers, with a roof of palm tree cabers covered with mud. That the

hosts were afraid that the water could go through the ceiling and harm the Prophet, peace be upon him, who was downstairs, indicates a caber floor construction. This mode of construction had been followed since olden times in the traditional houses in Madinah. These texts allow us to propose two important points. First, before Islam Madinah was full of houses and buildings that were built of local and natural substances. These houses were different from the houses and atam that the Jews built, who introduced the idea of building them from Al-Sham. Second, all of these houses were not equal in height. There were two-floor and one-floor houses as shown from the above mentioned report.



(05) Bani Waqef's fort, half a kilometer from Quba' Mosque to the Southeast **(12)**
(Al-Ayyashi 1972)



(06) Al-Dahian's otom in the area of Al-Usbah in Quba,' Ibn Al-Galah's **(13)** *(Al-Ayyashi 1972)*

1.1.4 Buildings of services and public utilities:

Some buildings and forts were specified for public utilities, some for schools and others for the meetings of tribal leaders to discussing issues and for other negotiations. The siting of these was decided with great care. Public buildings serving each tribe were positioned to allow easy access from all directions by people of that tribe.

Ibn Hesham mentioned in his biography of Mohammed that Abu Bakr entered "Bait Al-Madares" (the house of schools) which was specified for the meeting of the leading men of the Jews. He says, "Abu Bakr Al-Sadiq entered Bait Al-Madares and the Jews were

there. He found many people meeting with a person of them called Fenhas, who was one of their scholars and rabbis with another rabbi called Ashya”. Then Abu Bakr said to Fenhas: “woe unto you, Fenhas. Fear Allah and be a Muslim. For I swear by Allah that you know that Mohammed is the Prophet of Allah” (14) (*Ibn Hesham 834 AD*).

The entrance of the Prophet, peace be upon him, to Bait Al-Madares also attest to the existence of such houses. Ibn Hesham says: “The Prophet, peace be upon him, entered Bait Al-Madares³ where there were a group of Jews. He invited them to Allah [made da’wa to them]. Al-Nu’man Ibn Amro and Al-Hareth Ibn Zaid said to him, ‘What religion are you Mohammed?’” (15) (*Ibn Hesham 834 AD*). In this account we can find evidence of the existence of such buildings specified for public utility.



(07) A one-floor traditional house.

Fifth: Wells:

Many wells were dug to extract water and to enable a settled environment conducive to civilisation. Some of these wells continued fulfilling their important roles even after Islam, such as the well of Roma that was dug by Al-Maziani and then was owned by Romah Al-Ghafari, the Jew, and was later called by his name (Roma). Uthman Ibn Affan bought it with one thousand”Derham”from the Muslims’ money given as charity. It is still there now. There was also, the well of Aris or Bie’r Al- Khatem (the well of the ring) so called after the name of a Jew named Aris. Later it became known as the well of the ring because the ring of the Prophet, peace be upon him, fell into it during the rule of the Third Caliph, Uthman Ibn Affan may Allah be pleased with him.

³ “Al-Madares”: Houses in which the Jews used to teach their book and religion.



(08) A traditional two-floor building. This was built of mud with a roof made of parts of palm trees. This model is similar, to a great extent, to the old traditional buildings that spread in Madinah before Islam. This style continued to be used until very recently.



(09) The well of Roma or the well of Uthman Ibn Affan



(10) The formation of one of the old wells in Madinah. It is not different from other wells before Islam

Many of these old wells remained until the coming of Islam. They were often connected with the old agricultural areas like Al-Awali and Qurban and with some old farms in Quba' and Al-Uyoun. The abundance of water is considered one of the most essential factors in forming a steady cultural environment.

1.1.6 Building bowers (roofs made of palm leaves):

The people of Madinah before Islam would have known about building bowers. This sort of construction was known throughout the Middle East at that time. There were many bowers in agricultural areas. They were built from pillars of palm trees trunks and covered with palm leaves. These components were tied together to become one unit, normally as high as a human being. The ground below them was graded then sprinkled with water to be an ideal place for sitting and relaxing away from the hot sun outside.

The Prophet, peace be upon him, sat in the shade of one of these bowers when he first came to Madinah. His camel stopped between the house of Ga'far Ibn Mohammed Ibn Ali and Al-Hassan Ibn Zaid's. The people came to him, each asking him to stay at his house, but he let his camel go and stop by itself. Then he got down and stayed under a bower they had prepared before *(16) (Al-Samhoodi 1505)*.

The building of bowers continues up to the present time. It has been associated with agriculture and it is used for sitting and relaxing in the shade. Bowers are very suitable for farmers under which they can store dates and dry seeds. They are widely used during the seasons of harvest. Thus, this construction was well known in Madinah before Islam.

From evidence preserved in the written history of Madinah before Islam, it can be inferred that there existed developed architectural and urban cultures and techniques each based on criteria responsive to the needs of its people. There were one-floor houses and two-floor houses, atam and forts, public utilities and markets. Agricultural and commercial activities led to the digging of wells and to reclaiming lands. These early people of Madinah interacted their environment and transformed and subjugated it to fit their service according to their everyday needs. The cultural texture at that stage was distinctive and characteristically suitable for its inhabitants who determined its cultural elements and components.



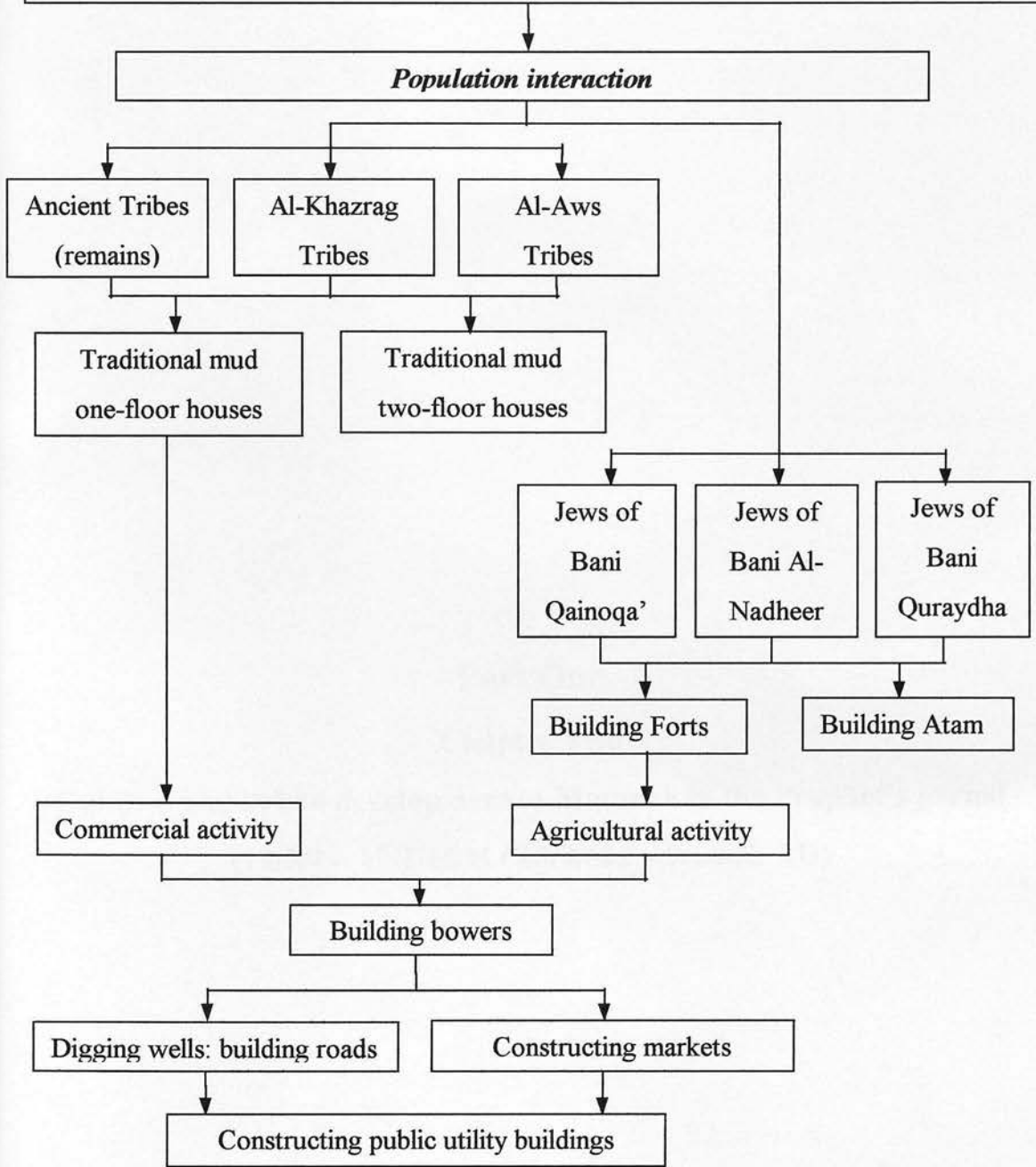
(11) Simplified modes of bowers on a farm in Madinah



(12) A square mode of bower



Components and Elements of cultural texture of Madinah before Islam.



(13) Components and elements of cultural texture of Madinah before Islam (Yathreb).

Part One

Chapter Two

Cultural and urban development of Madinah in the Prophet's period

(12/3/1 – 12/1/11 H / 20/9/622 – 9/6/632 AD)

Chapter Two: *Cultural and urban development of Madinah in the Prophet's period* (12/3/1 – 12/1/11 H / 20/9/622 – 9/6/632 AD)

By cultural and urban development the author means the inner formation of the components of the cultural texture of that period and all the utilities and services that were made whether social, economic or military. The term also covers criteria or societal foundations that come to play a particular role in the whole and, all together, led to the distinguishing cultural texture of Madinah at that time. The Prophet, peace be upon him, constructed the Mosque, which is the center of the city and is its beating heart, and the market. He also determined the dwelling zones, planned the lands, divided the land for housing and laid down the rules and laws that organised the land use and prevented land being taken with no right. In addition, he took care of providing public buildings, for example, he specified houses for receiving guests and places for treatment and public bathrooms. He selected sites for army camps and ordered a trench dug to protect Madinah during the battle of Al-Khandaq (the trench). He also ordered that the old buildings and monuments be preserved. In addition, he specified the lands that could be planted and apportioned these among people to make full and proper use of their natural resources. He encouraged people to develop their own resources and abilities and took care of public health, telling people to be clean individually and as a community. Finally, he specified places for waste and garbage, and instructed people how to dispose of this.

1.2.0 The most important cultural features

1.2.1 The Mosque (Al-masjid):

The appearance of the Mosque is one of the most important events in the formation of the cultural texture of Madinah at the time of the Prophet, peace be upon him. It was the core of the city, with all other aspects of life revolving around it. This system is now called circular texture, but was not known by this name at the time. Madinah before Islam contained several different cultural formations (nuclei) connected to small attracting centres. These nuclei were characterised as being temporary, their texture would disappear the moment the attracting centres disappeared. Those centres were the

tribal headquarters, sources of water and agriculture or nodes along the routes of caravans, thus the ancient centres of trade.

As soon as the water supply decreased, agriculture disappeared or new routes began to open up. The existing texture broke up, reforming itself at new locations which it incorporated quickly. When a new formation appeared, accommodating a new shape and different characteristics reflecting the new base's environmental constraints, this led to a special type of texture entirely different from the previous one.

Different consecutive types of formations followed one another according to their constituent texture. The appearance of the Mosque, in its general meaning, was entirely different from these cultural formations which were temporary. The Mosque was the precursor of a new type of cultural texture, being permanent, steadfast and not affected by any natural or environmental contingencies. Therefore the Mosque is considered to be the founding core of this type of cultural texture and the centre of its formation.

1.2.2 The market (Al-Suq):

Markets spread in Madinah before Islam. There was a market for the tribe of Bani Qainuqa' in Madinah and another one in the "Yathreb" direction, between the valley of Qanah and the edge of "Jorf" (1) (Al-Samrai'e 1984). There was another in the area of Osbah near Quba' and the market of Mazahem in Ibn Jebeen alley, the Islamic name of a servant of Al-Abbas Ibn Abdu'l-Muttaleb. This was near the houses of Bani Al-Hebla, the people of Abdullah Ibn Abi Salul.

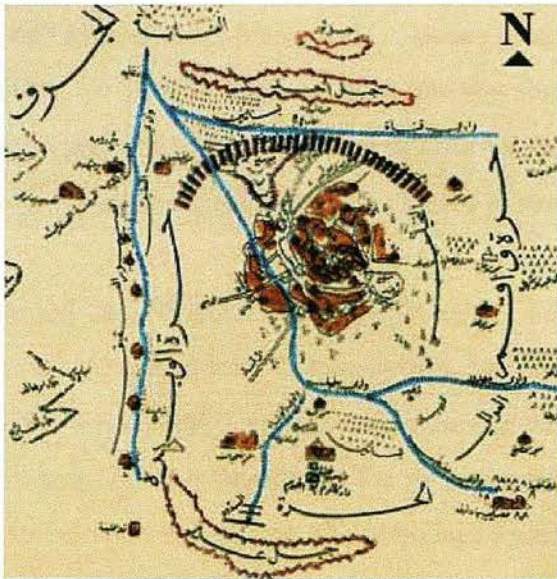
These markets were situated at the end of the dwelling zone. This assured the separation of the dwelling zone and the commercial areas. This may have responded to defensive or social reasons (2) (Al-Samrai'e 1984). Banu Qainuqa's market was among the most famous in Madinah before Islam. It was called Yathreb market, and remained until the beginning of the Prophet's time. Ibn Shabah referred to the speech of Abu Ghassan who said "Before Islam, there was a market at Zubalah in the area called 'Yathreb', another at Al-Jesr in Bani Qainuqa', one at Al-Safasef in Al-Osbah, and one in the place of the alley of Ibn

Jebeen before and at the beginning of Islam. This place was called ‘Mazahem’” (3) (Al-Samhoodi 1505).

The Prophet (peace be upon him) came to the place of Bani Qainuqa’s market, hit it with his foot and chose it as a market for the people of Madinah. Mr Al-Samhoodi records what Umar Ibn Shabah reported from Ata’ Ibn Yasar. “When the Prophet (peace be upon him) wanted to specify a market for Madinah he came to the market of Bani Qainuqa’ and then came to the market of Madinah and said: ‘This is your market, do not let it be narrowed and do not let any one take a part of it’” (4) (Al-Samhoodi 1505).

Madinah in 1911 AD was overwhelmingly agricultural. The market (Suq) of Al-Manakhah was surrounded by mud buildings of one storey. These were used only for traditional shops which were small neighbouring ones looking directly upon Suq Al-Manakhah, the place of caravans and pilgrims. These shops were later demolished and very high buildings were built which changed or even ruined a lot of the features and old monuments of the market.

A detail of figure 01 taken from the air in 1977 AD shows Suq Madinah (Suq Al-Manakhah) surrounded by houses on all sides. The market was turned into an asphalt road which made the place lose the use the purpose and appearance that the Prophet, peace be upon him, specified. As no one has the right to use it for themselves nor take any part of it, the market should have been left as it was.



(01) The places of the markets in Madinah before Islam.

1.2.3 Planning Madinah in the Prophetic period:

The Prophet, peace be upon him, was interested in planning Madinah and developing the required services and public utilities. He limited the dwelling zone of the city, planned the lands, divided the buildings and houses, prescribed the rules and laws necessary for organising the land ownership and preventing unjust occupation and use. He was also interested in the construction of public buildings, specified houses for receiving guests and for medical treatment as well as places for army camps and training. He had a trench dug to protect Madinah during the battle of Al-Khandaq (trench). He was also interested in public and individual cleanliness. He asked everyone to be clean, and specified places as public bathrooms. He ordered monuments to be preserved because these ornamental features were considered some of the most distinguishing ones for the cultural texture of Madinah before Islam.

These characteristics and features in more detail:

A) Enacting the rules and laws for the system of land exploitation:

As the Prophet, peace be upon him, was interested in land use and development, he outlined the rules and laws that secure the best ways of using it. The surest evidence is the way in which he used to distribute lands freely among the Muslims, Ustath Al-Sayyed Al-Wakeel, said “The way Muslims handled Iqta’ was ideal, because it enabled the individuals to possess the land they took with no charge. This makes every one feel that the state treats him well and seeks his own good” (5) (*Ministry of education 1988*). He also said: “Islam followed a method to handle Iqta’ in which one was forced to make use of the land he took in a certain period otherwise one had to return it back to the governments to give it to someone else who was capable of making use of it” (6) (*Ministry of education 1988*).

The writer also mentioned that Yousuf said: “the Prophet, peace be upon him, said, ‘Every one who makes use of a dead land, it becomes his, but he has no right to use it if it is somebody else’s’.” From this Hadith, we know that the one who cultivates a piece of land which is not possessed by any one else has the right to own it by all the effort and money he has spent to cultivate it. The one who cultivates a tract of land possessed by anyone else, though, is unjust because of what he does on land that is not his.

All lands not possessed by anyone are earmarked foremost for Allah and his Prophet, and thereafter for the Muslims. Thus anyone who cultivates any of these lands has the right to have it, but not for more than three years. Tawoos reported that Ustath Sayyed Al-Wakeel said in his book: "The Prophet, peace be upon him, said: 'Public lands are for Allah and his Prophet then for you. He who cultivates a piece of land, it becomes his. But he must do this in less.'" (7) (*Ministry of education 1988*).

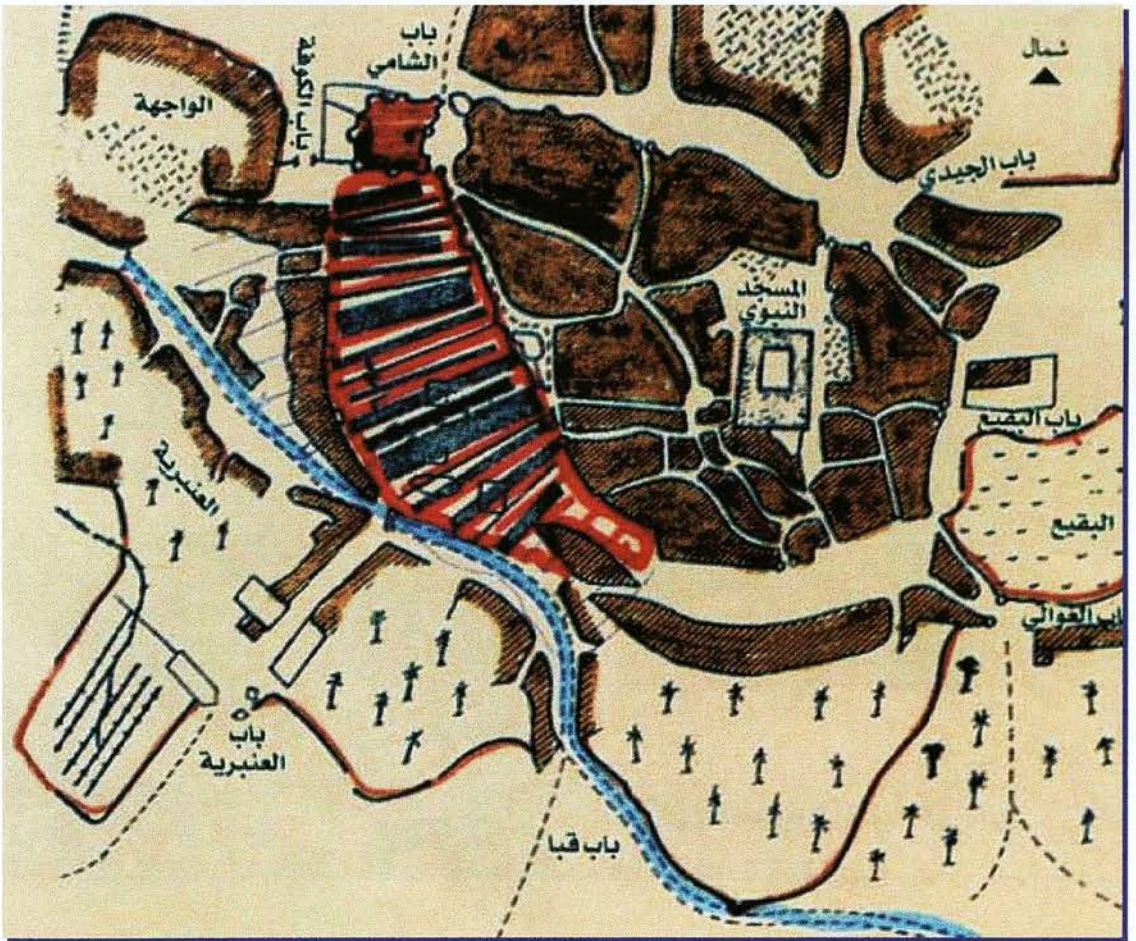
B) Cleanliness of Madinah and its requisites:

The Prophet, peace be upon him, had an interest in Madinah's cleanliness and asked both individuals and the whole community to maintain it.

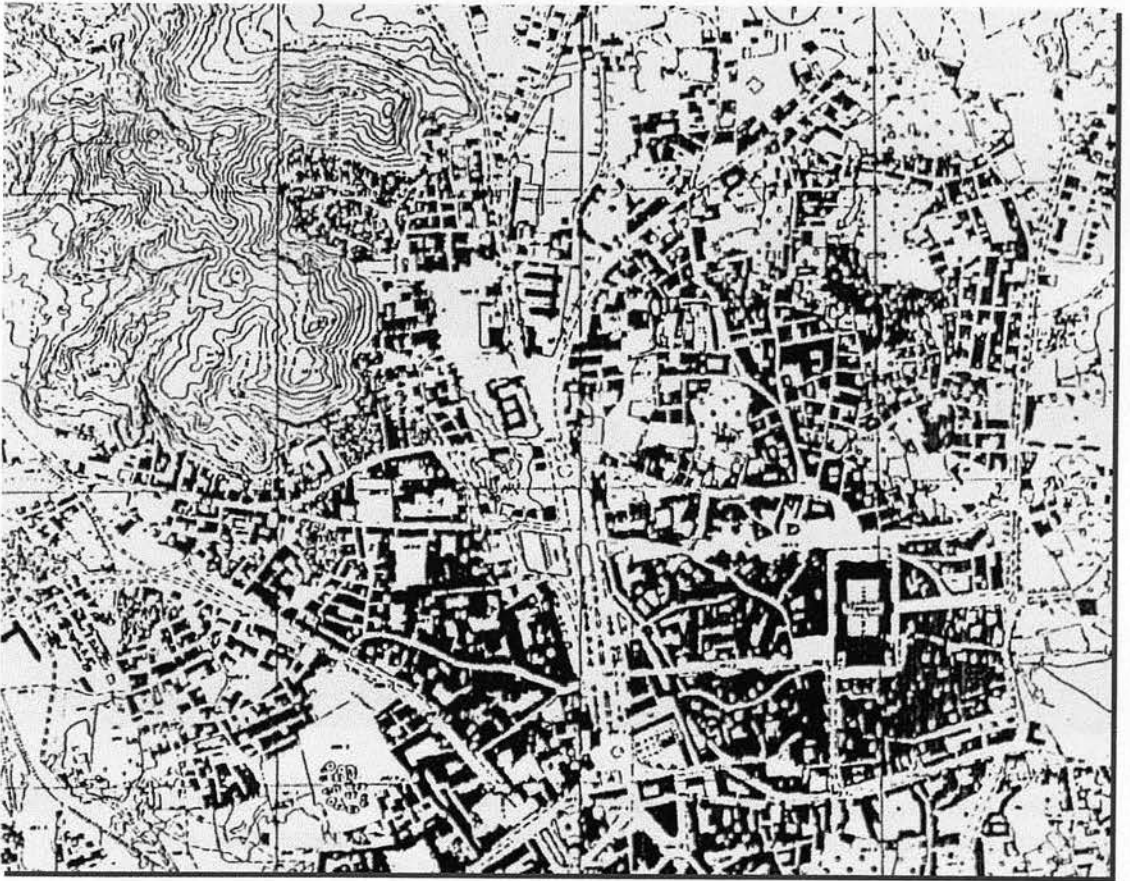
Cleanliness is one of the branches of faith, as the Prophet, peace be upon him, said: "Faith is more than seventy branches, the highest of them is saying that there is no God but Allah and the lowest is removing harmful things off the roads." He was also interested in the cleanliness of the Mosque and always instructed people to take care of it. It is reported that the Prophet, peace be upon him, once passed by the people of "Soffah, some people who were homeless after 'Hijrah' (immigration) to Madinah. He did not like the garbage and waste they left. He called Abu Dharr Al-Ghafari and asked for a broom and started to sweep the floor by himself. When Abu Dharr Al-Gafari saw that, he hurried with his companions to clean the Mosque and pick up the waste" (8) (*Al-Samrai'e 1984*).

It is also reported that a man came to the Prophet (peace be upon him) and asked him to teach him something useful. The Prophet (peace be upon him) said to him: "Take the harmful things, from the way of Muslims" (9) (*Al-Samrai'e 1984*). These harmful things are what hurts Muslims either by seeing them or by disfiguring the beauty of the city.

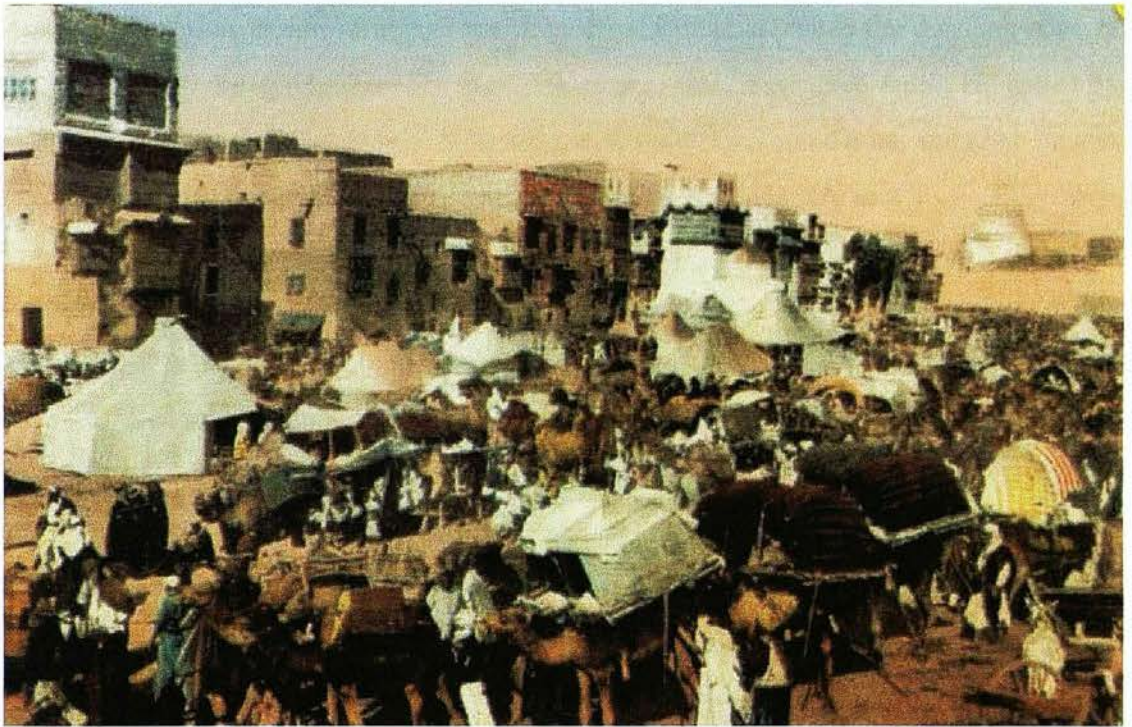
There were places specified for throwing garbage and wastes such as Be'r (the well of Bada'ah where wastes were disposed of to keep everything and everybody clean and healthy. He, peace be upon him, also ordered to all the dogs killed except for hunting and guard dogs. This was to prevent the diseases they can carry and to keep the inhabitants of Madinah safe and healthy (10) (*Al-Samrai'e 1984*).



(02) Madinah in 1911 AD. Suq Madinah is shown as planned by the Prophet, peace be upon him. It is called Suq Al-Manakhah, on the Western side of Madinah.



(03) Detail of a picture of Madinah taken from the air (1977 AD).



(04) The area of Manakha (in 1943 AD), showing the market crowded with the caravans that used to come to Madinah. In this picture the Suq (Al-Manakhah) was still doing the job set by the Prophet (peace be upon him). It was the stop for the caravans coming to Madinah where buying and selling took place and was one of the most important commercial centres in Madinah.

C) Specifying and limiting the sacred area of Madinah and the locations of army camps:

The Prophet, peace be upon him, set the borders of the sacred area of Madinah and specified some locations for army camps. Anas, may Allah be pleased with him, reported that the Prophet, peace be upon him, said: "Madinah is sacred between so and so, no trees are to be cut, no sins are to be committed and the one who commits a crime, the curse of Allah, the angels and all people will be upon him" (11) (Al-Bukhari 864 AD).

Abu Hurayrah, may Allah be pleased with him, reported that the Prophet, peace be upon him said: "The area between the two Harrat, heights is sacred." He also reported that the Prophet went to Bani Harethah and said: "I see you, Bani Harethah, are out of the sacred area". Then he turned and said: "No, you are in it."

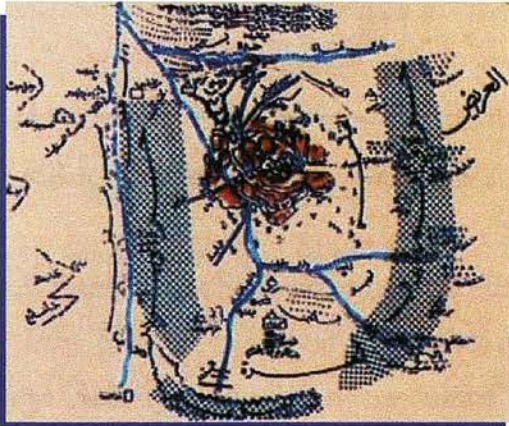
This Hadith shows that the Prophet, peace be upon him, also limited the dwelling zone of Madinah when he said to Bani Harethah, "You are out of the sacred area". He meant by that that they should have had built and dwelt inside the sacred area, and after he was sure that their houses are inside the area, he told them "No, you are in it".

Ali Ibn Abi Taleb, may Allah be pleased with him, reported "We have nothing but Allah's book. This is from the Prophet, peace be upon him. Madinah is sacred between so and so. The one who commits a crime or a sin in it, the curse of Allah the angels and all people are upon him. No barter nor justice is accepted from him." He also said "The conscience and possessions of Muslims are all the same (a whole in one) and the one who hurts a Muslim, the curse of Allah, the angles and all people is upon him. No barter or justice is accepted from him. The one who gets to the service of other people without permission from his masters, the curse of Allah, the angles and all people is upon him" (12) (Al-Bukhari 864 AD).

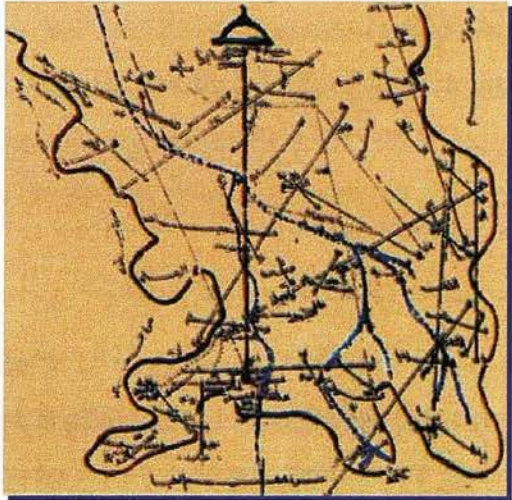
Mr. Al-Samhoudi mentioned the Hadith, reported by Abi Said Al-Khudari, may Allah be pleased with him: "Oh God, Ibraheem asked for Makkah to be forbidden and sacred and it has been so, and I made Madinah forbidden and sacred between its two heights where no blood is to be shed, no weapon is to be carried for fighting and no tree to be cut but for feeding animals."

The Prophet, peace be upon him, specified some camps for the Islamic army in Madinah and chose different places for them. The most important of these was the one at Al-Jorf, about three miles outside Madinah in Al-Sham direction. Quraysh went where floods meet between Al-Jorf and Al-Ghaba (forest). It was also the place where Usama Ibn Zaid's army camped when the Prophet, peace be upon him, readied the army to go with him to Al-Sham. This was done later during the rule of Abi-Bakr Al-Sediq, may Allah be pleased with him. The Islamic army also camped there on setting out for the Mo'tah battle.

As for the third camp. This was in the place in which the Prophet, peace be upon him, camped when he left Madinah heading for "Badr". He camped by the well of Abi Utbah, one mile from Madinah. There, he checked the army and dismissed those whom he considered to be still too young. The well of Utbah was in the Western Harra near Al-Suqia; it was later known as Al-Suqia (after Bab "door" Al-Anbaria).



(05) The features of determining the sacred area of Madinah.



(06) A plan of the sacred area as shown by the Prophet, peace be upon him, "Al-Ayyashi".

D) Constructing public buildings and services:

The Prophet, peace be upon him was interested in constructing public buildings and anything that could serve the Islamic society. He specified places for public services such as:

(1) Houses for receiving guests and deputations:

One of the most important of these was the house of Ramlah Bent Al-Hareth from Al-Ansar, Bani Al-Najjar, where the deputations coming to the Prophet, peace be upon him, stayed. Among them were the deputations of Ghassan, Bani Tha'labah, Abd Al-Qees, Bani Khazarah and Bani Haneefah. This house was described as being large and having palm trees (13) (Al-Samrai'e 1984).

The Prophet, peace be upon him, also specified the house of Abdu'l-Rahman Ibn Auf for receiving deputations. It was called "Al-Dar Al-kubra, Dar Al-Defan, and Dar Al-Adiaf. It was the first house to be built by the Muhajeroon (immigrants) in Madinah.

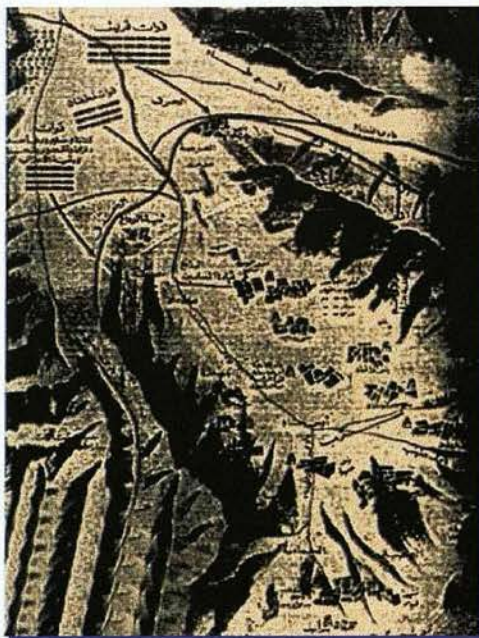
(2) Houses of medical treatment:

Rafida Al-Ansaryah had a tent in which she used to cure the wounded in the Prophet's Mosque with her sister Kua'ybah Bent Sa'd Al-Ansariyah. There were also clever doctors in the Prophet's time who had been accustomed to treat patients in their own houses. Al-Hareth Ibn Keldah Al-Thaqafi and Ibn Abi Ramthah Al-Tamimi were two such doctors. The Prophet, peace be upon him, when he visited Sa'd Ibn Abi Waqqas when he was ill, advised him to see Al-Hareth 'bn Keldah, brother of Thaqeef, as he practices medicine."

(3) Places to be bathrooms (public conveniences):

There were no places in the houses of the people of Madinah to be used as bathroom. The Arabs used to call these "aknaf" (14) (Al-Samrai'e 1984). Instead, there were places outside the dwelling zone called "manasie". Men could use these places in the day but women had to go there at night. The Arabs at that time did not like to have such places in their houses considering it a non-Arab custom (15) (Al-Samrai'e 1984). A place was specified

for each tribe to use, such as "manasie" of Baaqee' Al-Khabkhah in the area of the well of Abi Ayoub.



(07) The places of army camps in Madinah in the Prophetic period.

After a short while, the people of Madinah had these "aknaf" near their houses. It is possible to determine the time when this custom began from the report of Um Al-Mu'meneen (Mother of Believers, a title of the Prophet's wives) Aeshah after the incident of falsehood. This feature began after 6 H, 627 AD. This seems to happen after the veil was imposed on Muslim women.

These places were known as "Al-Khala" because it was reported about the Prophet, peace be upon him, that, every time he entered "Al-Khala" (toilet-bathroom) he used to say: "Oh, Allah, protect me from badness and malice" (16) (Al-Samra'i'e 1984). This means that there were places with this name specified for 'convenience'.

(4) Bathrooms:

Bathrooms in Madinah were not as they are known today. Originally there were none. We can say though, that there were similar places that did the same job. These can be divide into two kinds:

First kind:

Small spaces inside the houses were covered with curtains so the person who was having a bath, was shielded. Water was brought from wells and put in special containers which kept it pure and clean. Aeshah, may Allah be pleased with her, reported that the Prophet, peace be upon him, when he came back from Al-Khandaq battle, put down his sword and washed. Gabriel came to him while he was removing dust from his head (17) (Al-Bukhari 864 AD).

Second kind:

Washing was also done in wells and their basins, which were abundant in Madinah. Reports tell us how the Prophet, peace be upon him, learnt to swim in the well of Anas when he was six when he visited his uncle, Bani Al-Najjar, with his mother (18) (Al-Samrai'e 1984).

E) Preserving monuments and ancient ruins:

The cultures of modern nations write on golden paper their ancient histories and origins. The buildings and constructions of those early times are true reflection of the development and flowering of those cultures. The Prophet, peace be upon him, preceded them in this for, when he first came to Madinah, he ordered people not to remove the old "atam" and houses that were built before Islam, saying that they were some of Madinah's embellishment. These atam and houses were the ruins of the dwellings of the tribes that had moved elsewhere in the search for basic requirements like water and fertile soil. Abdullah Ibn Umar reported that Prophet, peace be upon him, ordered no one to remove the atam of Madinah. In another report he said: "Do not demolish the atam of Madinah for they are its embellishment" reported by Al-Tahawi, and Al-Bazzar by Al-Sahih (19) (Khater 1993).

F) Digging the trench to protect Madinah:

Madinah before Islam had no walls or trenches. Its people depended on more primitive means for defence. The only way known then was for the people to hide in their houses. The rich and the Jews hid in the forts and atam, the most famous of which was that of Ka'b Ibn Al-Ashraf Al-Nabhani. The rest of the inhabitants lived in humble houses built of mud. In times of danger, they used to stay on the roofs of their houses and attack the

enemy by throwing stones and firing arrows. This method depended entirely on hiding from the enemy and avoiding a face to face fight. The Prophet, peace be upon him, tended toward using this way before setting out for the battle of Uhud. The strategy of that conflict was to drag the Quraishis to the alleys of Madinah, and when they were trapped there, to fight them in the alleys and for women to fight from the roofs of the houses. But when the majority of Muslims thought that it was best to get out and fight the enemy outside the city, the Prophet, peace be upon him, agreed with them.

In the fourth year after Hijrah, news reached the Prophet, peace be upon him, about the intention of Quraish to attack the Muslims in Madinah. The Muslims then were afraid that their strengths were no match for the Quraishis, especially with the existence of the non-Muslims in Madinah such as the Jews of Bani Quraidha, the last Jewish tribe in Madinah who would use any opportunity to get rid of Islam and the Muslims. The Muslims were also afraid that scattering and hiding inside Madinah would do no good in the face of such a concentrated onslaught, and that the Jews would cooperate with Quraish to fight them. Besides, the Jews knew well the streets and dwellings of Madinah.

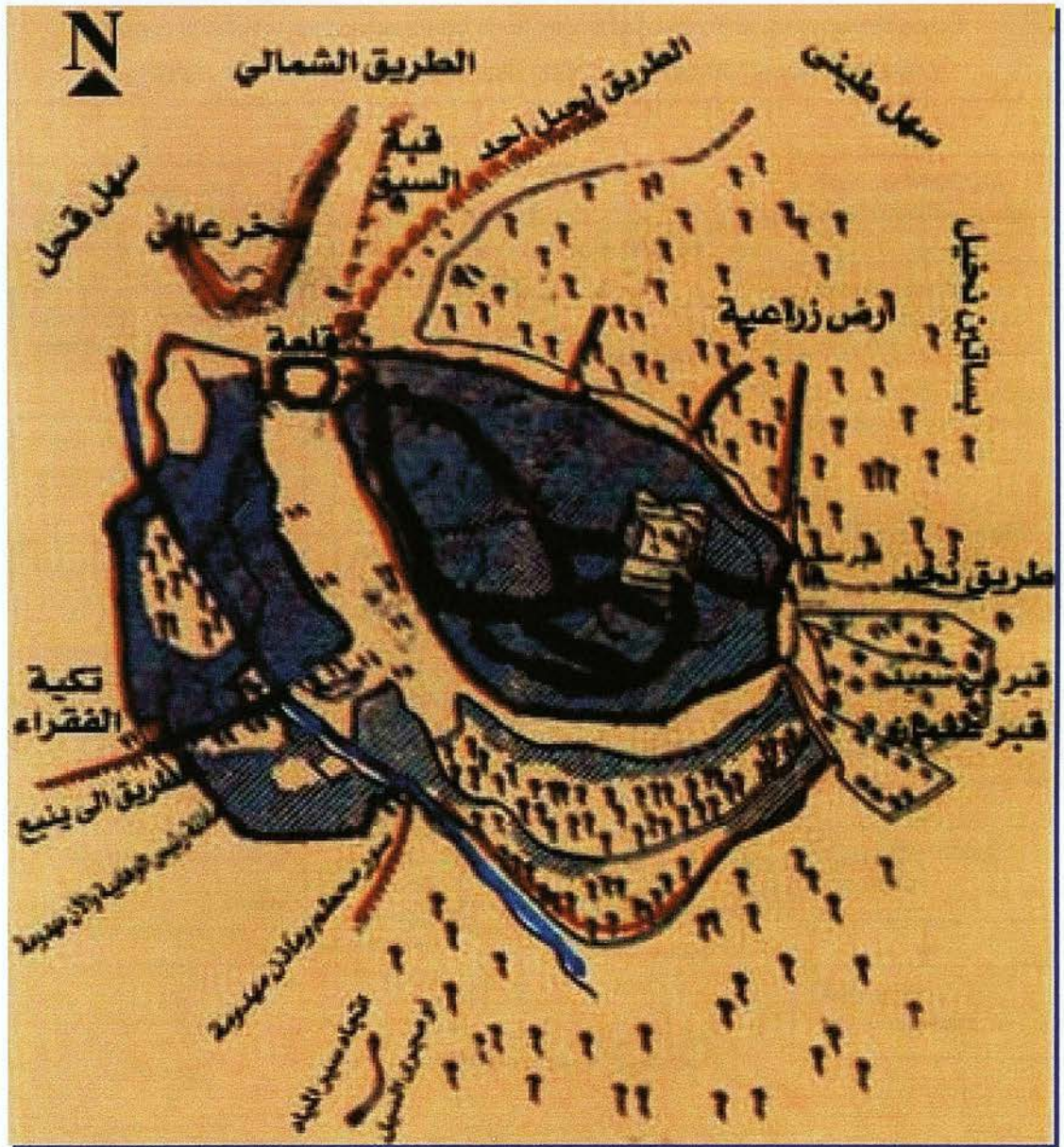
The Muslims needed a surefire plan for victory, after depending on Allah the Almighty. Then came the solution in a suggestion offered by the Honourable companion, Salman Al-Farisi. He suggested digging a trench in Madinah and the Prophet, peace be upon him, agreed, for it would be an obstacle that would delay the Quraish from breaching Madinah. Madinah was already surrounded by other natural obstacles that prevented enemies from getting in, such as the Harrat Waqem in the Eastern side of Madinah, Harrat Al-Wabrah in the West and Harrat Shoran in the South, in addition to the roughness of the terrain and unclarity of the routes and roads in the Southern side. This meant that there were no other way which Quraish could get into Madinah except from the North.

Therefore, the Prophet, peace be upon him, planned to dig the trench from the fort of Shaikain, near Bani Harethah, to the fort of Bani Haram from Bani Salamah (near the Mosque of Al-Fat'h) (20) (Al-Samrai'e 1984). The trench was about 12,000 cubits long (around 6 km). Reports vary about the period that the Prophet, peace be upon him, and his companions spent in digging the trench. Some say six days, others say between twenty and twenty-four days (21) (Al-Samrai'e 1984).

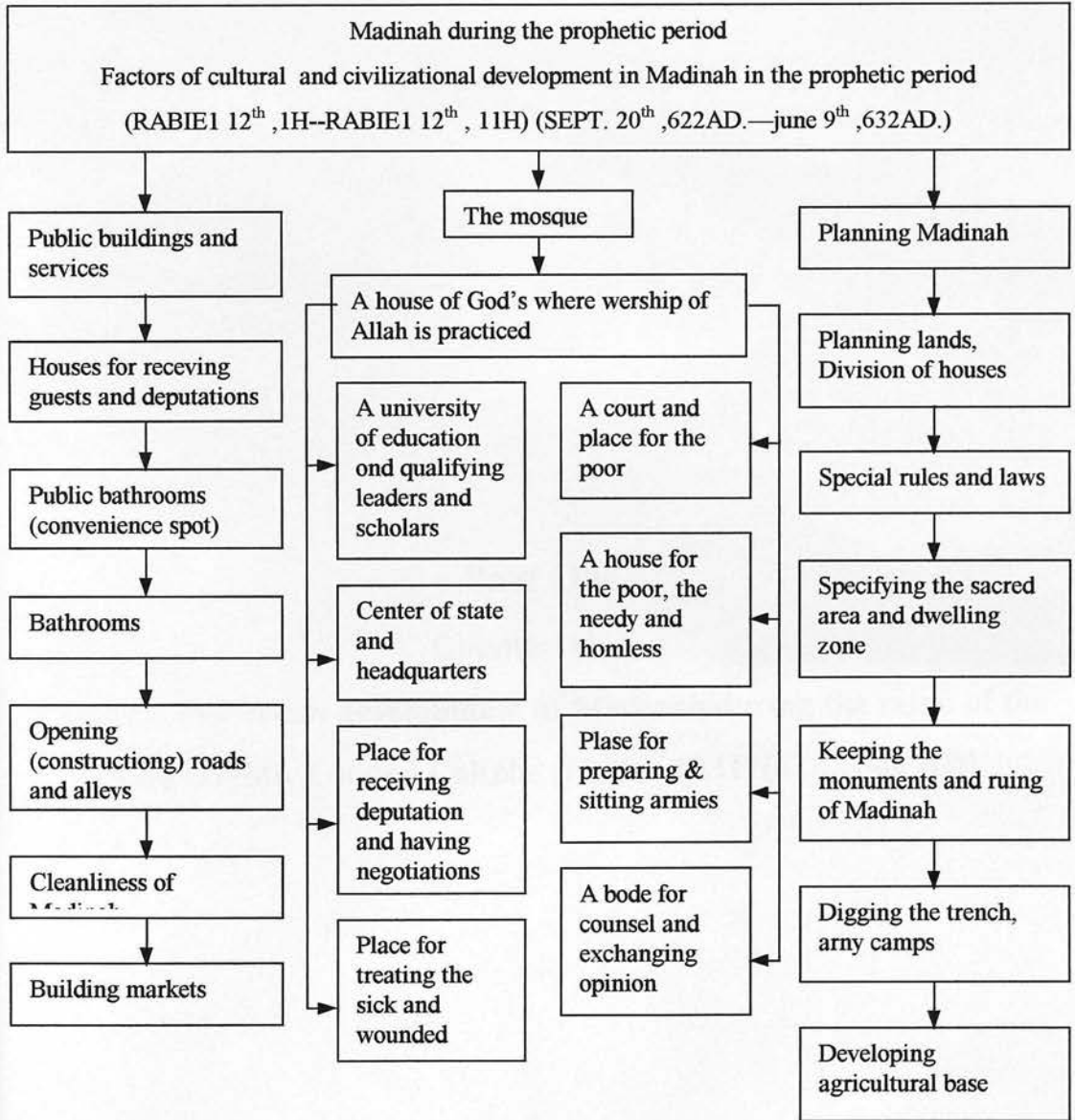
The Prophet, peace be upon him, divided his companions into groups of 10 people each. Each group was assigned to dig about 40 cubits (around 20 metres). Thus, the number of Muslims who took part was about 3,000 men. They faced numerous difficulties, in fact, more than they had in any previous battle, due to the rocky land, the cold weather and the difficulty and length of work.

The entire trench was wide except for in a small section. This can be seen by the report about Noufal Ibn Abdullah Ibn Al-Mugheerah, who came on his horse to jump across the trench but fell in. The Muslims stoned him and he was killed. Ali Ibn Abi Taleb, may Allah be pleased with him, watched that narrow part of the trench to prevent enemies from crossing.

Allah the Almighty willed that the Muslims may win and they had a resounding victory over the enemies who tasted defeat and humiliation. Allah thus gave victory to the believers and says in His Holy Book: "O ye who believe! Remember the Grace of Allah on you when fear came down on your hosts (to overwhelm you) but we sent against them a hurricane and forces that ye saw not; but Allah sees all that ye do. Behold! They came on you from above you and from below you, and behold! The eyes became dim and the hearts gaped up to the throats, and ye imagined various (vain) thoughts about Allah. In that situation, were the believers tried, they were shaken as by a tremendous shaking" (4) (*Surat Al-Hashr verse 9 - The Holy Qur'an*). Thus the Prophet, peace be upon him, was the first to protect Madinah. Protecting cities was one of the most important cultural factors to which people adapt, fortifying their cities either by building walls or digging trenches.



(08) A plan showing the approximate location of the trench of Madinah as planned by the Prophet (peace be upon him).



(09) Main factors of cultural and civilizational development in Madinah in the time of the Prophet (peace be upon him).

Part One

Chapter Three

Cultural and urban development of Madinah during the reign of the Four Rightly Guided Caliphs (11 H. - 40 H) (632 - 661 AD)

Chapter Three: Cultural and urban development of Madinah during the reign of the Four Rightly Guided Caliphs (11 H. - 40 H) (632 - 661 AD):

1.3.1 Cultural and urban development of Madinah in the reign of Abu Bakr Al-Sadiq (14th Rabie I 11 H. - 22nd Jumada II 13 H) (9/6/632 - 23/8/634 AD)

Abu Bakr Al-Sadiq took over the Caliphate of Muslims after the death of the Prophet, peace be upon him. It was a short period which he spent fighting those who apostatised away from Islam after the death of the Prophet, peace be upon him. Abu Bakr continued fighting them until this crisis “trial” was almost over in the Arabian Peninsula. Then he died, may Allah be pleased with him.

The Prophet’s Mosque during the reign of Abu Bakr Al-Sadiq:

Abu Bakr did not have enough time for the reconstruction and expansion of the Holy Mosque because of the war with the apostates. He only renewed the pillars of the Mosque which were parts of palm trees. The Mosque otherwise remained as the Prophet, peace be upon him, had left it. Compiling the Holy Qur’an was also one of Abu Bakr most outstanding deeds. He saw that most of the important companions of the Prophet and Qur’an memorisers (ones who knew the Holy Qur’an by heart) had died in the incidents of Yamama, so he ordered the Qur’an written down for fear of losing or forgetting parts of it. At first it was memorised and written down on palm tree leaves and pieces of leather. Then it was gathered and kept with Hafsa Bent Umar the Prophet’s wife, may Allah be pleased with her (1) (Mohammed -Reda- 1983). Despite all this activity, Madinah was left structurally the same as it had been left by the Prophet, peace be upon him.

B) Cultural and urban development of Madinah during the reign of Umar Ibn Al-Khattab, may Allah be pleased with him. (24th Jumada II 13 H.- 24th Dhu’l Hijjah 23 H) (24th. August 634 - 3rd. Nov. 644 AD)

Umar Ibn Al-Khattab, may Allah be pleased with him, was announced as the Caliph of Muslims on the second day after the death of Abu Bakr. He continued, as had Abu Bakr, to fight the apostates and enemies of Islam and to spread the religion of Islam. He was a model of a fair ruler and experienced politician. Madinah in his reign became the headquarters from which the Muslim armies were dispatched to different places in the world. He, may Allah be pleased with him, was the planner and director of these armies.

New cultural and urban elements during the reign of the Caliph Umar Ibn Al-Khattab:

There were some new cultural and urban elements which appeared in Madinah during the reign of the Caliph Umar Ibn Al-Khattab, may Allah be pleased with him, that can be added to the elements that form the cultural and urban texture of Madinah.

These included:

Having courts of justice:

Umar Ibn Al-Khattab is considered the first who had courts of justice built in cities and countries. Having separate courts is considered one of the new elements of Islamic architecture during that time. The Mosque, in the Prophet's reign, had been used as the court, in addition to other jobs that it already performed. Ibn Al-Khattab appointed Sharih Ibn Al-Hareth to be judge of Kufa, and Qayse Ibn Abi Al-Ass Al-Sahmi to be judge of Egypt, Abu Al-Darda' in Madinah and Abu Mousa Al-Asha'ri in Basra.

Setting the divans:

Setting divans (writing down the details of people's rights) took place in Muharram, 20 H. This element was totally new in the Islamic cultural texture of that time. Divans were common in Al-Sham then. This is shown by Al-Waleed Ibn Hesham Ibn Al-Mugheerah's speech to Umar Ibn Al-Khattab: "Oh, Commander of the Faithful (Caliph). I've been to Al-Sham and I've seen that the kings there set [wrote down] divans and hired soldiers." Then Umar Ibn Al-Khattab listened to him and did what he suggested. He called Aqeel Ibn Abi Taleb, Mekhremah Ibn Naofal and Jabeer Ibn Mota'm and told them to write down the ownership of people's houses, starting with Bani Hashem, then Abu Bakr Al-Sadiq's people, finally Umar and his people. When Umar looked at them he said: "I liked

it to be so but start with the relatives of the Prophet, peace be upon him, then the next, until you put Umar where Allah has put him.”

Then he specified a payment for those who took part in the battle of Badr, immigrants and Al-Ansar (people of Madinah) of 5,000 dirhems a year. For the wives of the Prophet, peace be upon him, he specified 12,000 a year. For those who immigrated before the capture of Makkah, he specified 3,000. 25 dinars went to every ordinary Muslim. 2,000 to 3,000 dirhems went to each of person of Yemen, Al-Sham and Iraq and, to new-born babies went 100 dirhems increased to 200 when they grew older (2) (Mohammed Reda- 1983).

Places for orphans and abandoned children:

Umar Ibn Al-Khattab, may Allah be pleased with him, appointed 100 dirhems for each orphaned child and some money for the person taking care of him or her. He was interested in abandoned children and took care of them. He had houses for them, raised them well and gave them monthly aid from the treasury of Muslims. He took care of following up their conditions and needs. He was generous to them in his mercy and kindness.

Orphanages accounted for some of the public service buildings added to the main elements that formed the architectural texture of Madinah at that time.

The beginning of the system of patrol in Islam:

Umar Ibn Al-Khattab is considered to be the first to patrol in Islam. He saw that he was responsible for the people of his country and “every shepherd is responsible for his herd”. The author cites the well known story of Umar when he went out to check how things were going. He found a woman with some children weeping around her. She put a pot full of water on a fire to make them think there was food in it. Umar came nearer and asked why the children were crying. She said they were hungry. He asked her about the pot on the fire. She told him she had put it there to let them think there was food in it until they slept. He cried when he heard that and went to the charity house. He took some flour, butter, fat, dates clothes and money. Then he asked a man called Aslam to lift all the things that he (Umar) could carry. The man asked to carry the things for him but Umar said he had to carry them because he was responsible in the hereafter for those people. He carried all the things on his back to the house of that woman. Then he put

some food in the pot and kept puffing at it, with the smoke coming out through his beard, until he had cooked the food. After that, he gave each child some food with his hand. Once they had finished eating, he kept playing with them, until they all laughed. He asked Aslam if he knew why he had played with them and the man said No. Umar said he saw them cry and hated to leave them in that condition, and when they laughed, he was pleased.

Umar, may Allah be pleased with him, started the matter of community patrol, today usually carried out by police departments.

Rebuilding and expanding the Prophet's Mosque in the reign of Umar Ibn Al-Khattab:

Expanding and renewing the Holy Mosque in Madinah is considered one of the most outstanding deeds of Umar Ibn Al-Khattab. It was the first expansion to the Mosque after the Prophet's death. Umar, may Allah be pleased with him, had decided to do this because the Prophet, peace be upon him, had previously wanted to do this before his death. Mr Al-Samhoudi says in his book (3) (*Al-Samhoodi 1505*), according to what Yahia reported from Ibn Umar, may Allah be pleased with him, that his father, Umar, said: "I only expanded the Holy Mosque because I heard the Prophet, peace be upon him, say we should expand it". In another report Ibn Umar said: "The people increased in the reign of Umar, then someone said: 'Oh Amir of Believers (Caliph) why do not you expand the Mosque?' Umar replied: 'I would not do that except that I heard the Prophet of Allah, peace be upon him, say: I want to expand our Mosque.'" (4) (*Al-Samhoodi 1505*).

Therefore Umar, may Allah be pleased with him, extended the Mosque. This expansion was said to have occurred in 17 H. He also took the neighbouring houses for the Mosque in three ways: either by buying those houses with money from the treasury, accepting them as gifts, or by taking them as charity towards the expansion of the Mosque.

Rebuilding and expanding the Holy Mosque:

Umar Ibn Al-Khattab's rebuilding and expansion of the Mosque used adobe for walls, cabers of palm trees for pillars and branches for the roof. He built it the way the Prophet, peace be upon him, had done, and in the shapes familiar to the Muslims.

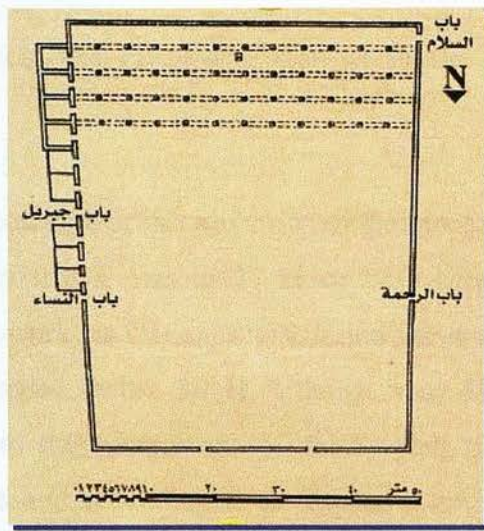
Mr. Al-Samhodi mentioned what "Yahia" said in his report: "And he made the pillars of the Mosque of cabers of palm trees, and its roof of branches of palm trees. He made the roof two cubits of branches with a hedge of three cubits."

He built the bases of stone and used adobe from Al-Baqee' to build a wall of six doors, two on the right of Qibla and two on the left, and two in the Northern wall of the Mosque. He did not change the door of Atekah known as "Bab Al-Rahmah" (door of mercy), which was made the day the Prophet, peace be upon him, built the Mosque. Al-Samhoudi mentioned this saying: "and he did not change the door of Atekah nor the door through which the Prophet, peace be upon him, used to enter the Mosque" (5) (*Al-Samhoodi 1505*).

Umar Ibn Al-Khattab was the first to enlarge the Prophet's Mosque. Abu Bakr's earlier restoration had not resulted in any increase to the Mosque, but merely a change of the pillars after they had been damaged by worms. Mr. Al-Wakeel mentioned the report of Al-Emam Al-Bukhari, may Allah's mercy be upon him, in his "Sahih": "The Mosque, in the Prophet's period, was built of adobe with its roof of branches of palm trees, and its pillars of cabers of palm trees. Then Abu Bakr did not add anything but Umar did. He used adobe, branches and cabers of palm trees" (6) (*Al-Wakeel 1988*).

The width of the Mosque, after this expansion became 120 cubits (60 m) from the East to the West, while its length from North to South was 140 cubits (70 m). that is 9 cubits (4.5 m) more to the direction of Qibla (an increase equivalent to one hall). It was also enlarged by 31 cubits (15.5 m) in the rest of the Mosque. The total increase was about 71% of the original area (7) (*Lamiee 1981*).

The height of the roof of the Mosque was 11 cubits (nearly 5.6 m). The thickness of the roof (bridges and covering) was around two cubits (1 m). A hedge was made on the roof with a height of 3 cubits. The bases were built of stone as high as a human being, i.e., 3.5 cubits (1.75 m) (8) (*Lamiee 1981*). The floor of the Mosque was covered with shingle brought from the valley of Aqiq. It was also decorated with big lanterns and lamps to be lighted.



(01) Ground plan of the Prophet's Mosque during the reign of Umar Ibn Al-Khattab, may Allah be pleased with him (17 H / 632 AD).

1.3.3 Cultural and urban development of Madinah during the reign of the Third Caliph, Uthman Ibn Affan, may Allah be pleased with him. (1-1-24 H. / 8-12-35 H) (7-11-644 / 17-6-656 AD):

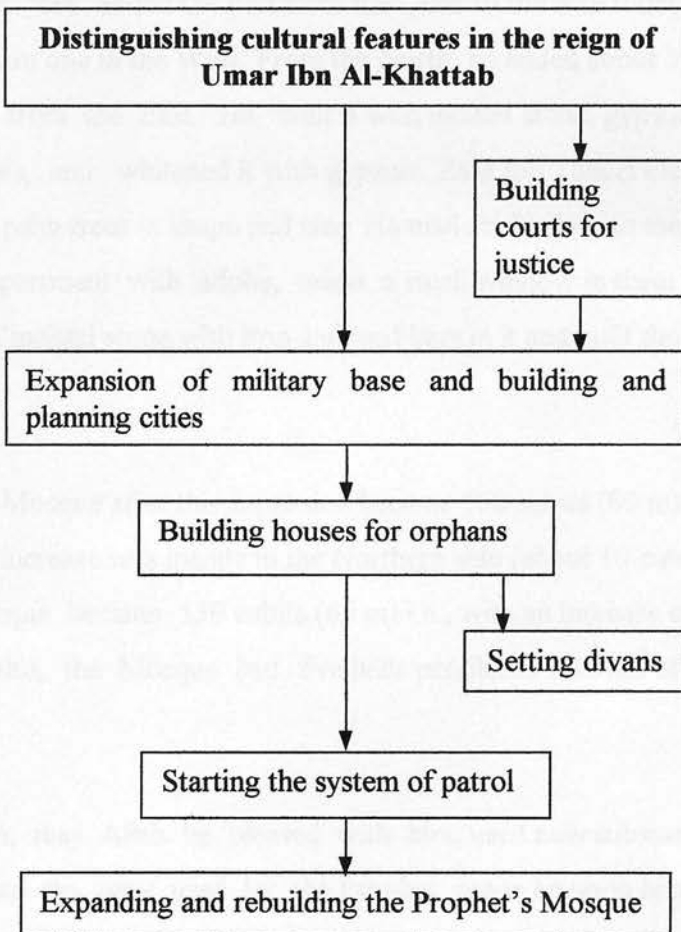
Uthman took over the Caliphate after Umar's death on 1-1-24 H and after the people had chosen him unanimously to be the third Caliph. He was called "Thunnurain" (possessor of two lights) because he married two of the Prophet's daughters Ruqayya and Um Kulthoum. He continued spreading the religion of Allah (Islam), expanding the Islamic estate and the work of the previous Caliph.

His period of Caliphate was of great benefit for Islam and Muslims. In his reign the area of the Islamic state reached Al-Nouba in Egypt and the borders of India. The fear and reverence for Muslims increased among the other countries and states, especially among the Romans. They also opened (captured) North Africa and killed the last of the Persian Kings. They invaded Turkey and reached the Caucasus (Iberian Countries). All of these conquests were accomplished very quickly.

The expansion and rebuilding of the Prophet's Mosque is considered the most important cultural and urban characteristic in the reign of Uthman Ibn Affan.

Expanding and rebuilding the Prophet's Mosque in the reign of Uthman Ibn Affan:

Reports differ as to the exact date of this expansion of the Mosque. Some say it occurred in 24 H while others say that it was in 27 H or 29 H. Most historians agree that it happened in 20 H. The work in that expansion lasted about ten months, which means that it almost certainly ended before 30 H. Uthman, may Allah be pleased with him, consulted the people from the companions of the Prophet, peace be upon him, about taking down the Mosque and rebuilding it to expand it, and they agreed because the number of Muslims had increased and the Mosque had become too small for them. He then started immediately in obtaining the surrounding houses and taking them down to absorb them into the area of the Mosque.



(02) Cultural and urban elements of Madinah in the reign of Umar Ibn Al-Khattab.

He, may Allah be pleased with him, took part himself in the work. He did not leave the spot although he was a man who fasted during the day and prayed all night. He sat and even slept in the Mosque. Abdul-Rahman Ibn Safinah said: "I saw the pot of building substance carried to Uthman while building the Prophet's Mosque. He was standing with the artisans working around him until prayer time, then he led them in the prayer. He might go to sleep and come back or he slept in the Mosque" (9) (*Al-Samhoodi 1505*).

In the Sahih of Al-Imam Al-Bukhari, Abu Dawood reported from Nafie that Abdullah Ibn Umar told him that the Mosque in the days of the Prophet, peace be upon him, was built of adobe and its roof of branches of palm trees. Uthman made a large expansion. He built the walls and the pillars of decorated stone and the roof of teak (10) (*Al-Samhoodi 1505*).

The expansion of Uthman Ibn Affan to the Mosque:

Ibn Al-najjar says: "He added the part from the Qibla to the wall today in addition to a pillar after the square one in the West. From the North, he added about 50 cubits and did not add anything from the East. He built it with incised stone, gypsum and palm tree wood and branches, and whitened it with gypsum. Zaid Ibn Thabet changed the pillars and made it like palm trees in shape and size. He made holes in it to the East and West. He built the compartment with adobe, made a small window in them to the front and made the pillars of incised stone with iron and lead bars in it and built the roof with teak" (11) (*AL- Najjar 1245*).

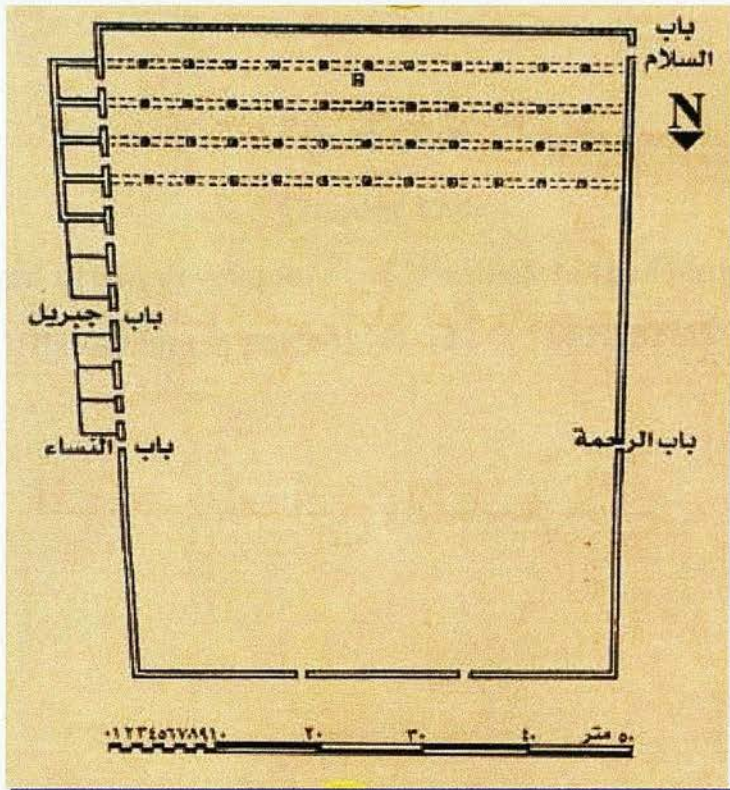
The length of the Mosque after this expansion became 160 cubits (80 m) from the North to the South. The increase was mainly in the Northern side (about 10 cubits or 5 m). The width of the Mosque became 130 cubits (65 m) i.e., with an increase of about 10 ones (one hall). With this, the Mosque had five halls parallel to the wall of Qibla, and God knows best.

Uthman Ibn Affan, may Allah be pleased with him, used new substances to build the Mosque rather than the ones used by the Prophet, peace be upon him, Abu Bakr and Umar, may Allah be pleased with them. He substituted incised stone for adobe and palm tree cabers by stone pillars filled with iron and lead (to fix the stones of the pillars to each other). This method derives from Byzantine architecture and Qubbat Al-Sakhra (12)

(Lamiee 1981). A compartment was made around the mihrab area with windows through which people could look ahead to protect the Imam (leader of the prayer) to prevent a repeated incident like the murder of Umar Ibn Al-Khattab, may Allah be pleased with him (13) (Lamiee 1981).

After this expansion, the Prophet's Mosque, had a new style and different building substances which were not known before in building Mosques. This change led to objections from some Muslims who had wished to keep the Mosque the way it had been, with adobe and palm tree cabers and branches.

This is made clear in the Hadith reported by Imam Muslim in his Sahih: "Uthman Ibn Affan wanted to rebuild the Mosque and the people hated to do this and liked to leave it as it was, then he said: 'I heard the Prophet of Allah, peace be upon him, say: He who builds a Mosque seeking the satisfaction of Allah, Allah builds a house for him in paradise'" (14) (Al-Wakeel 1988).



(03) Ground plan) of the Prophet's Mosque in the reign of Uthman Ibn Affan, may Allah be pleased with him. (29-30 H / 649-650 AD)

Part One

Chapter Four

Cultural and urban development of Madinah in the Ommaiad period.

(Banu Omayya period) (41-132 H / 661-752 AD):

Chapter Four: *Cultural and urban development of Madinah in the Ommaiad period. (Banu Omayya period) (41-132 H / 661-752 AD):*

The Ommaiad state began after the end of the caliphate of the Rightly Guided Caliphs, may Allah be pleased with them, with the murder of our master, Ali Ibn Abi Taleb on Ramadan 17th 40 H (661 AD). The Caliphate's headquarters was moved to Damascus in the beginning of the Ommaiad period, then to Baghdad and Samra' sometime in the Abbasi period (1) (*Lamiee 1981*). This was after Al-Hassan Ibn Ali's concession of the caliphate to Ma'aweah Ibn Abi Sofian on 25th Rabie I 41 H. The caliphate of Bani Ommaya (the Ommaiads) continued until the battle of Al-Zab which was between the armies of the Abbasids and the Ommaiads and ended in the defeat of Marwan Ibn Mohammed the last Ommaiad Caliph on 11th Jumada I 132 H. This Caliphate lasted about ninety one years and had twelve Caliphs. (2) (*Mohammed Reda- 1983*) Mu'aweah Bin Abi Sofian who ruled in the period 41-60 H was the first of them.

Mu'aweah crowned Marwan Ibn Al-Hakam prince of the area of Madinah, Marwan remained until he was deposed in 49 H. Sa'ied Ibn Al-Asse briefly took over the post until Marwan was returned in 54H, to be deposed again in 58H. Then Al-Waleed Ibn Utbah took over and remained until the death of Mu'aweah Ibn Abi Sofian. Rule revolved in Madinah until the just Caliph, Umar Ibn Abdul-Aziz, may Allah be pleased with him, took over, remaining until 94 H.

Madinah kept its cultural framework without any changes except for some clear fluctuation in the number of inhabitants. In 62 H the number decreased as a result of the wars made by Abdullah Ibn Al-Zubair and some people of Madinah against the Ommaiad rule in 62 H / 683 AD (3) (*Lamiee 1981*).

The main reason of the people's anger with the Ommaiads was Yazeed Ibn Mu'aweah's taking over of the Caliphate. They refused to recognise this because they saw that the nomination of Yazeed for the Caliphate by his father, Mu'aweah Ibn Abi Sofian, had not been done right according to Islamic law.

Those wars led to the emigration of many of the inhabitants of Madinah for safety elsewhere. They wanted to flee politics and from any contact with the soldiers of Yazeed.

Once things had settled down and armed activities were over in Madinah, at the end of the reign of Abdullah Ibn Al Zubair, Madinah returned to its previous circumstances. Many of its inhabitants returned and Madinah teemed with scholars and seekers of nearness to the Prophet's Mosque. The city became a shelter for the wealth of the Ommaiads. This growth catalysed activities and crafts to fulfill the desires and needs of the people. Different crafts appeared, such as smithery and carpentry. Several businessmen settled in Madinah. There were also clothes washers, shoe-menders, cooks, representing all the professions necessary to the life of a city (4) (Mohammed Reda- 1983).

We can sum up the most important cultural and urban characteristics of Madinah in the Ommaiad period in five main points:

First: Expansion and rebuilding of the Prophet's Mosque in the reign of the Caliph: Al-Waleed Ibn Abdul Malek (86-96 H)

Second: Rebuilding of the market (Suq Al-Manakha) in a new style and the introduction of joint use for dwelling and commercial purposes in the rule of Hesham Ibn Abdul Malek (105-125 H) and the nourishing of commercial activities.

Third: Channeling Al-Ain Al-Zarqa' or what is called 'Ain Al-Azraq' by the ruler of Madinah at that time: under an order from the Caliph Mu'aweah.

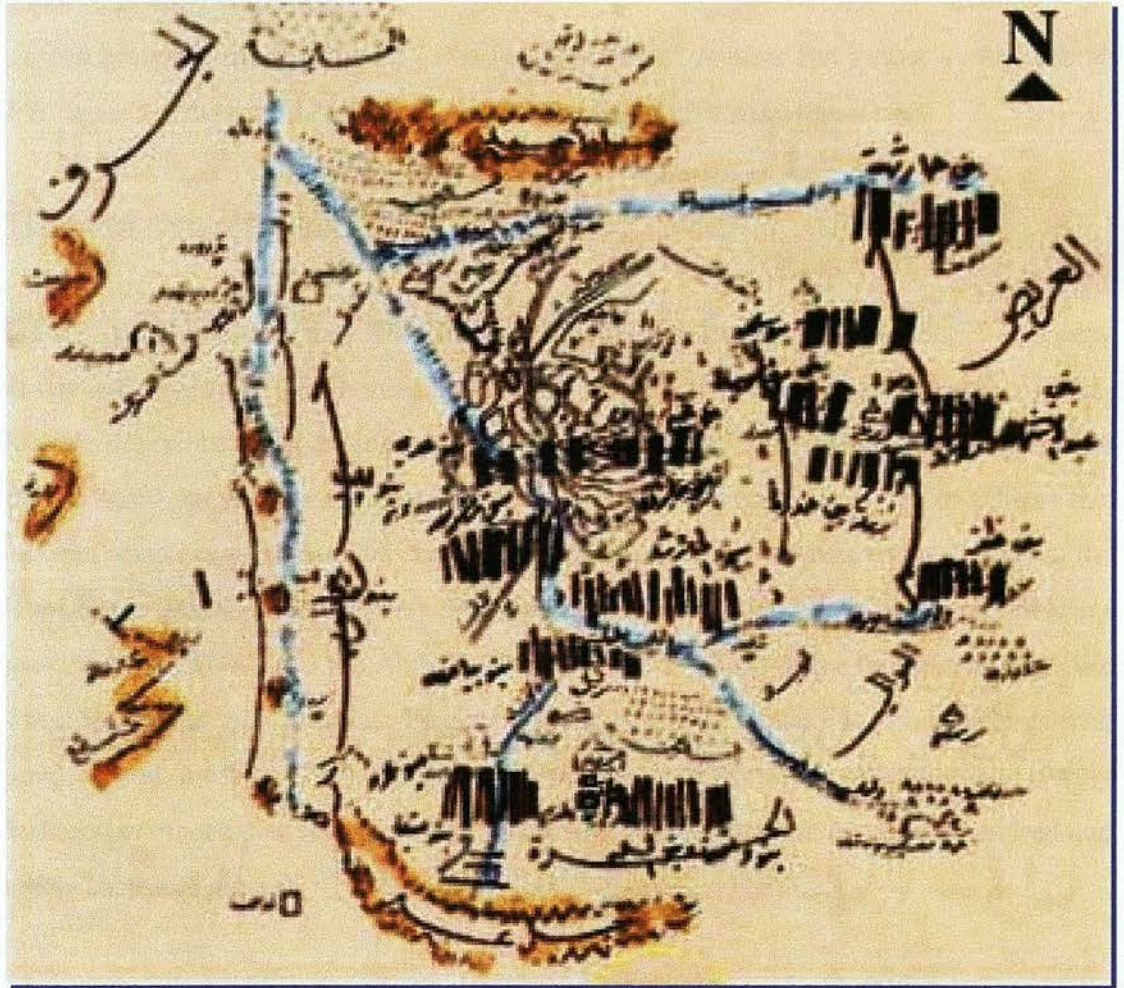
Fourth: The growth of thorough cultural development of Madinah, and cultural and civilisational advancement of the area of Wadi Al-Aqiq with the building of luxurious houses and palaces, and farms and gardens, especially in the rule of the Caliph Marwan Ibn Mohammed Ibn Marwan (Marwan the second) (127-132 H).

Fifth: Rebuilding many of the old Mosques in the reign of the Caliph Al-Waleed Ibn Abdul-Malek (86-96 H) under the supervision of the ruler of Madinah at that time: Umar Ibn Abdul-Aziz, may Allah be pleased with him.

There follows a more detailed explanation of these five characteristics:

1.4.1 Expansion of the Prophet's Mosque:

The Prophet's Mosque remained the way it had been after the last expansion in the reign of the third Caliph, Uthman Ibn Affan, may Allah be pleased with him, in 29-30 H until Al-Waleed Ibn Abdul-Malek took office (86-96 H). He saw that it was important to expand and rebuild the Mosque. It had been sixty years since the last time it was rebuilt. Abdul-Malek ordered his then ruler of Madinah, Umar Ibn Abdul-Aziz, may Allah be pleased with him, to rebuild and expand the Mosque and take the houses of the Mothers of Believers (wives of the Prophet, peace be upon him) and add them to the area of the Mosque, in addition to some neighbouring houses. The building works began approximately in Safar 88 H and continued until 91 H (710 AD).



(01) A plan of Madinah showing the areas of distinctive cultural development in the Omayyad period (41-123 H / 61-752 AD)

The houses lost in the expansion of the Mosque:

The Caliph, Al Waleed Ibn Abdul-Malek ordered his ruler of Madinah, Umar Ibn Abdul-Aziz, to buy the surrounding houses of the Mosque to add them to the area of the Mosque. They were three groups of houses of the Mothers of Believers to be incorporated into the Mosque. The first one was in the East of the Mosque, the second was in the North of it and the third was in the West of it. Each group contained the following :

- a) The houses in the East included that of Fatima (the Prophet's daughter) and Abdullah Ibn Maso'ud', whose house was known as "The house of Readers" (Dar Al-Qurra') and some other houses for Hashem Ibn Utbah Ibn Abi Waqqas.
- b) The houses in the North contained some rooms for the Mothers of Believers, may Allah be pleased with them.
- c) The houses in the West were Talha Ibn Abdullah's , Ammar Ibn Yasser's , Abi Sebrah Ibn Rahm's , Marwan Ibn Al-Abbas Ibn Abdul-Muttalib's (5) (Al-Wakeel 1988).

The rebuilding of the Mosque:

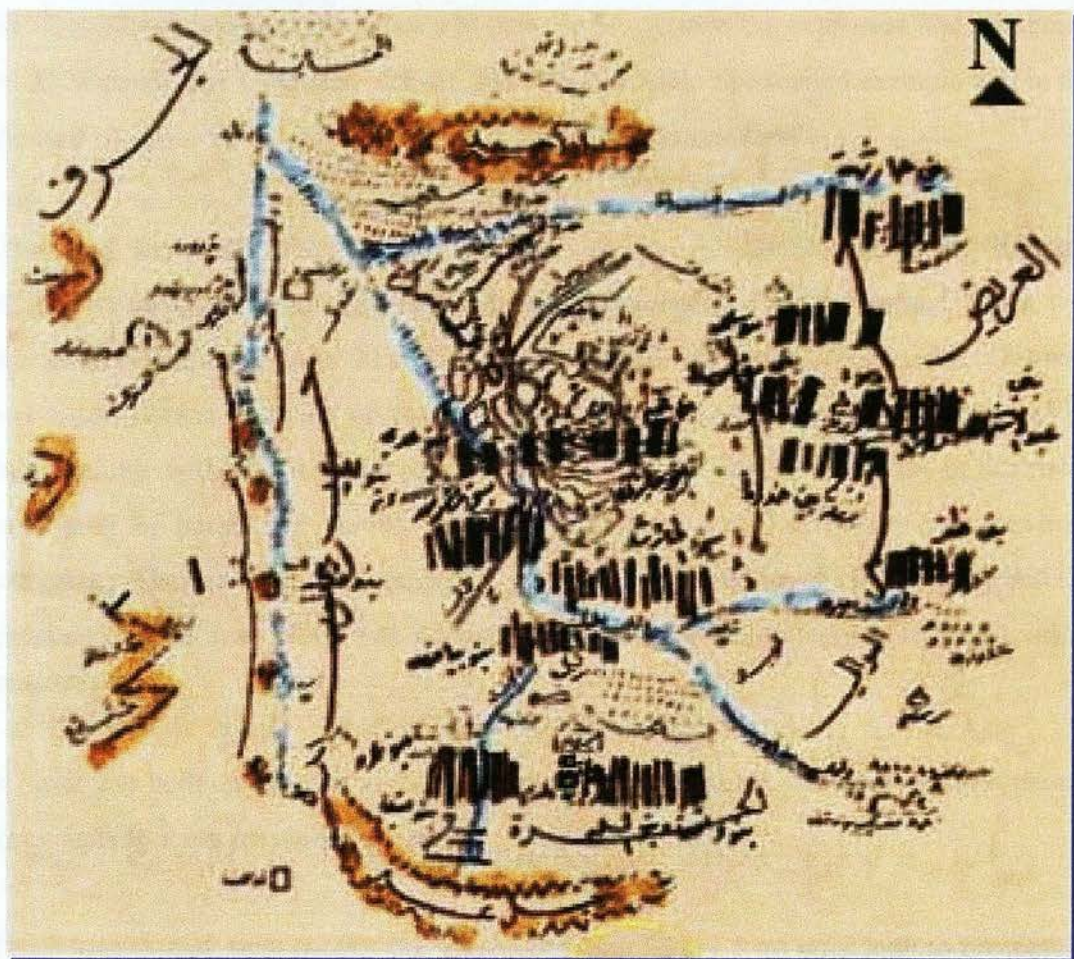
Umar Ibn Abdul-Aziz, may Allah be pleased with him, started the rebuilding after taking down and removing the houses mentioned above. The Caliph, Al-Waleed Ibn Abdul-Malek desired to finish the job with the best results concerning the design, the splendour of the building and the accuracy of work. He saw that there was no way to achieve this without employing skilled workers trained in such work. He wrote to the Caesar of the Romans to ask him for builders. Mr. Al-Samhoudi cites Ibn Zebala in this regard (6) (Al-Samrai'e 1984): "Al-Waleed Ibn Abdul-Malek wrote to the King of the Romans saying: 'We want to rebuild our greatest Prophet's Mosque. So we would like you to help us with builders and mosaic'. Then he said 'He sent us loads of mosaic and more than twenty builders or more than ten, and said: 'I have sent you ten that are equal to a hundred and eighty thousand dinars'.

These aids reached Madinah after Umar had finished taking down and removing the neighbouring houses. Umar initiated the work right away. He had the foundations made of stone, built the walls of incised and identical stone and gypsum, the pillars of stone

filled with reinforcing bars of iron and lead, and the roof of teak, painted with gold and decorated with mosaic and alabaster (7) (Al-Samra'i'e 1984). Copts, builders from Egypt, built the front (the Southern elevation) and the Romans built the remaining three sides.

Umar instructed that the base of each pillar be made thick enough to cover an area equivalent to two praying men. He was known to give workers who did their work well, for example in the making an excellent mosaic design, bonuses of thirty denars (8) (Al-Bourzange 1885).

After investigation Mr. Al-Samhoudi said that the length of the Mosque, after the expansion of Al-Waleed Ibn Abdul-malik, was about 200 arms (100 m). Then he mentioned a report of Ibn Zebala who said, "The width of the Mosque at the front was 165 arms; the width in the side of the Qibla was 83 m, and the width at the back was about 65 metres".



(02) The Prophet's Mosque after the expansion of Al-Waleed Ibn Abdul-Malik and adding the houses of the Prophet, peace be upon him, in (88-91H / 707-710 AD).

Ibn Zebala determined the height of the minarets as follows: the height of the northern one and the one on its right were 55 arms (27.5 m) each as was the Eastern one. Each minaret had a square base of 8x8 arms (or 4x4 m).

The Mosque did not have any minarets, lanais or a niche (mihrab) before that. It was Umar Ibn Abdul-Aziz, may Allah be pleased with him, who was the first to introduce these things in his rule in Madinah. Mr. Al-Samhoudi refers to this from the report of Abdul-Mohaimen Ibn Abbas from his father in which he said: "Uthman died with no lanais or a niche in the Mosque. The first to introduce these was Umar Ibn Abdul-Aziz. Al-Qasim and Salem reported that they looked at the lanais of the Mosque and said they were the ornament of the Mosque" (9) (Al-Samhoodi 1505).

Ustath Saleh Lami'e sites the first appearance of the niche in the Prophet's Mosque in Madinah saying: "The clear and authentic reports from historic sources say clearly that the first niche was in the Prophet's Mosque in Madinah in the expansion and rebuilding of Al-Waleed, the Ommaiad (88-91 H / 710-713 AD). The second example was in the Mosque of Amro'bn Al-Asse in Al-Fustat nearly at the same time".

Umar had the walls of the Mosque built thick and strong of incised stone, the thickness of the Western wall, as Mr. Al-Samhoudi said in the report of Ibn Zebala and Yahia, was less than two arms (around 90 cm). The Eastern wall was about 110 cm thick. This wall was made thicker because of the floods that affect it which had been the cause of its failure along with the wall of the Honourable Room (Grave). The walls of this room were built of basalt and carved stone with no doors. A wall of quinary slate was built around it. The walls of the room did not reach the ceiling of the Mosque and the remaining space was filled with a wooden window that was two arms (1m) high. (10)(Al-Wakeel 1988).

A wall was built on the roof of the Mosque above the Prophet's room to prevent people from walking there (11) (Abd Rabbuh 1983).

The Mosque had two roofs, the lower one being 23 (11.5 m) arms high to protect the worshipers from the rain, and the higher one being 25 arms (2.5 m) high.

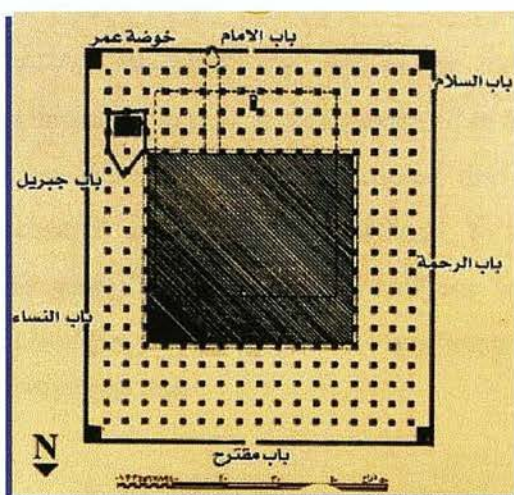
Ibn Abd Rabbuh gave an accurate description of the niche of the Mosque, saying "The hollow of the niche was very accurate and had some circuits in it, some of which were golden and others were maroon and black. Below these there was an incised piece of gold, then eight pieces of gold with a piece of agate as big as the head of a small boy. Below this, there was a wrapper of marble in which there was the stake on which the Prophet, peace be upon him, used to lean when getting up after prostration. On the right of the niche there was a door for the Imam (prayer leader) to come in and go out, and a small door on the left stanchied with iron bars. Between each of these doors and the niche there was a small space" (12) (*Abd Rabbuh 1983*).

Ibn Jabeer gives another description, after his visit to Madinah in 580 H (1184 AD), of the mosaic work that was done in the Ommaiad period: "The top half of the wall is totally incised with lobes of gold known as mosaic. The workers produced works of Western device including portrayals of different shapes of trees with branches bearing fruit. The whole Mosque is the same but the wall of the niche is more incised, as is the wall looking upon al-Sahn (the uncovered area in the middle of the Mosque) from the direction of the Qibla and the middle. The Eastern and Western walls looking upon Al-Sahn are white and decorated with paintings of different colours that take along time to pass" (13) (*Ibn Jabeer 1908*).

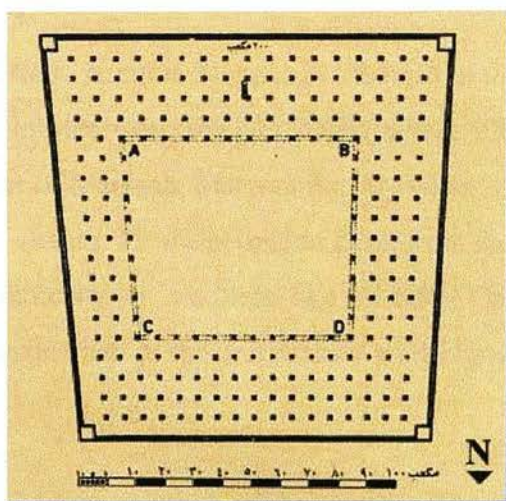
The Mosque kept having its four main gates which are Bab Al-Nessa' (women's gate), Bab Jibreel in the Eastern wall, Bab Al-Salam (peace gate) and Bab Al-Rahma in the Western wall.

The platform of the Mosque was raised six degrees (stairs) in the reign of Mou'weah Ibn Abi Sufian by the ruler of Madinah at that time Marwan Ibn Al-Hakam. A window-shaped door was built to it (14) (*Lamiee 1981*).

Umar Ibn Abdul-Aziz was also interested in making a traverse of teak in the Mosque. With that, the Mosque took on a stately appearance and lost the original modesty that the Mosque had had before.



(03) The Prophet's Mosque in the Ommaiad period, ground floor plan (SAVACET) (15) (Lamiee 1981).



(04) The Prophet's Mosque in the Ommaiad period, ground floor plan (CRESWELL) (18) (Lamiee 1981).

1.4.2 Rebuilding of the Suq (market) and the appearance of commercial habitation

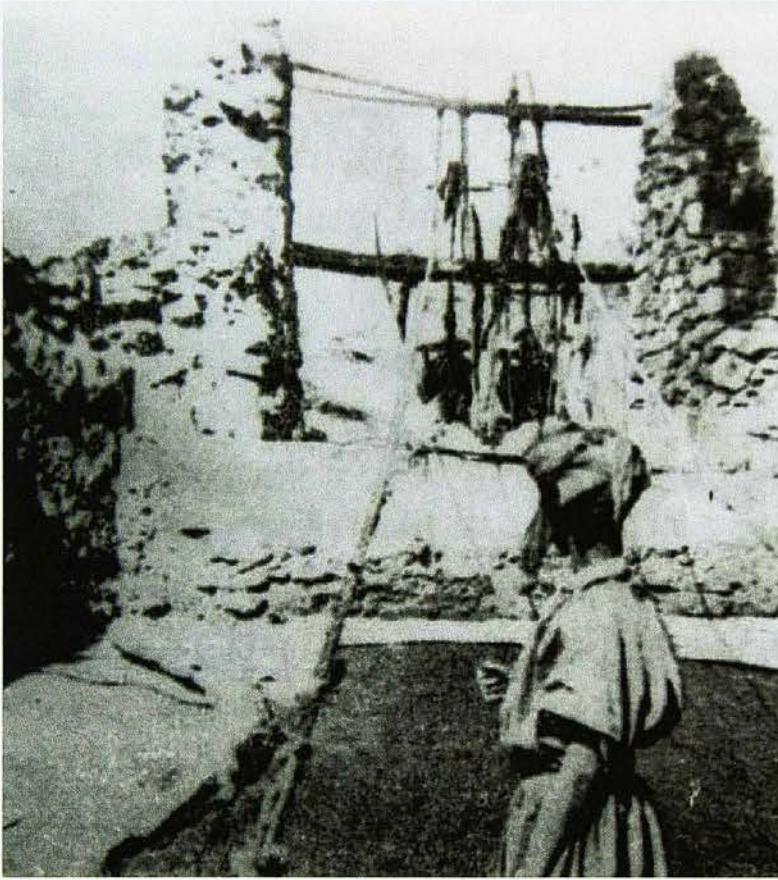
The Suq of Madinah remained the way it had been for some time after the Prophet, peace be upon him, without any further construction or building. It was public, served everyone without exception and no one had the right to take any part of it.

Moa'weah Ibn Abi Sufian (41-60 H) was the first to build a house for himself inside the market. With this, commercial housing appeared even though only buying and selling was what the Prophet, peace be upon him, had granted for this place. After that, Ibraheem Ibn Hesham Ibn Isma'iel Ibn Hesham built another house, some of which intruded upon the limits of the market, and with which he covered the fronts of the houses looking upon the market (17) (Al-Samhoodi 1505).

Dr. Saleh Lam'ie referred to this house saying: "The shape of the market changed after Hesham Ibn Abdul-Malik had built some buildings inside the market at Al-Manakha. The ground floors were used as shops and the top floors were used for housing. This was the first attempt in Madinah to find a relation between the commercial and dwelling zones".

1.4.3 Channeling Al-Ain Al-Zarqa' (a well), otherwise called "Ain Al-Azraq"

Al-Ain Al-Zarqa' was one of the most important cultural features in Madinah in the Ommaiad period. It was channeled in the reign of Moa'weah Ibn Abi Sufian, whose rule was from 41-60 H. He ordered the then ruler of Madinah, Marwan Ibn Al-Hakam to channel a well through Madinah, to make a stream for the people to drink from and irrigate their lands with and use without difficulty or wariness like Al-Sam This channeling took place in the beginning of the second half of the first century after Hijrah (18) (Sharab 1984).



(05) The wellhead of Bier Al-Azraq West of Quba' Mosque.

A stream was made from a well to the West of Quba' Mosque in the grove of Al-Ja'faria. Several wells were later included, such as the well of Aris, known as Bier Al-Khatam, in front of Quba' Mosque, Bier Al-Rebat and Bier Boierah. Then the stream ran along to Bier Al-Shallalien, then Bier Al-Ghorbal and the other wellheads that were added later.

The water ran in a special spillway under the ground which was called, by the people of Madinah, Al-Dabal. It was built of stone and was sectioned into rectangles. It differed from place to place, as it became wider at the watering places that were dispersed along the spillway track. These watering places were also used as check points for cleaning and repairing the stream until it reached the main watering place in Al-Manakha, next to Abu Bakr Al-Sadiq's Mosque. A big dome was built over this watering place from which two main streams come out: one to feed the well of Bab Al-Salam in the lane of Aghawat and Ain Al-Hamam, and the other which fed Ain Al-Saha and Ain Al-Zeki. Both streams fed a number of lesser wells in addition to the other ones which were spread along their lengths. The small watering places were called "Kharazat" which occupied half-dome-shaped structures / wellheads, made of stone with a hole on top, either square or circular, long enough to reach the water in the stream. Water could be got through them by a rope and bucket.

1.4.4 Flowering of through cultural development of Madinah and the urban and cultural progress of the area around the valley of Aqeeq:

The numbers of inhabitants increased in Madinah during the Ommaiad period, especially in the rule of the Caliph Marwan Ibn Mohammed Ibn Marwan (Marwan The Second, 127-132 H) (19) (*Lamiee 1981*). Many people and scholars were attracted to Madinah after the end of the armed movements in Madinah, which ended after the end of the rule of Abdullah Ibn Al-Zubair (20) (*Sharab 1984*). It became the ideal place for many of the rich of Quraish and Bani Umayyah, who loved to inhabit large palaces surrounded by farms and groves.

Many of these palaces and luxurious buildings were built around the valley of Aqeeq. His rule was characterized by the cultural rise and the development of construction methods. The phenomenon of constructions spread all over Madinah, in particular on the two sides of the valley of Al-Aqeeq. The history of these buildings and constructions correlates with the history of the Ommaiad state .

Both were characterized by the same things. The cultural development was directly connected with the political, economic and social life. The culture reached a high

standard, such that the Ommaiad period was considered the golden age of restoration and construction in the valley of Al-Aqeeq.



(06) Some of the ruins of Said Ibn Al-Asse's palace which was built in Madinah during his rule in the Caliphate of Moa'weah Ibn Abi Sufian; i.e. between 41 - 60 H.

1.4.5 The restoration and construction of some old Mosques in Madinah:

Old Mosques in Madinah had the first thorough restoration of their structures in the reign of the Ommaiads during the time of the Caliph, Al-Waleed Ibn Abdul-Malik and under his ruler of Madinah, Umar Ibn Abdul-Aziz, may Allah be pleased with him. Umar Ibn Abdul-Aziz did a lot of restoration to many of the old Mosques. One such was Quba' Mosque, when it really required instauration (restoration). He built its minaret when he was the ruler of Madinah (87-93 H) (21) (*Ministry of Hajj 1989*).

This programme of restoration also included Abu Bakr Al-Sadiq's Mosque and Bani Haram's Mosque, located in a gap in the mountain of Sala'. Umar Ibn Abdul-Aziz also rebuilt the 'seven Mosques' during the work on the Prophet's Mosque. The reconstruction of the Mosque of Al-Ghamama (Al-Musalli) was the first since its founding.

He also rebuilt the Mosques of Ali Ibn Abi Taleb, Umar Ibn Al-Khattab, and other old Mosques.



(07) The ruins of some buildings and palaces that spread on both sides of the valley of Al-Aqeeq. Many others were built later after the Ommaiad Caliphate, especially in Osmanli Caliphate where stones were used as a main element of construction. The picture above shows the ruins of the walls of the farms and groves that surrounded the buildings and palaces.

To conclude this investigation into the urban and cultural development of Madinah in the Ommaiad period, the most important cultural and urban characteristics can be presented as follows:

Cultural and urban development of Madinah during the Ommaiad period (41-132 H / 661-752 AD)

Expansion and rebuilding of the Prophet's Mosque in the reign of the Caliph Al-Waleed Ibn Abdul-Malik (86-96 H) by his ruler of Madinah, Umar Ibn Abdul-Aziz, in Safar 88 H. The work lasted three years and ended in 91 H / 710 AD.

Rebuilding old Mosques in Madinah in the reign of the Caliph, Al-Waleed Ibn Abdul-Malik, (86-96 H) by his ruler of Madinah, Umar Ibn Abdul-Aziz.

The flowering of through cultural development and the valley of Aqeeq especially in the reign of Marwan Ibn Mohammed Ibn Marwan (127-132 H).

Channeling Al-Ain Al-Zarqa' and building wells and watering places in the reign of Moa'weah Ibn Abi Sufian by his ruler of Madinah, Marwan Ibn Al-Hakam.

The reconstruction of Suq Al-Manakha and the appearance of commercial housing in the reign of Hesham Ibn Abdul-Malik (105-125 H).

(08) Important characteristics of urban and cultural development of Madinah in the Ommaiad period.

Part One

Chapter Five

Cultural and urban development of Madinah in the Abbasid reign.

(132-656 H / 752-1258 AD)

Chapter Five: Cultural and urban development of Madinah in the Abbasid reign.
(132-656 H / 752-1258 AD) (1) (Lamiee 1981)

The Islamic Caliphate devolved to Bani Al-Abbas After the fall of the Ommaiad state with the murder of Marwan Ibn Mohammed by the Abbasids in the church of Abu Siraf on 6th Dhu'l-Hijjah 132H (2) (Shaker 1991). That event marked the end of the Ommaiad state.

Mohammed Ibn Ali Ibn Abdullah Ibn Al-Abbas, who died in 125 H. in Jordan, is considered the first to establish the Abbasid movement and the first to contribute to forming its characteristics and increasing its members and collaborators. Before he died, he asked his son Ibrahim, brother of The Thug, to take over the responsibility of the invitation for the Abbasid Caliphate. Ibrahim ended up being put in prison by Marwan Ibn Mohammed, the last Ommaiad Caliph.

In his turn, Ibrahim asked his brother, The Thug, to take over and to take his family to Kufa in 129 H. Abdullah Ibn Mohammed Ibn Ali Ibn Abdullah Ibn Al-Abbas, The Thug, was the first Abbasid Caliph (132-136 H). The Abbasid Caliphs numbered 37. The last of them was Al-Musta'sem Bellah, killed by the Tatars on Wednesday 14th Safar 656 H (3) (Shaker 1991).

The most important urban and cultural characteristics of Madinah in the Abbasid reign are:

First: The rebuilding and expansion of the Prophet's Mosque during the rule of the Abbasid Caliph, Al-Mahdi Ibn Abi Ja'far Al-Mansour, in 162 H. (778 AD) which lasted about three years (4) (Al-Wakeel 1988).

Second: Digging trenches for the sake of protecting Madinah during wars, such as the trench that Mohammed Ibn Abdullah dug in 145 H (762 AD) (5)(Lamiee 1981) and Al-Hussain Ibn Ali, dug in 169 H (786 AD).

Third: Building walls around Madinah in early attempts to protect it, such as the one built by Is'haq Ibn Mohammed, the prince of Madinah, in 236 H (876-877 AD).

Fourth: Building a hospital (Bemarstan) in the reign of the Caliph Al-Mansour Abu Ja'far Ibn Al-Zaher Be'amr Allah in 627 H (1229-1230 AD).

The author now deals with these four characteristics in greater detail.

1.5.1 Rebuilding and expansion of the Prophet's Mosque

The idea of expansion:

The Prophet's Mosque remained the same after the expansion of the Ommaiad Caliph, Al-Waleed Ibn Abdul-Malik, until the Abbasids took over.

Abu Ja'far Al-Mansour was about to start his expansion, and had already consulted his advisors but his wish to see the work realised did not come true because he died in Dhu'l Hijjah 169 H (158-169 H), at which point his son, Mohammed Al-Mahdi took over (6) (*Shaker 1997*). The latter performed Hajj in 160 H and paid a visit to Madinah. When he saw the condition of the Mosque, he ordered its expansion and asked Abdullah Ibn Assem Ibn Umar Ibn Abdul-Aziz and Abdul-Malik Ibn Shabeeb Al-Fasani to preside over the project. When Abdullah died, Al-Mahdi hired Abdullah Ibn Mussa Al-Hemsi (7) (*Al-Wakeel 1988*).

Removing the houses for expansion:

The people in charge of the project took houses from their owners to demolish them and add their areas to the Mosque. All of those houses were North of the Mosque, at the back. It is known that the expansion of Al-Mahdi was confined to the Northern side and added nothing to the other three sides (8) (*Al-Samhoodi 1505*). The work began, according to most of the reports, in 161 H and ended in 165 H (9) (*Al-Wakeel 1988*).

Expanding and rebuilding the Prophet's Mosque during the rule of Al-Mahdi:

Some historians say that the expansion of the Mosque in the rule of Al-Mahdi was about 100 cubits in the direction of Al-Sham and that he did not add anything to the direction

of the Qibla nor to the West. He added ten pillars in the hall of the Mosque and some others in the women's place (10) (Al-Samhoodi 1505).

Dr. Mohammed Al-Sayyed Al-Wakeel assures us of this saying: "what is obvious after a lot of historians have measured the Mosque, is that after Al-Mahdi's expansion, the Mosque was no more than 255 cubits long" (11) (Al-Wakeel 1988). The length of the Mosque was around 250 cubits after Al-Mahdi's expansion. He took down the five North hallways, which looked upon the uncovered hall built by the Ommaiad Caliph, Al-Waleed Ibn Abdul-Malik. Some permutations and changes were made to the eastern and Western hallways. He also constructed some doors into the outer Eastern and Western walls and had written down on them information about the incident.

Al-Mahdi made a lot of modifications and improvements to the architecture of the Mosque as a whole, such as incising its walls and decorating them with mosaic (12)(Al-Wakeel 1988).

After that expansion, the Mosque contained seventeen pillars parallel to the wall of the Qibla in the Northern side, and twenty-eight ones parallel to the Eastern and western walls. There were five hallways in the area of the Qibla, five in the Northern area, three in the Eastern area and four in the Western area. Ustaz Mustafa Lami'e talks about the elevations that looked upon the hall, saying that both Northern and Southern elevations contained eleven knittings through which they looked upon the uncovered hall while the Eastern and Western ones looked upon the same hall through nineteen knittings in each. He adds that there were wooden hedges fixed on top of the holes of the knitting, believing that they were for protection from the sun (13) (Lamiee 1981).

Al-Mahdi made twenty-four doors in the Mosque; eight of them in the Western wall (in the direction of the market), eight in the Eastern one, four in the Northern one and four in the Southern one. He also took down the Ommaiad compartment and reduced its level to match the floor of the Mosque (it had been two cubits higher). He intended to close the wicket (a subsidiary door for use by people) of Umar Ibn Al-Kattab but they convinced him to give them permission to keep it open and lower its level to that of the Mosque floor. It was then in the Mosque, outside the compartment, with a ferric window. He added three stairs in the Mosque for the wicket (14) (Al-Samhoodi 1505).

That the Mosque had three minarets is demonstrated by the visit of the traveler, Ibn Jebeer, to Madinah in 580 H (1184 AD). He said: "The Mosque has three minarets, one of them is in the Eastern corner and the other two are in the Southern side as small as two towers". The first-mentioned one is cell-shaped (15) (*Ibn Jebeer 1908*). Therefore it seems that Al-Mahdi did not take down the minarets of the Mosque built in the Ommaiad period. Then, Ibn Al-Najjar tells us about the height of them saying that each of them was about 55 cubits high and the plan of each was square of 8x8 cubits (16) (*Lamlee 1981*).

After his visit to Madinah, Ibn Jebeer gives us a description of the Mosque from inside; i.e., embellishment and mosaic, saying: "The bottom half of the wall of the Qibla was marbled with wrapper on each other different in style and colour and wonderfully veined. The top half is covered with lobes of gold known as mosaic. The craftsmen produced a lot of strange forms, including portrayals of different trees with swinging branches with their fruit. The whole Mosque is the same but the wall of the Qibla is more decorated, and so is the wall looking up the hall. The Eastern and Western walls, looking upon the hall, are white and decorated with drawings that have types of colours difficult to describe" (17) (*Ibn Jebeer 1908*).

Some repairs and other kinds of work were done to the Mosque in the Abbasid period besides its expansion during the rule of Al-Muhdi, which was the main project of that period. Here are the most important of the above-mentioned repairs:

1) In 151 H (767 AD), in the rule of Abi Ja'far Al-Mansour, before the expansion of Al-Mahdi, the ruler of Madinah then, Al-Hassan Ibn Zaid Ibn Hassan Ibn Ali Ibn Abi Taleb removed the marble of the tribune (minbar) and widened it at the sides till it reached the pillars (18) (*Al-Samhoodi 1505*).

2) In 193 H (809 AD), in the reign of the Caliph Haroon Al-Rasheed (170-193 H), Abu Al-Buhtur'i Ibn Wahab, the ruler of Madinah at that time, did some repairs in the ceiling of the Mosque above the Prophet's Honourable Grave.

3) In 202 H (818 AD), in the reign of the Caliph Al-Ma'moun Ibn Haroon Al-Rasheed (198-218 H) (19) (*Shaker 1991*), a small instauration was done, not for

expansion but as repairs. This is stated by Al-Samhoudi who says that there was no new instauration in the reign of Al-Ma'moun.

4) In 246 H (860 AD), in the reign of the Caliph Al-Mutawakkil Ala-Allah (232-247 H), (20) (*Shaker 1991*) the wall was covered with marble as high as a man (1.75 m). The ground floor was covered with white marble and some walls were mended and covered with mosaic. Is'haq Ibn Muslima supervised the work (21) (*Al-Wakeel 1988*).

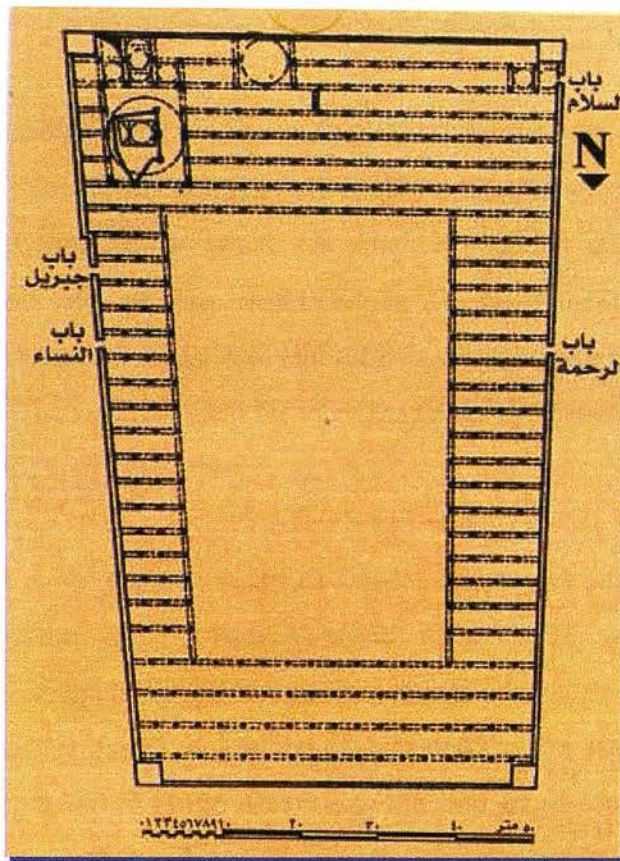
5) In 282 H. (895 AD) in the reign of the Caliph Al-Mu'taded Billah Ahmad Ibn Talhah Al-Mowaffaq Ibn Ga'far Al-Mutawakkil, who ruled from 279 to 289 H, some repairs were made to the Eastern elevation, overlooking the uncovered hall.

6) In 548 H. (1153 AD) in the reign of the Caliph Al-Muqtafi Li'Amr Allah Muhammed Ibn Ahmad Al-Mustaz'her (530-555 H) the wazeer, Bani Zenki Jamal Al-Din Al-Asfahani, renewed the marble on the walls of the grave from the outside. This was undertaken during the rule of Qasim Ibn Mehanna Al-Husaini in Madinah.

7) In the reign of the Caliph Al-Mustadie' (Al-Hasan Ibn Yousuf Al-Mustanjed), who ruled from 566 to 575 H, Hussain Ibn Abi Ali-Haija' completed covering the outside walls of the grave with marble.

8) In 576 H (1181 AD) in the reign of the Caliph Al-Nasser Lidin Allah "Ahmad Ibn Al-Hasan Al-Mustadie' Be'Amr Allah" (575-622 H), a dome was made in the middle of the hall for keeping important relics, books like the Osmanli Mus'haf and some boxes. In 589 H (1193 AD) the Eastern wall of the North Eastern minaret was renewed (22) (*Al-Samhoodi 1505*).

In 593 H (1197 AD), the Ommaiad platform (minbar) was renewed but later burned in 654 H (1197 AD) during the fire that happened in that year (23) (*Al-Samhoodi 1505*).



(01) Ground plan of the Prophet's Mosque in the Abbasid reign 165 H (782 AD).

1.5.2 Digging trenches for the sake of protecting Madinah in times of war:

Mohammed Ibn Abdullah, from the lineage of Ali Ibn Abi Talib, may Allah be pleased with him, dug a trench in the same place where the Prophet, peace be upon him, had dug his during Al-Khandaq battle. This was during his attempt to protect Madinah against the army of Abu Ja'far Al-Mansour, whose reign saw much trouble and disturbance (24) (*Al-Barad'ie 1972*).

That trench, dug in 145 H (762 AD) is considered to be the third attempt to protect Madinah by trenches, as it was preceded by the one dug by Abdullah Ibn Al-Zubair, in the Ommaiad reign, to the North of Madinah in 62 H (683 AD) to prevent the Ommaiad soldiers from entering Madinah under the command of Muslim Ibn Uqbah, this attempt itself being preceded by the blessed one of the Prophet, peace be upon him, during the battle of Al-Khandaq in 5 H.

1.5.3 The appearance of building walls to protect Madinah

The first wall to be built around Madinah was that built by the ruler of Madinah Is'haq Ibn Mohammed Ibn Yousuf Al-Ja'fari, in 253 H (877 AD) (25) (*Al-Barad'ie 1972*) during the rule of the Abbasid Caliph Al-Mu'tamid Ala Allah Ahmad Ibn Ja'far Al-Mutawakkil (256-279 H) (26) (*Shaker 1991*). It was built of adobe. The construction followed several concurrent wars and attacks that Madinah had suffered during the reign of Bani Umayya and Bani Al-Abbas. The wall remained for more than a hundred years until it was taken down in 367 H (978 AD) (27) (*Lamiee 1981*).

The wall was rebuilt with stone by Adod Al-Dawlah Ibn Boweh during the rule of Al-Tae' Lillah Abdul-Karim Ibn Al-Fadl Al-Mutie' (362-381 H) (28) (*Al-Samhoodi 1505*). Thereafter it became dilapidated with the passing of time and became nothing but ruins until it was renovated by Jamal Al-Din Ibn Mohammed Ibn Abi Mansour Al-Asfahani (Wazeer Bani Zenki) in 540 H. (1156 AD) during the reign of Al-Muqtafi Le'amr Allah Mohammed Ibn Ahmad Al-Mustaz'her (530-555 H) (29) (*Shaker 1991*).

This wall was renewed again after a further eighteen years, also by Jamal Al-Din, during the reign of the Sultan Al-Malik Al-Adel Nur Al-din. Mahoud Bin Zenki in 558 H. (1163 AD) because of a dream he had had (30) (*Al-Samhoodi 1505*). He also, built a stone wall surrounding the first old one such that it would include the buildings that had been built outside the original one (31) (*Lamiee 1981*). This happened during the reign of Al-Mustanjed Billah Yousef bin Mohammed Al-Mugtafi (555-566 H) (32) (*Shaker 1991*).

Ustaz Saleh Lamie' says the reason the last wall was built was to protect Madinah against the crusader's invasion, which happened later in 578 H (1183 AD) when the crusaders came to Yanbu but were stopped under the command of one of the family of Salah Al-Din Al-Ayyobi (33) (*Lamiee 1981*).

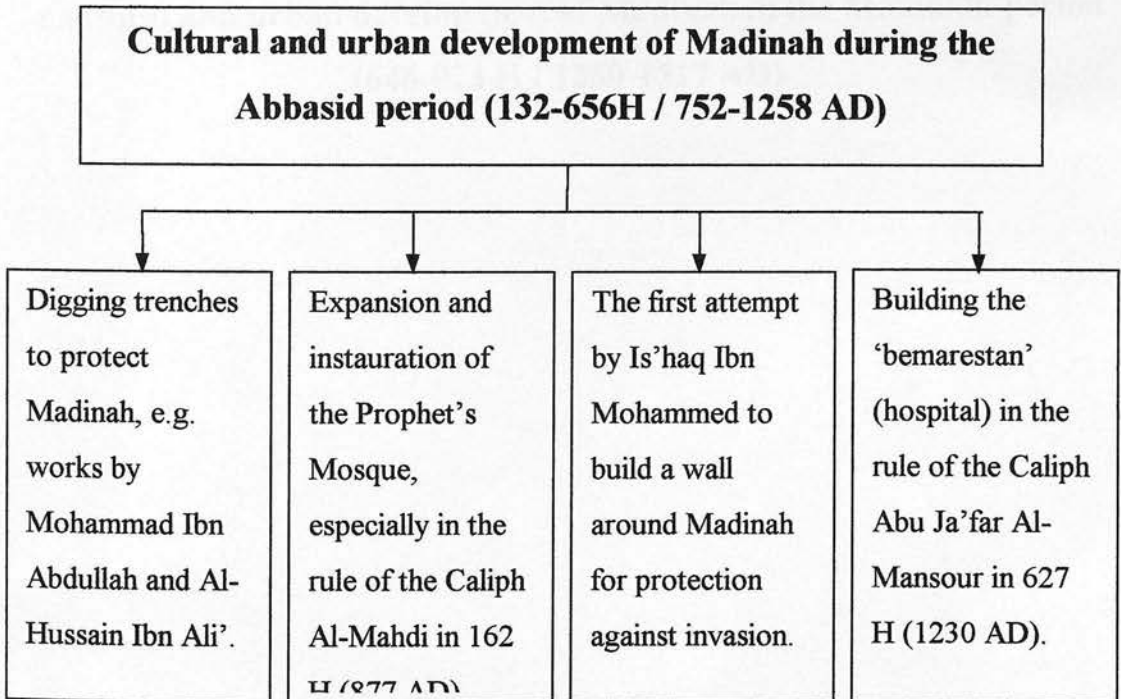
Ibn Jebeer, on a visit to Madinah in 580 H. (April 16th 1184 AD), referred to these two walls built by Nur Al-Din Zenki saying "Madinah has four gates. It is inside two walls, each has a door opposite to the other made of iron and known as iron door. Next, there is Bab Al-Sharie'a then Bab Al-Qibla and at last Bab Al-Baqie" (34) (*Ibn Jebeer 1908*).

1.5.4 Building hospitals (Al-Bemarstan):

In the seventh Hijrah century, according to Ustaz Saleh Mustafa, the Abbasid Caliph Abu Ja'far Al-Mustanser Billah built a bemarestan (hospital) to the North of the Prophet's Mosque in 627 H (1230 AD) (35) (Lamiee 1981).

Al-Mustanser Billah Mansour Ibn Mohammed Al-Zaher Be'amr Allah ruled from 623 to 640 H. He was a fair Caliph who loved good and justice. He built Mosques and hospitals, gathered armies for the service of Islam, built a house for receiving guests in Baghdad, built a school for the four schools teaching Al-Mathaheb Al-Arba'a and called it "Al-Musanseriya". He also built a public bath and a house for medicine and put valuable and rare books in it (36) (Shaker 1991).

The following chart shows a summary of the cultural and urban development of Madinah during the Abbasid period:



(02) Important characteristics of urban and cultural development of Madinah in the Abbasid period

Part One

Chapter Six

Cultural and urban development of Madinah in the Mamaluk period (648-923 H / 1250-1517 AD)

Chapter Six: Cultural and urban development of Madinah in the Mamaluk period (648-923 H / 1250-1517 AD)

The period of Islamic history known as the Mamaluk period, was a continuation of the Islamic Caliphate though it did not include most of the Islamic world at the time, only covering a fraction of the countries of Egypt and Al-Sham. The veneration of the Mamaluk state later deepened in the eyes of Muslims after the region of Al-Hijaz submitted to its control. Al-Hijaz was, and still is, the place that all Muslims love to visit because it contains the two Holy Mosques. Thus the state earned a special status in the hearts of Muslims. In addition to this, it embraced the Caliphs of Bani'l-Abbas and restarted the Islamic Caliphate after its fall (1) (*Shaker 1991*).

Two types of Sultans took over the rule of the Mamaluk state, their origins looking back to two directions. The first of them is Seaborne Mamaluk who ruled from 648 to 792 H. with twenty-nine sultans. They were the Mamaluk of Sultan Najm Al-Din Ayyoub, and were known later as Al-Mamaluk Al Bahriyya (2) (*Shaker 1991*).

The period of Al-Mamaluk Al-Jarakesh followed that period. They were nine sultans who ruled from 792 to 923 H.

The conditions of Al-Hijaz worsened after the second Abbasid era and the region fell from Abbasid control under Al-Akhaidarin in 335 H, then Al-Qarameta, then Al-Fatemiyyoun in 359 H and continued to deteriorate until the coming of Al-Salajeqa in 463 H. The Ayyobiyyoon came in 567 H until the leverage of the Mamaluk reached the region in 650 H and continued until the coming of Al-Uthmaniyyoon in 923 H (3) (*Shaker 1991*).

The period between the second Abbasid era and the Mamaluks is considered one in which the condition of Muslims worsened and Al-Hijaz was subject to attempts by many powers to capture it, on account of the great religious stature it had, and still has, in the hearts of Muslims. The up-keep of the Hijaz grew less in that period and no element of distinctive cultural development was evident in Al-Hijaz in general or Madinah in particular except for some domes and cists on the graves of the Prophet's people and

companions. Then the Mamaluks came with their interest in the instauration (restoration) of the Prophet's Mosque and in building public and educational institutions.

The Mamaluk era was a time of consecutive wars against the Tatars, the crusaders and then the Portuguese advancing from the South. They defeated them at first but, in spite of later defeats, kept resisting until the coming of Al-Uthmaniyyoon, the Osmanis who captured the state and began in their turn to defend the Islamic state (4) (Shaker 1991).

In that period, many writers and historians wrote about Madinah. The most famous of their writings are "Al-Ta'reef Bema Anasat Al-Hijra Min Ma'alem Dar Al-Hijra" by Mohammed Ibn Ahmed Al-Matari, who died in 741 H and "Wafa' Al Wafa' Be' Akhbar Dar Al-Mustafa" by Nur Al-Din Ibn Ali Al-Samhoudi who lived in the last period of the Mamaluk state and died in 911 H. This source is considered one of the most important of historical documents about Madinah in general.

A summary of the most important urban and cultural characteristics of Madinah in the Mamaluk period:

First: Expansion and restoration of the Prophet's Mosque after the first fire in 654 H (1256 AD). The work began under Al-Mosta'sem Bellah in 655 H (1257 AD), continued after the second fire in 886 H (1481 AD) and was finished by Sultan Qaitbay in about 888 H (5) (Al-Wakeel 1988).

Second: Renewing some antique Mosques such as the Quba' Mosque in 671 H and by Al-Janab Al-Khawajki Al-Shamsi Ibn Al-Zaman in 881 H during his restoration of the Prophet's Mosque. There was also the restoration of the seven Mosques in the area of Al-Khandaq (the trench) in 876 H by Zain Al-Din Al-Mansouri, Prince of Madinah at that time (6) (Al-Samhoodi 1505) and the renewal of Al-Qeblatain Mosque in 893 H by Al-Shaja'ie Shaheen Al-Jamali (7) (Al-Samhoodi 1505).

Third: Restoration of some domes and cists on the graves of the Prophet's people and some of his companions in Al-Baqie'.

Fourth: Constructing schools and houses for the poor, which involved turning the locations of the houses of Ashrah into a school of the Sultan, replacing the poor house (rebat: plural arbitan) known as Al-Hesn Al-Atiq (old fort) and Al-Madrasa (school) Al-Jobaniyah by a school and a house for the poor (rebat) and constructing Al-Sultan

Qaitbay school between Bab Al-Salam and Bab Al-Rahmah, plus building a small minaret next to it.

Fifth: Building public buildings and services. The first building to be for the homeless and travelers, a bakery, a mill, a cookhouse and an agency were built in the reign of the Sultan Qaitbay.

Sixth: Specifying certain buildings to be entrusted to the people of Madinah for their expansions and needs. Those buildings were bought and specified during the Hajj of the Sultan Al-Ashraf Qaitbay.

Explanations in greater detail of these aspects in Madinah at that time follows:

1.6.1 The instauration of the Prophet's Mosque

The Prophet's Mosque remained the way it had been following its expansion by Al-Mahdi in the Abbasid period, until it caught fire on the night of Friday the first of Ramadan 654 H (22nd September 1256 AD) (8) (*Al-Wakeel 1988*). This fire was so fierce that nobody in Madinah could put it out and it consumed almost the entire building. Al-Samhoudi gives us a description of this fire as reported by contemporary historians saying: "the fire began to spread quickly in the ceiling towards the direction of the Qibla. People could not put it out. The Amir of Al-Madinah hurried to the scene, with most of the people of Madinah. They could not stop it quickly and the ceiling was entirely burned and not even one piece of wood was left" (9) (*Al-Samhoodi 1505*).

This fire ruined all the contents of the Mosque, i.e. the tribune (minber), the gates, the coffers, the windows, boxes of books and the kiswa (cover) of the Honourable Room (Grave).

Instauration of the Prophet's Mosque after the first fire in 654 H (1256 AD):

The Abbasid Caliph Al-Musta'sem Bellah only initiated his instauration after the fire in 655 H (1257 AD), but it was not completed because of the Tatar's invasion and seizure of Baghdad in 656 H (1258 AD) (10) (*Lamiee 1981*).

In this instauration, the work ended in mending the ceiling of the Honourable Room (Grave) and then the ceiling from the East to the wall of Bab Jebreel, from the west to the tribune (minber) and from the South to the wall of the Qibla (11) (*Al-Wakeel 1988*).

Since the Tatar invasion of Baghdad, the Mamaluk took over the rule in Egypt. Then they accepted the responsibility of mending and repairing the Prophet's Holy Mosque and of its maintenance.

Immediately after that, Sultan Nur Al-Din Ibn Ezz Al-Din Aybak Al-Salehi (556-657 H / 1257-1259 AD) (12) (*Lamiee 1981*) sent a tribune (minber) to the Mosque and began renovating it to Bab Al-Salam then, Sultan Saif Al-Din Qutuz (657-658 H) (1259-1260 Ady.) finished the work until he completed the side of the Qibla from Bab Al-Salam to Bab Jebreel and Bab Al-Nesa' in the Eastern side.

Then Al-Zaher Bebarce built a compartment around the Honourable Room and the house of Al-Sayyeda Fatema in 668 H (1270 AD). This was made of wood and was three and a half metres high. It had four doors (13) (*Al-Samhoodi 1505*).

King Al-Nasser Mohammed Ibn Qalawoon built the first dome above the Honourable Grave in 678 H (1287 AD) (14) (*Lamiee 1981*). In addition, he built fountains where people can perform ablution (wudu) near Bab Al-Salam outside the Mosque in 686 H (1287 AD). He also oversaw several lesser projects such as repairing the fourth minaret, which was built in the Ommaiad period. Al-Samhoudi reports from Al-Matari: "The Mosque had the minarets and the Sultan Mohammed Ibn Qalawoon ordered to have the fourth one mended" (15) (*Al-Samhoodi 1505*). He also gives a description of the dome built by King Al-Nasser Mohammed Ibn Qalawoon saying that it was square at the bottom and octagonal at the top. It was made of wood fixed above the pillars with bars of wood. Sheets of lead were laid next to each other on them and on the roof of the Mosque and the dome was surrounded by a rail of wood (16) (*Al-Samhoodi 1505*). Kamal Al-Din Ibn Barhan Al-Rabi'e, (17) (*Lamiee 1981*). Sultan Ibn Qalawoon had the ceiling of Al-Rawda mended in 701 H (1301 AD). In 705 H he mended the ceiling of the Eastern and Western hallways and evened it out to be one level (18) (*Lamiee 1981*). He built the South Western minaret, which had been 95 cubits high before the second fire, then added the two

hallways to the side of the Qibla, making them seven in total (they had been only five before the fire) in 729 H. (1329 AD).

Sultan Al-Nasser Hasan renewed the lead lining on the Honourable dome, then the dome itself was mended again in the reign of Sultan Sha'ban in 765 H (1364 AD). Two years later, balconies were built on top of the elevations of the Mosque (19) (*Lamiee 1981*). The interest in the second Holy Mosque continued during the Mamaluk Jarkasi period Sultan Barquq sent a minber to the Mosque in 797 H (1395 AD) followed by another from Sultan Al-Mou'ayyad to replace in 820 H. (1417 AD). Sultan Bersbay repaired the two hallways looking upon the hall in addition to a part of the ceiling of the northern side near the Northeastern (singari) minaret (20) (*Lamiee 1981*).

The second fire in the Prophet's Mosque:

In 886 H (1481 AD) (21) (*Al-Samhoodi 1505*) another fire struck the Mosque sparked off by a thunderbolt that hit the Southeastern minaret and toppled much of it, estimated by Al-Samhoudi to be a third. This fire led to the burning of the Mosque with all its contents (22) (*Al-Samhoodi 1505*). A group of the poor of and the immigrants to the city died under the collapse of the minaret and the roofs. (23) (*Al-Wakeel 1988*) The fire took all the ceilings, the gates and the containers of the books and Masahef (The Holy Books).

Three days after the fire, the people of Madinah wrote to the Sultan Qaitbay. No sooner had the news reached the Sultan than he immediately ordered the restoration of the Mosque. He sent a group of pilgrims under the lead of the Amir, Songor Al-Jammali, as a first regiment with a hundred craftsmen as builders, carpenters, painters, carvers, smiths, quarriers and others, and hundreds of camels and donkeys to be used in carrying and transporting building materials. In addition, he sent with the Amir a sum of money that was twenty thousand dinars (24) (*Al-Samhoodi 1505*).

He also provided the man in charge for building in Madinah, Shams Al-Din Ibn Al-Zaman, with more than two hundred camels and one hundred donkeys and three hundred craftsmen. This purveyance was transported by sea and land to Madinah and the work of restoration started.

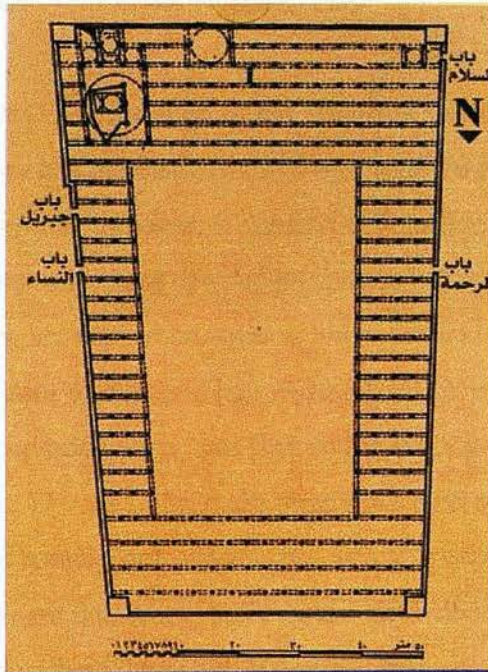
Starting the restoration of the Prophet's Mosque after the second fire (886 H. -

1481 AD):

The work started by taking down the main Southeastern minaret that had been hit by the thunderbolt, the Eastern wall to Bab Jebreel and the Western wall to Bab Al-Rahmah. All of this was rebuilt and the Mosque was covered by one roof. The pillars were shortened and covered with burned bricks, and the wood bars of the ceiling were fixed on top of them. The ceiling was 11m high above the ground (25) (*Al-Wakeel 1988*).

Al-Samhoudi tells of this saying: "They built a small dome between the Honourable Room and the Southern wall with three others around it called 'Majareed'. They made an opening for fresh air and light among the domes and the minaret that was rebuilt" (26) (*Al-Samhoodi 1505*).

Two other domes were built above Bab Al-Salam to the inside. The door of the minaret was built of white and black marble and was wonderfully garnished. The domes also had the same decoration. The wooden gates of the Mosque still bear the name of Sultan Qaitbay (27) (*Lamiee 1981*).



(01) Ground plan of the Prophet's Mosque in the Mamluk period (eighth-ninth centuries H) (fourteenth - fifteenth century AD). (28) (*Lamiee 1981*)

The floor level at the front of the Mosque was lowered to be at the same level as the Honourable Mihrab, and a second marble Mihrab was made. The Honourable Room was remarbled, as was the wall of the Qibla. The minbar and the terrace of the muezzins were covered with marble. Book cabinets and big round windows providing more light and fresh air were formed in the Eastern wall. The Mosque was supplied later with the books and Masahef (Holy Qur'an) needed. The ceiling was completely done by the end of Ramadan 888 H.

Upon completion of the restoration of the Mosque, the dome started to leak and crack and the minaret began to lean. The Sultan was enraged by this carelessness and he deposed Sungur Al-Jamali the Shiekh of Al-Haram and supervisor of the work, and replaced him by Shahin Al-Jamali, who took over, taking down the minaret and rebuilding it solidly with black stone. As for the dome, a roof was made below it lest any waste from the demolition should fall into the Honourable Room. Then it was taken down and rebuilt perfectly and wonderfully.

The ground plan of the Mosque after the Mamaluk instauration, in the reign of Sultan Qaitbay now contained seven hallways in the side of the Qibla, four in the Western side, three in the Eastern side and four in the Northern one.

Ustaz Saleh Lami'e gives a description of the Mamaluk minaret saying: "It is observed that the minaret of Qaitbay has the features of Al-Mamaluk Al-Baharia and Al-Jarkasiyya in addition to some Ayyoubiean ones. It consists of four floors, the first one is square-planned ending on the top with three rows of prominent link-work under a balcony, four balconies of the same size are carried on rows of link work and have doors, their knitting is the same type as the ones of the openings of the Mamaluk minarets. The second floor is planned to follow an octagonal form, not high and is decorated with danglers coloured with red in the middle. This part ends with three rows of prominent link-work under a balcony. Next is the third round floor which is not as high as the second one. It also ends with three rows of prominent link work, carrying the last balcony. The minaret ends with a costate helmet crowned with a lantern (29) (*Al-Samhoodi 1505*).

1.6.2 Renewing some old Mosques in Madinah:

Some old Mosques in Madinah interested the Mamaluk State Sultans. Quba' Mosque underwent some repairs, particularly in the reign of Sultan Qalawoon, during the instauration of the Prophet's Mosque. Some writing above the Mihrab of Al-Dekka (the terrace) in the hallway next to the 'Ruhbah' claim that the Mosque was renewed in 671 H. Also the Mosque had a lot of epigraph in the reign of Sultan Qalawoon, who completed it in 733 H. Most of its ceiling was renewed by Al-Ashraf Bersbay under the supervision of Ibn Qassem Al-Mahli, one of 'Mashaiekh Al-Khuddam' in 804 H (30) (*Al-Samhoodi 1505*).

The minaret of the Mosque collapsed in 877 H and was removed in 881 H by Al-Khawajki Ibn Al-Zaman the man in charge of the instauration after having taken it down to its foundation.

The Bani Quraiza Mosque also underwent instauration during the first ten years after the year 700 H. It was half a setup high. Its wall was renewed later by Al-Shuja'ie Shaheen Al-Jamali, the Sheik and caretaker of the Holy Mosque of Madinah in 893 H (31) (*Al-Samhoodi 1505*).

The Mosque of the Amir of Al-Mou'mineen, Ali Ibn Abi Taleb, one of the seven Mosques in the area of Al-Khandaq (Trench), had its instauration in 876 H by Amir Zain Al-din Dafeem Ibn Hshram Al-Mansouri, the Amir of Madinah. He changed the roof of this Mosque to a timber one supported by one pillar. He made the roofs of the Mosques of Al-Fat'h on the hill and the one in front of it and made one hall, vault-shaped and tightly built (32) (*Al-Samhoodi 1505*).

Also, in 893 H, Al-Shujai'e Shaheen Al-Jamali, the Sheik of Al-Haram, renewed the roof of Al-Qeblatain Mosque in addition to some other Mosques which interested the Mamaluk Sultans.

1.6.3 Instauration of some domes and cists in Al-Baqie'

Many of the domes built in Al-Baqie' underwent major repairs, such as the one built by Amir Bredbek Al-Mie'mar in 853 H on the place of the Prophet's wives, instead of a chamber built of stone (33) (*Al-Samhoodi 1505*).

Al-Samhoudi, the historian, who died in 911 H (1506 AD) states that in his time a square building was built in front of the site of our master Uthman Ibn Affan, may Allah be pleased with him. There was a chamber on it in which there was buried a woman who was the mother of some Bani Al-Jai'an children. Next to it lay another chamber in which there was buried a woman of some Turkish people. Between this building and the site a further chamber was situated in which the sister of the judge of the two Holy Mosques, the scholar; Mohiy Al-Din Al-Hanbali was buried (34) (*Al-Samhoodi 1505*).

Al-Matari also says that the site of Ismail'el Ibn Ja'far Al-Sadeq, which comprises a large area opposite the site of Al-Abbas from the West, was built by some Obaidieen from the Kings of Egypt.

The Mosque of Zain Al-Abedeen connected to the site of the graves of Mothers of Believers, was built in 884 by some Mamluks during mending of some domes in Al-Baqie'.

The Mosque of our master Ibn Abdul-Muttaleb, may Allah be pleased with him, was renewed in the reign of the Sultan Al-Ashraf Qaitbay and was expanded from the Western side in addition to including the well outside it. In addition, he repaired the dome on the site built by Al-Shuja'ie Shaheen Al-Jamali, Sheikh of Al-Haram in 890 ., taking his orders from Um Al-Khalifah.

1.6.4 Building schools and arbitan (houses for the poor: plural of rebat)

In the reign of the Sultan Al-Ashraf Qaitbay, schools and arbitan were built in Madinah. The places of the dur (houses) of Al-Ashrah was made a school of the Sultan, replacing the rebat known as Al-Hesn Al-Atiq (old fort) and Al-Madrasah (school) Al-Joaniya and

the house known as Dar Al-Shobbak, with a major school and a rebat of the Sultan. These were public, for all the people of Madinah to learn and dwell in. All such places lay between Bab Al-Rahmah and Bab Al-Salam.

As soon as the instauration of the Prophet's Holy Mosque was about to be completed, this school and rebat were constructed with a small minaret on the side next to Bab Al-Rahmah. This school was known as (Al-Ashrafiyah) school. The rebat of Yaqout Al-Mazaffar Al-Maradoni was one of the arbitan built in the Mamaluk period which existed up to very recent times. The Saudi state removed them while removing the old cultural texture of the area of Al-Aghawat, to the East of the Prophet's Mosque, for the sake of the expansion of the Prophet's Holy Mosque.

1.6.5 Building public and services buildings

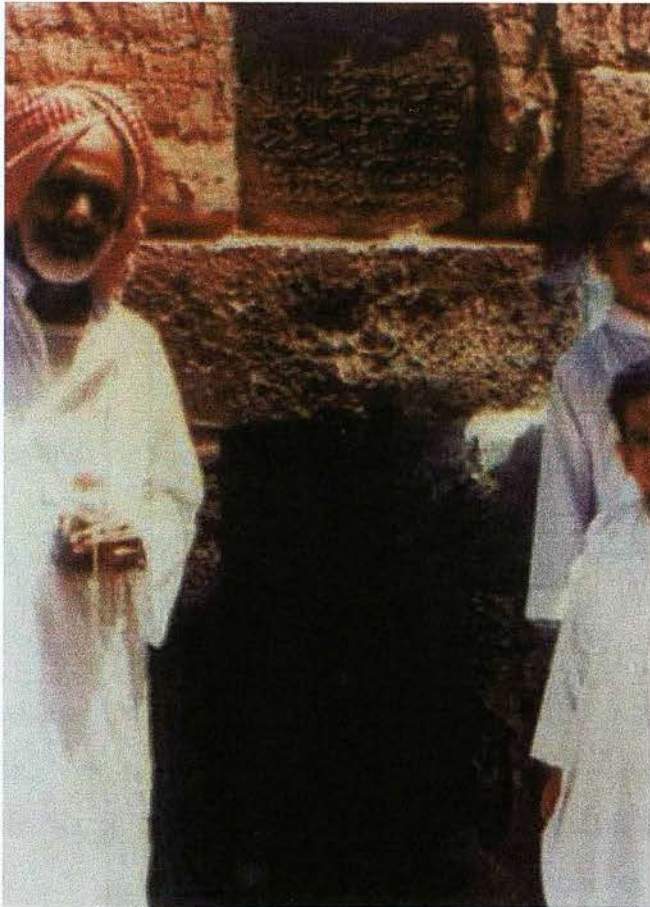
During the reign of Sultan Al-Ashraf Qaitbay, a squadron for public utility (for the homeless and travelers), a bakery, a mill, a cook house and an agency were built. He also built a public bath for people to use as a bathroom and a fountain to make wudu (ablution) after renting their locations from the caretaker of the fountain near Bab Al-Salam. Al-Samhoudi the historian says that there was no public bath or mill in Madinah, and people used manual grinders to make flour.



(02) The location of the rebat of Yaqout Al-Mardoni in 706 H (1307 AD).



(03) The marble sign hung above the door of the rebat of Yaqout Al-Muzaffar Al-Mardoni.



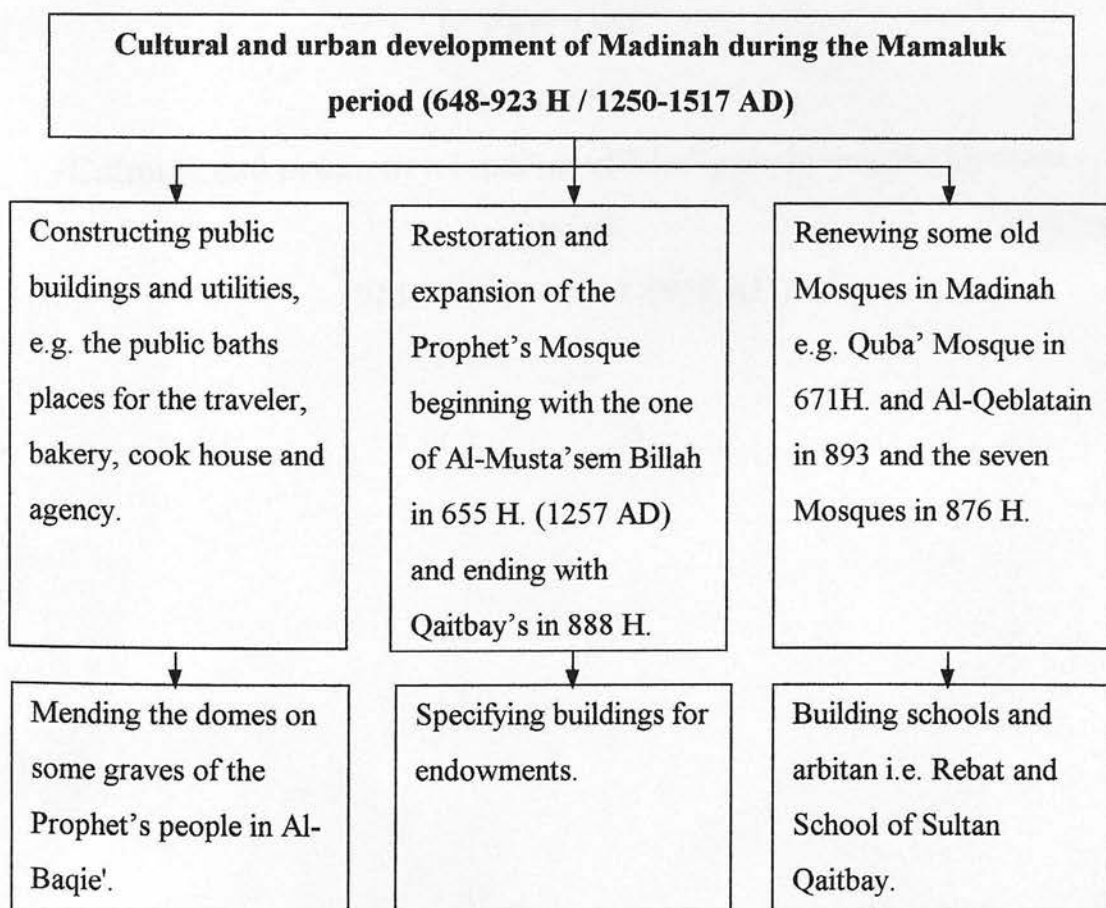
(04) A photograph of the front elevation of the rebat of Yaqout Al-Mardoni 706 H (1307 AD).

1.6.6 Specifying buildings for endowments

After his return from Hajj, Sultan Qaitbay ordered places bought and turned into endowments, for the people of Madinah and to build like the one of Al-Khalil, peace be upon him. A sum of sixty thousand dinars was specified for this (35) (*Al-Samhoodi 1505*).

He also ordered some houses in Madinah to be bought and turned into endowments reserved for the people of Madinah. He bought some houses to the West of Al-Haram and its Qibla. Al-Samhoudi says that specifying such buildings was something that had never before been done (36) (*Al-Samhoodi 1505*).

The most important characteristics of the cultural and urban development of Madinah in the Mamaluk period can be summed up as:



(05) The most important characteristics of urban and cultural development of Madinah in the Mamaluk period.

Part One

Chapter Seven

Cultural and urban development of Madinah during the Osmani period (923-1336 H / 1517-1918 AD)

Chapter Seven: Cultural and urban development of Madinah during the Osmani period (923-1336 H / 1517-1918 AD)

1.7.0 The most important urban and cultural aspects

The Osmani Caliphate took over the throne of the Islamic state after Sultan Selim's appropriation of Egypt in 923 H./ 1517 AD (1) (*Lamiee 1981*). Subsequently, the power of the Osmani state reached Makkah Al-Mukarrama and Madinah and Al-Hejaz in general. The sultans of the Osmani state were greatly interested in Makkah and Madinah and they oversaw intensive cultural and architectural development. Different types of buildings for different purposes were constructed for the sake of serving Madinah. The Prophet's Mosque is the main interest of the sultans. It was subject to a lot of repairs and renewals which are, intact to the present time, as a true confirmation of what was done to the Mosque during the Osmani Caliphate.

There were thirty-five sultans of the Osmani State. The first of them was Uthman Ibn Artafol (1299-1326 AD) and the last was Sultan Mohammed Rashad, the fifth son of Abdul-Majeed the First (1909-1918 AD) (2) (*Fareed Bek 1986*).

The cultural and urban aspects varied compared to those of the previous periods, especially during the reign of Sultan Suliman Al-Qanuni, who made the first Osmani restoration in the Prophet's Mosque in 947 H, 1540 AD, and Sultan Abdul-Hamid the First, who had some repairs done to the Holy Mosque, such as having the floors as well as the Qibla faced in marble (3) (*Al-Wakeel 1988*).

During the reign of Sultan Abdul-Majeed the First, the greatest contribution to the architectural works in the Honourable Mosque was made. This restoration extended to cover the whole Mosque except for the Honourable Room, where the Prophet, peace be upon him is buried, the niches, the tribune and the main minaret. Sultan Abdul-Majeed the Second made the last of the repair works done to the Prophet's Mosque in the Osmani era. This started in 1265H. and was finished in 1270 H. To many, these were the

most beautiful repair works that had ever been made in the Honourable Mosque (4) (Lamiee 1981).

In 1327H Hajji Mohammed Labib Al-Batanoni gave an accurate description of Madinah during his Hajj journey with khedive Abbas Basha Helmi saying: "Madinah is built in a long strath that extends to the South. Most of its buildings are built of stone brought from nearly quarries" (5) (Al-Batanoni 1988).

The number of dwellings in Madinah at that time is estimated to have been 12,000. Al-Batanoni refers to the big similarity between the buildings in Madinah and the ones he saw in Jeddah and Makkah, saying that Madinah was smaller with narrow streets, especially the ones around the Prophet's holy Mosque. He adds that the best street in Madinah was the one to the West of Al-Haram called Harat Al-Saha, the longest of Madinah's lanes. It had the finest buildings. That street is now Al-Saha St. which passes through the area of Al-Saha from East to West. He also refers to the accuracy of building and splendor of ornament in a house he visited in the lane of Al-Saha belonging to Mr. Al-Sayyed Hashem. He says: "What should be said is that I saw a house in this lane, it was for Mr. Hashem, by which I was fascinated because of the beauty and accuracy of its workmanship, imported from Jawa" (6) (Al-Batanoni 1988)

He goes on to describe the lanes of Madinah, saying that most of them were so narrow that they could only be called alleys (Azeqqah). He mentions some of them, e.g. Zuqaqs (alleys) of Al-Baqar, Al-Khayatin and Al-Aghawat. All these alleys lie to the North of Al-Haram. To the South are the alleys of Al-Hajamin, Al-Qamashin, Haidar and Malek Ibn Anas (7) (Al-Batanoni 1988).

Hajji Mohammed Labib also refers to the lanes of Madinah and how its buildings were close to each other and its streets were narrow, in order to provide shade as protection against the heat. He identifies Al-Bab Al-Mesri, leading to the Prophet's Honourable Mosque, as a narrow 500-metre-long street (8) (Al-Batanoni 1988). He moves to the libraries (Al-Kutub-khanat) saying: "There are a lot of Kutub-Kana of Sheik Al-Islam Aref Hekmat. One is near Bab Al-Majeedi to the direction of the Qibla. It is a good example of cleanliness and order concerning the place and the books, its floor is covered with fine Persian carpets. In the middle of its hall there is a marble fountain" (9) (Al-Batanoni 1988).

At the end of the nineteenth century, the manuscript of Ali Bin Mousa (Afandi), written on 21 Jumada 1303H (1886 AD), (10) (*Bin Mousa 1878*) gives an accurate description of Madinah in nearly all walks of life. He speaks of different aspects concerning social and agricultural practice and civic monuments. He also marks out accurately plans of Madinah, its dwellings, streets, lanes and alleys and describes its gates, its walls, Suqs and Al-Baqie' with its domes. Then he speaks extensively of public baths, libraries, small Mosques and sabeels (places from which free food and water was offered to passers by). He names and locates the gates of Madinah as follows:

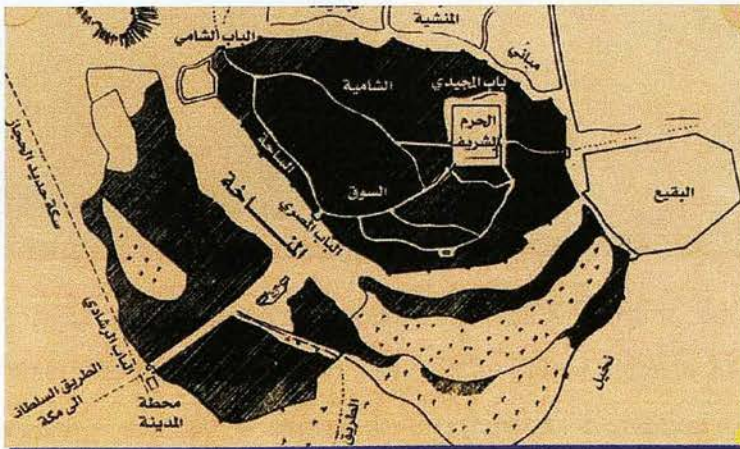
The gates of the inner wall:

1. Bab (gate of) Al-Baqie' or Al-Juma'a in the East of Madinah in front of Bab Al-Baqie.'
2. Bab Al-Shami in the North to the East of Al-Qala'a Al-Sultania (Sultanic Castle).
3. Bab Al-Majeedi in the North of Madinah (renewed by Sultan Abdul-Majeed Khan renewed it in 1277H).
4. Bab Al-Masri in the West of Al-Haram near the area of 'Fash Al-Hajar'.

The gates of the external wall:

1. Bab Al-Awali to the East of Al-Haram, next to Al-Baqie.
2. Bab Al-Jabal known as Bab Al-Kowma to the North of Al-Haram and to the West of Al-Qala'a Al-Sultania.
3. Bab Al-Anbaria to the West of Madinah between Al-Tekiya Al-Mesriya (Egyptian hospice) and the brigade of the soldiers of the Sultan. This was the busiest of the three.

(11) (*Bin Mousa 1878*)



(01) A map of Madinah in 1852 AD (12) (*Bin Mousa 1878*).



(02) Madinah in 1925 AD. The picture shows the north western corner where the Sultan's Castle was "the headquarters". It was built by Sultan Suliman Al-Uthmani (the Osmani). The prophet's mosque is shown its five minarets in addition to some houses outside the wall which were the houses of Al-Sadah "masters" Al-Asa'dia and some stores.

Public bathes

The manuscript of Al-Buhārī states that there were only two public bathes in Medina, these being:

1. In Al-Madīna al-Ashraf, known as the bath of Al-Haram, which he says was like the Friday mosque. This bath was also known as 'Bath al-Madīna' or 'Fayṣala al-Madīna'. It was removed on expanding the temple area.
2. A bath near the inner wall in the West of Al-Haram in the time of Tharwaṣ al-ḥakīm, the wall for the Caliph al-Muḥammad. This bath was known as 'Bath al-Madīna'. It was removed in 1400H by the order of the expansion.

Al-Qudḥ (The old houses)

The word 'al-Qudḥ' has a wide meaning and is used to refer to the old houses inside the inner wall. They were as follows:



(03) Madinah in (1330 H. – 1912 AD.) The picture shows the southern side of the city, and the wall which surrounded the city. It had a lot of towers which linked and supported of it in addition to being watch and guard points to protect Madinah from any foreign attack or invasion by the neighbouring tribes.

Public baths:

The manuscript of Ali Bin Mousa claims that there were only two public baths in Madinah, these being:

1. In Al-Manakha for Ahmad Nazeef Afandi Turjuman the manager of Al-Haram while he was writing the Friday sermon. This bath was also known as 'Hammam Al-Anbariya' or 'Hammam Al-Nahdah'. It was removed on replanning the central area.
2. A bath near the inner wall to the West of Al-Haram in the lane of Therwan next to the wall for Nur Al-Din Al-Shaheed. This bath was known as 'Hammam Taiba'. It was removed in 1406H. for the sake of the expansion.

Kuttabs (Qur'an schools):

The same manuscript lists eight kuttabs inside the inner wall and thirteen inside the first wall. They were as follows:

Outside the inner wall:

1. A kuttab near Rebat Al-Anbariya (near Al-Qazlar Mosque).
2. A kuttab on the vault of Sail Abu-Jaida.
3. A kuttab in Al-Muradiya office.
4. A kuttab in the office of Selim Bik Al-Maingi near the government bake house.
5. A kuttab in the courtyard of Al-Tagori.
6. A kuttab near the sabeels of Al-Khalifti in front of Al-Manakha.
7. A kuttab near the zawea (small Mosque or street) of Al-Ashash.
8. A kuttab in the alley of Al-Nakhawla.

Inside the inner wall:

Twelve other kuttabs for reading at the back of Al-Haram plus one for teaching the Persian language (13) (Bin Mousa 1878).

Al-Kutubkhanas (Libraries):

There were a large group of these, among them:

1. A library in the house of Al-Eshra for Shikh Aref Hekmat Sheikh Al-Islam which was the largest and tidiest.

2. A library near Al-Sharshora where the allay of Al-Mudiriya (the directorate).
3. A library for Sultan Mahomoud near Al-Madrasa (school) Al-Mahmoudiya.
4. A library right next to Bab Al-Salam in the school of Basheer Agha.
5. A library in Al-Madrasa Al-Hameediya to Al-Saha.
6. A library in the house of Mr. Jamal Al-Lail.
7. A library for Ahmad Busati.
8. A library in the rebatt of our master Uthman (15) (*Bin Mousa 1878*).

Others were connected directly with the schools.

Schools:

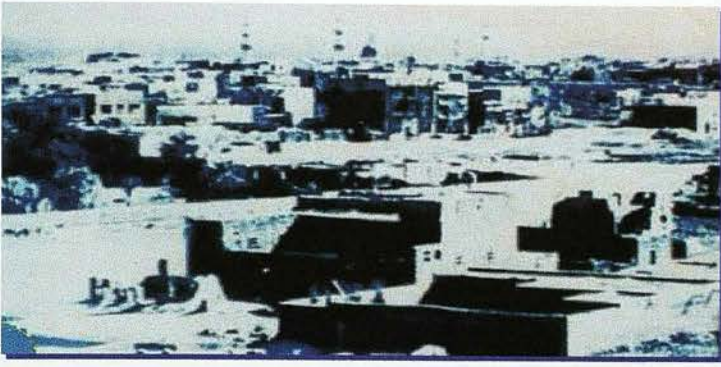
The manuscript lists twelve schools. The most famous was Al-Mahmoudiya connected to Al-Harm between Bab Al-Salam and Bab Al-Rahma (16) (*Bin Mousa 1878*).

The arbitan and zaweas (study corners):

The writer refers to the arbitan (houses for poor and needy visitors) saying: "As for the arbitan, they were many and there is no need to count them." (17) (*Bin Mousa 1878*) As for the zaweas, he mentioned twelve of them; the most famous of them Sawed Al-Samman opposite to Bab Al-Nesa.'



- (04) Bab "Al-Hamidi" derived from the name of Sultan Abdel-Hameed who renewed it in 1305H. Also called Bab Al-Rashadi because Sultan Rashad renewed it. It is known in Madinah as Bab Al-Anbaria (14) (*Al-Batanoni 1988*).



(05) Madinahh inside the wall in 1880 AD. Photo by Wilfrid Blunt (*Turkish Office*)



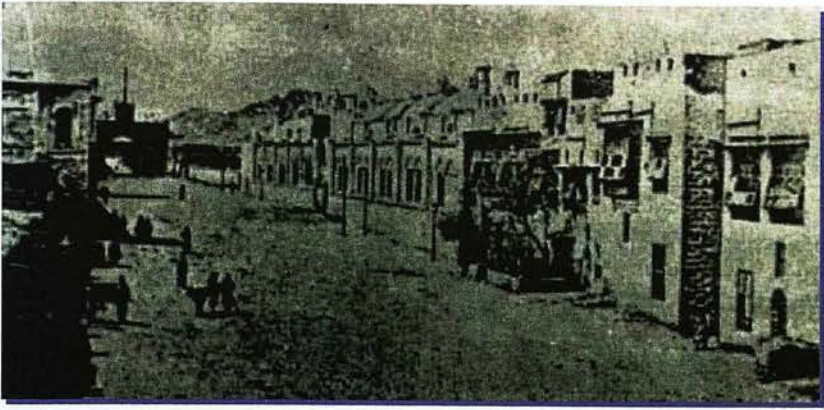
(06) Madinahh inside the wall in 1925 AD. (*Ibrahim Refa'at*).



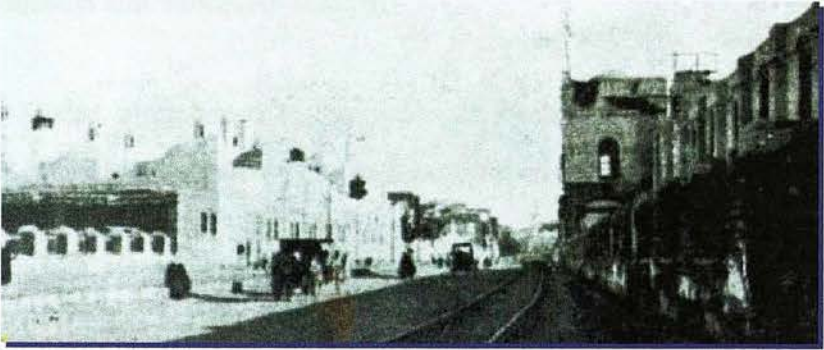
(07) Bab Al-Anbariya from inside Madinahh in 1908 AD. (*Ibrahim Refa'at*).



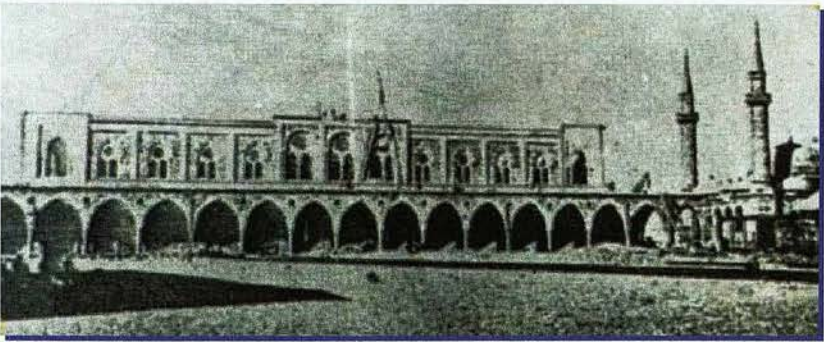
(08) Madinahh in 1852 AD. (*Dr. Lamie'*)



(09) Al-Anbariya Street in 1914 AD. *(Dr. Lamie)*



(10) Al-Anbariya Street along with the Railway line in 1925 AD. *(Dr. Lamie)*



(11) Al-Hijaz Railway Station 1914 AD. *(Dr. Lamie)*



(12) Al-Hijaz Railway Station, Official Opening Ceremony in 1907 AD / 1327 AH.

The gardens:

The manuscript mentions more than fifteen gardens outside the first wall, one of the most famous of which was a big one for Mr. Hussain Hashem known as Al-Hashemiya. He mentioned eight gardens inside the wall, the most important of which was the garden of Al-Ainea which was the biggest inside the wall, then the garden of Al-Saha, of Bait Al-Safi and of Hussain Hashem (18) (Bin Mousa 1878).

The manuscript mentions more than seventeen sabeels, the most famous of them being Sabeel Al-Manakha and Sabeel Al-Musalli.

Mr. Saleh Lamie summarised the contents of the manuscript concerning religious buildings and utilities and counted them as follows: (19) (Lamiee 1981)

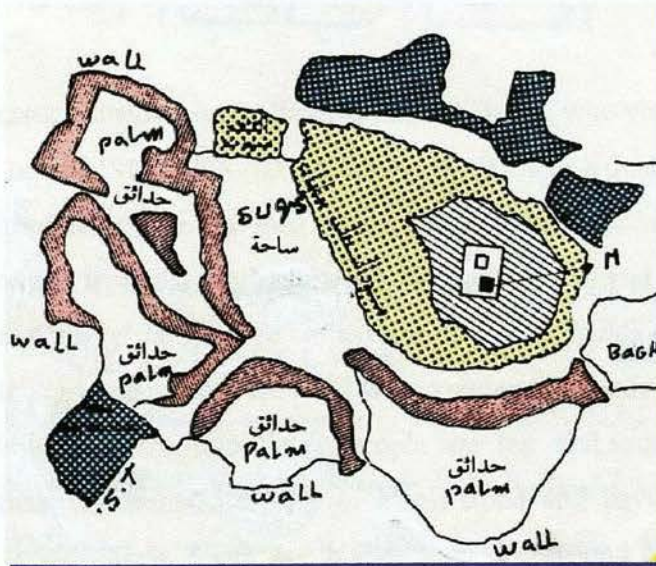
1. Religious buildings:

Mosques	33
Arbitan	8
Study corners (Zawea)	14

In addition to the main Mosque; Al-Haram.

2. Utility buildings:

Sabeels	32
Suqs	11



(13) The historic development of cultural and architectural growth (20) (Lamiee 1981).

Schools	30
Bathers	2
Inns	1
Hospices	2
Libraries	7

There were 47 important dwellings, 42 alleys and 3 streets. There were also 12 tracks and 8 lanes in addition to 55 public gardens / parks.

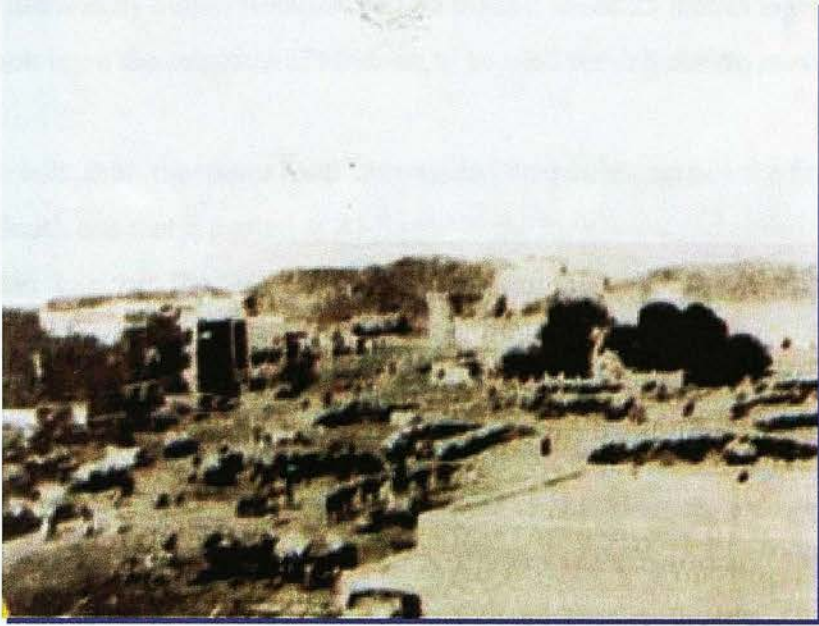
The 'Hawshes' (enclosed areas in Madinah):

The manuscript mentions and describes many Hawshes of Madinah. The most important of them were: (21) (*Bin Mousa 1878*)

Name of Hawsh	No. of houses
Al-Zawafer	60
Al-Raie'	200
Ahmad Agha	60
Abu Janb	40
Senan	50
Emairah	150
Manna'	40

In the twentieth century, major general Ibrahim Rafa'at Basha, who visited Madinah four times during the period 1901-1908 AD (22) (*Lamlee 1981*) gives us a detailed description of the buildings of Madinah (23) (*Rafa'at 1901*) saying: "Most of the buildings of Madinah are built of stone brought from the nearby quarries, they are narrow and irregular. Most of them are high buildings of two, three or even more floors. Buildings of one floor are scarce. Most of the ground floors are filled with commercial goods and the rooms are very small. The houses of the upper-class-people are big and sound. They have fine architecture and their exposures are built of black stone and have orioles made of wonderful lathed wood. Their doors are higher than the ground." He goes on to tell about the lanes of Madinah saying that they are narrow, not more than two metres wide. He means by this the alleys that spread between these lanes. For the streets, they were

each no more than four metres wide. The best of them was the one to the West of the Prophet's Mosque called Al-Saha St. It was the longest and it had the most beautiful buildings (24) (Refa'at 1901).



(14) Al - Madinah in (1326 H.) by Ibrahim Refa'at Basha. (25) (Refa'at 1901)

Then Rifa't Basha talks about the walls of Madinah, saying that there were two of them, an inner and an outer one. He says the first to build a wall around Madinah was Mohammed Ibn Is'haq Al-Je'di in 236 H. He traces the history of building that wall and the restorations done to it since its origins up to the time he visited Madinah between 1901 and 1908 AD. On studying the history of the wall, he found that the inner wall had been renewed by the Osmani Sultan, Suliman Ibn Selim in 939 H and had been built on earlier foundations. The work was finished in 946 H. It was 3,072 architectural cubits long (the cubit he means is 75 cm long) and had five gates:

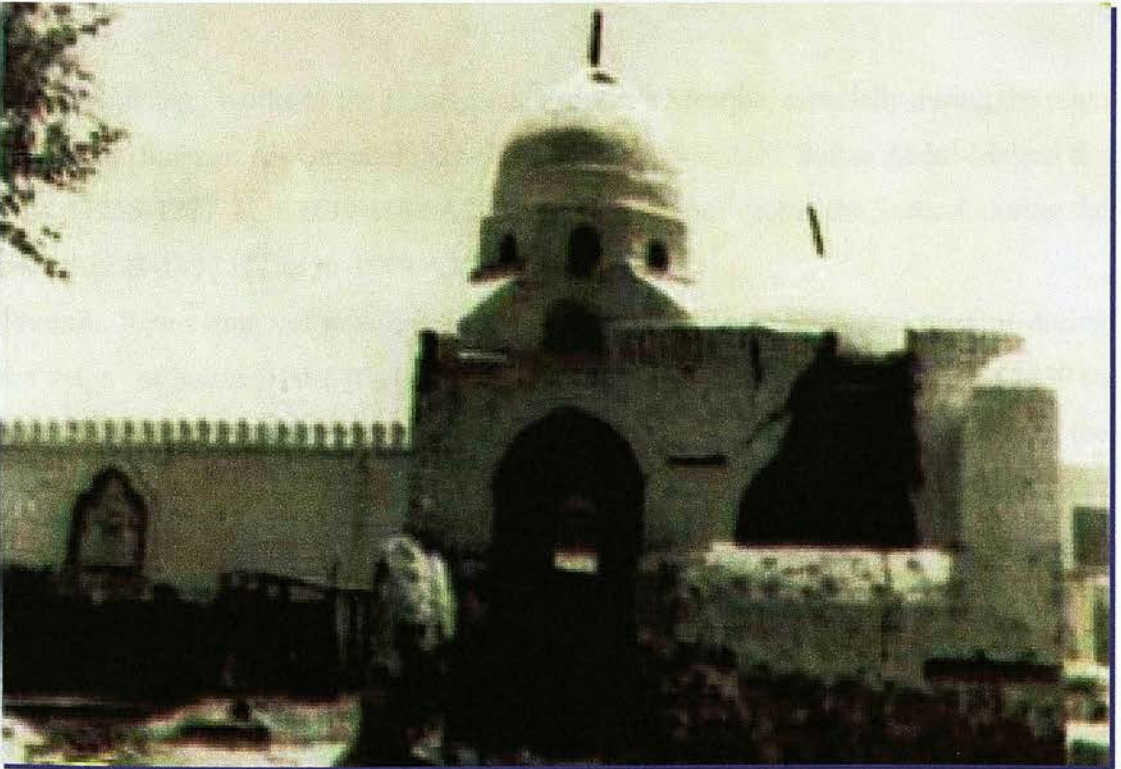
1. Bab Al-Baqie' or Sab Al-Jama'a which led to Al-Baqie. A sentence was found written in copper on it which said: "This gate was renewed by Sultan Sulaiman, and Sultan Mohammed Khan Ibn Ibrahim in 1078 H.
2. Bab Al-Majeedi which was next to the later from the North was a newly built gate near Dar Al-Diyafa (the guest house).
3. Bab Al-Shami, it was in the Northwest, between the end of the wall and the fort.
4. Al-Bab Al-Sagheer (the small gate) next to Bab Al-Shami from the West. It was to the Southwest of the fort.

5. Bab Al-Mesri in the middle of the Western side. It was opened by Mohammed Ali Basha during his restoration of the inner wall.

It was also mended by Sultan Abdul-Aziz who made it about 25 metres high and built 40 towers to look upon the outskirts of Madinah to be used for defence (26) (Refa'at 1901).

The author tells that the outer wall surrounded the houses outside the first one in the East and South and that it started at Al-Baqie' in the Southwest and ended with the fort built by Sultan Sulaiman Ibn Selim in 939 H. in the Northern side. It had five gates:

1. Bab Al-Awali near Al-Baqie'.
2. Bab Al-Kufa also near Al-Baqie.
3. Bab Quba,' or Bab Al-Sadd, next to Bab A-Awali and Bab Al-Koma to the South.
4. Bab Al-Anbariya to the West. It led to the Harra and Al-Aqeeq and was also called Bab Al-Hamidi because Sultan Abdul-Hameed renewed and enlarged it in 1305 H.
5. Bab Al-Koma at the end of the outer wall near the fort. (27) (Refa'at 1901)



(15) Al-Khatem 'ring' well; the way water was extracted in the past. (26) (Al-Ansari 1973).

After that, major general Ibrahim Refa't Basha gives a full inventory of the buildings of Madinah and its monuments as follows:

Mosques	17
Libraries	18
Schools	17
Libraries for youngsters	12 with 320 attendees
Higher offices	55 (in 1309 H)
Public baths	2 similar to those in Egypt
Hospices	8
Sabeels	21
Hospitals	1
Arbitah	108

In addition to this he lists a fort, a camp for soldiers and a government house.

The inhabitants of Madinah were 56,000 at that time. (29) (Refa'at 1901)

The cultural and urban aspects of Madinah during the Osmani era can be summarised as follows:

First: Building works to the Honourable Prophet's Mosque, especially during the reign of Sultan Soliman Al-Qanouni (926-974 H / 1520-1566 AD), Sultan Abdul-Majeed the First (1255-1277 H / 1839-1861 AD) and Sultan Abdul-Majeed the Second, during the period 1293-1327 H / 1876-1909 AD.

Second: Renovating and repairing some old Mosques such as Al-Musala Mosque during the reign of Sultan Abdul-Majeed the First in the period from 1255 to 1277 H / 1839 to 1861 AD as well as other repair work done during the reign of Sultan Abdul-Majeed the Second in the period from 1293 to 1327 H / 1876 to 1909 AD and the reconstruction of Abu Bakr Al-Sedeeq Mosque in 1254 H / 1838 AD during the reign of Sultan Mahmoud, as well as renovating Quba' Mosque during the reign of Sultan Mahmoud the second in 1245 H / 1829 AD.

Third: Building the Madinah wall and setting up Madinah's strongholds, towers and gates during the reign of Sultan Soliman Al-Qanuni in the period from 926-974 H / 1520-1566 AD.

Fourth: The working out and implementation of Al-Hijaz railway project, with all its buildings and other facilities.

Fifth: Building schools and starting the building of the Islamic University in Madinah.

Sixth: Establishing the public facility buildings and their accompanying services which included:

1. Setting up the hospices, Egyptian hospices being the most prominent.
2. Setting up the public baths.
3. Setting up and providing drinking water places.
4. Building a hospital.
5. Establishing big Wekalah and the spread of big stores and bakeries.
6. The spread of gardens and orchards inside and outside Madinah.

Seventh: Setting up public libraries and kuttabs for boys.

Eight: Repairing Al-Ain Al-Zarqa' and all its facilities and building the sewers.

Ninth: The flourishing of the construction and building movement.

Tenth: Building and renewing A-Baqie' domes, wall and gates.



(16) A photo of Bab Al-Mesri in the Western wall in 1908 AD. It was built by Mohammed Ali Basha during his restoration of the inner wall (30) (Refa'at 1901).

The most important of these aspects of Madinah in that time are now described in greater detail:

1.7.1 The restoration of the Honourable Prophet's Mosque:

The Honourable Prophet's Mosque underwent many renovations during the Osmani era especially during the reign of Sultan Soliman Al-Qanuni (926-974 H / 1520-1566 AD) and Sultan Abdul-Majeed the First in the period 1255-1277 H / 1839-1861 AD as well as the reconstruction work that was conducted during the reign of Sultan Abdul-Majeed the Second on the period (1293-1327 H. 1876-1909 AD).

It is important to mention that the repair work on the Prophet's Mosque which was done during the reign of Sultan Qaitbay was the last until the Osmanis took over Egypt to put an end to the Mamaluk reign. When the Osmanis took over Egypt, they dominated Al-Hijaz region and began to take charge of the sacred places which benefited from their great care and attention (31) (*Refa'at 1901*).

The outstanding reparations and reconstruction works on the Prophet's Mosque during the Osmani reign:

The reparation work done during the reign of Sultan Soliman Qanuni (926-974H.

1520-1566 AD):

At the very beginning, Sultan Soliman Al-Qanuni implemented some simple reparations in the Prophet's Mosque and Al-Salam door in (940-941 H / 1534 AD) (32) (*Al-Wakeel 1988*).

The major renovation was executed in (947 H. 1540 AD). This included work to Al-Rahmah 'Mercy' door and the women's door. Large stone beams were set up outside the Mosque to straighten, solidify and consolidate it.

During this renovation, the Western wall was demolished and rebuilt and Al-Rahmah door was built. The Eastern wall was merely repaired. The Northeastern minaret was pulled down and replaced by the Al-Solimaniah Minaret. The depth of this minaret's

foundations was 13 cubits and its width 7 x 7 cubits - nearly 4.5 x 4.5 m. Its base on the ground was 6 x 6 cubits. The name of the Sultan and the date of construction were written on the women's and Al-Rahmah doors.



(17 & 18) A picture of Al-Ainiya St. which led to Al-Haram with a lot of shops on both sides.

The Sultan also sent five crescents, of which one was placed on the Honourable dome on the ninth of Shawal 956 H, three were fixed on the minarets of the Mosque and the fifth was fixed on the minbar of the Mosque. This renovation was done under the supervision of the Egyptian architects Engineer Taj Al-Dein Al-Khudeery and Engineer Ali Ben Tubic (33) (*Al-Wakeel 1988*).

The Solimaniah Minaret consisted of three floors, the lower part being from the ground to the roof of the Mosque, the second part is octagonal and the third part cylindrical. Both the second and the third floors terminated with a balcony.

The Honourable Rawda was marbled during the reign of Sultan Soliman. The lead of the Honourable dome was also patched up.

On Muharram 948 H / May 1541 AD, Al-Ahnaf Mihrab was moved, so that it became parallel to the Shafe'iah Mihrab, originally the niche of the Prophet, peace be upon him.

In the period between the reign of Sultan Soliman (926-974H / 1520-1566 AD) and the reign of Sultan Abdul-Hamid the First (1168-1171 H / 1454-1757 AD), many reparations were done on the Prophet's Mosque, the placement of the splendid marble Mihrab in the Mosque in (988 H / 1598-1599 AD) was the most important (34) (*Lamlee 1981*).

Restoration of the Mosque during the reign of Sultan Abdul-Hamid the First (1187-1203 H / 1774-1789 AD)

During the reign of Sultan Abdul-Hamid the First, the floor of the Mosque was marbled from the Al-Salam door up to the Honourable façade, as were the Qibla wall from Al-Salam door to the main minaret and the first row of pillars at the Rawda. The Rahmah and Jebreel doors were renovated in 1201 H / 1786-1787 AD) (35) (*Lamiee 1981*).

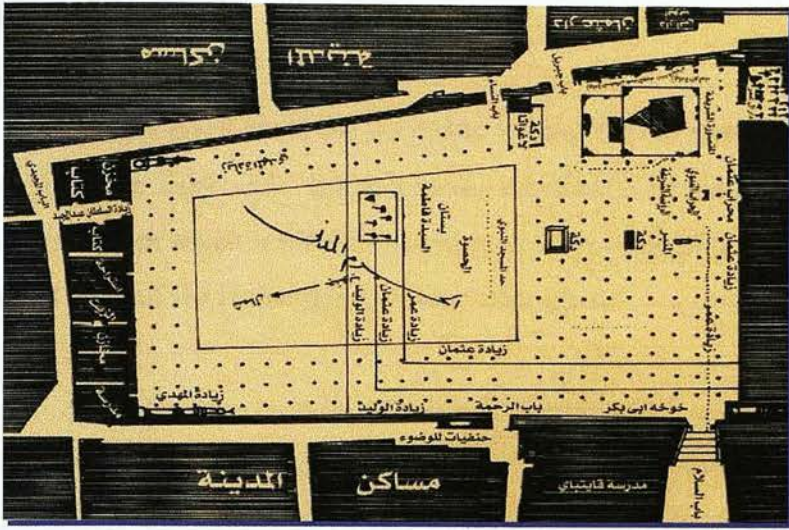
Some fissures and cracks were observed in the dome that was built during the reign of Sultan Qaitbay, which led to its demolition replacement. The new dome was covered with lead panels and was painted green on the year 1228 H 1813 AD (36) (*Lamiee 1981*).

During the reign of Sultan Mahmoud the Second and under the supervision of Ibrahim Basha the governor of Madinah at that time, the ground of the Northern wing was marbled and the walls of the Honourable tomb were covered with coloured marble (37) (*Al-Wakeel 1988*).

Renovating and reconstructing the Honourable Prophet's Mosque during the reign of Abdul-Majeed the First (1255-1277 H / 1839-1861 AD)

The renovation of the Prophet's Mosque that was done during the reign of Sultan Abdul-Majeed the First is considered to be the most extensive of those conducted during the Osmani reign. It represented a comprehensive renovation which included all parts of the Mosque except the Honourable Room, the three mihrabs and the Prophet's minbar as well as the principal minaret. This renovation took 12 years from 1265 to 1277H / 1848-1861 AD).

The wall was built during before during the reign of Sultan Qaitbay, Sultan of the Mamaluk State in Egypt (39) (*Bin Mousa 1878*). Traces of the renovation that was done during the reign of Sultan Abdul-Majeed on the first on the wing of Al-Qepla in the Honourable Prophet's Mosque are subtle and not easily observed (40) (*Lamiee 1981*).



(19) The ground plan of the Prophet's Mosque in 1908 AD. Different extensions throughout history are shown (38) (Lamiee 1981).

Reasons for the Renovation

The historian Ali Bin -Musa says in his manuscript dated 1303 H / 1886 AD (41) (Bin Mousa 1878) that one of the domes in the Mosque fell down, killing a large number of the visitors to the Prophet's Mosque. When Sultan Abdul-Majeed heard of this collapse, he ordered the renovation of the whole Haram. He appointed the engineers, the stone workers and sent with them the required materials and sufficient amounts of money. When the engineers tried to change the places of the pillars from their positions during the Prophet's time, the elite of Al-Madinah objected for fear of obliterating the traces of our history. This opposition lead to the engineers changing their plans.

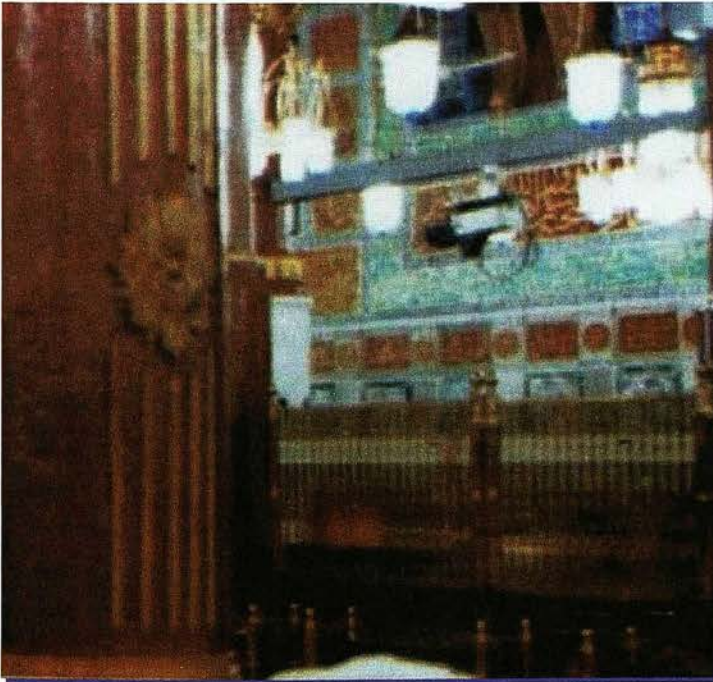
This renovation started at the Eastern side of the Mosque where the engineers increased its area from the main minaret to Al-Aghawat store by four cubits (2.63 m). The purpose of this was to extend the distance between the tomb and the eastern wall of the Mosque, where the Jirbil and the Women's doors lie. The extension also covered the Northern part to make more room for offices and kuttabs, which came to be known as Al-Majeediah offices (42) (Al-Wakeel 1988). They rebuilt the pillars in their original places (43) (Al-Wakeel 1988). Ali Bin Musa says that the extension in the Eastern direction was of about five cubits (44) (Bin Mousa 1878).

Building the Mosque:

The Mosque was built of black stone but the pillars were of the red stone because of its beautiful colour and the ease with which it can be engraved. The red stone was taken from Al-Haram mountain which is still being used to provide some of the stones needed to renovate the old parts of the Honourable Prophet's Mosque.

The pillars were covered with a layer of embroidered marble which was decorated with gold paint. The new pillars were each constructed of single pieces of stone designed in the form of concentric necklaces that carry the domes of the Mosque (45) (Al-Wakeel 1988). The walls too were consolidated with shoulders and large stone beams to resist external pressure. One can still see most of the pillars in the Honourable Rawda covered with marble and decorated with gold paint. These pillars, especially at their lower parts, have recently undergone a process of re-facing in black and brown marble.

The frontal Rowaqs starting from Al-Salam door to the main minaret and from the main minaret to the Aghawat divan were covered with square-cut marble. The floors of the back of Al-Haram were marbled too, but the section from Al-Majeedy door to the east was covered with red stone (46) (Al-Wakeel 1988).



(20) A part of the wall of the Qibla (restoration of the Sultan Abdul-Majeed the First) (1255-1277 H / 1839-1861 AD).

The Roof of the Mosque:

The roof of the Mosque was covered with domes carried by the stone Rowaques of the Mosque. The domes vary in size, the largest of all being the green dome which was built over the Honourable tomb. Next to it in size is the dome of the Osmani Mihrab then the dome of Al-Salam door. The remainder of the domes are almost equal in size (47) (*Bin Mousa 1878*). All domes were covered from the outside with panels of lead sheeting to offer protection against the rain and other weather conditions. In this way, the roof of the Mosque was changed from describing a horizontal plane to being a grouped composition of domes, some having small windows covered with coloured glass.

From the inside, the domes were covered with splendid embroideries and marvelous drawings, as well as verses of the Holy Qur'an written in calligraphy. Some of these domes were pulled down during the Saudi extension (48) (*Al-Wakeel 1988*). The wall of Al-Qibla was covered with coloured china. On this wall one can still see four lines the first three of which include verses from suras Al-Tawba and Ale-Imran. The fourth line includes some of the names and attributes of the Prophet, peace be upon him, which are two hundred and one (49) (*Bin Mousa 1878*).

The mihrabs of the Prophet's Mosque

There were three mihrabs in the Prophet's Mosque. The first was set up in the place where the Prophet used to stand to pray with his companions. This mihrab lies in the Honourable Rawda. Behind this mihrab to the West lies the pillar which stands where the Prophet used to prostrate (50) (*Bin Mousa 1878*). The second mihrab lies ahead of the Prophet's mihrab in the direction of the Qibla. This is called the Osmani mehrab because it is attributed to Saydna Osman Bin Affan, may Allah be pleased with him. This mihrab was placed where Saydina Osman used to lead the Muslims in prayer. Saydina Osman set up this mihrab during his extension of the Prophet's Mosque in the Southern end. (In this instance, 'mihrab' does not refer to a concave niche like those of today but simply the place where he, may Allah be pleased with him, used to lead the people in prayer.) These places were used later as points to set up the mihrabs we know now. It is worth mentioning that the kind of mihrabs we know today were first built during the reign of Al-Waleed Ibn Abdul-Mali. (51) (*Al-Wakeel 1988*).

The third mihrab lies outside the Honourable Rawda, West of the minbar, to the right of anyone heading for the Qibla. This mihrab was set up during the reign of Sultan Soliman Al-Qanuni in the year 846 H / 1541 AD. This mihrab came to be known as the Hanafia Mihrab (52) (*Al-Wakeel 1988*).

The Doors of the Prophet's Haram:

The Haram kept its four doors during the renovation in the reign of Sultan Abdul-Majeed. These four doors are: Al-Salam and Al-Rahma doors, in the Western part of the Mosque, and Jibril and the Women's doors in the Eastern part of the Mosque.

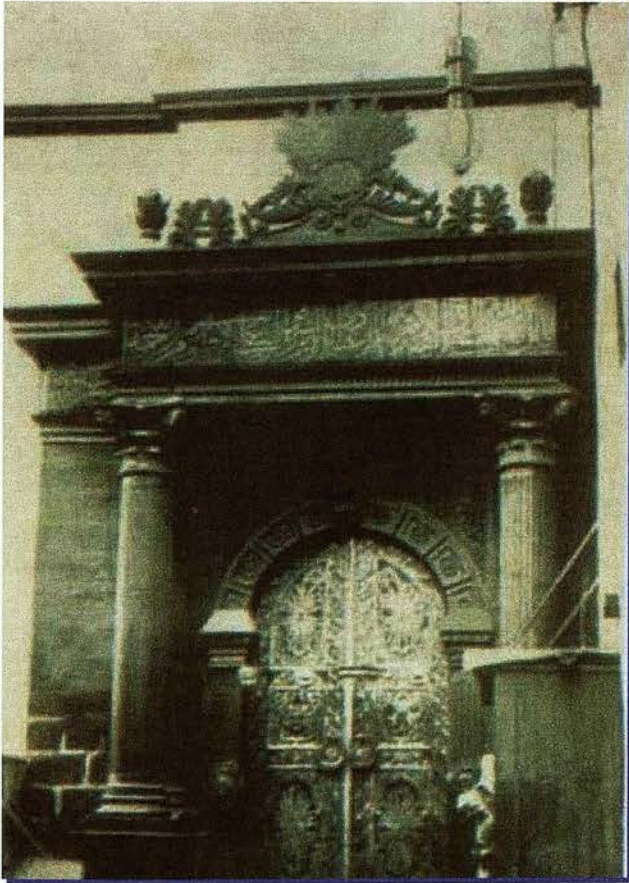
The doors were made of almond wood and were seasoned with splendid dries of yellow copper. A fifth door has recently been added to the four basic doors, this door is called Abdul-Majeed door, or the pleading door (60) (*Lamiee 1981*).



(21) The Prophet's Mosque from the inside where the Honourable Rawda is.



(22) The roof of the Prophet's Mosque, covered with a group of domes, the largest of which is the Honorable One, then the mihrab's. All of them are covered with lead. (53) (*Ministry of Information 1982*)



(23) Bab Al-Rahma in the western side. (54) (*Al-Batanoni 1988*)



(24) Bab Al-Salam in the western side. (55) *(Al-Batanoni 1988)*



(25) The mehrab built in the place where the Prophet (PBUH), lead the prayer.
(59) *(Ministry of Information 1982)*

The Minbar of the Mosque:

The minbar is one of the things that remained unchanged during the renovations done in the reign of Sultan Abdul-Majeed. It remained as it was since it was first set up during the reign of Sultan Murad Khan the Third. It was made of marvelous marble and it was first set up in the Mosque in the year 988 H. / 1598 AD (61) (*Lamiee 1981*).

Ali Bin Mousa describes the minbar in his manuscript saying: "It's one of the most beautiful marbled minbars. Its upper parts are made of gold and silver with a red background and the curtain of its door is the same as its upper parts" (62) (*Bin Mousa 1878*).

The Mosque had two platforms for the muezzins, one at the Honourable Rawda, made of marble, and the other was at the back, made of wood which had a green iron railing (63) (*Al-Wakeel 1988*).

The Minarets of the Mosque:

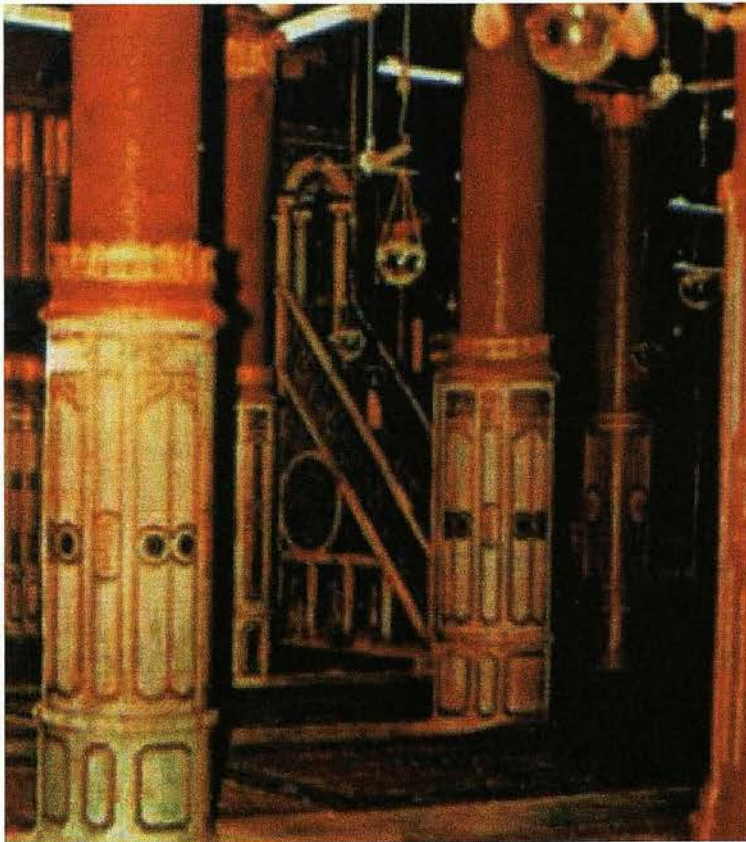
At that time the Mosque had five minarets. They were: (64) (*Al-Wakeel 1988*)

1. The Principal Minaret: It lies in the Southeastern corner which still remains as it was since it was first built during the reign of Sultan Qaitbay.
2. The Solimany Minaret: It lies in the Northeastern corner. This was built during the reign of Sultan Suliman Al-Qanuni to replace the Bukhary Minaret. Later this minaret was pulled down and rebuilt during the reign of Sultan Abdul-Aziz Khan Ibn Mahmud, following the style of the Majeedy minarets. This minaret had three balconies.
3. The Majeedia Minaret: This minaret lay in the Northwestern corner. It was known before as the wooden minaret and was refined during the renovation done during the reign of Sultan Abdul-Majeed.
4. Al-Rahmah door Minaret: This minaret was the shortest of the five. It was built during the reign of Sultan Qaitbay. Its upper half was demolished during the reign of Sultan Abdul-Majeed. This minaret had two balconies. It lay between Al-Majeedia minaret and Al-Salam door minaret.

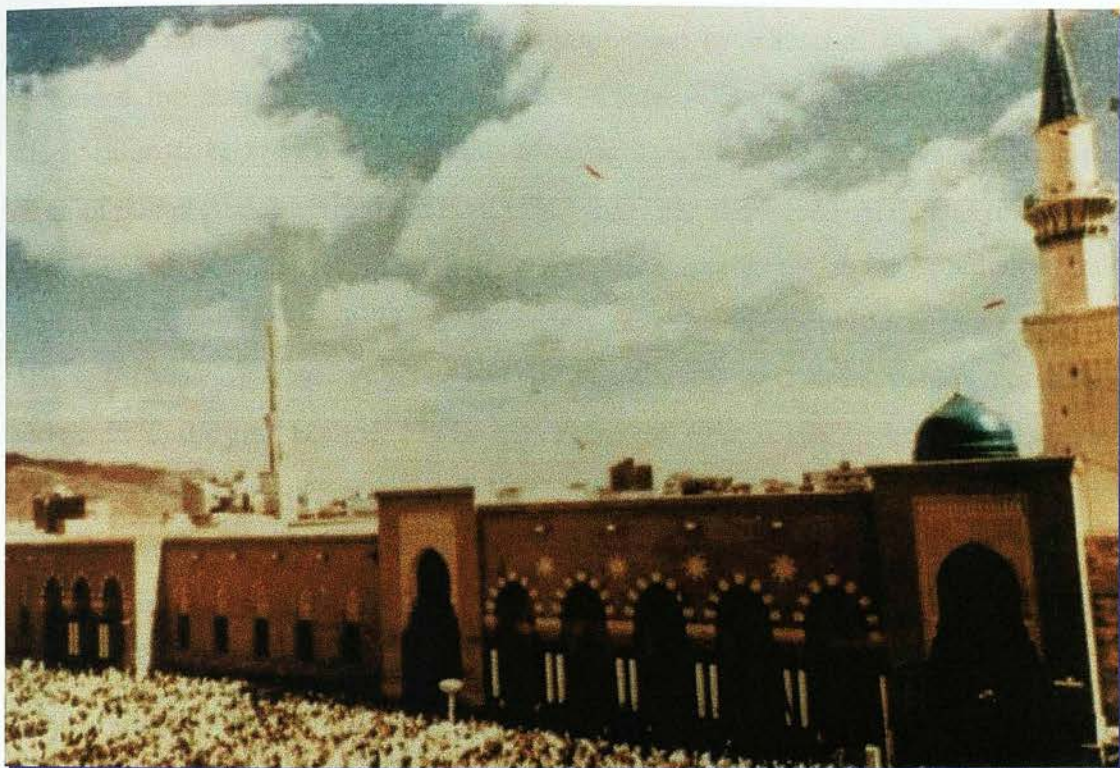
5. Al-Salam door Minaret: This was taller than Al-Rahmah minaret and lay in the Southwestern corner. Half of this minaret was pulled down and two balconies were made during the renovation during the reign of Sultan Abdul-Majeed.

Slight additions were made during the reign of Sultan Abdul-Aziz Khan Ibn Mahmoud (1277-1293 H. 1861-1876 AD). These included the entrance in front of Al-Salam door, which is really only a hall preceding the entrance from the outside and opening to face the external facade. He also covered the two sides of the entrance with coloured marble and roofed the entrance (67) (*Lamiee 1981*). Mr Saleh Lamie' believes that the marbling of Al-Salam door entrance took place during the reign of Sultan Abdul-Aziz (68) (*Lamiee 1981*).

There were no further renovations until the Saudi reign, except for maintenance works done during the reign of Sultan Abdul-Majeed the Second (1307 H / 1889-1890 AD) (69) (*Lamiee 1981*) and mending of the Prophet's and Solimany Mihrabs in the year 1336 H 1917-1918 AD at the order of Fakhry Basha the governor of Madinah.



(26) The minbar as rebuilt in the reign of Sultan Murad Khan the Third 988 H / 1598 AD (62) (*Lamiee 1981*).



(27) The main minaret in the South Eastern corner. It is the same as built by Sultan Qaitbay. Also, a part of Bab Al-Salam minaret is shown, a part of which was rebuilt by Sultan Abdul-Majeed (66) (Merza 1988)b



(28) The Prophet's Mosque, a general view in 1908 AD (Ibraheem Ref'at).

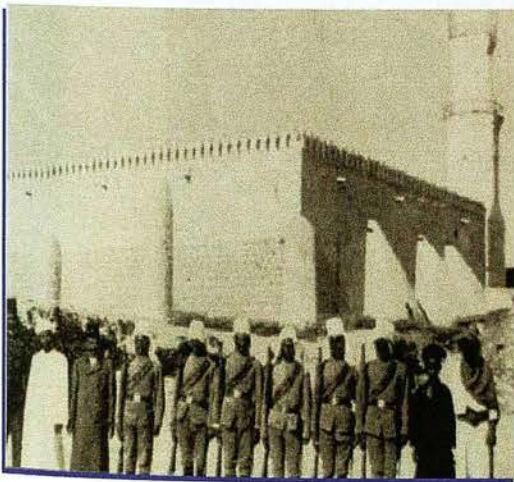


(29) The Prophet's Mosque, view of the minarets in 1321 H. (Ibraheem Ref'at)

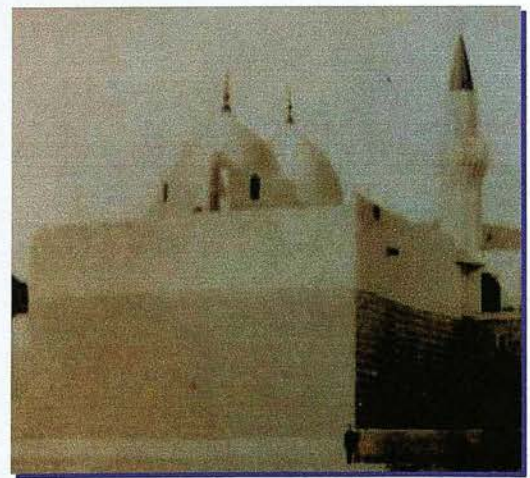
1.7.2 Patching up and renovating the old and antique Mosques in Madinah:

Most of the old Mosques in Madinah were fortunate in that they underwent many renovations during the Osmani reign, helping them to withstand the harsh weather conditions for many years. Most important of these Mosques is Al-Gamamah Mosque, which came to be known as Al-Musala Mosque. This Mosque was renovated during the reign of Sultan Abdul-Majeed the First (1255-1277 H / 1834-1861 AD). This renovation was followed with subsequent repair works done during the reign of Sultan Abdul-Majeed the Second (1293-1327 H / 1876-1909 AD). Among these Mosques was Saydna Abu Bakr Mosque, may Allah be pleased with him, repaired during the reign of Sultan Mahmoud in the year 1254 H. / 1838 AD. These renovations also covered Saydna Omar Ibn Al-Khattab Mosque, may Allah be pleased with him, in the year 1266H. 1849-1850 AD. During the reign of Sultan Abdul-Majeed the First, repair work was ordered to be done on Saydina Ali Ibn Abu Talib Mosque, may Allah be pleased with him, in the year 1268 H / 1851-1852 AD (70) (*Lamiee 1981*).

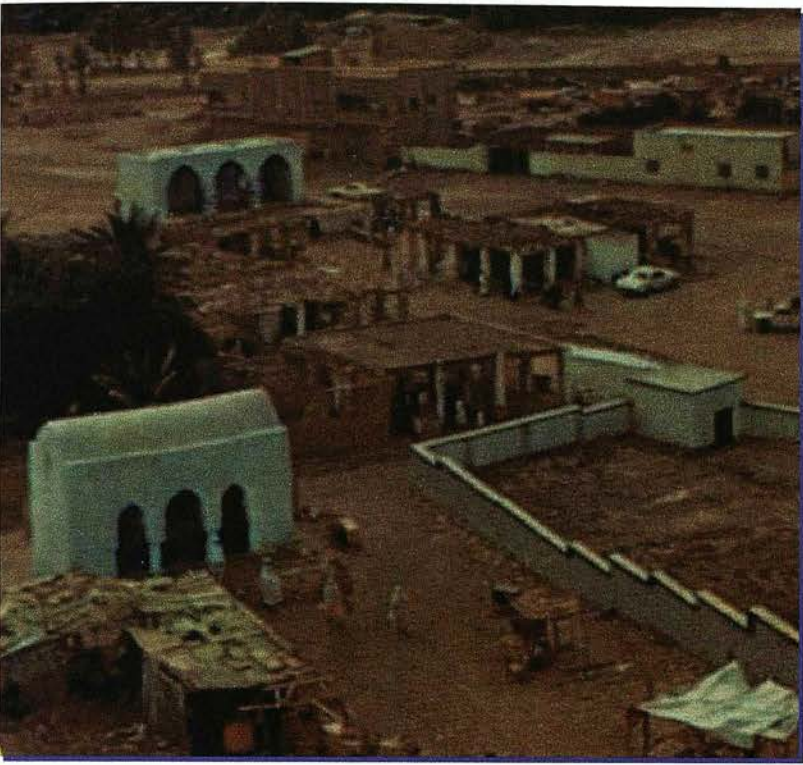
Quba' Mosque also underwent a major renovation during the reign of Sultan Mahmoud the Second in the year 1245 H / 1829 AD. This renovation was followed by many other repair works during the reign of Sultan Abdul-Majeed the First. It is important to mention that these Mosques are but more examples of many other Mosques that underwent renovation and rebuild during the reign of the Osmanis.



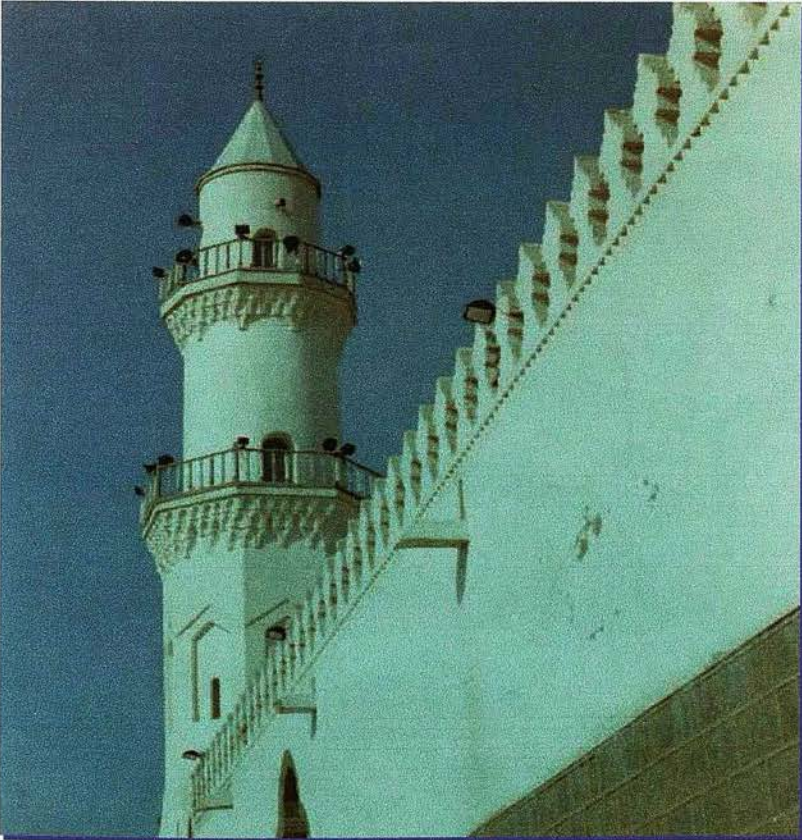
(30) Quba' Mosque after the last Osmani restoration.



(31) Sayyed Al-Shuhada' Mosque during the Osmani restoration. (Ibraheem Ref'at).



(32) The Seven Mosques in the area of Al-Khandaq. The Osmani restoration which is still there is shown.



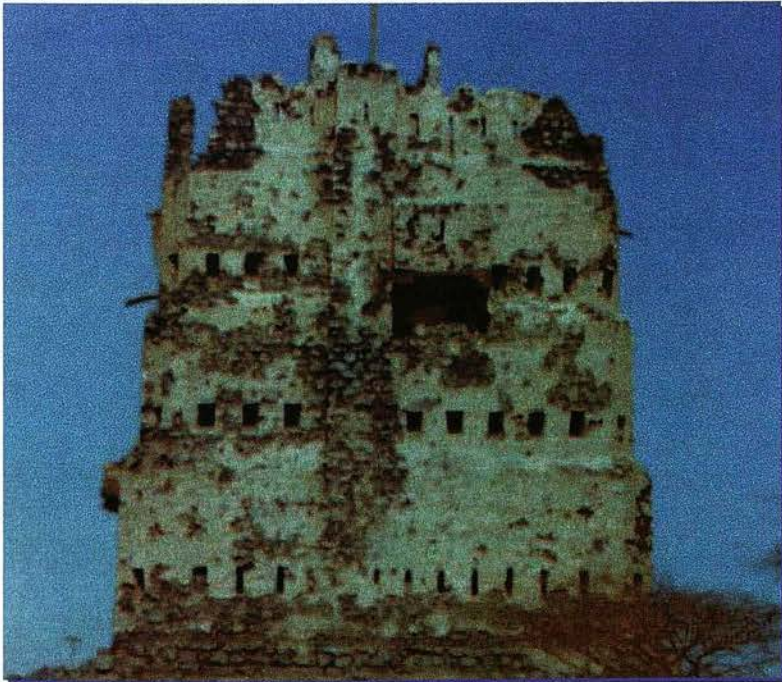
(33) The Quba' Mosque, the northern corner where there was the only minaret which had many repairs in the Osmani reign. The last was done by Sultan Mahmoud-II and his son Sultan Abdul Majeed in 1245H (71) (*Al-Ansari 1973*)

(34) 1.7.3 Building Madinah wall and setting up the castles and towers

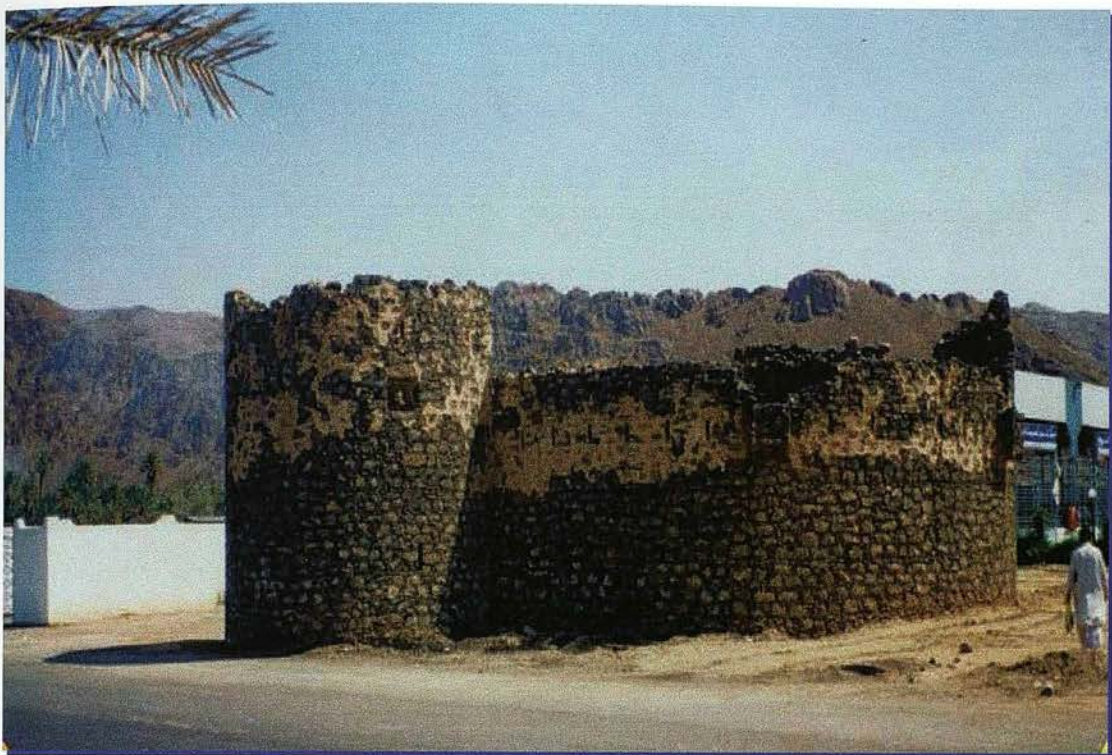
The rebuilding and renovation of Madinah's wall during the Osmani reign was secondary in importance to the restoration of the Honourable Prophet's Mosque. Sultan Al-Qanuni (926-974 H / 1520-1566 AD) ordered the old wall to be brought to the ground and rebuilt at the beginning of the Osmani reign.

Sultan Al-Qanuni reasoned that rebuilding the wall was offered best protection for Madinah and its inhabitants from external enemies, especially the nomads who used to attack Madinah from the desert. The Sultan also ordered the demolition of the bastion of Madinah Emir and ordered the building of a very huge castle in its place. That castle was first used for escort and surveillance. The rebuilding of the wall and the building of the castle was inaugurated on the fifteenth of Sha'ban 946 H, which coincided with the 26th of December 1539 AD (72) (*Lamiee 1981*).

During the installation of Al-Hijaz railway in the year 1900 AD, Sultan Abdul-Majeed the Second ordered the setting up of a very large group of castles and towers, which took about seven years. The renewal and repair works on the Madinah wall continued such as rebuilding the doors of the wall as well as other repairs.



(34) The Osmani Castle in Quba', the largest and most famous of castles.



(35) The ruins of one of the water towers built in the Osmani reign.

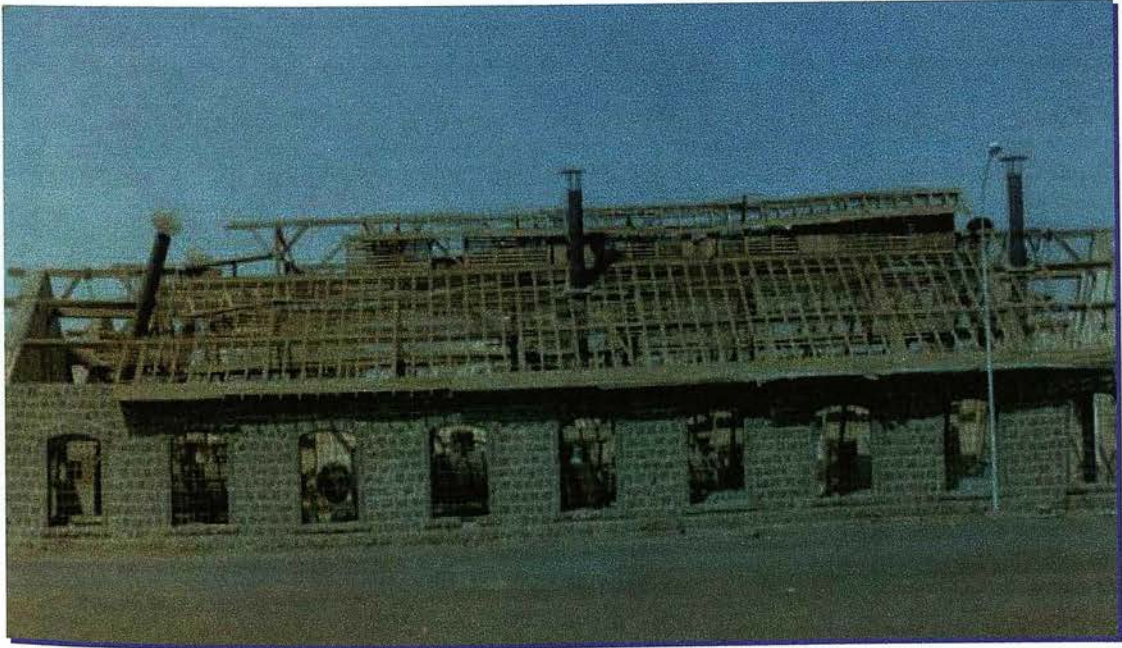
1.7.4 Building Al-Hijaz railway and the various facilities associated with it

The building of Al-Hijaz railway is regarded as one of the most magnificent achievements of the Osmani state in general and Sultan Abdul-Majeed the Second in particular. Various buildings and establishments were set up to serve this colossal project. Most important of all was the railway station building, including the service buildings such as the warehouses and stores as well as the workshops for repairing the trains and the setting up of water towers and ancillary administration buildings, lavatories and the railway bridge that was built over Al-Aqeeq valley.

Sultan Abdul-Majeed the Second ordered work on this giant project to start in September, 1900 AD (74) (Al-Shenawi 1980). The work continued for about seven years and the first train arrived in Madinah on 22 August, 1908 AD (75) (Al-Shenawi 1980). The total costs of the project amounted to three million sterling pounds. Donations were set at one million pounds. The length of the line from Damascus, in Syria, to Madinah was about 1320 km. Many stations were built on the lines and the distance between each station was about 20 km.



(36) The railway station in Madinah built in 1900 AD.



(37) The railway stores in Madinah used for keeping goods.

1.7.5 The building of schools and arbitan

One of the arbitan was Rebat Saydina Osman, to the East of the Honourable Prophet's Haram and Rebat Al-Nakhlah as well as Rebat Al-Eein. Most famous of all arbitan was Rebat Muzhar, was set up in the year 1292 H / 1875 AD. This was in addition to many other arbitan that constituted the urban frame of Madinah at that time.

Some of these arbitan had courts that used to house the poor and needy people. There were also arbitan for housing women and others for housing the men. These arbitan were owned by individuals and by groups of people.

Many schools and other associated buildings were set up during the Osmani reign. Most important of all was the Islamic University, which is now known as Taiba Secondary.

The Osmani Khaliphate ended before the university's completion. One can still see that the ground floor of the school was built of stone. It is of interest that the plans and designs of the Islamic University were prepared before the initiation of the project and if it had been completed, it would have been one of the largest schools ever built in the Osmani state. These designs are still present in Istanbul.

The Hussain Agha school in Al-Aghawat, to the South of the Honourable Prophet, is Haram, which was set up in the year 123 H / 1856-1857 AD (75) (*Lamiee 1981*), was also regarded as being among the most famous schools to be built during the Osmani reign. Other schools appeared, such as Minister Alam El-Dein school in Al-Aghawat lane in the year 1301 H / 1883 AD, according to the text written on the door of the entrance.

The Rustomiah school, which was set up in the 19th century, was regarded as one of the most famous schools at that time. It was set up for teaching in Al-Aghawat. The people in charge of looking after Al-Haram Schools in this era were closely linked to Al-Haram. There was also a close association between the schools, the arbitan and the libraries. Every school had to have a Rebat and a library. The Rustomiah school, rebat and library were a manifest example of this.

1.7.6 The building of public services and facilities

Many public service buildings appeared during the Osmani reign to serve the people of Taiba. The most important of these building were:

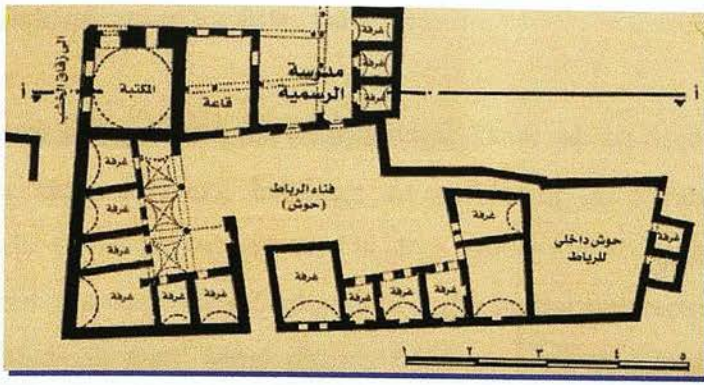
A. The Egyptian hospice:

The setting up of the Egyptian hospice took place in the period between 1816-1819 AD during the reign of the Egyptian governor at that time, Mohammed Ali Basha, at the hand of his son Ibrahim Basha. This hospice was one of eight hospices present at that time. The building comprised one storey overlooking Al-Anbareia street from its South façade. There was a small dome over half of this hospice which was used as the roof of a small tank that people used for washing and ablution. Unfortunately, this hospice was recently removed with a view to building car parks in its place.

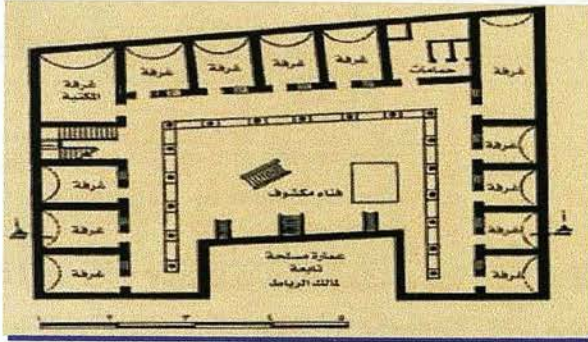
B. Building public baths:

During the Osmani reign Madinah had two baths. One was in Al-Aghawat lane inside the wall and was known as Taiba Bath. It was established in the reign of Sultan Soliman under the supervision of Mahmoud Basha (76) (*Lamiae 1981*). The bath was renovated during the reign of Sultan Mahmoud in the year 1254 H / 1838 AD, according to the date which was evident over the entrance to the bath.. The bath was built of stone and was covered by a dome which had a number of small windows.

The second bath used to be known as Al-Anbareia Bath, but is now known as Al-Nahdah Bath. It is currently owned by the Turgoman family. This bath is covered by a large number of domes of different sizes which have many circular openings covered with thick coloured glass that allow light to enter.



(38) Al-Rustumia School “the ground plan” (Dr. Lam’ie)



(39) The Rebat of Muz’har Al-Farouki “the ground plan”



(40) Taiba School, “the outside wall”.



(41) Hussain Agha School, “main entrance” in Aghwat Lane. (Dr. Lam’ie)

C. Setting up drinking water facilities (sabeels):

Many sabeels were set up during the Osmani reign. These sabeels used to exist at street and lane corners, close to major buildings, as well as at the entrances of big courts (Ahwash). Sabeels of this period appeared in large numbers in Al-Aghawat lane and Al-Majeedy door, but the separate sabeels, which had a special architectural style, used to be outside the Madinah wall. Most famous of these were Al-Hashim Sabeel in Al-Anbareia area and Wadi Al-Aqeeq Sabeel and Assoltania Sabeel. These sabeels used to exist mostly next to wells. In some cases, wells were dug especially to serve these sabeels, as is the case with Al-Hashim Sabeel.

D. Building a hospital:

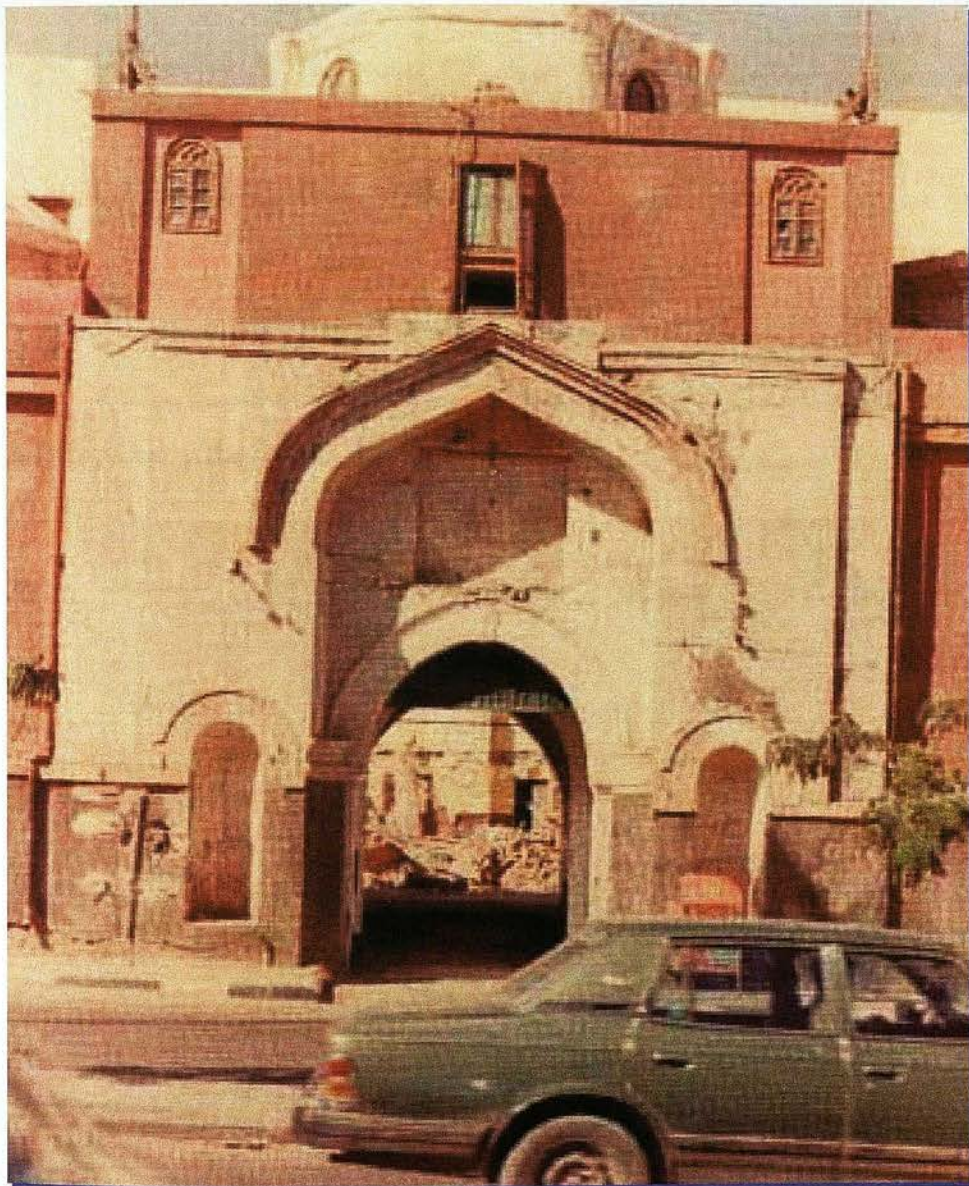
Historian Ibrahim Ref'at, who visited Madinah from 1901-1908 AD, reported that there was only one hospital for treating the people of Madinah. This was followed by building many private clinics (77) (Ref'at 1901) run by popular doctors, who used to treat the patients using natural remedies.

E. Setting up wekalahs and the spread of big commercial stores and bakeries:

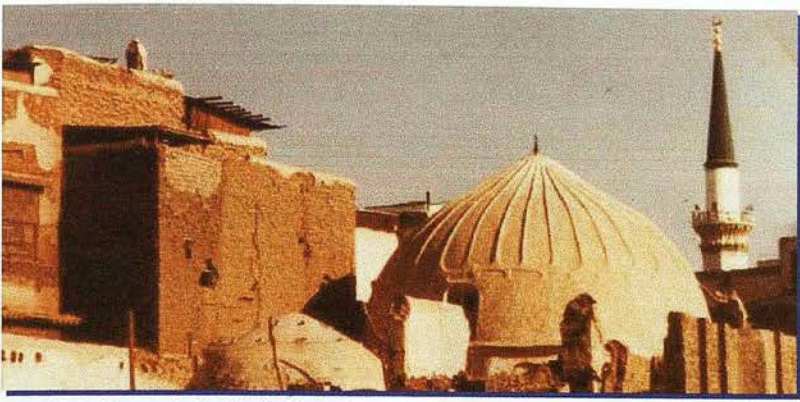
The historian Ibrahim Ref'at also tells us that during his visit to Madinah there were about 932 shops in addition to four big stores (wekalahs), eighteen bakeries, thirty six cafés and four shops for selling dyes and paints (78) (Ref'at 1901). These shops and stores existed in certain streets starting from the Honourable Prophet's Haram and taking it as their basic centre. One of these streets was Al-Ainiyah Street which ran West from Al-Salam door until it met Al-Manakha Street. This street had several one or two storey buildings which overlooked the street through a chain of small shops which ran along both sides. There were also covered walkways that used to facilitate the movement of the pedestrians and protect them from the hot rays of the sun. There were also other streets like Al-Sahah street, that in Al-Sahah area and Al-Seheimy Street in the Al-Majeedy door area as well as Al-Hamatah Street which was parallel to Al-Manakha Street to the East.

F. The Spread of farms and orchards:

The agricultural area of Madinah developed much during the Osmani reign and its acreage increased greatly, in particular among the farms which drew their water from the blue spring. Date orchards flourished and spread in the Quba', Al-Awaly and Qurban regioes as well as around the Honourable Prophet's Haram in the Eastern, Western and Southern directions. The historian, Ibrahim Ref'at put the number of date groves and vineyards at that time at 485 (79) (Refat 1901).



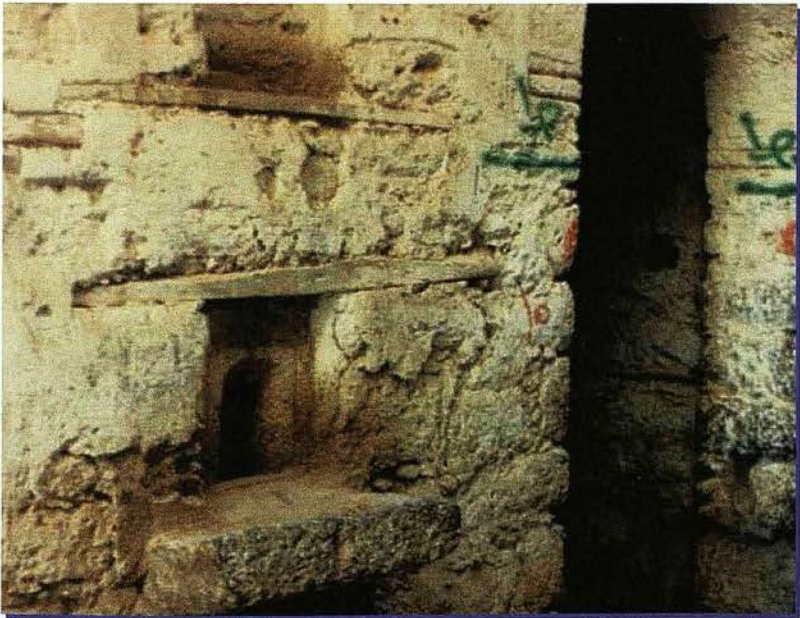
(42) Main entrance of the Egyptian hospice "Mohammed Ali's".



(43) Over-view of Taiba public bath in Dherwan. (Saleh Lam'ie).



(44) Al-Anbaria bath (the roof).



(45) A Sabeel attached to an old building behind the Abdul-Aziz library. The entrance of the place is shown.



(46) Al-Qammasha St, inside the first wall



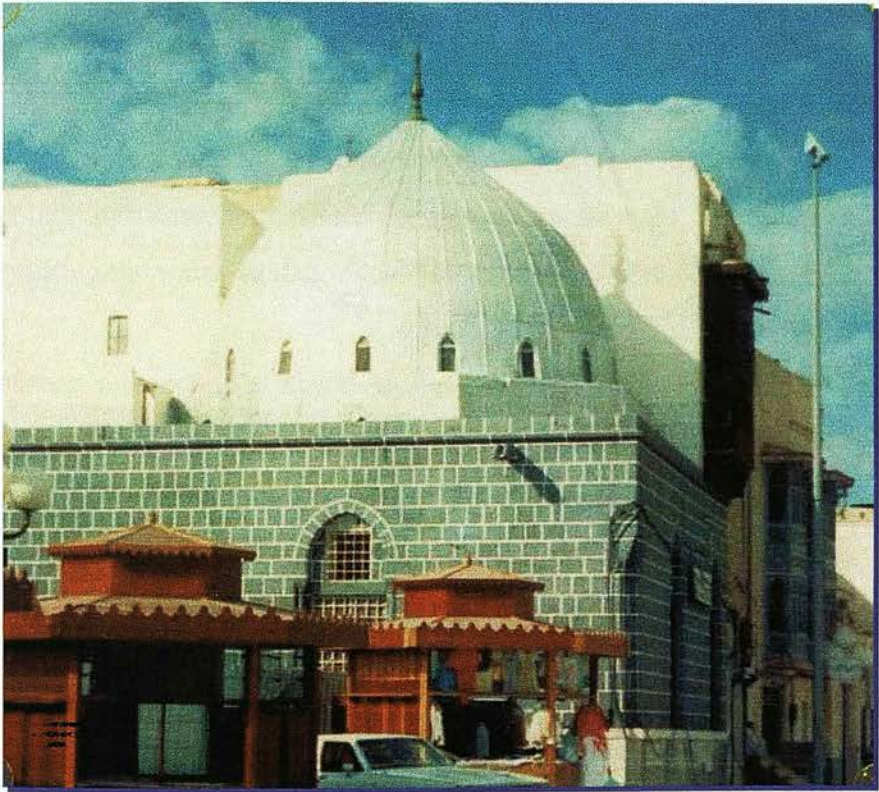
(47) Al-Hadra Suq, or the old Swaiqa Suq (Abdul-Quddous Al-Ansari)



(48) A part of Al-Hamata commercial street to the West of the Prophet's Mosque.

1.7.7 Setting up public libraries and kuttabs

The scientific movement in Madinah flourished during the Osmani reign. Libraries spread everywhere and the kuttabs, used to teach boys the Holy Qur'an, arithmetic and literacy skills also increased. Ibrahim Ref'at tells us that during his visit to Madinah, there were eighteen libraries, seventeen schools for teaching the elementary sciences as well as a secondary kuttab and another twelve kuttabs for teaching boys. Every kuttab used to have a Sheik and a vice-Sheik. He also tells us that the number of pupils in these kuttabs reached 320. There were also 55 pupils in the secondary kuttab in 1309 H (80) (Ref'at 1901).



(49) Shiekh Al-Eslam Aref Hekmat library. The stall in front of it marks the place where the house of Abi Ayoub Al-Ansari's house used to exist. This library was demolished in 18 Rabie II, 1411H.

1.7.8 Renovating Al-Ain Al-Zarqa' and the setting up of the cisterns

Al-Ain Al-Zarqa' was one of the most important blessings that Allah Almighty endowed Madinah with. This Ain saved the inhabitants of Madinah the effort of extracting water from the well. Al-Ain was preferable over other wells because the level of its water rose

to such an extent that moisture lay within reach of anyone who needed it. This Ain underwent many renovations and reparation works over the ages ever since it had first been dug at the hand of Marwan Ibn Al-Hakam by order of the Caliphate Mo'awia Ibn Abi Sufian. The Ain was dug at the beginning of the second half of the first Hijrah century. The flow of water in the Ain then stopped, causing unease among the people of Madinah. This matter urged Sultan Soliman to renovate it in the year 932 H. It was then repaired during the reign of Sultan Murad in the year 999 H. In 1111 H Sultan Mustafa built Hazooq well, then in 1112 H. Sultan Sateen ordered the building of its waterway. After that, it was renovated again during the rule of Mohammed Ali Basha.

In the 14th century, Sultan Abdul-Hamid the Second renewed it and added the Beweera well to it. Al-Ain Al-Zarqa had more than twelve watering places which were built of stones and had domes and steps so that people could reach the water. These watering places went through many renovations during the Osmani reign. They also built two big cisterns for storing the water so that it could be used at the time of need.

The first cistern was set up at Sayed Al-Shuhada' area and was removed only recently. The second cistern is the one which is still near the Mosque of Saydna Abu Bakr in Al-Khandaq area. The cistern doors are locked for security reasons. This cistern derives its water from the nearby valleys carried there through big pipes (81) (Al-Ansari 1973).

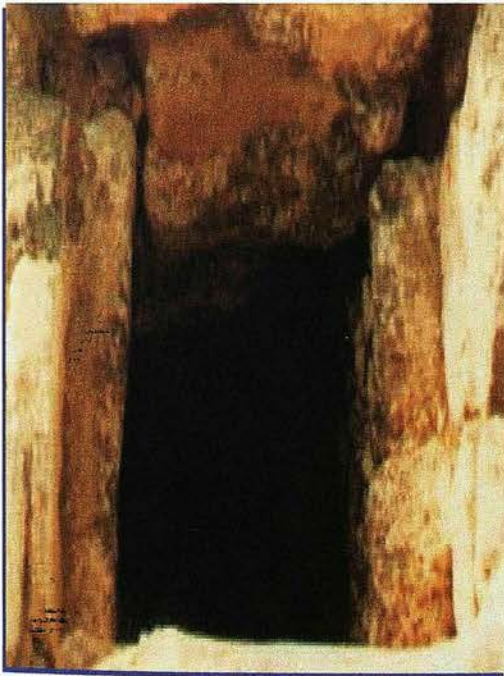


(50) One of Al-Ain Al-Zarqa's watering places in Madinah, which is known as Al-Kharazaat.

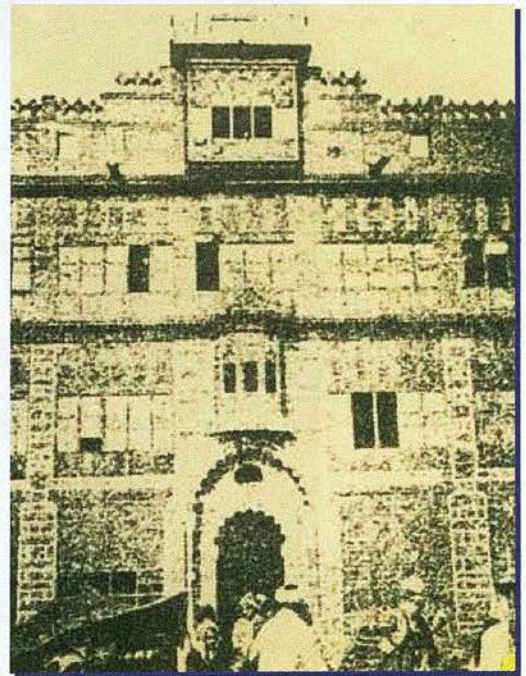
1.7.9 Flourishing of the building and construction movement

The Osmani era was one of the most important periods where the building and construction movement flowered. Many beautiful stone buildings were set up in Al-Anbaria street and Al-Saha street. Examples of these buildings are Al-Saffi and Al-Madany houses as well as Al-Sayed Abd Allah hotel, whose rooms numbered 371 (82) (Refat 1901).

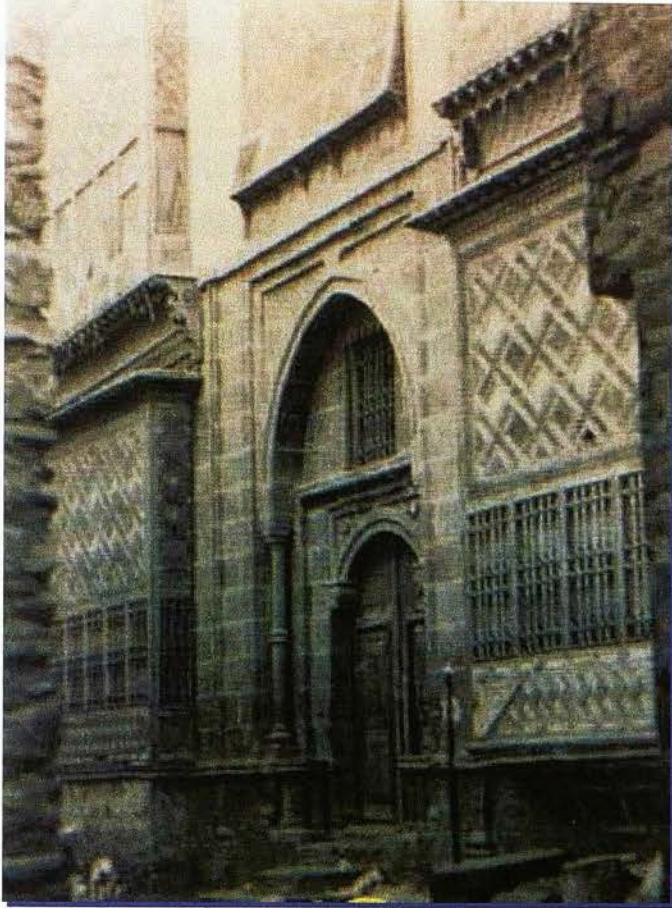
Ibrahim Ref'at refers to these buildings, saying that they were marvelous houses built of stone and wood. There was also a chain of magnificent houses in Al-Anbaria Street, inhabited by the Emirs of Madinah.



(51) The opening into one of the watering places. It has been embanked with stones to ensure that it won't collapse. The water is extracted by buckets.



(52) Al-Sayed Abd-Allah Hotel, which was the largest hotel in Madinah during the Osmani reign (Ibrahim Ref'at).



(53) Al-Safe Hotel, the largest hotel in Madinahh during Osmani regin.



(54) Al-Safe Hotel, "the main door".

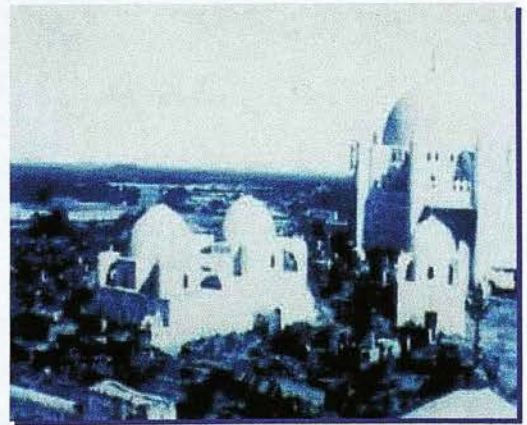
1.7.10 Rebuilding and renovating Al-Baqie' domes and wall

The Osmani state made many repairs and renovations to the standing domes in Al-Baqie' (the cemetery). It also rebuilt the domes that collapsed, one of these being An Al-Bait dome (the Prophet's house-hold dome). The purpose of these domes was to mark the positions of different tombs, the most famous of all being the An Al-Bait dome which was grander and more majestic than the others. Next to it in beauty was Saydina Malik Ibn Anas dome, then, Saydina Ibrahim (the son of the Prophet) dome, then the dome of the wives of the Prophet and the dome of the daughters of the Prophet, peace be upon them all.

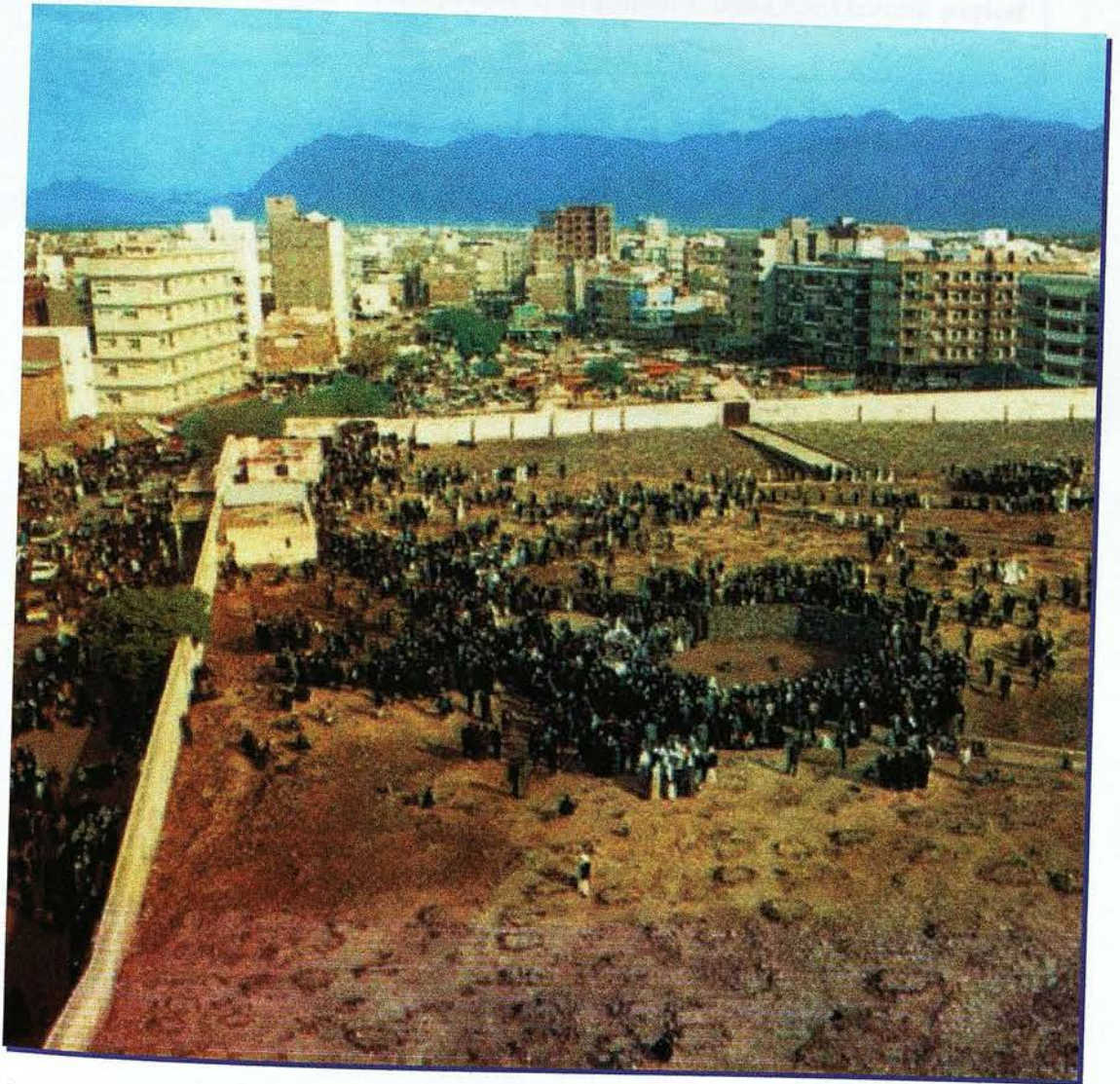
There were also many other domes outside and inside Al-Baqie'. During the Osmani reign, Al-Baqie' was walled round with stone (83) (Al-Ansari 1973). Four doors were built in this wall. Three of these doors were West of Al-Baqie', the fourth being in the Northern part. This wall was consolidated and thickened with stone. It remained standing until it was removed recently during the Saudi extension of the Honourable Al-Baqie' wall. The new wall is built of cement and brick.



(55) Al-Baqi' in the year 1908 AD. The picture shows Al-Baqi' lane that leads to Al-Baqi' door or Al-Joma' door

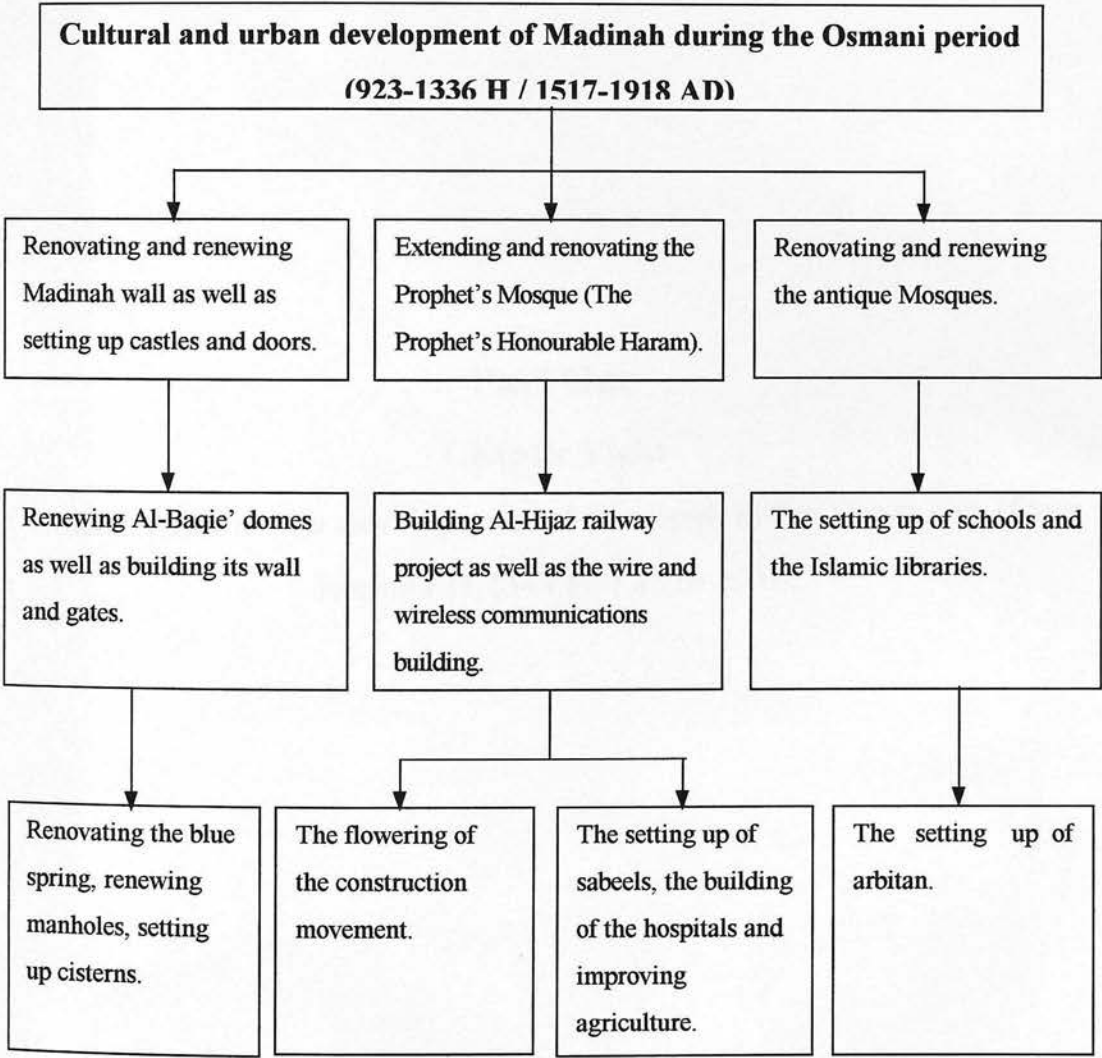


(56) Al-Baqi' in 1908 AD. In this picture we can see Al-Baqi' domes, the biggest of which were these of Sayedna Al-Abass and Al-Hassan, may Allah be pleased with them.



(57) Al-Baqi' in 1976 AD. The picture shows the space resulting from the removal of An-Nabawi dome in the modern Saudi reign and parts of Madinah old wall to the North.

The characteristics of the cultural and urban development of Madinah in the Osmani period can be summed up as follows:



(58) Important characteristics of urban and cultural development of Madinah in the Osmani period.

Part One

Chapter Eight

Cultural and urban development of Madinah in the Saudi Era (from Jumada II,1344 H. / 1926 AD) :

Chapter Eight: *Cultural and urban development of Madinah in the Saudi Era* (from Jumada II, 1344 H. / 1926 AD) :

Ustaz Saleh Lamie' gives a brief description of Madinah in the beginning of the Saudi era, depending on what he learned from Filbi's visits to Madinah in 1931 AD and 1938 AD (1) (*Lamie 1981*). He wrote that some buildings to the West of Anbariya were dilapidated after the Turkish withdrawal from Madinah, that the area of Anbariya was growing and expanding especially after the middle of the nineteenth century and that, to the South, there were many palm gardens in addition to some humble buildings. The number of inhabitants in Madinah at that time was about 15,000. He notes that visitors to Madinah were few then on account of the world wide depression of the 1930's in addition to the cessation of the railway service in 1916 AD. He also dates the oldest existing building then in Madinah as having been built in 706 H / 1306 AD, which may have been an allusion to the entrance of Yaqout Al-Maradooni's rebat mentioned previously. Parts of its wall are still standing. Lamie' also indicated that the domes on the entrance of Al-Baqie' were taken down in 1926 AD.

The same source says that, from the early years of the Saudi era, the population had been growing because of the stability of security and social and political circumstances. The city wall was taken down in 1950 AD and only some parts of Bab Al-Musri were left (2) (*Lamiee 1981*).

Madinah grew quickly immediately following World War II as a result of the building of a network of roads, ports and airports that linked Madinah to other cities inside and outside the Kingdom of Saudi Arabia.

Madinah remained without any well-prepared development plans until the Ministry of the Interior in Saudi Arabia began many projects to secure the progress and development of a strategy for Madinah.

1.8.0 The most important cultural, architectural and urban developments of Madinah during the Saudi era:

First: Restoration of the Prophet's Mosque and repair work in the reign of King Abdul-Aziz Al-Saud in 1348 H / 1929 AD and in 1350 H / 1931 AD in addition to his project of restoration and expansion of the Prophet's Mosque started in 1372 H / 1952 AD and finished later by King Saud Bin Abdul-Aziz in 1375 H / 1955 AD. There followed an expansion under King Faisal Bin Abdul-Aziz, which introduced an open courtyard of about 94,000 square metres. This, however, was erased by King Fahd Bin Abdul-Aziz's expansion and repair works on the Mosque started in 1406 H / 1985 AD, and still ongoing.

Second: The fast growth of population and architecture in different sectors.

Third: Initiating service projects and public utilities such as roads, electricity, water, post, telegram and telephones in addition to education, health, civil defence and policing.

Fourth: The introduction of planning regulations in Madinah by the government, making public and general plans for cultural and architectural development in the city.

These aspects are now described in greater detail.

1.8.1 The Restoration and expansion of the Prophet's Mosque:

When King Abdul-Aziz Al-Saud captured Al-Hijaz in 1344 H / 1926 AD his interest was predominantly in the two Holy Mosques. This continued into the reign of the custodian of the two Holy Mosques, King Fahd Ibn Abdul-Aziz.

The expansion and repair works of the Prophet's Mosque in the reign of King Abdul-Aziz Al-Saud:

In 1348 H / 1929 AD King Abdul-Aziz did some repair works in the Prophet's Mosque, i.e the hallways surrounding the main hall. In 1350 H / 1931 AD some pillars in the Eastern and Western hallways were mended as they showed evidence of cracking. They were banded with iron bars (3) (Al-Wakeel 1988).

In the reign of King Abdul-Aziz Al-Saud, the Egyptian government did some repair works in the Mosque in 1354 H / 1935 AD. The work lasted three years and included the floors of the hallways, the minarets and the entrances.

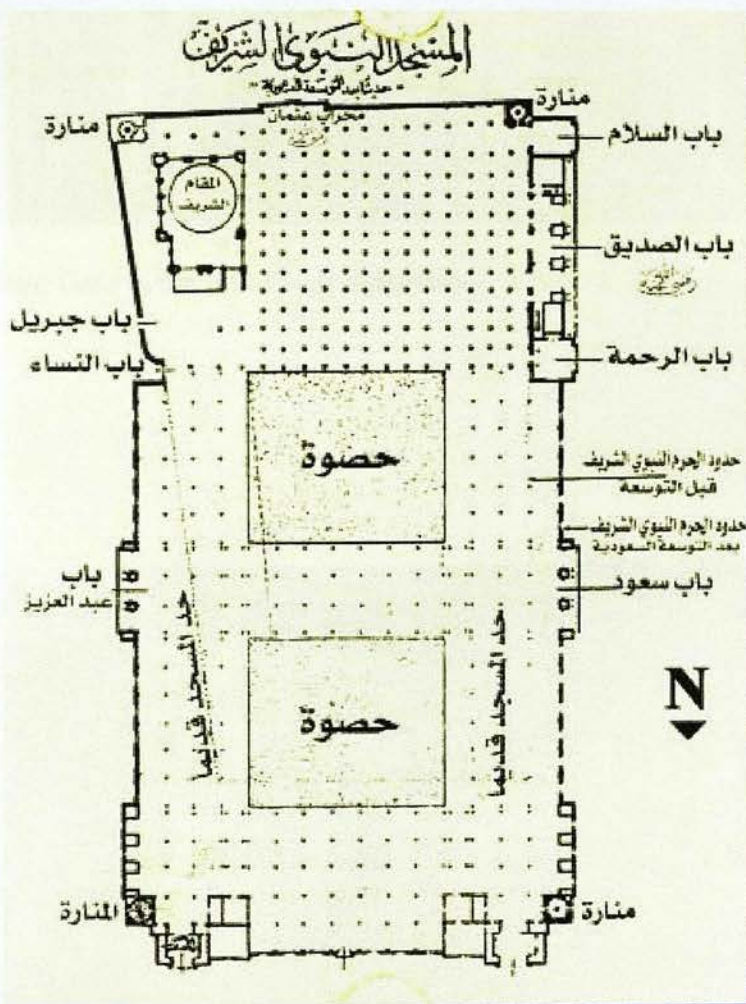
On 12 Sha'ban 1368 H / June 1949 AD (4) (*Al-Wakeel 1988*). King Abdul-Aziz announced in a speech addressing all Muslims that he intended to start the expansion of the Prophet's Mosque in 1370 H. Demolition of the buildings surrounding the Mosque started in Rabie' 1 1372 H. The foundation stone was laid on Sha'ban 14 1372 H / 1953 AD. The work started in the Western side in the area of Bab Al-Rahmah. The whole project lasted nearly two and a half years and was opened on Rabie' I 5 1375 H / October 22 1955 AD.

The total area of the houses taken down for the sake of the project was more than 12,000 square metres. The workforce involved were 600 Egyptians, 300 Syrians, 100 Hadramies 'Yemenis' and many Saudis. The engineers were comprised of eight Egyptians, one Syrian and one Pakistani. The project cost 50,000,000 riyals. The area of the new expansion and repair works was 12,270 square metres. The total area of the Mosque after the expansion was 16,327 square metres. The height of the new part was approximately equal to that of the old Osmani section. It was fourteen metres high. The pillars in the new parts numbered 232, the width of the hallways being 6 metres. There were three of them on the Western side, three in the middle and five on the Northern side. The foundations went 7.5 metres below ground level for the pillars and 17 metres underground for the minarets (5) (*Daftardar 1982*).

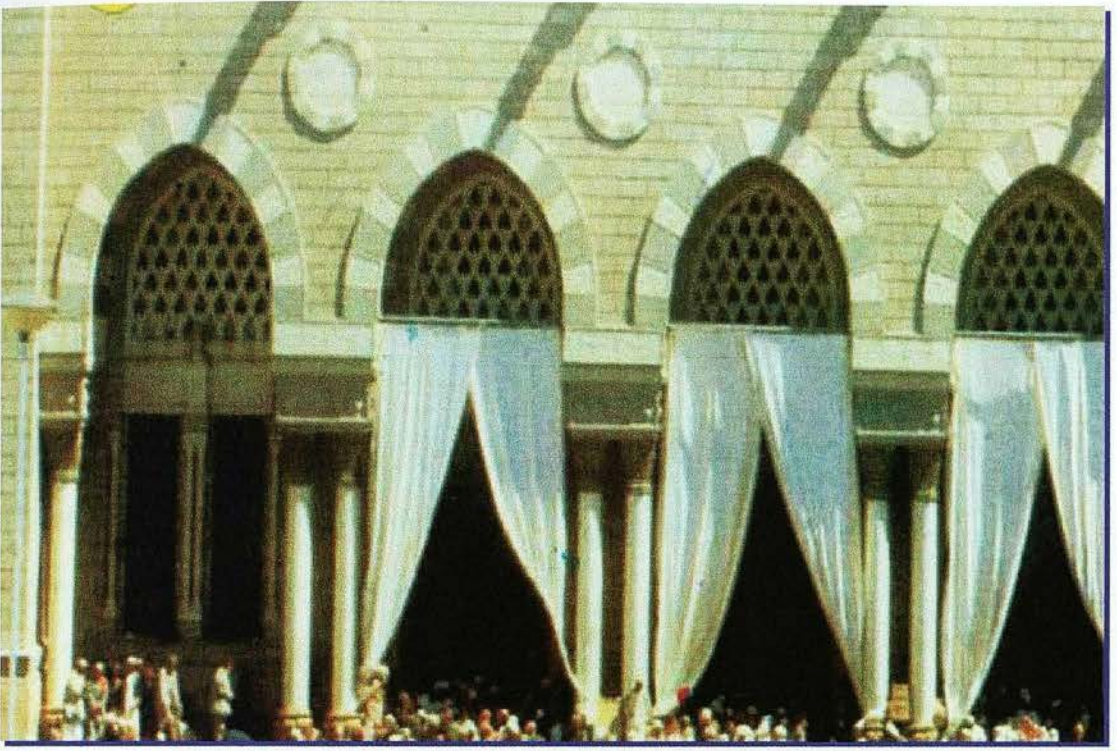
The Saudi expansion and restoration was characterised by the use of reinforced concrete, a material new to the Mosque. Stone had been the principal building substance since the Mosque had been founded by the Prophet, peace be upon him, up to the Al-Majeedi restoration.

The Saudi expansion is also identified by a group of pillars with crowns of yellow copper incised with botanic trappings. The bottom of these pillars was covered with black costate marble. They all were painted white.

At the top of the pillars were some rows of repoussé knittings. Every four of these form square slabs and white gypseous engravings and trapping were done around each slab. In most of its parts, the Saudi restoration was characterised by using this white colouring, thus clearly differentiating between it and The Majeedi restoration with its characteristic brown colouring. During the Saudi repair works, both the Sulaimani minaret and Majeedi minaret were taken down and replaced by two others, each having four floors. The first floor of each was square, the second octagonal and the third round. These floors were nearly equal in height. As for the fourth floor it was not as high as the others, having the Mamaluk touch to it and on the other three in general (9) (Lamiee 1981).



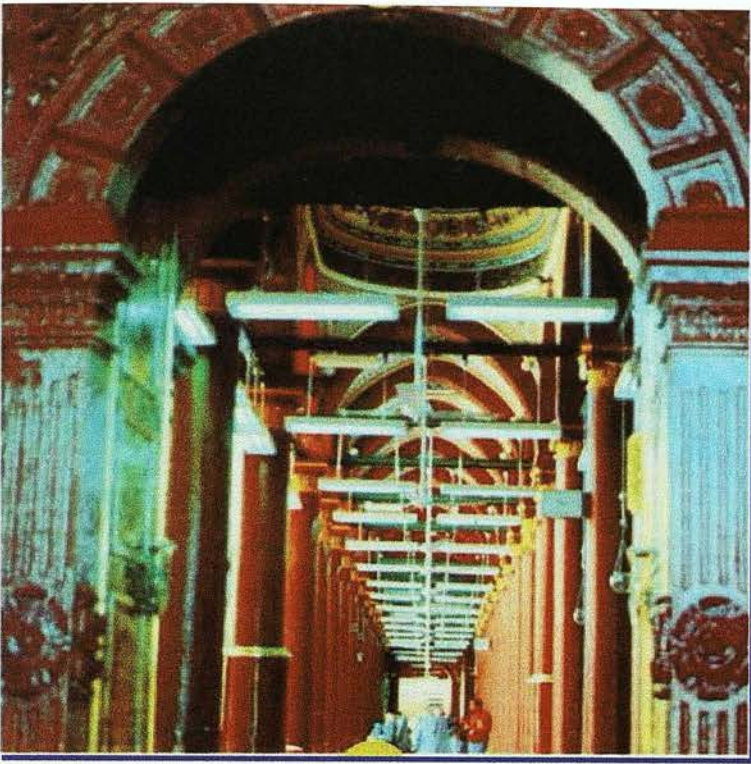
(01) The Prophet's Honourable Mosque after the expansion of King Saud Al-Saud which was finished on Rabi I 5 1375 H / October 22 1955 AD. (6) (Lamiee 1981).



(02) King Saud Gate in the first Saudi restoration.



(03) Bab Al-Salam (Saudi expansion over the Osmani one)



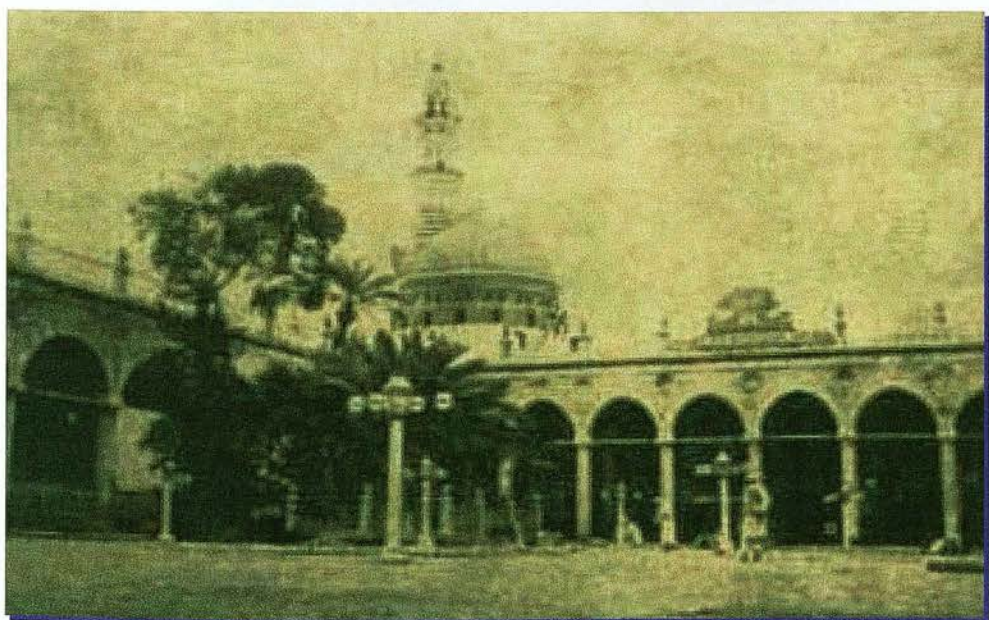
(04) Bab Al-Rahma in the western side of the Mosque opposite to Bab Al-Nisa in the eastern side. *(Ministry of Information)*



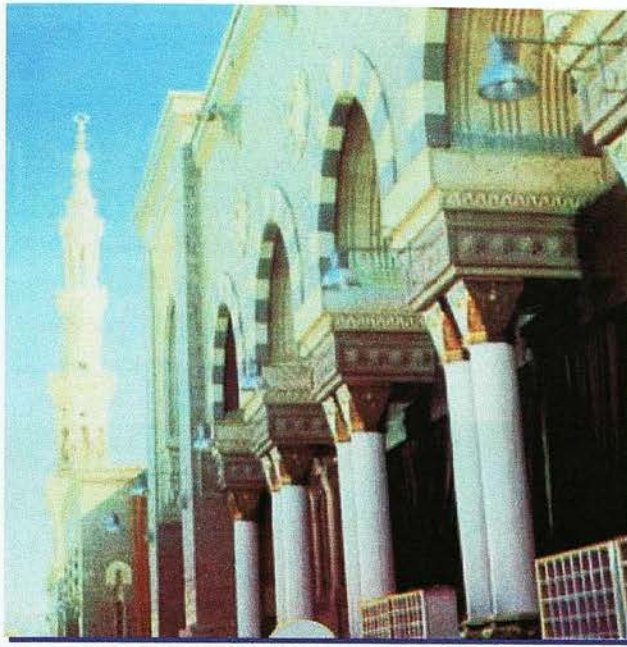
(05) The hallway after entering Bab Al-Salam in western side leading to the Honorable Room "tomb". *(Ministry of Information)*



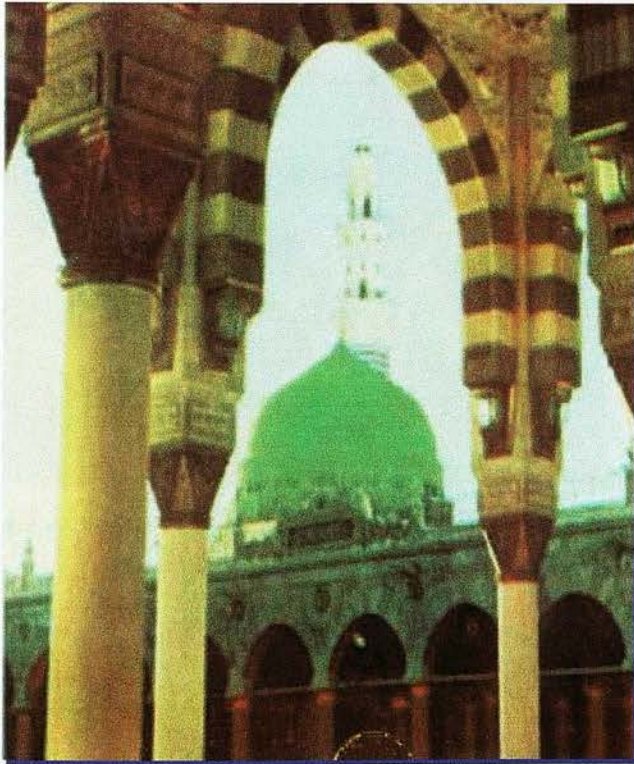
- (06) The Prophet's Mosque from inside. The mihrab built in the place where the Prophet (PBUH) led the prayer. The picture also shows part of the Al-Rawda Al-Sharifa and the niche of Sultan Suliman (948H / 1941AD), covered with engraving and surrounded by a frame of verses from the Qura'n. It also shows the pillars covered with blue, white and brown marble, done during the reign of the Custodian of the Two Holy Mosques.



- (07) A picture showing a part of the Holy Mosque from inside the first Saudi expansion.



(08) The western exposure of the first Saudi expansion of the Prophet's Holy Mosque.



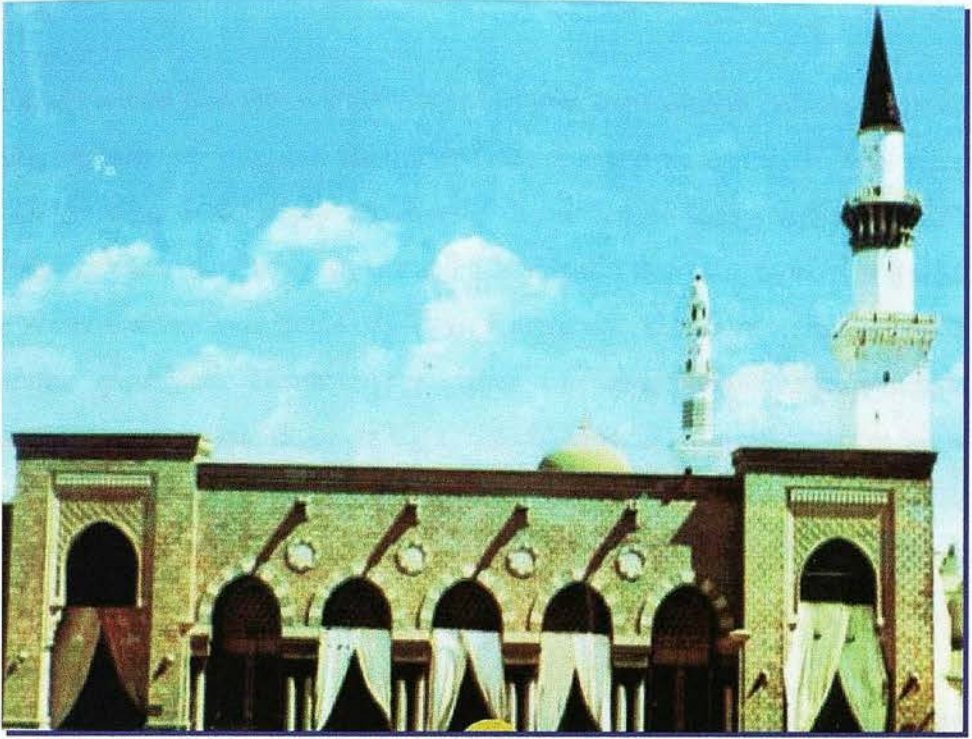
(09) The Prophet's Holy Mosque from the inside. The Saudi and Osmani expansions appearing together. *(The Ministry of Information)*



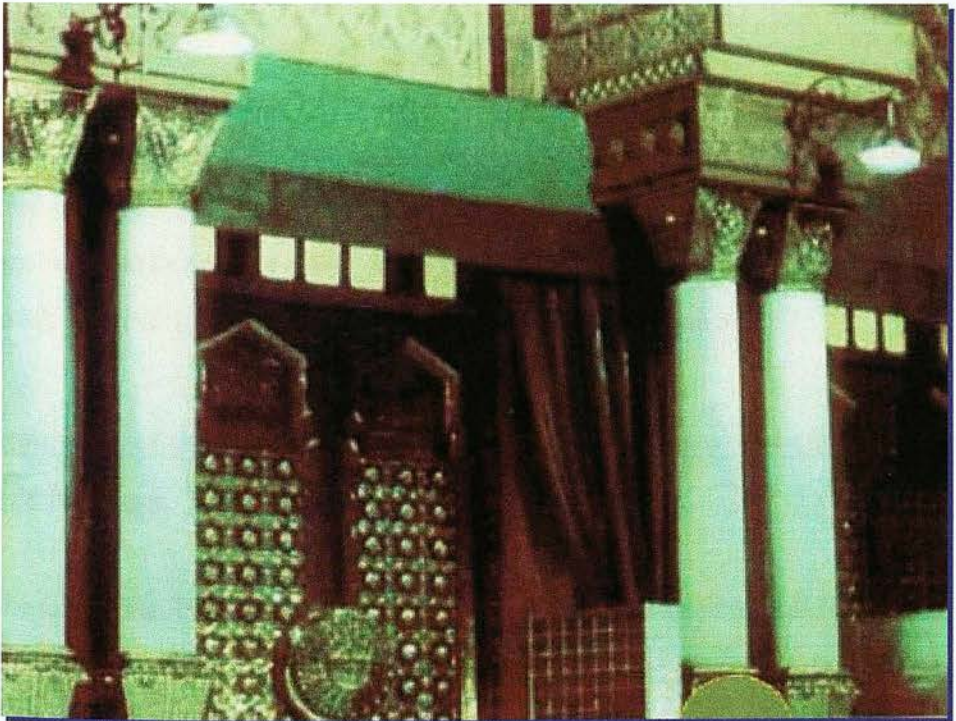
- (10) Geometric and botanic trapings and engraving covering the inside of the dome of the Majeedi restoration. Eight windows are in the eifhg fold part of the dome. This part is a result of changing the square plan by means of global triangles. Most of these domes were mended during the first Saudi expansion.



- (11) Traping and engraving cover the top of the windows of the Prophet's Holy Mosque in the first Saudi expansion. The windows's louver is also shown covered with pieces of colored glass wonderfully interwoven.



(12) The western exposure of the Prophet's Holy Mosque after the first Saudi expansion. The gates of King Saud Bin Abdul Aziz are shown between Bab Al-Salam and Bab Umar Ibn Al-Khattab, may Allah be pleased with him.



(13) The gate of King Saud with bases and crowns of the pillars outside are shown covered with yellow copper which is accurately inscribed. The door itself was made of wood with engraving and beautiful trapping.

The Expansion of the Prophet's Mosque in the reign of King Faisal Ibn Abdul-

Aziz:

King Faisal realised that the Mosque needed another expansion in order to respond to an increasing number of pilgrims. He ordered that this take place along its Western side to reach Al-Manakha Street from the North. It reached Al-Saha Street and included Al-Qammasha market, Al-Ainiya Street and the buildings that were in front of the Mosque on the Western side. Great tracts of historical architectural texture were removed for the sake of this expansion. The total area taken was about 94,000 square metres. This expansion was nearly six times as big as the old Mosque. Fiberglass chutes were made temporarily over this area to protect the worshippers from the sun. This place was supplied with electricity, water, sound amplifiers and fans. Its floors were covered with white marble and carpeting.

A wall covered with marble and topped with a rail of incised green iron was made around the area of the new expansion. It had a group of small gates that led inside the expansion. A building was made especially for wudu (ablution) near the end of the expansion.

In the reign of King Faisal, some repair works were also done to the old Mosque. The walls and the inside of the domes were repainted, the trappings and engravings recoloured and the Eastern exposure of the Mosque covered with marble. The minarets were repainted white and the green dome had its distinctive colour refreshed. King Faisal died in 1395 H / 1975 AD before the completion of this expansion.

The expansion of the Prophet's Holy Mosque in the reign of the Custodian of The Two Holy Mosques, King Fahd Ibn Abdul-Aziz:

When the Custodian of the Two Holy Mosques, King Fahd Ibn Abdul-Aziz became King of the Kingdom of Saudi Arabia on 21st Sh'ban, 1402 H / 13th June 1982 AD, his foremost concern was for the comfort of the pilgrims and the visitors to the Prophet's Mosque. He saw that the temporary umbrellas which had been made to the West of the Mosque were insufficient to protect the worshippers from the heat of the sun in summer and the cold in winter.

During his visit to Madinah in Muharram 1403 H / October 1982 AD, he gave orders to have a huge expansion done to the Prophet's Mosque that would expand its area ten-fold and incorporate all the technological facilities to make the Mosque the largest and the most beautiful in the world and make the Mosque the centre of thorough development in Madinah. The most modern engineering methods were used. An aerial survey was made to draw coloured detail maps to be used in the development, organisation and construction. This blessed step was the beginning of the work of a team of engineers and specialists in making studies and preparing the designs accurately and quickly.

On Friday, 9th Safar 1405 H / 2nd November, 1984 AD. after Al-Jum'a prayer, King Fahd Ibn Abdul-Aziz laid the foundation stone of the project just as the Prophet, peace be upon him, had done.

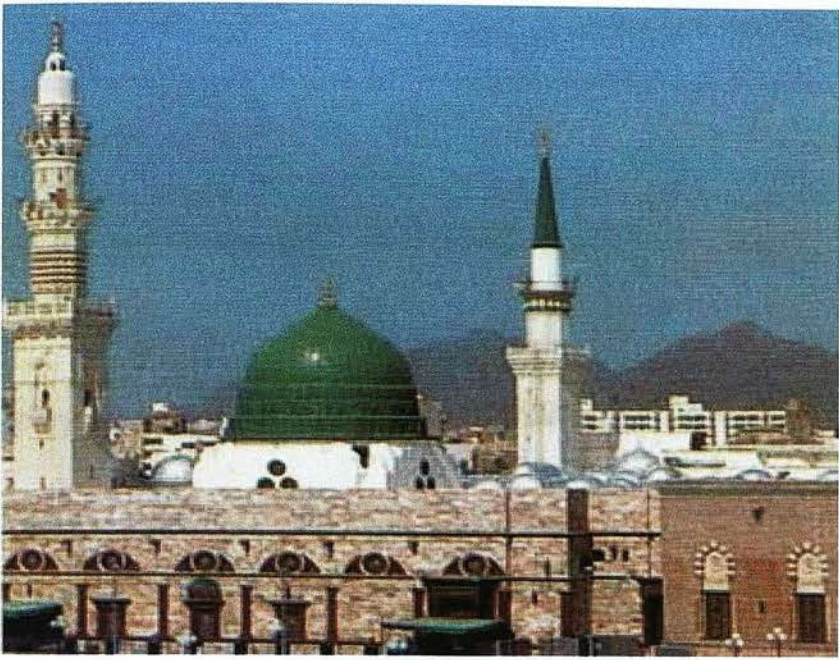
The Bin Ladin Foundation was assigned to construct the project because of the experience it has in this field. The project was started on Saturday 17th Muharram 1405 H / 1st March 1986 AD.

The important characteristics of this blessed expansion:

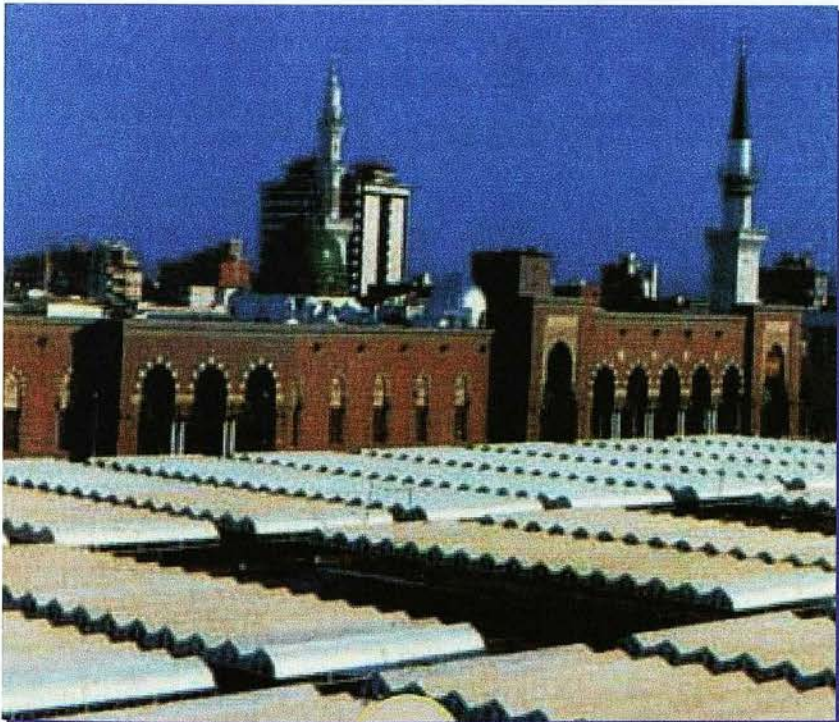
First: The space:

The restoration and expansion of the Custodian of the Two Holy Mosques included adding a new building to the existing one, surrounding it from the North, East and West, with an area of 82,000 square metres. It could now accommodate 137,000 worshippers. The area of the Mosque before the expansion was 16,327 square metres. So, the total area of the Mosque after the expansion is 98,500 square metres and can contain 167,000 worshippers.

The roof of the new building was covered with marble and prepared to have 90,000 worshippers. Thus the total area of the Mosque is 165,500 square metres and it can accommodate more than 257,000 worshippers. The area of the surrounding spaces is 235,000 square metres, covered with marble and garnet in wonderful geometric forms of Islamic style in various beautiful colours. The Mosque plus the surrounding areas can have more than 700,000 worshippers and even 1,000,000 in Ramadan and the seasons of Hajj and Umra.



(14) A photograph of the eastern exposure of the Mosque after the Majeedi restoration. It was covered with marble. A part of the first Saudi expansion is also shown.



(15) A photograph of a part of King Faisa's expansion from the western side. It is shown covered with fiberglass.

The areas around the Mosque contain places for wudu and bathrooms connected to underground car parks. These aboveground areas are reserved purely for people and not cars. They are surrounded with a wall having gates from all sides. The whole area is lighted by lighting units fixed on 120 marble pillars. The restoration included the uncovered areas between the old and new expansions. Twelve huge umbrellas, as high as the roof of the Mosque, were made. Each umbrella can cover an area of 306 square metres and can be opened and closed automatically. They are made to protect the worshippers from the heat of the sun and rain as well as to prevent the cold air from escaping.

This integrated project for the restoration and expansion of the Prophet's Honourable Mosque in such large areas of unique architecture makes the Mosque very special and in fact, the biggest air conditioned unit on earth. The total expense of the project reached 30 billion Saudi riyals.

The width of the surrounding areas is between 100 to 150 metres to the West, North and South. To the East nothing could be done because of Al-Baqie', which has itself undergone some expansion to the North, East and South. All of this was added to the god deeds of the Custodian of the two Holy Mosques.

The area of the roof of the new building is about 67,000 square metres, 8,700 square metres of these partially covered by the moving domes when opened (10) (Ashour 1982). Six escalators were installed in all the corners of the Mosque, as well as the middle of the Eastern and Western walls.

Second: The main characteristics of the restoration:

The new restoration is characterised by having special specifications founded on a cultural and architectural basis. We can sum them up in the following:

1. Increasing the area of the Mosque from 16,327 square metres to 165,000 square metres.
2. Designing the new building to be able to support further floors when needed in the future. Any future expansions will be vertical.

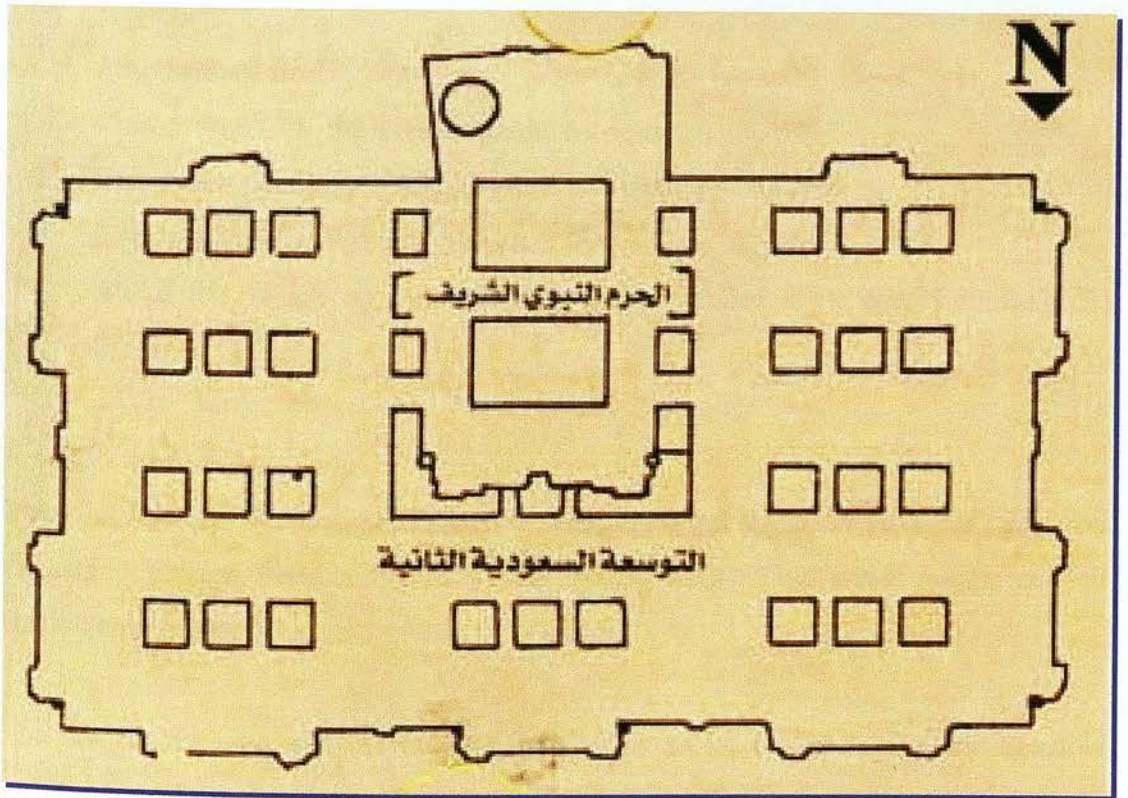
3. Preparing the roof of the new building to be able to support the maximum number of worshippers.
4. Increasing the number of minarets from four to ten.
5. Increasing the entrances of the Mosque to 16 main gates and 14 smaller ones as well as 4 entrances to the domes.
6. Installing escalators for the comfort of the worshippers, especially in the Hajj and Umra seasons and on Fridays.
7. Adding 70 doors to the Mosque, now making 86.
8. Building a number of movable domes, a wonderful engineering achievement.
9. Making the height of the basement 4.5 metres, the ground floor 12.6 metres and the first 4 metres (11) (*Ministry of information 1982*).
10. Building an integral network for sewage and drinking water, and providing zamzam water all year round.
11. Preserving a harmonious relationship between old and new buildings.
12. Using Islamic trappings and epigraphy in beautifying the walls and ceilings.
13. Using modern technology in lighting, air conditioning and other services and utilities.
14. Using cold marble (heat resistant) throughout the restoration.
15. Using the most modern specifications in building the bathrooms, places of wudu and water taps.
16. Having the highest standard of lamps and chandeliers in the new buildings.
17. Constructing car parks which can service 4444 cars.

Third: The ground floor:

This is the main floor in the Mosque. It comprises primarily a group of covered 4 x 4 m and 18 x 18 m halls and uncovered 18 x 18 m halls. The area of the roof of this floor is 66,544 square metres and its height is 12.60 metres. It has 2,567 pillars of different shapes and diameters (12) (*Al-Manhal 1992*).

These pillars carry 2812 bours having Islamic designs and on which lie the domes and the ceilings. The pillars are built in straight rows and are homologous in a wonderful way. A number of openings were made in the roof. They are covered with movable domes that can be opened and closed manually and automatically.

The walls and the pillars of the Mosque are covered with coloured marble while the ceilings, the bours, the entrances and the exposures are covered with artificial stone to create, with the marble, symmetrical shapes and combinations. The harmony between everything in the old and new buildings has been put into consideration. The first and second Saudi expansions are wonderfully linked together.



(16) Plan showing all the expansions of the Prophet's Mosque.

*The area of the Mosque as first built by the Prophet, peace be upon him, was 1060 m²

Fourth: The services in the Mosque:

1. The service tunnel:

This starts at the cooling station in the university road and goes East across Bab Al-Salam towards the Prophet's Mosque, under Al-Aqiq valley, under the second circle, the railway road, Al-Sieh Street and finally into the basement of the Mosque. It is about 7 km. long, 6.10 metres wide and 4.10 metres high.

2. The central station for cooling water:

In order to bring cold air into every part of the Mosque, water to be used in cooling the air is cooled at the central station. The station was built 7 km. away from the Mosque to avoid the noise and high cost of buying more land around the Mosque. Engineering and repair works are less problematic at this location.

3. Electricity:

Electric activity in the expansion includes:

- Lighting.

- Amplifiers.

- Automatic control system.

- Closed circuit TV for monitoring the Mosque.

- Emergency light system using special self-charging batteries.

- Fire detection and fighting systems.

All of this is entirely computerised and controlled from special rooms in the basement.

4. Mechanical works:

These include the installation of the cold, drinking water pipes, the pipes for rain water discharge, sewage, ventilation, the fire fighting system and water pumps and air conditioning works.

The air conditioning system was designed so as to be hidden within the beautiful architecture of the Mosque. Special openings are made at the bases of the pillars for letting the air in and out.

5. Car parks:

The expansion and restoration of the Prophet's Mosque comprised a huge infrastructural project containing more than just the Mosque itself. Many things are necessary to give the project its integration, such as large car parks that contain more than 4,400 vehicles. The open areas above these parks are able to contain about 250,000 worshippers. The car parks consist of two floors under the ground with a space of 890,000 square metres.

Fifth: The movable domes:

To facilitate lighting and natural ventilation in times of good weather, 27 yards were made, each of 18 x 18 m. These yards are covered with movable domes, each rising to 16.65 m high. The walls on which the domes rest are 3.55 m above the roof. Each dome weighs 80 tons and its diameter is 14.70 m.

Each dome consists of a steel framework covered on the inside with a layer of special wood covered with another layer of ornate wood having geometric shapes hand made by skilled craftsmen. This work contains pieces of Kenyan amazonite stone inside golden frames with the spaces covered by gold foil. Each dome has 2.5 kg. of this gold foil.

The outside covering of the domes is Germanic ceramic fixed on bases of hard granite. The top of each dome is made of vermeil. Each dome moves on steel bars covered with anti-rust metal. The domes are controlled by computer and can be opened and closed automatically or manually.

Sixth: Islamic epigraphy and trappings in the expansion buildings:

Islamic epigraphy and trapping has been beautifully executed according to the nature of the place and the accompanying figures and shapes. The epigraphy and trappings were designed to achieve harmony and accord with their counterparts in the first Saudi expansion.

The epigraphy work includes all types of ornamentation to beautify the walls, the pillars, the ceilings and the minarets. It includes copper-work, such as oriels, windows, railings, wooden doors with copper, the tops of the pillars and golden chandeliers, as well as

marble work. These art works formed by the Islamic arch., used since the Prophet, peace be upon him, constructed this Mosque, form a splendid and prepossessing architectural tableau. The beautiful lamps and chandeliers add more lustre to the Mosque, making it a splendour of lights.

Seventh: The entrances and gates of the Prophet's Mosque:

The second Saudi expansion contains seven main entrances, three of them in the northern side and two each in the Eastern and Western sides.

Each main entrance contains 5 gates of 3 m wide each. There is also a side gate 6 m wide to each side of the entrances. Thus, the total number of gates in each entrance is 7. There are also two other entrances in the Southern side of the new expansion, one of them in the West and the other in the East of the Mosque.

There are 6 side entrances; 2 to the North and 2 each in the Eastern and Western sides. The entrances to the escalators have a further 12 other gates. The entrance of King Fahd Ibn Abdul-Aziz is in the middle of the Northern side of the expansion. Above it there are 5 concrete domes with a 104 m high minaret at each end, the number of the gates of the Mosque after the expansion is 86 with a total width of 340 m.

All the entrances were built of artificial stone covered with marble from the inside and granite from the outside with beautiful wooden gates that are 3 m wide and 6 m high.

Eighth: The minarets of the expansion:

The second Saudi expansion included six new minarets, each being 104 m high; that is 32 m higher than the minarets of the first Saudi expansion. The minarets were designed so as to coordinate with the old ones. The foundations of each go 50.45 m. deep. Between 16 and 25 concrete pickets were used in the base of each one. After that, the bottom of each one was built 12 x 14 m with a diameter of 2.5 m.

The minarets were distributed across the whole expansion, with one in each corner. There are four along the Northern flank, one in the North Eastern corner, one in the

North Western corner and two in the middle of the Northern side above the middle gate (King Fahd's). Finally, there is one minaret in the South Eastern corner and another in the South Western corner. Each minaret has 5 floors.

Ninth: Tests and experiments:

Many tests and experiments were made to make sure that everything had been done according to the desired specifications. There were field tests such as checking the pickets and their depth, and laboratory experiments such as checking the concrete. In addition to this, there were tests to check all the light and sound networks and systems to see that they met the conditions and specifications in the contracts.



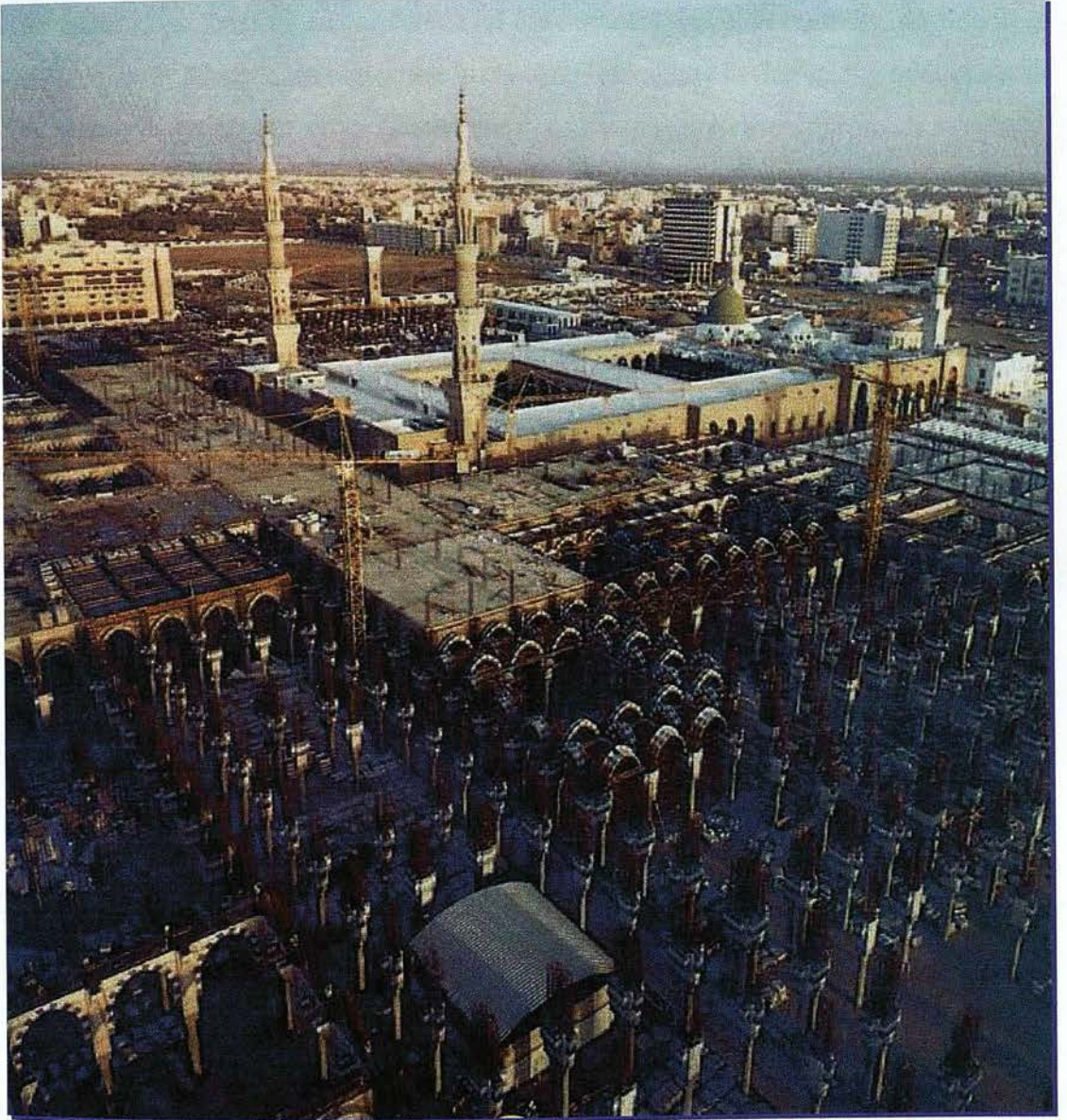
(17) Plan showing the shape of the Mosque after the second Saudi expansion (13) (Lamiee 1981).



(18) A picture showing the project of the Custodian of the Two Holy Mosques, King Fahd Ibn Abdul-Aziz Al-Saud of the restoration and expansion of the Prophet's Mosque from the Western side also showing the surrounding open areas for the crowds on Fridays and in special seasons.



(19) The Custodian of the Two Holy Mosques, King Fahd Bin Abdul-Aziz Al-Saud, laying the foundation stone of the project on Friday, Safar 9, 1405 H. November 2, 1984.



(20) Starting the work in Safar 1406 H 1986 AD.

1.8.2 Cultural and architectural development in different walks of life:

The architectural and dwelling zone of Madinah developed quickly after removal of the wall of the city in 1950 AD. The total area of the dwelling zone in 1407 H was nearly 24,980 hectares. The area of the planned lands prepared for dwelling inside the dwelling zone was 300 hectares in 1407 H (14) (*Ministry of education 1988*).

The strategy of cultural and architectural development was built centrally, starting from the Prophet's Mosque, as one whole architectural structure having strong relations with the other places of the city. Architectural and population growth spreads circularly, taking Al-Haram as its centre. This focuses on the importance of the Honourable Mosque. Architectural development has flourished. It now contains most of the areas of Quba', Al-Awali, Qurban, Sultana, Sayid Al-Shuhada', Al-Uyoon, Al-Sih, Al-Saba' Masajed, Al-Harra Al-Sharqia, Al-Harra Al-Gharbia, Al-Matar Street and many other areas.

1.8.3 Starting the project of services and public utilities:

The great architectural and urban growth of Madinah is correlated with significant growth in the fields of services and public utilities. The network of roads and streets is one of the most important of these projects. The total length of these roads inside the dwelling zone is about 400 km.

The area covered by electricity service is nearly 13,600 hectares, while the area covered by water service is nearly 9,600 hectares. Sewage lines cover an area of about 1,200 hectares. Telephone service includes about 3,800 hectares.

Many other public utility buildings are abundant, including educational services with their different departments and stages. Health care is also widespread. Casualty units, clinics, hospitals and specialized centres have been built almost everywhere. Religious institutions have been built, such as local Mosques and the university. Buildings were specified for the police, post, telegram and telephone offices with all their departments and administrations, as well as the services of the Civil Defense, which must have

departments in all the areas of Madinah to do its job properly. The development of services and public utilities covers all aspects of life.

(21) Cultural and architectural framework analysis.

Intensity Expose	Area in hect.	Total no. pieces	Constructed pieces	Spaces	No. of floors
High	540	25963	18918	7045	1201
Mid.	650	13597	5980	7617	703
Low	1610	48799	5303	43496	301

(22) Land use (15) (Ministry of education 1988).

Activity	Pieces of land	Percentage
Dwelling	2982	11.93
Commercial	63	00.25
Dwelling/commercial	182	00.72
Industrial	338	01.25
Government -State	228	00.91
State - private	4100	16.46
Public utilities	2950	11.80
Agricultural	2830	11.34
Monuments	87	00.36
Open areas	220	00.88
Areas of develop.	11000	44.00
Pecialied for development	--	--

(23) Data taken from field surveys of the public utilities

(16) (Ministry of education 1988).

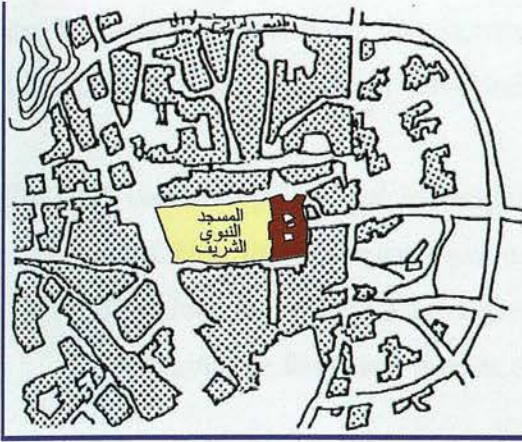
Service	Covered areas	Inhabited & covered	Inhabited & uncovered	Covered pieces
Electricity	13.600	2.800	--	30.200
Telephone	3.800	2.400	400	17.300
Water	9.600	2.600	200	15.000
Sewerage	1.200	560	--	16800
Roads	13.600	--	--	57.700

Fourth:

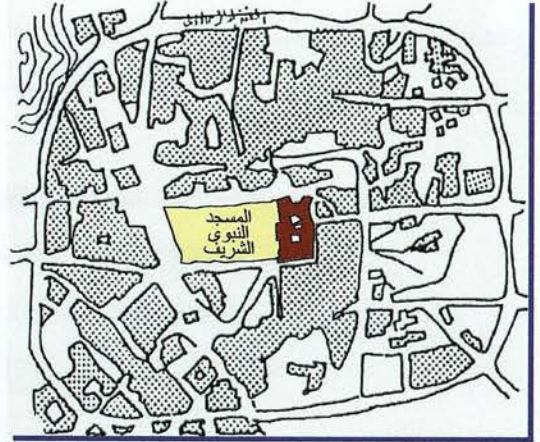
Planning Madinah:

Planning in Madinah is new compared to planning in other cities. Although it has been only a very short time since the first strategic plan of Madinah was made, that early period was the richest in making such plans. Consultants competed to make as many plans as possible, but most of these plans were no good or were shelved being impossible to carry out.

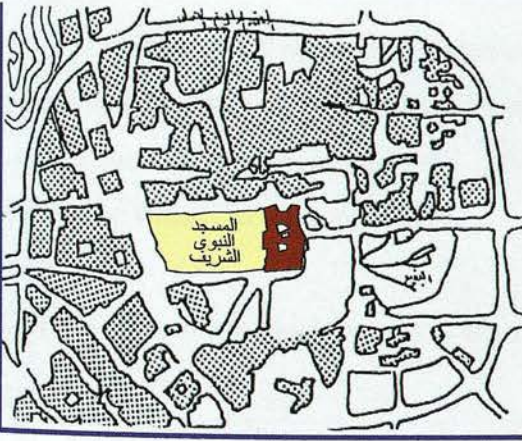
In 1972 AD, the Ministry of the Interior, represented by the Agency of City Affairs, made the first attempt to prepare the necessary guidelines for some cities, Madinah being one of these. In July 1972 contract N° 603-51-s (17) (Ministry of cities 1985) was signed with "Consult Limited" the consultant company dealing with the government. The company renewed some plans made by the Egyptian Survey. Then it started an improvement project which was not a planning one. Its main objective was to find and facilitate the things needed by the city. They made the necessary studies on some streets like Al-Manakha and Al-Anbariya and some other streets, leading to the Prophet's Holy Mosque, to prepare for expanding them, and to facilitate some utilities and services, as well as making open areas around the Haram to be used during the Hajj and pilgrimage seasons.



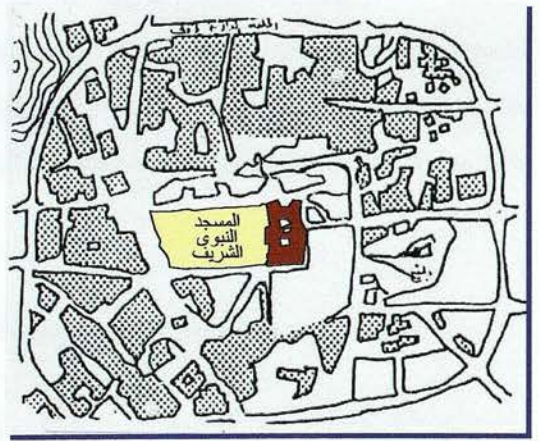
(24) Growth of Urban Mass
(1954-1975)



(25) Growth of Urban Mass
(1977-1982)



(26) Growth of Urban Mass
(1982-1985)



(27) Growth of Urban Mass
(1985-1988)

Between 1391 and 1393 H (1971-1973 AD) Madinah was one of the cities of the western region which a new consultant was assigned to study. That consultant was Robert, Matthew, Johnson, Marshall and Partners. They were assigned by the Ministry of the Interior, represented by the Agency of City Affairs, The Administration of Planning Cities and Regions. The project was titled "Plan of the Western Region".

The study concerning Madinah included the following points: (18) (Matthew 1973)

- A) Making alternative strategies on 8/7/1392 H, 17/8/1927 AD.
- B) Making the main plan on 27/1/1394 H, 1/4/1973 AD.
- C) Making the final main plan on 22/1/1394 H, 14/2/1974 AD.

This study was characterised by the following points:

- (A) Future economic development would depend on expanding the range of the services of Madinah to the areas beyond it. Economic growth will also depend on how imports would be developed and increased, especially these concerning the places where pilgrims and visitors stay.
- (B) As for the suggested framework for building Madinah up to 1411 H, the main plan laid out the general policy for the operation, including land use and transportation necessary for developing the city. Because of natural obstacles such as volcanic areas, valleys and agricultural areas, expansion would go further to the North and West.
- (C) The central area around the Prophet's Mosque and the dwelling area around it would accommodate more commercial buildings as well as places for better services and public utilities for the people of the area. All of these suggestions presupposed having high population density in the central area.

(28) Data taken from field surveys of the road network **(19) (Ministry of education 1988).**

Road width	Total length km.	Covered with asphalt km.	Uncover. with asphalt km.	Paved km.	Lighted km.
More than 40m.	147	114	33	46	48
20-40m.	83	27	56	73	93
10-20m.	155	93	62	77	36
less than 10m.	30	16	14	20	3

Some of the main points in the main plan prepared by Robert Matthew & Partners in 1393 H. (1973 AD) are:

1. The growth of Madinah in the future should be on the basis of its cultural texture and avoiding rapid changes.
2. Maintaining the safety and calm of the environment and the quality of life in Madinah.
3. Preserving Arab traditions and protecting its religious nature.
4. Keeping the Prophet's Mosque as a perpetual centre of Madinah.
5. Using the lands and open areas inside and around the dwelling zone.
6. Keeping the cultivated lands in the North and South of Madinah.
7. Creating opportunities for small industries and businesses such as date packing.
8. Discovering and using natural resources wherever possible.

Recommendations concerning land use:

1. Keeping secondary historic areas and protecting them.
2. Keeping the green areas and using them for recreation.
3. Stopping urban development to the South of Quba' for the sake of water storage.
4. Determining the areas of high possibility for urban development, with their own headquarters 3 km away from the centre of the city, to the North of the central area (20) (Matthew 1973).

Arab Consultant Group for development becomes the new consultant:

On 1st Jumada I 1397 H (21) (Matthew 1973), the Ministry of City and Village Affairs had an agreement with the "Arab Consultant Group for development" to study planning in Madinah, to prepare the necessary prescriptive plan, in addition to setting the main points of policy for development over the next 15 years, up to 1415 H (project 202). The consultant began this study by redefining the main plan for the year 1393 H / 1973 AD made by the previous consultant, Robert Matthew & Partners. The new consultant decided upon the following as defining the development steps in the plan of 1393 H:

- (1) **Economic activities:** The growth of the national economy after the 1973 war between the Arabs and Israel directly.
- (2) **Population and housing:** The average growth of population was more than had been predicted for 1393 H and there was a corresponding need for more dwellings.
- (3) **Investment and expense:** The fast growth and large urban development caused by the economic revolution in the Kingdom had caused a big increase in investment and infrastructural expenditure, especially in the field of population and construction projects unforeseen by the main plan of 1393 H / 1973 AD.
- (4) **Administration of organisation and planning:** This took over the omissions of the main plan in its early days concerning organisation and technology.
- (5) **Projects of land division:** These are private projects which form a large part of the urban development which has recently covered most of the cultivated areas.
- (6) **Construction:** High buildings of six floors have become abundant, covering certain areas as requested by the main plan of 1393 H. They are areas of specialised development and medium density.
- (7) **Primary road network:** Much change has happened to most of the roads and streets. The main plan suggested that the city should be divided by some main roads as well as streets that lead to the centre.
- (8) **Land use development:** This development appeared differently from that suggested by the main plan of 1393 H concerning either the timing or the place (23) (Matthew 1973).

The ineffective elements in the main plan of 1393 H / 1973 AD as seen by the consultant were:

1. Population forecasts were too low.
2. The new road network and actual usage differed from the suggestions of the main plan, changing the direction of the perceived urban growth.
3. The elemental change to the framework of the local economy of Madinah and the increase of individual income.
4. The fast urban growth of Madinah exceeded the stages of the development programme.

(29) Data concerning the buildings of public utilities (22)

(Ministry of education 1988)

Services	Number	Area km ²	Rented	M2
Educational:				
Kindergarten	7	00.63	--	--
Primary (girls)	56	40.50	--	--
Primary (boys)	68	49.1	--	--
Intermediate (girls)	20	17	--	--
Intermediate (boys)	22	18.7	--	--
Secondary (girls)	8	6.8	--	--
Secondary (boys)	7	5.95	--	--
Institutes	5	21	--	--
Universities	3	1.490	--	--
Health:				
Clinics	23	3.68	--	--
Casualty units	8	00.35	--	--
Hospitals	9	240	--	--
Medical centres	5	00.8	--	--
Religious:				
Small Mosques	341	13.6	--	--
Large Mosques	16	4	--	--
Place for Eid prayer	1	45	--	--

The good points of the general plan of the year 1393 H / 1973 AD were as follows:

1. The recognition that the Hajj will always be the main economic activity for Madinah.
2. The necessity of finding and using natural resources to be used by the inhabitants where possible.
3. Keeping the cultivated and fertile lands.
4. Developing places of high population to reduce the pressure on the control area.
5. Giving priorities to the areas and providing them with services and facilities.
6. Improving the traffic system.
7. Running the system of public transportation in a more effective way to enhance connections between dwelling zones and the different commercial centres (24) (Matthew 1973).

The third five-year plan (1400-1405 H) aimed at the following:

1. Increasing the development rate of national production.
2. Guaranteeing a bigger contribution for the population from commercial activities.
3. Creating the circumstances suitable for good economic development.
4. Varying the sources of national income.
5. Increasing the commercial development branches.

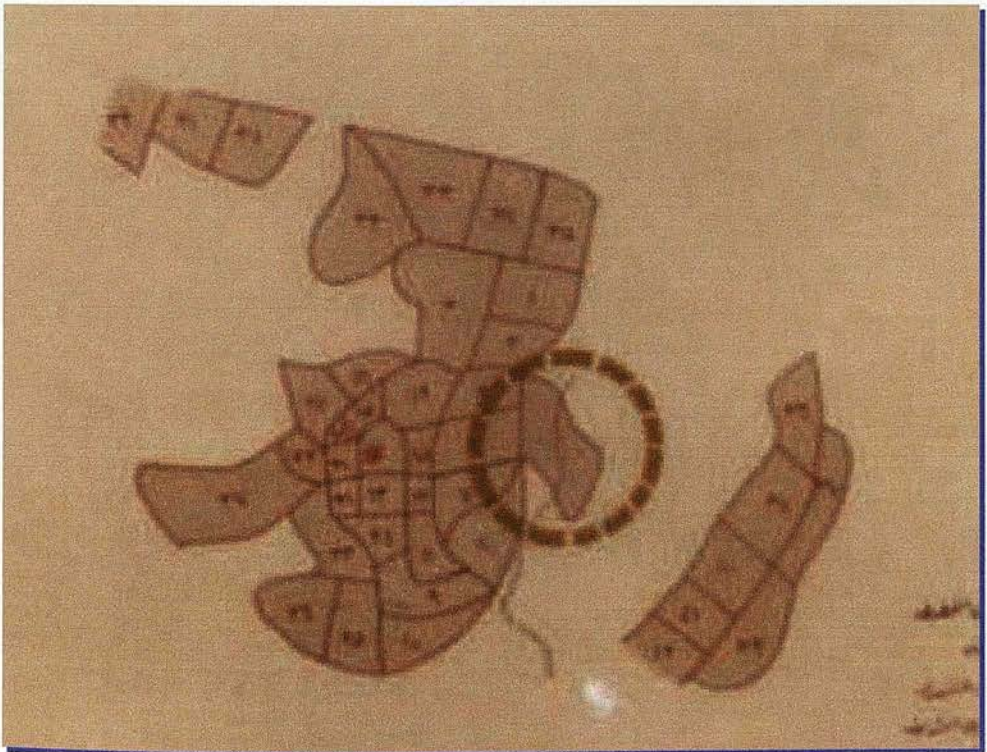
(30) Data of services and administration buildings (25)

(Ministry of education 1988).

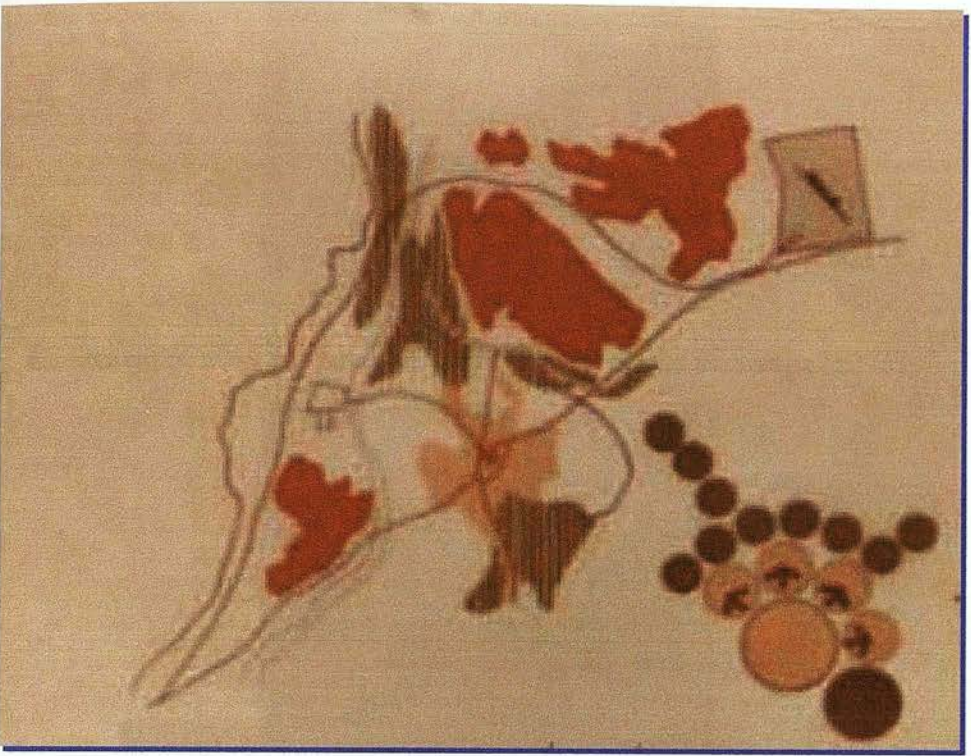
Services	Number	Rented	Area km.
Emirate	1	--	16
City hall	10	9	1.6
Police	9	8	0.8
Posts	10	9	0.64
Ministries	--	--	--
Government inst.	39	28	12.3
Social utilities	11	--	16



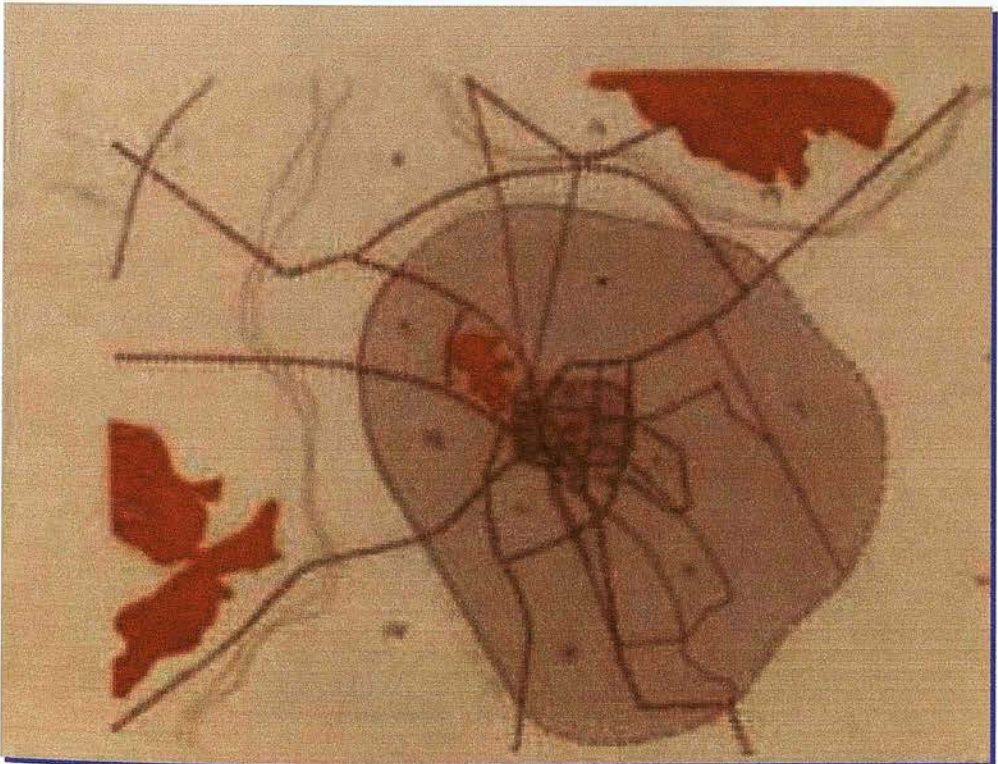
(31) The growth of Madinahh across history.



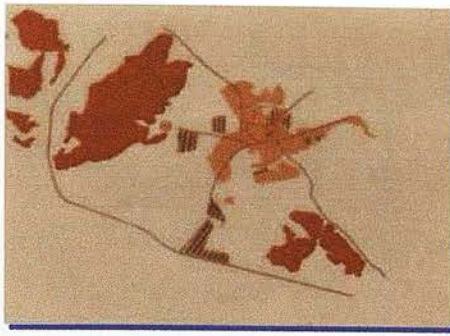
(32) Present and Future directions of development in Madinahh..



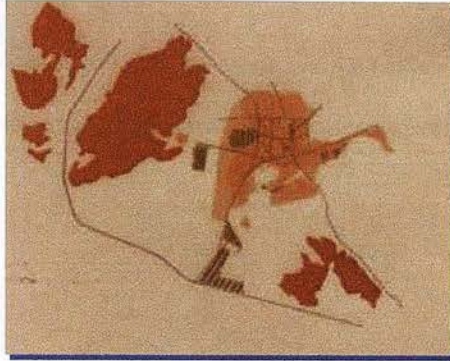
(33) Limits of planning in Madinahh.



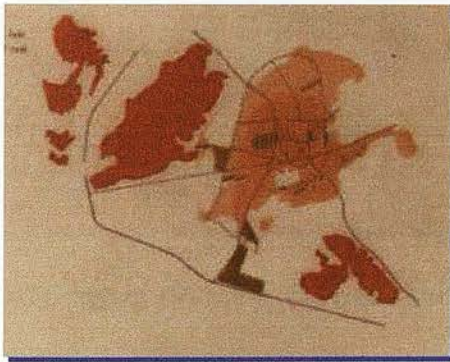
(34) Administration divisions in Madinahh.



(35) The growth of dwelling zones in Madinahh during the first stage (1976)



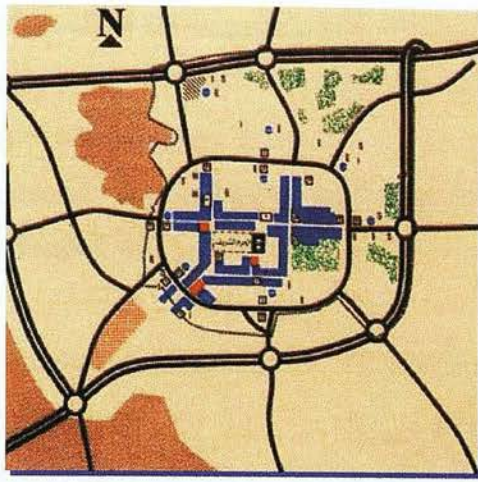
(36) The growth of dwelling zones in Madinahh during the second stage.



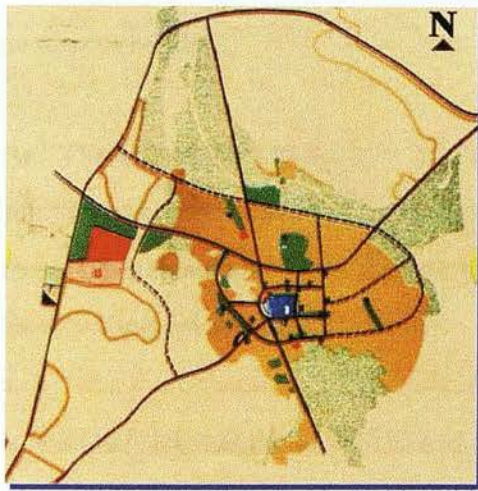
(37) The growth of dwelling zones in Madinahh during the third stage



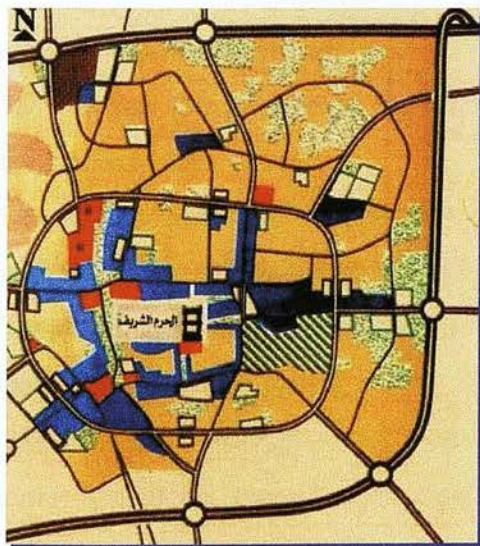
(38) Expected growth of the dwelling zones in Madinahh during the fourth stage until 2005 AD.



(39) The framework of the dwelling zones in the Central Area. (Rober Matthew)



(40) Formation of the land usage in 1991 AD. (23) (Rober Matthew)



(41) The plan for building the Central Area. (Rober Matthew)

The new consultant mentioned the above points as the basic of economic and population development and proposed programmes of development as follows:

1. The Prophet's Mosque will continue doing its job in developing the economy and commerce in Madinah, especially during the Hajj and Umra seasons.
2. Small and medium industries will be larger to avoid gradually depending on imported products.
3. Introducing modern technology in agriculture will help in meeting people's needs for food and other agricultural products.
4. The local and regional road network will be improved to guarantee easy transportation to and from Madinah. (26) (*Matthew 1973*)

Mental development of the new main plan:

- 1) **Standard dimensions:** These include ideological, social, economic and political reflections in the light of Islamic teachings and urban necessities of the Islamic city.
- 2) **Explorative dimensions:** These include the different kinds of development and the natural determinants of this development and its directions.
- 3) **Alternative strategies:**

A First alternative: Including development projects along the highways.

B Second alternative: Central development.

C Third alternative: Multi centred and job development.

D The objectives of development strategies:

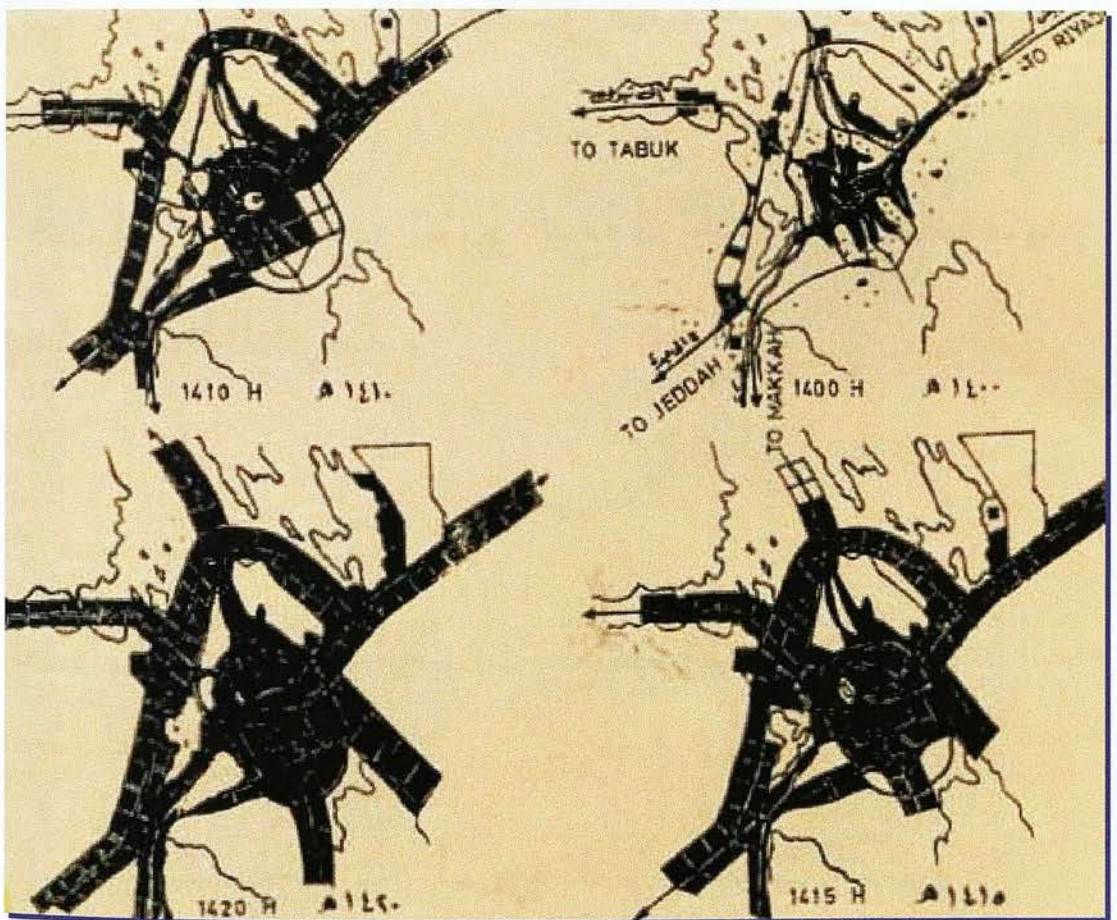
- 1) The Hajj: Giving the priority to the pilgrims to facilitate the needed services and places to stay.
- 2) The features of Madinah: Islamic characteristics as well as its planning and design as an Islamic city should be conserved.
- 3) Road network: Existing roads as well as the ones under construction should be included in the new general plan.
- 4) Urban areas: Areas of civilisational or historic value should be kept.
- 5) Al-Haram: Should be treated as the centre and the pivot by reducing uncongenial activities and uses.

- 6) Agriculture: Agricultural environment should be kept and the fertility of the soil should be well used in improving the agricultural base and developing it.
- 7) Economic activities: To be varied by encouraging small industries.
- 8) Utilities and services: Should be provided for all the inhabitants without discrimination.
- 9) The principal projects: The plans of land partition and important uses should be included in the points of the general plan (27) (Matthew 1973).

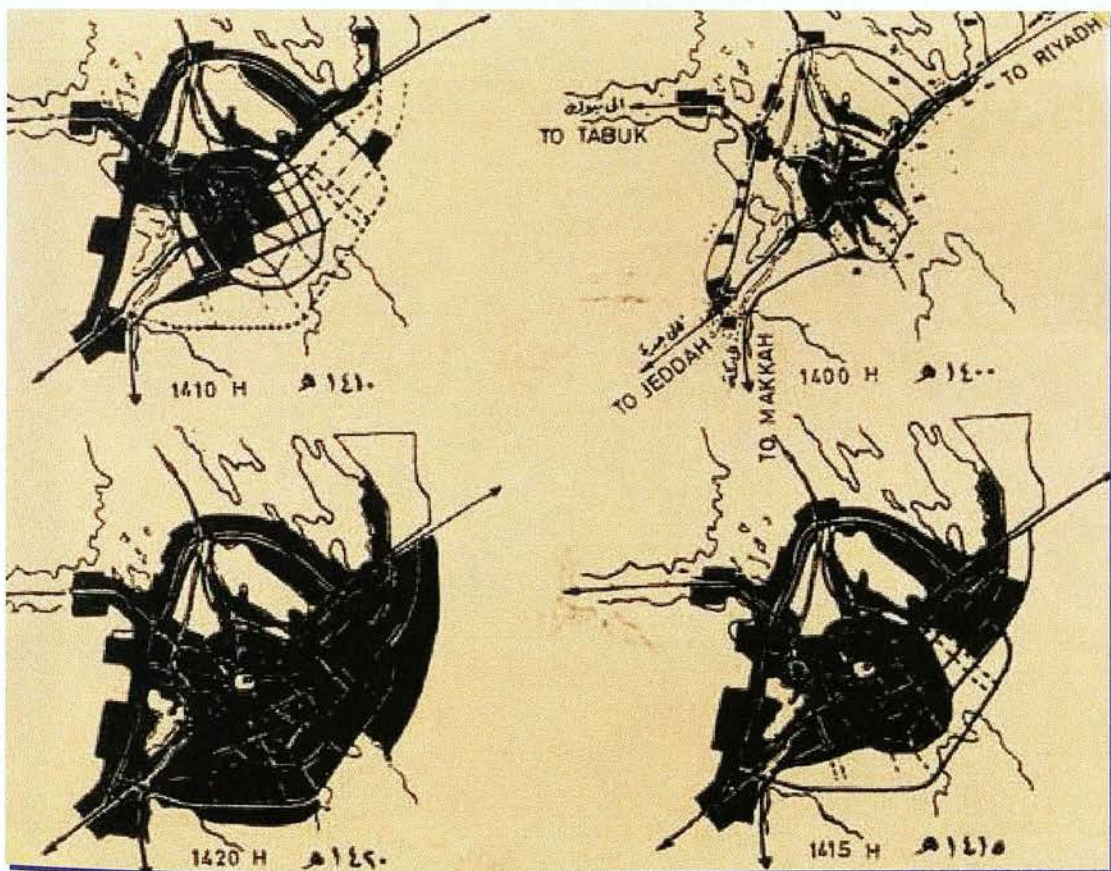
E- The selected strategy (central development):

Madinah would be developed according to specific objectives leading to equal opportunities for growth as well as central development. This is a short analysis of the principal strategies of urban development:

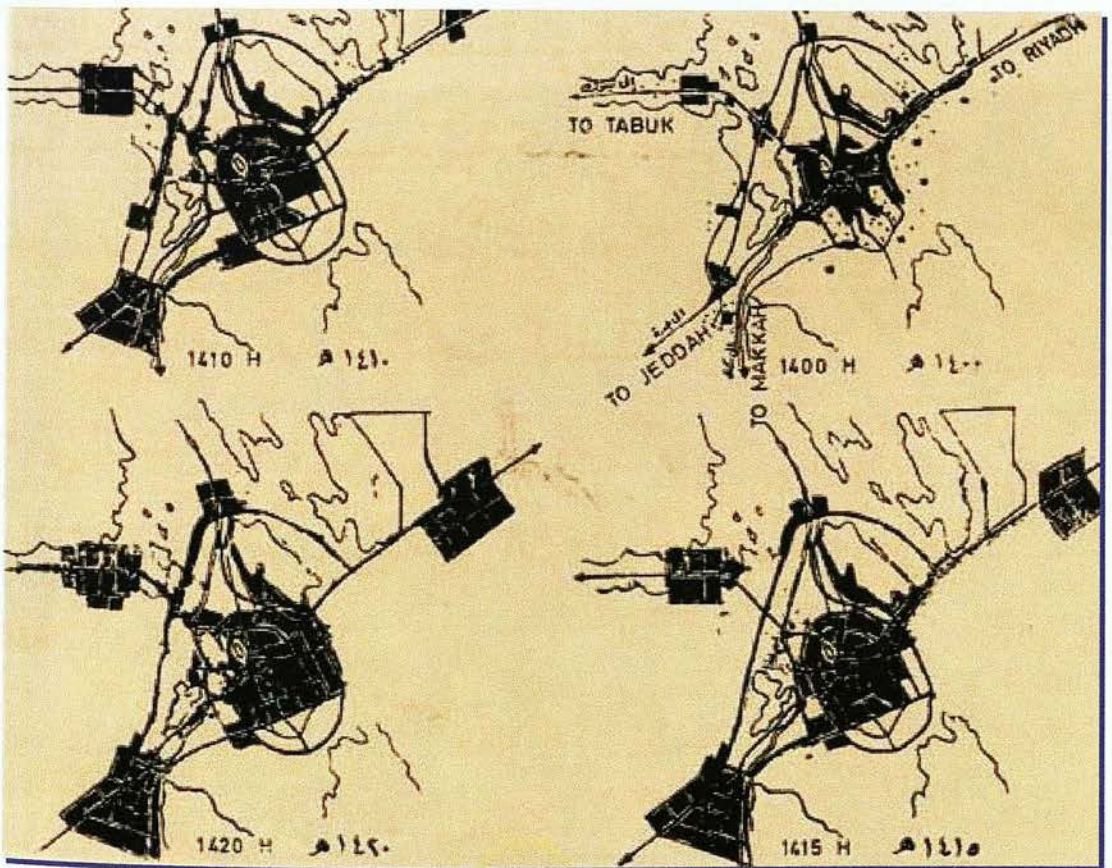
- 1) Land uses will be characterised by obvious detail which is coherent and supported by the gradation of jobs.
- 2) Central area will be protected against any increase of pressure or suffocation by imposing schematic supervision, to protect the characteristic Islamic environment and to facilitate services and utilities.
- 3) Controlling the population density to face its increasing needs. It should be medium inside the first beltways, to ensure the predominance of the Haram, high between the first and middle beltways medium between the middle and the second ones and gradually lower after the second.



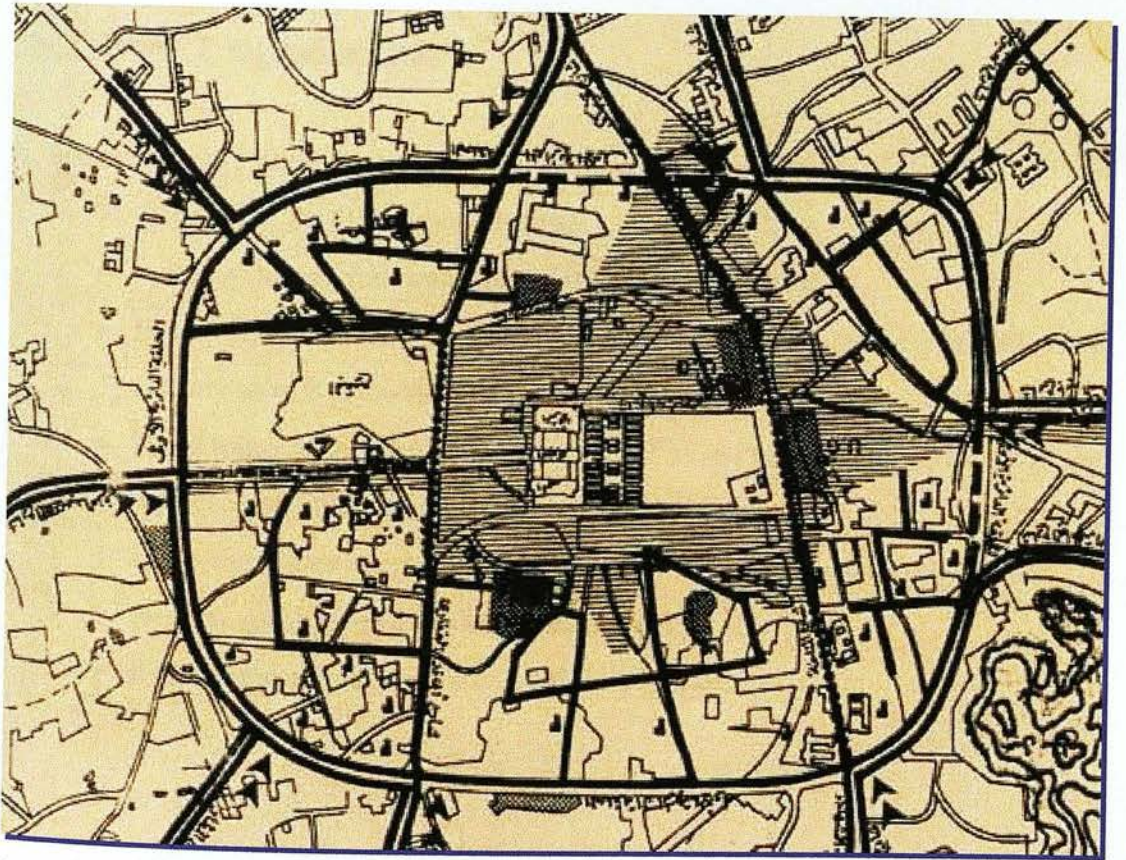
(42) The principal prescriptive plan (first selection) for developing the main pivots.
(The Consultant / 1402H – Figure 19, Report 9)



(43) The principal prescriptive plan (second selection) concentrated development.
(The Consultant / 1402H – Figure 20, Report 9)



(44) The principal prescriptive plan (third selection) developing subordinate cities.
(The Consultant / 1402H – Figure 21, Report 9)



(45) Land usage in the Central Area at the time of making this report.
(The Consultant / 1402 - Figure 12, Report 9)

- 4) Commercial activity is to be localised in the central area, attached to the main roads and streets. Other commercial centres will be in the neighbourhoods connected with the middle and second beltways.
- 5) The small industries should be just outside the dwelling zone to improve and vary the economic base.
- 6) Government offices concerned with the pilgrims' services should be included in the plan of the central area; other government offices should be dispersed along the middle beltways, Al-Anbariy Street and Al-Matar Road.
- 7) Keeping the green areas inside the second gyre and using it for entertainment places.
- 8) The road network should adopt a radial pattern as with the first, second, middle and third beltways. Other smaller roads linking these beltways and help running the traffic in a special system that serves the central area.

The Principal Prescriptive Plan:

A. Schematic objectives:

- Conserving the features of Madinah.
- Keeping the religious and cultural heritage of Madinah.
- Encouraging special methods of land uses that reflects the priorities of the society as well as civilisational values and uses public and private investment.
- Developing a specified characteristic of urban units in Madinah such as the neighbourhood or the dwelling area.
- Protecting water sources by reducing the industries dependent on water.
- Protecting the green areas and developing the soil.
- Keeping the natural beauty of Madinah (28) (*Matthew 1973*).

B. Special specifications of Madinah:

There are many things that should be specified and considered while making the general plan. These are:

- The central area which is the focus of activities and the Prophet's Mosque as the heart of it.
- The historic places, such as the place of Uhod battle, the trench, Quba' and Al-Qaiblatain should be earmarked for preservation.
- Present plans of land divisions are to be recognised by the government.
- Cultivate demarcated areas using contemporary agricultural methods and developments.
- Mountains, especially those of religious importance such as Uhod and Al-Rahmah.
- The valleys and domes, the valleys of Orwah and Al-Aqiq.
- Road network, either executed or under construction.
- Military areas.
- Places and buildings of public utilities and services, recreation and health.

C. Schematic suppositions:

The principal prescriptive plan is based on the following suppositions:

- Madinah will always be the administrative centre for the Emara.
- The Kingdom of Saudi Arabia will continue giving priority to the development of the city of Madinah economically, socially and culturally during the planning period.
- Madinah will continue as a gathering and distribution centre for most of the Western region from Yanbu, in the West, to Khaibar in the North and Al-Qasim in the East.
- Madinah will be the centre of ordinary and higher education.
- Developing and modernising the city will not lead to essential changes in its cultural texture.
- Land division plans will be obligatory even if they are not developed.
- Some military land division plans will be included in the prescriptive plan.
- The population in Madinah will continue to increase.

D. Land uses plan:

Its main objectives are:

- Specifying the lands necessary for different uses up to 1415 H.
- Encouraging cultural development in the right direction.
- Securing fair distribution of land in Madinah.
- Controlling population distribution by adhering to different gradations of population density in Madinah.
- Cancelling unrecognised possessions.
- Forming the asked picture of Madinah.
- Guaranteeing the achievement of development policies.
- Executing civilisational and Islamic plans according to the development stages.
- Achieving synchronisation between the development and building of utilities and services.
- Coordinating large development projects (29) (Matthew 1973).

E. Social services:

These include:

- Religious services (small and large Mosques).
- Educational services (different levels of schools and universities).
- Health services (hospitals, clinics and health centres).
- Government services (different government administrations).

F. Basic utilities:

The consultant's recommendations concerning infrastructural necessities include:

1. The water supply:

- Executing the second stage of the project of water treatment in Yanbu'.
- Enlarging the network of drinking and irrigation water.
- Building Tanks to increase the storage.

- Developing the present wells to serve an estimated 5,944 hectares of cultivated lands.

2. The of post, telegram and telephone networks:

- Making offices for post, telegram and telephone services in the Eastern Harrat, Islamic University, Abiar Ali, Quba' and Sayyed Al-Shuhada'.
- Choosing the locations of these offices that they are easily accessible.
- Constructing an engineering department and a storage building inside the communications building in Abiar Ali.
- Providing the areas of high pilgrim intensity with post and telex offices.

3. Electricity network, improvement stages:

- Increasing the total power of electricity stations in Madinah.
- Distributing electricity through land cables and transferring stations.
- Reducing electricity use in time of Hajj seasons and summer months.
- Checking and repairing the network regularly.

G. Future shape of Madinah:

The consultant recognised a grouping of factors that determined the future shape of the city, they were:

- It would be better to follow the method of unifying the planning of dwelling and commercial projects according to the concept of through development to enable the designer to choose, create and invent.
- The main prescriptive plan suggested making some improvements in the natural and green areas such as parks, open areas and playgrounds.
- Studying the first circle accurately to help giving variable and attractive sights in Madinah from different views.
- The planning calendars and intensity gauges suggested by the main plan would help achieve a pyramidal development starting from high buildings (12 floors) in the central area and gradually getting down to two floor buildings at the borders of the city.

- The gates of Madinah would be renewed to distinguish between them and the general impression of the urban zone in Madinah.
- Some procedures would be done to achieve higher standards of architectural design for buildings, streets, car parks and unique sights.
- Madinah was mainly limited according to the surrounding mountain chains. But the urban framework was set according to other natural or man-made elements such as highways, green areas, valleys and volcanic areas. (30)
(Matthew 1973)

Dar Al-Handasa (Engineering House) as the new consultant:

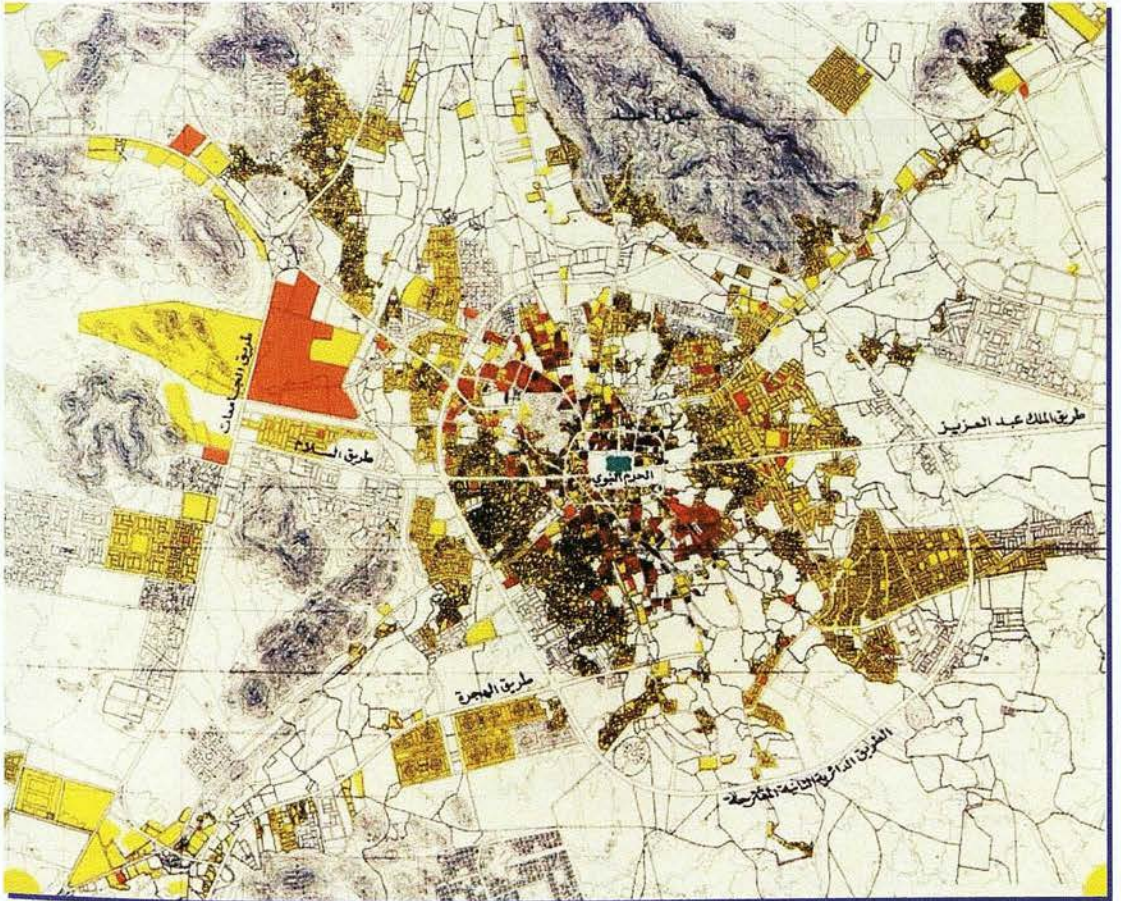
Only six years after the plan was introduced by the consultant “Arab Consultant Group For Development and Population”, the Ministry of City and Village Affairs, represented by the city council, signed a contract with Dar Al-Handasa as the new consultant on Sha’ban 22, 1409 H. This assigned the consultants to compile a study plan for Madinah under the name: “Integral Consultative Studies for Thorough Planning of Madinah”, with a project sum of 20 million riyals.

The new consultants conducted field studies and is still working on them.

Changing consultancy firms so rapidly is likely to have a negative effect on any evolutionary, long-term approach to city development in Madinah. The city may not see any development or improvement if it continues to lack a steady plan from which its developers can form their urban and architectural strategies.

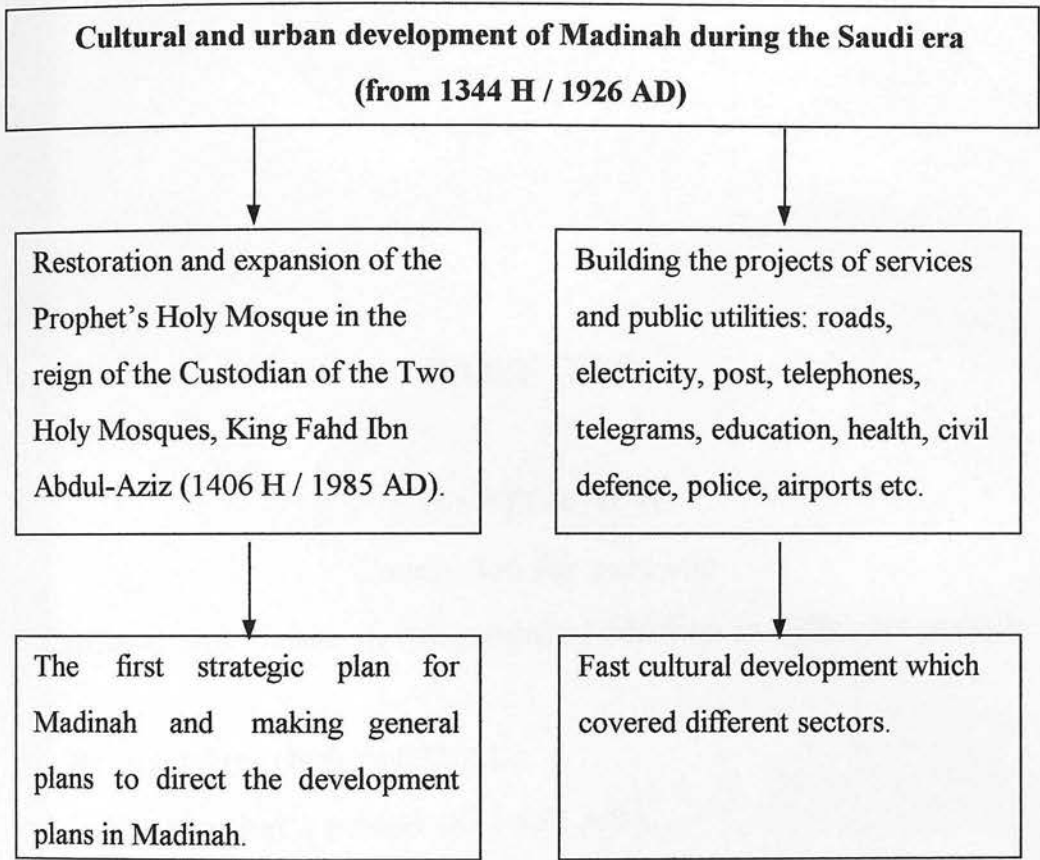
If it is necessary to have a new consultant, the chosen firm should be encouraged to take the previous plan as a background document of great value. Madinah is in acute need of a team of planning specialists after the departure of the consultant to follow up executing the stages of the ground plan, instead of leaving it aside for years and then saying that it is no longer valid.

Unfortunately, this review has not mentioned all existing plans of Madinah in the past decades. Several other plans and reports made during the same period were quietly shelved. Having been left for a while, they became no longer valid.



(46) Significant changes in land use since 1393 H (31) (Matthew 1973).

The most important characteristics of cultural and urban development of Madinah in the Saudi period can be summarised as follows:



(47) Important characteristics of urban and cultural development of Madinah in the Saudi era.

PART ONE

CHAPTER NINE

Conclusion for part one

Cultural and Urban development of Madina in different periods

- **Before Islam (before 622 AD).**
- **In the prophet's period (622-632 AD).**
- **In the reign of the Four Rightly Guided Caliphs (632-661 AD).**
- **In the Ommaiad period (661-752 AD).**
- **In the Abbasid period (752-1258 AD).**
- **In the Mamaluk period (1250-1517 AD).**
- **In the Osmani period (1517-1918 AD).**
- **In the Saudi Era (1926 AD).**

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Cultural and Urban development of Madina in different periods:

Chapter One: Cultural and Urban development of Madina before Islam

We can sum up the most important cultural and urban characteristics of Madina in that period in following main points:

First : The architecture of forts and atam.

Madina lies on the trade route that links Al-Sham with Yemen. This has encouraged many immigrants to settle there, bringing their cultural knowledge with them. The Jews, for example, came from Al-Sham to await a Prophet they had found foretold in their books. They introduced new architectural typologies such as forts and atam then characteristic of Al-Sham.

Second: Old bazaar streets and markets.

on account of its position on an old trade route, Madina had some markets in connection with the Jewish caravans. There was the Bani Qainoqa' market and a market in the area of Quba'. These markets were connected equally with the houses of these tribes as with the old caravan routes.

Third: Houses and dwelling zones.

Many historical reports and stories tell of the existence of simple houses built of natural substances such as mud (adobe), stone and, for the ceilings, cabers (tree trunks) and branches of palm trees. These houses were positioned with no formal architectural or planning relationships in common except for their tight connection with the location of the tribes and agricultural areas where there was plenty of water and fertile soil.

Fourth: Buildings of services and public utilities.

Some buildings and forts were specified for public utilities, some for schools and others for the meetings of tribal leaders to discussing issues and for other negotiations. The siting of these was decided with great care. Public buildings serving each tribe were positioned to allow easy access from all directions

Fifth: wells.

Many wells were dug to extract water and to enable a settled environment conducive to civilisation. Some of these wells continued fulfilling their important roles even after Islam.

Sixth: Building bowers (roofs made of palm leaves).

The people of Madina before Islam would have known about building bowers. This sort of construction was known throughout the Middle East at that time. There were many bowers in agricultural areas. They were built from pillars of palm trees trunks and covered with palm leaves.

Chapter Two: Cultural and urban development of Madina in the Prophet's period (12/3/1 – 12/1/11 H / 20/9/622 – 9/6/632 AD)

We can sum up the most important cultural and urban characteristics of Madina in that period in following main points:

First: The Mosque (Al-masjid).

The appearance of the Mosque is one of the most important events in the formation of the cultural texture of Madina at the time of the Prophet, peace be upon him. It was the core of the city, with all other aspects of life revolving around it.

Second: The market (Al-Suq).

Markets spread in Madina before Islam. The Prophet (peace be upon him) came to the place of Bani Qainuqa's market, hit it with his foot and chose it as a market for the people of Madina. and said: 'This is your market, do not let it be narrowed and do not let any one take a part of it''

Third: Planning Madina in the Prophetic period:

The Prophet, peace be upon him, was interested in planning Madina and developing the required services and public utilities. He limited the dwelling zone of the city, planned the lands, divided the buildings and houses, prescribed the rules and laws necessary for organising the land ownership and preventing unjust occupation and use. He was also interested in the construction of public buildings, specified houses for receiving guests

and for medical treatment as well as places for army camps and training. He had a trench dug to protect Madina during the battle of Al-Khandaq (trench). He was also interested in public and individual cleanliness.

A) Enacting the rules and laws for the system of land exploitation.

B) Cleanliness of Madina and its requisites.

C) Specifying and limiting the sacred area of Madina and the locations of army camps.

D) Constructing public buildings and services:

(1) Houses for receiving guests and deputations.

(2) Houses of medical treatment.

(3) Places to be bathrooms (public conveniences).

(4) Bathrooms.

E) Preserving monuments and ancient ruins.

F) Digging the trench to protect Madina.

Chapter Three: Cultural and urban development of Madina during the reign of the Four Rightly Guided Caliphs (11 H. - 40 H) (632 - 661 AD) :

We can sum up the most important cultural and urban characteristics of Madina in that period in following main points:

First: Cultural and urban development of Madina in the reign of Abu Bakr Al-Sadiq (14th Rabie I 11 H. - 22nd Jumada II 13 H) (9/6/632 - 23/8/634 AD)

Abu Bakr did not have enough time for the reconstruction and expansion of the Holy Mosque because of the war with the apostates. He only renewed the pillars of the Mosque which were parts of palm trees. The Mosque otherwise remained as the Prophet.

Second: Cultural and urban development of Madina during the reign of Umar Ibn Al-Khattab, may Allah be pleased with him. (24th Jumada II 13 H.- 24th Dhu'l Hijjah 23 H) (24th. August 634 - 3rd. Nov. 644 AD):

A) Having courts of justice.

Umar Ibn Al-Khattab is considered the first who had courts of justice built in cities and countries. Having separate courts is considered one of the new elements of Islamic architecture during that time.

B) Setting the divans.

Setting divans (writing down the details of people's rights) took place in Muharram, 20 H. This element was totally new in the Islamic cultural texture of that time.

c) Places for orphans and abandoned children.

Umar Ibn Al-Khattab, may Allah be pleased with him, appointed 100 dirhems for each orphaned child and some money for the person taking care of him or her. He was interested in abandoned children and took care of them.

d) The beginning of the system of patrol in Islam.

Umar Ibn Al-Khattab is considered to be the first to patrol in Islam. He saw that he was responsible for the people of his country and "every shepherd is responsible for his herd".

E) Rebuilding and expanding the Prophet's Mosque in the reign of Umar Ibn Al-Khattab.

Expanding and renewing the Holy Mosque in Madina is considered one of the most outstanding deeds of Umar Ibn Al-Khattab. It was the first expansion to the Mosque after the Prophet's death. Umar, may Allah be pleased with him, had decided to do this because the Prophet, peace be upon him, had previously wanted to do this before his death

Third: Cultural and urban development of Madina during the reign of the Third Caliph, Uthman Ibn Affan, may Allah be pleased with him. (1-1-24 H. / 8-12-35 H) (7-11-644 / 17-6-656 AD):

***Expanding and rebuilding the Prophet's Mosque in the reign of Uthman Ibn Affan:**

Reports differ as to the exact date of this expansion of the Mosque. Some say it occurred in 24 H while others say that it was in 27 H or 29 H. Most historians agree that it

happened in 20 H. The work in that expansion lasted about ten months, which means that it almost certainly ended before 30 H.

Chapter Four: *Cultural and urban development of Madina in the Ommaiad period. (Banu Omayya period) (41-132 H / 661-752 AD):*

We can sum up the most important cultural and urban characteristics of Madina in that period in following main points:

First: Expansion and rebuilding of the Prophet's Mosque in the reign of the Caliph: Al-Waleed Ibn Abdul Malek (86-96 H)

Second: Rebuilding of the market (Suq Al-Manakha) in a new style and the introduction of joint use for dwelling and commercial purposes in the rule of Hesham Ibn Abdul Malek (105-125 H) and the nourishing of commercial activities.

Third: Channeling Al-Ain Al-Zarqa' or what is called 'Ain Al-Azraq' by the ruler of Madina at that time: under an order from the Caliph Mu'aweah.

Fourth: The growth of thorough cultural development of Madina, and cultural and civilisational advancement of the area of Wadi Al-Aqiq with the building of luxurious houses and palaces, and farms and gardens, especially in the rule of the Caliph Marwan Ibn Mohammed Ibn Marwan (Marwan the second) (127-132 H).

Fifth: Rebuilding many of the old Mosques in the reign of the Caliph Al-Waleed Ibn Abdul-Malek (86-96 H) under the supervision of the ruler of Madina at that time: Umar Ibn Abdul-Aziz, may Allah be pleased with him.

**Chapter Five: Cultural and urban development of Madina in the Abbasid reign.
(132-656 H / 752-1258 AD) (1) (Lamiee 1981)**

We can sum up the most important cultural and urban characteristics of Madina in that period in following main points:

First: The rebuilding and expansion of the Prophet's Mosque during the rule of the Abbasid Caliph, Al-Mahdi Ibn Abi Ja'far Al-Mansour, in 162 H. (778 AD) which lasted about three years (4) (Al-Wakeel 1988).

Second: Digging trenches for the sake of protecting Madina during wars, such as the trench that Mohammed Ibn Abdullah dug in 145 H (762 AD) (5)(Lamiee 1981) and Al-Hussain Ibn Ali, dug in 169 H (786 AD).

Third: Building walls around Madina in early attempts to protect it, such as the one built by Is'haq Ibn Mohammed, the prince of Madina, in 236 H (876-877 AD).

Fourth: Building a hospital (Bemarstan) in the reign of the Caliph Al-Mansour Abu Ja'far Ibn Al-Zaher Be'amr Allah in 627 H (1229-1230 AD).

**Chapter Six: Cultural and urban development of Madina in the Mamaluk period
(648-923 H / 1250-1517 AD)**

We can sum up the most important cultural and urban characteristics of Madina in that period in following main points:

First: Expansion and restoration of the Prophet's Mosque after the first fire in 654 H (1256 AD). The work began under Al-Mosta'sem Bellah in 655 H (1257 AD), continued after the second fire in 886 H (1481 AD) and was finished by Sultan Qaitbay in about 888 H (5) (Al-Wakeel 1988).

Second: Renewing some antique Mosques such as the Quba' Mosque in 671 H and by Al-Janab Al-Khawajki Al-Shamsi Ibn Al-Zaman in 881 H during his restoration of the Prophet's Mosque. There was also the restoration of the seven Mosques in the area of Al-Khandaq (the trench) in 876 H by Zain Al-Din Al-Mansouri, Prince of Madina at that time (6) (*Al-Samhoodi 1505*) and the renewal of Al-Qeblatain Mosque in 893 H by Al-Shaja'ie Shaheen Al-Jamali (7) (*Al-Samhoodi 1505*).

Third: Restoration of some domes and cists on the graves of the Prophet's people and some of his companions in Al-Baqie'.

Fourth: Constructing schools and houses for the poor, which involved turning the locations of the houses of Ashrah into a school of the Sultan, replacing the poor house (rebat: plural arbitan) known as Al-Hesn Al-Atiq (old fort) and Al-Madrasa (school) Al-Jobaniyah by a school and a house for the poor (rebat) and constructing Al-Sultan Qaitbay school between Bab Al-Salam and Bab Al-Rahmah, plus building a small minaret next to it.

Fifth: Building public buildings and services. The first building to be for the homeless and travelers, a bakery, a mill, a cookhouse and an agency were built in the reign of the Sultan Qaitbay.

Sixth: Specifying certain buildings to be entrusted to the people of Madina for their expansions and needs. Those buildings were bought and specified during the Hajj of the Sultan Al-Ashraf Qaitbay.

Chapter Seven: Cultural and urban development of Madina during the Osmani period (923-1336 H / 1517-1918 AD)

We can sum up the most important cultural and urban characteristics of Madina in that period in following main points:

The most important urban and cultural aspects:

First: Building works to the Honourable Prophet's Mosque, especially during the reign of Sultan Soliman Al- Qanouni (926-974 H / 1520-1566 AD), Sultan Abdul-Majeed the First (1255-1277 H / 1839-1861 AD) and Sultan Abdul-Majeed the Second, during the period 1293-1327 H / 1876-1909 AD.

Second: Renovating and repairing some old Mosques such as Al-Musala Mosque during the reign of Sultan Abdul-Majeed the First in the period from 1255 to 1277 H / 1839 to 1861 AD as well as other repair work done during the reign of Sultan Abdul-Majeed the Second in the period from 1293 to 1327 H / 1876 to 1909 AD and the reconstruction of Abu Bakr Al-Sedeeq Mosque in 1254 H / 1838 AD during the reign of Sultan Mahmoud, as well as renovating Quba' Mosque during the reign of Sultan Mahmoud the second in 1245 H / 1829 AD.

Third: Building Madina wall and setting up the castles and towers

Forth: Building Al-Hijaz railway and the various facilities associated with it

fifth: The building of schools and arbitan

Sexth: The building of public services and facilities

Seventh: Setting up public libraries and kuttabs

Eight: Renovating Al-Ain Al-Zarqa' and the setting up of the cisterns

Ninth: Flourishing of the building and construction movement

Tenth: Rebuilding and renovating Al-Baqie' domes and wall

Chapter Eight: *Cultural and urban development of Madina in the Saudi Era* (from Jumada II, 1344 H. / 1926 AD) :

We can sum up the most important cultural and urban characteristics of Madina in that period in following main points:

First: Restoration of the Prophet's Mosque and repair work in the reign of King Abdul-Aziz Al-Saud in 1348 H / 1929 AD and in 1350 H / 1931 AD in addition to his project of restoration and expansion of the Prophet's Mosque started in 1372 H / 1952 AD and finished later by King Saud Bin Abdul-Aziz in 1375 H / 1955 AD. There followed an expansion under King Faisal Bin Abdul-Aziz, which introduced an open courtyard of about 94,000 square metres. This, however, was erased by King Fahd Bin Abdul-Aziz's expansion and repair works on the Mosque started in 1406 H / 1985 AD, and still ongoing.

Second: The fast growth of population and architecture in different sectors.

Third: Initiating service projects and public utilities such as roads, electricity, water, post, telegram and telephones in addition to education, health, civil defence and policing.

Fourth: The introduction of planning regulations in Madina by the government, making public and general plans for cultural and architectural development in the city.

PART TWO

Part Two

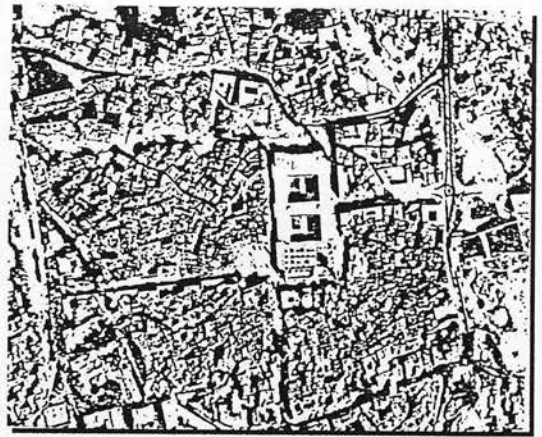
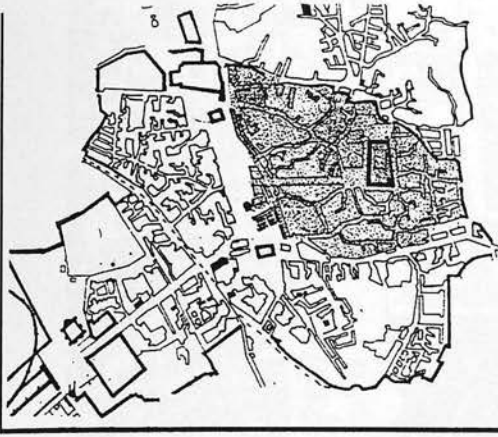
Introduction

Significant development of stages of cultural texture in Madinah

Significant Development stages of cultural texture in Madinah:

In its cultural development, Madinah has been through many stages that identified the features of its cultural texture. Each stage has had a certain texture with its own features and advantages. This was demonstrated before through the study of the effective elements, which led to the appearance of Madinah's cultural texture in each of its stages. The cultural texture of Madinah in most of these stages was foremost characterised by being attached to the Prophet's Mosque that has been the core of the city and the centre of its inspiration. The pattern of the texture was centralised, as most of its streets and lanes led to the city centre. These streets and alleys in their turn had branches around which houses gathered. Some streets and alleys ended at courtyards around which houses gathered. This respected the customs and traditions that suited human circumstances and social relations based on Islamic principals and helped to reinforce the human relations among the inhabitants of the city.

Commercial services were also placed along the main radial streets, among public baths, schools, libraries and fresh water sources. This texture was suitable for different natural and environmental conditions, in particular high temperature. Natural substances such as mud, stone and wood were used in building. All the streets and lanes were organised in a winding and zigzagged manner to provide shade. The heights of the buildings were proportional to the widths of the streets. This helped to reduce the effect of the high temperature. Thus, all the buildings were akin and homogeneous. Moreover, these zigzag streets were not a result of random planning, but were built to accomplish things modern planning cannot, like providing shade and reducing temperature. All this shows that the cultural texture of Madinah is one of the oldest traditional ones. Most of its architectural styles and cultural texture go back to the Osmani era, although some buildings go back to older periods.



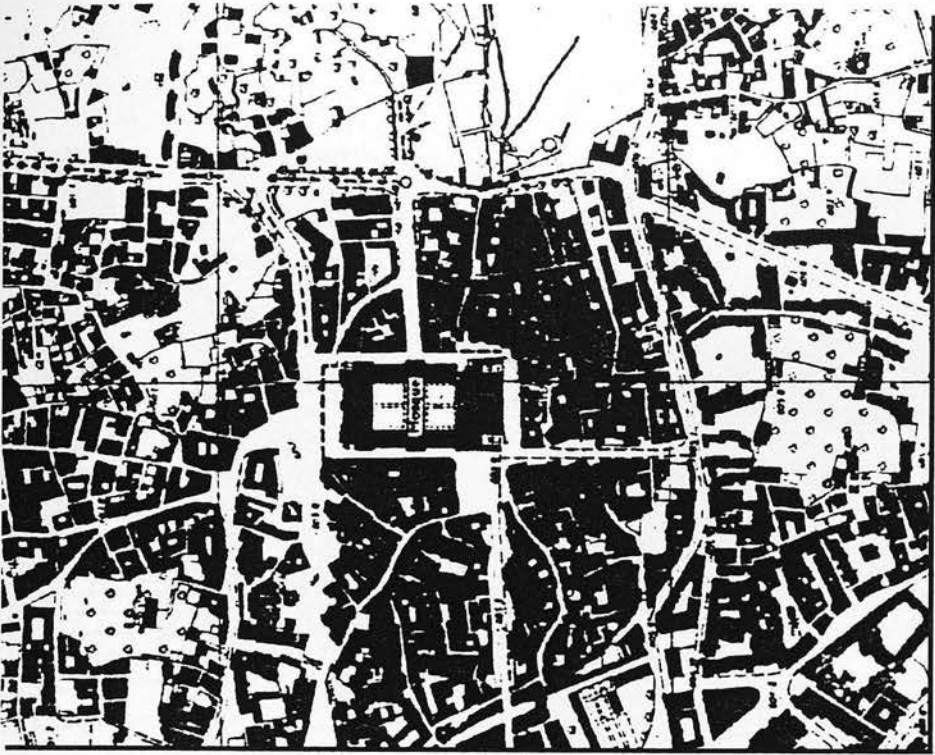
(01) A plan showing the different types of cultural texture in Madinah in 1951 AD.

(02) Madinah from the air in 1964 AD showing different types of cultural texture surrounding the Prophet's Mosque.

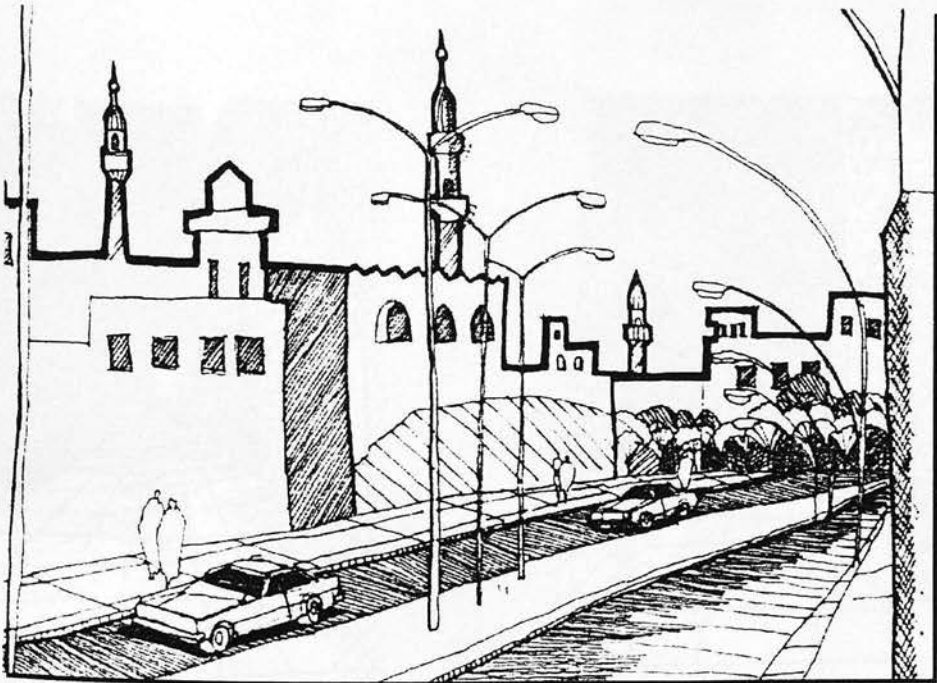
Streets and alleys:

Traditionally, Madinah was characterised by narrow alleyways. The main ones were connected to narrower ones and then narrower ones until they became no more than one metre wide with internally connected houses on both sides. The most important of these alleys was Zuqaq Al-Baqie. It connected the door of Al-Baqie in the East with the Prophet's Mosque in the West. In this alley was located the well of the lane, Al-Rastomia, the rebat of Yaqut Al-Mozaffar Al-Mardoni and the rebat of Al-Ein. There were also several small shops, the area of each of them being no more than 4 square metres. These shops were in the shade of a stone vault in the shape of a taper chaplet, its was covered with black stone.

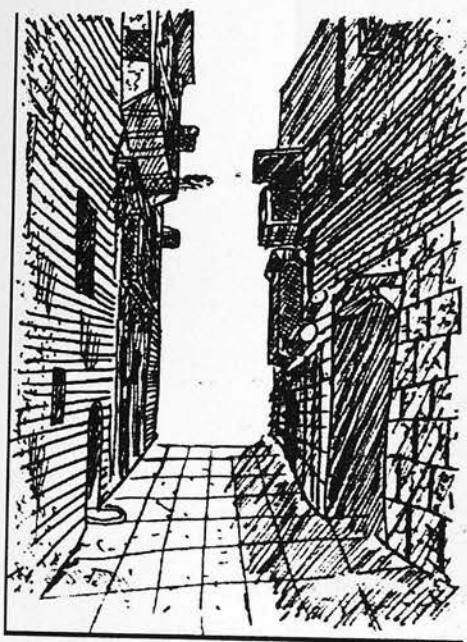
A different cultural texture was widespread in the Southern, Southeastern and Western sides of Madinah. This comprised courtyards or large spaces around which houses were built. All these spaces had doors, gates and openings directly to the streets and alleys.



(03) Part of the cultural texture of Madinah in 1964 AD



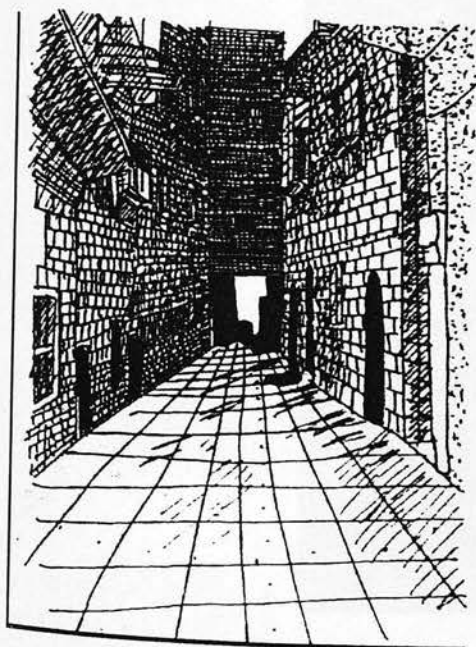
(04) Wide streets for cars are one of the features of modern planning



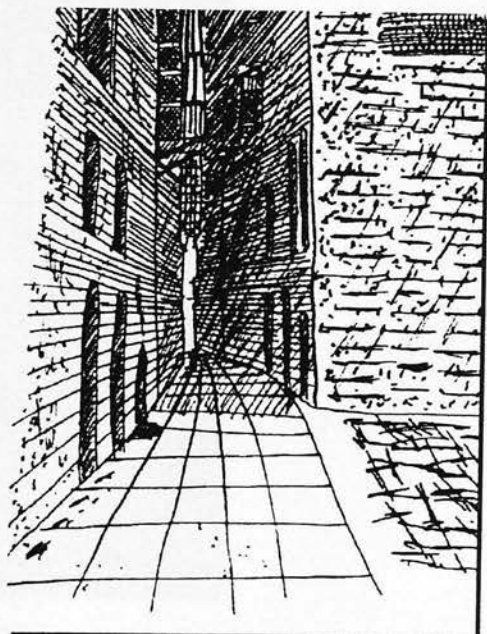
(05) Al-Aghawat lane showing varied and homogenous elements.



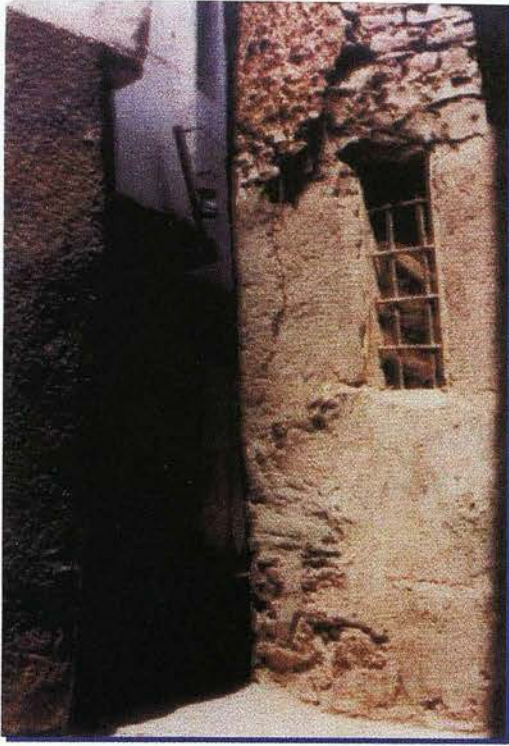
(06) Al-Aghawat lane, originality of architecture and strength of expression.



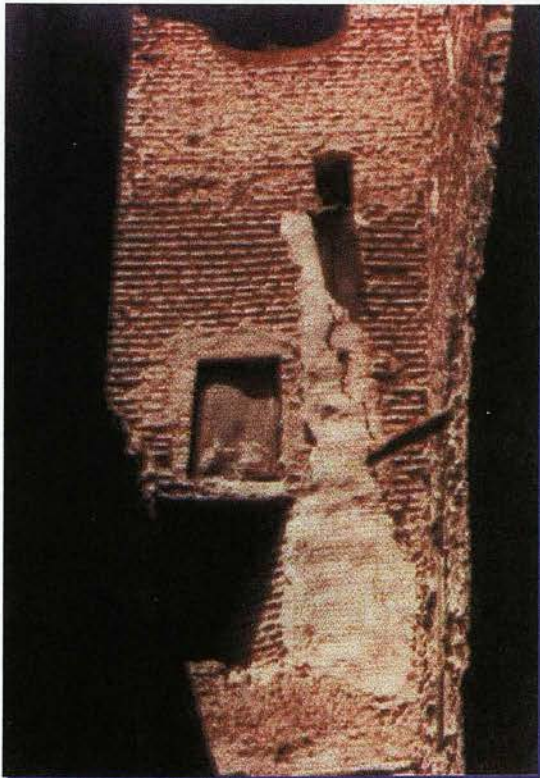
(07) Al-Aghawat lane, variety of alleys and diversity of spaces



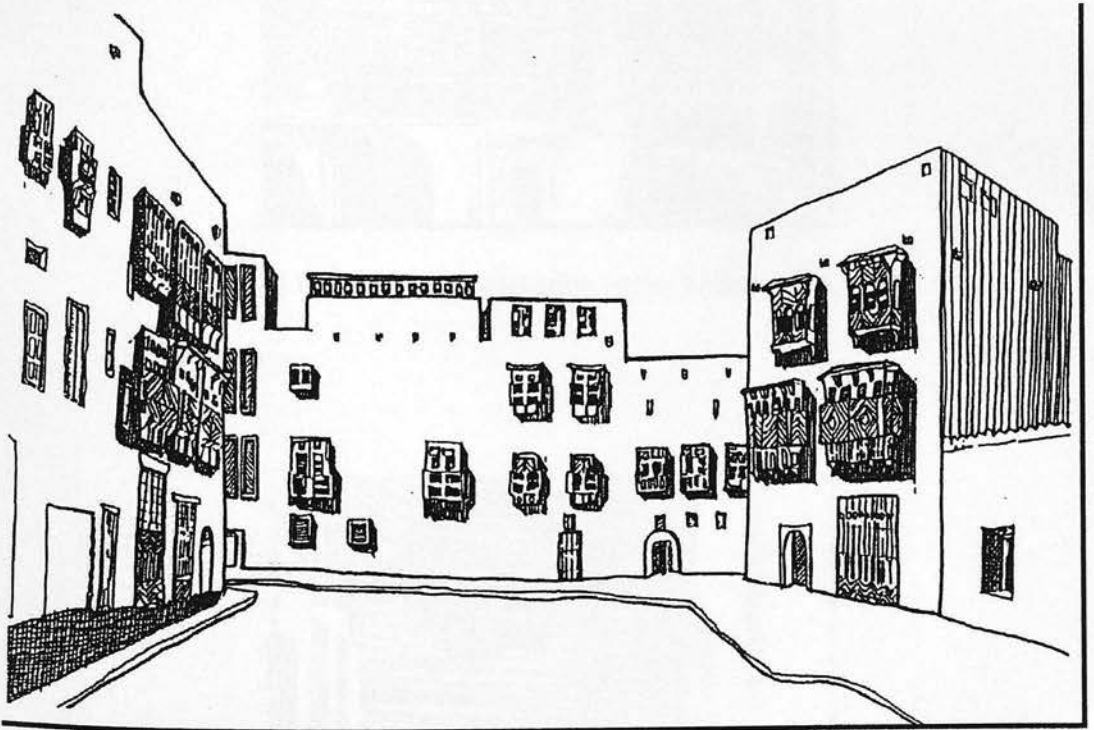
(08) Al-Aghawat lane, expression through building materials



(09) Al-Aghawat lane showing variety and homogeneity elements.



(10) Al-Aghawat lane variety of alleys and diversity of spaces.



(11) The court concept (Traditional fabric)



(12) Drawing of a courtyard.



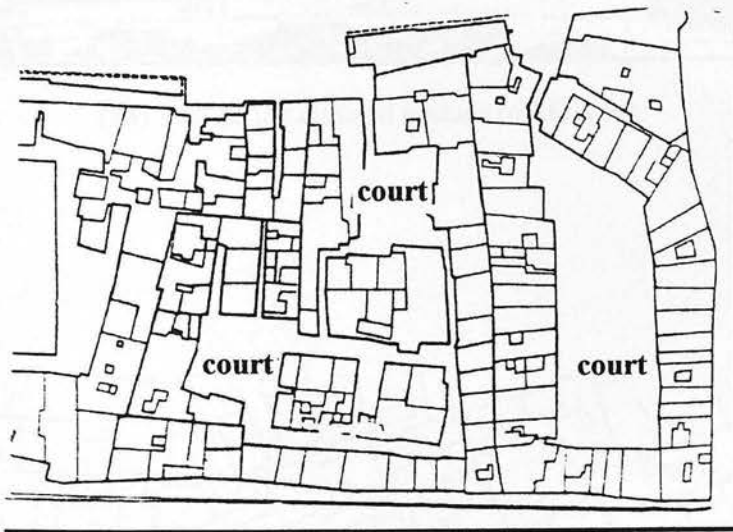
(13) Drawing of an elevation in the Sultan Alley.



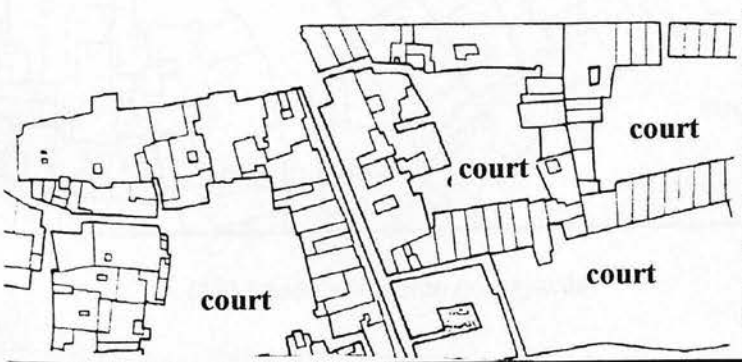
(14) A model of covered ally inside the texture of Al-Aghawat Alley



(15) A drawing of some architectural elements from the lane of Al-Aghawat.



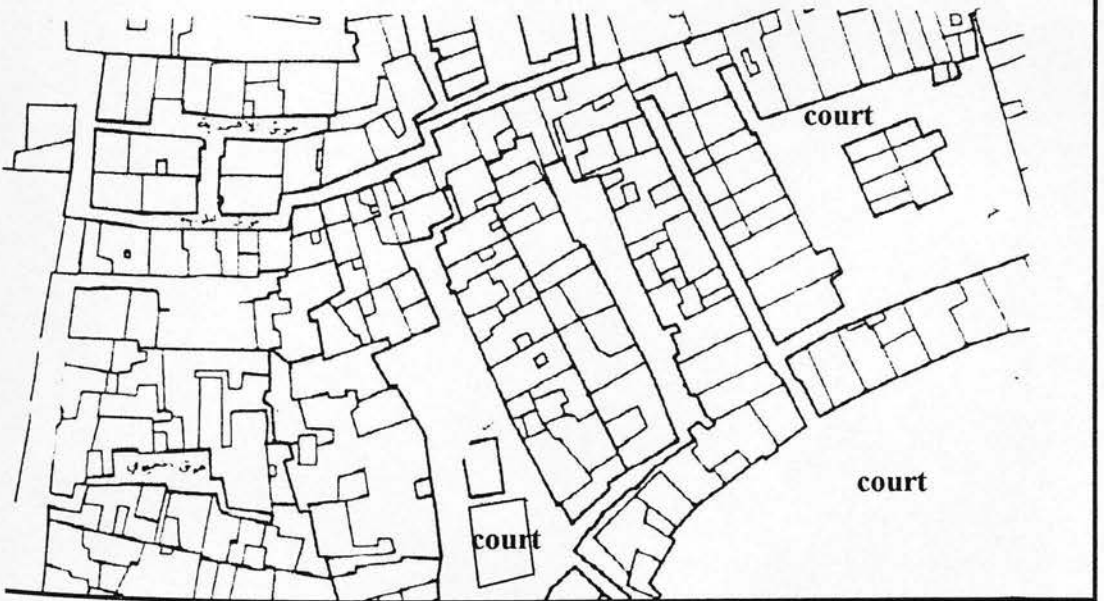
(16) Models of some courtyards inside the cultural texture



(17) Models of some courtyards.



(18) Part of the cultural texture of Madinah.



(19) Models of some courtyards

Part two

Chapter one

History and Architecture of Mosques in Al-Madinah

CHAPTER ONE

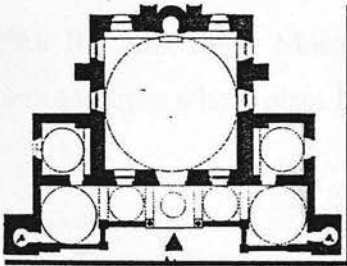
2-1 History and Architecture of Mosques in Madinah

The architecture of mosques in Madinah started from the early days of Islam and even before the Holy Prophet's arrival to Madinah. There were a few mosques used by some people from the tribes of Al-Aws and Al-Khazraj. When the Holy Prophet (Peace Be Upon Him – PBUH) arrived in Madinah on 8 Rabi-I, 1AH/622 AD, he built his first mosque in Islam with his blessed hands. Thus, the first action that the Holy Prophet (PBUH) took was to build Quba' Mosque. This makes him the first to lay a brick in building mosques in Madinah.

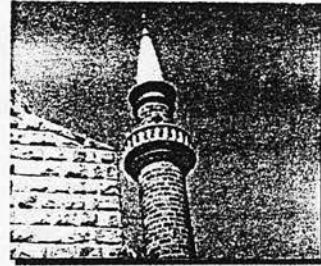
Because the Holy Prophet (PBUH) lived in Madinah and prayed in different locations many mosques were built and some of them were connected with certain events and situations. Such mosques were taken care of more than mosques elsewhere. Sultans, Kings and Caliphs gave special care to their reconstruction and renewal throughout Islamic history. The Government of Saudi Arabia has given much care to them, from time to time; they were renewed or enlarged to accommodate the increasing number of pilgrims and visitors. Also, more mosques were built in different locations in Madinah, especially with huge cultural growth and development not only in Madinah, but also throughout the whole Kingdom.

2-1-1 Reconstruction of old and antique Mosques in Madinah

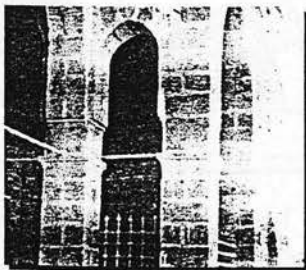
The Prophet (peace be upon him) started building Mosques in Madinah after his blessed migration. He constructed the Quba' Mosque, the first Mosque in Islam, when he arrived in Quba' after Hijrah. Then he built his Mosque in Madinah immediately after he arrived there coming from Quba'. After that, many constructions and expansions to old historic Mosques in Madinah took place such as those carried out by the Four Rightly Guided Caliphs from 11H to 40H. The fair caliph, Omar Bin Abdul' Aziz, did some restorations and expansions to, among other Mosques, the Quba' Mosque, Al-Jumoa, Abi Bakr Al-Seddiq and Ali Ibn Abi Taleb Mosques. He is believed to have renewed the Omar Bin Al-Khattab Mosque, too. He also reconstructed the Mosques of Al-Fat'h, Al-Ejaba, Al-Musalla, Al-Qiblatain, Al-Miqat, and Al-Suqia during his reign in Madinah which lasted six years.



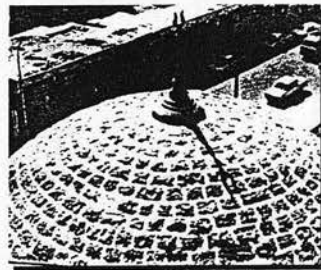
(20) Al-Anbariya Mosque as built by Sultan Abdul Majeed the Second.



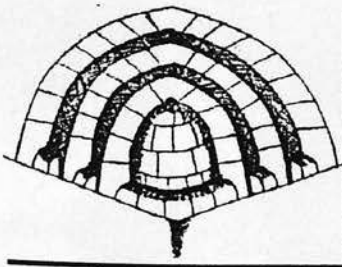
(21) One of the minarets of Al-Anbariya Mosque.



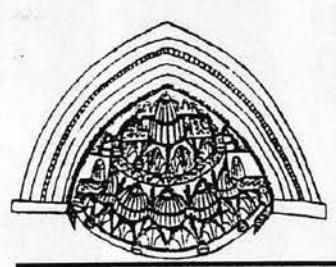
(22) One of the galleries of the main entrance of Al-Anbariya Mosque.



(23) An upper view of the dome of the Al-Anbariya Mosque.



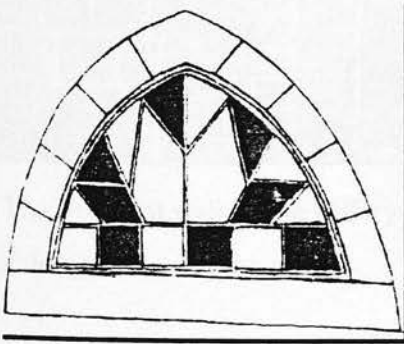
(24) A drawing of the pendentives of the dome.



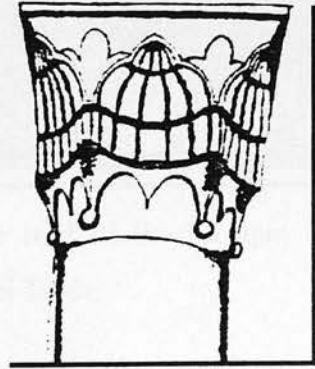
(25) Ornaments and drawings covering the cavity of the mihrab.

2-1-2 Design concept for the plans of old Mosques in Madinah

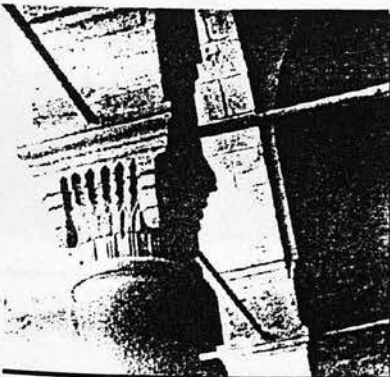
The design concept of the ground plans of old and antique Mosques in Madinah was simple. The plan of the Prophet's Mosque was rectangular. Its length from the North to the South was thirty-five metres and it was thirty metres wide. Walls of mud enclosed this space. When it was hotter, three rows of pillars were made. Each row had six pillars made from palm trees. A roof was made of wood covered with palm tree branches, then mud, to form a weather-tight surface. The shaded part of the Mosque represented a gallery for the Qibla, which overlooked the rest of the Mosque. The latter was left uncovered and it was used at night when the air was cooler. This simple idea for designing the Mosque, known later as the Prophetic design, was used in planning most of the old Mosques in Madinah and constitutes the only known basic prototype model for planning Mosques at that time. Many Mosques still use this design, including the Quba' Mosque, Ali Bin Abi Taleb Mosque, Al-Jomoa'a, Al-Fath and many others. There are some ancient Mosques whose plans have been modified.



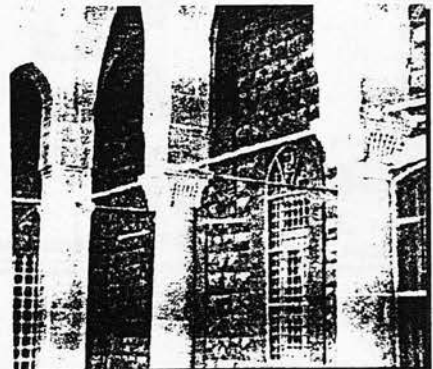
(26) One of the upper openings of the Mosque.



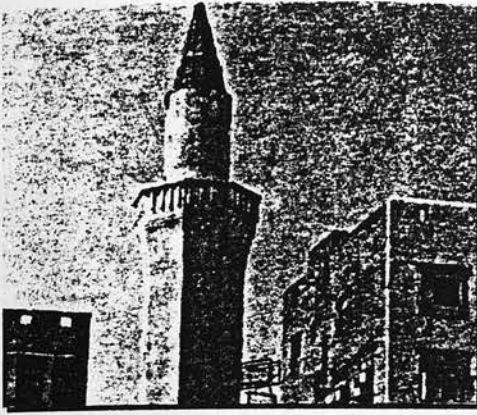
(27) The design of the capitals of pillars.



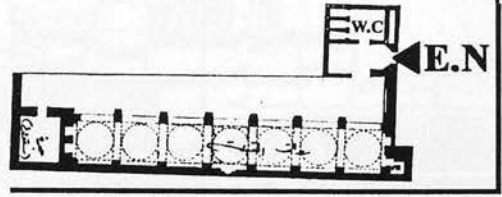
(28) The stone capital of one of the pillars of the gallery of the main entrance.



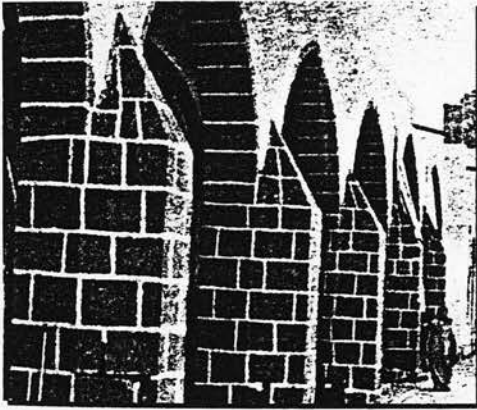
(29) The Northern gallery which was the main entrance of Al-Anbaryia Mosque.



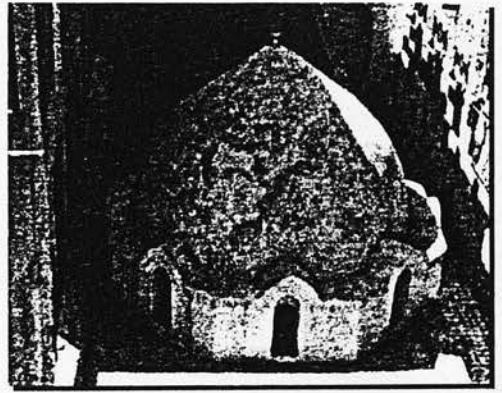
(30) The minaret of the Ali Ibn Abi Taleb Mosque.



(31) The ground plan of the Mosque as built in 1477 AD.



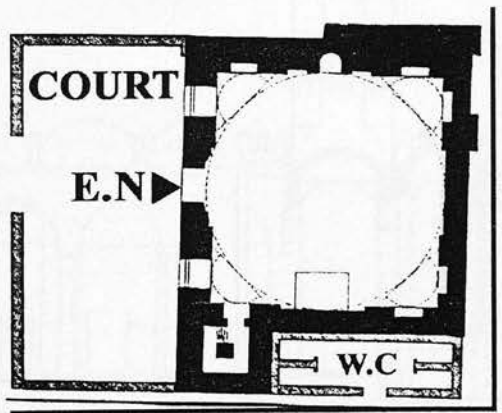
(32) The Northern wall of the gallery of the Qibla.



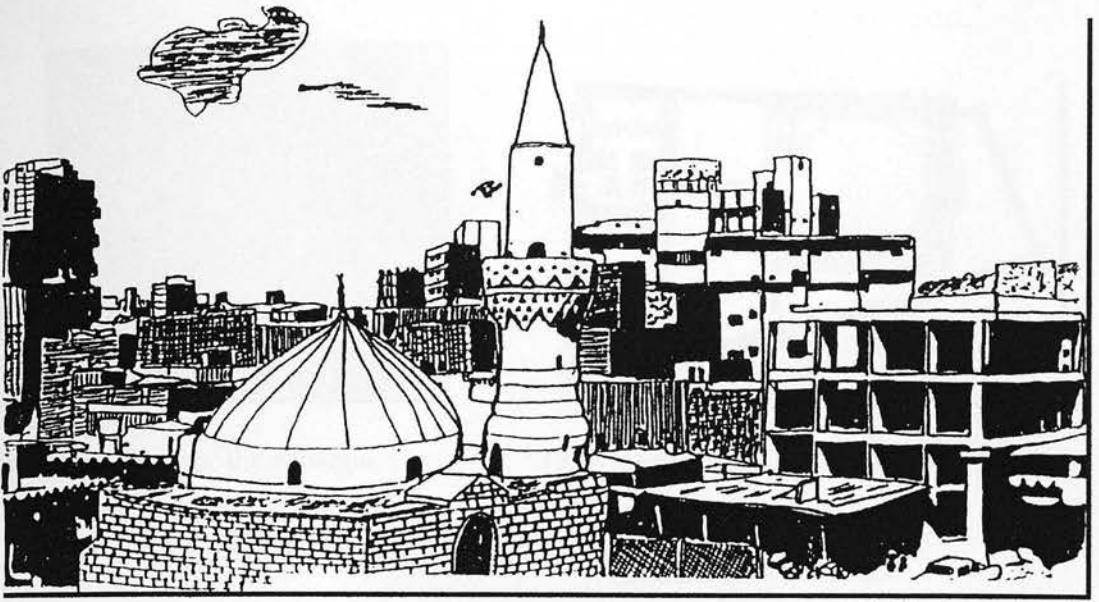
(33) The roof of the Mosque of Ali Ibn Abi Taleb.



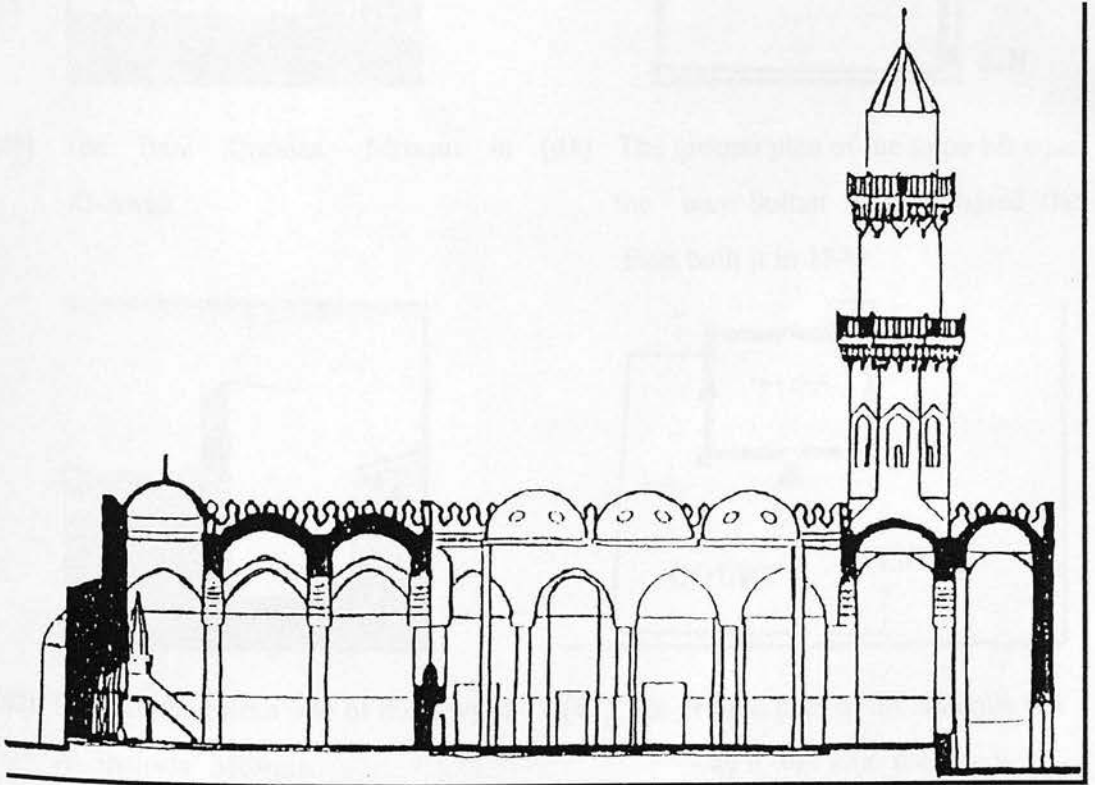
(34) The dome and minaret of the Mosque of Abi Bakr Al-Seddiq.



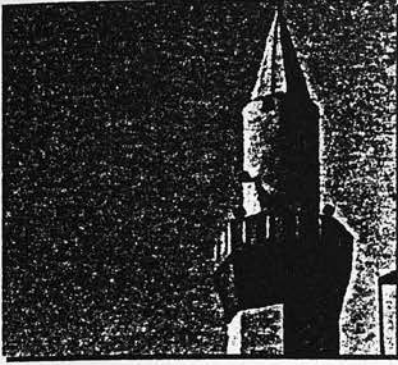
(35) The ground plan of the same Mosque in 1838 AD, as built by Sultan Mahmoud the Second.



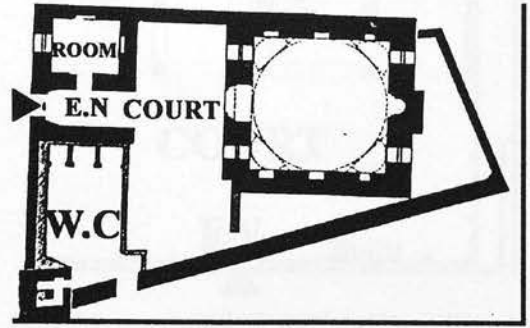
(36) Abu-Bakr Al-Siddiq mosque.



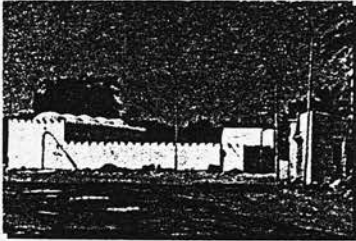
(37) Quba mosque _ section



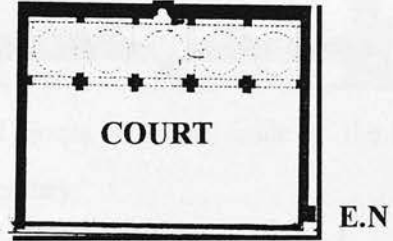
(38) The minaret of the Mosque.



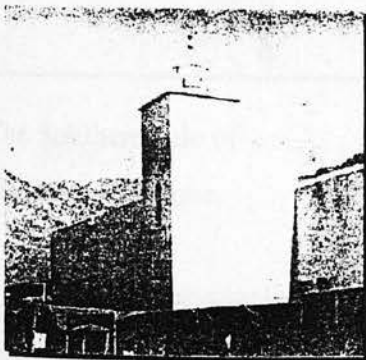
(39) Umar Ibn Al-Khattab Mosque, Ground plan, Built by Sultan Mahmoud - 1838 AD.



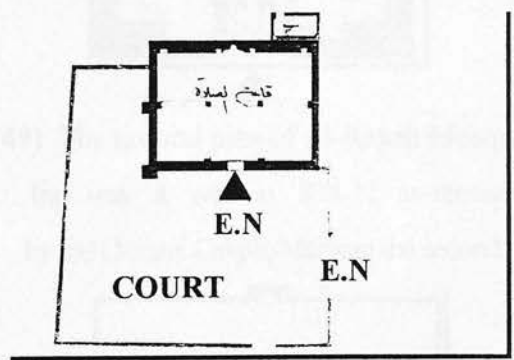
(40) The Bani Quraiza Mosque in Al-Awali.



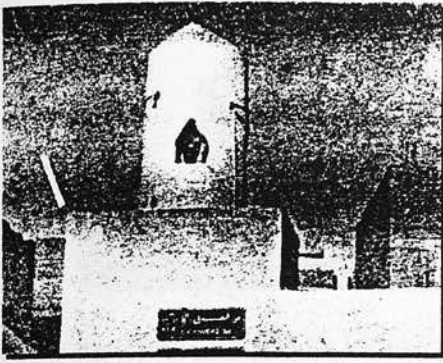
(41) The ground plan of the same Mosque the way Sultan Abdul Majeed the First built it in 1849.



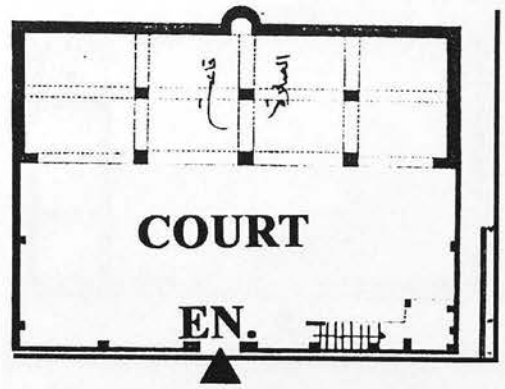
(42) The Southwestern side of the Sayyed Al-Shuhada' Mosque.



(43) The ground plan of the Mosque the way it was after the Saudi government renovated it later in 1385 H (1964 AD)



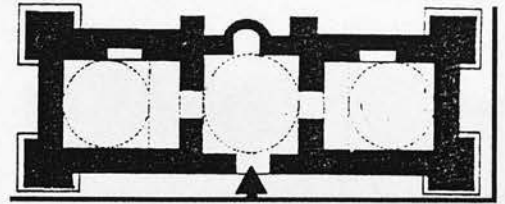
(44) The Northwestern corner where the minaret of the Mosque stood



(45) The ground plan of the Bani Khuzam Mosque.



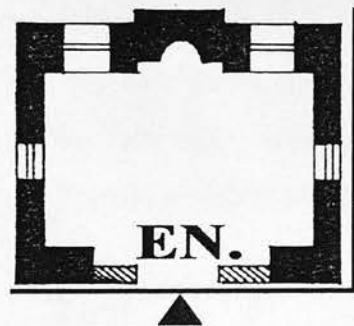
(46) Part of the Southern side of Al-Soqia Mosque.



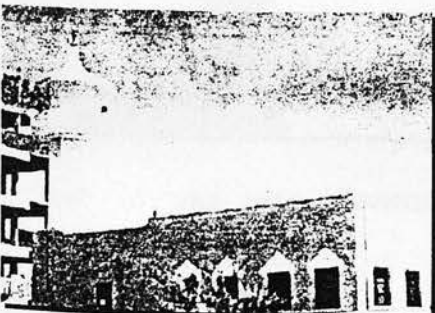
(47) Al Soqia Mosque, built in the 19th century.



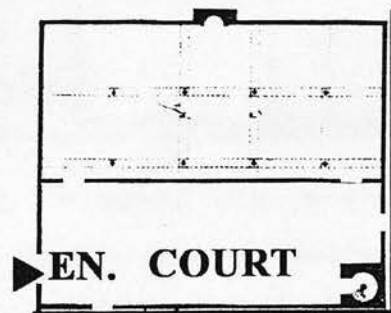
(48) The Southern side of Al-Rayah Mosque.



(49) The ground plan of Al-Rayah Mosque the way it was in 824 H, as renewed by the Osmani Caliph, Marwan the second.



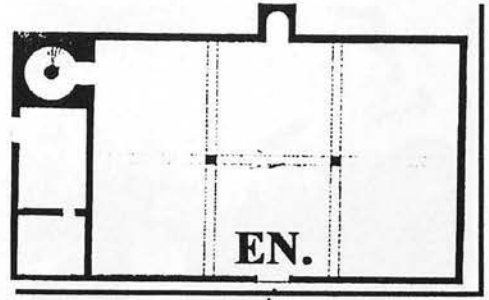
(50) The Western elevation of Al-Ejaba Mosque.



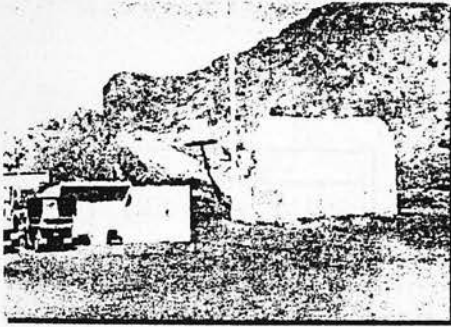
(51) The ground plan of Al-Ejaba Mosque after the Saudi restoration in 1403 H.



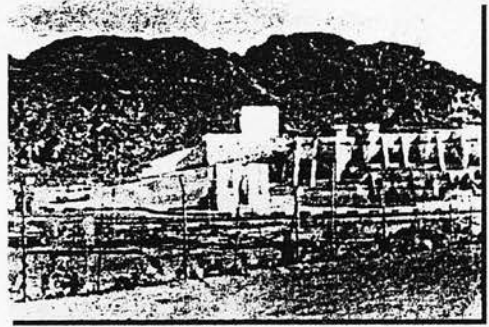
(52) The Northern side of the Abi Tharr Mosque.



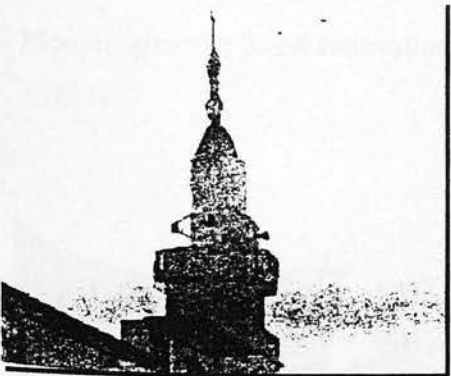
(53) Ground plan of the Abi Tharr Mosque after the Saudi restoration in 1401 H



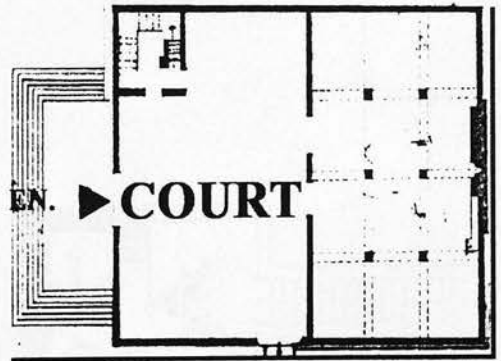
(54) The Southern side of the Mosques of Al-Fat'h up the mountain, and Salman Al-Faresi to the South.



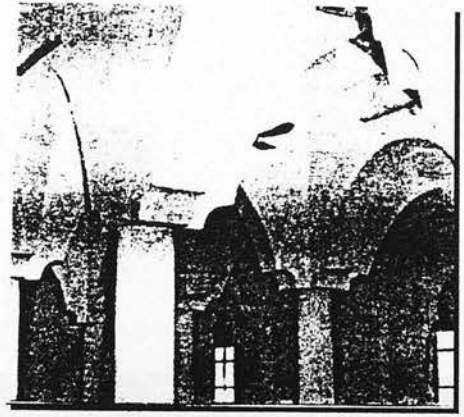
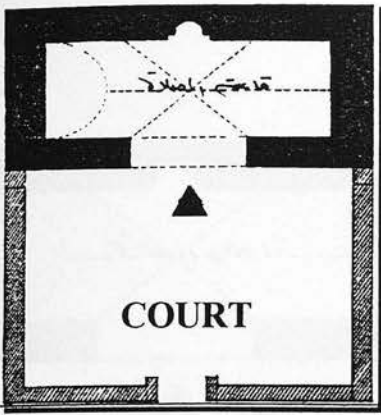
(55) The Western side of the Mosques of Ali Ibn Abi Taleb up the mountain, and Fatema Al-Zahra, down the hills.



(56) Part of the main elevation of the Qiblatain Mosque.

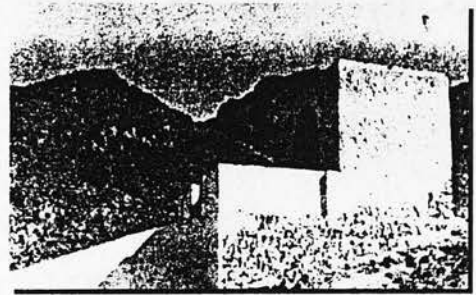
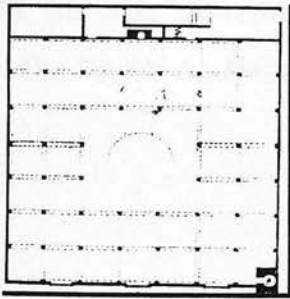


(57) The ground plan of Al-Qiblatain Mosque after the restoration of King Abdul-Aziz Al-Saud in 1370 H.



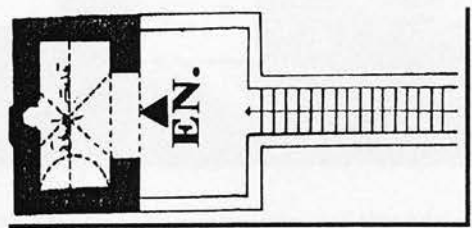
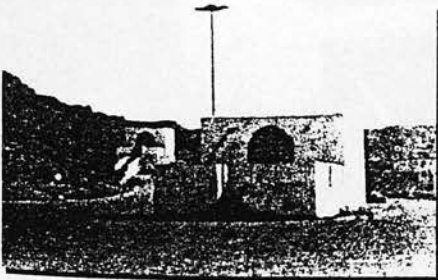
(58) The ground plan of the Mosque of Umar Ibn Al-Khattab in Al-Khandaq area after the restoration of Sultan Abdul Majeed the first in 1853 AD.

(59) One of the inner galleries of Al-Miqat Mosque.



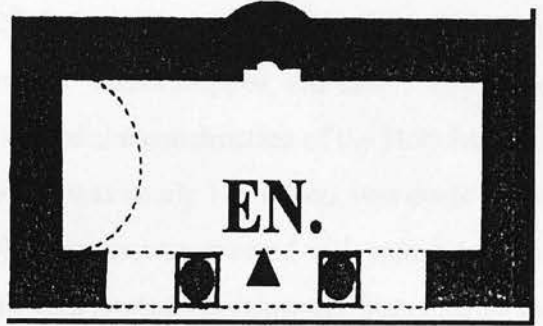
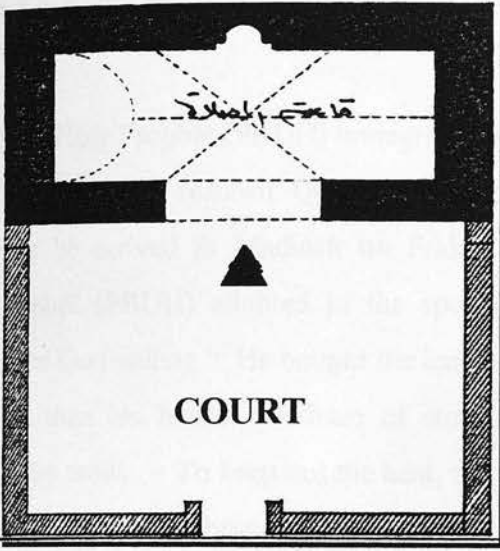
(60) The ground plan of Al-Miqat Mosque, known as Thil-Hulaifa or Al-Shajara Mosque after the Saudi renovation in 1375 H

(61) The Western elevation of the Ali Ibn Abi Taleb Mosque in Khandaq.



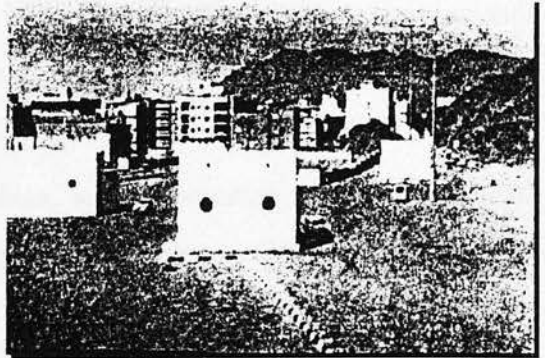
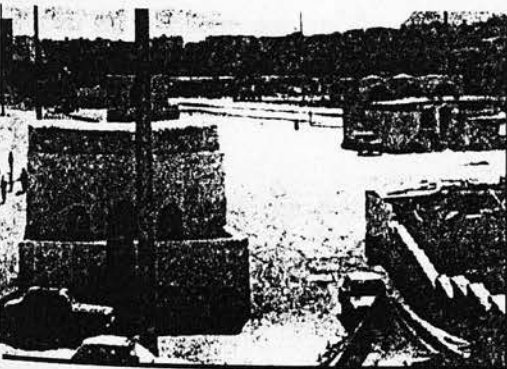
(62) The Northern elevation of the same Mosque

(63) The ground plan of the Ali Ibn Abi Taleb Mosque after the restoration of Sultan Abdul Majeed in 1853 AD



(64) The ground plan of Al-Fat'h Mosque in 1179 AD after the restoration of Saif Al-Din Ibn Abi Al- Haija'

(65) The ground plan of the Salman Al-Faresi Mosque built in 1181 AD



(66) The Northern elevation of the Salman Al-Faresi Mosque.

(67) The Southern elevation of the Mosque of Al-Fat'h.

2-1-3 History of the Holy Prophet's Mosque

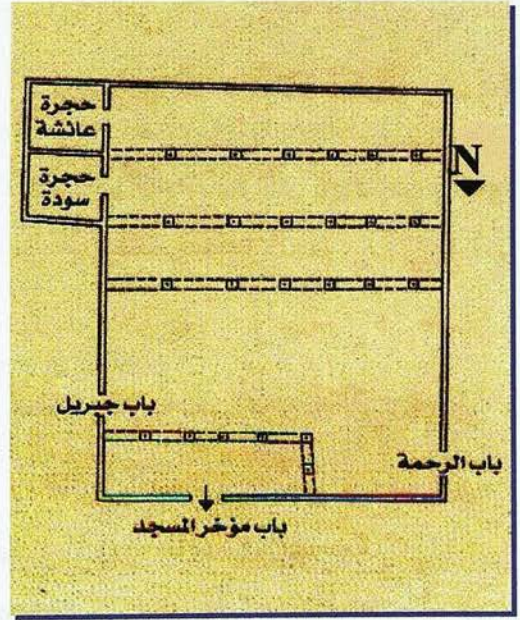
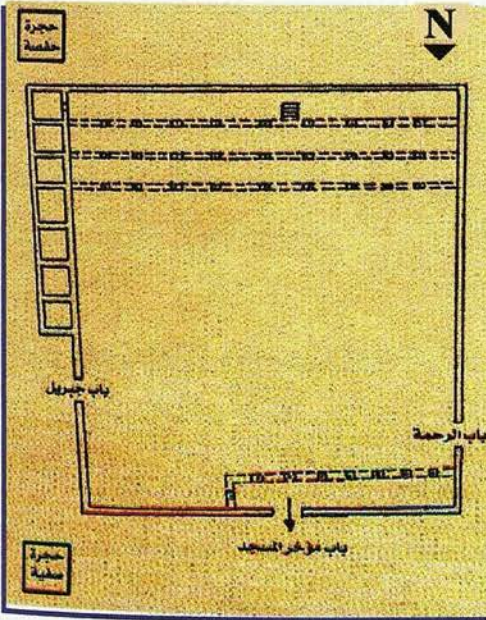
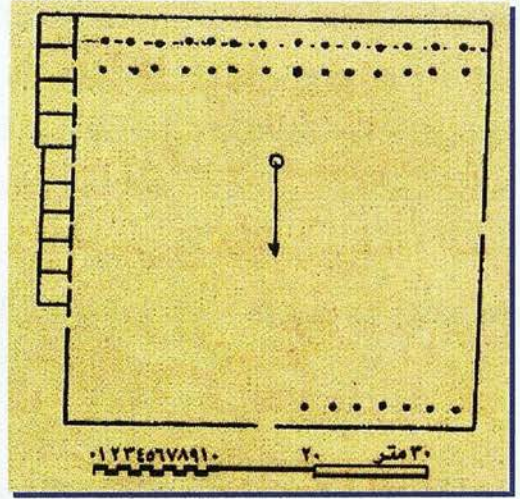
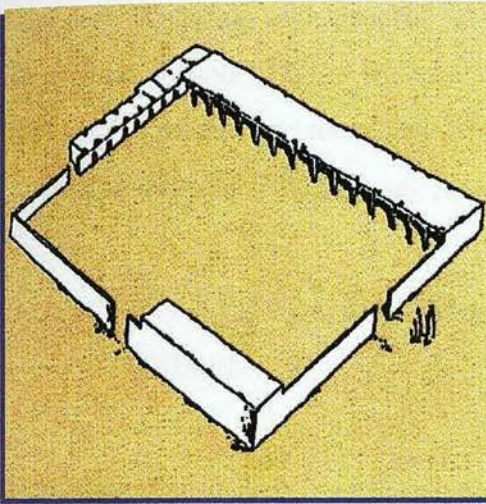
2-1-3-1 The Holy Mosque during the life of the Holy Prophet (PBUH):

The Holy Prophet (PBUH) immigrated from Makkah to Madinah in Rabi-I, / September 622 AD. He reached Quba' on Monday 8th Rabi-I where he stayed for four days and then he arrived in Madinah on Friday, 12th Rabi-I, September 622 AD. The Holy Prophet (PBUH) alighted in the spot where his camel stopped, and said: "This is the place God willing." He bought the land and started the construction of the Holy Mosque and then his house. A base of stone, which was nearly 1.5m deep, was made under adobe walls. To keep out the heat, the Holy Mosque was covered with palm branches. After a while, the branches were covered with mud to stop the rainwater from leaking in. The building was made in the summer of the Holy Prophet's arrival. Then in the next winter the roof was covered with mud.

The Holy Mosque had 3 sections, each having six pillars in the direction of the Qibla. At the back was a veranda, called "suffa" built for the immigrants who had no place to live when they first arrived at Madinah from Makkah. The roof was 1.75m high. A door was made at the back and another in the eastern wall known as "Bab Uthman". After the Qibla was changed towards the Holy Ka'ba instead of Al-Aqsa Mosque on Tuesday, 15th Sha'ban 2AH, January 624AD, the door in the southern wall was closed and it was replaced by another one in the northern wall. Three parts similar to the ones in the northern side were created in the southern side.

With the increase of the number of Muslims, it was necessary to enlarge the Holy Mosque. This was done after the Holy Prophet's return from Khaibar battle in Muharram 7AH, June 628AD. The area of the Holy Mosque then reached 45x50m, having three sections in the side of Qibla separated by nine pillars each. The Holy Mosque had no minarets or mihrabs at that time. Bilal used to give the call to pray from the roof of a house of Bani Najjar, which was the tallest house near the Holy Mosque. Different sources say that a "pulpit" was made of Tamarisk wood for the Holy Prophet (PBUH). It consisted of two steps and a seat. This might have been in 8-9 AH, 630AD. It was 50cm wide, 1m. long and 1m. high.

The Holy Mosque remained as described without change until the death of the Holy Prophet (PBUH), when he was buried in the Honourable Room of his honourable wife A'asha, may Allah be pleased with her.



(68) the Mosque during the Prophet's Period "20-9-622 / 9-6-632 AD"

2-1-3-2 The Holy Prophet's Mosque (PBUH) in the time of the Rightly Guided Caliphs:

2-1-3-2-1 The Holy Prophet's Mosque (PBUH) during the reign of Abu Bakr Al-Siddiq

Abu Bakr Al-Siddiq took over the caliphate after the death of the Holy Prophet (PBUH) for a short period (11-13AH/632-634AD). He did not add any space to the Holy Mosque but he replaced the pillars. He died on 22 Jumada-II 13AH and was buried next to the Holy Prophet (PBUH), may Allah be pleased with him.

2-1-3-2-2 The Holy Prophet's Mosque (PBUH) during the Caliphate of Omar Bin Al-Khattab

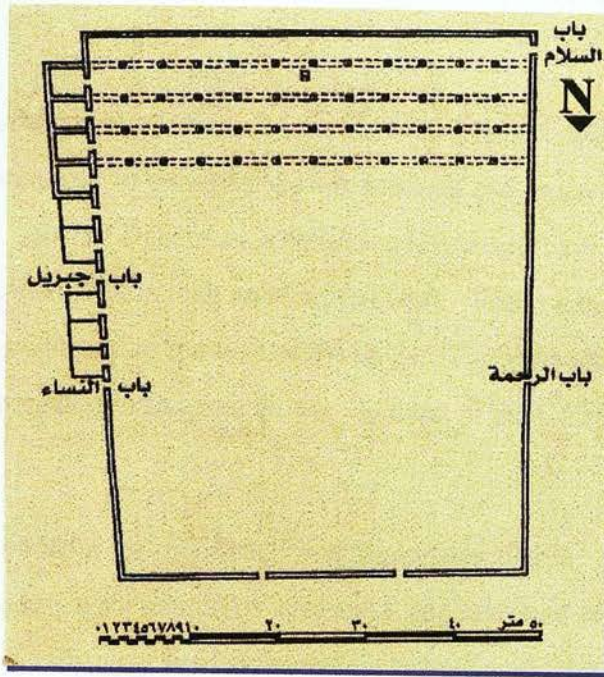
Four years after he took over the caliphate, Omar Ben Al-Khattab had much renewal and repair made to the Holy Mosque in 17AH/638AD. He also enlarged it to 54.30m from east to west, and only on the western side, from north to south to 69.70m long. Thus, the original area was increased by about 71%.

The new repairs used pillars made from palm trees and walls made of adobe. The roof of the Holy Mosque reached 5.48m and was 1m. thick. Caliph Omar also introduced large lanterns to the Holy Mosque.

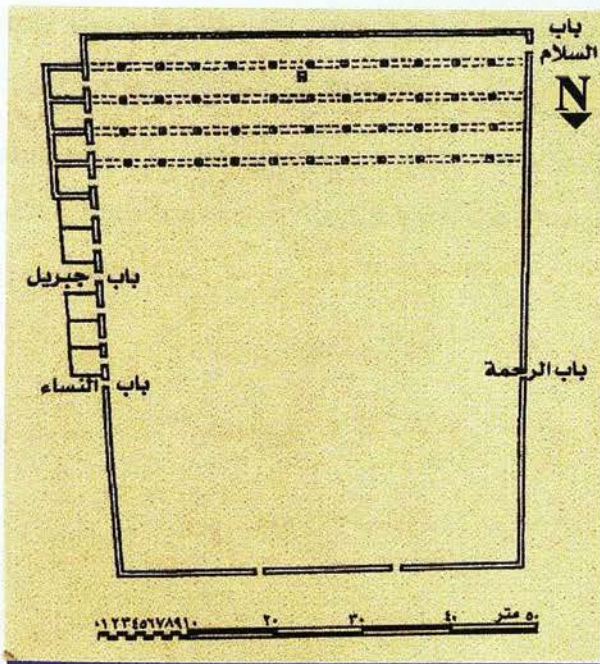
Three more doors were added to the original three as follows:

- The north wall: two doors (one new)
- The eastern wall: the door of Jebrael (Uthman), and the door of Al-Nisa
- The western wall: the door of Al-Rahma (Atekah)
- A new door at the southern end.

No ornaments or inscriptions were made by Caliph Omar who died on 26th Thul-Hijja 23AH and was buried next to the Holy Prophet (PBUH) and Abu Bakr, May Allah be pleased with him.



(69) the Ground Plan of the prophet's mosques during the reign of Umar Ibn Al-Khattab "634-644 AD"



(70) the Ground Plan of the prophet's mosques during the reign of Othman Ibn Affan "624-656 AD"

2-1-3-2-3 The Holy Prophet's Mosque (PBUH) during the reign of Uthman Bin Affan:

Six years after Uthman Bin Affan (May Allah be pleased with him) had taken the caliphate, it was necessary to enlarge the Holy Mosque and renew its pillars. The repairs started in Rabi-I, 29AH / December 649AD and lasted approximately ten months. The Holy Mosque became 79.88m long and 58.76m wide. There were five rectangular parts divided by pillars parallel to the wall of the Qibla. This expanded the area of the Holy Mosque by 23% compared to the area during the reign of the Caliph Omar.

The method and material of construction differed from before. Stone replaced adobe, and the Holy Mosque was rebuilt of engraved and inscribed stone and gypsum. The pillars were rebuilt with engraved stone using steel covered with fused lead in order to keep the pieces of stone together. This technique was taken from Byzantine architecture. It was also used later in the dome of Al-Sakhra in Al-Aqsa Mosque. The ceiling was made of Al-Sag wood and the ceiling perched on wooden beams supported by the pillars. The walls were covered with a layer of gypsum. Some windows were made in the eastern and western walls. The Holy Mosque continued to have the same six doors made in the era of the caliph Omar Al-Khattab.

Because of the caliph Omar's assassination, a barrier was built around the mihrab to protect the imam with openings in it so that the worshippers could see the imam. This was built of adobe.

2-1-4 The Holy Prophet's Mosque (PBUH) during Omayyad Period

There was no expansion during the Omayyads, except that Waleed Bin Abd Al-Malik ordered the Governor of Madinah, Omar bin Abd Al-Aziz, to rebuild the Holy Mosque annexing the rooms of the Holy Prophet's honourable wives in Safar 88AH (January 707AD). The demolition was carried out by laborers from Madinah while the masons to rebuild the Holy Mosque were sent by Waleed in Rabi-I 88AH (February 707AD). The construction was completed in the year 91AH / 710AD, the year when Waleed performed Hajj and visited the Holy Prophet's Mosque (PBUH).

Al-Waleed also ordered the land surrounding the Holy Mosque bought. This added an area of 100m x 100 m and historians agree that the measurements of Holy Mosque became 200m x 200m.

Different sources describe Omayyad plan as follows:

Qibla Section: 5 parallel corridors in the direction of Qibla. (Three in the Holy Prophet's original Mosque, one in the expansion of Omar Bin Al-Khattab, one in the expansion of Osman Bin Affan). 18 perpendicular corridors to the Qibla wall. (Actually from the Holy Prophet's Honourable Grave): ten corridors to the actual Holy Mosque, one in the expansion of Osman Bin Affan and two in the expansion of Waleed Bin Abd Al-Malik. In the eastern side, three corridors in the expansion of Waleed after annexing the rooms of the honourable wives of the Holy Prophet (PBUH).

East: Three corridors parallel to the eastern wall.

West: Four corridors parallel to the western wall.

North: Five corridors parallel to the northern wall.

The northern and southern sides had an opening to the courtyard with 11 arches on ten pillars, while the Western and eastern sides were had an opening to the court with 14 arches on 13 pillars; the arches were slightly pointed as common in many Omayyad buildings. On the top of the work Waleed's name surrounding the courtyard and above the bastions.

The method of construction was as follows:

The foundation was made of stone. The pillars were made of carved stones, connected to each other with iron rods clad with fused lead. Joining these at their tops was teak pillar bridging. The pillars had squared bottoms and gold plated tops. The pillars were covered with a white layer similar to white marble.

There were two roofs to the Holy Mosque, one above the other. The lower roof had a height of 23 feet (11.45m) and the upper roof of 25 feet (12.45m). The Holy Mosque was surrounded by four main doors, Salaam Gate and Al-Rahma Gate on the western wall, Jebrael Gate and Women's Gate on the east.

The Holy Mosque was ornamented with teakwood particularly around the main Arch. It is worth mentioning that Omar Bin Abd Al-Aziz took particular care of the artificial, lower roof or ceiling.

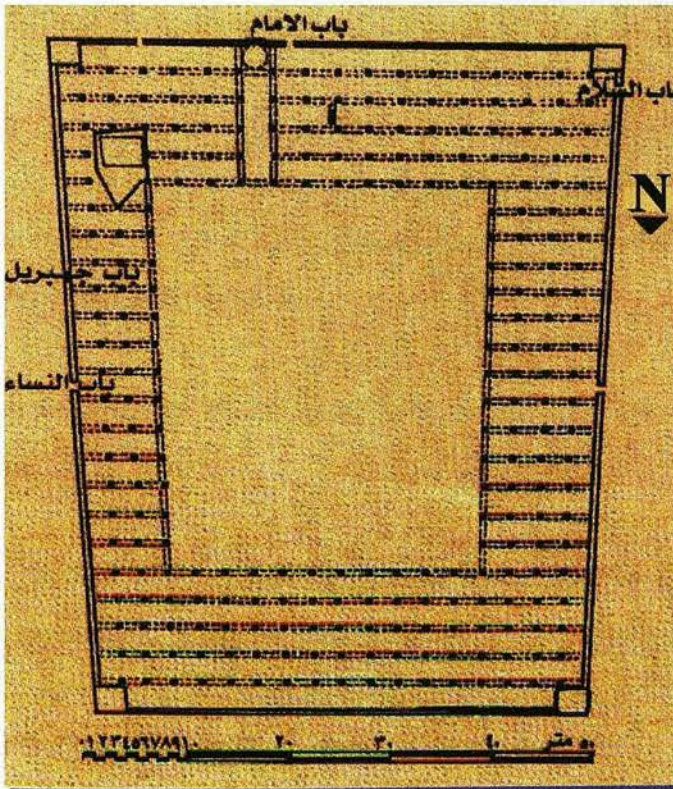
Minarets were erected at each corner, having a square plan of 8x8 ft. (about 4x4m) with a height of 55ft. (27m) or 60ft. (30m). The southern minaret at the back of the Holy Mosque was demolished when Sulaiman Bin Abd Al-Malik performed Hajj, as he found a Muazzin peeping at from that minarets.

With respect to the Holy Prophet's Honourable Grave, the walls were erected around the Holy Prophet's Honourable Room with carved stones with no door in a hexagonal shape around the Honourable Grave having uneven sides. The walls of this Honourable Room did not reach the ceiling of the Holy Mosque but terminated 2 feet before the ceiling. A wooden window served as a source of light.

Six steps were added to the pulpit during the time of Ma'awiya Bin Sufyan by his governor of Madinah, Marwan Bin Al-Hakam. A door-like window fronted these nine steps.

Two new things were added at this time, the minarets and a caved mehrab. The minarets were like the minarets of the Main Mosque in Basra, founded by Ziyad during the period of Ma'awiya in 45H/665AD. They were also like those of the Main Mosque

of Amr Bin Al-Aas during the expansion in 53H / 672AH and also during the period of Ma'awiya. It is worth mentioning that the oldest minaret in any Islamic structure is found in the Western Palace of Al-Hair in Syria (110H/730AD), followed by the minaret of Al-Qairwan Mosque (221AH/836AD). It is also worth noting here that minarets of both square or round plan were normally found in Roman and other historical buildings.



(71) the Prophet's Mosque in the Period of Omayyad (Ground Plan) "661-752 AD"

2-1-5 The Holy Prophet's Mosque (PBUH) during Al-Abbasid Period:

No expansions were made during Al-Abbasid period, except during the period of Caliph Mahdi who extended the Holy Mosque by 100ft. (49.80m), not towards the Qibla, or, the West nor East.

After the above expansion the Holy Mosque had 17 pillars in the direction of Qibla, and 28 pillars in the direction of the eastern and western walls. There were five sections in the Southern side (Qibla) and five sections to the North, three to the East and four to the West. With respect to the courtyards, there were 11 pillars South to North and 19 pillars East to West. The upper parts contained some wooden barriers most probably to shield people from the sun.

There were 24 doors in the walls. 8 in the eastern wall (towards the market), 8 in the western wall, 4 in the northern and 4 in the southern Qibla wall. The door from where the Governors used to enter was around Dar Marwan, the door to the left of the Qibla was used to approach the Holy Prophet's Honourable Room, the door right of the Qibla (The Lantern-men Door) and the door toward the Qibla was for the Sultan to approach the Holy Prophet's Honourable Room.

Mahdi demolished the Omawiat construction around the Holy Prophet's Honourable Grave, and lessened its area and annexed it to the Holy Mosque. Mahdi's expansion started in the year 162AH / 778-9AD and continued until 165AH / 871-2AD. The Holy Mosque was also decorated with mosaics.

Beside the above expansion of Mahdi there were other works carried out during the Abbasi period as follows:

- 1- During the time of caliph Mansour, before Mahdi, the Governor of Madinah, Al-Hassan Bin Zaid Bin Al-Hassan Bin Ali, placed marble and expanded the Holy Mosque from the sides extending it to the point where people got down from their horses or camels, in the year 151AH/767AD.

- 2- During the period of the caliph Haroun Rasheed, the roof from the side of the Holy Prophet's Honourable Grave was repaired in Jumad-I 193H / Feb. 20).
- 3- During the period of the caliph Al-Ma'moun in the year 202H/817AD) some repair work was done.
- 4- During the period of the caliph Al-Mutwakkil Ala-Allah, the walls were covered with marble to a height of 1.75m, and also the floor was tiled with white marble and some of walls decorated with mosaic and changed, in the year 246-7H / 860-1AD).
- 5- Caliph Al-Muatadid carried out some repairs in the western side up to the courtyard; in the year 282AD/895AD).
- 6- Caliph Al-Muqtafi, renovated the marble on the walls towards the Honourable Grave, and also made some repairs to the western wall of the Honourable Room encompassing the Honourable Grave of the Holy Prophet (PBUH); during the year 548AH/1153AD.
- 7- Caliph Al-Mustadi covered the outside walls of the Holy Prophet's Honourable Grave with marble.
- 8- Caliph Nasser erected a dome in the middle of the courtyard in order to safeguard the precious books such as the Qur'an of Caliph Osman and other; in the year 576H (1180-1AD). He also renovated the eastern wall from the northwest minaret.

2-1-6 Holy Prophet's Mosque (PBUH) during Al-Mulouki Al-Bahri Period:

The Holy Mosque remained as it was during the Abbasis until it had a fire on 1st Ramadan 654H / 22 September 1256AD.

The Abbasi state made repairs through the caliph Al-Mo'atasim Be-Allah, starting in the year 655AH/1257AD. The repairs came to an end when the Tatars invaded Baghdad, ending the Abbasi state in the year 656AH/1258AD. During this period, the roof of the Holy Prophet's Honourable Room and its surroundings to the wall at Bab Jebrael and in the south till the Qibla and to the west till the minaret were carried out. The debris was not removed from the Honourable Room of the Holy Prophet (PBUH) due to the difficulties, which would have involved a complete restructuring.



(74) the Prophet's Mosque in the Mamlouk Period "1250-1517 AD"

2-1-7 Holy Prophet's Mosque (PBUH) during Al-Jarkasi Era

From the beginning of the Al-Jarkasi state (784-923AH/1382-1517AD), the repairs to the Holy Mosque were given priority. The first Jarkasi sultan, Barquq, sent a pulpit in the year 797AH/1394-5 AD, followed Section by another sent by Sultan Al-Muaiyed erected at the place of Sultan Barquq's pulpit in the year 820AH/1417AD.

After this Sultan Birisbai carried out repairs to the two corridors over the courtyards which were added by his preceeder, Sultan Nasser Mohammed Bin Qalawoun, towards the Qibla Section in 831AH/1428AD. This was done in addition to the repairs done to northern roof behind the northwestern minaret.

During the first era, the courtyard pillars in the western direction were demolished followed by the roof. These were replaced with lead-fused pillars. The western wall from the northwest minaret was demolished and reconstructed from the foundation. Repairs were also carried out on those minarets. It is worth noting that the repairs to their bases used mud, gypsum and washed sand. The roof was repaired with stones covered with gypsum from inside and outside.

During their second era a number of works were carried out, particularly in the Rawda Area and the Dome of the Holy Prophet's Honourable Grave. The Rawda roof was raised, as was some of the roof on the western side of the pulpit. The previous construction was of wood arches extending from the top of the pillars for the lower roof and the upper roof. The wooden arches were replaced with baked-brick extending to the pillars in the courtyard, resulting in a higher roof in this area compared with the remaining area to the Qibla. Twin roofs were used, as with other areas. The lower roof was repaired in the section west of the Holy Prophet's Honourable Grave. Also the roof for the corridors between Bab Jebrael and Bab Al-Nisa along with the lower roof in front of the Holy Prophet's Honourable Grave in the south were repaired. Al-Zahir Beeber's name was engraved on them. He also repaired some part of the northern section's roof.

2-1-8 The Holy Prophet's Mosque (PBUH) during Al-Ottoman Era

Since the seizure of Egypt by the Ottomans in the year 923AH/1517AD, the Hejaz came under their rule. The first to carry out the repairs on the Holy Prophet's Mosque (PBUH) was Sultan Sulaiman Al-Qanouni.

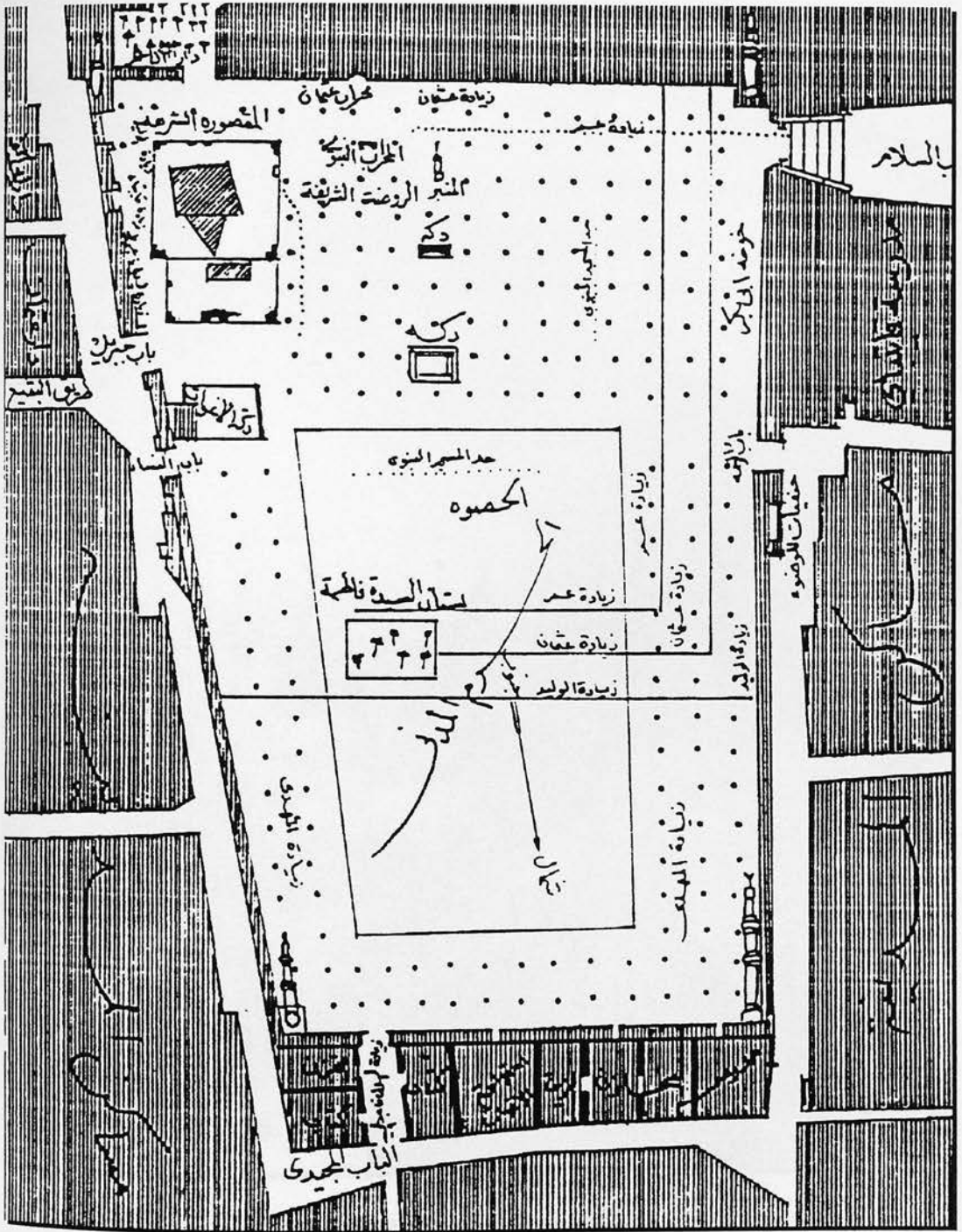
The main construction started in Rabi-I 947H, Aug. 1540AD. He replaced Bab Al-Rahma and Bab Al-Nisa. The northwestern minaret was demolished and was replaced with a new minaret with a foundation 13ft deep and a square base of 7x7ft (4.59m). The Sulaiman minaret consisted of 3 floors. A lower floor to the roof of the Holy Mosque, a second octagonal floor, and a third circular one. Each floor had a balcony. It is likely that the top of the minaret was cone-shaped in line with Ottoman design. White polishing work was also carried out inside the Holy Mosque and on the pillars.

The western wall from Bab Al-Rahma was demolished up to the northwestern wooden minaret in the year 974AH(1566-7AD). Also Al-Rawdah was covered with marble along with the walls of the Honourable Room. The lead on the dome over the Holy Prophet's Honourable Grave was mended and a crescent was erected on top of it and on top of the four minarets.

During the period of Murad III (982-1003AH/174-1595AD), the Qibla wall was renovated and also the Rawdah in the year 999AH/1590-1AD), and a superb marble pulpit was placed in the Holy Mosque in the year 989AH/1598AD).

A large expansion was carried out during the time of Sultan Abd Al-Hameed-I (1178-1203AH/1774-1789AD). Marble was placed from Bab Al-Salaam to the area facing the Holy Prophet's Honourable Grave. Also the Qibla wall was marbled from Bab Al-Salaam up to the southwestern main minaret and marble was placed on the first row in the Rawda area in the year 1191AH/1777AD.

During the period of Mahmoud-II, when Ibrahim Basha Bin Mohammed Ali Basha was the Governor of Hejaz and Jeddah and Mayor of Madinah, he carried out construction in the year 1233AH/1817-8AD.



(75) The Ground Plan of the prophet's Mosque in the Osmani Period "1517-1918 AD"



(76) The Prophet's Mosque in the Osmani period (general View)

During the period of Sultan Abdul Majeed-I, (1255-77AH/1839-61AD), one of the largest projects of Ottoman era was carried out, rebuilding the whole Holy Mosque which took twelve years from 1265-77AH / 1848-61AD. The Qibla wall still carries some traces of this expansion.

The pillars were carved of red stone covered with marble and gold plating. The Holy Mosque kept its four original doors but a new gate in the north was added, Al-Majeedi Gate. The wooden minaret was replaced with a new one. Two new sections were added to the northern section each having four rooms. Between the sections, there was a staircase leading to the ablution area on the first floor and there were two ablution areas beneath the Holy Mosque. The western section was without any roof, and was had an area to store oil, lanterns and prayer mats. The other section housed kindergartens consisting of two floors. The southern hall of the courtyard was reserved for women and surrounded by a wooden fence. The base of the pillars was cast with brass.

The rebuilding strategy was to demolish the Holy Mosque and rebuild in phases so as not to jeopardize the worshipers. This prolonged the construction, and the whole Holy Mosque was reconstructed except the Honourable Grave of the Holy Prophet (PBUH) and the northern and eastern walls, excepting the minaret areas. The stones for construction were brought from Al-Aqeeq valley near Abyar Ali to the east of Madinah.

Two more corridors were added in the Qibla direction so that the number of corridors became 12. Almost the whole of the Holy Mosque of the Holy Prophet's time was roofed. The western side was extended from Bab Jebrael by 3.25m, expanding the size between the wall and the Holy Prophet's Honourable Room, and an ablution area was made between Bab Jebrael and Bab Al-Nisa.

In the time of Sultan Abdul Al-Aziz (1277-93AH / 1861-76AD) an entrance hall was added to Bab Al-Salaam in shape of a semi-circle covered with porcelain tiles having decorative painting, topped with a dome. The front was topped with marble, carved with curved pictures of plants.

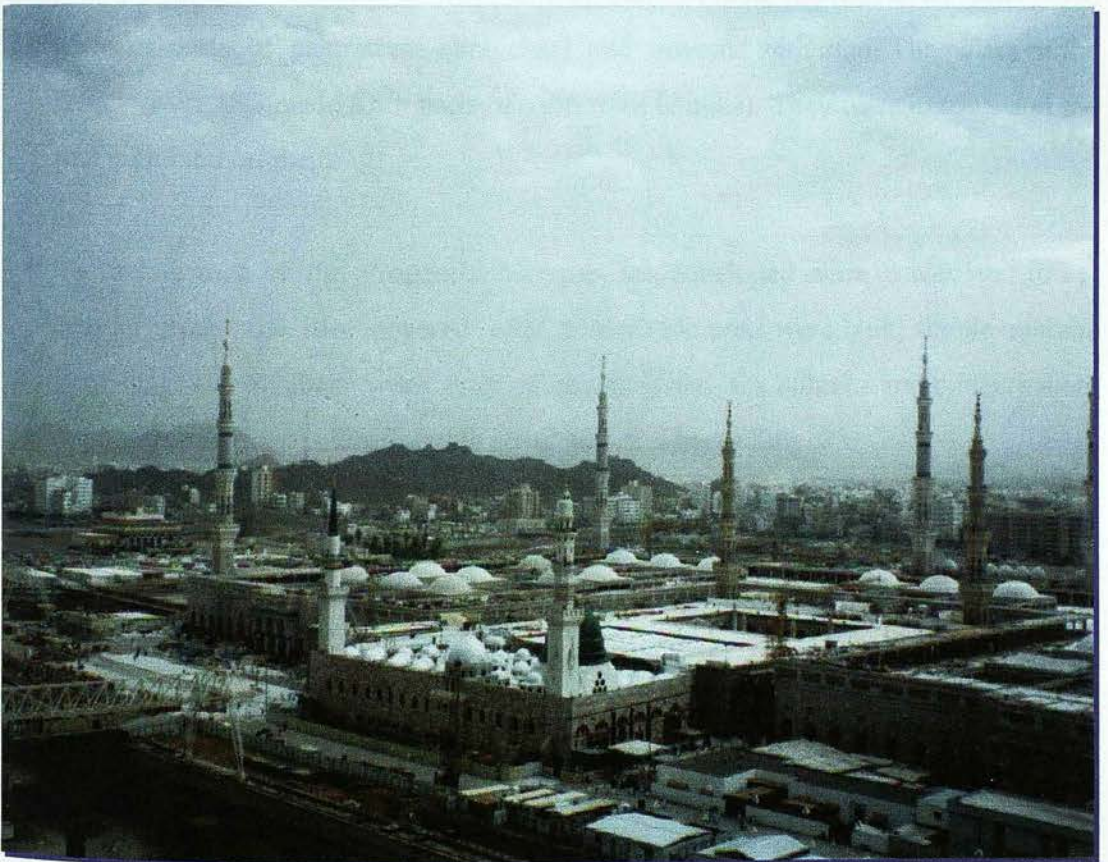
2-1-9 The Holy Prophet's Mosque (PBUH) during Saudi Era:

Since the formation of the Kingdom of Saudi Arabia the Holy Prophet's Mosque (PBUH) held an important place with the rulers. At the time of founder of the Kingdom, late King Abdul Aziz Al-Saud, (died in the year 1373AH/1953AD), repairs were carried out to the floors of the corridors around the courtyard in the year 1348AH/1929-30AD, followed by some work on some of the pillars. His son, King Saud, completed some of the repairs and expanded the corridors surrounding the Holy Mosque.

The biggest expansion in history was carried out during the era of the Custodian of the Two Holy Mosques, King Fahd bin Abdul Aziz. These are the highlights of this expansion:

- 1- Expanding the Holy Prophet's Mosque (PBUH) from 16,500m² to 98,500m² in addition to the vast plaza around the Holy Mosque, bringing the total area to 235,000m². Hence the Holy Mosque can accommodate over a million worshippers during Hajj and Umra.
- 2- Increase in the minarets from four to ten; the newly added six minarets having a height of 104m. The Holy Mosque doors have been expanded to 16 main entrances and 14 small doors, with 6 entrances to the top floor.
- 3- Building of special area for the escalators having an area of 375m², each section having two escalators.
- 4- Addition of 70 doors to the Holy Mosque, bringing the number to 86.
- 5- Erection of 36 mobile domes, first ever in any Holy Mosque in the world. These mobile domes are moved in order to open or close the roofs as per the required weather conditions.
- 6- A complete network of water, sewerage and storm-water drainage.
- 7- Complete harmony was kept between the expanded Holy Mosque and the original Holy Mosque with the possibility of adding another floor to the new expansion, when necessary.
- 8- Islamic art was used in the roof, arches and pillars.
- 9- A complete network for lighting, fire fighting and drinking water.

- 10- Usage of special marble as an insulator for the heat.
- 11- A separate power station with a capacity of 100mw, costing SRs.80,000,000.
- 12- Air-conditioning of the Holy Mosque through specially built AC plant far from the Holy Mosque.
- 13- Multi-story car park having a capacity of 4,444 cars.
- 14- The expansion project covered almost the whole area, which used to be Madinah City during the period of the Holy Prophet's (PBUH).



(77) Picture Showing the Project of the Custodian of the tow holy mosque King Fahad Ibn Abdulaziz Al-Saud for the restoration and expansion of the Prophet's Mosque (1982-AD)

2-1-10 Cultural & architectural characteristics of old Mosques in Madinah

- 1- Most of the old Mosques in Madinah were characterised by being connected with the places where the Prophet (peace be upon him) prayed. For example the Jomoa'a Mosque was built where he prayed the first Jomoa'a in Islam (Al-Jomoa'a is a special prayer at noontime on Fridays) and Al-Mosalla Mosques were built where he performed the prayers of Al-Eid.
- 2- The basic idea of the design of old Mosques of Madinah was affected by the idea of the Prophet's Mosque, which was built in the first year of Al-Hijrah.
- 3- The idea of the design of the Prophet's Mosque is mainly a rectangular gallery in the southern side extending from the East to the West. This gallery leads to an uncovered courtyard to the North. The latter is square and has the main entrances of the Mosque. The Prophet's Mosque was built of mud, the roof of its gallery was made of parts of palm trees (branches) and covered with mud. The pillars of the gallery were also made from parts of palm trees (trunks). They were in rows and the roof was fixed on them.
- 4- The architecture of the Prophet's Mosque has developed since. It was later to be built of stone, the roof covered with domes; minarets were built, simple mihrabs were built and minbars were built of stone. Then the mihrabs and minbars were developed into ones built of marble accurately and beautifully.
- 5- The Osmani restoration of Madinah's Mosques is considered the richest of all. A lot of these Mosques are still there up till now, such as the Mosques of Al-Eid, Al-Rayah and Banu Quraiza.
- 6- The Osmani architecture in Madinah was characterised by its minarets and domes. Some of the decorations were made of black stone. Many mihrabs were built with their cavities decorated with large groups of ornaments and paintings. Lavishly ornamented marble minbars also decorated with paintings were made as well, platforms were built for muezzins (men who call for prayers) and many stone pillars and formations surrounded the outside of these Mosques.

- 7- Domes, unknown of before in Mosque architecture, appeared in the Osmani era. Al-Anbaryah Mosque is an example of this. The domes over the mihrab spaces were one of the new architectural elements and differed from other domes.
- 8- Minarets of old Mosques were characterised by having one or two rows of formations at the bottom of the balcony of each one in addition to the top end of them which resembled inverted stone lanterns. Other minarets ended with pyramid shapes with copper crescents on top.
- 9- The Prophet's Mosque was lit by a group of windows around the dome. These windows, additional to the opening windows on the walls of the Mosque, were of coloured glass.
- 10- Leaves and depictions of plants and geometric figures appeared around the mihrabs and inside their domes.
- 11- Most of the Mosques in Madinah were painted white inside and outside while some ornaments and pillars were left with their natural stony colour as in Al-Anbaryah Mosque.
- 12- Most openings like windows and doors were rectangular with stone halves of chaplets on top of each.
- 13- The architecture of Mosques expressed the function as being apart from that of other buildings like arbitan (hostels), schools and houses. Also the ground plan expressed the main element of the Mosque.
- 14- The architecture of old Mosques had different features. Straight lines and curves decorations were clearly differentiated. Also, interior decorations differed in the colours used and the stone decorations left with their natural colours and texture.
- 15- Some Mosques had some services like bathrooms and places for ablution. These services were often on one side of the open courtyards.
- 16- Stone spouts were fitted on the edges of the roofs to shed rainwater.

Part Two

Chapter Two

History and Architecture of Libraries in Madinah

Chapter 2

2-2 History and architecture of libraries in Madinah:

2-2-1 Introduction

Building libraries was one of the important characteristics of the people of Madinah in the past. Libraries were common in the dwellings as well as schools and rebats. Some libraries were housed in separate buildings that were specially designed for that purpose, such as that of Aref Hekmat. This interest in building libraries increased during the Omayyad and Abbasid periods, and peaked during the Ottoman era. Almost all the well-known families in Madinah had private libraries containing many rare books and manuscripts. Different historians tell about many of Madinah's libraries, their names, locations, number of books and even their most important books and manuscripts.

2-2-2 Old libraries mentioned in the books of historians and travelers

In the past, libraries in Madinah were known as 'kutub-khanat', a Turkish word introduced during the Ottoman reign. Al-Samhoudi said in his book about Madinah (1)(*Al-Samhoudi 1505*) that Sultan Qaitbay ordered Al-Ashrafia School to be opened in Madinah and sent lots of books with Al-Bahaie Baha' Al-Din to be given to the school as a gift. This shows that there were large libraries in the city at that time. Ali Bin Mousa's manuscript, dated on 27 March 1886 AD, (2) (**Bin Mousa 1878**) gives us the names of the most famous ones:

- 1) Aref Hekmat Library, which was the best and most organized.
- 2) Amin Bin Shiekh Al-Haram Library which was in Al-Muderia alley.
- 3) Al-Mahmoudia Library belonging to Sultan Mahmoud.

As for the ones in rebats and schools:

- 1) Basheer Agha School Library which was next to Bab Al-Salam.
- 2) Al-Hameedia School Library.
- 3) Uthman Bin Affan Rebat Library.

During his visit to Madinah in 1905, Ibrahim Ref'at, the historian, said that the total number of libraries there was 18. (3) (Ref'at 1705). He also said that there were lots of valuable books in Madinah but that they were scattered here and there. The following libraries were among the most important of those, which were attached to schools:

- 1) Sultan Mahmoud School Library, at Bab Al-Salaam, having 4596 books.
- 2) Abdul-Hameed The First School Library, having 1669 books.
- 3) Basheer Agha School Library, next to Bab Al-Salaam, having 2063 books.
- 4) Al-Shefa' School Library, constructed by Shiekh Faidh Allah having 1246 books.
- 5) Aref Hekmat School Library, near Bab Jebril at the Prophet's Mosque. This was the best, the cleanest and the most well organized, having 5404 books.
- 6) Umar Afandi School Library, having 1269 books.
- 7) Mustafa Afandi Al-Sakethi School Library, having 593 books.
- 8) The library of Amin Basha the late shiekh of the Prophet's Mosque, having 158 books.
- 9) Mustafa Afandi School Library, which was called Al-Ihsania school, having 461 books.
- 10) The school library of Hussein Agha, who was the supervisor of the Egyptian Hospice in Madinah, having 100, books.
- 11) Amin Afandi Al-Fanayerji School Library, having 100 books.
- 12) Al-Kubli Al-Nazer School Library having 157 books.

During his visit to Madinah in 1327 A.H., Muhammad Labib Al-Batanoni the writer of *Al-Rehlah Al-Hejazia* (Hejazi journey), gave us a brief description of the libraries in the city, saying that there were many 'kutubkhans'. He said the best of them were the ones of Aref Hekmat, Sultan Mahmoud, Sultan Abdul-Hameed 1st and Basheer Agha in the tailors alley as well as the one at the rebat of Uthman, which had the most valuable books on the school of jurisprudence of Imam Malek. He also said that there were around 30,000 books in the libraries of Madinah. (4) (*Al-Batanoni-1988*)

2-2-3 Libraries in people's memory

Libraries played an important role in people's lives and so are remembered well. They used to be the only sources of people's knowledge and information. A library was the place where scholars and well-educated people met and exchanged knowledge. Old libraries in Madinah varied according to their contents. Some were specialized in the aspects Islamic Law and others were specialized in other sciences. Some people used to visit those libraries to read or borrow books; others worked there and did their best in serving them. Among the old Madini people I interviewed was Sheikh Muhammad Al-Farouki, who was a keen library visitor. He had a private library, which he opened for the public in later years. He was very saddened for the demolition of old libraries and especially the loss of Aref Hekmat's, which was one of the important landmarks in Madinah. He wished the old city had remained untouched. He ended his interview by saying 'You future generations will be sorry for what your fathers did, but then being sorry will not do you any good.'

2-2-4 The development of the architecture of old libraries in Madinah

Libraries in Madinah were the cultural axis and the places where students and educated people met. Most were attached to schools and rebats, with only a few, like Aref Hekmat's, being independent. These libraries used to receive visitors and provide services to them. Visitors were allowed to read books there or to borrow books in return for something deposited as a guarantee that the books would be returned safely.

Initially, libraries spread very slowly and in a limited way. They were just parts of rooms or rooms in schools or rebats. In the 13th century, Hijrah, their number reached its climax. By the end of the Ottoman reign, there were 88 private and public libraries. Being close to the Prophet's Mosque, most of them were removed because of the consecutive Mosque expansions. The Saudi State realized the importance of the valuable books and manuscripts contained in the old libraries and built the present public library to house them. Then, King Abdul-Aziz Library was built to keep the contents of most of the old libraries.

2-2-5 The location and its relationship with the cultural texture

Choosing the location of the old libraries was not done haphazardly or at random, but was done according to specific criteria. For example, libraries had to be seen from as many public places as possible to be easy to reach. Accordingly, the libraries overlooked important public plazas, cross roads and the Prophet's Mosque itself. The relationship between the location of libraries and the cultural texture can be described by two main points:

- The relationship with the Prophet's Mosque (the centre of the city)

The Prophet's Mosque has always been the core and the centre of all the activities in the city. That is why the buildings, which housed these activities, in addition to public utilities and services, had to overlook the Mosque or part of its surrounding plazas. Moreover, some libraries were named for gates or plazas of the Mosque.

- The relationship with elements of cultural texture

All the cultural and textural elements in the old city used to live in harmony and integration with each other. Libraries, for instance, matched the neighbouring buildings in height and material, though sometimes their elevations differed according to usage.

The most famous and important libraries in Madinah

2-2-5-1 Al-Mus'haf Al-Sharif Library

This library was built as a separate project inside the Saudi expansion of the Mosque in King Faisal's reign. It was on a mezzanine floor above Bab Al-Siddiq. One entered through a door in the northern part of Bab Al-Siddiq, which led to stone stairs joining the floors of the library and the Mosque itself. The ground plan of the library was a large rectangular hall running north to south. It had four windows through which the inside of the Prophet's Mosque could be seen.

The books were organized in beautiful cupboards according to their importance and age. The cupboards were made of valuable, decorated wood. Verses from the Holy Qur'an and poetry were written in silver on them. They were given to the Mosque as a gift from the mother of Abbas Basha the 2nd in 1328A.H.(5) *(Al-Batanoni-1988)*

One of the library's most valuable things was a manuscript containing the Holy Qur'an written by Ghulam Mohie Al-Din in 1240A.H.in beautiful script. There were 1900 Qur'an Books written by hand, some of which were written in the 6th century Hijrah. (6) *(Al-Batanoni-1988)*

2-2-5-2 The Honourable Haram Library.

This library was built in 1352 AH. (7) *(Al-Batanoni-1988)* It was Mr. Obaid Madani's suggestion when he was the manager of Madinah endowments in the fifties of the 14th century Hijrah. The government approved it and then it was opened during his career.

The library lay on the back upper floor of the Prophet's Mosque (the northern side of the mosque). Later, when Mr. Ahmad Yaseen Al-Khiary took over its management, he joined some private libraries to it and gave it a lot of his own books in addition to its beautiful cupboards. After the first Saudi expansion to the Mosque, the upper floor was removed and the library was transferred into the general library building, which was built by the Ministry of Hajj and Endowments.

2-2-5-3 Aref Hekmat Library

This library was built in 1270 AH. It lay to the south east of the Prophet's Mosque and had 6726 books, 2008 of which were printed and 4718 were written by hand. The library had a lot of rare and precious books. It had endowments in Istanbul, which were wholly dedicated to its direct support. This was all overseen by the Islamic Courts in Madinah and in Istanbul.

2-2-5-4 Al-Mahmoudia Library

This library was built by the Ottoman Sultan, Mahmoud in 1272A.H.in the western side of the Mosque. It had 7790 books, of which 3072 were printed and 4718 hand written. It also had endowments set by Sultan Mahmoud and registered in Madinah and Istanbul.(8) (*Al-Batanoni-1988*)

2-2-5-5 Al-Madinah Al-Munawwarah Library

This library was built by the Saudi government in 1380A.H.to the south of the Mosque, right next to the Islamic Court. It had 14748 printed and handwritten books. It was built mainly to gather the libraries of Madinah, whether from rebats or schools, into one building. Mr. Ja'far Faqeeh, the manager at that time, gathered 13 libraries into it. Mr. Ali Hafez gives some information about the contents of the library in his book: Fosool Min Tareekh Al-Madinah (Chapters of the history of Madinah). (9) (*Al-Batanoni-1988*)

no.	library name	no. of books taken to the general library
1	Sayedona Uthman Library	1537
2	Al-Shefa' School Library	1520
3	Al-Saqezli School Library	1024
4	Al-Ihsania School Library	374
5	Al-Erfania School Library	1350
6	Rebat Al-Jabart Library	105
7	Al-Qazania School Library	2952
8	Qurrat Bash School Library	150
9	Sheikh Umar Hamdan Library	2578
10	Sheikh Yaseen Bakheet Library	1050
11	Abbas Helmi Basha Library	200
12	Sheikh Abdul-Hay Abu Khodair Library	60
13	Salem Azmerli and Zain Al-Abedin Tawfiq Library	170

This is in addition to the 2587 books already estimated to be there. The total number of books was 14748.

2-2-6 Aref Hekmat Library

This Library is considered the best of what Aref Hekmat left and the best of the heritage of Madinah in this age. It had over 5000 of the rarest and most valuable manuscripts and books in the world in different sciences and arts.

Sheikh Aref Hekmat built this library in 1852 AD and made it an endowment for the public. He specified many endowments to support it and spent a fortune in collecting its books. (10) (*Aref Hekmat - 1981*)

Among his endowments in Turkey were many houses, shops and gardens. He says in his legal instrument: 'Here I endow forever the following: sixteen Mos'hafs (Qur'ans), my five thousand valuable books, the khan which contains four rooms, one stable and one kitchen, a grocery, a barber shop as well as a group of buildings. These buildings contain a factory, a large bakery and a well, with the garden attached to it. I also endow one piece of land having fruit trees and wells, one public bath named Bekta and eight other shops having doors with domes, one grocery, one butcher's, one green grocer's, one shop for perfumes and spices and four others.' (11) (*Aref Hekmat - 1981*) He also mentioned that the total area of what he endowed in Turkey was about 5559 square arms with a yearly income of about 5000 Ottoman golden pounds.

In Madinah, he endowed five houses. The first was next to Al-Tagori, the second was at Bab Al-Majeedi, the third was in Al-Tayyar Alley, the fourth was at Al-Takarenah Courtyard and the fifth was in Al-Qashash Alley.

The instrument included some conditions concerning how the contents of the library could be used and the way its visitors were to be treated. Here are some of these conditions: (12) (*Aref Hekmat - 1981*)

- 1) No books are to be borrowed or even copied by anyone. They should be used or read only inside the library.
- 2) Anyone who wants to use the library should never be forbidden under any circumstances.
- 3) The keepers should never let visitors notice any disability or lack of books when they deal with them. They should welcome them and increase their desire for more knowledge.
- 4) Four persons are to be hired to take good care of the books. They should be good people who have the time for a full-time job.
- 5) The library should be open from one hour after sunrise till one hour before sunset every day even if no one comes in.
- 6) The keepers should take good care of the books and the other things. They also should serve the place in daily shifts, two at a time.
- 7) All the four keepers should gather every day at the opening hour. They should read all the Holy Qur'an every fifteen days, two parts (chapters) a day and ask Allah to give the reward for this to the Prophet (peace be upon him) and to the one who endowed the Mus'haf (book) itself. They also should always change the four books they use to avoid overusing them.
- 8) Out of the profits of the library's endowments the keepers are given ten French riyals to the first, eight to the second, seven to the third and six to the fourth, every month. Each of them is to be given twelve French riyals every Ramadan as well.
- 9) The keepers should be chosen carefully. For example, no young or notorious people should be hired.
- 10) A good man who really deserves it and is ready to stay all the time is hired as a caretaker for a monthly salary of four riyals.

- 11) The manager of the library should make sure that all the conditions in the instrument are being taken care of and see that the library is always well kept.
- 12) The building is renewed when necessary if the manager sees so.
- 13) The city judge comes to the library once every three years to count the books one by one in front of all the keepers.
- 14) Torn books and manuscripts are renewed regularly.
- 15) Aref Hekmat himself is to be the supervisor of all his endowments for the rest of his life, and then a good man who is known to be religious takes over.

After Sheikh Aref Hekmat had died, the Ottoman government took the supervision on the library and hired its managers according to the conditions of the instrument. Sheikh Nuri Afandi Al-Turkey was one of them. During the time of the Ashraf, Abdul-Qader Al-Hawari took over and continued until the beginning of the Saudi reign. When the Ministry of Hajj and Endowments was formed, it joined up a lot of Madinah's libraries in 1960 AD and this one was one of them, but it stayed in its own old building. (13) (*Aref Hekmat - 1981*)

Here are some of its most famous librarians during the Saudi reign:

- 1) Ibrahim Al-Kharbotli who stayed until 1952 AD.
- 2) Hasan Akenli who worked until 1957 AD.
- 3) Mahmoud Hasan Akenli until 1987 AD.
- 4) Ali Alawi Ibrahim.

Some manuscripts were stolen from the library. Here are some of them (14) (*Aref Hekmat - 1981*):

- 1) A Mos'haf written on ostrich paper in Andalusi calligraphy in 1095 AD by Abdul-Rahman Bin Marzouk Al-Batlayous.
- 2) The book of Umar Bin Abdul-Aziz The Prince of Believers.
- 3) The order of Sharif Basha to transfer sixty books to the library.

- 4) A book about the history of Morocco in ten volumes. A Syrian man could copy a manuscript inside the library. Then he stamped the copy with the library stamp and stole the original one.
- 5) Many manuscripts were sold during the management of some librarians.

The architecture of the library was described in the books of many historians. In his manuscript dated in 1886 AD) (15) (*Bin Mousa – 1878*), gives a description of the library and its contents, employees and service saying that nothing like this could be seen in all the Hijaz area. (16) (*Bin Mousa-1878*) In 1327 AH, Muhammad Labeeb Al-Batanoni who visited Madinah with Khedive Abbas Helmi describes it in his *Al-Rehlah Al-Hijazia* saying: “There are many kutub-khanas (libraries) in Madinah but the best of them is Aref Hekmat’s. It is near Bab Jibreel to the direction of the Qibla. It is a good example of cleanliness and tidiness. The floor is covered with fine Persian carpets. In the middle of the courtyard, there is a fountain made of marble with taps for ablution. It has no less than 5404 precious books. The most amazing thing we saw there is the poetry writings on the door written in a wonderful white calligraphy by Mulla Shahi. As we admired the beauty of the calligraphy and the accuracy of the craft, the manager told us what surprised us more: The letters were fitted on the paper not written on it. When we looked more carefully, we found it more fascinating than it could be described. He also told us that the letters were separated by finger nails before they were stuck on the paper we saw.” (17) (*Al-Batanoni-1988*)

In 1901, Ibrahim Basha who visited Madinah as the head of the National Guard of the Ottoman State and said that the library was near Bab Jibreel and that it was the best, the cleanest and the most beautiful. (18) (*Ref at-1705*)

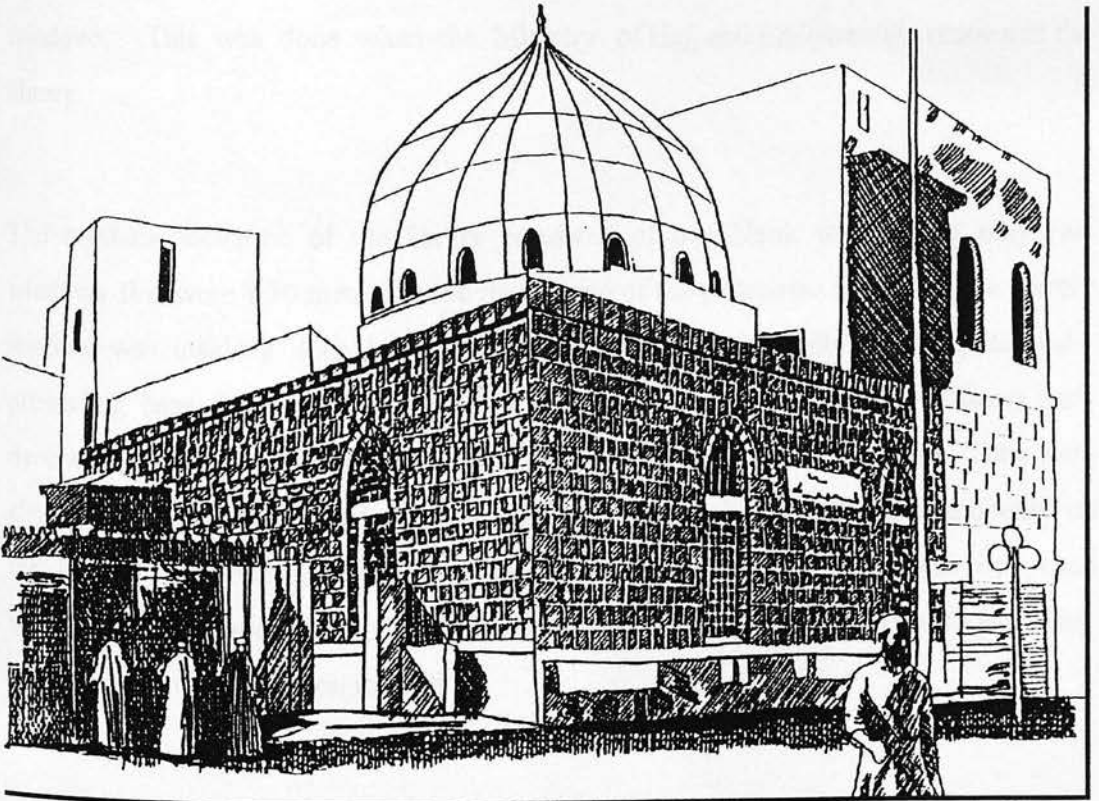
2-2-6-1 The date of building the library

All evidence show that it was built in 1852 AD. This is according to the boards put on the cupboards inside. This date was written on the inside of the library dome in a circular black frame. A verse from the Holy Qur’an was written around it. Thus, it was completed in the time of Ottoman Sultan Abdul-Majeed the First who ruled between 1848 and 1861 AD when he had the Prophet’s Mosque renovated in an operation that took about twelve years. (19) (*Al-Mohami-1986*)

2-2-6-2 The location of the library

Most history books that specified the location of the library agreed on the spot but did not agree on the surroundings that were used to guide people to it. Some historians said that it was near Bab Jibreel to the direction of the Qibla. (20) Others said it was somewhere else near the deputy house. (21) (*Bin Mousa-1878*) Others said it was near Bab Jibreel in the Prophet's Mosque. (22) (*Refat-1901*)

All the above mentioned places were in one area near the southeastern corner of the mosque. A pedestrian street of no less than 12 metres wide separated the library from the wall of the Qibla. The library can be entered through its main door that lay in a narrow alley derived from the above-mentioned street. The places of Abi Ayoub Al-Ansari and Ja'far Al-Sadiq's houses were opposite it.



(01) Aref Hekmat Library, the location. Picture Taken from the air in 1977 AD (23)

(*Town Planning Agency*)

2-2-6-3 General description of the library

The ground plan of the library is a rectangle with both ends in the north and south. It is 21.60 metres long and 14.40 metres wide. It consists of three main parts. They are the reading hall, courtyard and the rooms surrounding them to the south and west.

The building had two doors: the first, which was the main one, in the middle of its front elevation led directly to the courtyard. Two stone seats surrounded it and a sign carrying the library name and building date was over it. The second door was a small one on the left of the main one. It led to the rooms without getting into the reading hall.

After the Ministry of Hajj and Endowments had taken over the supervision, it cancelled the small door. The library was built of black stone called basalt whose colour stayed for long in many parts of its two northern and eastern elevations. The outer formations were made of gypsum and the two elevations were covered by marble up to the base of windows. This was done when the Ministry of Hajj and Endowments renovated the library.

The northern elevation of the library consisted of one blank wall having only two windows that were 1.30 metres above the ground of the pedestrian street outside. Every window was inside a deep hollow surrounded by two round pillars. Each pillar had a protruding base fixed on the base of the window from the outside. The windows were decorated with stony formations that were very accurate and very beautiful. They were also covered with nets made of steel. The first window in the northern side opened on the reading hall while the one in the western elevation opens on a rectangular room used storing books. There was another window with the same design in the eastern elevation. It opened from the inside on the hall.

A rectangular room was above the western part to the north. The room overlooked the pedestrian street through a beautiful wooden oriel. The latter was based on three bars of decorated stone.

A large dome surrounded by a 10.10 metre-high eight-fold base covered the main hall. A brass axis carrying a small crescent was on top of the dome.

The remaining parts of the library; the rooms and storerooms, were covered with different parts of palm trees and then a layer of mud. The parts surrounding the dome were covered with pieces of stone sloping towards a stony spout fixed on the eastern wall to drain away rainwater off the roof.

2-2-6-4 The ground plan

The ground plan of the library consisted of three main parts:

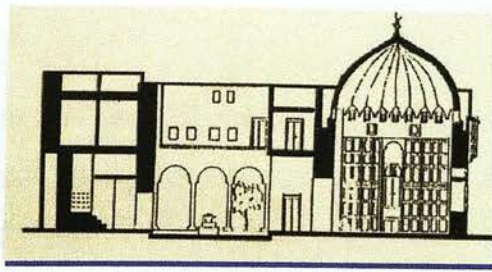
- 1) the main hall
- 2) the court yard
- 3) the service annex

Here we take each part in detail:

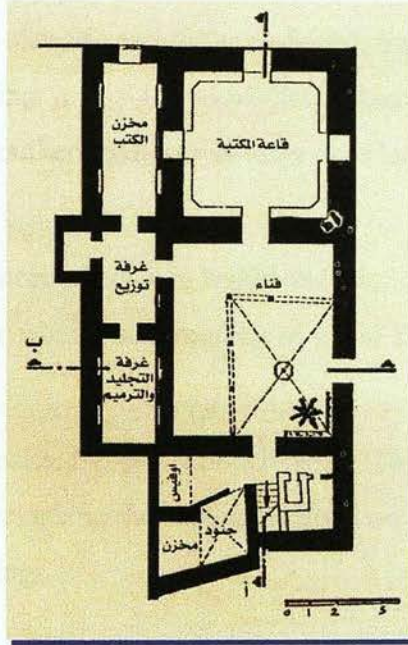
A) The main hall

It was a 7.80 metre-high square. The square shape was turned into an eightfold one by adding four globular triangles in the four corners. The dome had two rows of small windows, the first one had eight windows and the second row had sixteen ones. All the small windows were covered with wooden ones of two parts each. The spaces in these windows were covered with glass coloured in blue, red, green, orange and white.

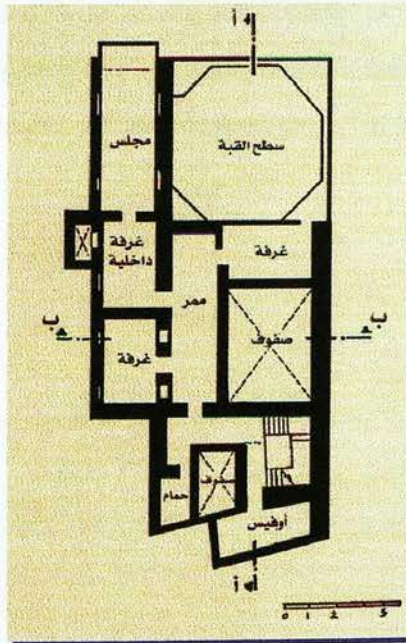
The roof of the dome was decorated with coloured drawings of plants having similar designs to the ones the Qibla of the Prophet's Mosque. (Using such drawings on the roof of domes spread during the Ottoman era.) Among the windows of the first row, there were framed boards with some of the Prophet's followers and family's names written on them. In the middle of the roof, there was a large ring full of repeated drawings of plants. In the middle of this ring, there was a small black circle with a verse from the Holy Qur'an in it. The library's date of construction, (1270 AH) was written under this verse.



(02) Aref Hekmat Library, section A – A



(03) The ground plan for the Library



(04) The first floor plan for the Library

A long chain supporting the main chandelier descended from the centre of the dome. The chandelier had eight lights and some pieces of crystal in different formations. The library had four openings. Each two were opposite one another. The northern and eastern ones were the main windows of the library. They overlooked the pedestrian street between the library and the Prophet's Mosque, and the alley between it and the house of Abu Ayoub Al-Ansari and Ja'far Al-Sadeq, may Allah be pleased with them. As for the western opening, it was a window that looked upon a storeroom, which was locked at that time. The southern one was an inner door leading to the courtyard.

the four openings were nearly equal in height and width. They were 2.70 metres high and 1.40 metres wide. The windows were made of wood and glass.

The door of the library consisted of two wooden parts. The wood used for making these parts was the same used in making the cupboards fitted on all the walls inside, except for above the mentioned openings.

The library cupboards were modified by creating spaces inside them for storing things. The corners were decorated with triangular crowns. A wise saying was written on a small board fitted on top of each one. A frame made of engraved wood and painted with gold, decorated the top edges of the cupboards. The other parts were covered with brown paint.

The floor was covered with fine carpets. There was a table with some chairs for the readers. There was also a small desk for the librarian in one of the corners.

Unfortunately, the library was removed for the sake of creating plazas around the Mosque. The people of Madinah were all happy because of the news that said it would be kept as part of the Prophet's Mosque. But to everyone's surprise, it was totally removed and all the books were transferred into King Abdul-Aziz Library in Manakha, in Rabie II, 1411 AH.

B) The courtyard

The courtyard was in the southeastern corner of the building. It consisted of a small rectangular space that was 7.20 metres long and 5.40 metres wide. Two flagstone paths surrounded it to be used for going in and out of the reading hall or the storeroom. Each path was 3m wide. The southern elevation of the reading hall looked over the courtyard through its main door. The accommodation specified for the manager overlooked the courtyard through four small rectangular windows that admitted light and fresh air. Another group of small windows in the courtyard's southern side admitted light to the stairs and the bathrooms. Many historical sources say that there used to be a small fountain in the middle of the courtyard. (24) (*Al-Batanoni-1988*)

C) The service annex

The ground floor of this annex consisted of two sections. The western sections of the library had a small corridor. There were two rectangular rooms on its sides. The room to the north was 8m long and 2.80m wide. It was used for keeping the library books and other requirements, such as paper, ink and pens. The room's western wall had a small window that looked over the reading hall. It had wooden cabinets with crossed shelves for keeping books. This room looked over the pedestrian street through windows similar to the ones of the reading hall. The roof was built of parts of palm trees just like the traditional houses in Madinah.

The second room of the first section, which was to the west of the corridor, was smaller, 5,60m long and 2.80m wide. It was used for repairing and covering torn and old manuscripts. This room was somewhat similar to the other one, as both of them had two windows each in their western and eastern walls. Inside each window there were shelves for keeping books and manuscripts. There was a very small room to the west of the corridor used for different services.

As for the second section, it was in the south of the building. This section had a separate entrance that led to the bathrooms and some service rooms. It had a skylight along the ground floor for lighting and ventilating its rooms. One could also get to the first floor through some stone stairs beside the eastern wall of the skylight.

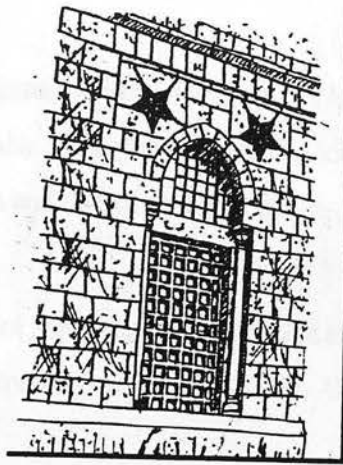
2-2-6-5 The first floor plan

This plan contained the accommodation of the librarian. It consisted of three rooms. The most important of them was the one in the northwestern corner of the library. It was above the storeroom on the ground floor, which was nearly the same size. This room had the only oriels in the building. It looked upon the pedestrian street to the north of the library. There were two rows of them, which covered the whole outside elevation of the room. Each row consisted of five tripartite units. Each unit was covered with the traditional wooden jalousie that is well known in Madinah. From the inside, they were covered with glass, which let light through.

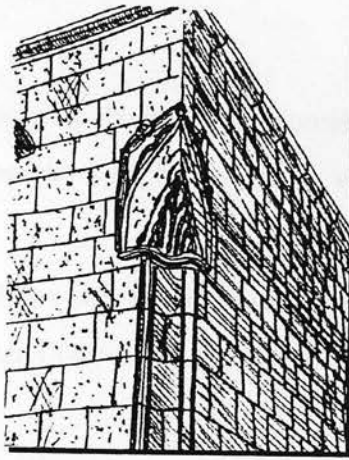
The outer parts of these units could be moved up and down. The room had four hollows shaped like windows in the eastern and western walls. These were decorated with shelves for keeping the inhabitants' belongings.

The roof of this room was also made of palm trees, but it was supported by a layer of wood strips. There were overlapping formations for decoration.

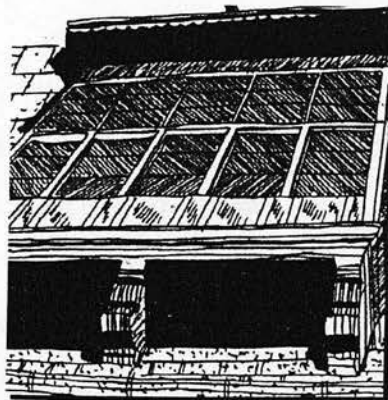
The room could be reached through another room over the ground floor corridor. Ventilation and lighting was provided by a small window on a skylight in the western part of the same corridor, which was used as a centre for different services.



(05) One of the reading hall windows.



(06) The details of the Northeastern corner



(07) The balconies of the upper rooms

2-2-7 Cultural and architectural characteristics of libraries in Madinah

- 1- This type of building spread around the Prophet's Mosque, in the alley of Al-Aghawat and the areas of Al-Saha. Other libraries were associated with Al-Haram (the Prophet's Mosque) like, Al-Haram and Al-Mahmoudiya libraries, appeared there.
- 2- There were two types of libraries: those connected to the arbitan and schools and those accommodated within separate buildings like Shiekh Al-Eslam Aref Hekmat.
- 3- The architecture of private libraries was characterised by luxurious buildings like the above mentioned one.
- 4- The basic idea of designing those libraries consisted of three elements, the main reading area and the additions for books and for services.
- 5- The main hall of the library was an important element even in the ground plan, as it represented more than thirty percent of the whole building.
- 6- The library hall was designed with great skill and care. A large dome roof covered from and its interior was decorated with plant and geometrical motifs. The walls were decorated likewise and cupboards with beautiful decoration were put in the halls.
- 7- The outer walls of the buildings were covered with black basalt, cut into regular pieces. Some stones, such as the rainwater spouts, were decorated.
- 8- Some libraries in Madinah boasted open courtyards, often beside the halls and with galleries separating them.

- 9- Libraries had extra rooms next to the halls. Some were used for covering and repairing the books, others for storing them and special ones set aside for keeping for manuscripts. There were places for services but they were often far from the other rooms and had their own entrances.
- 10- Parts of the first floor were dedicated to the accommodation of the employees of each library. The space of the reading halls remained at the height of two floors.
- 11- Libraries were characterised by the thickness of their walls. In the reading halls it reached 1.5 metres. This made it possible to install some seating in the wall itself under the windows to be used by the sheiks (masters).
- 12- The main entrances of some libraries were designed with care. They looked like a big chaplet, some times as high as one and a half floors. The entrance was inside a deep cavity with a bar of marble or stone on top of it to show the date of construction and the person who did it. Two seats made of dressed stone surrounded it.
- 13- Some small windows and openings looked upon the lanes and alleys while the other windows looked upon the inner court of the library.
- 14- The living rooms on the first floor were devoted to accommodation for the people in charge. Some ornaments and drawings as well as large balconies that looked upon the courts and alleys of the Prophet's Mosque characterised them.
- 15- Horizontal roofs made of different parts of palm trees and mud covered the components of libraries. A large dome made of stone and bricks covered the reading hall.
- 16- The respect for the purpose of the buildings expressed their purpose very obviously, so much that libraries were different from houses and schools.
- 17- The rooms of the libraries had wooden shelves fixed in cavities inside the walls for books and all the things that are necessary for libraries.

- 18- Some libraries had some things to make their places more beautiful, such as fountains and furniture and plants in the courtyards.

- 19- Some libraries had some things to make their places more beautiful, such as fountains and furniture and plants in the courtyards.

3.1 HISTORY AND ARCHITECTURE OF OLD SCHOOLS IN MADINAH

3.1.1 Introduction

The history of Madinah is a long and rich one, with a deep cultural and religious heritage. The city has been a center of learning and scholarship for centuries, and its architecture reflects this history. The old schools in Madinah are a testament to the city's long tradition of education. They were built in various styles, reflecting the architectural trends of the time. The schools were often built in the heart of the city, and they were surrounded by a community of scholars and students. The schools were a place where knowledge was passed on from one generation to the next. The schools were a place where the future leaders of the city were trained. The schools were a place where the values of the city were taught. The schools were a place where the spirit of the city was preserved.

Part Two

Chapter Three

“History and architecture of old schools in Madinah”

The history of Madinah is a long and rich one, with a deep cultural and religious heritage. The city has been a center of learning and scholarship for centuries, and its architecture reflects this history. The old schools in Madinah are a testament to the city's long tradition of education. They were built in various styles, reflecting the architectural trends of the time. The schools were often built in the heart of the city, and they were surrounded by a community of scholars and students. The schools were a place where knowledge was passed on from one generation to the next. The schools were a place where the future leaders of the city were trained. The schools were a place where the values of the city were taught. The schools were a place where the spirit of the city was preserved.

3.1.2 The Role of Old Schools in the History of Madinah

The old schools in Madinah played a significant role in the history of the city. They were a place where knowledge was passed on from one generation to the next. The schools were a place where the future leaders of the city were trained. The schools were a place where the values of the city were taught. The schools were a place where the spirit of the city was preserved. The schools were a place where the community came together to learn and grow. The schools were a place where the city's heritage was kept alive. The schools were a place where the city's future was secured. The schools were a place where the city's soul was nurtured. The schools were a place where the city's identity was defined. The schools were a place where the city's destiny was written.

CHAPTER 3

2-3 History and architecture of old schools in Madinah

2-3-1 Introduction

The old schools of Madinah have a long history, first appearing individually before Islam. In his book *Yathreb before Islam*, Dr. Muhammad Al-Sayyed Al-Wakeel noted that there were Jewish schools where the Jews' children learned about their religion. Rabbis did the teaching there. They did not only teach their children, but also tried to spread their religion. (1) (Dr. Al-Wakeel-1988) The writer also reports what Ustaz Al-Shareef said: 'They (the Jews) had religious institutions which included schools, temples, rabbis.' (2) (Dr. Al-Wakeel-1988)

When the Prophet, peace be upon him, came to Madinah, the Mosque was the first school in Islam. This was the case until the period of Umar Bin Al-Khattab, who ordered separate places for schools and hired teachers to do the teaching. (3) (Dr. Al-Wakeel-1988)

In the flourishing period we now live in, schools are spreading more and more. They were first known as *kuttabs* where people learned reading, writing, reading the Holy Qur'an and other simple sciences such as maths and basic science.

2-3-2 Old schools in the Books of Historians and Travellers

Most writers and travellers talked about the sights of Madinah during their visits to the city. Since the Omawi Caliphate, Madinah has acquired many scientists. This resulted in having a great scientific movement. At first, some small traditional schools (*kuttabs*) began to appear. They taught people reading and writing in addition to the bases of the Arabic language. Bin Kutaiba said in his book, *Al-M'aref*, that Alkamah Bin Abi Alkamah, the servant of Aesha, was one of the teachers. He had a *kuttab* where he taught Arabic grammar and prosody. He died during the reign of Al-Mansour. (4) (*Sharab-1984*)

Mr. Al-Samhoudi, who died in 1506 AD said that Al-Shams Bin Al-Zaman had his school renovated by some of his followers before 878 AH. (5) *(Al-Samhoudi-1505)*

In 888 AH, the supervisor of renovation for the Prophet's Mosque changed the rebat known as Al-Hesn Al-Atiq, with its school, into a rebat for the sultan and a school known as Al-Ashrafia School. This was during the rein of Sultan Qaitbay. It was a large school with valuable books from Egypt. He took good care of it and had parts of it covered with marble. (6) *(Al-Samhoudi-1505)*

Ali Bin Mousa's manuscript, written in 1886 AD, says that there were many schools in Madinah at that time and the following were among them:

1) Al-Mahmoudia School, which was the tidiest and the most famous because it was connected to the Prophet's Mosque between Al-Salam and Al-Rahma doors. The manuscript also says that some of its western rooms had windows looking directly over the Mosque.

2) Al-Hameedia School

3) Basheer Agha School

4) Al-Uzbic School

5) Kelly Nazeri School

6) Shiekh Mazhar School

7) Hussain Afandi School

8) Al-Saqezli School

9) Tharwat Afandi School

10) Mostafa Afandi School

11) Qurrat Bash School

(7) *(Ben Mousa-1878)*

When he visited Madinah with Khedive Abbas Basha in 1327 AH, Muhammad Labeed Al-Batanoni the historian said that the schools in Madinah at that time were not worth mentioning, but that there were 17 kuttabs for teaching the bases of simple sciences.

(8) *(Al-Batanoni-1988)* He also quoted Sultan Qaitbay School as saying: 'They have built a great school and Sultan Qaitbay has specified many endowments for it.

(9) *(Al-Batanoni-1988)*

In 1381 AH, Ibraheem Refat estimated the total number of schools in Madinah at that time as 17, in addition to twelve kuttabs for boys and one high standard kuttab

(10) *(Refat-1901)*

In his book, 'Chapters from the history of Madinah' printed in May 1968 AD, Ali Hafez gives us the names of some of the most famous girl's schools there and their dates of construction: (11) *(Ali-Hafez-)*

- 1) Tahzeeb Al-Akhlak School in Al-Shonah, built 1348 AH
- 2) Fatema Hanem School built by Fatema Hanem ion Al-Saha, built 1350 AH
- 3) Fatema Al-Turkia School built by Fatema Al-Turkia in Al-Habs Alley, built 1353 AH
- 4) Al-Fawz Wa Al-Najah School by Zainab Maghrablia in Anbarianin, built 1358AH
- 5) Al-Maqased Al-Islamia School by Sareefah Sharaf Elmia in Dargona, built 1365 AH
- 6) Al-Hedaya Islamic School by Um Naiem Al-Bukharia in Bab Al-Majeedi, built 1366 AH
- 7) Batoul Al-Takruria by Um Batoul in Hosh Al-nourah, built around 1366 AH

These schools were joined to the modern regular ones of the present time. Ali Hafez also named some other schools when he talked about libraries in Madinah: (12) *(Ali Hafez-)*

- | | |
|-----------------------|------------------------------|
| 1) Al-Shefa School | 2) Al-Saqezli School |
| 3) Al-Ihsania School | 4) Al-Erfania School |
| 5) Al-qazania School | 6) Qurrah Bash School |
| 7) Therwan School | 8) Al-Ulom Al-Shariya School |
| 9) Al-Hameedia School | 10) The Secondary School |

And there were others which spread around the Prophet's Mosque.

2-3-3 Old Schools as a Part of People's Lives

Old schools in Madinah are one of the important elements that affected people's lives and remain in their memories though these schools were primitive and simple in shape and design. You can hardly find someone whose memory is not connected with one of those schools or kuttabs, especially those in the northern side near Bab Al-Majeedi.

These schools had continuous private financial support, especially from visitors for Hajj and Umrah in making necessary renovations and repairs in addition to carrying out regular services and bringing the needed books and notebooks. Some schools had their own endowments to fund them in doing their job easily and successfully.

2-3-4 The General Location of Old Schools and its Relation to the Cultural Texture

The Prophet's Mosque is considered the first school as it contained many limited schools (*kuttab*s). But when the number of their worshippers, students, syllabuses and responsibilities as well as the amount of requirements increased, schools began to appear in separate places around the Mosque. They were on the main streets leading to the Mosque or in the surrounding plazas, to emphasize the connection to their first site. They were built in complete harmony with the surrounding buildings in general and in detail. The buildings of these schools matched the neighbouring ones in their smallest architectural details. Thus, we can say that the buildings of schools conformed completely in planning relations to form a unity with the whole texture. None of them was different, all worked to form a whole with its respected characteristics.

2-3-5 The Architecture of Old Schools

The architecture of old schools was not much different from that of rebats. They were similar in many things such as in having a courtyard nearly in the middle of the building surrounded by a covered path. The rooms of a school had doors opening onto that path.

A school differed from a rabat by having large rooms that consisted of two or more smaller ones joined by doors between them. Each room had one or two half round arches on the path. The large rooms were used for meeting or praying while the other rooms were used as small classes, for students living quarters or for rooms in which students did their homework.

It is noticeable that all schools in Madinah, or most of them, had rebats for their boarding students. They also had small libraries. This is clear in Al-Rustumia School, Rebat and Library, as well as Shiekh Mazhar Al-Farouki School, Rebat and Library and many others.

2-3-6 The most important and famous old schools

2-3-6-1 Hussain Agha (Hussain Afandi) School

Hussain Agha School was one of the old schools that were built during the Ottoman era. This was in 1856 AD during the reign of Sultan Abdul-Majeed the 1st Bin Mahmoud the 2nd who ruled between 1839 – 1861 AD. (13) (*Al-Mohami-1986*)

Hussain Agha had this school built and later it took his name. This school is mentioned in the books of some historians who visited Madinah from time to time. In his manuscript dated 22nd Jumada 2nd /1886 AD, Ali Bin Mussa referred to this school under the name Hussain Afandi, saying: 'This name was known to be the school's name long ago for many of the people of Al-Aghawat Area and those who are near to the Prophet's Mosque.' (14) (*Bin Mousa-1878*)

2-3-6-2 Al-Uloum Al-Shariayah School

Mr. Ahmad Al-Faiz-Abadi had this school built in 1341 AH but the building changed many times. It was removed and the school moved to another building near the Prophet's Mosque where King Abdul-Aziz Street and the pedestrian path met. It was on the right of anyone heading to The Mosque. It was then as near to the Mosque as it came before it was taken down with Al-Aghawat Area in 1405 AH. It consisted of three floors having a courtyard in the middle of them. There was a dome over it. The rooms of the school had doors and windows on long corridors and paths. It was built in the beginning of the Saudi reign. Its design was different from that of the traditional old schools known at that time. It was built of concrete and there was no court on the ground floor. The court was only on the upper floors.

The new building, which is near Al-Safia Bridge, is totally different from old schools in Madinah in design and architecture.

1. Al-Wazeer Alam Al-Din School
2. Al-Rustomia School

And here we are going to take the last two in detail:

2-3-6-3 Al-Wazeer Alam Al-Din School

This school is considered the largest and most beautiful of those built during the Ottoman age.

According to the plaque that was over the entrance, it was built in 1883 AD. It used to be known as The Turkish Minister School for the people of the Al-Aghawat Area. This minister was the man who built it and made it an endowment for the people of Madinah.

The date of construction shows that it was built in the reign of the Ottoman Sultan Abdul-Hameed the 2nd Bin Abdul-Majeed the 1st, who ruled between (1876 – 1909 AD).

(15) (Al-Mohami-1986)

The period of Sultan Abdul-Majeed the 1st was the richest in construction work and building schools, libraries, rebats and 'sabeels' (places having drinking water for free). Many of these institutions were made endowments for the poor and the needy. Most of these endowments were made by people from outside Madinah, for example, Turkish, Indians, Egyptians and Moroccans. They all did that for the sake of Allah's forgiveness and reward for building these institutions in such a sacred place.

The School Location.

The school lay in Al-Aghawat Section to the south of the Prophet's Mosque. It was in the alley right behind the Islamic Court where it had its main elevation and entrance. Its neighbouring buildings were the Indians Rebat in the south and Khesro Basha Sabeel in the east.

The General Description of the School.

The school consisted of three floors including the ground one. Like other schools, it had a courtyard surrounded by four paths having twelve round arches opening onto them. The rooms of the school had doors on a corridor that surrounded the four paths.



(01) Al-Wazeer Alam Al-Din School. The general location from an aerial photograph taken in 1977AD (16) (*Ministry of Municipalities*)

The school had two elevations. The first is the northern and main one, which had the main entrance. This entrance, which was large and stately, characterized the school. It was inside a deep, high cavity. It was as high as the first floor and had pointed formations on top. The cavity was under a round arch. The door was made of two wooden parts covered with beautiful ornamentation and calligraphy. The room above the entrance hall had a widow above the main door within the cavity itself. Below this window, there was a marble plaque showing the date of construction. Two square benches were on both sides of the entrance. The stone used in building the entrance appeared in its natural form without any cover or painting, while the other parts of the building were built of stone but painted white. The northern elevation had six, small rectangular windows through which the rooms of the northern corridor looked upon the outside. These rooms had no windows looking upon the corridor into the courtyard, as was the usual design in the old schools and rebats in Madinah.

The eastern elevation was blank, except for five small windows similar to the northern elevation's, through which the eastern corridor rooms opened to the outside. As for the southern elevation, it was completely blank because it was next to the Indians' Rebat.

The western elevation looked upon a small alley that can be seen in the pictures of Madinah taken from the air in 1977 AD. Its exact design is not known because it was

torn down with the western part of the annex. However, it was mostly blank having some small windows for lighting and the ventilation of some rooms in the annex.

The Ground Plan

The ground plan of the school was 28.5m long from east to west, and 17.5m wide from north to south. There was a courtyard in the middle, which was 12m long and 6m wide. This was surrounded by four paths, 1.5m wide each.

The southern path

This path consisted of a corridor as long as the school. The eastern wall of the school had a small window upon it for lighting and ventilation. There was a similar window-shaped cavity on the opposite wall to achieve the idea of homogeneity. There were six rooms looking upon this path. Each room was 2.90m long and 2.80m wide. In the middle of these rooms, there was an open 'ewan', two rooms with no walls between them. This was 5.80m long and 3m wide. Opening on the path were two round arches standing on round marble pillars similar to those in the courtyard. Each room had three rounded cavities used as shelves. The rooms on this corridor were characterized by having no windows in the northern wall of the school or upon the inner corridor. The average thickness of the walls of this school was 80cm for the ground floor, and 60cm for the first and second floors.

The northern corridor

This corridor had six rooms similar to those of the southern one's, except for having windows in the northern elevation. The later were small rectangular windows, which were 60cm wide and 1.10cm high. The southeastern room was characterized by having another window of the same measurements, which looked upon the eastern elevation. The room had a door on the same corridor that was 1.5m wide and had a small window on the eastern wall. The western side of this corridor led to the annex of the school, which contained some rooms, bathrooms, and storerooms.

This annex was taken down so that its details are not known. The corridor also had a door on the main entrance hall. It was 3.80m long and 2m wide. The first and second

floors could be reached through stone stairs at the western end of the corridor. In general, both of the northern and southern corridors were alike except for the 'dewan' in the southern, and the main entrance and stairs in the northern.

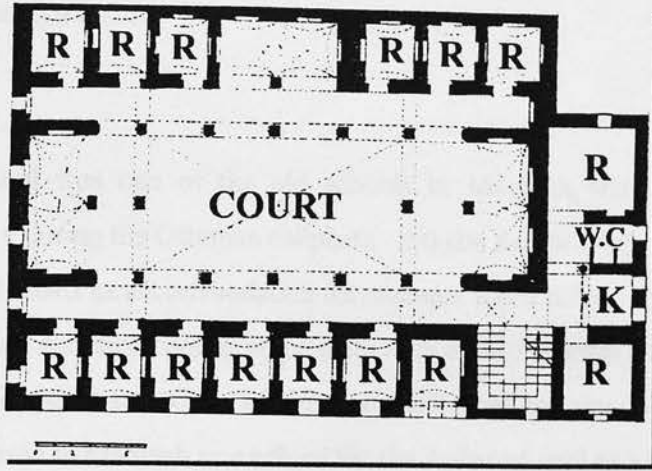
The eastern and western corridors

These were very similar. Each corridor was 1m wide and had an open 'ewan' with two half round arches based on one marble pillar with a square crown. The 'ewan' in the western corridor differed from the one in the eastern corridor in having four window-shaped cavities in the wall to be used as shelves. It also had no windows while the eastern one had two cavities on the northern and southern walls and two windows in the eastern wall, looking upon the alley outside. The three 'ewans' of this school were used as large places for students and teachers for discussion, study and eating while the other rooms of the school were used for individual study and eating.

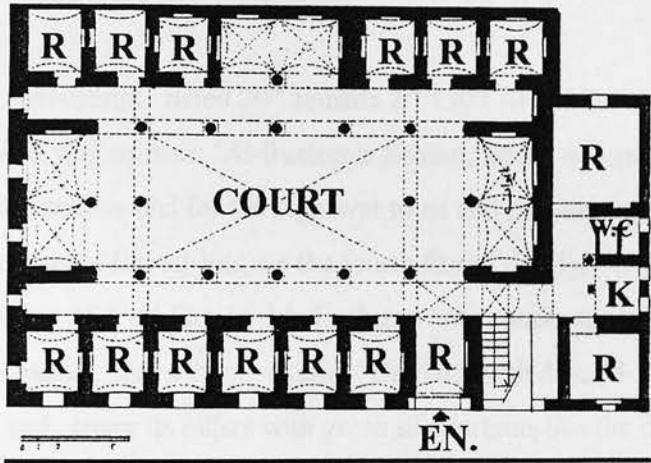
The plan of the first and second floors

This plan is similar to the one of the ground floor except for some slight differences. The room at the end of the northern corridor was enlarged by taking the area above the main entrance hall on the second floor. On the first floor, this room was similar to the one below it because the space of the main entrance was as high as the ground and the first floors. Wooden parapets with vertical banisters were fixed around the space of the courtyard on the first and second floors. These were 30cm high.

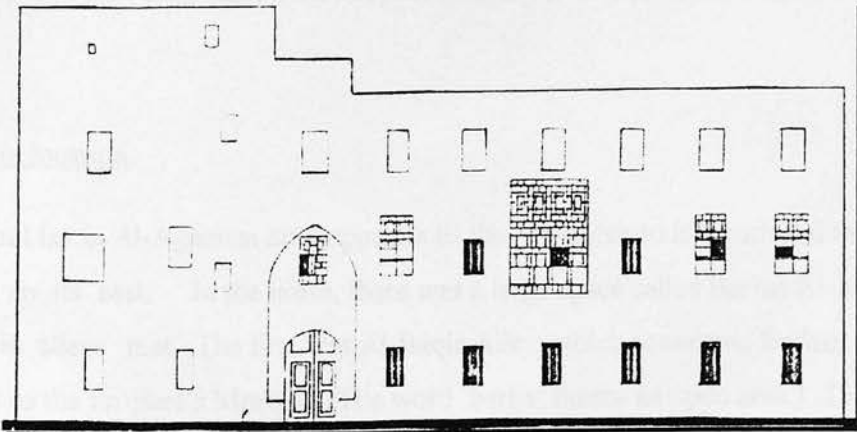
The pillars of the galleries on the first and second floors were square. Each side was 60cm long. Above the galleries, there were straight bars made of a special kind of wood. The galleries of the first and second floors were different from those of the ground floor, which had half round arches based on round stone pillars with square crowns. There were also some differences in the measurements of the windows on the first and second floors and the windows on the ground floor. The upper floor windows were 1m wide and 1.60m high. As said before, the school was taken down while removing the Harat Al-Aghawat area in 1405AH as part of the Custodian of the Two Holy Mosques expansion and renewal of the Prophet's Mosque and the surrounding plazas.



(02) Al_Wazeer Alam Al-Deen School, the ground Floor



(03) Al-Wazeer Alam Al-Deen School, the first floor



(04) Al-Wazeer Alam Al-Deen School, (built in the Reign of the Osmanli Period)
the Northern and main elevitain

Al-Rustomia School was one of the old schools in Madinah, which was built, in the nineteenth century during the Ottoman caliphate. (17) (*Dr. Lam'ie-1981*) It was one of the schools that had rebats as accommodation for students and scholars. It also had a large library whose main entrance opened at the main alley in Al-Aghawat area, known as Al-Baqie Alley. This library served the inhabitants of the rebat and any one else who came. The school was used in Madinah as a school for the Aghawat, and as a place for them to gather. As a matter of fact, the Aghawat had used this school since the Ottoman era.

Ali Bin Mussa's manuscript dated 20th Jumada 2nd 1303 AH / 1886 AD told about this school. The section was entitled: 'Al-Rustomia School, which was specified for serving the master of all creatures and for the Aghawat to sit and exchange greetings and good wishes on the occasion of Eid Al-Fitr, on the fourth day of the Eid.' (18) (*Bin Mousa-1878*) When it spoke about Eid Al-Fitr in Madinah and how people spent it, the manuscript gave some details about the school. It said, "On the fourth day, Al-Aghawat decorate the sitting room and cover its pillars with green silk curtains like the ones in the sacred room in the Mosque. They warmly welcome everyone who comes to greet them. Every one of them is dressed in his best clothes until noon. This is their celebration day as well as of all the people living around the Prophet's Mosque." (19) (*Bin Mousa-1878*)

The school location

The school lay in Al-Aghawat area opposite to the Ain Rebat to its south and the well of the alley to its east. In the north, there was a large space called Barhat Al-Ain where three main alleys met. The first was Al-Baqie Alley, which connected Barhat Al-Ain in the west to the Prophet's Mosque. (The word 'barha' means an open area.) The second was an extension of the first to the east. The third was called Al-Rustomia Alley, and went along the wall of Al-Rustomia School to the west. The school was torn down in 1406 AH for the Custodian of the Two Holy Mosques' expansion and renewal of the Prophet's Mosque.

General description of the school

Generally, the school consisted of one floor divided into three parts:

The first part: The school library occupied the northwestern corner of the school. Its main door and one of its windows opened Barhat Al-Ain in the north. In the west, two windows similar the first ones opened onto Al-Rustomia Alley.

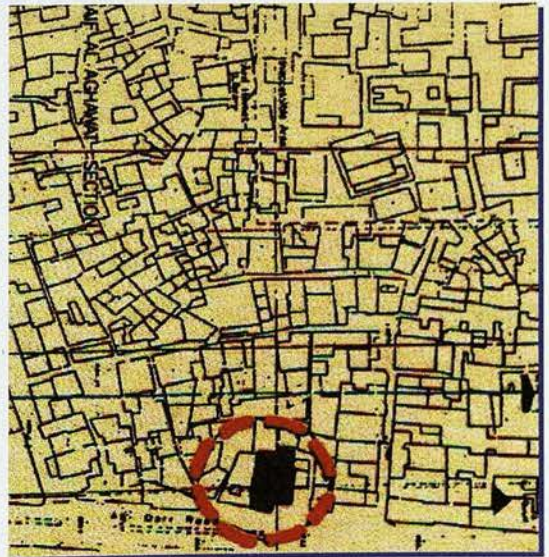
The second part: The school itself lay to the east of the library. It had a window and a door looking upon Barhat Al-Ain. The door led to the school courtyard, which was surrounded by the classes and 'ewans'.

The third part: The rebat was called Al-Rustomia Rebat. It lay behind the school to the south. It consisted of two courtyards surrounded by the rooms of the rebat. In front of the rooms in the west, there was an 'ewan' having three decorated arches that was used as a place for the inhabitants of the rebat and the students to sit or have meals together.

The ground plan of the building

The plan is divided into three parts:

The first part (the school library)



(05) (Al-Rustomia School) From the aerial photographs of Madinah taken in 1977 AD

(20) (Ministry of Municipality)

It was mainly a rectangle running north to north. It was 8.20m long 6.65m wide. The library had five windows in addition to two cavities in the southern wall. Both of them were 80cm wide. It had a small 'mihrab' (a recess in the front wall of a mosque showing the direction of prayer) that was 75cm wide and 70cm deep between them. Two deep cavities surrounded it. On top of them there were pointed decorations that formed the top of the 'mihrab'.

As for the five windows, each was 1m wide consisting of one piece of wood. Two of them were in the western wall, two in the eastern, and the fifth was in the northern wall to the left of the entrance. These were protected with iron screens.

Two square stone benches with 40cm-long sides surrounded the entrance. They were 70cm above ground level. In general, the library was built of black stone, which was cut accurately and was not painted or covered.

A dome had once been on top of the library, but it had been removed long before. A stone frame of similar formation surrounded the upper part of the library. The design of the building shows that it was mainly used as a mosque though it was known to be a school and a library long before. There was a rectangular space above the entrance showing that there used to be a plaque where the date of construction was written.

The second part (Al-Rustomia School)

The school plan shows an irregular shape next to the library on the western side. The school consisted of five rooms. Four of them were at the end of the eastern wall of the school. They had doors on the open courtyard. The fifth room, which was the largest, was right next to the library to the east and they shared the same wall. It had two windows similar to those of the library looking upon the main alley in the area, Al-Baqie Alley. The main doors of the five rooms were in their eastern walls. They opened under a covered part leading to the courtyard through two arches with pointed decorations. The shaded part and the courtyard had two windows through which they looked upon the back yard of the rebat. The rooms of the school had long stone domes along the top of them. This school was closed and the building was used by the inhabitants of the Area as a café where they drank coffee and tea until it was removed with the whole area.

The third part (Al-Rustomia Rebat)

It had an irregular plan and it was built onto the western side of the school and library. It consisted of two irregular open courtyards. Six rooms of different measurements opened onto the western courtyard through small doors and window. The room next to the entrance to the south was the largest of them. There was another group of six rooms in the western side of the first courtyard.

The second courtyard was at the end of the eastern part of the rebat. It was reachable through a narrow path connecting the two courtyards. Two rooms of equal size opened at it from the east through two small doors. Next to them, there was a small door that led to the outside in the same eastern wall.

Every room in the rebat had window-shaped cavities in the walls to be used as shelves. The buildings of the school and the rebat had a row of crenellation topping its outside walls, similar to those on some old mosques in Madinah, like Ali Bin Abi Taleb, Al-Fadikh and Bani Quraiza mosques.

2-3-7 Cultural and architectural characteristics of old schools in Madinah

- 1- Old schools were dispersed about inside the old cultural texture around Al-Haram in Madinah. Some of these schools were attached to Al-Haram like Sultan Qaitbay School, known as Al-Ashrafiya school. Others were connected with public places, alleys and main courtyards.
- 2- Lavish buildings characterised the old schools in Madinah, like Al-Wazeer Alam Al-Deen School, Sultan school and Al-Rostomiya School, because people of the upper classes had built them. They had elaborate and ornate doors and spacious rooms.
- 3- The basic idea of design in these schools had a large courtyard in the middle of the building. The courtyard was often rectangular and four galleries with half-round or projecting chaplets surrounded it. The galleries were surrounded by rooms as accommodation for the students.
- 4- The plan idea of old schools in Madinah was very similar to that of the arbitan but differed in the ratio area of the courtyards to rooms, which was larger. Some rooms were left open to look directly upon the courtyards through the galleries. These were used for prayers and study, whereas arbitan had only small courtyards surrounded by narrow galleries. Their rooms were smaller and not open to the courtyards.
- 5- The main entrances of old school buildings were characterised by luxurious decoration and ornaments. They were inside deep cavities resembling two-storey high chaplets. This can be seen in Al-Wazeer Alam Al-Deen School, for example, where the upper parts of the entrances within the frame of the same cavity were specified for small windows for the sake of lighting the entrances. Above these windows, on the outside elevation, were plaques where the schools and the names of their builders were recorded. Also, an entrance was surrounded by two square seats made of stone and the doors were covered by plant ornaments and drawings that were very accurate and beautiful.

- 6- These schools had windows through which the rooms of the school chapel looked upon the galleries and the outer courtyards in addition to providing light and fresh air.
- 7- The schools were built with black basalt. The halls were covered from the inside with a layer of gypsum and then were painted white while the main arch of the entrance and some other ones were left with their natural stone colour.
- 8- Special civic pride and care was taken with such buildings. Teachers, inspectors and principles were appointed for them to ensure they were built in accordance with their educational purpose. It was necessary to make a lot of restorations and renovations to these schools in their last years.

4.4 History and architecture of old Rebats in Madinah

The Rebats were among the first buildings in Madinah. They were made of mud-brick and were built by the Prophet Muhammad, his wives and his family. They were used for the accommodation of the pilgrims and the poor.

Rebats were built to house the pilgrims who came to Madinah for the Hajj. They were built in the form of small houses with a courtyard in front. They were built by the Prophet Muhammad, his wives and his family. They were used for the accommodation of the pilgrims and the poor.

Part Two

Chapter Four

“History and architecture of old Rebats (Hostels)

in Madinah”

Rebats were built to house the pilgrims who came to Madinah for the Hajj. They were built in the form of small houses with a courtyard in front. They were built by the Prophet Muhammad, his wives and his family. They were used for the accommodation of the pilgrims and the poor.

Rebats were built to house the pilgrims who came to Madinah for the Hajj. They were built in the form of small houses with a courtyard in front. They were built by the Prophet Muhammad, his wives and his family. They were used for the accommodation of the pilgrims and the poor.

CHAPTER 4

2-4 History and Architecture of Old Rebats in Al-Madinah Al-Munawarah.

Old Rebats were among the first buildings in Madinah. They were near most schools and mosques there. Moreover, they were often parts of schools as free accommodation for students and scholars.

Muslims tended to build more and more of these rebats to help the poor and the needy find homes and shelter for free. There were different types of rebats; small ones, large ones and separate houses. Others consisted of two separate parts: one for men and one for women, such as Al-Maghareba Rebat that replaced the one of our master, Uthman, may Allah be pleased with him. Some small buildings consisting of two or three rooms were specified for the needy families in Madinah, such as the endowments and rebats of our master Abu Bakr Al-Siddiq, may Allah be pleased with him, which were in Al-Aghawat Area. Some rebats were specified for the followers of particular beliefs, such as Mazhar Al-Farouki Al-Ahmadi Rebat, built in 1875 AD. This was only for the Ahmadies.

2-4-1 Rebats in the books of historians and travellers

Many history books tell about Madinah had something about the number and architecture of these rebats. Mr. Al-Samhoudi indicated that there were many of them when he wrote what the sultan and just king, Nour Al-Din Shams, did with the two Christians who wanted to defile the sacredness of the Prophet, peace be upon him, in 557 AH. He said they had stayed in the nearest rebat to the honourable room (the Prophet's grave). This means that there were many rebats at the time and that they stayed in the nearest to the Honourable Room. (1) (*Al-Samhoudi-1505*)

At the end of the nineteenth century, Ali Bin Moussa's manuscript dated 21st of Jumada II 1303 AH / 1886 AD, described the size of rebats in Madinah and said that there were many of them. The writer said that they were too many to be named. He said, "As for the rebats, they are many and there is no need for naming them." (2) (*Bin Mousa-1878*) He mentioned the names of some rebats when he talked about the outer and inner walls of Madinah with their towers and gates in addition to drinking-water sabeels.

Some of them were the rebats of Ibn Al-Zameny near Bab Al-Salam, Al-Ajam for Nour Aldin Al-Shaheed, Shiekh Mazhar Al-Naqshabandi, Al-Jadid next to Al-Ra'ie Courtyard, the one next to the endowment houses of Obaid Al-Ain, Zawaya Al-Samman in Aghawat Area and our master Uthman, may Allah be pleased with him.

In 1318 AH Ibraheem Ref'at gave the total number of rebats during his visit to Madinah, saying there were 108. (3) (*Refat-1901*) Also Muhammad Labeeb Al-batanoni who visited Madinah in 1327 AH with Khedive Abbas Basha Helmi, said that there were 8 hospices in Madinah. The most important of them was the Egyptian one and the others were called rebats. He added that the rebats gave very small stipends, which did not cover all the needs of their inhabitants. (4) (*Al-Batanoni-1988*) Many rebats remained until recently when the Aghawat and Bab Al-Majeedi Areas were removed. The following are among the most famous rebats:

No.	Name of the rebat	Location
1	AL-Ajam	Bab Jebreel
2	Our master Uthman (for men)	Al-Aghawat Area
3	Our master Uthman (for women)	Al-Aghawat Area
4	Al-Sandal	Al-Aghawat Area, (Al-Sandal Alley)
5	Al-Ain	Al-Aghawat Area
6	Mazhar	Al-Aghawat Area
7	Al-Mardoni	Al-Aghawat Area
8	Al-Jabart	Al-Aghawat Area
9	Al-Kabeer (Murjan Agha)	Al-Aghawat Area
10	Al-Tunbara	Al-Aghawat Area
11	Al-Qambara	Al-Aghawat Area
12	Our master Ismaiel	Al-Aghawat Area
13	Al-Meknasi	Al-Aghawat Area (Al-Khashab Alley)

2-4-2 Rebats in people's memories

Rebats are considered unforgettable places for many people in Madinah because they were shelter for the poor and the homeless and because many people from different classes, such as scholars, workers and visitors from different countries met there. If we search more closely, we will find that a large number of people in Madinah had connections with rebats at some time or another. Living there, helping their inhabitants contributing to building and renovating them are examples of this connection between people and the rebats.

The following story is an example of the people's fond memories of the rebats where they stayed for a while in the past. After finishing the Jum'a prayer (noon prayer on Friday), I went to the Aghawat Area to do some research of the urban heritage there. While I was walking the main street in the area; Al-Baqie St, I saw an old man standing in front of an old building that was not inhabited, holding the door handle and crying. I went to him and asked if there was something wrong or something I could do for him. He turned to me and replied in Turkish. I looked around for someone to translate what he was saying when another man approached him and started talking to him. I asked the later to translate for me into Arabic. I discovered that the Turkish man used to live there with his family and play a lot in the surrounding streets as a boy. When his father died, he had to go back to Turkey. He lived there for more than ten years. When he was able to return to visit Madinah, he came at once to see it and found it still there where he had left it eighty years ago. This is one of many other stories that show the strong relation between the people of Madinah and every part of their beloved city.

2-4-3 Cultural development of old rebats through history.

The building of rebats began long ago in Madinah. At first they were attached to schools, libraries and some endowments. They were built to accommodate needy students, visitors, and those who came to live near the Prophet's Mosque. They were built for the sake of acquiring Allah's forgiveness and satisfaction.

Old rebats spread in the areas of Al-Harah, Zerwan and Bab al-Majeedi. They varied according to their inhabitants. Some of them were specified for men, or for widows, needy families or visitors of different nationalities, such as the rebats of Al-Honoud, Al-Maghareba, Al-Bukharia and Al-Jabart (for those who came from Habasha in Africa). The Arna'out Rebat was for those who came from the Balkans and the Roum Rebat was for the Central Asians.

Helping people from the same countries or those speaking the same language stay together in the same rebat enabled them to live more comfortably and confidently. The increasing number of rebats created social symbiosis and correlation among the people of Madinah. As for the architecture and design of rebats, they were very similar to old schools, which had open courtyards in the middle, surrounded by covered paths. The rooms overlooked the courtyards through these paths. The rebats had separate administrations that controlled them and provided all the services they needed.

2-4-4 The general location and its relation to the cultural texture

Rebats were among the buildings that spread according to specific criteria. They were found in every part of the urban texture. They were around the Prophet's Mosque, in residential neighborhoods, at the ends of alleys and on important streets. They differed in height and the number of floors. Plaques showing their names, dates of construction, name of constructor and the type of its inhabitants were fitted above their main entrances.

Analyzing the old cultural texture of Madinah, I noticed that the buildings of rebats matched the whole texture more than any other buildings. They mostly carried the names of the neighbouring institutions or the places they were in. For example, Al-Ain Rebat was near a well and Al-Hara Rebat was in an alley. ('Ain' means well and 'hara' means alley.) This created more integration among the parts of the whole texture and rebats remained important landmarks surrounded by different public utilities and services.

Rebats were clearly visible immediately when you passed through one of the streets or alleys leading to the Prophet's Mosque, the core of the city's texture. Moreover, the locations of rebats made them easy to reach, especially during the Hajj season when hundreds of thousands of people come to Madinah.

2-4-5 The most famous and important rebats in Madinah

2-4-5-1 Yaquot Al-Mardoni Rebat

This was one of the oldest rebats in Madinah. According to the plaque fitted above its entrance, it was built in 706 AH, 1306 AD; in the Mamaluk period during the reign of the sultan, Muhammad Bin Qalawoon. This rebat was specifically for needy and poor strangers (men only).

The rebat was abandoned for a while. Then it was renovated and inhabited by some poor women until it was demolished a short time before the demolition of the whole Aghawat Area.

The rebat lay to the west of the Prophet's Mosque in the Aghawat Area. It was in an alley called Al-Baqie Alley near the Ain Plaza and Al-Rustomia School. It overlooked the alley with a small elevation that was no more than 6.5m wide, containing the main entrance.

The building consisted of two floors having some rooms overlooking a small, rectangular inner courtyard. One could enter the building through its small entrance that was less than 80cm wide. Part of its height disappeared because the level of the street was raised as a result of the paving work done by the government who covered the streets with flagstone to drain rainwater easily. The entrance led to a corridor ending at the courtyard, which was overlooked by all the rooms of the rebat. Yaquot Al-Mardoni Rebat was one of the smallest rebats in Madinah. It overlooked Al-Baqie Alley through one small rectangular window on the first floor. The window opened directly at the axis of the building's main entrance.

2-4-5-2 Al-Maghareba Rebat

This rebat consisted of two parts, one for men and one for women. It was built on the same location of our master, Uthman Bin Affan's rebats: Al-Dar Al-Kubra and Al-Dar Al-Soghra. According to the story of Shiekh Abdul-Hameed Bin Al-Maizoni, who came to Madinah in 1373 and worked as a Qur'an teacher in the Prophet's Mosque, then he moved to Qubba I Manakha, himself one of the inhabitants of the second rebat: "This place was a junkyard and a space for carts with their horses and donkeys. Then, King Saud gave it to Shiekh Abdul-Aziz Bin Saleh, who sold it to Shiekh Nu'man Al-Maghrabi, the supervisor of our master, Uthman Bin Affan's former rebats." Shiekh Al-Maghrabi built the second rebat, which was taken down later in 1375 AH. The later consisted of two floors overlooking a courtyard. This rebat had a well, which supplied it with water.

When the second rebat was taken down, Shiekh Al-Maghrabi asked the building contractors, Hasan Zayed and Muhammad Shagroun Al-Najjar to build Al-Maghareba Rebat consisting of two parts as mentioned above. The construction process took fourteen months.

The building could be entered through a small wooden door that led to some stairs to reach the ground floor level. The stairs also led to the rest of the rooms. A roof made of wooden beams covered the entrance. The courtyard was rectangular and it was 12.5m long and 1.6m wide. The building was made of concrete and bricks. It was taken down in 1407 AH during the expansion of the Prophet's Mosque.

2-4-5-3 Al-Hayadra Rebat

This rebat was in Manna' Dwelling Compound, which was to the south west of the Prophet's Mosque. The compound had more than thirty housing units and Al-Hayadra Rebat was to the north of it. The rebat overlooked the courtyard of the compound through a small elevation that was no more than 2.80m wide. It was surrounded by houses except for another blank elevation that overlooked a garden called Al-Katebah. According to some of its owner's reports, it was built in the Ottoman era. There were no plaques to show the date of construction.

The building was square and its southwestern and northeastern sides were each 13.5m long. The northwestern side was about 15m long and the southeastern side was 18m long. The main entrance was in the northern elevation. It consisted of a one-piece door made of wood under a half round arch leading to two stone stairs to reach the ground floor.

The rebat was built of irregular black basalt. Some of the walls were covered with a white layer inside and out. Initially, women from Yemen and Africa inhabited it. The building was taken down during the construction of Al-Safia Bridge.

2-4-5-4 Bab Al-Majeedi Rebat

This rebat was also used for commercial purposes. In addition to being used as a rebat, the rooms of the ground floor overlooking Bab Al-Majeedi Street were used as shops. The rents of these shops were used for the rebat itself to cover the expenses of the regular repair work and little stipends given to its needy inhabitants. The rebat was built of stone. The walls were not less than 40cm thick. Unfortunately, the plaque showing the owner's name and date of construction was missing, but I knew from one of the neighbours that it was built around 1150 AH in the Ottoman era. The rebat lay in the middle of Bab Al-Majeedi Street on the right, heading to the Prophet's Mosque. It had a 10.5metre wide elevation on this street. The shops used all of this elevation.

One could reach this rebat through a small alley coming from Bab Al-Majeedi Street and running west. The rebat had its largest elevation, which was about 19m long on the alley. The main entrance lay in the last third of this elevation.

The building had a rectangular plan that was about 19m long and 10.5m wide. Its design did not differ from those of the other rebats in Madinah at that time. They had courtyards in the middle surrounded by pillars and then paths on which the rooms of the rebats had doors and windows. This was the case on the upper floors, except for the extra rooms above the main entrance halls. Rebats in Madinah were characterized by having inner elevations that overlooked the inner courtyards.

There were only a few windows on the outer elevations for lighting and ventilation. This provided more privacy in accordance with Islamic Law.

If we look at the design of Bab Al-Majeedi Rebat, we will see that it was the same, except that the northern rooms had some small windows on the alley because they did not have any rooms on the inner courtyard. The main entrance was 1.30m wide. It had a two-part door under a half-round arch. Each part was around 50cm wide. The door was in between two stone benches. The rebat was taken down with the demolition of the Bab Al-Majeedi area during the expansion of the Prophet's Mosque.

2-4-5-5 Al-Honoud Rebat

This rebat was a little different from the ordinary ones in Madinah at that time in two ways. First, it did not have an open courtyard. The designer only made a corridor along the building, where the rooms had doors and windows. Two skylights were made; one starting from the ground floor and the second starting from the first floor. Second, the rebat was specifically for poor and needy Indians who came to Madinah during their Hajj or Umra. It offered them free hotel services of accommodation and food. The rebat was built in the Ottoman era by an Indian man, who endowed it later for the poor and needy Indians who stay in Madinah to visit the Prophet's Mosque.

Al-Honoud Rebat lay in Al-Aghawat Area to the south of the Mosque. It was next to Al-Wazeer Alam Al-Din School and opposite Khesro Basha Sabeel. The building was taken down with Al-Aghawat Area during the expansion of the Prophet's Mosque.

The building consisted of three floors and it was built of stone. The eastern elevation was left with its original natural colour and texture. The other elevations were blank except for a small emergency entrance on a small alley leading to the main alley which led to the Mosque. The main entrance was 1.5m wide in the middle of the main, eastern elevation. It consisted of a two-piece wooden door, which was decorated with writing and ornamentation.

The door was under a half-round arch built of stone. A plaque having the date of construction and the name of the owner was originally fitted above the door, but was not there when I visited.

The main entrance of the rebat overlooked one of the inner alleys of the area with four large windows on the ground floor, and six windows on each of the first and second floors. The upper part of the elevation had a row of small windows. All the windows of this elevation were covered with beautiful oriels. The oriels of the ground floor were supported with vertical bars of iron for security purposes. This was normal in most of the traditional buildings in Madinah.

Here we are going to take Mazhar Al-Farouki Rebat in detail as a selected model of the architecture of old rebats in Madinah.

2-4-5-6 Mazhar Al-Farouki Rebat

This rebat was one of the biggest in Madinah. It had three floors including the ground one. It was used as a rebat and a school, including the Shiekh Mazhar Al-Farouki Library. According to the plaque fitted above its entrance, students, scholars and worshippers inhabited it.

The rebat was built in 1293 AH / 1876 AD as mentioned on the plaque. This means that the rebat was built in the Ottoman era at the end of the reign of Sultan Abdul-Aziz Bin Mahmud II, who ruled between 1861 and 1876 AD. (5) (*Al-Mohami-1986*)

The plaque also had Persian text next to the Arabic. It had four lines ending with the date of construction. The text included the word (خانقاه) in the second line. Dr. Saleh Lam'ie translated it saying 'The word (خانقاه) was noticed in the Persian text that was next to the Arabic text. This makes it clear that the building was mainly for worshipping purposes and it was not a school. It could have been a hospice. This name was used for hospices in the Ottoman period.' (6) (*Dr.Lam'ie-1981*)

It is known by the people of Madinah that this building was a school and a rebat for scholars and the followers of the Naqshabandi order. Scholars used it to benefit from its library that had many valuable books and manuscripts like Ibn Shebah Al-Basri's (787 – 876 AD) manuscript of four parts about the history of Madinah, which was printed a short time ago. It was used in its final years as accommodation for the poor. Then it was left empty until it was taken down during the expansion project of the Prophet's Mosque at about 1406 AH.

On the plaque fitted above the entrance, there was a connection between the letter numbers and the year of construction, which was 1292 AH. But it was written on the same plaque that it was built in 1293 AH, and the later was the date I took. As for Mr. Saleh Lamie, he took the first, which was 1292 AH/ 1875 AD. (7) (*Dr.Lam'ie-1981*)

2-4-5-6-1 The Rebat in the books of historians and travellers

This rebat was mentioned in the books of some historians. For instance, it was in the manuscript of Ali Bin Mousa, which appeared at the end of the nineteenth century in 21 Jumada II 1303 AH, when he described Bab Al-Awali and the gardens and farms between it and Madinah at that time. He said, 'As for the buildings on the right, the first of them is Mazhar Al-Naqshabandi Rebat, which is the best in Madinah.' (8) (*Bin Mousa-1878*)

The name of the rebat was mentioned again in the same manuscript when the author wrote about schools in Madinah saying, '... and Shiekh Mazhar School...' (9) (*Bin Mousa-1878*)

Moreover, Ibraheem Refat wrote about this rebat, calling it Shiekh Mazhar Afandi Hospice when he wrote about the libraries in Madinah. He said, 'The books in Shiekh Mazhar Afandi Library...' (10) (*Refat-1901*) However, it could be one of the hospices that Muhammad Labeeb Al-Batanoni wrote about when he described the buildings of Madinah saying, 'There are eight hospices. The most important one of them is the Egyptian Hospice, and the rest are called rebatat.' (11) (*Al-Batanoni-1988*)

2-4-5-6-2 The location of the rebat

The rebat lay in the southeastern part of the Aghawat Area. It overlooked King Abdul-Aziz Street, which led to Bab Al-Nesa' in the Prophet's Mosque, with a long elevation. Also, one could reach it through a narrow alley called Al-Mawaleed Alley. A concrete building of six floors belonging to the same owners of the rebat, the Mazhars, separated the rebat from Abi Thar Street. Both of the two buildings were taken down with the demolition of the Aghawat Area in 1406 AH.

2-4-5-6-3 General description of the building after the demolition of the eastern part

The rebat consisted of three floors including the ground one. It was one of the biggest rebats in Madinah as it had 45 rooms, 15 on each floor. Neighbouring buildings surrounded the southern, eastern and most of the western parts of the rebat. That was why the elevations of these parts were completely blank, except for one small door in the southeastern corner leading to Abi Thar Street. As for the western elevation, it contained the main entrance of the rebat. It was 1.75m wide under a half-round, stone arch above which, a marble plaque, having the date of construction, was fitted. Above the plaque, and on the same axis, there were two large oriels painted like the entrance door in dark gray.

There was a newly built, concrete building that belonged to the same owners right next to the eastern side of the rebat. So there was no need for a wall to replace the old one that was taken down on constructing this building. Some windows and doors were made on the western elevation of the new building that overlooked the inner courtyard of the rebat. This disturbed the inhabitants of the rebat. Three steps connected the ground levels of the two buildings. The northern elevation overlooked King Abdul-Aziz Street through windows used for lighting and ventilation.

The design of this rebat, like the other ones in Madinah, was characterized by having most of their lighting and ventilation from an inner courtyard. The rooms were different in size. The western part of the rebat consisted of six small rooms. Each was 3.80m long and 3.60m wide. All the rooms of this part were used for accommodation. Only one room was used as baths and toilets. They overlooked a corridor through doors and small windows, the corridor was of the same length as the whole part 2.35m wide. The windows were rectangular having straight upper parts, while the windows on the other floors had half-round arches above them. There were small windows in the same elevations for more lighting and ventilation because these rooms did not have windows in their outer elevations.

The northern part consisted of four rooms similar to the ones of the western part. They overlooked a path next to the courtyard. As for the southern part, it consisted of three rooms of the same specifications as the ones in the northern and eastern parts. This part included the stairs, which lead to the first and second floors.

The plan of the first and second floors

The plan of the first and second floors consisted of the same elements and components as the ground floor, except for some doors with half round arches. The roof was covered with parts of palm trees. Each of the upper floors had one more room above the space of the main entrance.

The third floor was different from the first and second ones in having square pillars with upper formations made of parts of palm trees. The rooms were 3.80m long and 3.60m wide.

Like the other rebats, Mazhar Al-Farouki Rebat had small rooms with dome-shaped roofs. The rooms had windows that were no more than 80cm high and 1m long. All the rooms opened onto the path surrounding the inner courtyard with half round arches based on stone pillars. These were repeated on the ground and first floors, but they appeared without arches on the second floor.

Generally, the building was built of stone covered with a layer of cement, and painted white inside and out. The path surrounding the courtyard was covered with parts of palm trees and then a layer of mud as was the case in traditional houses in Madinah in the past.

The ground plan

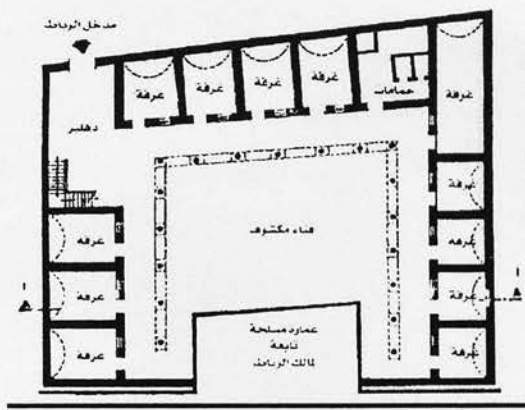
The ground plan of the rebat was rectangular; 30m long from north to south, and 24m wide from east to west. The open courtyard was in the middle of the two parts before the eastern part was taken down. Later, it was to the east of the rebat and next to the new building, which was built instead of the old part. The courtyard was a rectangle, which was 15m long and 10m wide running from north to south. There were three steps connecting the ground levels of the courtyard and the new building. Three paths surround the courtyard with 17 half-round arches based on round stone pillars with square crowns on top; 6 each in the northern and western parts and 5 in the southern part.

The paths surrounding the courtyard were covered with flat roofs made of parts of palm trees. There were ornaments decorating the upper parts of the elevations surrounding the courtyard. They consisted of repeated rhombic cavities along all the sides. The rebat was renovated several times. The last time, the inside walls were painted white and the ornaments in the upper corners of the elevations surrounding the courtyard were renewed. The room in the southwestern part of the first floor housed the library of the rebat, which contained many rare books and manuscripts.

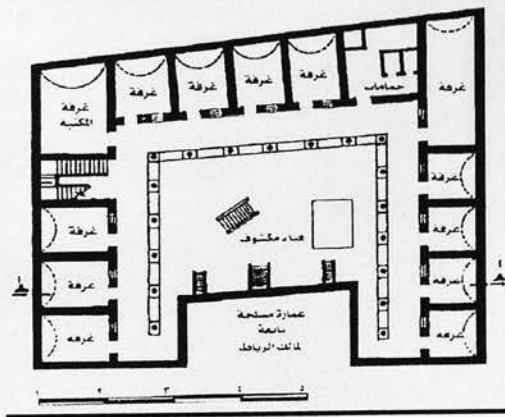
The rebat before removing the eastern part

The plan of the rebat before removing the eastern part was square with side's about 30m long. The eastern part, before it was removed, consisted of 7 rooms similar to a great extent to those of the western part of the rebat. The seven rooms opened at the corridor of this part through small doors and windows similar to the ones of the other corridors on the ground floor.

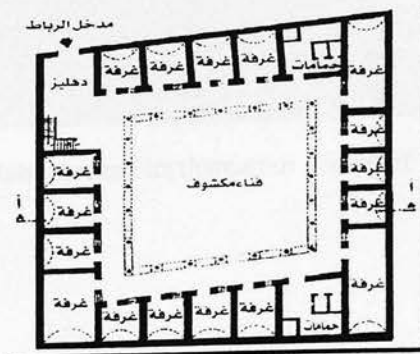
The eastern part was characterized by having some small windows in the outer elevations. But these were closed later because of the construction of some dwellings next to them in the eastern side. Those buildings were removed later because of the expansion of Abi Thar Al-Ghafari Street. The rebat then directly overlooked the new street, but the eastern part was removed to construct the new building mentioned earlier.



(01) Mazher Al-Farouki Rebat, ground floor plan



(02) Mazher Al-Farouki Rebat, first and second floor plan



(03) Mazher Al-Farouki Rebat, first floor Plan before the removal of the Eastern gallery



(04) Mazher Al-Farouki Rebatm the Northwestern corner of the galleries the first and second floors

2-4-6 Cultural and architectural characteristics of old arbitan in Madinah

- 1- Old arbitan in Madinah spread in populated areas like old compounds, alleys and lanes. They merged with the neighbouring buildings to form a whole cultural formation.
- 2- The main planning idea of arbitan in Madinah relates to the interior and the building of a central courtyard suitable for the social circumstances taken from Islamic teachings.
- 3- It is evident in the design of arbitan in Madinah that their builders respected their purpose and expressed this clearly. Thus, the buildings of arbitan were different from those of houses, schools or public baths.
- 4- Old arbitan in Madinah were built of black basalt. The walls were covered with a layer of special substance before they were painted white.
- 5- Arbitan varied according to the number of floors. Some had only one floor and others had two floors.
- 6- The rooms of the arbitan in Madinah had two levels. One was at the front, which was 40 centimeters high above the entrance of the room. This was used for sitting and sleeping. The lower level was used as a place for cooking and washing clothes, etc. Rooms had only one level if the rebat had a general kitchen.
- 7- The rooms of a rebat had few outer windows but received the necessary light and fresh air from the open courtyard, which occupied over 40 percent of the whole area.
- 8- Rooms had caritas in the walls similar to windows. They were known as taqas. There were one or two in each room and they were used as shelves. They ended at the top with half round or projecting chaplets.
- 9- Some arbitan had ornaments and drawings in the shape of frames around the walls of the courtyards as in Mazhar Al-Farouki Rebat. Other arbitan were also characterised by their ornaments and drawings, which surrounded their main entrances.

CHAPTER 5

2-5 History and architecture of old *sabeels* in Madinah

The people of Madinah always wanted to build *sabeels* (places containing drinking water on tap for free) for the sake of Allah's forgiveness and satisfaction. They were found nearly everywhere in Madinah, especially in Al-Aghawat and Bab Al-Majeedi areas. Initially, offering drinking water to those who needed it consisted of simply carrying it to them in water-skins or later in large tins. Later, people began to build *sabeels* in heavily populated areas, such as enclosed areas or courtyards, to constantly be available for worshippers and pedestrians. *Sabeels* varied in size and shape. Some of them were simple in design. They were made of engraved stone and fitted near the entrances of most houses in Madinah, especially the houses near the entrances of enclosed courtyards or crossroads as well as public plazas. These were known as connected *sabeels* because they were connected to buildings.

There were other separate *sabeels*. These spread outside the first wall of Madinah; the most famous of them were Al-Hashem *Sabeel* in Al-Anbaria Area, Al-Aqiq Valley *Sabeel* and Al-Sultania 1st. For water supply, they were built next to wells or the wells were dug next to them as in Al-Hashem *Sabeel*.

In some large *sabeels*, extra water was gathered in troughs for animals to drink. These were found in the area of Qusour Al-Aqiq.

Separate *sabeels* were mostly taken care of and renovated regularly. On their front elevations, there were plaques, mostly made of marble, showing the name of the owner and date of construction. The words were engraved in the marble itself.

The owners of some *sabeels* in Madinah hired people to clean them and perfume the water with flower or rose flavours. *Sabeels* were one of aspects of social unity and co-operation among the people of Madinah. Unfortunately, Madinah lost many of those *sabeels* with the demolition of the old areas around the Prophet's Mosque.

The remaining ones are now neglected and subject to collapse or demolition. This is because electric water coolers have spread all over the city in front of new buildings. It would be appreciated if the Administration of Monuments started renewing and renovating the sabeels without any delay to keep and protect the monuments and historic landmarks of Madinah.

2-5-1 Old sabeels in Madinah in the books of historians and travelers

A lot of sabeels, which spread during the Ottoman era, were mentioned in many history books. In his manuscript about Madinah, Ali BinMussa gave information about the most famous of them saying: 'as for sabeels, there are ones in Manakha, at Ahmad Bek's house, at Mr. Ja'far Al-Kateb, next to Al-Mosalla Mosque and near Bab Al-Mesri.' (1) (*Bin Mousa-1878*) Moreover, Ibrahim Ref'at, the historian said that there were 21 sabeels in Madinah at that time. (2) (*Refat-1901*)

Princes of Madinah as well as the sultans of the Islamic states were interested in serving these sabeels, seeking Allah's forgiveness and satisfaction. In his book, Al-Samhoudi mentioned that the Honourable Sultan of the Two Holy Mosques, Sultan Qaitbay, had one sabeel built in Madinah during his renovation to the Prophet's Mosque in 886 AH, 1481 AD. (3) (*Al-Samhoudi-1505*)

2-5-2 Sabeels in people's memory

Sabeels were one of the most important elements in the cultural texture of Madinah. They were found everywhere; in shady places, in alleys, next to the entrances of houses, in public plazas and markets, at government centres and around the Mosque. This had its good impact on people of Madinah and it helped to create an atmosphere of love and tenderness between them. There were sabeels in nearly all streets and alleys of Madinah. Some of them were named after their owners, such as Hashem and Fatema Sabeels, and others took the names of the areas where they were built, like Bab Al-Mesri and Al-Manakha Sabeels.

Sabeels were always part of people's memories. If you listen to one of the old men in Madinah telling about his memories or experiences, he will certainly mention the name of one or more of these sabeels. He will describe how he sat in their shade or drank some of their cold water in times of hot weather or how he served them by supplying them with water or cleaning them. Sheikh Saleh, an Indian man, was a good example of the people whose lives were strongly connected with sabeels. He had the reputation of being a good man who always supplied sabeel owners with natural perfumes to give their drinking water a good flavour, and this was his chief interest. Another example was Sheikh Yaseen, who was well known to be kind hearted. He moved from one sabeel to another to clean them and mend them when necessary without asking anyone for charges. Also, Sheikh Muhammad carried water to sabeels in his brass and skin containers with the help of his sons, asking nothing but Allah's satisfaction. In fact, everybody in Madinah, with pleasure, had something to do to help others.

2-5-3 General location of sabeels and their relationship with the cultural texture

It was said earlier that sabeels spread in the cultural texture of Madinah in a way that it became essential to many people to build ones next to the main entrances of their houses. Sabeels differed in shape and size. Each was built of one or two large pieces of black stone into which a sink was carved under the water taps. They were in harmony with the elevations behind them. The sabeels in alleys were smaller than the ones in public plazas or near the enclosed courtyards where there was heavier population. In such places, they were larger with more taps.

Sabeels were distinguishing elements in the cultural texture of Madinah and they guided people to the buildings around them. It was normal to say the house of Mr. So and so next to the so and so sabeel. As a matter of fact, sabeels were centres for attracting people, especially in hot weather.

2-5-4 The most important sabeels in Madinah

Now we are going to take two sabeels as examples:

The first: Fatema Sabeel in Anbaria, built in 1311 AH.

The second: one of the sabeels of the buildings of the Aqiq Valley, which was built in the late years of the Ottoman State in the place of the Aqiq Valley Palaces built in the reign of the Omayyad era.

(1) Fatema Sabeel in Anbaria (1311 AH)

Fatema Sabeel is one of the sabeels that had separate buildings. A well was dug next to it to supply it with water. It was known later as Al-Anbaria Sabeel.

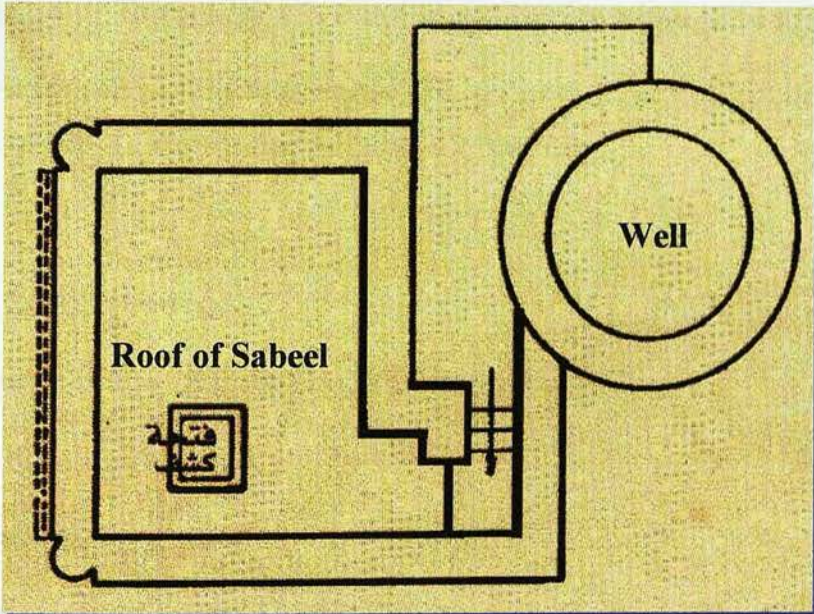
This is the only sabeel of its kind that still exists. All the similar ones, such as the sabeels of Adela Sultana in Al-Saha area and Khesro Basha in Al-Aghawat Area, were removed.

Fatema Sabeel lies in Al-Anbaria area on the right of the traveler to Orwah through Al-Anbaria road. In this area, there is a big building built in the Ottoman era. This is used at present as a warehouse but I could not discover what it was used for in the past. It is 12m to the northeast of Fatema Sabeel. Next to this building, there is an old mosque that can be identified from its ruins as belonging to Ottoman architecture. This mosque is known to the people of Madinah as Al-Khedr (May Allah be pleased with him) Mosque. The same name was given to the well next to the sabeel.

The date of construction

The marble plaque fitted on the northwestern elevation (the main one) indicates that the sabeel was built in 1311 AH and that the owner's name was Fatema. This means that it was built during the caliphate of Sultan Abdul-Hameed 2nd Bin Abdul-Majeed 1st. (1876 – 1909 AD) (4) (*Al-Mohami-1986*)

The reign of Sultan Abdul-Hameed 2nd was characterized by constructing many public service buildings, such as the Hijaz railway station with its services as well as renovating a lot of old mosques and historical places in Madinah.



(01) Al-Hashem Sabeel, the general location (1977 AD)

General description of the Sabeel

The ground plan of the sabeel is rectangular. It is 4.5m long and 3.5m wide. It consists of the sabeel building and the well next to it, with surrounding platforms used in moving the water from the well to the sabeel.

The sabeel has four elevations described as follows:

A) The northwestern elevation.

This is the main elevation of the sabeel, on which the marble plaque was fitted. It contains the main openings as well, which are two half-round arches. The arches are 92cm high, starting from ground level. Each arch has two square openings whose sides are 15cm long. The upper sides of the openings are half-round arches.

There are two round stone pillars at the sides of this elevation. They are 1.73m high. Each has a small base and a stone crown. There is a 7cm protrusion in the top part of this elevation, too. This protrusion is in two sages. The first begins 1.73m high above ground level and continues for 1.62m more. The second extends 70cm more up to the roof of the sabeel. This means that the sabeel is 3.05m high.

B) The northeastern elevation

This is completely blank. It is 3.5m long and 40cm thick.

C) The southwestern elevation

This is the longest as it is 4.90m long. It has one small window that is 2.35m away from the western corner of the sabeel. It is rectangular, having a half-round arch whose diameter is 36cm long and 70cm high, from the bottom of the window to the top of the arch. The window is 50cm above ground level. Inside the window, there is a small rectangular opening that is 22cm long and 18cm high above the base of the window.

D) The southeastern elevation

This is blank, too. It is next to the well, which supplies the sabeel. The water is lifted from the well and poured into a stone tank (*gof*), which has a spout taking the water into the sabeel. In the roof of the sabeel, there is an opening that is 60cm long and 50cm wide. This is used for the maintenance and cleaning of the inside of the sabeel, which is 2m deep.

E) The ground plan of the sabeel

The plan consists of four small rooms. Two are 1.5m long, 60cm wide and 2m high. These are the water tanks of the sabeel. The other two are at the back. They are larger as they are 1.90m long, 1.5m wide and 1.5m high. They are built on a higher level so that the water can run easily to the rooms at the front. The water comes to the back rooms through the stone spout in the southeastern elevation and then it goes to the front ones.

Making more than one room for storing the water was done on purpose for the sake of purifying the water by letting deposits or lees settle out. The rooms are cleaned regularly through the opening in the roof.

The well supplying the sabeel is a small one. Its diameter is 2m and it is 20m deep. The sabeel is built of black stone, which was brought from the neighbouring mountains. The elevations are covered with a layer of cement and painted white. The ceiling of the sabeel consists of two rectangular domes. Each one covers two rooms, one at the back and one at the front. The roof is flat to drain rainwater easily.

The building is still in good condition, except for some broken parts in the upper parts of the southwestern and northeastern elevations. These should be mended very soon to avoid damage to the walls due to rainwater absorption.

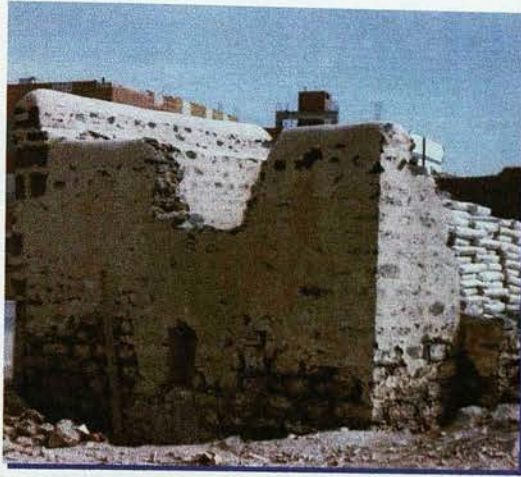
(2) Al-Aqiq Sabeel

Al-Aqiq Sabeel is an example of the connected sabeels. It is one of the many sabeels that spread around Al-Aqiq Valley next to the farms and palaces that Al-Aqiq Valley was famous of in the past.

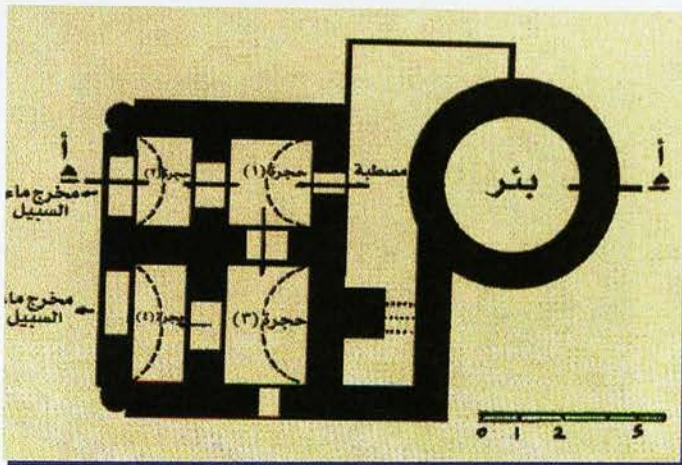
This sabeel lies on the old Madinah – Makkah road, which was known in the past as Camel Road. It was built to provide travelers with water.

Al-Aqiq Sabeel was built in 1918 AD/1336 AH. It belongs to some families who built it next to their farms and gardens. It gets its water from a well in the neighbouring farm where the water runs through a stone stream that ends in a small square pool whose sides are 5.5m long. Before the stream reaches the pool, it splits into two branches: one goes to the pool and one goes to the sabeel where the water enters through a small opening with a spout. Blocking the branch of the sabeel with a rectangular piece of stone can control the amount of water running to the sabeel.

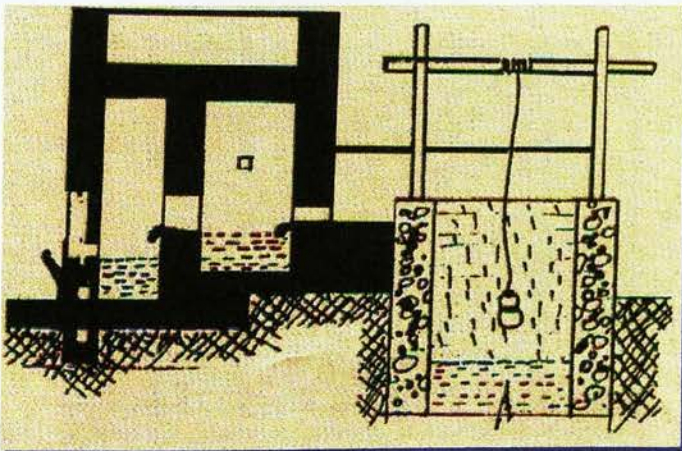
The sabeel is still in good condition, but it is liable to be removed because of the building of a new street around Al-Aqiq Valley. We demand that the concerned authorities should keep this sabeel as an important historical landmark.



(03) Al-Anbaria Sabeel, general location



(04) Al-Anbaria Sabeel, ground plan



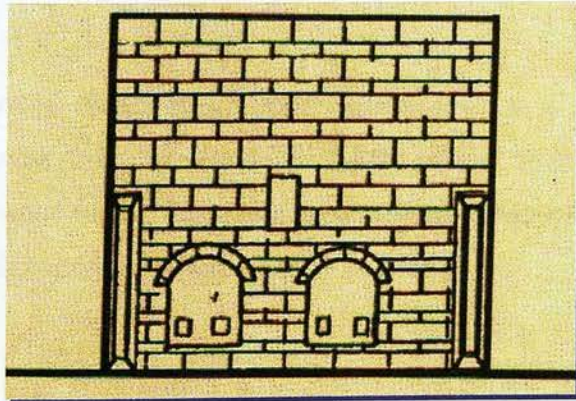
(05) Al-Anbaria Sabeel, section A-A,



(06) Al-Aqeeq Sabeel, Southern side



(07) Al-Aqeeq Sabeel, general location



(08) Al-Aqeeq Sabeel North and main elevation

2-5-5 Cultural architectural characteristics of sabeels in Madinah

- 1- Sabeels were built mainly for the sake of Allah's forgiveness and tolerance by providing drinking water for free. There were people who were responsible for cleaning, perfuming them and fetching good water for them.
- 2- The location of each sabeel differed according to its type and size. Smaller sabeels were attached to buildings and sometimes formed parts of them. These were common at crossroads, near the entrances of courtyards and alleys and under covered areas. This type of sabeel spread around Al-Haram where there were many pilgrims and visitors. The separated sabeels, bigger and with their own buildings, were located along main roads and streets. The most famous of those sabeels were Wadi Al-Aqeeq on the old Jeddah - Madinah road, know as Darb Al-Jamel (camel road), Fatemah Sabeel on Al-Darb Al-Qadeern (old road) in Anbariya and Adela Sultana sabeel on Darb Al-Sahah.
- 3- The smaller, connected sabeel design centred on one piece of stone with a deep sink in it for gathering water which drained through a round hole at the bottom of the sink. At the front there were one or two sinks for fresh water. There were different shapes of sabeels. Some were like corner stones and some were ovoid. Others were fixed on the ground and others were inside the walls.
- 4- As for the separated sabeel design, each consisted of one or more inner rooms in which water moved from one to another for the sake of depositing any lees or any thing that made water turbid. These lees were scooped out through a hole at the top. Sabeels drew their water from wells specially dug for them.
- 5- Separated sabeels were characterised by having low, dome-shaped roofs. Black stone and gypsum were used in building the walls and covering them inside and out so as to guarantee that water would not escape from any of the rooms.

- 6- Some chaplet ornaments were made especially on the main elevations as in Fatemah Sabeel in Anbariya. Stone pillars topped off with capitals were built at the corners of main elevations. Balconies surrounded the tops of sabeels as in Wadi Al-Aqeeq Sabeel.
- 7- Some sabeels had two sinks: one for people and another lower one, where extra water was gathered for animals.
- 8- Sabeels were often raised 50 cm above ground level. Stone benches (mastabas) were made as bases for the sinks to carry them when they were full of water.

6.1 History and architecture of old public baths in Madinah

Public baths were common in Madinah and other regions, especially during the early years of Islam. The first was built by the Prophet Muhammad (PBUH) in Madinah, known as the 'Public Bath of the Prophet'. It was a simple structure with a central pool and several smaller pools around it. The bath was used for purification and social gathering. The bath was destroyed during the conquest of Madinah in 630 AD. The bath was rebuilt by the Umayyad Caliph Umar bin Abdul-Aziz in 717 AD. It was known as the 'Public Bath of Umar'. The bath was destroyed during the conquest of Madinah in 1925 AD. The bath was rebuilt by the Saudi government in 1975 AD. It is now a historical site in Madinah.

Part Two

Chapter Six

“History and architecture of old Public Baths

in Madinah”

The public baths in Madinah were used for purification and social gathering. The bath was a simple structure with a central pool and several smaller pools around it. The bath was destroyed during the conquest of Madinah in 1925 AD. The bath was rebuilt by the Saudi government in 1975 AD. It is now a historical site in Madinah.

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CHAPTER 6

2-6 History and architecture of old public baths in Madinah

Public baths were common in some Arab and Islamic countries, especially Turkey and Syria. The idea was brought from the Roman Empire, which was famous for its old public baths. Then, baths began to spread in Al-Hejaz countries during the Osmanli Caliphate (1336 – 1918 AD). Two baths were built in Madinah. One of them carried one of Madinah's names, Taiba Bath, and the other was Al-Anbaria Bath or Al-Turjoman Bath (after the Turjomans who owned it).

Public baths were not known in Madinah before the Osmanli era because the people of Madinah, following their Islamic teachings, always wanted more privacy than any others. Every house had its own bath, which was primitive if compared to public ones.

2-6-1 Public baths in the books of historians and travellers

Mr. Al-Samhoudi, the historian, said that Sultan Qaitbay wanted to build a public bath and that there were not any in Madinah before that. He said, '...and there were not any baths in Madinah before that.' (1) (*Al-Samhoudi-1505*) Dr. Ibraheem Ref² at spoke about these two baths, too saying, '...and two baths: one of them is inside Madinah zone, built by Sultan Sulaiman Al-Qanoni, and the other is in Al-Manakha. They are similar to the baths of Egypt and they have instruments to tell the time.' (2) (*Refat-1901*) By the first one, he meant Taiba Bath, and by the second, he meant Al-Anbaria or Al-Turjoman Bath.

In his manuscript, Ali Bin Mousa confirmed the existence of these two baths saying, 'As for the baths, there are two: one is in Manakha for Ahmad Nazeef Afandi Al-Turjoman, the supervisor of The Honourable Haram, and the other is in the zone of the Honourable Haram in Zerwan Alley. The later is for the late Mr. Nour Al-Din Al-Shaheed, and there are no other bathes.' (3) (*Bin Mousa-1878*) By the bath in Manakha, he meant Al-Anbaria Bath belonging to Al-Turjoman.

2-6-2 General location and its relationship with the cultural texture

Public baths were secondary elements in the old cultural texture of Madinah, and they did not have the importance of the other elements because, as we said earlier, the people of Madinah wanted more privacy. For this reason, not many people remember them or mention them when they talk about their memories. Moreover, these baths were built away from the centre of the city and its public plazas. It was said that there were seven of them, but this number decreased gradually until they became two only. In fact, public baths never had any effect on the cultural texture of Madinah. Only strangers, especially from Turkey and Al-Sham, where public baths were common, and a few local people used them. They were out of business most of the year, except for during the Hajj and Umra seasons. The architecture of public baths was different from that of the other elements, which were characterized by having flat roofs made of wood and parts of palm trees. The baths appeared with small domes having the main ones in the middle. They were similar to the baths in Turkey and Al-Sham. In Madinah, domes were mostly seen on mosques.

2-6-3 The most important and famous baths in Madinah

The only known baths were two, which we are going to talk about in detail:

First Taiba Bath

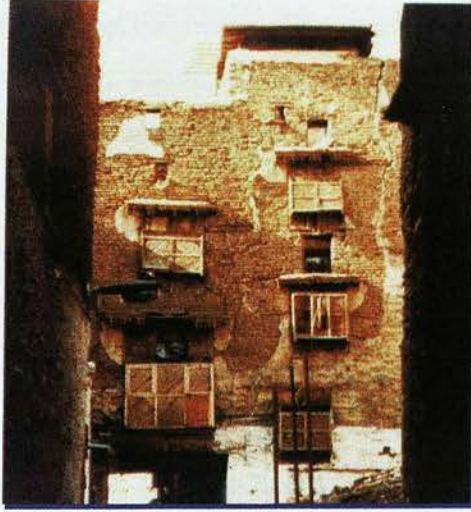
Second Al-Anbaria Bath

First, Taiba Bath

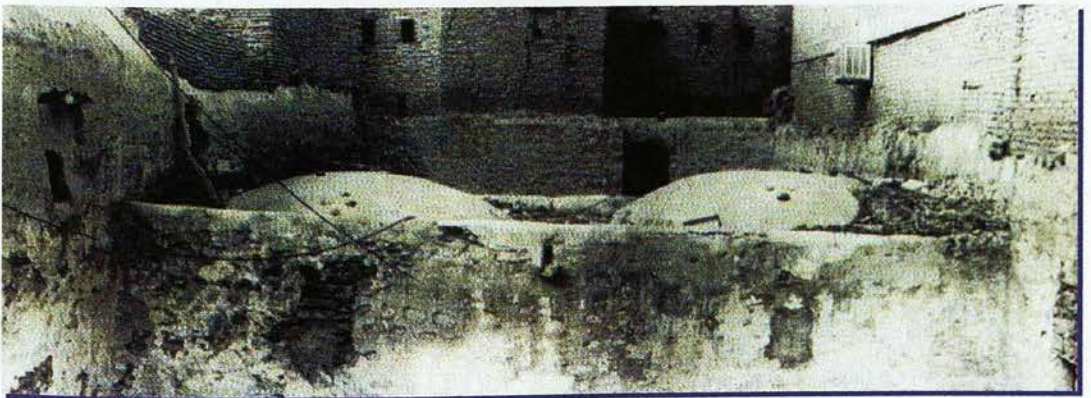
Taiba bath lies inside the first enclosed zone of Madinah near the city wall in the south. This is what Ali Bin Mousa confirms, saying, 'As for the second, it is inside the inner zone next to the wall in Zerwan Alley.' (4) (*Bin Mousa-1878*) He also notes that the bath belonged to Nour Al-din Al-Shaheed. Maybe he means Nour Al-din Bin Zeki, as Al-Shaheed was one of his titles. The bath overlooked Darb Al-Janaez to the south, known today as Darb Al-Janaen. From the west, it overlooked a small alley called Al-Hammam Alley where it had its main entrance. The alley ended with a small door in the southern wall called Bab Al-Hammam.

The architecture of the bath

According to Ibraheem Ref'at and other historians, Taiba Bath was built during the reign of Sultan Sulaiman Al-Qanoni (1565–1566 AD) by Mahmoud Basha. (5) *(Dr. Lam'ie-1981)* It was renovated in 1254AH/1838 AD during the reign of Sultan Mahmoud II (1808–1839 AD). This was written on the plaque fitted above its entrance. It was renewed more than once in the Saudi period, but it was only in the painting and the outside layer.



(01) Taiba Bath, general location in Al-Aghawat Section (Zerwan) (6) *(Agency of Town Planning)*



(02) Al-Anbaria Bath, the general location in the Sieh Area and Al-Tayyar Alley (7) *Agency of Town Planning)*

The general description of the bath

The bath was built of basalt covered with a thin layer of cement. The main entrance was in the northern side. It was between two square stone benches whose sides were 40cm long. They were 50cm high. The entrance led to the main entrance hall, which was known as *Al-Mashlah*. There was a window at either side of the entrance. They were 1.20m wide. This entrance, which overlooked a small alley connected to Al-Hammam Alley, was for men. Another entrance in the eastern side was for women. The roof of the bath had two domes: a large one over the entrance hall (*Al-Mashlah*) and a smaller one over the steam or heat room. The rest of the roof was flat, except for the part above the individual baths, which was covered with small domes.

The ground plan of Taiba Bath

The ground plan of the bath consisted of two main parts:

- (1) The entrance hall, known as *al-mashlah*, and its connected parts
- (2) The steam room, or *bait al-nar* (room of fire).

(1) The entrance hall, *al-mashlah*

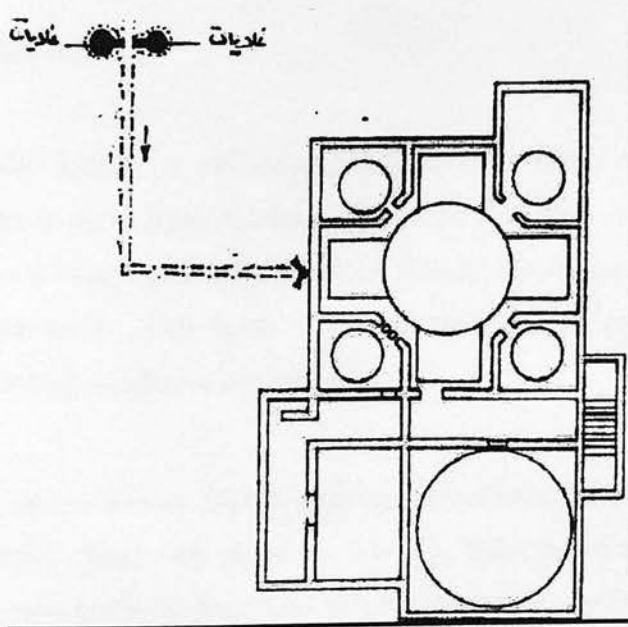
This hall was a square whose sides were 8.5m long. The walls were between 1m and 1.40m thick. A large dome covered this hall. The base of this dome was rounded by four triangles in the four corners. The lower part of the dome was decorated with curves and small windows. In the middle of the hall, there was an octagonal pool that was 95cm high. This pool was used later as a fountain. Three benches were built on three sides of the hall for people to rest after getting out of the bath. They were 70cm high with two stone steps each. In the same hall, there were stairs leading to the roof of the bath.

In the southern wall of the hall, there was a door leading to a small corridor. The toilets lay on its right before it turned to lead to the door of the steam room. There were two pillars in each of the eastern and the western sides of the hall, next to the benches for supporting the ceiling.

(2) The steam (fire) room

This part was at the back of the bath, the southern side, and was nearly square with sides about 7.5m long. There was an octagonal bench under another similar, but smaller one. The lower one was 17cm high and 30cm wide. Its sides were about 54cm long. The upper bench was 40cm high. The two benches were for the people to sit on before entering the showers. There were five shower rooms. Two of them were specified for women. These had a separate entrance and separate steam sources. Each shower room had a group of basins where water was on tap for showering after finishing steam baths. The shower rooms were different in size with different numbers of basins.

The shower rooms	length	width	number of basins
1	5.10	2.80	5
2	2.63	2.28	2
3	2.50	2.10	2
4	2.63	2.18	2 for women
5	2.63	2.18	2 for women



(03) Taiba Bath, the ground plan showing the connection with the water source and the heating section with the steam pipes

On the right, before reaching the steam room, there was a small square bench for the bathers to use while acclimatizing to the temperature before entering the steam room or after leaving it. Its sides were 2m long. It was 50cm high and 3.40m from the steam bench.

Inside the steam room, there was a rectangular basin next to the southern wall of the bath. It was 3m long and 2m wide. To reach it, one had to climb six stone steps. Above this basin, there was a rectangular opening in the wall to allow the steam to come from the water heaters.

The steam room was covered with a dome, which had some openings covered with translucent glass. All the floors of the bath were covered with marble having long cavities for draining wastewater and other cavities for running steam under the bench of the steam room.

In 1405 AH, this magnificent bath was removed with the whole area of Al-Aghawat as a part of the expansion of the Prophet's Mosque and its surrounding plazas.

Second, Al-Anbaria Bath

This bath was also known as Al-Turjoman Bath, after the family of Al-Turjoman who owned it in addition to a large building next to it. The bath occupied a part of the building. This was taken care of in the plans of the two buildings. The two buildings were on the same level. That made it easy to have the inner part of the bath in the building without having to remove any part of it.

Many historians, as mentioned earlier, spoke about this bath, though some of them did not know its name. They only noted its location. Some said it lay in Manakha, and others said it was next to the Madinah wall and here they meant the first wall. According to the plaque fitted on its entrance, Al-Anbaria bath was known later as Al-Nahda Al-Haditha Bath. It was in the Sieh Area, near the bridge known at that time as Al-Mudarrag, and opposite the building of Posts, Telegrams and Telephones to its north. Its main entrance overlooked a small alley off of from Al-Anbaria Street.

The architecture of the bath

In the history books, we could not find much about its date of construction, except for some information indicating that it was built during the Osmanli reign. In these books, every time the Taiba Bath was mentioned, it was said that there was another bath in Manakha or outside the Mosque zone. This was said by Ali Bin Mousa and Ibrahim Ref'at as well as Muhammad Al-Batanoni in his book, *Al-Rehla Al-Hejazia*, saying, '...and there are two Turkish baths in Madinah: one is inside the city zone and the other is in Manakha.' (8) (*Bin Mousa-1878*) This book says that there were two baths having Turkish architecture, and that Sultan Sulaiman Al-Qanoni built one of them. It is probable that Al-Anbaria bath was built at the same time as Taiba Bath (in 973AH/ 1565-1566 AD) during the reign of Sultan Sulaiman Al-Qanoni (926-974AH / 1520-1566 AD). And maybe it was built under the supervision of its owner at that time, Ahmad Nazeef Afandi Al-Turjoman.

General description of the bath

The bath was built of basalt stone, covered with a layer of cement. The building was rectangular having domes of different sizes on top of it. The domes had some small round openings covered with thick coloured glass, which allowed some light into the bath. The dome over the steam room was the largest. There were three shops in the western elevation of the bath. Apparently, these were not in the original plan, but they were added later by the owner with the new concrete building next door. Thus, the western elevation of the bath disappeared, except for the main entrance and a part of the changing hall.

The bath got its steam from large metal water containers fitted in cavities under the floor of the northern part. Under these cavities, there were rooms for tending fires under the water containers. Later, kerosene stoves were used instead of firewood. Water pipes were connected to the water containers to supply them with water. The steam reached the bath through tunnels built of stone, running under the floor of the bath. These had vents next to the walls of the bath.

When I last visited the bath, on 24/5/1411 AH, a large part of the entrance of the men's hall had been removed during the reparation work in the surrounding area at that time. This resulted in opening another entrance through one of the shops in the western side and opening some doors between the men's and women's sections, which canceled women's section.

The ground plan

The ground plan of Al-Anbaria bath consisted of two main parts:

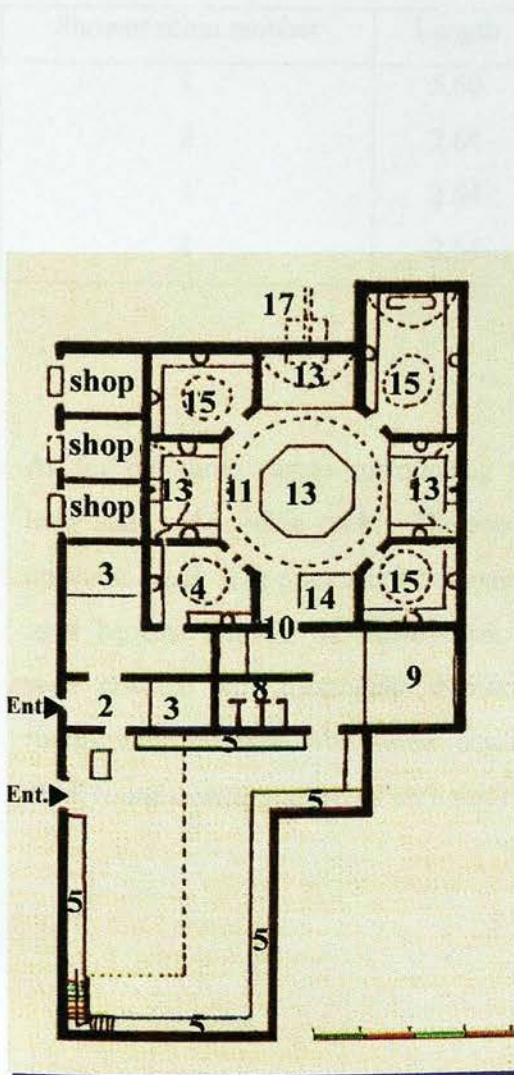
- (1) The entrance hall, *al-mashlah*, and its connected parts
- (2) The steam room, or *bait al-nar* (room of fire).

(1)The entrance hall (*al-mashlah*)

This hall was rectangular. It was 8m long and 5.5m wide. The walls of the bath were from 80cm to 1.20m thick. There were high benches on all the four sides. These were 50cm high and 60cm wide. A 1.20m high bench was built next to the entrance of the bath to be used for making tea and coffee for the customers. All the benches were covered with Arabian carpets for the users to sit on after finishing their baths or while changing. The floor was also covered with carpets. A mezzanine floor was built over about 40% of the ground floor area to be used as additional space for sitting because the main entrance hall was not so small. There was a 50cm high wooden railing, fitted on a wall that was 1m high on the edge of the mezzanine, which was in the eastern part of the hall. There was a door leading to the roof of the bath. There were no fountains or places specified for the supervisor as was the case in Taiba Bath.

There were two doors in the northern wall of the entrance hall, the one next to the entrance led to a small room used as a changing room for women which then led to a small space having a bench for the bathers to sit on before or after having their baths. This space was important for them to acclimatize to the temperature of the room they were about to enter. The steam ran to the women's steam room through small openings coming directly from the main heat room. As for the other door, it led to a corridor where there were bathrooms and toilets. There was also a bench that was 30cm high, 4m long and 3.5m wide. There were three tables on that bench with seats for the bathers

to sit at before or after having their baths. After that the corridor turned to reach the steam room. There was a table between the door and the bench for holding used towels and clean dry ones. There were some cabinets for towels, soap and all the other things necessary for the bath or shower. The roof of the entrance halls for men and women was flat and it was 1.2m higher than the roof of the building.



- 1- The main entrance (men)
- 2- The entrance hall (women)
- 3- The seat for preparing to enter the steam room
- 4- Women's shower
- 5- Seats for men
- 6- A bench for tea and coffee
- 7- The mezzanine for men
- 8- Toilets
- 9- Seats for preparing to enter men's steam room
- 10- The main door of the steam room
- 11- The main steam room
- 12- The central bench of the steam room
- 13- Seats for having baths
- 14- Seats for preparing to enter men's steam room
- 15- Showers or toilets
- 16- The main pool of the bath
- 17- The steam source

(04) Al-Anbaria Bath, the ground plan of the bath before the removal of the main entrance.

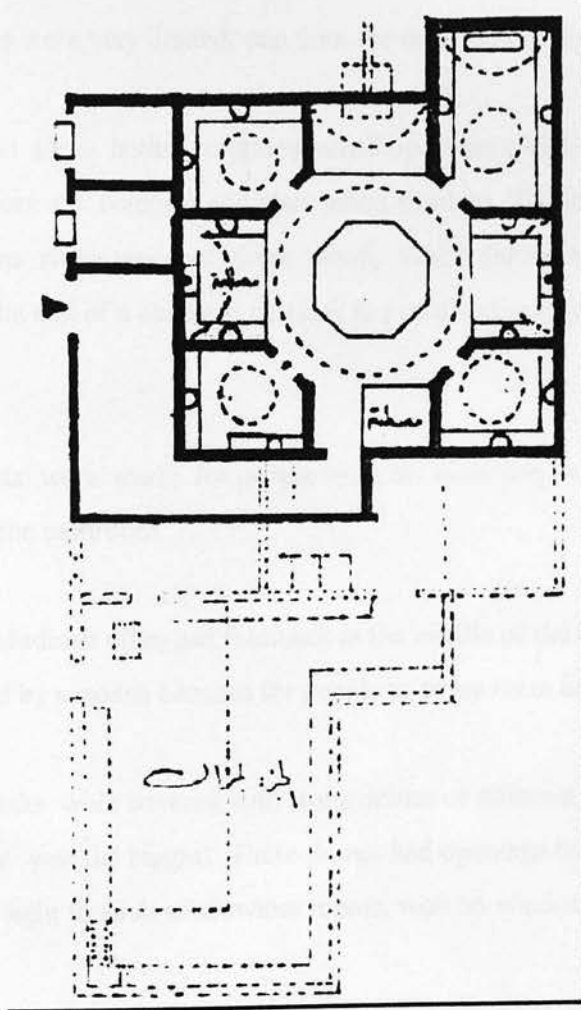
(2) The steam room

The steam room lay in the southern side of the bath, at the back. It was rectangular, 13m long and 10.5m wide. In the middle, there was an octagonal bench covered with marble. This was for sitting on before entering the showers. Its diameter was 3m long and it was surrounded with a 1.3m path. Three curved cavities overlooked this path. These had stone benches on which the sinks were fitted. They were covered with marble and they were 40cm wide and 15cm high. The cavities were provided with water taps that could be used as showers or for cooling down the room. The bath had four shower rooms, which had entrances without doors, having half-round arches on top. The shower rooms' specifications were as follows:

Shower room number	Length	Width	Number of sinks
1	5.60	2.64	2 + a bathtub and a pool
2	2.64	2.64	2
3	2.64	2.64	2
4	2.64	2.64	2

As for the three curves surrounding the centre of the steam room, they were 3.10m long and 2.35m wide each. The pool was at the back of the steam room, next to the northern wall. The pool was 4.5m long and 2m wide. But this pool was removed later as it became outside the steam room. A smaller one was built instead. All the curves were covered with rectangular domes that were each 3.70m long while the shower rooms were covered with some small domes that were different in size, having some small round openings covered with thick, coloured glass.

The domes over the shower rooms were small. Their diameters were each about 1.70m long. They had a group of small round openings covered with thick, blue glass. A large dome was over the centre of the bath. This was 2.70m higher than the other domes and its diameter was 5.60m long.



(05) Al-Anbaria Bath, the plan after removing the main entrance

2-6-4 Cultural and architectural characteristics of public baths in Madinah

- 1- Baths were located in the most populous places. Public baths stood out from other buildings, being shaped to express what they were made for.
- 2- Baths were built with black stone brought from the neighbouring volcanic areas (harrat) and their walls were covered with gypsum inside and out, then painted white.
- 3- Public baths in Madinah had no window opening to the outside but for some small ones for lighting and ventilating the entrance hall. This part was separated from the bath, known then as 'House of Fire' (Bait Al-Nar) or 'House of Steam' (Bait Al-Bukhar) by thick walls. This kept the inner conditions constant. The entrances and exits of the baths were very limited, one door for men and one for women.
- 4- The entrances to these baths comprised small openings with half round or pointed arches with doors of compact and plain wood fixed on. The inner doors leading to the steam rooms were made of thick wood, which did not let heat or steam out. They were at the end of a chicaned corridor to avoid losing much steam through the open doors.
- 5- Some stone seats were made for people to sit on when they removed their clothes before entering the bathroom.
- 6- Public baths in Madinah often had fountains in the middle of the entrance hall. These were surrounded by wooden benches for people to sit on them having had their bath.
- 7- The roofs of baths were covered with stone domes of different sizes. The one over the steam room was the biggest. These domes had openings covered with coloured glass to provide light to such windowless rooms, with no windows.
- 8- Magnificent buildings with thick walls, in some parts over two meters thick to maintain interior temperature and moisture, characterised the public baths in Madinah.

- 9- In the walls, from the inside, there were a lot of curves and angles capped with shallow domes and cavities terminated by half round arches. They held wooden shelves for keeping the bathing requirements.
- 10- Operating such baths depended on steam coming from hot water let into the baths through small openings in the walls to deep cavities below the bath.
- 11- There was a clear difference between straight lines in the buildings and the curves of the domes and arches and between soft and rough surfaces.
- 12- The general structure of the buildings expressed the distribution of the bathing functions. Their shape honestly expressed their use.
- 13- Some parts of the baths were specified for men and were served by different entrances and exits according to social traditions derived from Islamic law.
- 14- Specially dug tunnels and pipes carried water from the neighbouring wells to the bath's cisterns. Some of these cisterns were far from the bath as in the case of the Taiba Bath or under as the Anbariya Bath, known as Al-Turjoman Bath.
- 15- There were no ornaments or drawings inside public baths in Madinah but for some paintings and handmade pictures which were common in the main entrance halls.

History and Architecture of Forts and Citadels in Madinah

Part Two

Chapter Seven

**“History and architecture of Forts and Citadels
in Madinah”**

CHAPTER 7

2-7 History and Architecture of Forts and Citadels in Madinah

The building of defensive and military installations in Madinah is not new. It actually began before Islam. There were many forts built by the Jews who brought the idea from Syria. They sheltered there in times of war. Also, the tribes of Al-Aws and Al-Khazrag built some forts during their wars between each other.

The number of forts that were built in Madinah at that time reached 73; 59 of which were for the Jews and 13 for the Muslims. The Prophet, peace be upon him, told *Al-mohajereen* (the early Muslims who immigrated from Makkah to Madinah) and *Al-Ansar* (the people of Madinah who showed great hospitality and took them in) not to demolish any of these forts, saying that they were part of the decoration of Madinah. (1) (*Al-Khaiiri-1985*) Later, *Al-Mohajereen* and *Al-Ansar* built 56 more forts to make the total number 128. Some of the most famous of them were:

Ka'b Bin Al-Ashraf Fort,

Khell Fort,

Sa'd Bin Abi Waqqas Fort.

These forts were characterized by special defensive characteristics. Each belonged to certain people or families to shelter there and fight their enemies from behind their walls in times of war.

In the past, square houses in Madinah were called *atam* (sing. otom). Also, *atam* in the language of the people of Madinah at that time meant "palaces", and if they were large and always inhabited, they were called forts instead. (2) (*Al-Khairi*)

Forts were also characterized by their strong, thick walls that were built of stone. The outer walls were often high and about 1.40m. thick as in Ka'b Bin Al-Ashraf Fort. The rooms looked upon open courts in the middle. It was extremely difficult to get through those walls or attack the people behind them.

After Islam, other ways to defend Madinah appeared. The new ways were characterized by collective teamwork. This was a result of the changes made by Islam, which tells us to act as if we were one man, especially in times of danger. The first example of this was the building a trench to stop the non-Muslims of Quraish from entering Madinah. (The battle of Al-Khandaq, 5A.H.) Later, other trenches were dug for the same purpose. In 62A.H., Abdullah Bin Al-Zubair had one dug to stop the Omayyads under the leadership of Muslim Bin Uqbah to the north of Madinah. Muhammad Bin Abdullah dug another one in 145A.H. during the Abbasi period. (3) (*Al-Baradie-1972*) Al-Hussein Bin Ali's was dug in 169A.H. to stop the Bani Al-Abbas soldiers. (4) (*Al-Baradie-1972*) In 236A.H., Muhammad Bin Is'haq Al-Ja'di used mud and stone to build the first wall around Madinah to repel the attacks of the A'rabs and Bedouins. He built four gates in it. Abu Shuja' rebuilt the wall in 360A.H. In 540A.H., Muhammad Bin Abu Mansour, known as Al-Jawad Al-Asfahani, built a very strong wall around the Mosque and renewed the wall around Madinah. (5) (*Refa't-1901*)

When the population of Madinah increased and people began to live outside the wall, the fair Sultan Nour Al-Din Mahmoud Bin Zenki was on a visit to Madinah in 557A.H. He ordered another wall built in 558A.H. to keep the people there safe with their possessions. At the same time, he ordered the noble room of the Prophet renewed. (6) (*Al-Batanoni-1988*) Sultan Al-Saleh Bin Qalawoon renewed the wall and added some parts to it in 755A.H. In 881, Sultan Qaitbay rebuilt it.

In 939A.H., Sultan Sulaiman Bin Sultan Seleem renovated the wall. The work was finished in 946A.H. The wall was renewed again in 1078 by Sultan Muhammad Khan, then in 1162A.H. by Sultan Mahmoud and in 1220 by Muhammad Ali Basha, the governor of Egypt at that time. With orders from Sultan Mahmoud, a new wall was built to connect the towers and the citadels. The base of the new wall was made of stone up to the surface of the ground and the rest was built of adobe. (7) (*Bin Mousa-1878*)

In 1285A.H., Sultan Abdul Aziz gave orders to renovate the Madinah wall and made its height reach 25 metres, with 40 towers overlooking the outskirts of the city. (8) (*Refa't-1901*)

Also, Sultan Abdul Hameed had some reconstruction of the wall made in 1305A.H. The project of the Hejaz Railway, which was started in 1901 and finished in 1908 AD, established many towers and citadels along the way to Madinah.

Thus, it is noticeable that the largest and the most important repairs were done during the Ottoman reign when many more towers and citadels were built. Some of these were connected to the wall like the Sultaniya Citadel, built by Sultan Sulaiman Khan, and some were separate like the citadels of Quba', Al-Oyoun, Sayyed Al-Shuhada and Orwa. Most of these towers and citadels, including barracks, were removed during the demolition of the entire wall in 1950 AD.

Here are the most important remaining towers and citadels in Madinah:

- The ruins of the Sultaniya Citadel, known as Al-Qiyada Citadel on the mountain of Sela.
- Sayyed Al-Shuhada Citadel, to the west of Al-Mostarah Mosque,
- Quba' Citadel, which lies on the height of Al-Harra near the Jum'a Mosque,
- Orwa Citadel in the area of Orwa,
- Al-Oyoun Tower near Qanah Valley,
- Orwa Tower on the old Makkah/Jeddah Road,
- A tower on the height of Al-Harra, nears the water tower,
- A wall-towers near the government buildings,
- Al-Tarsis building which belonged to the communication section of the Ottomans army.

Many other fortifications were removed as a result of the fast population and cultural growth due to the absence of regulations which could have helped to preserve many of Madinah's old and historical monuments and landmarks.

Following are two examples of past military architectures of Madinah in detail:

- Forts (palaces designed for defensive purposes): Ka'b Bin Al-Ashraf
- Citadels: Quba' Citadel.

2-7-1 First: Ka'b Bin Al-Ashraf Fort

Ka'b Bin Al-Ashraf Fort is considered one of the oldest buildings in Madinah as it was built before 622 AD; before the Prophet's immigration to Madinah. The exact date of its construction could not be found in any of the old historical sources. All we know is that it was there before the blessed immigration.

Ka'b Bin Al-Ashraf was not Jewish although he lived with the Jews of Banu Quraiza and was respected by them.

2-7-1-1 The location of the Fort

Ka'b Bin Al-Ashraf Fort lays on a hill in the Southeastern Harra in Madinah. The fort now is on your right if you go through Bat'han Street towards the Bat'han Dam. It is now in a lower area than the level of the neighbouring street. Many farms and plantations surround the fort but it is built on a very rough area having similar stone formations to those in the upper Eastern Harra. One can reach the fort from the Prophet's Mosque through Qurban Street and then Al-Sadd Street.

2-7-1-2 Description of the fort:

Mr. Ibraheem Al-Ayyashi says that the roof of this fort was removed by the Jews themselves when they were forced to leave Madinah. Because the building was too strong for them to demolish, they could only take down the roof. (9) (*Al-Ayyashi-1972*) Also, Mr. Abdul Quddous Al-Ansari says: "It is there in the books that when the Jews were surrounded and forced to leave Madinah in third or fourth year A.H., the Prophet (PBUH) let them carry as much as they could from their belongings, except for weapons. So they took the lanterns, chandeliers and the wood used in making the roofs. Because of this, the roofs and arches have been ruined ever since." (10) (*Al-Ansari-1973*)

2-7-1-3 The fort in the books of historians

Many historians described this fort and gave much information about it. Mr. Abdul Quddous Al-Ansari says: "It is 33m long and 33m wide. What is left of its walls is 4m high and 1m thick. It has one door in the western side and eight big towers, each is 140cm high, 80cm wide and 40cm thick, with no ornaments or inscriptions. It is a typical military building, having a square court 1000 m². The ground floor has ten rooms of different measurements. (11) (*Al-Ansari-1973*)

Mr. Ibraheem Al-Ayyashi says, "It is built of large pieces of stone having one door in the western side. It has towers with blank elevations in all sides. Its design hasn't been changed since Banu Al-Nazeer left it."

When I visited this fort, I found it as follows: It has an approximately square plan, as it is 27m from north to south and 26m from east to west. These measurements are from the inside. The outer walls are between 140cm and 160cm thick. In the middle, there is an open rectangular court, which is 26m long and 15.50m wide. The fort has eight big towers whose radius is 180cm each. These are part of the outer walls of the fort.

The fort has one entrance in the western side, but I could not figure out how high it was because many parts of it were ruined. In fact only some parts of the walls, of different heights are still there at the present time. The highest parts are 4m high. Beside the fort, there is a small well next to the southern wall, near the southeastern tower. Its diameter is 3.40m and it is only 60cm from the wall. The inhabitants of the fort could get the water they needed through a stone-lined gully extending from the surface of the well through the wall into the fort. When someone was in the well to bring up water, others could protect him from the neighbouring tower.

The nature of the place shows that it was necessary to dig the well outside the fort because of the hard ground. The fort has ten rooms, five on each side next to each other. The five rooms in the northern side have a small door, only one metre wide.

The rooms are different in size, as shown in the following table:

Room #	Length	Width
1	4.80	4.10
2	5.80	4.80
3	4.80	3.90
4	5.90	4.80
5	4.80	2.90

The southern side also consists of five rooms all overlooking the open courtyard through small doors similar to those in the northern side. The measurements of these rooms are as follows:

Room #	Length	Width
1	4.80	4.80
2	4.80	4.50
3	4.80	4.50
4	4.80	4.50
5	4.80	4.50

There is no sign of the roofs of these rooms. Maybe they were made of parts of palm trees now decomposed or taken down by the Jews before leaving Madinah as mentioned earlier. There are also some ruins near the fort in the eastern side, but there is not enough evidence to be sure what they were. They might have been some utilities or annexes, which belonged to the fort. The fort now is badly in a need of protection by the authorities and repair work on its walls and towers.

2-7-2 The Quba' Fort

The Quba' fort is considered one of the largest forts in Madinah. It was built during the Ottoman era. I couldn't find the exact construction date, but it was built sometime during the last decades of the Ottoman era. This might have been in the period of Sultan Abdul Aziz Bin Muhammad II, who ruled between 1861 and 1876 AD. He had the wall of Madinah renewed and had 40 towers built for defending the city. (12) (*Refa't-1901*)

The Quba' fort, like most of the other forts built in Madinah at that time, doesn't have any plaques to show the date of construction or name of its establisher. This, however, was not the case with other buildings, especially those built in the Ottoman era. These usually displayed their construction dates and in a prominent location, often inscribed on marble or stone plaques and fitted above the main entrances. The reason why such information was not displayed on fortifications, might have been because of their military function. Only their dates of repair of the walls, gates and towers was displayed.

2-7-2-1 The location of the fort:

The Quba' fort lies in southern Madinah on a height in the area of Quba'. It was used for guarding and defending the southern area of Madinah by using heavy guns and rifles, which were kept there to be ready for use. This fort was the one furthest from the centre of the city.

2-7-2-2 General description of the fort:

The building has a rectangular plan. It is 15.40m long and 12.20m wide and it consists of a ground floor and two upper floors. The roof is surrounded by a low parapet. The fort is built of black stone brought from the surrounding area (Harrah) and it is painted white. It has one main entrance in the middle of the northern elevation. This is 1.40m wide and 2.5m high. On top of it, there is a half round stone arch. The door is made of wood and it consists of two parts containing four vertical pieces of wood. The entrance is one step higher than the level of the ground outside.

2-7-2-3 The elevations of the ground floor:

The elevations of this floor have 40 small openings at a height of 80cm from the ground inside. The openings are rectangular from the outside and the inside but are wider from the inside to make it easy to move weapons in times of war. Each opening is 50cm long and 12cm wide. These are distributed equally around the ground floor elevation. There are four larger openings in the corners for cannon.

2-7-2-4 The elevations of the first and second floors:

These two floors have 32 openings in the elevations of each floor. In each elevation, 8 openings are bigger than the ones of the ground floor. The second floor is characterized by having four small towers.

There is also one tower on the western side of the fort having the same height connected to all the floors from inside. It is without windows except for some small openings at the top. There are also four big openings on the corners of the fort's base topped by semicircles. The fort's floors are characterized by each floor being smaller than its preceding floor by about 40cm boosting the fort's strength against any foreign attack, especially attack by cannon, which happened in the past, as is obvious by the destruction caused to the fort's tower. The fort is in good condition at present, but requires some repair work by the Dept. of Archeology.

2-7-2-5 Ground Floor Plan:

As mentioned earlier the ground floor plan is rectangular having a length of 15.40m and a width of 12.20m. The walls are about 1.35m wide decreasing gradually to 90cm at first floor and 50cm at the second floor, and 30cm at the top. This decrease is very visible from the outside, as every floor is smaller than its preceding one. The first floor is 40cm smaller than the ground floor and the second floor is 40cm smaller than the first floor and the roof is 20cm smaller than the second floor.

There are four square pillars of 40cm by 40cm carved out of square stone. These pillars end in a square shaped crown where the wood planks for the roofs are laid.

The roof is made of four main beams connected to the central stone pillar and extending up to the walls. These beams are the base supporting parts of palm trees covered with a layer of clay.

The central plan of the fort also has the main staircase having slabs 77cm wide with a height of about 20-25cm. It is possible to reach every floor of the fort by these stairs, consisting of 8 degrees of one piece of stone or more. The stairway is supported by a railing of 60-70cm and it continues through the floors up to the roof of the fort.

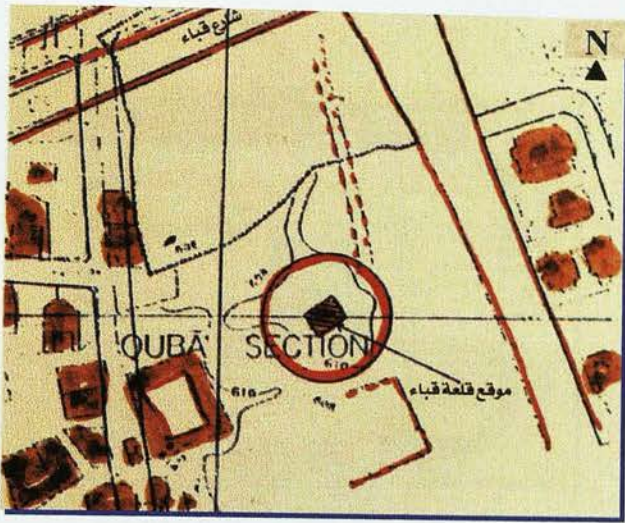
The central part of the fort has an uncovered skylight overlooked by all the floors of the building. There are virtually no wide openings especially on the ground floor. There is also an cavity like mihrab at the western wall of the fort with a depth of 60cm and a height of 2.5m with an arch at the top in the shape of a hemisphere of stone in a well planned shape.

Around this cavity there are two jagged walls from north and west leaving the south side open. This area seems as if it were used as bathrooms by the soldiers. There is also a small opening under the ground extending to the western wall having a very small slope outside the fort.

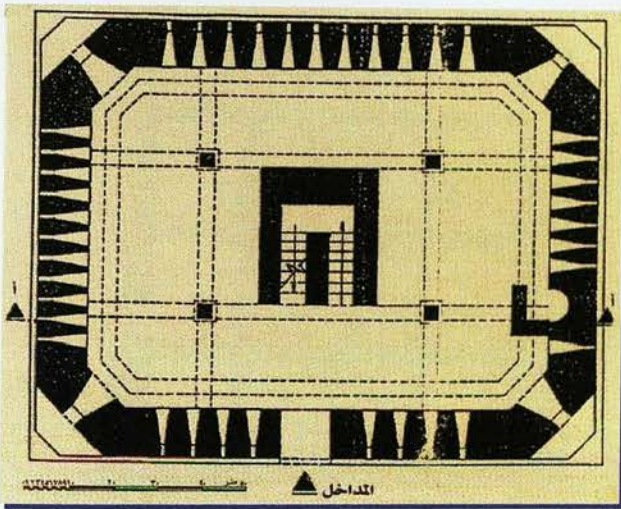
2-7-2-6 First & Second Floor Plan:

The first and second floor plan is very similar to the ground floor except for the difference mentioned earlier in number and sizes of the openings in the upper floors and the fact that they are distinguished by the addition of four towers.

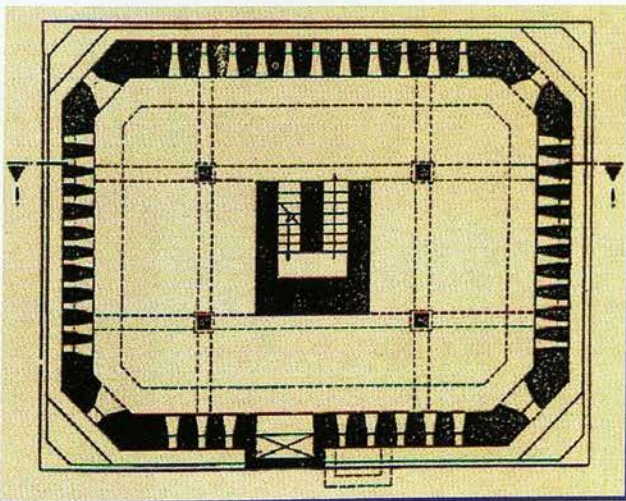
On the top floor there are some small annexes surrounded by the high walls of the fort having openings similar to the ones on the ground floor. There is also an iron mast in the middle of the roof believed to be for unfurling the old flag.



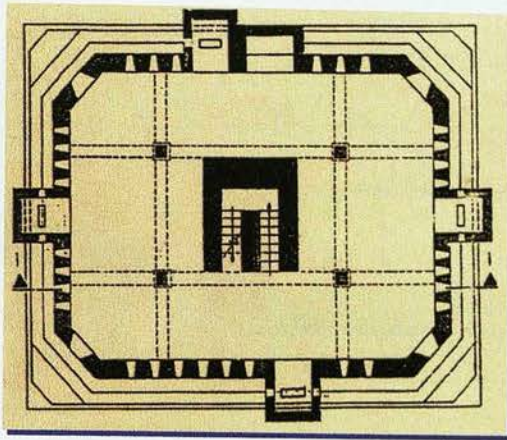
(01) Quba'a fort, general location



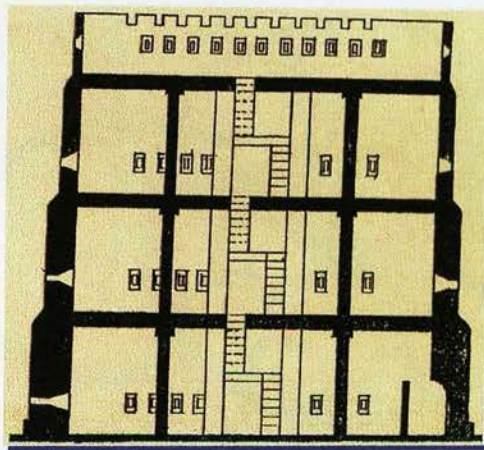
(02) Quba'a Fort the ground floor



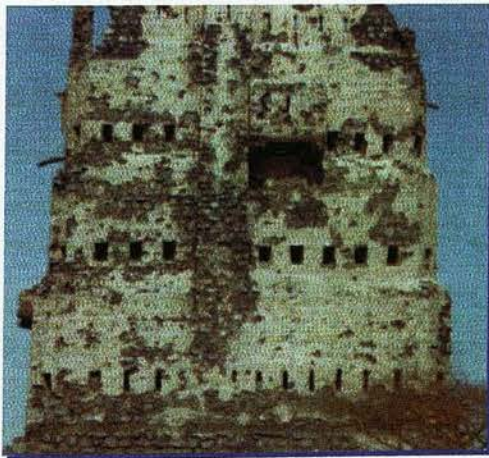
(03) Quba'a fort the first floor



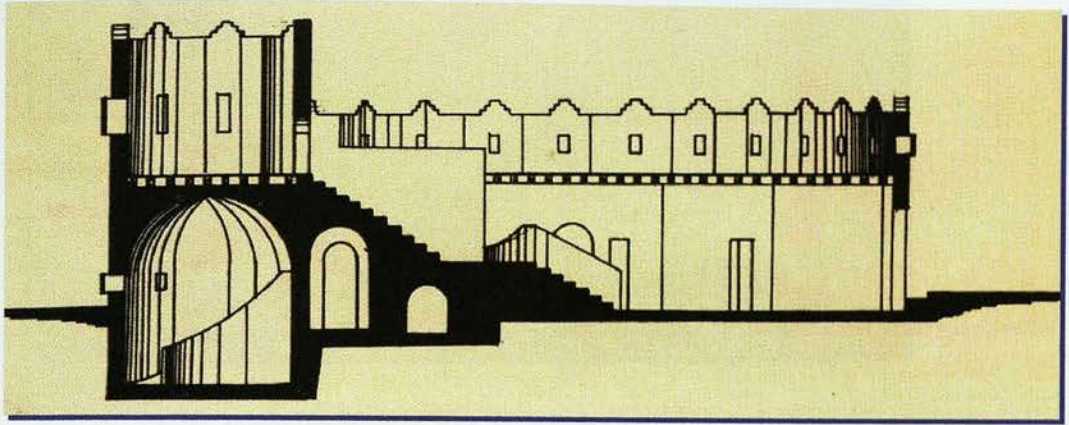
(04) Quba'a fort the Second floor



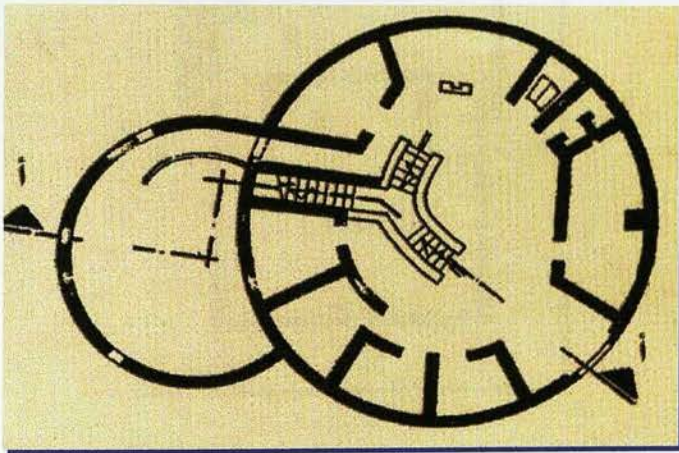
(05) Quba'a fort the Section A-A



(06) Quba'a fort built between 1915 and 1918 AD



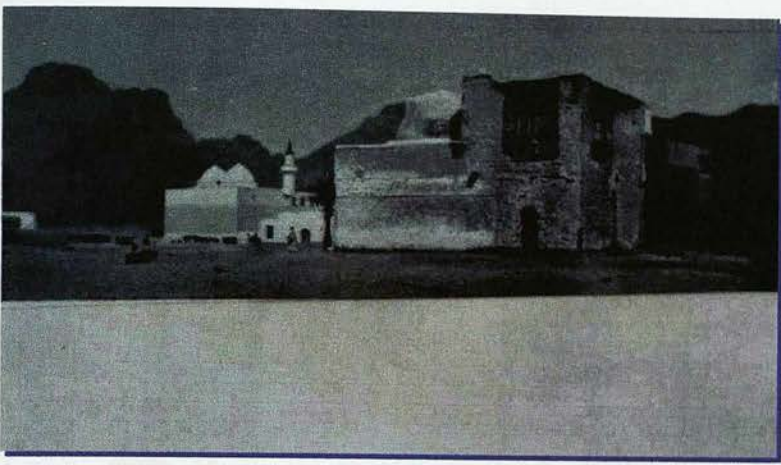
(07) Orwah Tower, section A-A



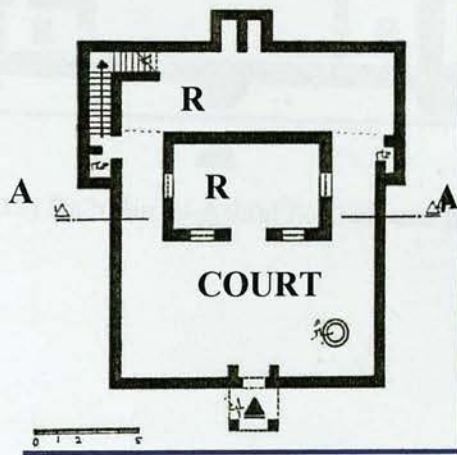
(08) Orwah Tower, ground Plan



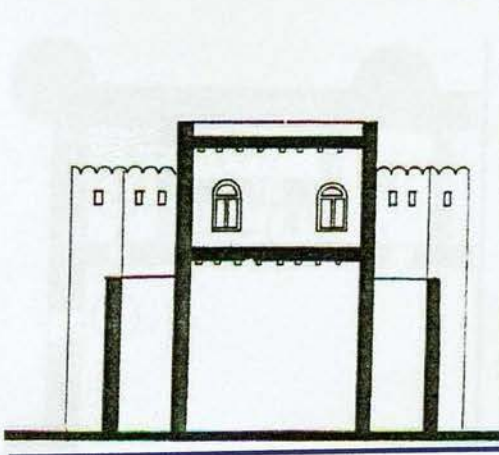
(09) Al-Anbariya tower in 1918 AD



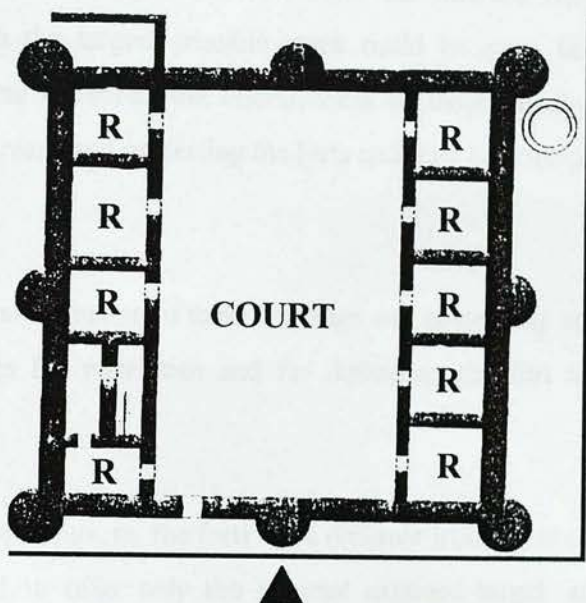
(10) Sayyedna Hamza fort, built between 1915 and 1918 AD



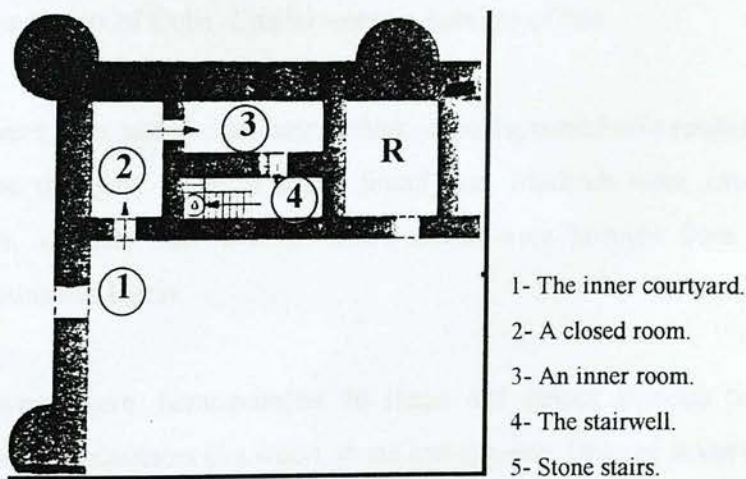
(11) Sayyedna Hamza fort, ground Plan



(12) Sayyedna Hamza fort, section A-A



(13) Ka'b Bin Al-Ashraf Fort, ground plan.



(14) Ka'b Bin Al-Ashraf Fort, showing the evacuation plan in times of danger.

2-7-3 Cultural and architectural characteristics of forts, citadels and towers in Madinah

- 1- Distinctive locations were chosen for forts and towers. They were in high places through which the largest possible areas could be seen like the tops of hills and mountains. This increased the effectiveness of these buildings in supervising the surrounding areas and protecting the forts and their belongings against any possible dangers.
- 2- The architectural formation of these buildings was completely sealed except for some small openings for watchmen and for defending the fort or tower when being attacked.
- 3- The window openings in the forts were different from those of the other buildings, being designed to offer only the minimal exposed target area and guarantee the protection of the people within. They were larger inside to enable the soldiers behind them to move freely with their weapons. At the same time, it was difficult to see what was going on within them from the outside.
- 4- Old forts, citadels and towers in Madinah had very few entrances and exits. In fact, in most cases they had only one each and they were smaller than usual in other buildings. Windows and openings were projecting. Three rectangular openings were made: two at the sides and one at the bottom to see what was happening below and around the fort. The towers of Quba' Citadel were an example of this.
- 5- The outer walls were two and a half metres thick, showing remarkable resilience against attack. The strongest types of basalt found near Madinah were used in building the forts, citadels and towers. The stones were brought from the surrounding mountains and harrat.
- 6- All forts and towers were homogeneous in shape and colour through their construction in natural substances like wood, stone and gypsum. Dressed stone was not used except in some outer parts as ornaments and arches, as in Al-Ettesalat fort (Al-Tersis), in Al-Oyoun Street.

- 7- The buildings of forts, citadels and towers clearly expressed the purpose for which they were built.
- 8- Some forts were surrounded by two walls with limited entrances for more security. This was seen in the forts of Orwah and Al-Tersis.
- 9- These buildings did not have any ornaments or drawings and in most cases they had a rough appearance to suit their military function.
- 10- Some forts had three or more floors.
- 11- Stone arches were used in doors and windows, especially the half round ones, which were used in the famous and important forts like Orwah, Sultaninya and Quba's. The pointed or taper ones were used in Al-Tarsis Fort.
- 12- Balconies and simple crenellations characterised most of the tops of towers, forts and walls.
- 13- Parts of trees and palm trees were used in making the roofs of forts in general while the wood called 'turfa' was used in making the roofs of towers and round forts.
- 14- Some guardrooms and towers were built at the corners of the walls and over the main gates to enable the watchmen to see what was happening around the forts. Examples include the forts of Al-Sultaniya and Al-Tarsis.
- 15- Most of the courtyard areas were left as they were, without any grading, as was the case in Ka'b Bin Al-Ashraf, Orwah, and Al-Ettisalat Forts.
- 16- There were no oriels on the window openings to differentiate between forts and citadels and other buildings.
- 17- Most old forts had wells dug in their courtyards, as in the Sultaniya and Sayyed Al-Shohada' Forts. Other forts had their wells nearby and people could reach them by stone stairs. The wells of Ka'b Bin Al-Ashraf, Orwah and Al-Tarsis Forts are examples.

- 18- There was extra shielding built in some forts such as Ka'b Bin Al-Ashraf. This helped in evacuating these forts without even their people being noticed from the inside or the outside on their way out. These devices were used to protect and rescue people in times of danger.

- 19- There were some stone benches and seats for officers and soldiers and stone safes and cabinets to be used for keeping weapons and ammunition. Al-Sultaniya Fort was an example of this.

- 20- Vaults and tunnels that joined the different forts with the headquarters (Al-Sultaniya Fort) to make it easy to move weapons, equipment and information between the forts in times of war or danger.

1-2 History and Architecture of Traditional Houses in Madinah

1-2-1 Introduction

Madinah is a city with a long history and a rich cultural heritage. The traditional houses of Madinah are a reflection of the city's history and culture. These houses are built with local materials and have a unique architectural style. They are known for their simple and functional design, which is suitable for the hot climate of Madinah. The houses are usually built on a raised platform and have a central courtyard. The walls are made of mud-brick and are decorated with geometric patterns. The roofs are made of palm fronds and are supported by wooden beams. The houses are built in a row and share a common wall. The houses are built in a way that they are easy to cool and have a good view of the city. The houses are built in a way that they are easy to build and maintain. The houses are built in a way that they are easy to live in. The houses are built in a way that they are easy to see. The houses are built in a way that they are easy to love.

Part Two

Chapter Eight

**“History and architecture Traditional Houses
in Madinah”**

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CHAPTER 8

2-8 History and Architecture of Traditional Houses in Madinah

2-8-1 Introduction

Man—by nature—always tries to exploit the surrounding environmental conditions in order to establish a suitable shelter through which he can continue his activities away from difficult weather conditions such as, severe heat, cold, rain, wind, snow and other environmental dangers.

Because every environment has its own social and natural characteristics, buildings varied from one place to another according to shape, materials and methods of construction. These buildings with their different designs related to different periods and opportunities. Each period or civilization has its own characteristics. Buildings are the proof and clear evidence of the interaction between man and his environment displaying the characteristics of his customs and traditions. In fact, the buildings and houses that man builds are nothing but a part of his environment.

So, the successful building must cope with the environment which man belongs to, supplying comfort to man in that environment. The traditional building of Madinah is a clear reflection of this as well. It was built in an environment too hot in summer and too cold in winter. The traditional house adapted to this in shape, design and building methods.

Moreover, the Madinah area is distinguished by plenty of mountains and valleys that supply the good soil. It's also distinguished by plentiful wood that came as a result particularly of palm plantations. The traditional house evolved using these natural resources. The traditional house's walls were built of mud and stone, and the ceiling of palm trunks and branches. Because the inhabitants of Madinah have their own customs and traditions as well as social characteristics and their houses reflected these social features and Islamic customs, with special respect to the rights of neighbours.

The traditional house of Madinah was rooted to its long history. There were the traditional houses built before the Omayyad State with their simplicity and primitivism, then the emergence of the traditional houses and palaces during the Omayyad Caliphate that lasted from 41 to 132AH (166-752AD). An example of this is the house of Sa'eed Ibn Al-Aas, whose remains still exist and are now inside the courtyard of the Old Royal Palace in Sultana. The buildings of that period are also represented by the remains of Aasem Bin Amro Bin Omar Bin Uthman Ben Affan Palace and his dam in Al-Aqeeq valley. Furthermore, there are many ruins of the traditional houses spread through the banks of Al-Aqeeq valley that were magnificently designed with botanical and aquatic elements inside them.

During that period, the traditional buildings were characteristics by their ability to keep cool in hot climate. Many farms, as those in Al-Aqeeq Valley surrounded the houses. An abundance of fresh water for irrigation was supplied by small dams such as the dam of Aasem Ben Amro Ben Omar Ben Uthman Bin Affan.



(01) Traditional houses in Madinah using local raw materials such as stone, mud and wood.

Most of the traditional houses during that period were built of stone and mud and their elevations were whitewashed with lime mixed with sand. Most of these houses were built on heights in order to avoid damage resulting from floods coming from the mountains surrounding Al-Aqeeq valley.

After the Omayyad State, the traditional houses became as simple as they had been before that Caliphate. Their walls were built of the unbaked adobe bricks and the ceilings were of palm trunks and branches. Because there were many disturbances, wars and troubles in Madinah during that period, the inhabitants abandoned their homes and palaces built far from the city at the end of the Omayyad period. Fear forced the people to establish simple traditional houses round the Prophet's Mosque inside the city in an attempt to protect themselves and promote unity among themselves as a deterrence to the aggression directed at them through those wars and disturbances. The economic slump in Madinah during that period also had a great influence, not allowing people to build houses on a large scale.

When the Ottoman State came to power (993-1336AH / 1517 - 1918AD), the traditional houses spread again through the different places of Madinah. Houses were built in the region of Bab Al-Majeedi and to the west of the Prophet's Mosque. The traditional buildings also flourished in the Al-Anbaria and in Al-Seih areas. Beautiful new architecture appeared in form of a series of traditional buildings around an open space forming a new type of building formation known as "courtyard formation".

These courtyards appeared in different shapes, sizes and formations matching the traditional buildings forming them. Some traditional houses were crowded round the Prophet's Mosque. Many homes and houses were built, and groups of magnificent buildings allocated as schools or libraries or inns for travelers.

Some of these buildings were unique in establishing privacy and peculiarity the buildings established on the outskirts of Madinah where the rich and notable of Madinah lived.

These buildings didn't stay as they were connected with a new building formation through building other neighbouring houses to these homes, which resulted in the appearance of prominent building formation. This phenomenon was represented in the established buildings on Al-Saha Street as well as those established at the front of Al-Ambria and Al-Tayar area. These traditional buildings were distinguished with their holding walls made of basaltic stone in the building foundations as well as the lower stories, and with making ceilings of palm trunks and branches. The traditional buildings of this period were characterized by plenty of decorations and inscriptions inside, which were made of gypsum, painted different colours.

The outside of buildings showed many intricate engraved stone-pieces. Gypsum decorations were used round the main windows and doors, and skylights were introduced. It is pity that all these houses were destroyed without trace or ground plans or pictures. Now only a few, rare examples of these houses remain. These are in very bad condition and need the consideration of the responsible parties, concerned with this subject.

2-8-2 The main elements and components of the traditional houses:

The traditional houses in Madinah generally were of two or three floors, and in a few cases, four. The two-floor buildings represent the majority where the upper floor was used for living in winter, as it was warmer than the lower ones due to solar radiation. The walls were also not as thick as those of the lower floors, allowing the radiant heat to penetrate the rooms. The lower floors were used in summer, as they were cooler than the upper floors because of the lack of solar radiation and thickness of the walls. In addition, ground floors were characterized by their ability to hold humidity, especially after watering the ground. The successful design in Madinah's environment is the one that supplies the minimum temperature storage in summer and maximum in winter.

It is clear through the comparison of different ground plans of the traditional houses that they differed in shape, and in the general shape of outer architectural block. So, we find that the general shape of the traditional houses in Madinah was of two kinds:

A. Ground Plans:

That forms an architectural block in the shape of regular shapes such as an architectural block like a regular cubic or like a parallel rectangle. This kind of houses have not any projections in the upper floors except that skylights projections held on wood or stone cables that have a gradual section.

These skylights, sometimes, rise as high as the whole building. These kinds of buildings depend on the block unity and in general, the independence in shape where it appears in a unique character unlike the other parts of the formation.

Some houses of this kind contained an inner courtyard to which all the elements of the inside were directed. This courtyard contained some plants and aquatic elements in order to moderate the interior of these houses. This courtyard was often smaller than courtyards in other traditional Arab houses.

This kind of design appeared as an attempt to find a kind specialty by directing all

the rooms holes to this courtyard.

Also, make most of the outer walls closed to some extent. These courtyards helped in cooling the temperature and protecting the doors and windows of the rooms from direct sunlight, especially after vegetation and aquatic elements added humidity and flow. Courtyards also provided the necessary illumination without permitting the entering of direct sunrays. This courtyard, in most cases, was used as an inner living space where the adults socialized and children played.

B. Ground Plans:

These houses having this kind of ground plan were the majority, particularly, around the Prophet's Mosque. The architecture of these houses appears fragmented. These ground plans were often irregular shapes, because of their neighbourhood and their old architectural formation.

Houses were built on alleys with small elevations to expose as little as possible of the buildings' surfaces to the sunrays. They had few windows and doors, which, in turn, helped in preventing the penetration of the outside temperature inside the building.

Moreover, the lack of freestanding walls, as a result of one house being built against another, helped in decreasing the absorption of the outside temperature into the building. Thus, the ground plans of these houses were of different, irregular shapes.

It is obvious through the comparison of the different ground plans of the traditional houses that they all had the same main inner elements and components. We hardly see any ground plan of a traditional building in Madinah containing anything other than these elements.

These ground plans only differ in that one ground plan contains all of these elements and another only parts of them, or the locations of these elements differs according to the house's location and size. If a house was big, its ground plan contained all the known inner elements and components that formed the traditional houses. Ground plans also differed in the allocated size of each element, according to the size of the plot.

The main inner elements and components can be divided into four main units:

- a) The hall unit (Al-Qa'aa)
- b) Al-Diwan unit.
- c) The vertical movement element unit.
- d) The different uses and services unit.

a) The hall unit:

The hall is the largest architectural space of the ground floor in the traditional house. It is like two opposite sitting rooms, separated by a covered courtyard, which is erected as high as the whole building. It is open on the top which ends with a coverage of thick cloth, that is fixed on moving wooden pillars and beams, where it is possible to control the opening and closing of this coverage through the hall itself, by a special rope tied on the top to this coverage and is fixed at the hall bottom. When pulling this rope down, the courtyard opens allowing both light and air.

The ground level of these opposite sitting rooms is higher than that of the one furnished with luner quarters of stone with a degree or two for protecting the ground of the two sitting rooms from a possible fall or leaking of rain water across this courtyard inside the hall.

Also, some rooms in the upper floors are opened with windows and holes at this courtyard. Specially, the rears that have no holes or windows outside for getting the needed light and air for these rooms across the courtyard.

This hall is known of no windows or holes to the outside and gets the needed illumination and ventilation through the courtyard, which stands in the middle of the hall in the form of an open-air courtyard. Thus, a suitable place for the family to sit was available.

The hall: is formed of two spaces in the middle of the traditional house. It has no windows to the outside and gets the air and light through an open inner courtyard.

b) Al-Dewan Unit

Al-Dewan unit was considered one of the most important inner elements of the traditional house after the "Hall". It lies on the ground floor in the middle of the component elements of this floor. It is often one sitting room and a hall.

Al-Dewan is one space open at an open-air courtyard from which all the required air and light is supplied. It has no elevation at all the outside.

The description of Al-Dewan and the Hall coincides in many things except that the Dewan contains only one sitting room, which opens at the inner courtyard directly whereas the hall contains two opposite sitting rooms with a hall between them.

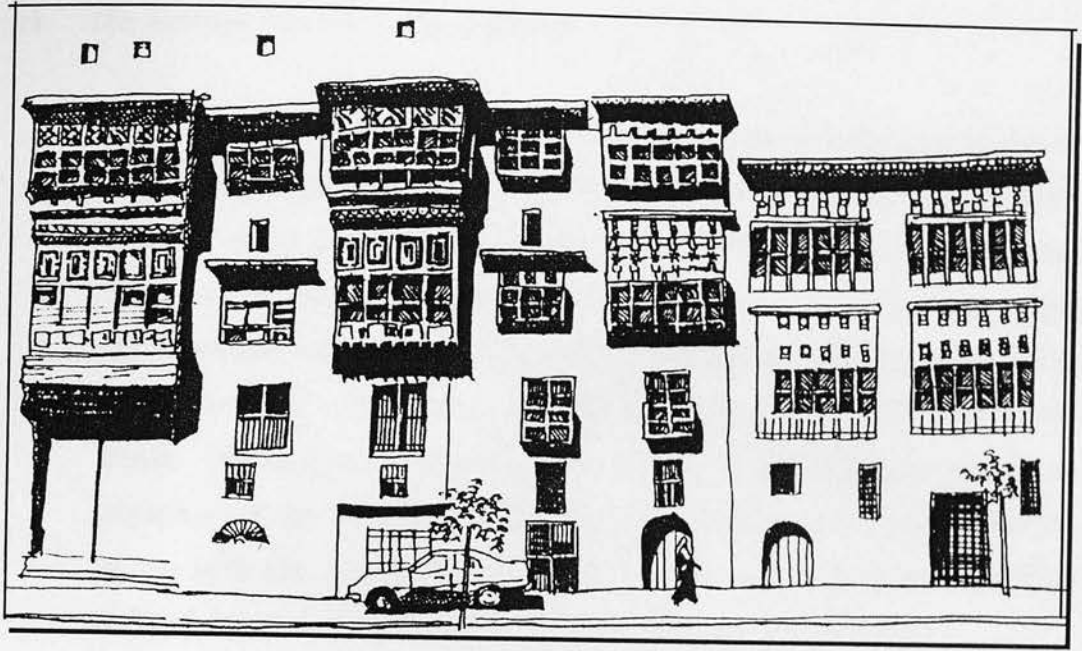
The floor of the hall was furnished with foundations of stones that were lined up often close to one another. Al-Dewan rubble stone was higher than the ground level of the stone foundation with a degree or two in order to avoid penetration of rainwater.

Also, Al-Dewan was characterized with no windows or holes to outside as it the required air and lighting was available through the courtyard. Its ceiling was covered with thick cloth, which was fixed at the beams and pillars of the wood fixed with a rope of flax fiber that dangled inside the courtyard.

This covering was sued to prevent the rainwater and dust penetrating the Dewan and limit the scorching sunrays during summer. The lower end of the sunroof rope was fixed at a corner of the court at the height of a frame so as to control the opening and closing of this sunroof when required.



(02) Typical traditional elevation in Al-Madinah



(03) Bab Al-Mahidi (Examples of Roshan)

c) **The Vertical Movement Element Unit**

These elements are represented in the existence of the steps that play the role of the vertical connection between the different level of a house. These steps can be reached across a broken corridor that attaches to the hall of the main entrance. This is done for keeping the inner privacy of the inhabitants and for not unveiling the movement and activity of the family inside the house, which represent in the family members' shift between the elements of the upper and lower floors of the house. This is done by using these steps specially in the small houses that has no repetition of the services elements such as the single bathroom or a kitchen that serves both the lower and upper floors. This necessitates the importance of the using the steps in all the family's movements and shifts inside the house.

There were small skylights and ventilation in these steps near the walls. The number of these skylights determined according to the number of the step lapels. Some traditional houses in Madinah were marked by plenty of lapels of steps for decreasing the number of steps in each lapel and for creating some architectural elements such as the attic and the steps toilets by using the levels differences resulting from the diversity of the steps lapels and the light of the hall ceiling.

d) **The Unit of Different Uses and Services:**

The traditional house in Madinah also contains another group of elements that were as important as the mentioned elements. These were exploited in different uses that meet the needs of the family members who lived in these houses.

Moreover, the elements of these services inside these houses are among the main elements, which are indispensable. The traditional houses in Madinah were characterized by the plenty of its elements.

The number of these elements differ from the building to another according to the size of the traditional house, and to the social and economic standard of these houses inhabitants.

In addition, the elements of the traditional house are marked by the diversity of uses for the same element. Thus, we can see the back rooms were used as a place for the family to sit and eat. Also, those rooms were used for sleeping, especially in the winter. As we can notice, the sitting rooms (Majlis) were used for the guests and as a place for the family's living. Also, the Majlis was used for sleeping especially in summer or in the case of the presence of relatives. The Majlis was the place of their stay and eating. The unit of different uses and services were represented by architectural elements that have the greatest role in forming the traditional houses and in linking between its elements.

We'll tackle two buildings of the traditional houses. We will talk about them briefly, they are:

1. The house of Sheikh Ziyab Nasser
2. The house of Al-Hakeem

2-8-3 The House of Sheikh Diyab Nasser

Location:

It was located behind King Abdul Aziz library from the western side. The eastern side of the building looks at one of the side paved street. This side street separated between the library and the building from the eastern side. However, the side face looked at a yard belonged to Madinah Municipality. However, the other two sides, western and southern, had no door or windows because the building was close to other structures.

Sheikh Nasser built this site in the era of Ashraf in 1338AH. This building was built before 1300AH. This date was the date of Sheikh's birth. The building had some destruction when the citadel revolted. Because of this, Sheikh Diyab rebuilt the site as it is now.

2-8-3-1 Architectural Description

The building consisted of 3 floors. The ground floor and first floors were built of stone. However, the second floor and the parapet were built of clay bricks.

The main elevation of the building consisted of a group of elements, the most important of them were connected oriels which covered the whole elevation of the first and second floors. At the top, there was a single flat oriel through which the upper room overlooked the main street. The elevation of the ground floor had the main entrance of the house. It was under a half round arch inside a deep cavity and it had two small benches which were removed later. The entrance has a wooden door decorated with different plant and geometrical ornaments. The entrance was surrounded by a group of regularly shaped pieces of stones in a well-organized and beautiful formation.

On the left side of the entrance, there was the oriel of the reception room, which covered most of the elevation of the back part. The rest of this elevation was covered by units or engraved stones in regular formation up to the second floor. The northern elevation overlooking the part had one flat oriel.

All the oriels were not projecting except for the upper crown, which surrounded the top. Four other oriels covered some of the first floor elevation they were similar to the ones on the second floor except for not having projecting crowns. The elevation of the ground floor had some windows with steel bars. There was a side door in the left side having a half round arch on top. The door consisted of one part and it was made of wood. It led to a rectangular entrance used by the members of the family. It was separated from the main entrance in the eastern elevation for more privacy in the presence of guests.

The Ground Floor

The ground floor consisted of four rooms occupying most of the plan which consisted of the main entrance which led to the entrance hall. This hall led to the other entrance hall leading to the staircase of the house. This had some openings for light and ventilation. Next to it there was the *dewan* which had one sitting room and a small open courtyard. The courtyard had a door leading to the corridor connected with the side entrance hall. The kitchen and the well compartment had access to the same corridor through a wooden door opposite to another door leading stairwell. The main hall occupied the back of the house. It had two sitting rooms and one courtyard.

First Floor

The first floor plan consisted of two main parts. The first one on west consisted of a living room and a bedroom having an entrance right after the corridor of the staircase. This corridor also had a bench to be used by the elderly people. A toilet was next to this bench from the western side and this corridor had an entrance directly with the staircases having a small wooden door.

The second part, the eastern one, at the back of the house consisted three rooms, one long room adjacent to the northern wall and was used for sleeping. This back section

had an opening to a corridor providing lighting and air through the middle skylight. This corridor was ending at the kitchen at the southern wall with an access to the well. This side also had a bathroom with a ventilator on the western side. The third room was accessed by a small door through the kitchen, which was used for kids. Between these bedrooms there was an open space right up to the roof.

It is to be noted that these big and small bedrooms got the required light and ventilation through small ventilators on northern and southern sides having no windows towards the corridors. This planning was reversed on the second floor as there were windows opening towards the corridors providing lighting and air. This strategy was very familiar in the olden architecture of Madinah.

Second Floor

Mainly consisted the same elements as mentioned for the first floor except some minute variation such as no bathroom next to the bench replaced by a water tap used for washing and ablutions. The second difference was that the big bedroom was replaced with two small rooms. The room on the west was connected to the room on the east through a staircase ending right inside the rooms due to its high elevation compared to the eastern room. The western room had its lighting and air through flat ventilators on the northern wall. Just opposite to this side there was a window on the southern side opening towards the courtyard. While the eastern room had only one flat ventilator in the north. Both the rooms were used for sleeping during the summer.

The main bedroom was higher than the kitchen and could be accessed through the steps in the kitchen through the backyard. The backyard had only one window for air and lighting opening towards the main open hall. The window of the first room was just opposite to this bedroom from the southern side.

The Roof

The roof consisted a large room on the northern corner with a large flat ventilator on either side. The room was used as a storage area to store utensils, clothes and seasonal articles for summer and winter.

On the southern corner a cage like room was there used for poultry with a small wooden door. There was a small bathroom opposite to this room and next to it the place was used to keep the mats for a day nap.

2-8-4 The House of Al-Hakim

The endowment of Al-Hakim lied behind King Abdul Aziz Library to the west. It was next to Sheikh Diyab Nasser and it overlooked the main street between it and the library.

2-8-4-1 Architectural Description of the Building

The building had three floors. The ground one was built of stone, while the first and second was built of stone and clay bricks known as local bricks.

The main elevation of this building consisted of seven separated oriels. Three on the first floor, three on the second and one on the ground floor for lighting and ventilating the entrance hall which was specified for guests and visitors. The last oriel was removed and replaced with a door because the hall was used later as a shop overlooking the street. This change led to the losing one part of the whole beautiful formation.

The main entrance lied in the middle of this elevation. On top of it, there was a half round arch. The entrance had a door consisting of two parts opened to the inside. Above them, there was small window with vertical bars of steel for lighting the entrance hall. The northern and western elevations were blank while the southern elevation had some small openings for ventilation and lighting some rooms, corridors and stairwell.

The Ground Floor:

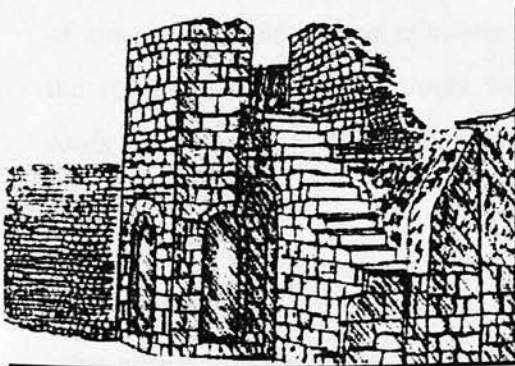
The plan of the ground floor shows that it had a hall having a door leading to the reception room, when the later was changed to a shop, the door was cancelled. The hall ended with a corridor leading to the main stairs of the building. It met a smaller corridor leading to a Dewan and the main hall. The Dewan opens directly into the courtyard through the main entrance to the hall. The small corridor also lead to the kitchen and the well and then to a small bathroom down the stairwell.

First & Second Floors:

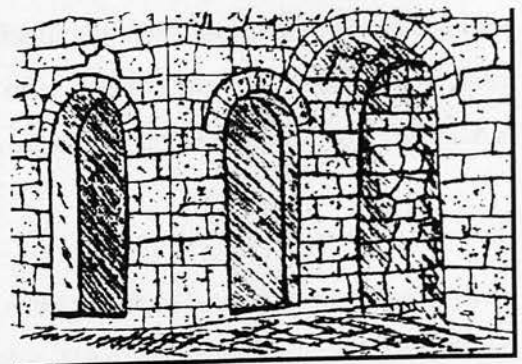
The first floor had four rooms. One of them is small and it was used as a sleeping room for some members of the family. It was in the northwestern part. This room had light and ventilation through a window overlooking the courtyard. In the opposite side, there was the southwestern room, which was used as a kitchen. It had light and ventilation through a window, in the southern elevation of the building. Between the two rooms, there was a bench used for finishing the kitchen work like cleaning and peeling vegetables and preparing the food for dinner. This bench was in a cool place, so it was good to sit there and rest during the noon hours. It had light and ventilation through a large opening on the skylight of the ground floor. Next to the well, there was a bathroom, which opened into a small corridor connecting between the eastern and the western wings. The eastern wing consisted of two rooms with a bench between them. The first room was used for receiving guests and relatives while the other room was used for sleeping. Both rooms had light and ventilation from the oriels on the main elevation of the building. Especially elderly members of the family used the bench for sitting.

2-8-5 Cultural and architectural characteristics of traditional houses in Madinah

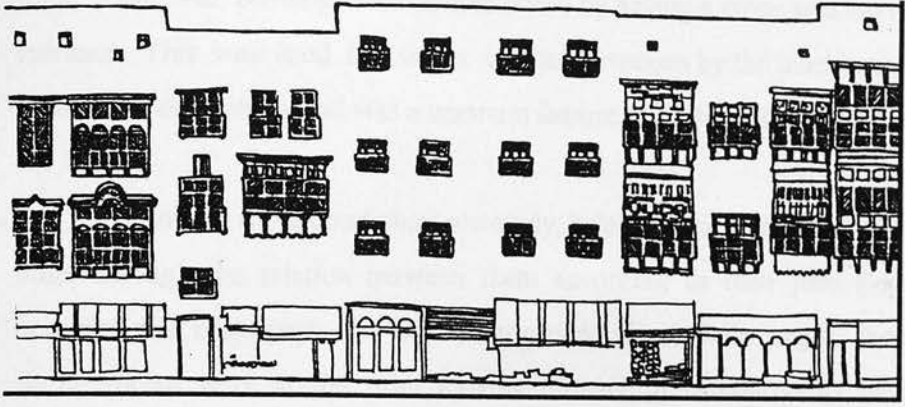
- 1- Traditional houses connect to deep roots through expressing the long history of Madinah. Each period had its own style in building, which reflected its characteristics.
- 2- Old houses belonged to the cultural structure and they were directly connected with its components. No one building could be different or separated from the others. Thus, courtyards, lanes and alleys appeared tied together in a beautiful and distinctive way.
- 3- Traditional houses in Madinah were built to approximately equal heights and of were either one or two floors. These formed the vast majority of the cultural texture of the city. Three-floor houses were also scattered along the main streets and alleys.
- 4- Most traditional houses in Madinah looked upon courtyards or alleys through small façades having windows covered with oriels (wooden ornaments of Islamic style to provide shade and prevent being seen from the outside) to make harmony with the façades of neighbouring buildings.
- 5- Most traditional houses were built of stone and mud. Their walls were covered from the inside and the outside with a layer of gypsum before they were painted white. Only a few buildings had their stones left with natural shape and colour, as did the houses of Al-Saha Al-Qadima.
- 6- Window openings to the rooms varied according to their uses and directions. The ones of bedrooms were different from the ones of reception or service rooms.



(04) A drawing showing some stone building details



(05) A drawing showing some stone arches.



(06) Details of connected windows covered with wood.

- 7- Ground plans of traditional houses varied according to the area and location of every building. Irregular plans appeared in Al-Aghawat Alley and some courtyards, while square and rectangle-shaped houses were built on main streets and alleys like Al-Sahah, Bab Al-Majeedi and Al-Anbariya.
- 8- Old traditional houses had walls that were sometimes 1.5 metres thick for more strength and resistance against weather conditions. Cavities could be made in the walls to be used as seats, each known as 'dickat al-rowshan'.
- 9- The architectural design of old traditional houses in Madinah had a typically Islamic, inward-looking style; with all room windows looked directly upon the inner courtyard except for some windows on the main elevations used as sources of light. The latter were often made in the middle of the hall spaces or one of the 'diwan' (entrance hall) sides. The floor level of the light holes was 30 cm lower than the level of the room itself to stop rainwater falling through their openings and running into the rooms. The light hole floors were often covered with square stone. They had roofs of thick cloth. Many rooms derived their requirements for light and fresh air from these openings.
- 10- Strength and thickness characterised the doors of the traditional houses' main entrances. They were often surrounded by half-round-stone arches. There were pieces of stone above the keys of arches. Two stone seats, each about 60 cm high, surrounded the main entrances. In front of each entrance, some stone stairs were built to lead to the level of the first floor corridor.

11-Some traditional buildings were characterised by having a stone seat next to the entrance. This was used for sitting in the afternoons by the inhabitants of the house or their relatives and was a common feature of traditional courtyards.

12-The inner units in the ground plans were tidy, balanced and connected with each other through the relation between them according to their jobs. Bedrooms occupied the back parts the first floor ground plans, while 'majlis' rooms and sitting rooms were at the front looking directly upon courtyards or streets. Guestrooms were on the ground floor next to the main entrances or at the front, as were the 'diwans' or entrance halls. They could be reached through special corridors to keep the privacy of inner parts of such houses.

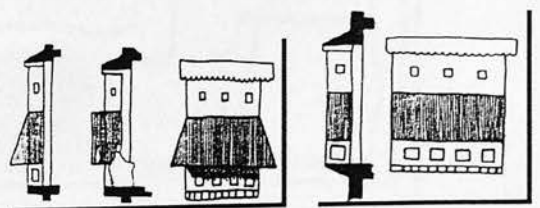
13-Some traditional houses, such as Asa'd and Al-Safi houses in Al-Saha Street, show luxurious architecture and beautiful ornaments. These make them highly crafted and elaborate examples of traditional house architecture.

14-The roofs of traditional houses were covered with the branches of palm trees, then a layer of mud. The upper floors were always characterised by the thickness of their roofs, offering resistance against weather conditions. These roofs could be used for sleeping on after spraying them with water. Walls, having some battlemented parapets, ornaments and balconies built of red bricks, surrounded these open roofs.

15-Traditional buildings in Madinah were multi-level. A two-floor building had more than two levels. New elements in the architecture of old traditional houses in Madinah began to appear.



(07) An elevation with no windows.

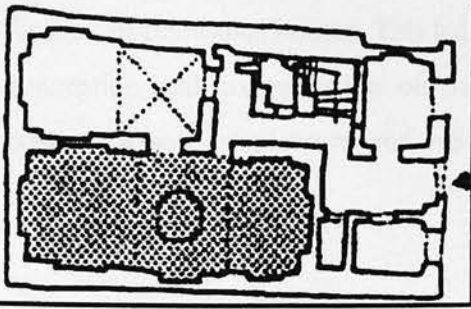


(08) Extra projections to increase privacy.

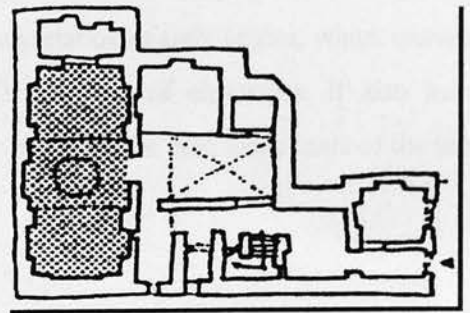
16-Curves and angles were caused by differences in the thickness of walls between the first and second floors. This also created spaces under stairs, some of which were used as cabinets and the second were used as cool places for keeping food and water. Some spaces on stair landings were used for building bathrooms, known in Madinah as stair baths.

17-Walls of the inner rooms of traditional houses had many cavity-like windows known in Madinah as 'tiyaq' (singular: 'taqa'). Wooden shelves were fitted on them to be used for keeping household goods like antiques and lamps.

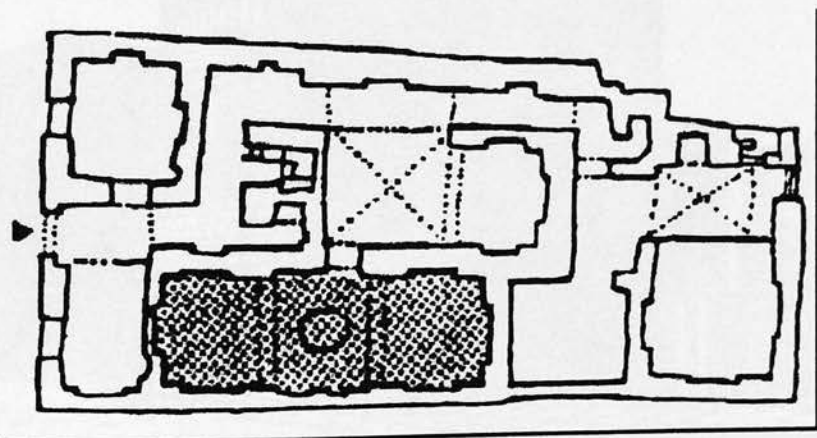
18-Most traditional houses contained wells dug during the construction of the building. These provided water for washing and general uses except for drinking and cooking, which needed water from special wells.



(09) Plan showing a side hall in a traditional house.



(10) Plan showing hall to the rear of a traditional house



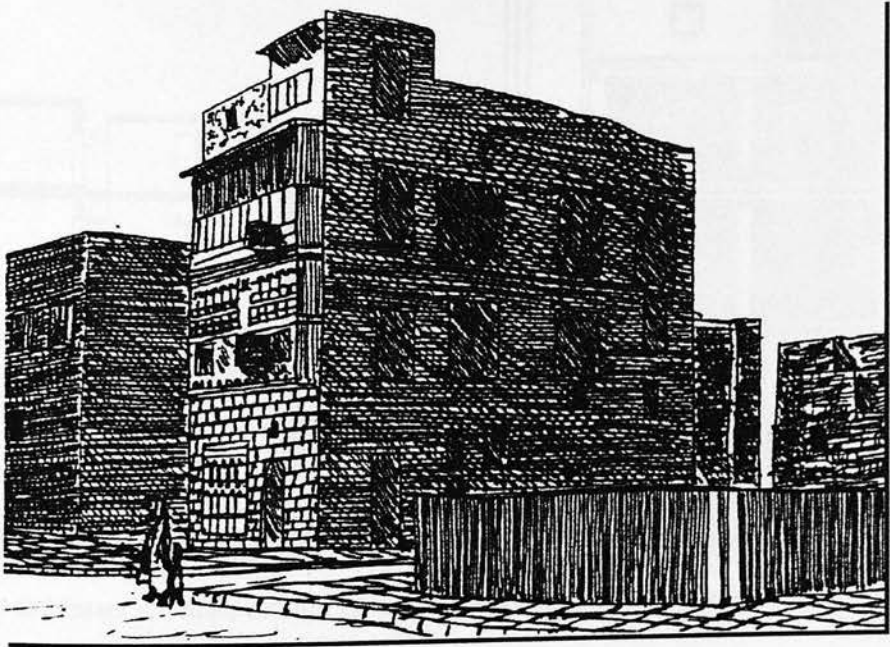
(11) Plan showing a side hall near to the main entrances of traditional house.

19-Some houses had ornaments and drawings especially on upper floors. They were on the ceilings, wall edges, doors, windows and oriels.

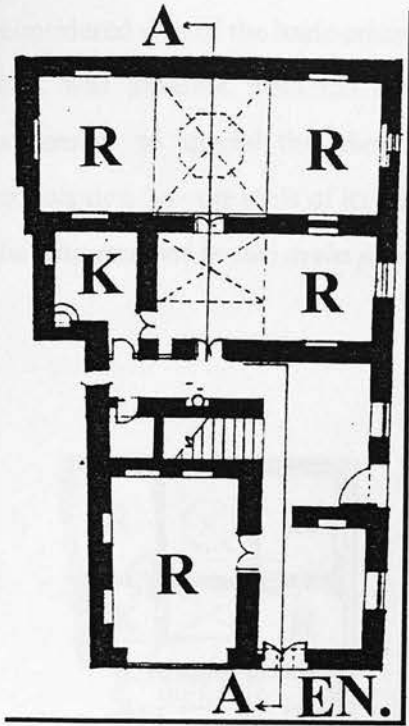
20-Certain areas in the ground plans were specified for stone stairs. They were often in the middle of the buildings. They were built of stone on the ground floor but on the other floors they were built of red bricks supported by pieces of wood.

21-Anthropometric (human) measurements were used in the construction of units and courtyards or alleys. The arm, hand and foot were used. This established an overall and unifying sense of organic scale in urban design and cultural architecture.

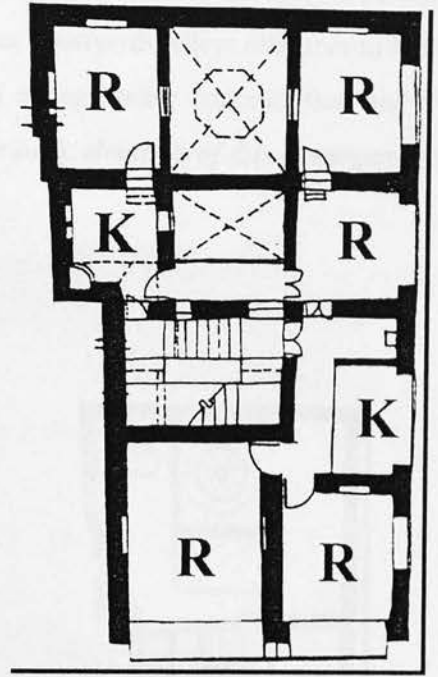
22-A gradated and hierarchical organisation of elements became customary in the façades of traditional houses. This led to the variation of sight angles, which increased conception and concentration on the different units of elevations. It also helped creating a sort of pleasure and relief for the visitors and inhabitants of the urban texture.



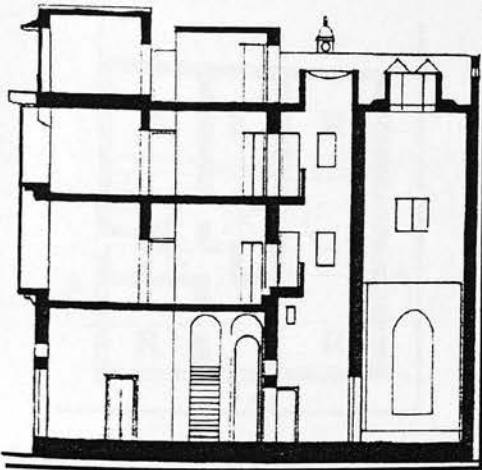
(12) Sheik Diyab Nasser's house (on the right) and Al-Hakeem's house next to it (on the left)



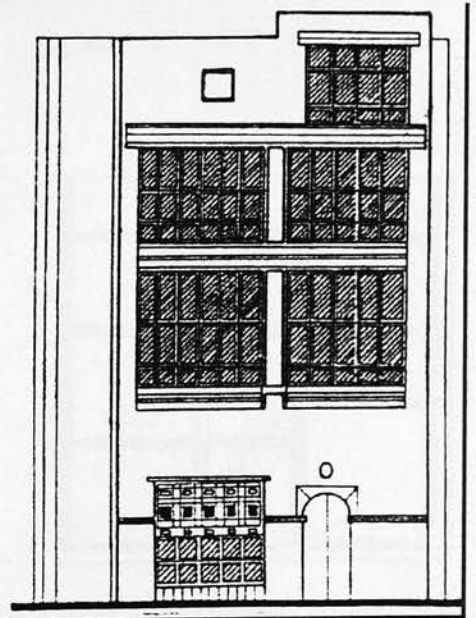
(13) Diyab Nasser's house ground floor plan.



(14) Diyab Nasser's house, first floor plan.

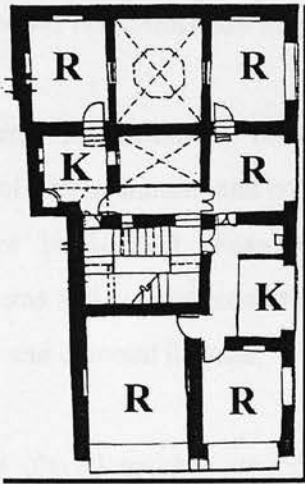


(15) Diyab Nasser's house, section A-A.

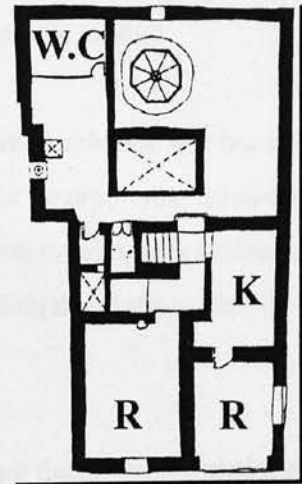


(16) Diyab Nasser's house, main elevation

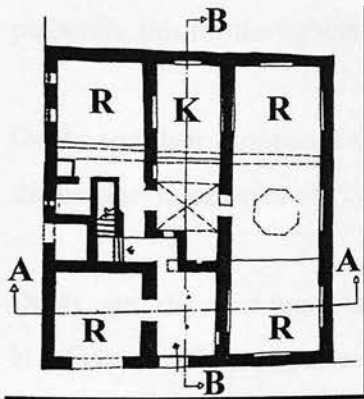
23- Architectural and functional homogeneity of traditional buildings in Madinah is considered one of the basic criteria in building there. You could hardly see a building that was different from the others. Thus, courtyards, alleys and lanes in Madinah appeared so special that they helped in strengthening concentration and visual conception to the units of its texture. *The basic elements of this homogeneity can be summarised in two main points:*



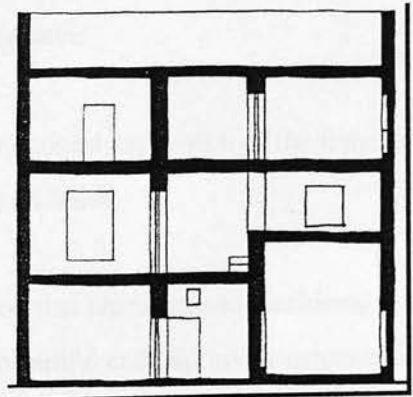
(17) Diyah Nasser's house, second floor plan



(18) Diyah Nasser's house, third floor plan.



(19) Waqf of Al-Hakeem, ground floor plan.



(20) Waqf of Al-Hakeem, section A-A.

First: Functional homogeneity in the components of the houses. Being similar in usage, housing elements might differ from one example to another in their plan and arrangement, but keeping the same function.

Second: General homogeneity among house elevations in their architectural details and ornamental elements. Elevations are the most important aspects of architectural homogeneity for what they contribute in showing architecture and ornamental units and elements shared by buildings as well as their honest expression of Islamic culture and legacy. *These general aspects of homogeneity among houses elevations can be specified in the following points:*

- (A) Different formations of oriels directly provide visual cohesion and beauty. This was one of the common and conventional reasons for incorporating oriels in traditional houses in Madinah. These formations played an important role in addressing a lot of problems and weather conditions as well as providing the shade needed for windows, paths and external façades.
- (B) Oriels played another important role in maintaining the privacy needed for traditions derived from Islamic Law. They also helped in admitting fresh air and light into the inner compartments of the houses.
- (C) Some places behind these formations were specified for . They were the best places for this for the light and fresh air they gave.
- (D) Oriels and their formations were a clear and honest expression of the functions of the houses' inner units and what was going on inside.
- (E) Oriels are the most important beautification that characterised traditional houses in Madinah. They appeared with their beautiful and expressive ornaments and drawings. Building elevations kept this planning unit in beautiful repetition, which had some slight differences in small details, which had no impact on the general unity of form.

(F) With their formation and building materials, oriels suited the weather conditions in Madinah.

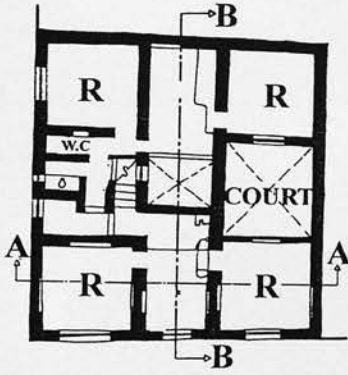
Different types of wood were a basic element in forming and building oriels and their different formations.

Ornaments and drawings were among the most important decorative and homogenous features in traditional house elevations for the role they played in displaying the unity and formation of different styles.

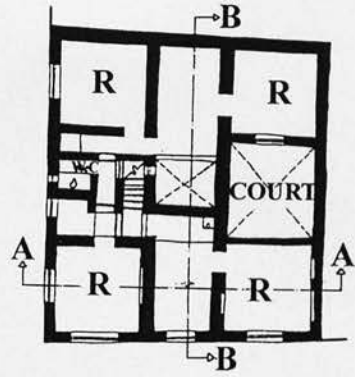
The main doors of elevations were considered very important in projecting the homogeneity among these elevations.

24- Using the same types of building materials is one of the homogenous features among old traditional houses in Madinah. Houses were alike in shape and formation. Walls were built of basalt or adobe, or even both (the lower floors with basalt and the upper ones with adobe) while the roofs were covered with parts of palm trees. These substances were gifts of the location of Madinah and its natural characteristics. This led to the great similarity and homogeneity among buildings and helped to ensure the unity of general formation.

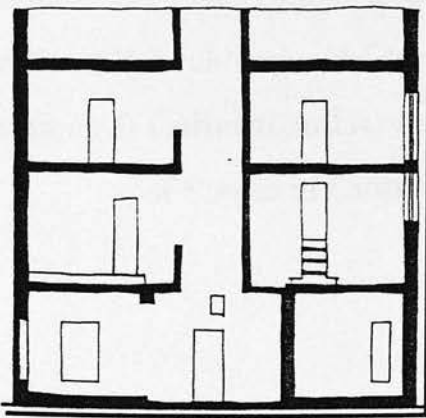
25- Traditional houses in Madinah were characterised by the beautiful dissimilarity between straight lines and curves in window and door arches and oriel formations, in addition to the clear dissimilarity between the natural brown colour of oriels and the white colour of elevations.



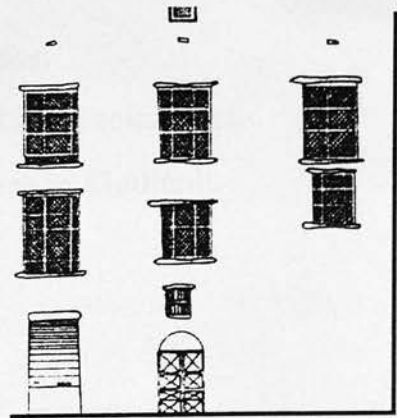
(21) Waqf of Al-Hakeem, first floor plan.



(22) Waqf of Al-Hakeem, second floor plan.



(23) Waqf of Al-Hakeem, section B-B.



(24) Waqf of Al-Hakeem, main elevation.

Part Two

Chapter Nine

General Conclusion for part Two

- **Section (1) Urban Characteristics.**
- **Section (2) Architectural Characteristics.**
- **Section (3) Cultural and Architectural Characteristics
of Stages of Cultural Texture in Madinah.**

Section (1) Urban Characteristics

1. The mosque was the physical focus for all religious, cultural and social activities in the city, therefore it was the main landmark for all roads and streets coming from Madinah gates. Also the mosque was surrounded by schools, educational offices, Arbitah and libraries. The Haram also was surrounded by quite private residential area, specially on the east and south. The Haram was the main landmark in Madinah for all coming visitors from any direction.
2. The markets was found in the first century to the Higraph out side of the city and started to gather up together with the residential areas by the end of the Umawiy decade. By the time, the commercial streets and activities started to appear at the suburban such as agencies for transportation of cargo to avoid the interruption to the public movement inside the city. I, also believe, this happened because of the religious respect to the Haram area, it was not permitted to have any concentrated commercial activities close to the Haram, as all adjacent areas were occupied with buildings and activities directly related to the Haram such as residential, administrative or educational.
3. Due to its unique religious potentiality, Madinah did not need to have any surrounding fence as was known in all other similar cities in the early ages, but due to political conflicts happened during the Umawiy and Abbasy decades, the first fence was constructed on 263 H (876 G).
4. The planning concept of Al-Madinah highly respected all customs and traditions as buildings were closed together in patterns to form interior landscaped courts, this encourages and improves the growth of the human relations in addition to the climatic benefits regarding air circulation and temperature cooling down.

5. Green open areas were spread out all over Madinah inside and outside, as it had 475 gardens at the beginning of the twenty century, this influenced and enhanced the climatic conditions and life style.
6. Variety in road network patterns and functions. The width of the roads reached to four meters joins main gates with the city center, all important and commercial activities were spread out along the road. Small roads "Haras" had width varies between 2 – 3 meters, and used for main movement through residential areas with some light commercial activities. Closed streets "Zoqaq" with width varies between 1.5 and 2 meters were used without any commercial activities. These closed streets were irregular in shape to give the opportunity for pedestrians to enjoy their walk and for sight seeing purpose. Also covered pedestrians were found to protect from atmospheric impact.
7. Public service buildings were spread out in most of the urban mass around the Profit's Mosque specially schools for education and Arbitah which offered various activities in addition to sheltering and accommodating the poor. Also were used to accommodate long stay visitors along with some other residential buildings. Bath facilities were found inside the fence at the south east of Madinah – not in the middle – but in the residential area- therefore another bath was found outside the fence to serve the urban extension to the west of Al Manakha area on the Uthmani decade.
8. The human scale was considered and respected in design. Used units were arm, hand and feet. This created human proportion sense in the urban design of streets and buildings. The ratio between road width to building height varied between 1 : 3 and 1 : 4. This ratio offered proper air circulation and suitable protection from sun rays.

Section (2) Architectural Characteristics

1. Respecting the function in the building design and this fact was clearly addressed in the difference between residential building, service building such as schools, agencies or bathrooms “ Hammamat “.
2. Using the free form in elevations which offers harmony in shapes between solid areas (walls) and openings (rawasheen and mashrabiya).
3. Design for “ looking inside “ concept by using interior court yards in order to offer proper climatic environment in harmony with the Islamic social concept of privacy.
4. Harmony and integration in appearance and color by using natural materials for construction such as Basalt, Black stone and Wood giving continuation for building elevations.
5. Using graphic forms for typical decorating units in design of rawashin and mashrabiya.
6. Variety in visual formation line of streets due to the gradual change in exterior elevation of buildings.
7. Gradual and smooth change of open spaces vertically and horizontally according to change in function specially in the private residential buildings.

In conclusion, we believe in the importance of the close study of the characteristics of the Arab cities to benefit from their history in preparation of their new urban designs. This does not mean to repeat the old systems as it was but to develop an improved model satisfying all human needs in both present and future. Arab cities and architecture must comply with the scientific and technology development in order to insure the continuity in relation between people and their cities.

Care should be given to old and historic buildings in the city which should be properly integrated into the urban fabric to benefit from its original functions or what ever it suit. The historic building should not be used as museum, but as an integrated part of the surrounding life and activities.

Islam has established and covered all rules, basics and regulations for the Muslim society life, consequently it covered all Urban design and Architecture features and styles for cities. Islam is the religion for all ages and times, so it provides us with knowledge and light rising to offer better and more suitable future for the man in his journey of development, this because it is the everlasting Islam all over times and places.

Section (3) Cultural and architectural Characteristics of Stages of Cultural Texture in Madinah.

3-1 Cultural and architectural characteristics of old and antique Mosques in Madinah

1. Most of the old Mosques in Madinah were characterised by being connected with the places where the Prophet (peace be upon him) prayed. For example the Jomoa'a Mosque was built where he prayed the first Jomoa'a in Islam (Al-Jomoa'a is a special prayer at noontime on Fridays) and Al-Mosalla Mosques were built where he performed the prayers of Al-Eid.
2. The basic idea of the design of old Mosques of Madinah was affected by the idea of the Prophet's Mosque, which was built in the first year of Al-Hijrah.
3. The idea of the design of the Prophet's Mosque is mainly a rectangular gallery in the southern side extending from the East to the West. This gallery leads to an uncovered courtyard to the North. The latter is square and has the main entrances of the Mosque. The Prophet's Mosque was built of mud, the roof of its gallery was made of parts of palm trees (branches) and covered with mud. The pillars of the gallery were also made from parts of palm trees (trunks). They were in rows and the roof was fixed on them.
4. The architecture of the Prophet's Mosque has developed since. It was later to be built of stone, the roof covered with domes; minarets were built, simple mihrabs were built and minbars were built of stone. Then the mihrabs and minbars were developed into ones built of marble accurately and beautifully.
5. The Osmani restoration of Madina's Mosques is considered the richest of all. A lot of these Mosques are still there up till now, such as the Mosques of Al-Eid, Al-Rayah and Banu Quraiza.

6. The Osmani architecture in Madinah was characterised by its minarets and domes. Some of the decorations were made of black stone. Many mihrabs were built with their cavities decorated with large groups of ornaments and paintings. Lavishly ornamented marble minbars also decorated with paintings were made as well, platforms were built for muezzins (men who call for prayers) and many stone pillars and formations surrounded the outside of these Mosques.
7. Domes, unknown of before in Mosque architecture, appeared in the Osmani era. Al-Anbaryah Mosque is an example of this. The domes over the mihrab spaces were one of the new architectural elements and differed from other domes.
8. Minarets of old Mosques were characterised by having one or two rows of formations at the bottom of the balcony of each one in addition to the top end of them which resembled inverted stone lanterns. Other minarets ended with pyramid shapes with copper crescents on top.
9. The Prophet's Mosque was lit by a group of windows around the dome. These windows, additional to the opening windows on the walls of the Mosque, were of coloured glass.
10. Reliefs and depictions of plants and geometric figures appeared around the mihrabs and inside their domes.
11. Most of the Mosques in Madinah were painted white inside and outside while some ornaments and pillars were left with their natural stony colour as in Al-Anbaryah Mosque.
12. Most openings like windows and doors were rectangular with stone halves of chaplets on top of each.
13. The architecture of Mosques expressed the function as being apart from that of other buildings like arbitan, schools and houses. Also the ground plan expressed the main element of the Mosque.
14. The architecture of old Mosques had different features. Straight lines and curves

decorations were clearly differentiated. Also, interior decorations differed in the colours used and the stone decorations left with their natural colours and texture.

15. Some Mosques had some services like bathrooms and places for ablution. These services were often on one side of the open courtyards.
16. Stone spouts were fitted on the edges of the roofs to shed rainwater.

3-2 Cultural and architectural characteristics of libraries in Madinah

1. This type of building spread around the Prophet's Mosque, in the alley of Al-Aghawat and the areas of Al-Saha. Other libraries were associated with Al-Haram (the Prophet's Mosque) like, Al-Haram and Al-Mahmoudiya libraries, appeared there.
2. There were two types of libraries: those connected to the arbitan and schools and those accommodated within separate buildings like Shiekh Al-Eslam Aref Hekmat.
3. The architecture of private libraries was characterised by luxurious buildings like the above mentioned one.
4. The basic idea of designing those libraries consisted of three elements, the main reading area and the additions for books and for services.
5. The main hall of the library was an important element even in the ground plan, as it represented more than thirty percent of the whole building.
6. The library hall was designed with great skill and care. A large dome roof covered from and its interior was decorated with plant and geometrical motifs. The walls were decorated likewise and cupboards with beautiful decoration were put in the halls.
7. The outer walls of the buildings were covered with black basalt, cut into regular pieces. Some stones, such as the rainwater spouts, were decorated.

8. Some libraries in Madinah boasted open courtyards, often beside the halls and with galleries separating them.
9. Libraries had extra rooms next to the halls. Some were used for covering and repairing the books, others for storing them and special ones set aside for keeping for manuscripts. There were places for services but they were often far from the other rooms and had their own entrances.
10. Parts of the first floor were dedicated to the accommodation of the employees of each library. The space of the reading halls remained at the height of two floors.
11. Libraries were characterised by the thickness of their walls. In the reading halls it reached 1.5 metres. This made it possible to install some seating in the wall itself under the windows to be used by the sheiks (masters).
12. The main entrances of some libraries were designed with care. They looked like a big chaplet, some times as high as one and a half floors. The entrance was inside a deep cavity with a bar of marble or stone on top of it to show the date of construction and the person who did it. Two seats made of dressed stone surrounded it.
13. Some small windows and openings looked upon the lanes and alleys while the other windows looked upon the inner court of the library.
14. The living rooms on the first floor were devoted to accommodation for the people in charge. Some ornaments and drawings as well as large balconies that looked upon the courts and alleys of the Prophet's Mosque characterised them.
15. Horizontal roofs made of different parts of palm trees and mud covered the components of libraries. A large dome made of stone and bricks covered the reading hall.
16. The respect for the purpose of the buildings expressed their purpose very obviously, so much that libraries were different from houses and schools.

17. The rooms of the libraries had wooden shelves fixed in cavities inside the walls for books and all the things that are necessary for libraries.
18. Some libraries had some things to make their places more beautiful, such as fountains and furniture and plants in the courtyards.
19. The ends of some walls in some libraries were surrounded by stone decoration. This was similar to some old traditional houses in Madinah.

PART THREE

RESULTS AND APPLICATIONS

- Section One :** **Establishing a Specialized Center for Study and Documentation of Urban Heritage in Al-Madinah Al-Munawarah**
- Section Two :** **At the Level of General Planning and Designing of Urban Areas**
- Section Three :** **At the Level of Culture Texture Designing of Dwelling Units**
- Section Four :** **Final Conclusion**

Al-Madinah Al-Munawarah symposium for urban heritage**Eng. Abdul Aziz Bin Abdul Rahman Kaaki****Establishing a specialized center for study and documentation of the urban heritage in Al-Madinah Al-Munawarah**

It was one of my major intentions to serve in the study and the documentation of the urban heritage in Madinah to establish a specialized service center for this heritage. I have started physically to proceed in establishing such center.

Required program plan and activities lay out were completed more than nine years ago. I have also started to introduce a documentary and historical book series consist of nine parts about Madinah named "Features of Al-Madinah Al-Munawarah between architecture and history".

Three parts has been published so far. In addition to many other photographic books, reports, researches and specialized studies in the field of the urban documentation for heritage and features of Madinah.

This center has strong technical relations and sharing with other similar specialized centers inside and outside the Kingdom in order to get familiar with all mutual goals and achievements in such researches, specially in the fields of historical building restoration and preservation.

More than three workshops and meetings each year had been arranged in Madinah. Governor of Al-Madinah Al-Munawarah, The mayor and the heads of governmental and security department attend these meetings to discuss and study plans, programs and projects prepared by the center in order to preserve and maintain the traditional and historical architecture of Madinah. The following is photographic presentation in brief to demonstrate activities and enrollments of the center in various occasions :



(1) Eng. Kaki in discussion with HRH Prince Abdul Majeed, the former Governor of Al-Madinah Al-Munawarah



(2) His excellency the mayor of Al-Madinah Al-Munawarah comments in presence of HRH the prince.



(3) Discussions between Eng. Kaki and VIP's in Madinah.



(4) HRH the Prince commenting on the activities and enrollments of the center



(5) Demonstration of some articles and runes from the center



(6) HRH Prince Abdul Majeed, the former Governor Al-Madinah Al-Munawarah during a visit to the center.



(7) His Excellency the Mayor attending some lectures and activities in the center



(8) Attendees and open discussions about some studies in the center

Results and applications of the general plan of Madinah and designing urban areas:**3-2-1 Introduction**

The civilization and progress that the cities of Saudi Arabia have witnessed includes all the cultural and social sectors as well as the public services and utilities. For example, the recent grand and comprehensive rise that happened in Madinah was a result of the Kingdom's economic development as well as the great care it has received from the government.

Large numbers of pilgrims and visitors come to Madinah all year round to visit the Prophet's Mosque and to have the honour of visiting his grave. The government took the responsibility of taking care of them and providing all the services and facilities necessary for them.

In this way, the government of the Kingdom of Saudi Arabia has realised that preparing guidance plans is necessary in setting out comprehensive development plans and general national strategies and in following closely the standard of the services provided. Many consecutive studies and field surveys were made to plan strategies for the future of services like religious, health, post, telegraph and telephone, public security and civil defence as well as basic utilities such as drinking water, sewage, rainwater, garbage collection. This is also crucial for organising land uses and dwelling zones.

These studies have aimed at setting special strategies towards the development of Madinah according to its religious, territorial and historical position as well as its importance, not only to the Madinah area, but also to larger areas. This can be achieved by arranging with different government institutions and preparing a comprehensive development plan for the best of all economical sectors in the Kingdom. All of this deals with the aims and policies of the Kingdom's long range plans.

Assisted by such a plan, the government can determine which sectors need to be developed and modernised. Only the guiding plan can provide the needed data and information and show the best directions of development as well as their stages in continuing planning and updating information. Although planning in Madinah has a short history in comparison with any other city's plans, much hard work has gone into outlining a plan suitable for its conditions on a temporary basis and according to future expectations concerning its population, roads and public utilities, as well as the associated development strategies.

Many studies and plans were made in Madinah. The study done by the Consultant Company, Kanselt Limited, was the most outstanding. It was the first general planning study of the city. It was completed by the consultants Robert Matthew Johnson Marshall and Partners and released in 1398AH / 1978AD for the sake of preparing a general plan including the Western Region cities.

The Arab Consultant Group for Development and Construction made the second guiding plan of Madinah, but first plan that really covered the whole city was made in 1994AD / 1414AH by the consultant 'Dar Al-Handasa' (Engineering House). It covered all cultural and developmental sides of Madinah.

3-2-2 The Most Important Recommendation & Application for the new General Plan for Madinah Munawarah:

- 3-2-2-1 To prepare a team of well-qualified and experienced Arab or Muslim planners to take over the planning operation in Madinah. In addition, to hire adequate local planners to work side by side with them so as to obtain more experience and skill in the many fields associated with planning implementation to take the lead after the initial team leaves. This, however, would include making training programmes for all the planning engineers at universities to practice working inside 'real-life' situations.

3-2-2-2 To always remember the meaning of planning and that it is the science and art concerning the organisation of land uses, building locations and transportation in an economic and comfortable way. This means that planning is an integrative process that responds to all the needs and aspects of development and building. It also must suit the nature of each building location and the inhabitants' desires.

The most important bases of a planning process are:

- a) Population characteristics: numbers, life expectancy, birth rate, death rate, percentages of males and females among all age groups ages. These studies are called population studies.
- b) The place or source of earning a living according to the economic foundation with the possibility of improving it.
- c) Terrain of places that is similar in most cases.
- d) Changing locations and designs.
- e) Continuous progress of technology.
- f) Taking the past of Madinah and its history into consideration.

The most important characteristics of a successful plan

- a) Improving means of communication between houses and work places, schools and entertainment centres, and between factories and sources of labour, energy and raw materials.
- b) Using resources economically to secure as much improvement as possible in chosen areas and roads.
- c) Separating lands which are different from each other and gathering homogeneous ones.
- d) Planning must be beautiful and practical at the same time.

3-2-2-3 It is necessary to know and study the desires and requirements of the beneficiaries of the plan, because it is mainly made for them.

- 3-2-2-4 The government should tell the public through different mass media about the manners and principals of good citizens, like respecting neighbours' rights and choosing what is good and simple, as every Muslim should care for his or her Islamic environment and be proud of it.
- 3-2-2-5 It is necessary to find a supreme legislative power to guarantee the development and improvement of Madinah, which depends to a great extent on being restricted to fixed dates for all kinds of plans. There are special places that need short range development plans that the legislative powers should carry out on time.
- 3-2-2-6 Preparing centres for documents and information concerning Madinah in all walks of life in addition to working hard to add any new data for the sake of opening up research centres for all researchers and planners.
- 3-2-2-7 Designing dwelling units and communities including public utility buildings connected with Islamic culture.
- 3-2-2-8 All planners, architects, archaeologists and historians should work together in a technical institution constructed mainly for studying monuments and historic places as well as preparing the necessary studies and designs to renew places of historical or architectural value and preserve them.
- 3-2-2-9 Priorities should be given to separating the traffic from pedestrians in dwelling zones in general and in the central area in particular. This is for securing the area and making sure every one feels safe. Doubtless, beautiful pedestrian paths are among the most important elements of Arab architecture and cultural design. They are necessary especially in urban areas and public places.
- 3-2-2-10 Encouraging craftsmen to continue their work by helping them get suitable workplaces and protecting them against the environment Then interesting places should be made to attract pilgrims and visitors to them for the sake of improving the economic situation for craftsmen and consequently improving the economy of Madinah.

- 3-2-2-11 Preparing studies to determine the actual need for service and public utility networks and setting stages for achieving these goals according to the needs of the inhabitants. This stage should be implemented as a part of the guidance plan of the city. The latter should take into consideration the suitability between the networks and the areas prepared for development.
- 3-2-2-12 Getting an admix of means of transport (public and private) and providing a network able to accommodate these transport types means. This guarantees less traffic as well as providing for any increase in population, especially in times of pilgrimage and 'umrah'. A system could be made for a seasonal transportation company using vehicles of concerned institutions plus others of people who would like to join in the company. This would increase the transportation capacity without burdening the government with additional costs in buying vehicles to be used in Hajj seasons only.
- 3-2-2-13 Green areas must be preserved in the city, particularly the many green areas of palm tree farms, which would otherwise be developed for economic reasons. A healthy environment having the elements of joy and beauty must be built.
- 3-2-2-14 All agricultural plants that suit the environment of Madinah should be tested. Palm trees are the most common among them in addition to some other species. Tests should be made and extra care should be taken to guarantee success to plantation projects.
- 3-2-2-15 Suitable solutions and alternatives should be taken to decrease the use of air conditioners. Encouraging the use of insulation materials, such as anti-heat bricks, in roofs and walls, and using wood in doors and windows would help in this.
- 3-2-2-16 Hajj must be the main source of activities. It will continue to form the biggest pan of the economic base of Madinah. Thus, utilities devoted to the service of pilgrims should have the first priority in any executive programme for projects covering, for example, housing or transport.

- 3-2-2-17 It is necessary to control the increasing numbers of people coming from the neighbouring villages to work and settle in Madinah. This can be achieved by creating more jobs and improving living conditions in these villages as well as joining them with the nearest city by a network of roads to enable them to depend on their own and consequently grow as separated villages. This may encourage land allocation in such places for housing and cultivation investments, and giving loans to the inhabitants to be used in construction and increasing cultivated lands. Such procedures encourage the people there to settle in their villages and discourage the idea of immigrating to Madinah.
- 3-2-2-18 Preparing strategies for cultural development for analysing the *status quo* that is against the correct planning basis, and controlling future development. This needs clear policies for developing the lands to control the fast growth and the development of places for urban development in addition to specifying the lands needed for public utilities in the future.
- 3-2-2-19 Solving the problems of random areas is urgent. They should be given priority, as should watching other areas to prevent such buildings. Currently undeveloped lands must be monitored to repeating the same problem of modern development in other areas. Concerned authorities must start planning immediately and building new areas that can be developed to decrease the population in random areas. Making adequate and comprehensive studies for the urban areas in Madinah such as Uhod, Al-Khandaq and Quba' is necessary. The nature of such places and the important role they played in the history of the city must be taken into consideration.

3-2-3 Important criteria for planning Urban and Historic Areas:

- 3-2-3-1 Visitors like to see the sights related to Islamic history, like military places that had significance in defending Islam and spreading it.
- 3-2-3-2 Planners should emphasise the historical meaning of such sites by preserving their natural characteristics of the places without changing them either by adding or removing features.
- 3-2-3-3 Mountains and their surrounding valleys, hills and harrat are among the most important sights in such areas. Leaving them intact should be a priority.
- 3-2-3-4 As the need for building some necessary services increases, it is important to make use, to as great an extent as possible, of existing buildings according to their condition and suitability for the new purpose. This would reduce the number of new buildings in the area.
- 3-2-3-5 The local style in the urban areas, though not having a religious background, retains the historic features that accompanied the growth of Madinah in certain periods in its history. Keeping this traditional style is very important concerning the suggested architectural plan of the area.
- 3-2-3-6 Because visitors are transported to the sights in vehicles, but the movement at the sites is usually on foot and sometimes in very rough weather, it is necessary to make improvements in the areas so as to create more comfort and ease for visitors. Because these improvements may affect the general formation of the area, they must suit the nature there and be related closely to it. Tent covers could be the most suitable architectural features for this purpose.
- 3-2-3-7 Any necessary additions must follow a unified style to avoid any discord or dissonance in the general formation.

- 3-2-3-8 Future expansion of car parks should be considered and the natural views and characteristics of the land should be used properly.
- 3-2-3-9 It is necessary to have the recommendations and solutions needed for dwelling zones and open areas that look upon historic places so as to avoid creating any sort of discord between them.
- 3-2-3-10 Palm trees should be the main element in plantation there because of the strong relation and suitability they have with the nature of Madinah.

3-2-4 Recommendations concerning historic areas

- 3-2-4-1 Historic places should keep their nature without any change or modernisation. They should be surrounded with clear borders or streets that prevent dwelling zones from impinging on them or buying and selling of their lands.
- 3-2-4-2 Study of the damage from construction encroachment into historic places and adequate studies for draining rainwater that has been the main cause of erosion in historic sites and buildings need to be undertaken.
- 3-2-4-3 Charging the administration of monuments and museums with the renovation of historic buildings by rebuilding ruins using traditional materials and technologies and preserving the remaining parts before they collapse.
- 3-2-4-4 Expropriation of all the buildings and properties on historic sites to return those sites to their appropriate uses. In addition, prohibiting any further construction there.
- 3-2-4-5 Forming a committee for following up and executing recommendations concerning the historic area, dwelling zones and surrounding areas.

Results and application at the scale of cultural texture and dwelling units

3-3-1 Introduction

There are two main stages of the development of the cultural texture in Madinah up to the present time:

Old cultural texture known as cultural heritage areas in Madinah and;
Modern cultural texture that is typical of most of today's cities.

The main reason for our study of these stages is to emphasise the beautiful architectural and planning elements in the components of the old texture so as to use these elements in finding an appropriate plan that suits Madinah in all its aspects

The modern texture is a temporary one with advantages and disadvantages that are experienced by every resident and citizen. Madinah is an Arab city that has its special personality. It is the first Islamic city from which the light of Islam spread throughout the world. It has been, and will always be, the most beloved city in the whole world. Visitors come to it very eager to see this honourable city, which has the Mosque and the house of the Prophet (peace be upon him) built by his own hands. In addition, there are many other historic places to be found within its texture; here is the place where he prayed, there he sat and there he slept. Other places had the honour of receiving verses from the Holy Qur'an, or being where the Prophet (peace be upon him) did different things. Visitors can also see the houses of Abi Bakr Al-Siddiq, Umar Bin Al-Khattab, Uthman Bin Affan and Abi Ayoub Al-Ansari, (may Allah be pleased with them all), where the Prophet (peace be upon him) lived for a while, or at least they would like to see the locations of these houses.

Visitors are also keen to see the place of the battle of Uhod and know what happened there, where the Prophet (peace be upon him) stood and where Sayyeduna Hamzah was killed. They would also like to see the location of the trench and know its story and why it was built. They should see Al-Baqie' (the Muslims' graveyard in Madinah) and know who of the companions of the Prophet (peace be upon him) were buried there, and then enjoy the honour of visiting the companions' graves. This is what the visitors of Madinah want to see and this is what they are in Madinah for. They did not come to see the modern aspects of Madinah, with its high-rise buildings and multi-storey hotels, its wide streets dedicated to traffic.

These modern features are those of a globalised, international modern civilisation that the whole world lives in today. The author is not against this development but wishes to assert that it should not be enforced on a city to the detriment of the old urban texture. Visitors can see such scenes of development in their own countries. They only want safety and spiritual connection in Madinah, this beloved place near the Prophet (peace be upon him) to work, pray and to leave the materialistic world behind and think only of Allah and his Prophet (peace be upon him).

The cultural texture of Madinah was once rich in antique and historic places that were available to visitors to show them the real picture and the natural situation of life in Madinah, This texture had a lot of advantages that were lost in this modern cultural development.

The nature of visitors in Madinah and why they have come to this city highlights three important points:

- That there are advantages offered by the old cultural texture in Madinah;
- That we have duties for areas of heritage, in particular concerning modern cultural development of these places; and

- That it is necessary to make use of the old cultural texture in Madinah, including its beautiful planning characteristics, and to make it the basis for a modern texture taking its routes from our culture, heritage, customs and traditions. At the same time this must cope with the needs and circumstances of cultural development.

These three points are discussed in greater detail.

3-3-2 Advantages of old cultural texture in Madinah

- 3-3-2-1. The old cultural texture of Madinah suited the weather, which was characterised by hot summers and cold winter. Streets were narrow and curved in order to reduce the amount of direct sunlight and increase the shade at their sides. Projecting features on house elevations provided further pockets of shade.
- 3-3-2-2. The built shape suited the function. Buildings expressed their purpose clearly. Houses had small entrances and different shapes of oriels. Sitting rooms and reception rooms had bigger oriels that had more ornaments and drawings than those of bedrooms. Bathrooms, kitchens and light holes had simple and small windows. Schools and rebats mostly had window-less exposure because they had open courtyards in the middle of their ground plans where they could obtain the light and fresh air they needed. Public bathroom buildings had their distinctive domes. Libraries had their luxurious entrances surrounded by arches that were sometimes as much as three quarters of the building's height.
- 3-3-2-3. Different elements of the urban textural structure were directly associated with each other, and the whole structure was strongly connected with the Prophet's Mosque, which was its core.
- 3-3-2-4. Homogeneity was evident, even at the smallest scales. There was very little variation of elements in terms of shape, formation, height or building materials in the courtyards, alleys, neighbourhoods or even in the whole area around the Prophet's Mosque.

- 3-3-2-5. Old cultural texture in Madinah had balance among its different elements, Matching balance was the main idea of designing exposures of some buildings where the centre of the balance was right in the centre of the formation. The oriels were on both sides. Some buildings had dynamic balance in which the centre of the balance was in one of the formation sides. For example, the main entrance was in one half of the facade while large oriels covered the other one. Some other buildings had free formations.
- 3-3-2-6. The old cultural texture gave its inhabitants the necessary privacy according to Islamic traditions at the levels of dwelling units and neighbourhoods, including their alleys and courtyards.
- 3-3-2-7. Consecutive changes of space, shapes and sizes led to good visual movements that helped to make those areas comfortable and calm. Pedestrians moved feeling safe and secure. Also these visual formations helped for more concentration on the details and units of the texture.
- 3-3-2-8. The beauty of architecture and formation characterized the old cultural texture in Madinah. Simplicity and honesty were key formal characteristics. Different types of Islamic ornaments and drawings surrounded the doors of dwelling units and covered large parts of oriels. This added magnificence to the various features of the urban texture.
- 3-3-2-9. Local building materials were used in forming this texture such as wood from farms, stone from surrounding mountains and mud from mountaintops, to make the texture suitable for the environment of Madinah and homogenous with its different formations. Also, using local and natural substances had much impact in reducing the amount of heat radiation inside the buildings in summer.
- 3-3-2-10. Building elevations expressed the natural colours of local substances by leaving their building materials exposed and unpainted. This expressed freely the nature of materials used, which kept their building characteristics as well as the nature of their surfaces.

3-3-2-11. The old cultural texture in Madinah was characterised by the contrast between straight lines in vertical and horizontal parts of buildings and curves in curved streets. There was also a contrast in colour between white or the natural colour of stone and mud and the brown colour of oriels that spread all over the texture.

3-3-2-12. The texture was also characterised by two aspects of strength:

- a. *Constructional strength*, concerning walls and foundations. The average thickness of walls was 80cm but sometimes reached 100cm. Lower floors were built of stone, while upper floors were built of brick to reduce weight on the bases. The foundations were 180cm wide and 3 to 7 metres deep according the nature of the soil and its stability.
- b. *Strength against external factors*; e.g. wind and rainwater. It is known that many buildings stayed in good condition until they were demolished a short time ago. This shows long-term resistance to weather conditions.

3-3-2-13. The old cultural texture in Madinah was suitable for its users and responded to all their needs. Man was the criteria and base for planning. This strengthened the relation between the people and the place they lived in. Familiarity, comfort and happiness increased between them. Measurements were derived from human body such as arms, paces and hands were used to determine the sizes of features. Pedestrian paths also had an important status inside the texture and their widths were ascertained according to the needs and activities of man. The building of services and public utilities such as public baths, sabeels, schools and rebats in open areas made them clearly distinguishable, easily accessed and contributed much towards making things easier for the inhabitants.

3-3-2-14. Strong social and family connection among the inhabitants of the texture was one of its important characteristics. The people of a courtyard (compound), or a lane were like one family. If something happened to one of them, the others would run to help and if someone felt happy, all would feel happy for him or her. People shared happiness and sadness and lived side by side as if they were one family. In addition to this, homeowners would even give one or two rooms over to a neighbour when needed (for example for visitors on occasions like weddings) by opening a door between the houses. These feelings of interpersonal sensitivity and cooperation underlay the rules for planning and constructing the whole urban texture. Thus, when someone was set upon building house but realised that it would block a street or a lane, a pathway would be left on ground floor, bridged over by the first floor of the house. This type of architecture was known as 'saquifah'. In fact, such feeling of care about others was part of the nature of the people in Madinah. There was no need for legislative powers towards this end.

3-3-2-15. Inhabitants' security was an important priority in the old cultural texture of Madinah. Most courtyards and lanes had limited entrances so that no strangers could get in or out without being noticed. The 'sheik' or chief was responsible for closing the gates at night and in times of emergency, and opening them in the morning. These gates were different from the main ones that were on the main roads such as the gates of Quba', Al-Anbaryia, Al-Koumah, Al-Awali, Al-Mesri and Al-Jumo'a. These were closed at night to protect the city against invasions or robberies. Many citadels and towers were built for protection. Some of them were attached to the city wall and others were not.

Our duties towards historic areas

Once we are aware of most of the advantages of the old cultural texture in Madinah and its concepts that had an important role in its success and homogeneity with the place of Islam and Da'wa, we should recognise certain duties towards protecting this place against anything that can change its identity and features. There are people who think that preserving such places is against civilisation and modernisation. We should also protect these places against dwelling zone growth, which destroyed many areas of Madinah rich in heritage under the excuse of development and coping with modern civilisation in the world around us.

The suggestions and recommendations towards protecting such historic areas can be achieved in three stages:

- Doing studies and evaluations.
- Taking decisions.
- Cultural restoration of old heritage areas.

3-3-3-1 Studies and evaluations

This stage is the most important because it is the foundation upon which the following stages are established; its success therefore guarantees the success of the other stages. So the committee that will do these studies should be chosen carefully and the members should have enough experience in this field. It is preferable that this committee is made up of expert historians, architects and planners. People who used to live in historic areas can be used. The Prince of Madinah, or his representative, should be its head to give it more power and financial support. The role of experts from the administration of monuments is specifying historic places with the help of the people who used to live there. Architects will decide which things or spots have historical value and show the features of art and beauty among the formations, ornaments and drawings. Planners will show the plan and features of the area as well as the things that characterized each area, such as the lanes, alleys and courtyards. This committee should work as one team to do successful studies that can be fruitful in the future. In addition, it can use people who are specialized in different fields and can be of any special help in treating the information it has.

The following recommendations should be taken into consideration on doing such a study :

- Specifying areas of cultural heritage according to location and area as well as having them on satellite pictures; and
- Doing comprehensive studies considering the following:
 - Identifying the main and secondary entrances and exits that lead to the historic areas;
 - Showing the relation between these areas and the surrounding ones in general and the Haram in particular;
 - Surveying the historic areas and photographing them by efficient engineers and modern equipment;

- Specifying vacant land sites and checking their nature, formation and previous stage;
- Specifying the lands that are not owned by anyone (or those owned by the government) and which are to be used for services and public utilities;
- Showing various land uses including dwelling zones, lanes and buildings required for services and public utilities;
- Specifying and prohibiting inappropriate land uses inside historic areas and knowing their previous usage and nature;
- Specifying the building materials used and studying the condition of the existing building stock;
- Identifying the architectural and historic values inside these areas. In other words, making a record of everything that contributes to the architectural or historic value of the area;
- Specifying the class and number of population in this area in addition to the places they use as accommodation or public services;
- Specifying the type and size of public utilities in the area and in the surrounding areas; and
- Knowing the standard of living of the people there, their incomes and work.

3-3-3-2 Decision making

In this stage, we should decide which locations are to be kept, reconstructed and protected against any changes. This will emerge from those studies done by the concerned committee that at the end comes out with suitable results and recommendations needed for the good of such areas.

3-3-3-3 Reconstruction.

Once the final decision concerning the area and location of historic places is made, studies for the reconstruction stage may begin. The following recommendations are to be taken into consideration on doing such studies:

- Putting all historic places on detailed maps of the area at the scale of 1:500 and then specifying all the factors that may influence the area through the stages of the guide plan of Madinah.
- Putting forward the solutions and recommendations needed for protecting historic areas against the extension of the neighbouring dwelling zones.
- Historic areas should be within fixed borders such as streets, open green areas or pedestrian paths in order to keep their structures and cultural existence.
- Studying all the influences in the plans of the surrounding areas to avoid passing through them or damaging their cultural texture. They also should be connected to the neighbouring areas and main traffic centres by a road network that serves the same objective.
- Securing adequate parking places outside the borders of historic areas and specifying certain passes for emergency and clearing purposes without damaging the old texture.
- Prohibiting the construction of any new buildings unless they follow the criteria of the plan mentioned above.
- New buildings should be for the same reasons they were for in the past to guarantee the homogeneity with the surrounding buildings inside the texture. Also, rules and criteria should be set on constructing the open areas and deciding the height and shape of every building.

- Securing the necessary services and utilities in new areas beside the city hall, bearing in mind the two previous items. Some existing buildings can be used for this, if necessary, making as few changes as possible inside them without changing their structures.

- Improving the economic base of these areas by encouraging traditional crafts in small shops admitted at the bottom of the buildings on main streets. This can attract visitors and tourists to the area as a working museum.

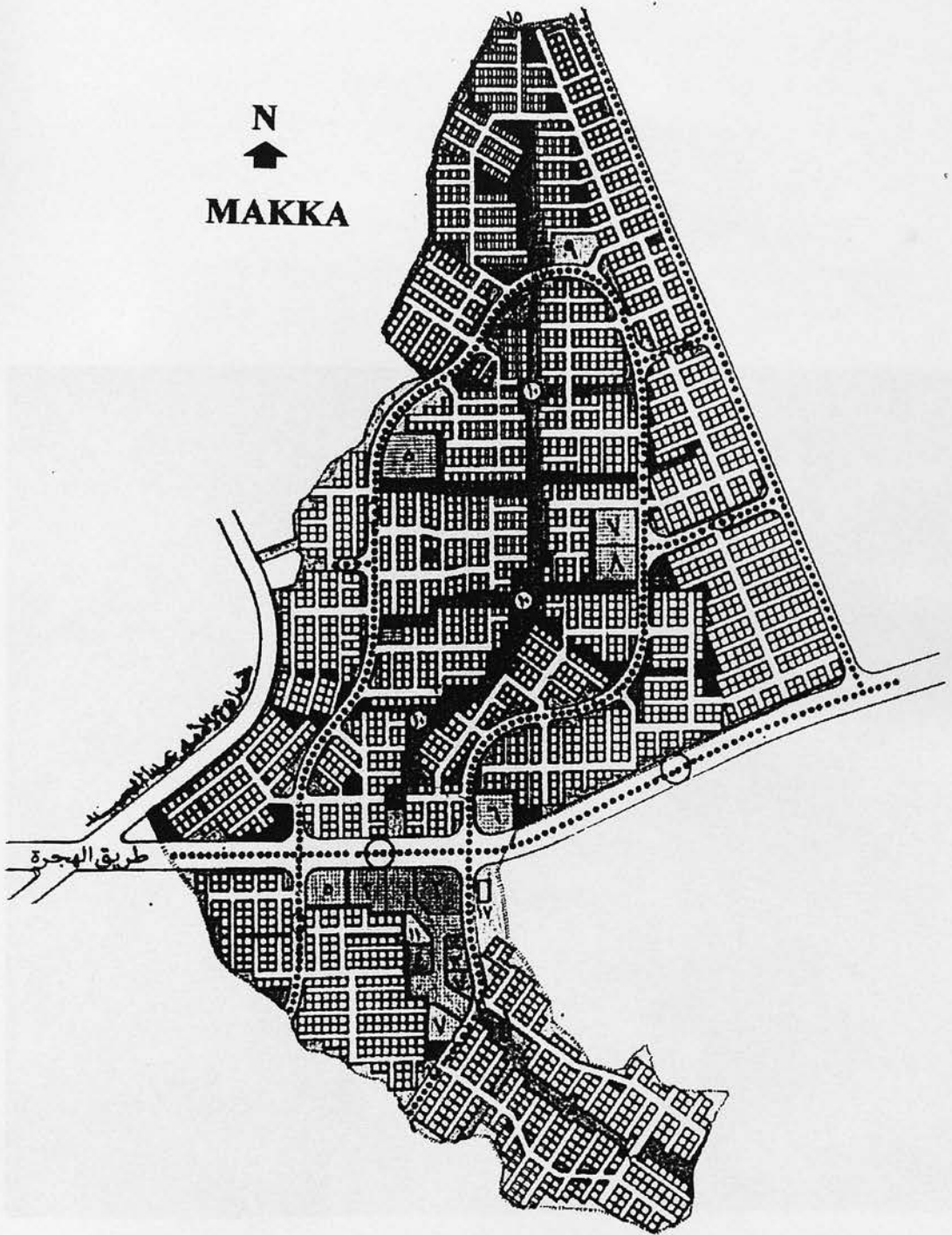
- Doing regular reconstruction and repair work to the area to keep it up. Enlarged maps and plans should be made to help in such work. A file should be made for every building to show the following:
 - The building number, date of construction, what it is used for and a precis of its history.
 - Name of the owner and the renter if there is one.
 - Number, date and origin of ownership documents.
 - Specifying the general location of the building and the name of the courtyard or lane it is in.
 - Number of floors.
 - Total area and building area.
 - Number and type of rooms, such as bedrooms, reception rooms, kitchens and bathrooms; ground plan for the ground and upper floors as well as sectors showing different heights and levels of the building.
 - Type and condition of the building materials used.
 - Structural condition of the building.
 - Identification of all the ornaments and drawings in the building and specifying their locations in the ground plan;
 - Condition of inner elements like oriels, doors, windows, stairs and sewage systems separately.
 - Level of the ground floor in comparison with the level of the lane or courtyard outside.

After finishing the file on each building, it should be studied carefully and separately and then the sum required for the repair work of every building thus surveyed should be decided upon. A group of experts and specialists in the field of reconstruction should do the job under the supervision of well-qualified engineers and architects. It is important to provide the buildings with basic services like electricity, water and telephone lines without any damage or change of their inner or external design. Registering the date of starting the repair work, its type and the finish date will help much in future reconstruction. As soon as the work finishes in the buildings, it starts in the streets, pedestrian paths, lanes and courtyards by paving them and covering them with flagstone as well as planting and lighting them. Also, it is very important to do a regular check on all the elements of the texture to make the necessary repair work as soon as it is needed.

3-3-4 Making use of cultural characteristics in planning the modern texture

It is necessary to make use of old cultural texture characteristics and make them the base that helps us make a modern cultural texture taking its routes from our heritage, culture, customs and traditions. At the same time, this would cope with modern cultural development. For example, the large increase in car numbers in our streets makes it necessary to secure larger streets, parking places, garages, etc.

This, however, creates its own problems. It needs much time in which consecutive attempts and experiments should be made to get the best contemporary cultural texture having its bases and criterion derived from our Islamic law. Here are some of these suggestions:



(9) To begin with: Dividing the neighbourhood into sections. Each one has fifty pieces of land with green areas as courtyards overlooked by a group of buildings.



(10) A divided neighbourhood as proposed earlier.

3-3-5 The suggested texture:

Through the previous suggestions, we can come out with this plan in which the neighbourhood is divided into four sections. Each one has its services and utilities around the central pedestrian path in it. The central services of the whole neighbourhood separate it into two parts having two sections in each part. Two main pedestrian paths surround the central services. The secondary paths, coming out of the sections, end at the main paths the plan of the street network in each section contains the idea of the inner loop, which can be reached by three exits in different directions. The purpose of this inner road (loop) is to distribute the traffic and take it to the parking places at the sides of the courtyards. Thus, it enables people to reach as near as possible to their homes. It is also characterised by having two-way traffic, which makes it easy for the inhabitants to move with their cars inside the sections. There are nearly two hundred dwelling units in each section.

3-3-6 Services in each section:

These services include areas for local markets, a large Mosque, local utilities, a primary school for boys and another for girls with a nursery school attached to it as well as green playgrounds for children. All these services are local. They serve the society they are in only. They can be reached through a network of pedestrian paths.

3-3-7 Central services;

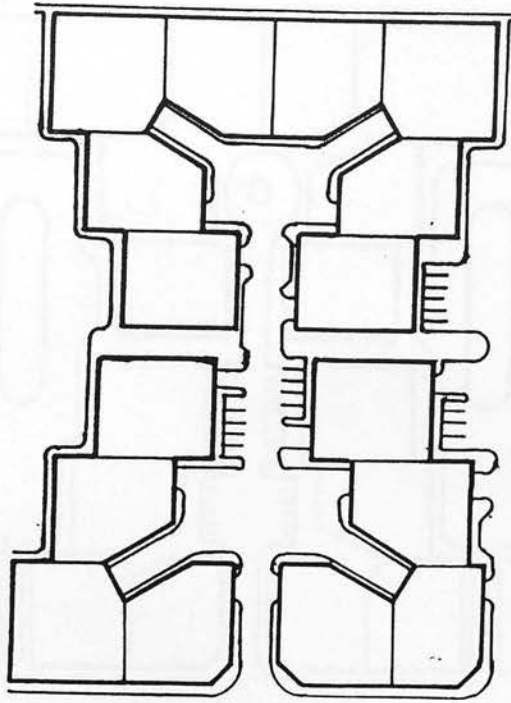
Central services include intermediate schools for boys and for girls, central markets for vegetables and meats, police stations, civil defence stations, clinics in addition to sports and entertainment centres.

Courtyards

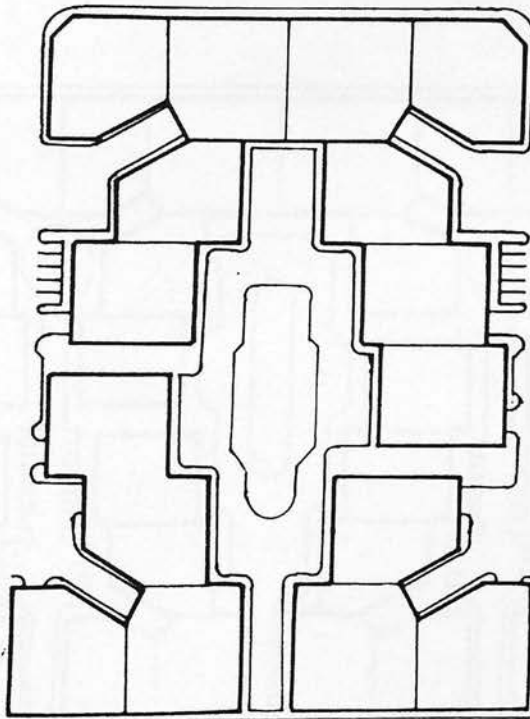
A courtyard is like a compound, and it is an ancient style in plans in Madinah. It appeared in the old texture as mentioned before. It has so many advantages that we want to use it in the contemporary texture of Madinah. In this suggested plan, a courtyard is shared by about fifteen dwelling units all looking directly upon it through a group of windows that we suggest to be covered with oriels. The courtyard can be reached through secondary doors while the main doors of buildings lead to the parking places. A courtyard contains small parks and playgrounds for children, which occupy half of it. The rest of the pans will be paved and lighted. The dwelling units will be organised in a way that creates good visual views of buildings' exposures inside the courtyard and helps to get more shade on them, especially by using wooden oriels.

Parking places

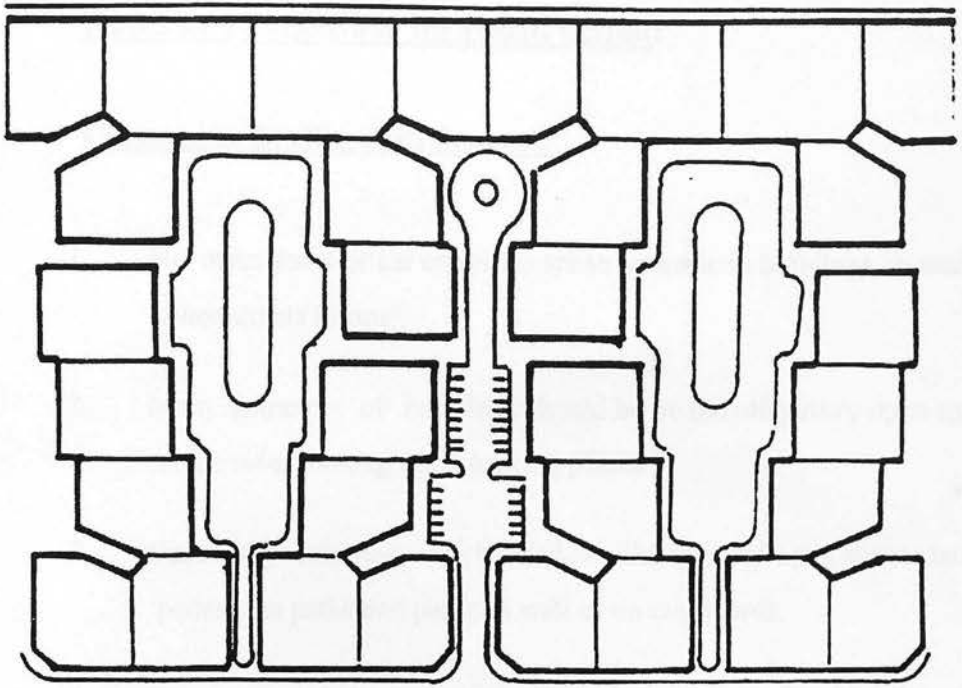
Parking places have been added to all courtyards. They are at the sides of streets with dead ends and small turns at the end to organise access. As for local and central services and utility buildings, they have car parks of the same idea mentioned above.



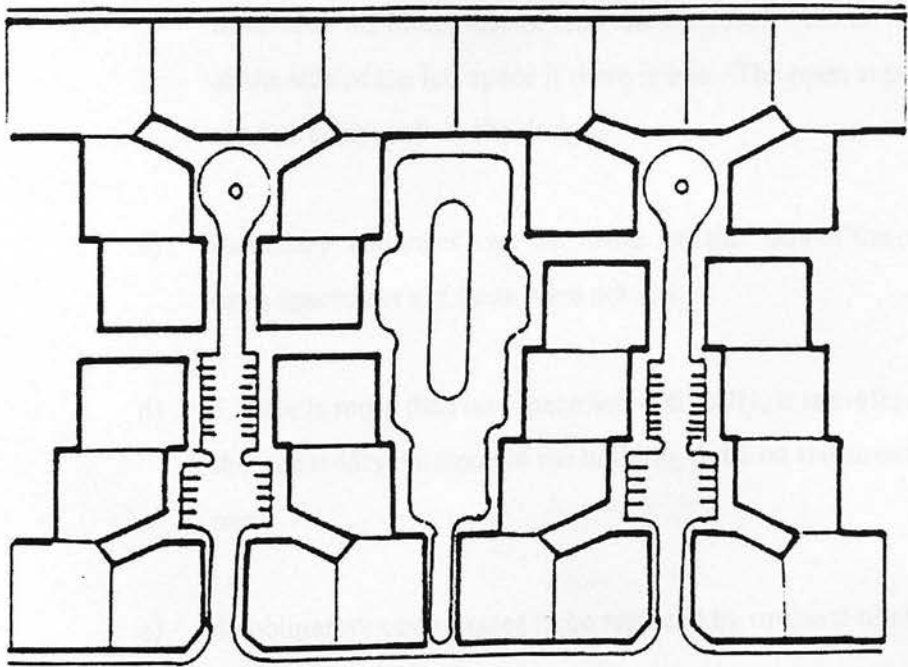
(11) The details of the plan of parking places including building entrances.



(12) Detailed plan of the courtyard showing the secondary entrances of buildings in addition to the covered paths connecting courtyards with parking places.



(13) Plans of the parking places that serve the courtyard near them.



(14) The plan of the modern courtyard derived from the old one.

3.4. Rules and conditions for construction:

3.4.1 Concerning dwelling units (houses):

1. No main doors or car entrances are to be made in buildings on main or inner streets (loops).
2. Main entrances of buildings should be on the obligatory open spaces at the sides looking upon parking places.
3. Secondary entrances can be made on the optional open spaces next to pedestrian paths and parks as well as on courtyards.
4. The space left between a building and a street should follow these rules:
 - a) It should not be less than five metres wide in obligatory cases and three metres in optional ones.
 - b) The building should not occupy more than sixty percent of the total area of each piece of land and the rest should be open area at the side of the left space if there is one. The open areas can be used as courtyards in the design.
 - c) Secondary entrances can be made on the side of the optional open spaces even if there were not any.
 - d) If there is more than one space left optionally, it is preferable for the secondary entrance of the building to be on the already made one.
 - e) No obligatory open spaces to be replaced by optional ones.

- f) Spaces left optionally on paths and parks are not allowed to be used as car parks or garages.
- g) Obligatory spaces should be left next to parking places and they can be used as backyards. Main entrances should be there.
- h) Optional spaces can be paths and parks only. Secondary entrances can be opened there.
- i) It is preferable to use oriels on exposures looking upon courtyards to maintain the style of the traditional courtyard in Madinah.

3.4.2 Concerning service and public utility buildings:

- 1) The pieces of land specified for services and public utilities are not obliged to leave spaces.
- 2) Building should not occupy more than sixty percent of the total area of each piece of land and the rest can be open green area included in the plan.
- 3) Main entrances should be at the sides facing the parking places. Secondary entrances can be made on the parks and paths to be used by the public.
- 4) No construction is allowed on public parks unless it is less than ten percent of the total area to be used as services for the parks only.

Section 4

3-4 Final Conclusion

Al-Madinah Al-Munawarah is one of the cities whose roots go back to very ancient times. It is even considered one of the most ancient cities ever known in history. Therefore, people should be cautious when they deal with a city of such characteristics. This dealing should be based on a comprehensive and deep study of this the heritage of this city and specialised knowledge about its civil and architectural elements. In this conclusion I do not want to go into detailed explanation, it is rather a few lines in which I would like to reaffirm the setting of the basic structure which guarantees that we should benefit from our traditional cities especially the urban areas with all their rich artistic and scientific treasures which express the needs of the inhabitants as well as the environmental requirements.

First of all I would like to indicate that this tremendous responsibility should be shouldered by myself. It is therefore necessary that I should continue to document what is left of the historical sites of the traditional city even if that takes me five or ten years to complete. In other words, this task have to be completed. If this work is not carried out, a lot of the heritage of this city will be lost through lack of documentation and authentication. Thus I take it upon myself to complete this task. If I have not completed it there might not be another person who can undertake it.

In this respect I would like to demand from the relevant governmental bodies to set up a technical agency which include the planners, architects, archaeologists and historians for the urban areas in order to prepare necessary studies and designs for the maintenance and restoration of whatever sites that have architectural, historic or archaeological value. Such architectural sites should be preserved and their aesthetic aspects should be manifested.

Furthermore, it is necessary to establish a centre for the records and the various information on Al-Madinah to covers all the architectural, artistic, economic and demographic aspects as well as the addition of any new information or data that might be a source of knowledge for every researchers and planners.

In order to benefit from the old Islamic architectural fabric in Al-Madinah including its values and the planning and architectural concepts, this fabric should be preserved and renovated. Consequently, laws which emanate from the heart of our environment have to be devised in order to protect our civil and architectural heritage. This will in effect lead to solving the problems of our modern cities especially in the historic urban areas in Madinah which represents the basic nucleus for the old architectural infrastructure. It is required that this infrastructure should not be harmed or that its architectural and natural character changed in any way.

In addition to that, those who work in the field of old and traditional handicrafts should be encouraged to continue their work and suitable jobs provided for them as well as protecting these jobs from the ever changing circumstances. It is also necessary to protect the natural environment of Al-Madinah by preserving its green character through growing palm trees. To this end, there should be a campaign of public awareness through the various mass media about the principles and ethics of the good citizen as well as enlightening the public about the importance of preserving the heritage of their country and be proud of it.

The syllabuses in the architectural and planning colleges should be reviewed with regard to dealing with the ancient cities; and teaching the students how to deal with such areas and developing them without harming their heritage and values.

Finally, a supreme law authority should be set up in order to issue strict laws which guarantee the development of Madinah and the preservation of its original architectural structure as well as holding everybody who fails to do that to account.

Abstruse - Difficult to understand; hard to catch; obscure; involving a high degree of abstraction; often used to describe a technical or scientific text.

Abstract - A summary of the principal features of a subject or a theory.

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Glossary – Non-English Terms (Arabic)¹

Ahl al-Sunnah	Lit. "people of established way or path"; a term referring to the majority of Muslims who follow in the footsteps of the Holy Prophet (pbuh).
Ahl al-Bayit	The family of the Prophet Muhammad; the wives of the Prophet
Al-Adhan	The call to prayer.
Al-Ansar	Auxiliaries; Al-Madinah followers of the Prophet Muhammad (pbuh) who supported him after the Hijrah.
Al-Athar	A saying, ruling or tradition of the Prophet's Companions & their students.
Al-Masjid Al-Haram	The Holy Mosque (in Makkah); the Inviolable Place of Worship (in Makkah).
Al-Masjid Al-Nabawi	The Prophet's Mosque (in Al-Madinah).
Atam (pl. Utum)	Man-made heights for defense purposes; the word <i>atam</i> is Hebrew and means walls without windows from outside. In Arabic it means high buildings.
Ayah (from the Qura'n)	a (Qur'anic) verse
Bab (pl. Abwab)	Gate.
Dar (pl. Dur)	House
Fard	Obligatory duty.
Fiqh	Islamic jurisprudence; the understanding (and application) of Islamic divine law.
Hadith	(Saying, actions, or approval of the Prophet) considered the second authoritative source of Islamic Law next to the holly Qura'n.

¹ Some of these terms were derived from Al-Maliki, Dr. Abdullah Abu-Eshy, and Sheikh Ibrahim, Dr. Abdul-Latif, 1995, *A Dictionary of Religious Terms, English-Arabic*, Maktabat Al-Obiykan, Riyadh.

Hajj	One of five Pillars of Islam ordained on all adult Muslims - who are sound in mind, physically fit and economically able - once in a lifetime, the Pilgrimage taking place to the Holy Ka'bah in Makkah on specific days of Dhul-Hijjah (the twelfth month of the lunar calendar) and involving the performance of certain prescribed rites of worship (like staying at 'Arafit, Muzdalifah, etc.).
Hammam	Public bath.
Harah (pl. Harat)	Quarter.
Hijrah	The emigration or the original exodus of Prophet Muhammad (pbuh) and his followers from Makkah to Madinah, the year of its occurrence, i.e. 622AD, having been fixed as the beginning of the Muslim calendar
Hujrah (pl. Hujrat)	Room or Chamber.
Hijri (H)	Pertaining to the Hijrah calendar, the date AD 622 being the starting point,
Huwsh (pl. Ahwash)	A shared courtyard surrounded by a group of houses with a gate, usually locked at night.
'Eid al-Adha	Lit. "the Sacrifice Feast"; the Feast celebrated by Muslims on the 10th of Dhul Hijjah (the month designating Pilgrimage, one of the rites of which is the slaughtering of an animal as a sacrifice in the cause of Allah), the Feast being sometimes called Greater Bairam.
'Eid al-Fitr	Lit. "the Fast-Breaking Feast"; the Feast celebrated by Muslims at the end of Ramadan (the month of fasting), this Feast being sometimes called Lesser Bairam.
Al-Ijma'	The unanimous agreement of Muslim scholars on a point of Islamic law; an agreed upon opinion of the Muslim community; consensus; unanimous resolution; unanimity.
Al-Ijtihad	Independent reasoning; an independent opinion; the attempt, when faced by a new situation, to establish a ruling or formulate an independent decision on a religious matter based on the interpretation and application of the four fundamentals of Islam (the Holy Qura'n, the Holy Sunnah, Consensus and Analogy), and through a creative, scholarly effort.
Al-Ihram	State of ritual consecration of the Makkah pilgrim (during which the pilgrim - wearing two seamless, often linen sheets, usually white - neither combs his/her hair nor shaves, and observes sexual continence; garments of the Makkah pilgrim; pilgrim garb; warp and garment; <i>ihram</i> robe.

Al-Imam (in prayer)	One who leads a congregational prayer; the prayer leader.
Imam al-Muslimin	The leader of the Muslim community.
Jahiliyyah	The pre-Islamic period; pre-Islamic paganism.
Al-Ka'bah al-Musharaffah	The Holy Ka'bah; the structure in the central courtyard of the Holy Mosque in Makkah which encases the Black Stone, recognised as a shrine and being the point towards which Muslims pray.
Khandaq	Ditch.
khitah	See Territory.
Khutbah	Sermon.
Al-Kiblah/Qibla	The direction towards the Holy Ka'bah; the place towards which the Muslims turn their faces in prayer, namely, the Holy Mosque in Makkah.
Al-Qur'an al-Karim	The Holy Book revealed to Allah's last Messenger (pbuh).
Madhab	A religious school of thought.
Madhab Fiqhi	A religious school of jurisprudence.
Madrasah	School.
Maqam Ibrahim	Abraham's Station, a small building near the Ka'bah in Makkah (housing a stone with Abraham's footprints).
Maqsurah	A chamber in the mosque for the Imam.
Al-Manakhah	Place where caravans alight (Al-Madinah market).
Manzil (p1. Manazil)	Independent settlement.
Mihrab	Niche.
Meeqat (Ihram Station)	An assigned place where Muslims intending to perform Pilgrimage or 'Umrah (Lesser Pilgrimage) take off their ordinary clothes and put on pilgrim garb (known as Ihram).
Mirbad	Place where dates are dried.
Mu'adhin	A person who announces the time of prayer.
Al-Muhajirin	Religious Emigrants (especially those Makkans who emigrated to Madinah in the early period of Islam).

Muhammad (pbuh)	Muhammad (pbuh) (570-632 AD), the prophet of God who received the revelation of God contained in the Holy Qur'an.
Musalla	An open-air place, usually outside the town, used for the feast prayer.
Rawshan (pl. Rawashin)	Wooden latticed balcony.
Rebat (pl. arbitan)	Hostel
Sahih al-Bukhari	Lit "al-Bukhari's Authentic Volumes"; the prophetic Traditions (or <i>hadith</i>) narrated in the absolutely authentic compilation of the great Muslim scholar al-Bukhari, constituting a source of Islamic Law immediately next in importance to the Holy Qura'n.
Al-Salat	Prayer; one of the five pillars of Islam consisting of standing, bowing, prostrating, and sitting, during which some Qur'anic verses are recited along with certain invocations. The five prescribed prayers in Islam are <i>Fajr</i> (Dawn) Prayer, <i>Zuhr</i> (Noon) Prayer, <i>Asr</i> (Late Afternoon), <i>Maghrib</i> (evening) Prayer, and <i>Isha</i> (Night) Prayer.
Salat al-Istisqa	Prayer for rain; rain-invoking prayer; invocation-for-rain prayer.
Al-Sawum	Fasting; one of the five pillars of Islam ordained during the month of Ramadan and consisting in the Muslim's abstinence from food, drink, and sexual intercourse from dawn to sunset as well as the total avoidance of immoral acts and practices.
Al-Shari'ah al-Islamiyyah	Islamic Law; the revealed or canonical law of Islam; the whole body of rules governing the life of Muslims which are derived from the Holy Qura'n and Sunnah.
Al-Shhadatain	The two testifications / Attestations: (a) that there is no god deity but Allah; and (b) that Muhammad (pbuh) is the Messenger of Allah.
Shi'ah	A religious division of Islam which regards Ali Bin Abi-Talib (Prophet Muhammad's cousin and son-in-law) as the legitimate successor and, among other things, rejects the first three Caliphs along with the Sunnite books handed down under their protection; partisans of Ali attached to the idea of the preeminence of Ali, (may Allah be pleased with him) and his descendants.
Al-Sirah al-Nabawiyah	The Prophet's biography; the biography of Prophet Muhammad (pbuh).

Al-Sufiyah; al-Tasawuf	Sufism (the various orders which espouse mystical approaches to the understanding of Allah); asceticism; mysticism.
Suk (pl. Aswak)	Market place.
Al-Sunnah	Lit. "the beaten path"; the collection of the recorded words, actions, and sanctions of the Prophet Muhammad (pbuh) commonly referred to as <i>Hadith</i> or Sunnah and established as legally binding precedents immediately next in importance to the Holy Qura'n; a recommended deed as opposed to <i>Fard</i> (i.e. a compulsory deed).
Sunni	Lit. "a follower of Sunnah" a follower of the mainstream of Islam; an orthodox Muslim who recognizes the first four Caliphs as the rightful successors (See Shi'ah).
Surah, (from the Qura'n)	Chapter (a chapter of the Holly Qura'n).
Tabi'i	A term designating one who had met only a Companion of the Prophet (but not the Prophet himself) while believing in him, and died as Muslim.
Al-Tabi'un	A term designating that generation of scholars and jurisprudence who had met only the Prophet's Companions and learnt from them.
Al-Tawrah	The Torah, the body of divine knowledge and law found in the Jewish religion and traditions, comprising the first five books of Moses, the Old Testament: Genesis, Exodus, Leviticus, Numbers, and Deuteronomy.
U~adhin	To proclaim the time of prayer; to give the call to prayer.
Al-Umah al-Islamiyah	The Muslim Community; the Islamic nation.
Um al-Mu~minin	Mother of the faithful (a title accorded to any or the prophet's wives).
Al-'Umrah	The Lesser Pilgrimage.
Ya'tamir, uadi al'Umrah	To perform the rites of ' <i>Umrah</i> (i.e. the Lesser Pilgrimage) to the House of Allah in Makkah.

Al-Zakat

One of the five pillars of Islam designating a compulsory form of charity (poor-due) amounting to 2.5% of the surplus wealth over and above a stipulated minimum rate (called *nisab*) that has remained in the possession of a Muslim for a year. The following categories of people are entitled to this poor-due (known as *Zakat*): the poor; the needy; those who collect *Zakat* or are employed to administer the funds; and those who are newly converted to Islam and whose faith needs to be consolidated. In addition, *Zakat* may also be distributed for setting captives free, for assisting those who are in debt, for the cause of Allah, and/or for wayfarers. *Zakat* is paid out once a year.

Zukak (pl. Azikah)

Lane or alley.

Ziyarah

The visit to the Prophet's Mosque in Madinah.

Part I

Substrate

- (1) J. G. ...
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Part 1

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- (8) IBID, page 241
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