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A STUDY FOR THE CONSERVATION OF THE
MEDINA OF CONSTANTINE WITH SPECIAL
REFERENCE TO THE SIDI AL-KETTANI
MADRASA.

by

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(State Architect)

THESIS SUBMITTED IN FULFILMENT OF THE DEGREE
OF MASTER IN CONSERVATION STUDIES AT THE
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INTRODUCTION

Though the medina of Constantine is enduring a continuous decline, it none the less stands as a major architectural achievement which deserves documentation and conservation. The medina is full of old buildings in need of care and maintenance to secure the future of this unique old town in Algeria.

In view of current world concern for conservation of historic buildings, the implementation of a practical policy for conservation of the medina should be a matter of urgency. To this end, architectural and historical features which contribute to the character of the town should be well preserved. Repairs and rebuilding should make use of similar materials and principles of construction.

The present work is related to the specific problem of decay of the medina and investigates how its value can be retained. It is divided into two parts, one dealing with the conservation of the old medina, and the other with the restoration of an important Ottoman building dating from the eighteenth century. The opening chapter traces the evolution of the medina from its origin to the present day. It shows the importance of the medina in the urban heritage of Algeria reflecting a particular part of national history. Chapter 2 investigates the surviving architecture of the medina, which still contains a great number of historic buildings. After defining the origin of the population of the medina and why people were attracted to live there, chapter 3 highlights the most serious problems associated with overpopulation and overcrowding: the deterioration

and destruction of the fabric of the historic centre. The conclusion to this chapter is an attempt to draw some guidelines in the hope that it may yet be possible to slow down the rate of decay and demolition. Chapter 4 deals with the condition of one specific building: the madrasa of Sidi al-Kettani (1775). An adjoining mosque is also described because it constitutes with the madrasa a single cultural complex. Finally, the fifth and last chapter gives proposals for the restoration and the conversion of the madrasa to a new use as the headquarters of the Bureau de Restauration and the recently formed Association pour la Sauvegarde de la Medina.

CHAPTER 1

I Constantine

II History

- 1 - Constantine before the Ottoman Period.
- 2 - Constantine during the Ottoman Period.
- 3 - Constantine after the Ottoman Period.
 - Constantine on the eve of the French occupation.
 - Constantine during the French occupation.

I CONSTANTINE

Constantine (Arabic *Qusantina*), the third largest town in Algeria and the chief town of an important wilaya, is situated in the north east of Algeria between the Mediterranean Sea and the Sahara Desert. It lies 254km from the eastern border with Tunisia, 437km to the east of Algiers and 86km to the south of Skikda, the nearest port. Its population was estimated in 1987 to be 444,000 inhabitants.

Constantine owes its existence and its renown to its site, which makes the town a real fortress. The old medina has a very picturesque aspect for it stands on an irregular rocky plateau, above deep ravines, isolated on three sides by gorges which decline abruptly to the bed of the river "Wadi al-Rumel". It is in fact a peninsula of rock linked to the mainland by a narrow isthmus to the west. This spectacular site has given the city its popular name "The city of Ravines" (*Madinat al-huwa*) (plates 1 and 2).

Around the old city the modern French town developed, followed by those of the Algerian authorities in the form of new quarters (fig 5 and plate 6). Four bridges have been built to connect the old city to the modern quarters. The oldest bridge, which still holds the remains of the first bridge built by the Romans, links the quarter of Bab-al-Quantara to the east part of the medina (plate 2). A pedestrian suspension bridge links the same quarter to the same part of the old town. The plateau of Mansourah to the north is connected by Sidi M'cid suspension bridge (plate 2). Sidi Mabrouk quarter is linked by a long stone viaduct, the Sidi Rached bridge (plate 3).

The medina is an agglomeration of houses with clay roofs, penetrated by an irregular system of narrow, twisting streets descending to the edge of the ravine, which is lined with houses.

II HISTORY

CONSTANTINE BEFORE THE OTTOMAN PERIOD

The origins of Constantine are obscure. Archaeological excavations carried out in the nineteen-fifties have demonstrated that the site of Constantine was occupied at a very early period. Evidences of Paleolithic and Neolithic civilisations have been found in different sites ("Plateau of Mansourah", "Jebel al-Wahch", "Grotto of the Bears" and "Grotto of the Moufflons").' (pl 1)

Although the exact date of its foundation is unknown, the name of Cirta (by which the town was known in Antiquity according to classical texts) and archaeological discoveries² suggest that it was founded during the Punic war³ and was a Carthaginian colony. It was a great town during the reign of the Kings of Numidia⁴ who made it their capital and adorned it with many fine buildings.

In the first century AD the region suffered a period of civil wars, which gave the opportunity to the Romans to invade it. The town then became a Roman colony and received the name of Colonia Cirta Julia.

In the course of an insurrection and rebellion against the Roman rulers in 311, the Emperor Maxentius and his soldiers took the town and razed it to the ground. Two years later it was rebuilt by the new Emperor, Constantine, after whom it was named. The

-
1. Rachid Bourouiba: *Constantine Collection Art et Culture*. Alger: Ministere de l'information et de la culture. 1978
 2. Classical texts from Greek and Roman historians.
 3. Punic War: War between the Romans and Carthaginians, (3rd century BC.

principles of Roman urban planning were applied to the town. (see plates, 4a and 4b.)

The Romans were succeeded by the Vandals who took the town in 430. Twelve years later it was returned to the Emperor⁵. After the destruction of the Western Empire, Constantine remained independent until Byzantine times. Fear of the Berber tribes led the Byzantines to erect fortifications around the town (they were still standing at the time that the French took the town).

The Byzantines were succeeded by the Muslim Arabs at the end of the seventh century.

The history of the Arab conquest of the region is not well known. However, descriptions of Arab travellers and geographers about the eleventh century, although not precise, help to give an idea of what Constantine was like at that time. Al-Bakri, the famous eleventh-century Arab geographer, pointed out the importance of Constantine which he called Qosantina. He described it as "a large and ancient town with a numerous population...Inhabited by various families who were originally part of Berber tribes established at Mila...it has rich bazaars and prosperous trade".⁶ Al-Idrissi, the traveller and geographer of the twelfth century described Constantine, which he called Qusantinat al-hawa ("of the air" because of its lofty position) as "a populous and commercial town...The inhabitants are rich, they have good relations with the

4. Numidia was a Berber Kingdom

5. Julien Ch-A, *History of North Africa, Tunisie Algeria, Maroc*. (Paris:Payot 1956), P99

6. G.Yver, *Encyclopaedia of Islam* (Leiden and London 1913-1938 and 1960 to date)

rural population and cooperate with them for the cultivation of the soil and the preservation of the harvest. Their subterranean storehouses are so good that corn may be kept in them for a century without suffering any deterioration."⁷

From the first incursion of the Muslim Arabs to the time of the Ottoman conquest in the middle of the sixteenth century Constantine was ruled by several dynasties: the Fatimids in the early tenth century, the Zirids and the Hammadids from the end of the tenth century to the middle of the twelfth century, the Almohads from the middle of the twelfth century to the middle of the thirteenth century and the Hafsids from the middle of the thirteenth century to the middle of the sixteenth century.⁸

Constantine has retained practically no vestiges from this period. The superposition of all these civilisations on the same site has marked the history of the town, but it has deprived it of any major remains from these earlier periods, since each civilisation destroyed the traces of its predecessor. The only pre-Ottoman Islamic building which still survives is the great mosque built in the eleventh century which has undergone so many alterations that now little but its mihrab (prayer niche) dated 1063 remains intact.⁹

7. G. Iver: *Encyclopaedia of Islam*. op.cit. P.530.

8. Clifford Edmund Bosworth: *The Islamic Dynasties*, Edinburgh.

9. Rachid Bourouiba, op cit page 56.

2. Constantine during the Ottoman Period

In the sixteenth century Spanish attacks on Algiers precipitated Ottoman interference and led to their intrusion through the piracy of Barbarosa¹⁰ who settled in Algiers, which then became a province of the Ottoman Empire.

The date of 1535 is considered to be the date that the Ottomans gained control of Constantine. The town, formerly under the influence of the rulers of Tunis, then became the capital of the eastern region of Algeria (the eastern Beylik). It was first governed by a Qa'id¹¹ and then by a succession of Bays¹² named by the Pasha¹³ of Algiers. Administratively, Constantine was organized around a "Shaykh al-Balad" who was the administrator of the town and the chief of the police. Religion was represented by the Shaykh al-Islam, a post held by successive members of the Ben Shaykh Lafgun family¹⁴ throughout the Ottoman period. The muftis¹⁵, the qadis¹⁶ and the teachers administered the high court. The Treasury (Dar al-Mal) administered the town's finances and also the *hubus*.¹⁷ The hygiene and cleanliness of streets was the responsibility of the Qa'id al-Zabal. The town crier (al-Barah) announced the Bey's orders in the markets.

It was during the eighteenth century that Constantine saw a huge expansion of building activity. It is the period which has left the most lasting imprint on the architecture and urban form of

10. E. Vaysettes, op cit.

11. Qa'id: Arab term meaning a leader.

12. Bey: a Turkish term meaning governor of a province.

13. Pasha: a Turkish term for an administrative officer of high rank.

14. Mohamed al-Hadi Larouk: *Constantine, a historical and geographical study*.

Constantine. The town was governed by Beys whose ambition was to embellish the town by creating new streets and building new mosques, madrasas,¹⁸ zawiyas,¹⁹ suqs,²⁰ houses and palaces.

Kelian Hasan Bey called Bu-Kamia, who governed the town from 1713 to 1736, built the mosque of Suq al-Ghazl. Hasan Bey Husain called Bu-Hanak (1736-1754) made new streets and built the mosque of Sidi Lakhdar (where he is buried). Undoubtedly the most remarkable of the Beys was Salah Bey, who extended the town to the north by creating a new quarter named shariaa with a market "suq al-acer, a mosque, a madrasa and his palace. He also restored the bridge of al-Qantara (which served both as a viaduct and as an aqueduct) (pl 4b)

A period of anarchy succeeded the prosperous period of Salah Bey. Seventeen Beys ruled Constantine in the period between 1792 and 1826.²¹

In 1830 the arrival of the French in Algiers made Ahmed, the last Bey of Constantine, independent from the authority of the governor of Algiers. He took advantage of this situation and created an independent principality in the east and took the title of Pasha. During his reign he built a very luxurious palace in the medina of Constantine.

-
15. Mufti: a specialist in law who can give an authoritative opinion on points of doctrine.
 16. Qadi: a judge, usually in matters of civil law.
 17. Hubus: endowment for religious purposes.
 18. Madrasa: an institution for the study of the Islamic sciences.
 19. Zawiya: a building used for religious study and worship often containing the mausoleum of a saint.
 20. Suq: market.
 21. E. Vaysettes: *Histoire de Constantine sous la domination turque*, recueil de la société archéologique de Constantine 1867-1869.

Constantine after the Ottoman Period

a. Constantine on the Eve of the French occupation

The plan drawn by Ernest Mercier²² shows the medina of Constantine on the eve of the French occupation in 1837 (fig 2).

The medina stood alone on the rocky plateau, covering a surface of about 30 ha, enclosed by an irregular wall which follows the rock contours. Four gates give access to the town; three to the west, namely Bab al-Wad (River Gate), Bab al-Jadid (New Gate) and Bab al-Jabia (Cistern Gate), and one to the east, Bab al-Qantara (Bridge Gate). From the three gates situated to the west of the medina departed three main roads which led almost to the commercial centre (suqs) past the largest concentration of craftsmen and traders in the medina. From Bab al-Wad, these trades were rigorously grouped according to specialization as follows: druggists (*attârin*), saddlers (*sarrajin*), cobblers (*harrâzin*), goldsmiths (*sâgha*), blacksmiths (*hâddadîn*), carpenters (*najjârin*), parchment market (*raqqâquin*), butchers (*jazzârin*). All these trades formed Suq al-Tujjar. Within the medina itself, the French historian A. Noushi²³ has estimated that at the time of the French conquest there were 1160 houses, 500 shops, 7 madrasas, 5 hammams and 35 mosques. The population was estimated at 25000. Mercier²⁴ identified four major quarters located in the four corners of the medina (fig 2),

-
22. E. Mercier: *Constantine avant la conquête française*.
Recueil des notices et memoires de la societe
archeologique de Constantine XIX 1878.
23. A. Noushi: *Constantine a la veille de la conquête
française*. (Tunis, cahier de Tunis 1955).
24. E. Mercier: op cit page 43.

Tabia to the south-west, Qasbah to the north-west, al-Qantara to the north-east and Bab al-Jabia to the south-east. In turn these quarters were subdivided into subquarters, as may be seen to this day in the Bab al-Jabia quarter which contains Rahbet al-Jamel, al-Batha and al-Chott subquarters. Each subquarter is composed of a number of neighbourhoods (*hawma*) (e.g. Hawmat Tebabla). Each *hawma* is composed of a number of *zenqa*, clusters of houses named after leading families or a local mosque or *zawiya* and reached by short alleyways (e.g. Zenqat Sidi Offane, Zenqat Dar Bu-Khubza). The existence of small markets (*suq*) within these quarters is shown in Mercier's plan: Suq al-Chott, Suq al-Mukuf, Souiqat Bab al-Jabia, Souiqat Ben Megalef. From these *suqs*, secondary thoroughfares branched out through the residential areas. Streets branching off these thoroughfares in turn led to enclosed groups of private houses reached by dead-end alleys. These groups of houses were quite separate from the public life of the main thoroughfares on which were situated the religious and public buildings.

b. Constantine during the French Occupation

After besieging the town twice, the French eventually took Constantine in October 1837²⁵. At first the French hesitated over how to organize the old town. It was initially placed under the authority of a Hakim who was under the supervision of the military

25. A. Badjadja: *La bataille de Constantine 1836-1837*.

authorities, but the ordinance of 9 June 1844²⁶ stipulated that the town was to be divided into two major parts.²⁷ One was for the indigenous population and the other for Europeans. This was enforced by Article 5 of the ordinance, which required that no European or Jew was to become resident or owner of a house in the indigenous quarter.

The application of this ordinance has considerably transformed the appearance of the quarters of Tabia and Qasbah (fig 3), which were the scene of massive demolitions in order to free space for new streets and new buildings for the Europeans. The Qasbah was chosen for its altitude to be the site of new military buildings. A mosque and many other buildings were cleared away from the site of a new military hospital, a prison and barracks. The mosque of Sidi Ali Ben Makhluf was demolished and the present town hall erected on the site. The mosque of Rahbet al-Suf was converted into a hospital before being demolished and replaced by a school. Religious buildings disappeared one by one to make way for new colonial buildings and streets. The mosque of Hasan Bey in Suq al-Ghazl was converted into a cathedral, considerably altering its appearance. To this transformation of individual buildings was added the process of urban restructuring. The quarter of Tabia was cut by a long street running the whole length of the quarter and crossed by secondary

26. J. Chive and A. Berthier: *L'evolution urbaine de Constantine 1836-1837*. Page 7

27. J. Chive and Mercier, op cit page 8.

streets. The necessity of joining the two main gates of the town, Bab al wad and Bab al-Qantara, caused the cutting of Larbi Ben M'hi street which was first called "Rue Imperiale" in honour of Napoleon III then "La rue Nationale", "Tariq al Jadida" (plate 5b). The construction of these new streets led to the demolition of most of the great mosque.

Crossed by three major streets, the old town of Constantine has a double character caused by the juxtaposition of two different urban models. One applied in the north with its regular blocks of multi-storey buildings, (Plate 5a and 5b) the other on the south which was left as before the French occupation without any major intervention.

It was not until 1870 that the new town developed considerably outside the old core (Fig 4 and Plate 6).²⁸ The new surrounding quarters were connected to the old town by four bridges, one of which, Bab al-Qantara, already existed at the time of the French occupation. This bridge, built during the Roman period, had been restored by Salah Bey in 1792, and then completely rebuilt by the French after having collapsed in 1857²⁹ (See Plate 4b). The three other bridges were all built by the French.

28. J. Chive and Mercier, op cit p11.

29. E. Mercier op cit p13.



Plate I- View of the limestone rock showing
a prehistoric site: the Grotto of
the Bears.



Plate 2-View of Sidi M'cid suspension bridge in the back-ground and Bab al-Qantara bridge in the fore-ground.

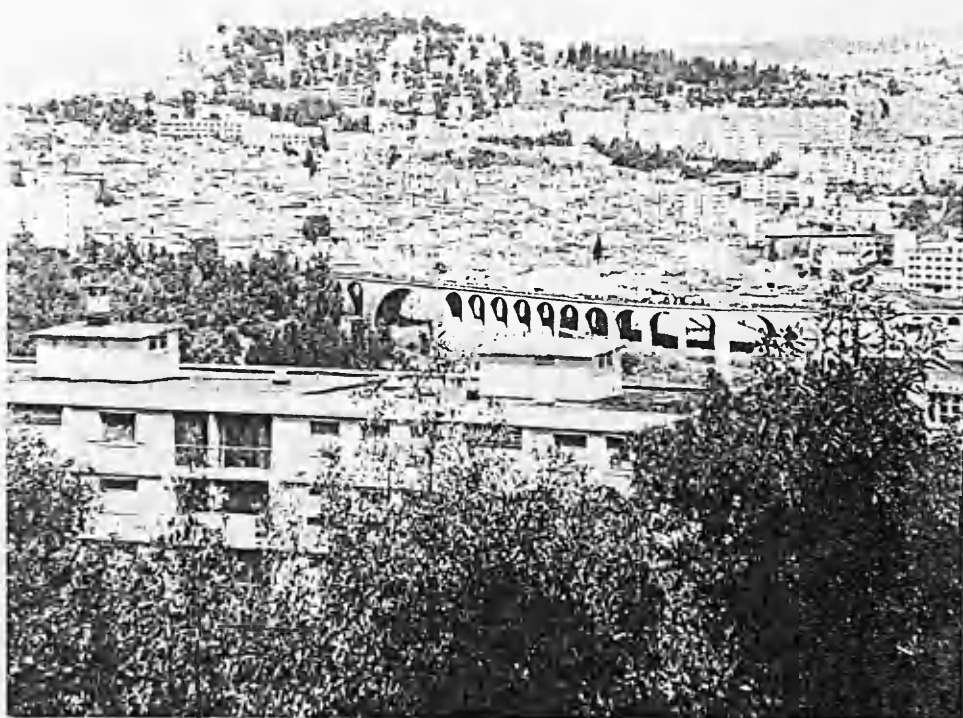


Plate 3- Sidi Rached bridge.



Plate 4a Constantine during the Roman period.

Source; M. Larouk; Constantine; a historical and geographical study.

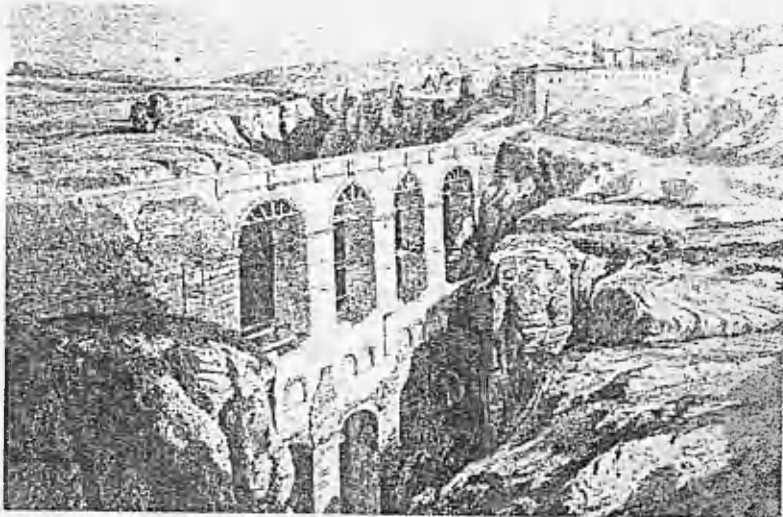


Plate 4b-Roman bridge of Bab al-Qantara.

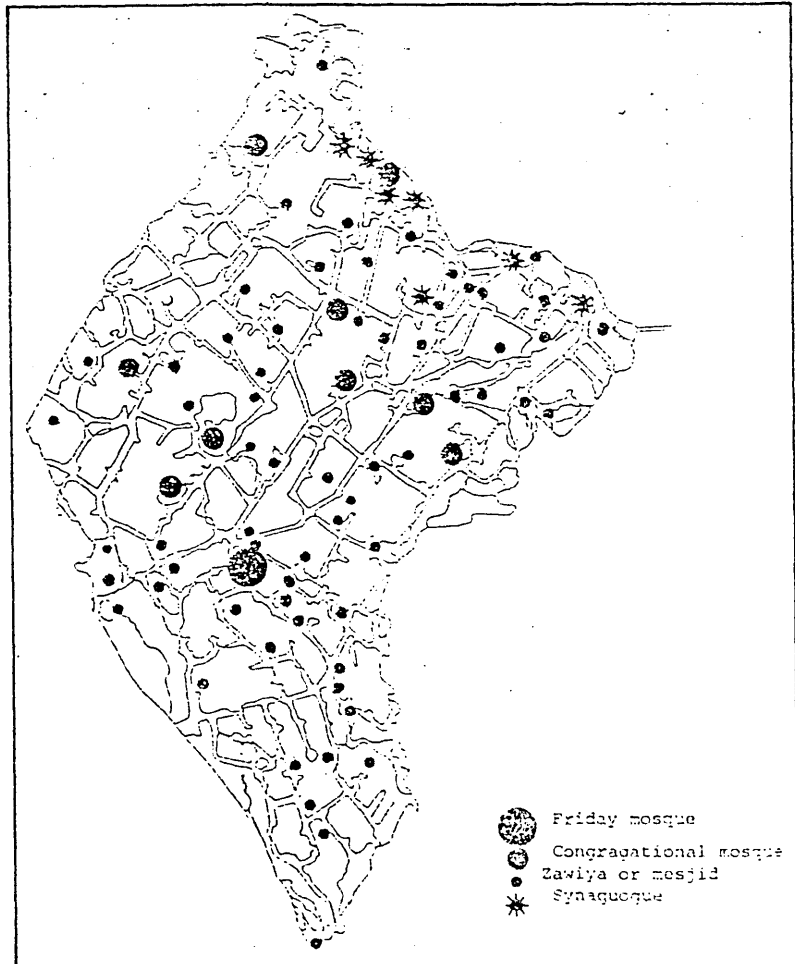


Figure I -Religious building during the Ottoman period

Source : S.Meskaldji;La medina de Constantine
activite et population.

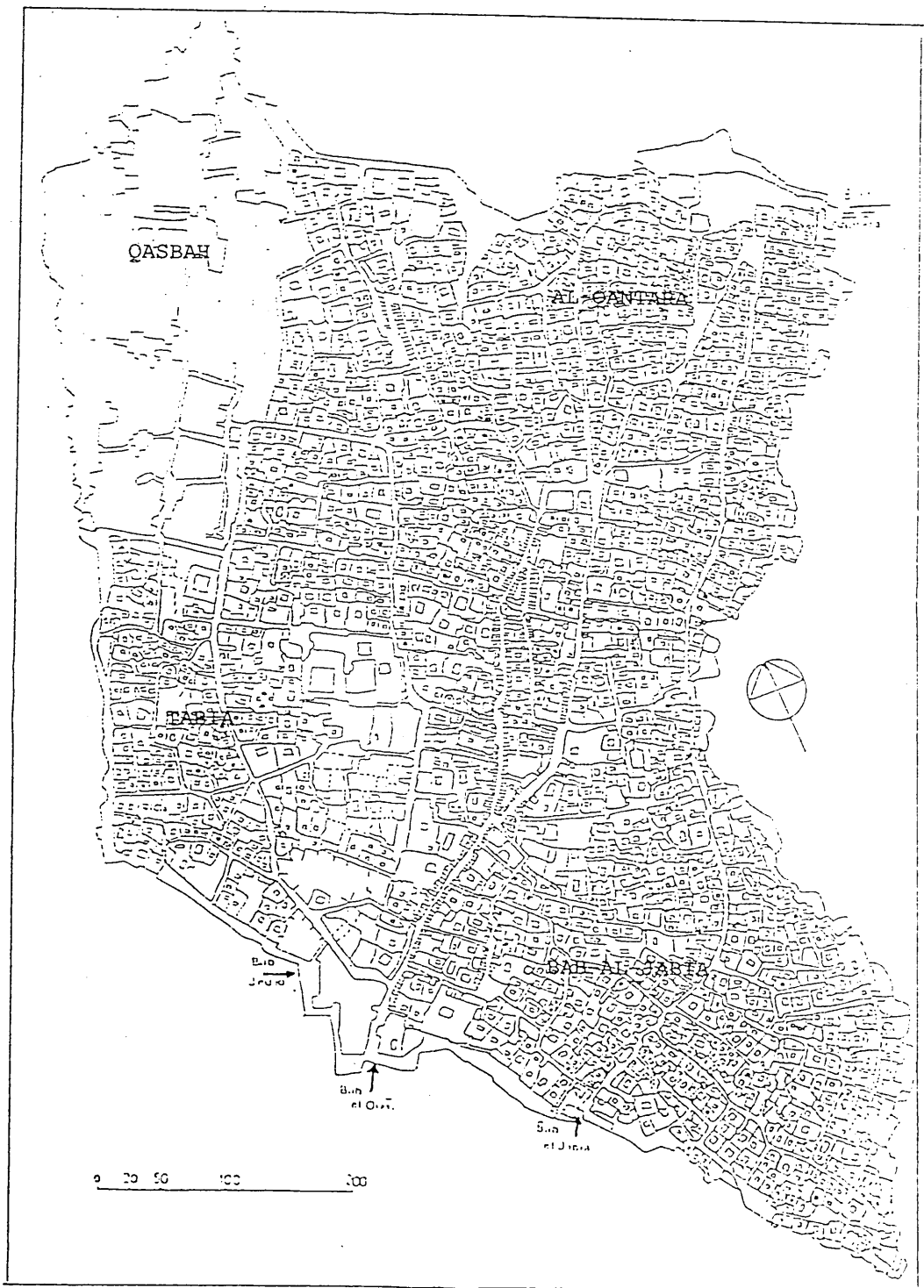


Figure 2 -Constantine during the Ottoman period.
Source: Mercier.

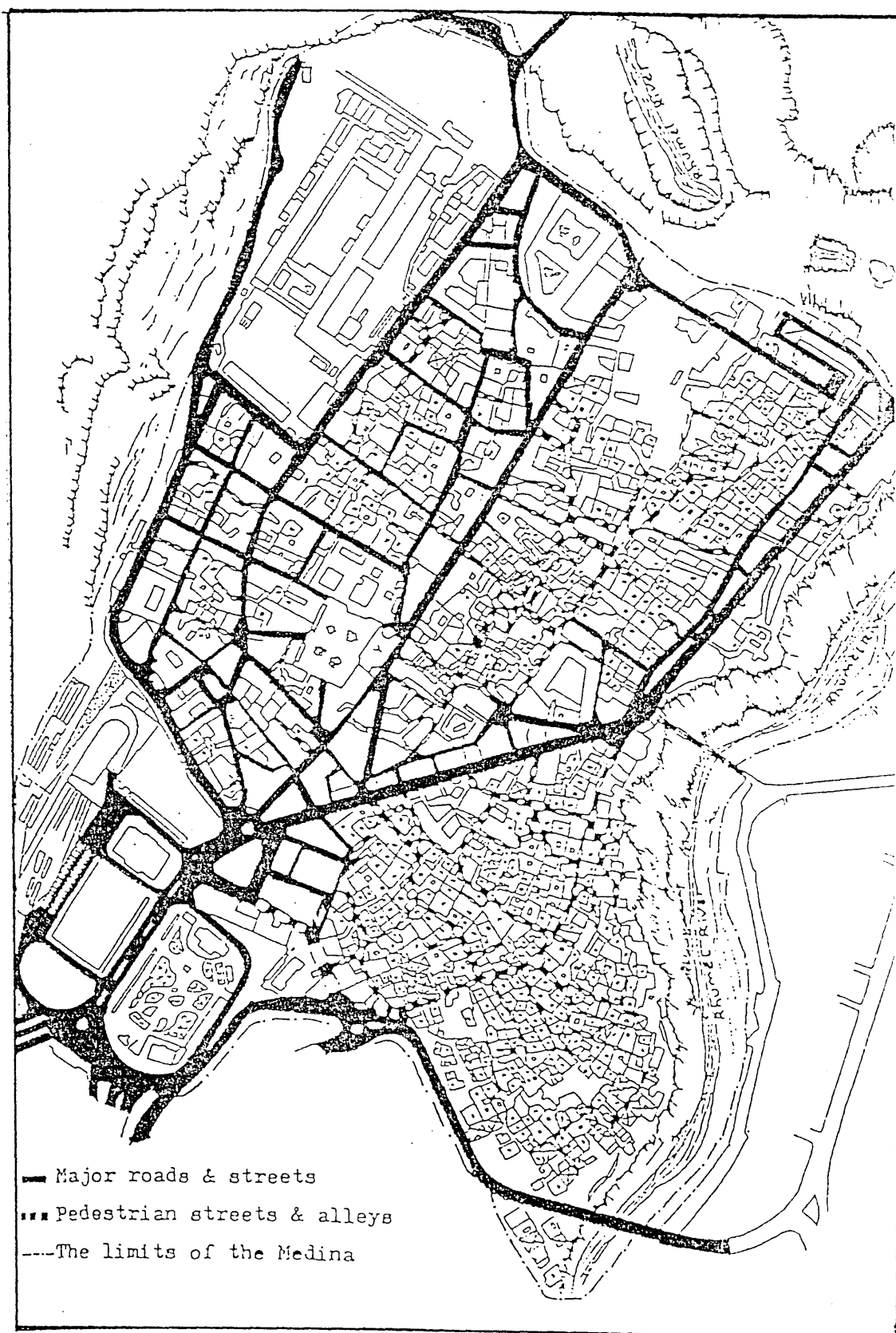


Figure 3-Urban intervention during the French period.

Source : UREACO (1984) .

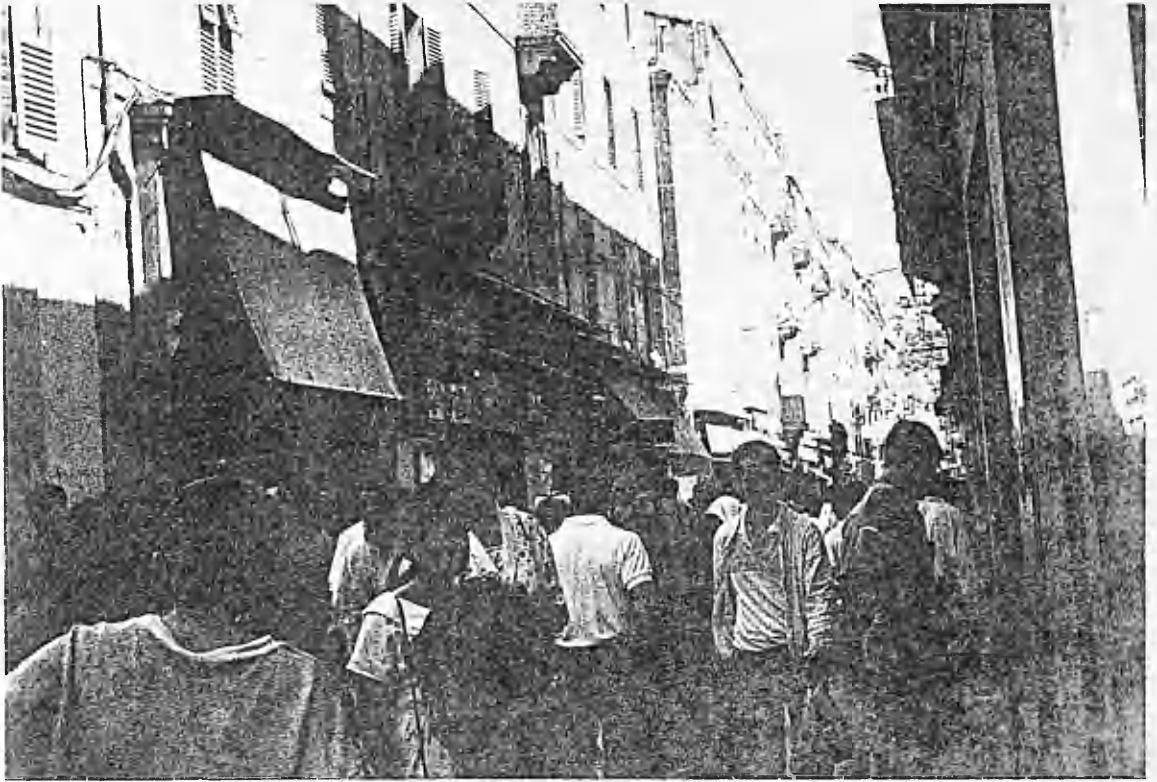


Plate 5a-French colonial street in the gasbah quarter.



CONSTANTINE. — La Place Valée et la Rue Nationale

Collection ND Paris

Plate 5b-Colonial streets cut through the old medina

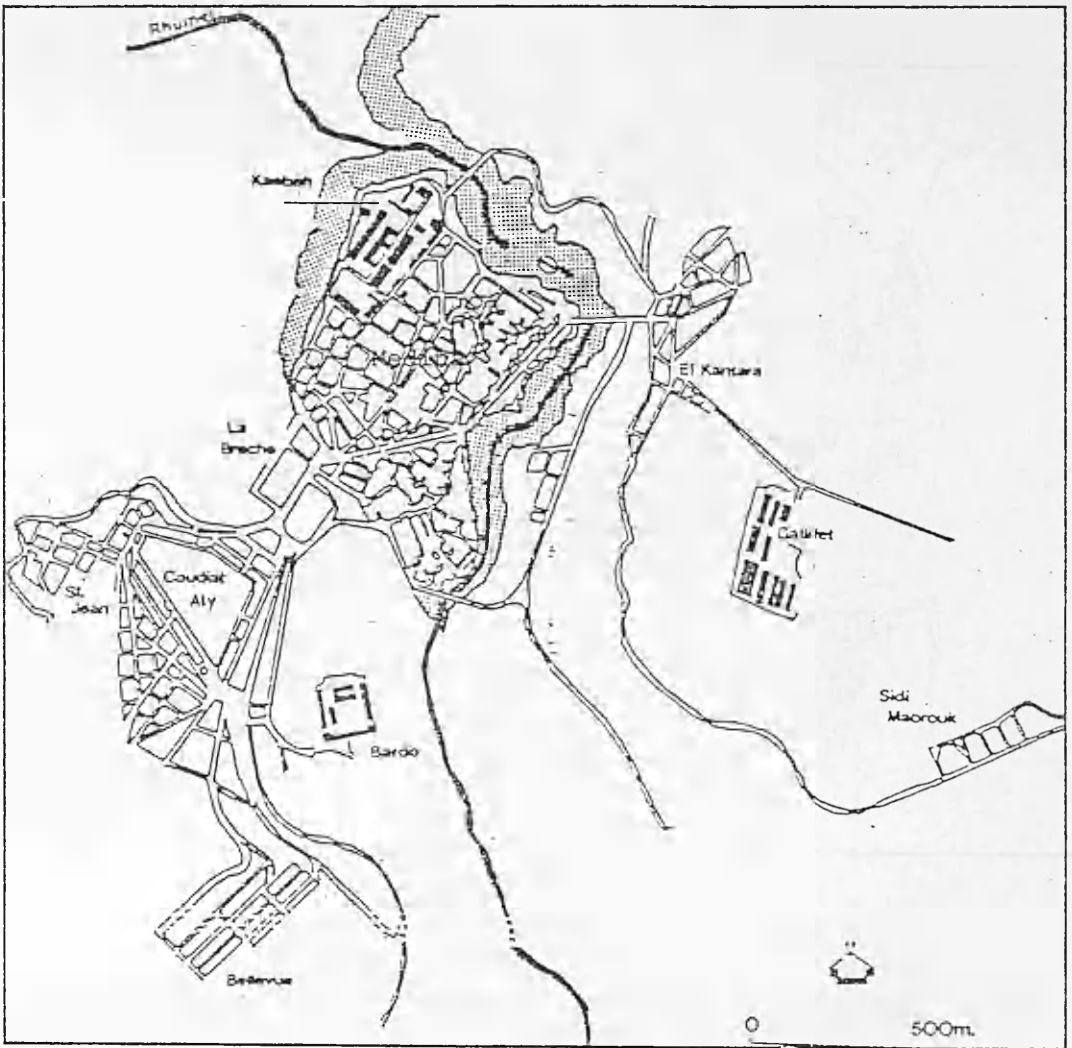


Figure 4 - Constantine 1919

Source: Berthier and Chive (1937).



Plate 6 - First urban extension in the surrounding quarter of COUDIAT ATTY.

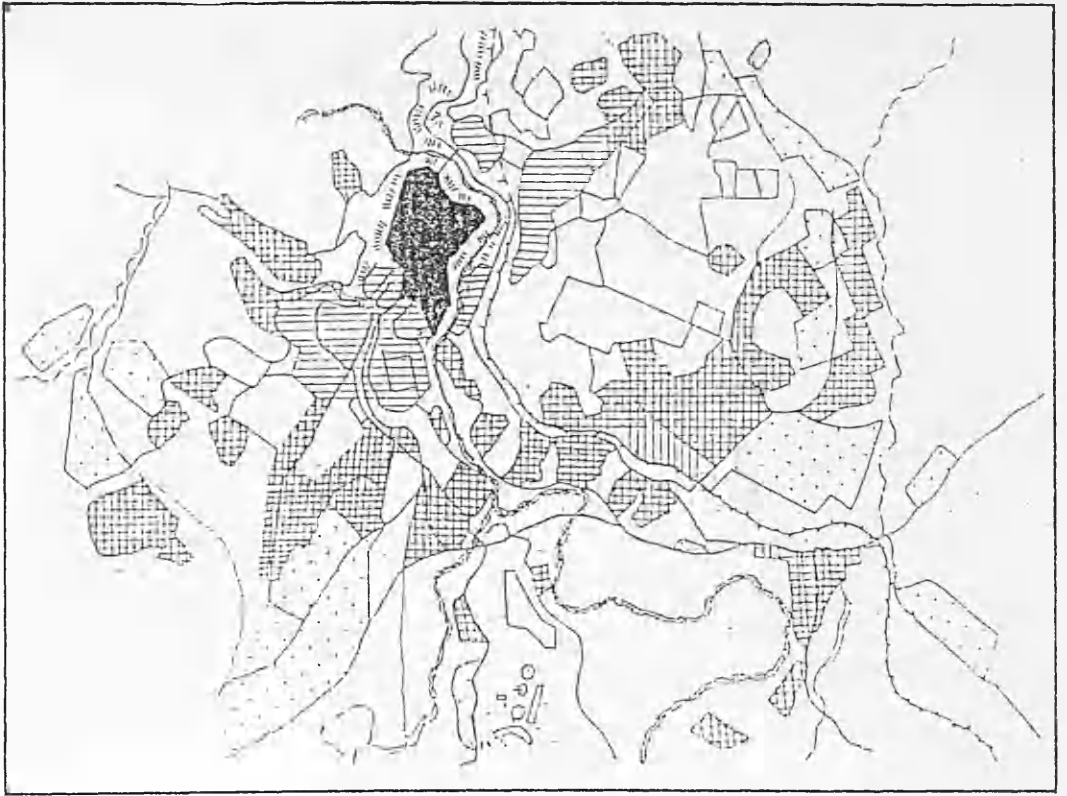


Figure 5 - The spatial urban evolution of the city of Constantine.

Source; S.Meskaldji, la medina de Constantine activite et population.

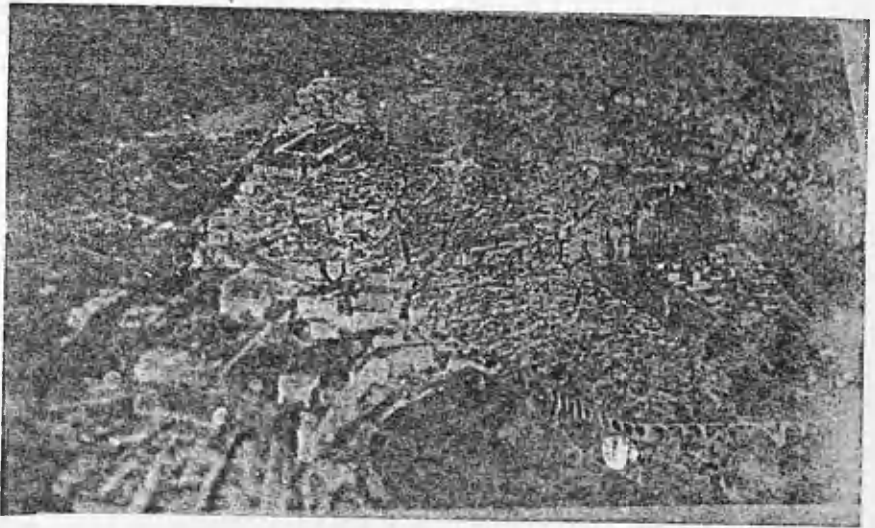


Plate 7 - Aerial view of the medina.

CHAPTER II

THE URBAN HERITAGE

- 1 - The house
- 2 - The hammam
- 3 - The mosque
- 4 - The madrasa
- 5 - The zawiya
- 6 - The suq
- 7 - The funduq

INTRODUCTION

The old medina of Constantine still preserves some traditional Islamic architectural elements such as old houses, hammams, mosques, madrasas, zawiyas, suqs and a network of streets and quarters. All these elements perpetuate an ancient mode of life. The surviving section of Jabia quarter offers an image of daily life in Constantine almost unchanged since Ottoman times. Its prime feature is a warren of twisting alleys often spanned by rooms bridging across them and punctuated by religious and commercial buildings (figs 6,7, pl.8). Large thoroughfares are absent. Many of the alleys are dead-ends and only just wide enough to let the indispensable donkey through (plates 9, 10 and 11). The impression which comes out from this quarter, which escaped transformation by the French and still reflects the Muslim urban model, is one of "anarchy". To understand this apparent lack of systematic organization, it is important to appreciate the logic of the interrelationship between the different elements that together make up the medina.

1. THE HOUSE

The traditional house is organized around an inner courtyard (Fig 8). It presents to the outside world high almost windowless walls pierced by a low door (see plate 9). Often several houses are collected together into a larger walled complex accessible only through a communal doorway from which the individual dwellings are reached (plate 10).

In Muslim society, privacy is the basis of collective life. The stranger, especially a man, should maintain a respectable distance

between him and the house he intends to enter, since the house reflects a mode of life founded on the protection of family intimacy.

All houses components respond to this rule. The facade is sober, often blind or occasionally pierced by a very tiny window protected by an iron grille. The houses frontages are rarely aligned (Plate 11). Such irregularities may be analysed according to the way in which Islamic law has affected the growth of Muslim towns.³⁰

The traditional house comprises the following elements: entrance door, lobby (*skiffa*), courtyard (*wast al-dar*) (Plate 14), rooms (*bit*), galleries (*satha*) and staircase. The entrance door is usually of wood rarely decorated except in rich dwellings. It is always raised up by a step. Access to the interior of the house is provided by the *skiffa*, which in some houses has built-in seats and walls decorated with a tiled dado. The *skiffa* leads to a central courtyard or *wast al-dar* which may have one, two, three or four side arcades. It sometimes has a fountain in the middle. Often a cistern is built under the courtyard for collecting rainwater from the roof (plate 12 and 13). The courtyard is the privileged place for domestic activities and so it is the place for women in particular. The courtyard floor is covered with tiles, marble in rich houses, and simply with cement in modest dwellings. Rooms are arranged around

30. For a detailed account of this subject, see Besim Selim Hakim: *Arabic Islamic Cities*. London, KPI Limited 1986.
See also Brunshvig: *Urbanisme Médiévale et droit Musulman*:
Revue des Etudes Islamiques (1947)

the courtyard mostly in three storeys (Fig 6 and plate 14 and 15). They are the private space of the family life, normally rectangular in plan. It is very difficult to define the function of rooms because it varies throughout the day; they serve as dining room, living room and later as bedroom when night falls. Sitting rooms often have a special form, known as *kbu* in Arabic, consisting of an alcove in the middle of the wall opposite the door and flanked by side rooms called *maksura* (see fig 6).

2. THE HAMMAM

The hammam or public hot-steam bath is one of the most important foundations in the medina. In Constantine, the hammam has been inherited from the Turks. It is a social centre for the quarter where people go for relaxation as well as for hygiene. It is also an essential component of the traditional Islamic life of the medina for its ritual use in the performance of the major ablution before Friday prayer. There are fifteen hammams still functioning in the medina (Fig 7).

They are still frequented, since people living in the outskirts prefer them despite the presence of a bathroom in their modern houses and the long journey. Besides its traditional functions, the hammam in Constantine serves as a hostel for the homeless at night. The fifteen hammams of Constantine's medina differ in size and comfort, yet there is scarcely any variation in construction or in the way in which they work. They are built to the same general design as the baths of ancient Rome.³¹ Ordinarily the hammam has three distinct sections (see fig 8). The first chamber to be entered

is the reception and changing room (apodyterium) a place in which one can relax and acclimatize to a cooler atmosphere after bathing. It is the largest room in the building. Some hammams have their walls lined with two storeyed wooden galleries. The second room (tepidarium) is the chamber of intermediate temperature which is moderately heated. It also serves as an anteroom to the hot room, keeping the cold air on one side and the hot air on the other. The third room is a large hot room, filled with steam (caldarium). It is usually a domed hall surrounded by small chambers.

3. THE MOSQUE

The mosque constitutes with the suq the archetypal symbol which animates the Muslim town. However, this is not so evident in the medina of Constantine because of the massive colonial demolitions. The only remaining mosques which retain their original relationship to the suq are those of Sidi al-Kettani dominating Suq al-acer, Sidi Lakhdar, Suq al-Jazzarin, Sidi-abdelmoumen and Souiqa.

The mosque is a building in which communal prayers are performed five times a day. The obligatory Friday noon prayer (*Salat al-Juma'*) is performed in the congregational mosque, the *Jami' al-Khutba*, which is large. The local mosques or *masjids* are smaller, their purpose to provide a convenient place where the five daily prayers may be performed.

31. Charles Andre julien op cit

The plan of the mosque is articulated around two major elements. The first is the prayer hall, usually longer than it is wide. It contains a niche, *mihrab*, oriented towards Mecca. Every worshipper should face the *mihrab* when performing his prayer. In congregational mosques there is a raised pulpit, *minbar*, from which the imam pronounces the Friday sermon, *Khutba*. Some larger mosques have a platform near the *minbar* reached by a staircase. This platform called *dikka* in Arabic, is used as a seat for the *muballigh* to repeat the words of the *imam*³² to ensure that everybody hears the service clearly.

The second element is the courtyard, *sahn* in Arabic, on which the prayer hall opens. It can serve as a place for prayer in case of overcrowding. The courtyard is normally surrounded by arcades and often contains a pool and trees.

A minaret from which the muezzin calls the faithful to prayer and an ablution room, *maidha* in Arabic, complete the mosque.

The importance of religious life is reflected in the number of mosques in the medina. Twenty mosques, three of them congregational mosques, are to be found in the medina. The most important are the Jami^c al-Kabir, followed by those of Hasan Bey, Sidi al-Kettani, Sidi Lakhdar and Sidi Abdelmoumen. The Koran is taught in five of them.

32. Derek Hill and Lucien Golvin: *Islamic Architecture in North Africa*. London Faber and Faber Limited, 1976.

4. THE MADRASA

Although the term *madrassa* means school, its traditional usage refers to an institution of higher education where Islamic sciences and law were studied. At first such education was provided in the mosque or in the house of the teacher.

The traditional Maghribi *madrassa* consists of a prayer hall, classrooms, an ablution room, a fountain or a pool and accommodation for students coming from a distance who were given a monthly allowance.³³ These elements are usually combined in a two-storey building around an open courtyard.

Today the only surviving *madrassas* in the medina are those of Sidi al-Kettani and Sidi Lakhdar which both date from the Ottoman period (eighteenth century).

Although two earlier *madrassas* were reported by Leo the African, who states that in his time (Hafsid period) Constantine had two *madrassas* and three *zawiyas*,³⁴ no trace of them is known to survive.

The two remaining *madrassas* are the work of Salah Bey, who not only built these educational buildings but set up for the first time regulations for such institutions.³⁵

33. Derek Hill and Lucien Golvin: *op cit* p 53.

34. Rachid Bourouiba, *op cit* p 74.

35. Vaysettes: *Histoire de Constantine sous la domination turque, recueil de la société archeologique, 1868.*

5. THE ZAWIYA

In North Africa, the term *zawiya* is applied to a building or group of buildings of a religious nature, which function like a combination of monastery and school.³⁶ They served as a place for the cult of a given saint. Sometimes they house the remains of the saint, whose tomb is a spot where vows are taken and prayers answered. In the *zawiya* a specialist in the Koran provides religious education to children.

E. Mercier noticed the existence of numerous *zawiyas*³⁷: Ben Shaykh Lafgun, Ben Djeloul, Ben Abderahmen, Hanala, Ben Naamour. Nowadays seven *zawiyas* remain, but they have somehow lost their popularity and are in most cases used as local *masjids*. They have no special architectural features and are hardly noticeable. Their facades are windowless and their interiors reached by a low door. Essentially, they comprise a prayer room, a Koran teaching room, and in some cases a chamber housing the tomb of a saint.

6. THE SUQ

Commerce has always been the most important function of the *medina* of Constantine.

The *suqs* are the places where goods are bought and sold. *Suqs* are one of the most distinctive and prerequisite features of Arab

36. Derek Hill and Lucien Golvin, *op cit* pp 54-55.

37. E. Mercier, *op cit*.

community, consisting of a succession of small shops, usually organized in groups according to the products on sale, each of which specializes in a specific trade.

In the medina of Constantine it is possible to identify two kinds of suqs: market squares such as Suq Rahbet al-Suf, Suq al-Acer, and Rahbet al-Jamel; and market streets such as Swiqa, R'cif, al-Jazzarin, all dating from the Ottoman period. There is also a covered market, "Marche Bu Mezou", which was built by the French.

From its origins as a wool market, Rahbet al-Suf is now a group of shops mainly selling fruit and vegetables under one roof (Plate 17). The market was associated with a mosque which stood on the site of the present Ali Khodja School. In 1855, the mosque was demolished and a new covered market was erected in the market square. By its position at the crossroads of seven thoroughfares, Rahbet al-Suf still attracts many shoppers.

Suq al-Acer, the market square built by Salah Bey at the end of the eighteenth century,³⁸ contains today the most important concentration of fruit and vegetable merchants in Constantine. 124 stalls are set in the centre of the market square, and shops of different sizes occupy the ground floors of buildings surrounding and enclosing the square (Plate 16).

The street markets, linear continuous suqs, are numerous (Plate 8).

38. E. Mercier op cit p 46.

Today there is a tendency to change the goods sold in old suqs. For instance, Suq al-Jāzzarin, which used to be the meat market, is now invaded by new fashionable shops selling things like jewellery and clothes.

7. THE FUNDUQ

In the Maghreb the term *funduq* is used to denote a caravanserai, a sort of hostel, where merchants coming to the town lodged and displayed their merchandise for sale. Generally, funduqs were two or three-storey buildings around a relatively large courtyard with a large gate to allow the entry of loaded animals. The lower chambers and the courtyard were used as stables for the horses and camels of the merchants. The small upper rooms are reached from a covered gallery around the courtyard and were used as guest-rooms.

In the medina of Constantine such funduqs have mostly disappeared, and the surviving ones no longer perform their initial function. Some have been converted into housing (Funduq Belhadj Mustapha and Funduq Ben Azouz), into workshops and stores (Funduq Rahbet al-Jamel) or into boutiques (Funduq ez-zait) and others have simply fallen into ruin.



Plate 8- Market street leading up to the suq al-Acer market.



Plate 9-Typical street in the medina



Plate IO-Short dead-end alley leading to a group of fine houses.

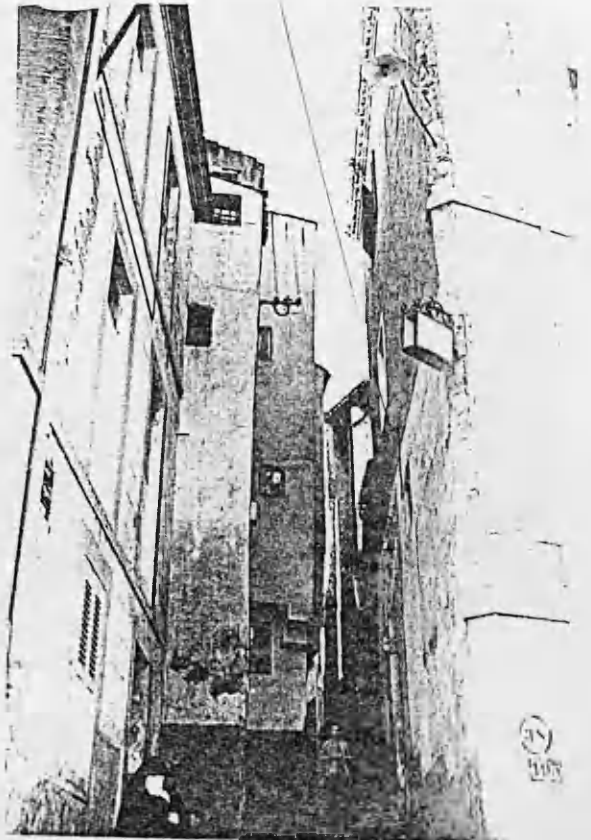


Plate II. Cul de sac

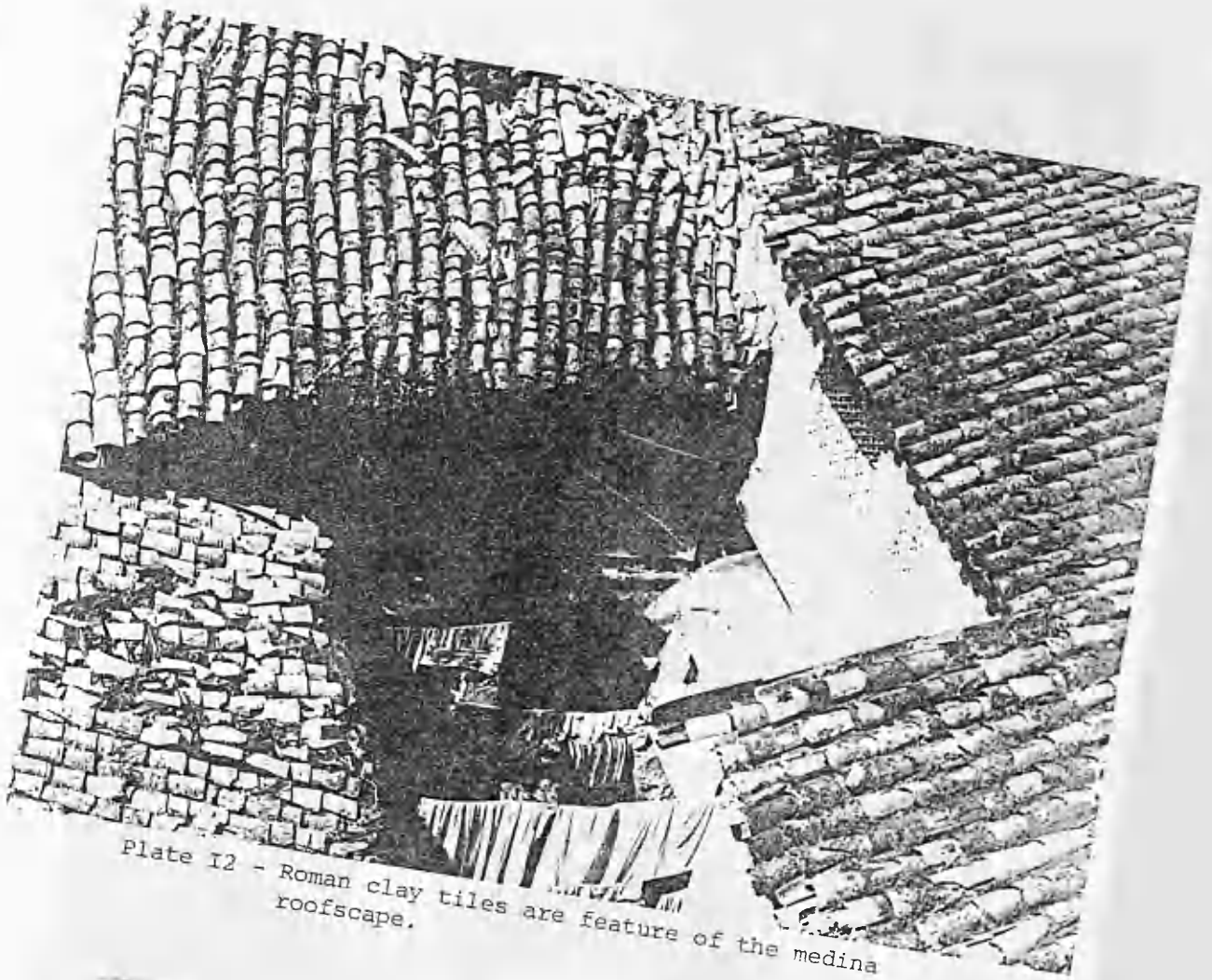


Plate I2 - Roman clay tiles are feature of the medina
roofscape.

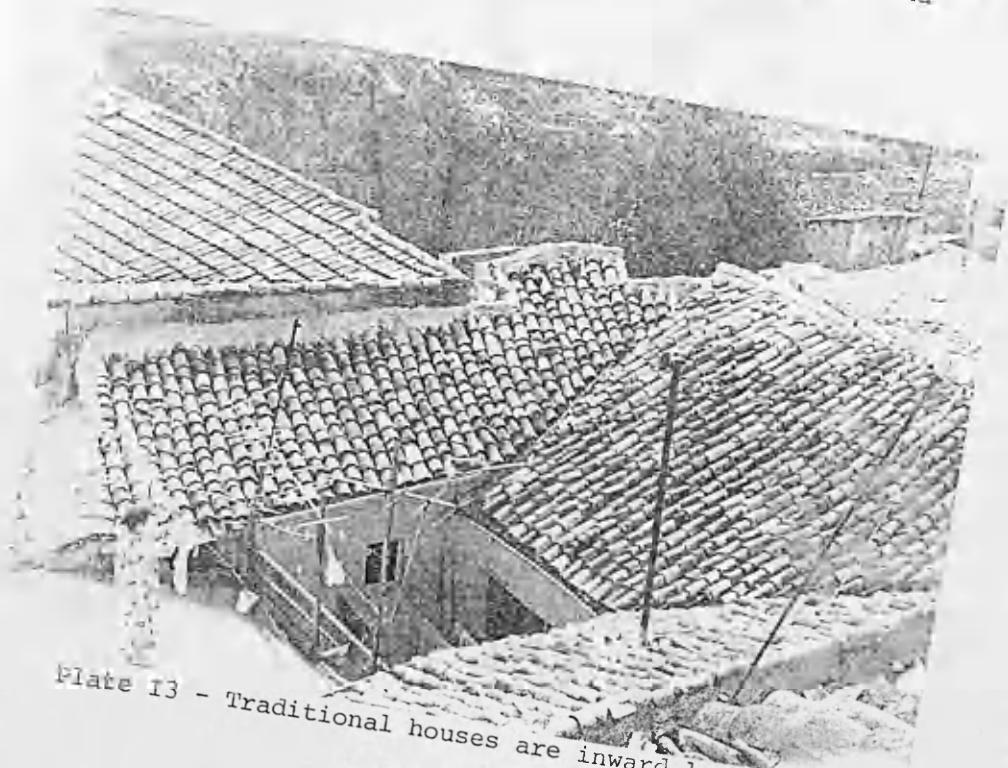


Plate I3 - Traditional houses are inward looking.

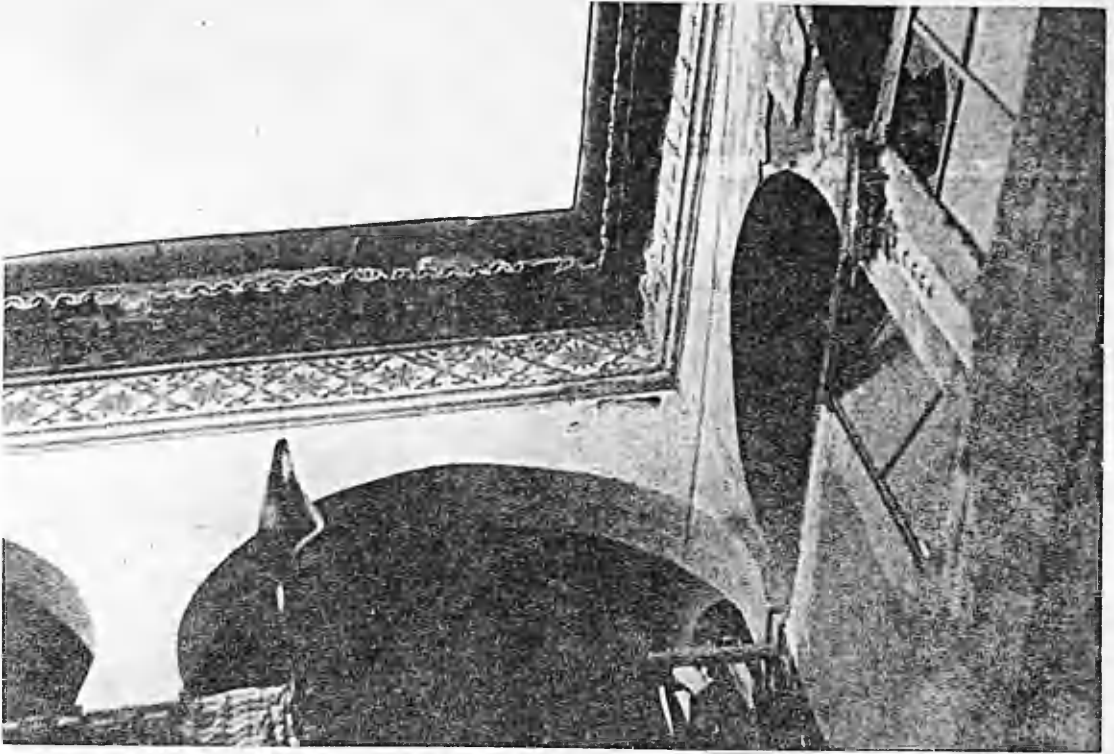


Plate I4- Interior view of the traditional courtyard.

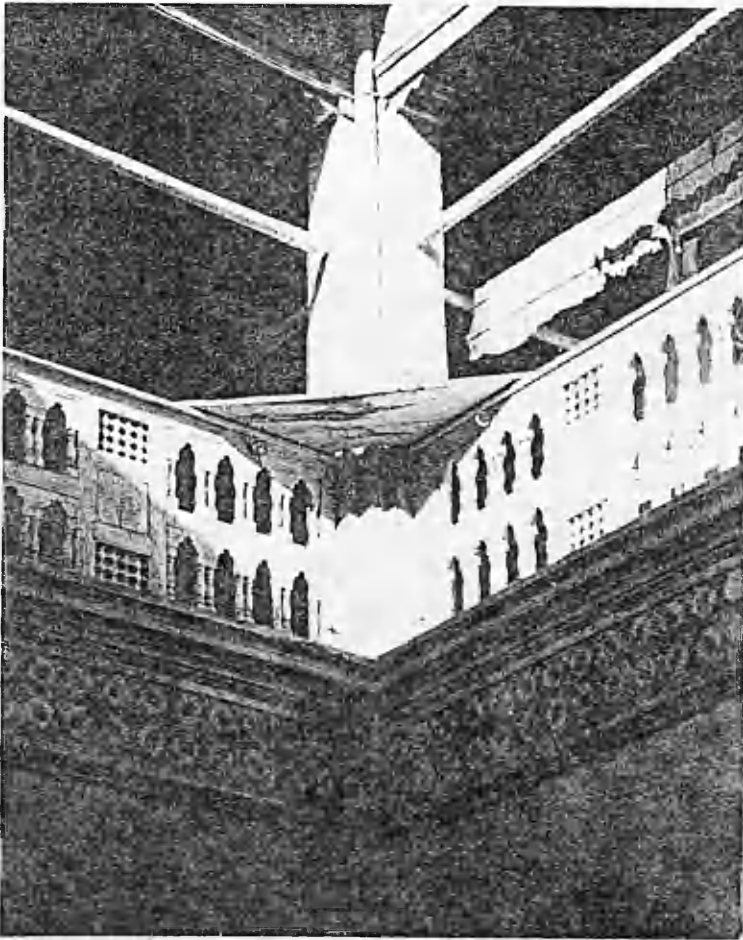
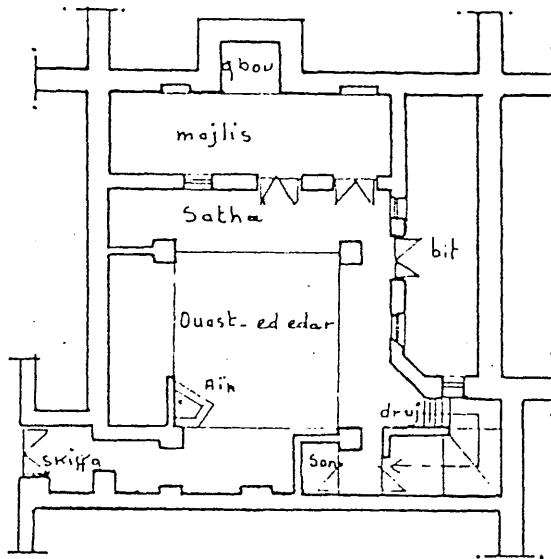
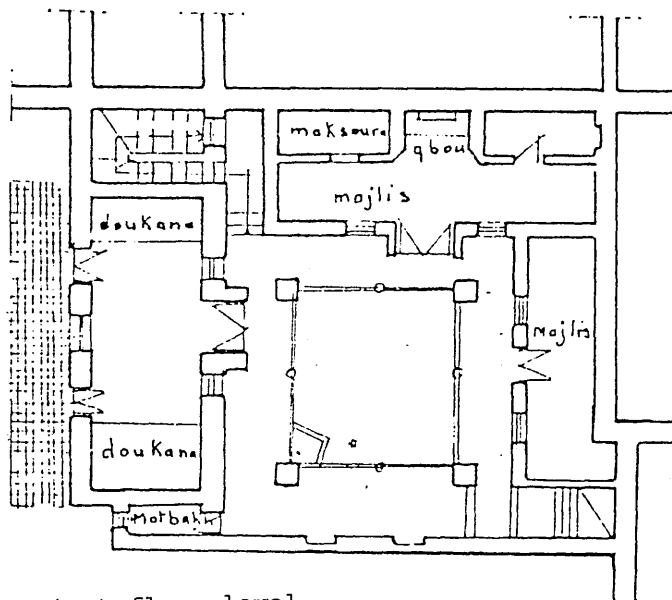


Plate I5- View of the wooden balustrade.



Ground floor level



First floor level

Figure 6 - Typical plan of a traditional house in the medina of Constantine.

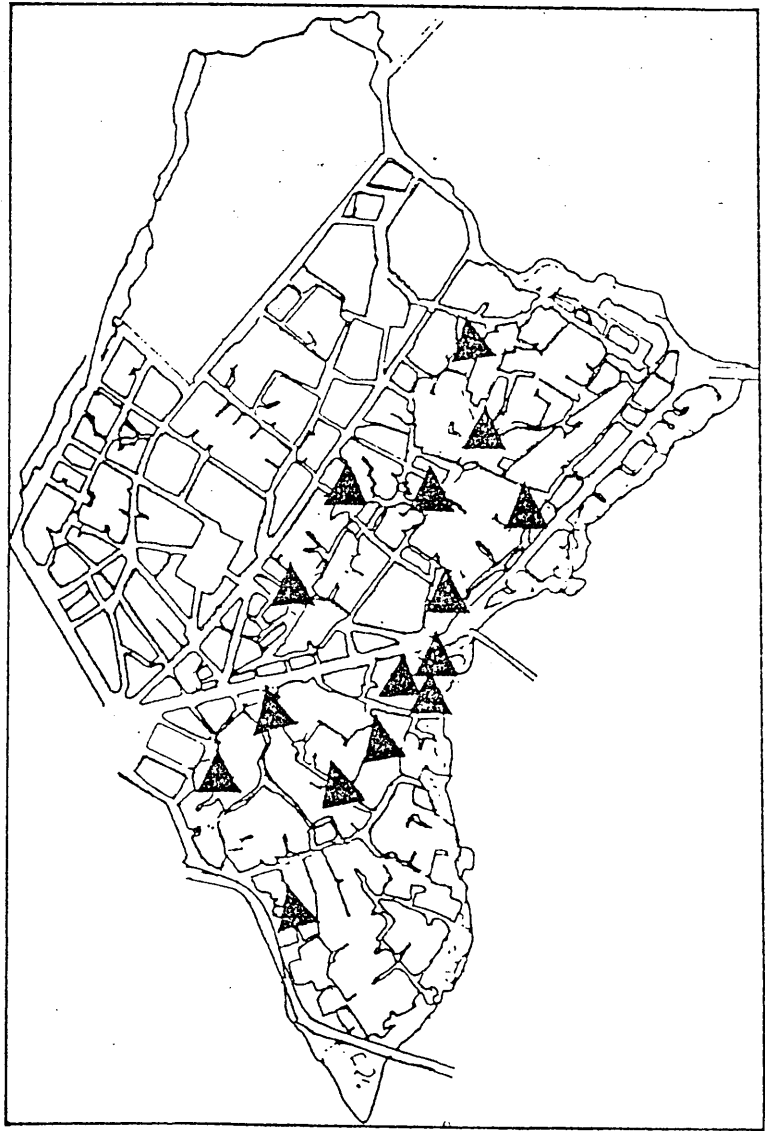


Figure 7 - Hammams (public Turkish baths) in the medina.

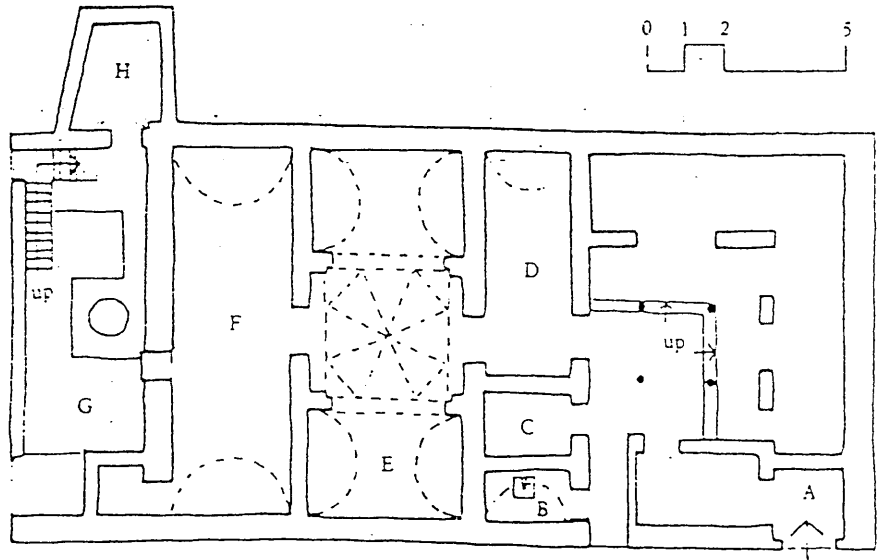


Figure 8— Plan of a typical Maghribi Hammam: The Hammam.
El-Aiou in Rabat, Morocco (after H. Terrasse 'Trous Bains...' 1950)

- | | | |
|---------------|----------------|------------|
| A. Entrance | D. Frigidarium | G. Furnace |
| B. Latrine | E. Tepidarium | H. Pool |
| C. Store room | F. Caldarium | |

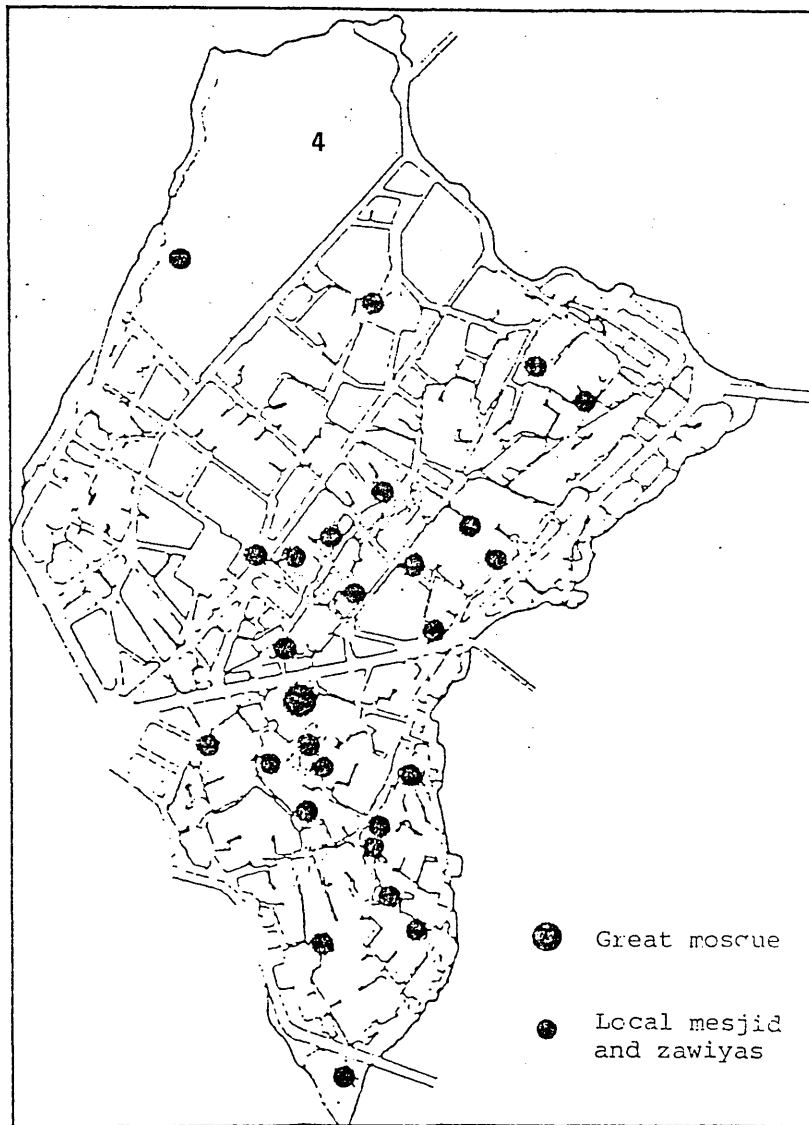


Figure 9 - Religious buildings in the medina.

Source: S.Meskaldji; La medina de Constantine
activite et population.

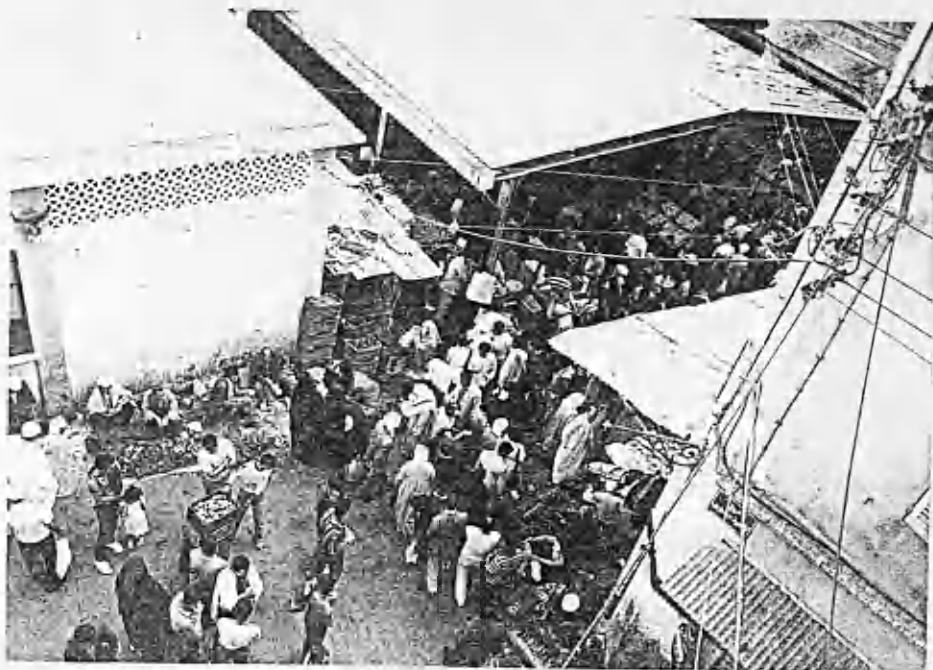


Plate I6 - Suq al-Acer market



Plate I7 - Rahbet al-Suf market

CHAPTER III

I - PROBLEMS FACING THE OLD MEDINA

1. Overpopulation
- 2 Physical state of the dwellings

II - CONSERVATION

1. Concept of conservation
2. Algerian policy towards conservation
3. Conservation in Constantine
4. Conclusion

CHAPTER III

I PROBLEMS FACING THE OLD MEDINA

1. Overpopulation

The medina of Constantine, the historic centre of the town, is densely populated (46,217 inhabitants according to the census of 1977) (Figure 10a). As a place of residence, the medina is suffering from the problems of overpopulation and overcrowding which are the main causes of the deterioration of the environment of the medina.

This overpopulation is a result of the migration phenomenon which started during the early days of the French occupation. People from the countryside found refuge in the medina after being dispossessed of their agricultural lands by the French colonisers. The trend of migration began slowly, then the flux increased dramatically between 1954 and 1962, coinciding with the years of the War of Liberation. At this time, country people left their rural home to escape the hostilities of the war, and swarmed into the medina seeking refuge and security for it was the place where Muslims were in the majority and also because they could be lodged at very cheap rents.

Between 1963 and 1969 there was a diminution in the population of the medina. This was the result of both the end of the war and of the departure of the French, leaving their dwellings and places of work vacant. The middle classes deserted the medina to set up homes in the empty villas and flats left by the French in the new quarters.

The migration trend into the medina started again in 1970, the year of the first four-year development plan. The medina at this time soon became full almost to capacity and offered only a few places for temporary accommodation to rural migrants.

The programme of housing construction begun then was concentrated in the suburbs and since that time the inhabitants of the old town have hoped to move to the newly built houses and flats there.

Om 1954 the population of the medina was 43,459. In 1984 the population was 40,934, of whom original inhabitants accounted for only 22,625. The remainder were rural newcomers or migrants from other quarters. Today this trend continues, the majority of the population being recent arrivals from the rural hinterland.

Densities in the medina vary between 384 and 1379 persons per hectare according to the latest survey carried out by URBACO in 1984, showing that the medina has the highest population density in Constantine. The account of Arab travellers confirm that the medina has always been occupied by a numerous population (37). A. Noushi, the French historian estimated the population between 1832 and 1834 as 6000 Moorish families, 5025 Turkish and Kouloughli (38) families, 1000 Jewish families (39), giving a total of about 40,000 inhabitants, settled on the thirty hectares of the rocky plateau.

37. El. Bekri: *Description de l'Afrique septentrionale*,
Paris, Adrien-Maisonneuve, 1965.

38. Kouloughli: Children born from a marriage between a Turk and a native

39. A. Noushi, op cit.

The T.E.F estimate in 1840 was between 25,000 and 30,000 inhabitants.⁴⁰ The census of 1846 gave the figure of 25,035 inhabitants.

The medina contains today 10% of the total population of Constantine with the very high average density of 1,320 persons per hectare compared with the medina of Tunis 585 inhabitants per hectare ⁴¹, with sfax (625 persons per hectare)⁴², and with Marrakech 650 persons per hectare.

Previous census gave the following figures:

1954 : 1,505 persons per hectare

1960 : 1,565 " " "

1966 : 1,492 " " "

1977 : 1,540 " " "

1984 : 1,340 " " "

In 1984 the figure shows a diminution in the density linked with the numerous demolitions of dwellings in a dangerous condition and the transfer of the population to new quarters.

2. PHYSICAL STATE OF THE DWELLINGS

The old medina of Constantine is an important residential area since it contains 18.4% of the total housing stock of Constantine⁴³ The latest survey of URBACO pointed out the very advanced state of

40. T.E.F: *Tableau d'etablissements francais 1840 - Province de Constantine.*

41. P. Lowy: *Present et avenir des medinas* - ERA 706
Tours 1982 fascicule No. 10-11

42. P. Lowy: op cit above.

decay and deterioration of this potential (191 houses were falling into ruins and 221 had been demolished). The major causes are apparently related to the overcrowding and over-use of the old buildings (in one case recorded by URBACO, 41 persons lived in 4 rooms) (see fig 10b)

The age of building fabric is also an important factor in the decay of the old medina, since an average of a third of traditional houses is more than one and a half centuries old (fig 11a).

(44)The URBACO survey reported that 30% of traditional houses were built before 1837, 67.5% were built between 1837 and 1945, 2% were built between 1945 and 1962 and 0.3% were built after 1962.

It is the old houses which shelter the greatest numbers of population, since 63.5% of the population live in old houses, whereas only 36.4% live in relatively recent multi-storey housing built after 1837⁴⁵(Figure 11b).

As its traditional population has mostly moved to the suburbs, leaving the traditional houses to rural migrants, the old medina has been transformed into a low income sector of the town. The new population has brought rapid deterioration, since people are either unable or unwilling to carry out repairs or maintenance work. There is little appreciation of the architectural and historical value of the old houses. The original owners have moved out ("absentee

43. Larouk M.E: op.cit.

44. URBACO: *Enquete Renovation du Rocher 1984*.

45. URBACO op cit above.

landlords") and left the house to be let to newcomers (who care very little about their use) and take little interest in their building other than as a source of rental income. Big houses originally inhabited by one family have been converted into flats or even single rooms rented separately to accommodate several households. The courtyard, formerly a place where the family met and talked, has become a place where no one is at home because several families unrelated to each other are living in the same house. The individual flat and rooms have been adapted by the new occupants to suit their mode of living, ignoring traditional functions. The subdivision of rooms by partitions, walls or heavy cupboards, the storage of water in large tanks, badly fitted water taps and water closets coupled with the neglect and overcrowding of the rooms, have all gravely and disastrously altered and damaged old houses (see plate 20,21,23). Newcomers may well allow the building to deteriorate to such an extent that it is in danger of falling down so that they will be able to persuade the local authority to agree to grant them a new dwelling. In these ways traditional houses are falling into disrepair and neglect while in use (see plate 20). In some quarters they threaten to collapse either on their occupants or on passers-by. The survey conducted by URBACO ascertained that only 28.3% of the total number of dwellings are still in good condition: the condition of these dwelling is explained by the fact that each is still owned by one family which has looked after it and kept it unaltered. (see plate 15)

Today's medina is suffering from dilapidation and decay, and has lost a dramatically large number of its old buildings.

Sometimes a whole cluster falls down leaving an empty space which causes radical changes in the appearance and ambience of the quarter (see plate 18,19). The rate of demolition in recent years is so high that some measures of protection are urgently needed.

II CONSERVATION

1. Concept of Conservation

Until the middle of the twentieth century conservation was solely concerned with ancient and medieval remains, which were preserved separately from their surrounding environment (e.g. Notre Dame de Paris was restored in 1845 while the buildings surrounding it were demolished). Only few countries in the world appreciated the value of their old areas. After the second World War when so much damage was done to historic buildings in Europe, people became more aware of the importance of these buildings and efforts were made to restore and conserve them. Germany, France, Italy, Great Britain and Poland repaired the damage caused by the war.

This concern for old areas has heightened during the last forty years when the technical revolution in construction and increasing pressures to build more and more new buildings brought about a confrontation between the old and the new. Buildings that were regarded as serving a useful purpose a century or even fifty years earlier were now seen as outdated technically and functionally and as inhibiting urban development and the provision of new roads for motor transport. However, along with this a concern for preserving the cultural and historical heritage has

progressively spread. So now governments recognize, after a long period of discussion and polemic, the urgent need to extend protection from simple buildings to groups of historic buildings and whole areas. Conservation of the total environment, not only individual buildings, has become a part of planning policy in most developed countries.

While conservation has been practised extensively for a long time in developed countries, it remains practically a new concept in the Third World and so in Algeria.

2. Algerian policy towards Conservation

Until Independence, French conservation policy was applied in Algeria with some special modifications specific to this French colony. It was solely concerned with the preservation of archaeological sites and buildings.

The French preservation law had been based on a statutory list of historic monuments and sites. Monuments and sites were divided into two categories: *monuments and sites classes* which may not be demolished or altered without the permission of central government, and *monuments et sites inscrits*, which may not be demolished or altered without allowing central government time to object. By 1954 French law included also protected areas, *zones protégées*. These are areas no less than one kilometre in diameter surrounding every single building and *site classé* in the land, in which all demolition and new building has to be approved by central government. In 1962 the Malraux law on urban preservation and

restoration introduced for the first time in France the concept of active intervention of public bodies to restore groups of buildings or areas called for this purpose *secteurs sauvegardés* (e.g. Le Marais in Paris).

After Independence in 1962, the Algerian government continued to follow the preservation policy established by the French until 1967, when new Algerian legislation was drafted incorporating much of the French law and promulgated in Ordinance no., 67.281 of 20 December 1967. Article 1 states that "All sites, buildings and objects presenting national interest, whether for their artistic, historical or archaeological value, privately or publicly owned are considered to be state property. Thus those sites, buildings or objects cannot be changed or demolished without full consent of the ministry in charge". This piece of legislation also includes a range of procedures for grading *monuments classés* and *monuments inscrits* and procedures for expropriation and for preparing inventories of historic buildings.

3. Conservation in Constantine

In Constantine few additions have been made to the list since 1905 and many historic buildings remain unlisted, including hammams, zawiyas, mosques, funduqs, houses and palaces.

The list of monuments classés for Constantine naturally, comprises buildings from antiquity (Roman aqueduct, inscriptions etc.) from the Ottoman period: mosque of Suq al-Ghazl (listed 27 April 1903) the mosque of Sidi Lakhdar (listed 5 January 1905), the burial chamber in the Sidi al-Kettani Madrasa (listed 17 July 1913)

and the Ahmed Bey Palace (listed 21 March 1934). More or less recently, the medina of Constantine has benefited from a study carried out in 1960 by the BERU (Bureau d'Etude et Realisation Urbaine). Socio-economic conditions in the medina were studied in some detail and proposals were prepared suggesting that the medina might be revitalized by endowing it with modern facilities that would help it to prosper (improvement of housing condition by "de-densification" of overcrowded areas, and rehabilitation of old houses; introduction of new religious, commercial and socio-cultural buildings; improvement of water supply and sewage systems; construction of public toilets and improvement of parking facilities and pedestrian and motor traffic flow).

In 1984 the URBACO was instructed by the Wali of Constantine to prepare a new study on the renovation of the medina's architectural heritage. After carrying out a detailed socio-economic survey and investigating the extent of deterioration in the urban fabric, the URBACO team made two proposals for intervention. The first proposal aims at retaining as much as possible the ancient and distinctive architectural character of the medina, keeping disruption of the urban fabric to a minimum. All new cultural buildings are to occupy gap sites in the medina. Any new housing should match the existing houses. The second proposal deals largely with the construction of new buildings in the most dilapidated quarters with a great number of ruinous buildings such as Sidi Rachid and Sidi Djellis.

The URBACO study has still not been implemented. for it has not been approved by the Ministry of Housing and the town has been allowed to fall into further decay. Because of the recent financial crises caused by the fall in the price of oil, it seems that this project will not be implemented in the near future.

CONCLUSION

Today, though voices are raised in Constantine in favour of the conservation of the old medina, no practical action has been implemented to ensure the survival of this historical, cultural and architectural heritage. The question of how a city which has stood for centuries and housed many generations, a city unique in its picturesque site and its pitched roofs, can retain all that makes it special if no attempt is made to save it from its present decay. Unfortunately, the problems facing the medina have been so far avoided by the local planning authorities, who are empowered to intervene and to use all the resources available to them to find ways of preserving these old buildings. The loss of even one building is tragic for it is not isolated buildings that are of the greatest importance but all of them grouped together to create the special townscape of the medina.

The existing legislation is no longer adequate, since it is more concerned with archaeological sites and individual buildings and objects. The government must enact new legislation to protect the historic core and provide funds to carry out the work of preservation. The participation of the population is very important. Expert services should be made available to supervise conservation and restoration. The local authority has a special responsibility to take the lead in the conservation of the medina. However in the absence of adequate legislation; an urgent scheme of purchase by local authorities of threatened property should be established. But before such steps are taken (which may take time, it is worth

considering other means of protecting the old centre, such as submitting the medina to UNESCO for inclusion in the list of World Heritage sites.

Possible ways of conserving the medina are:

A - Reducing the causes of destruction and deterioration.

1. Urgent "de-densification" of the areas where overcrowding is very high, which would relieve the structure of excessive loads. At the same time repairs should be made to buildings in poor structural condition.

2. Great care should be taken to prevent abusive and uncontrolled demolition of old buildings. Buildings in danger of collapse should be evacuated and immediately consolidated before being restored.

B - Combating decay by restoration and repairs.

1. In the medina of Constantine as in most medinas in the Muslim world, buildings cluster together in such a compact and physically interdependent way that consideration of an individual structure is often impossible. The whole medina should be designated a conservation area, in which works of rehabilitation, renovation and restoration are attended to urgently.

2. In addition, individual monuments and fine houses should be listed. The whole medina should be recorded by means of drawings and photographs and historical documents and archival materials collected.

3. Existing gap sites in the medina should be cleaned and earmarked for new socio-cultural buildings, such as primary schools, training schools, dispensaries and so on. However, any new use should not generate increased vehicular traffic flow, but should maintain the pedestrian street network. Vehicles should only be allowed in for the essential needs of the residents and for emergencies. Access otherwise should be restricted to fixed hours in the early morning and late evening. Through traffic should be discouraged.

4. The parking problem could be relieved by laying out new car parks in the Bardo quarter to the west of the medina and in Rue Roumanie to the east where suitable empty sites are available. Gap sites with no visual interest may also be earmarked for car parks. They could be made pleasant by planting trees.

5. Maximum building heights should be specified. Guidelines should be drawn up to ensure that new buildings are designed to match the existing in scale and style.

6. The old medina contains a number of fine old houses, the owners of which are enthusiastic about the prospect of conserving them. With encouragement and perhaps a little financial assistance, this conservation might be achieved. It is important that the residents of the medina participate in the process of conservation.

Along with all these measures, attempts to improve the quality of rural life in order to hold population on the land would prevent increased overcrowding in the town and improve the chances of a successful programme of conservation.

7. The work of restoration requires special skills in traditional crafts (brick-makers, carpenters, plasterers etc). Such skilled workers, however, are few. This situation requires urgent action in maintaining the number of local skills and forming teams of craftsmen and developing their crafts.

8. Local traditional materials are very important for restoration work. As in the case of skilled labour, the same notice applies to them. Local authorities are recommended to keep alive as far as possible any local quarries, brick works, timber plantations, etc., and to recover and salvage materials from demolished buildings.

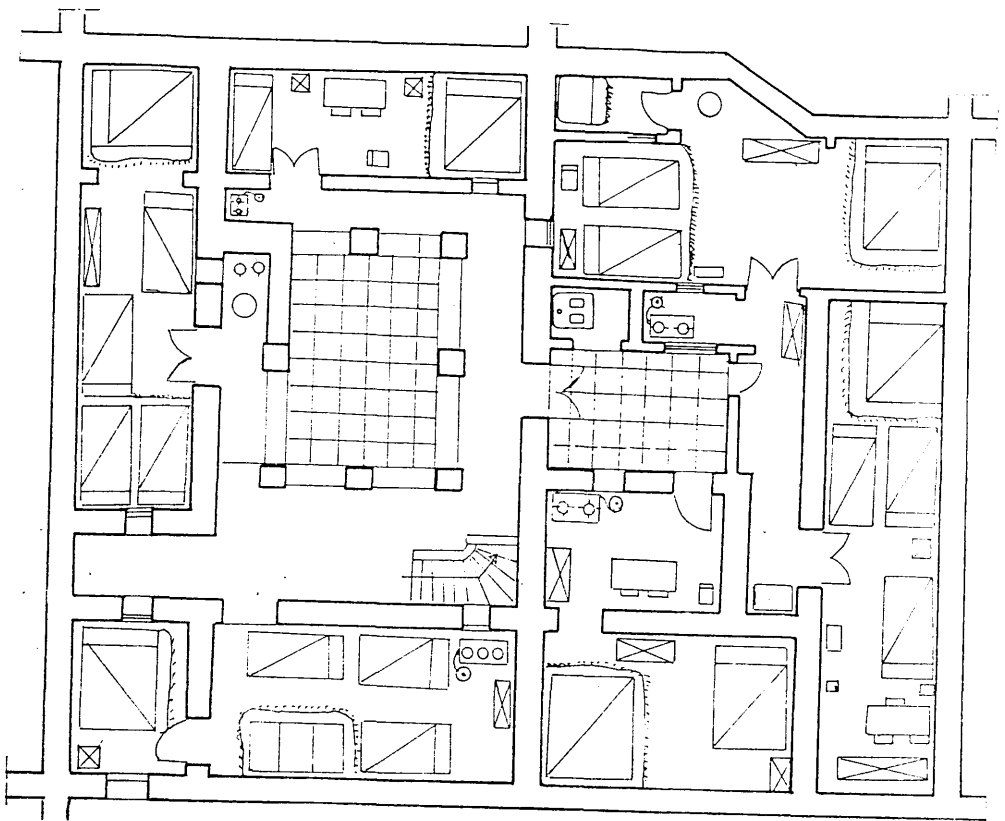
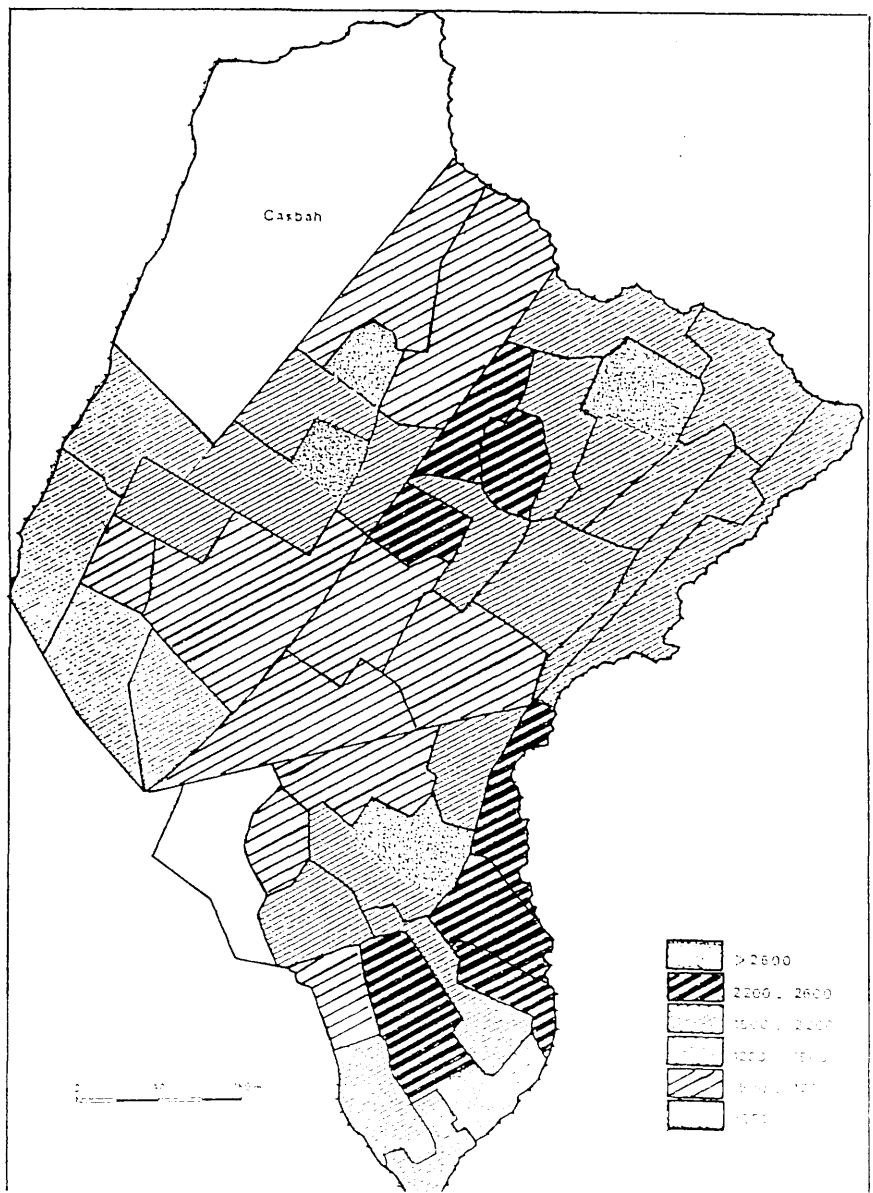


Figure 10a -Typical layout of an overcrowded house.

Figure 10b -Density
per hectare of the
of the population
in the medina



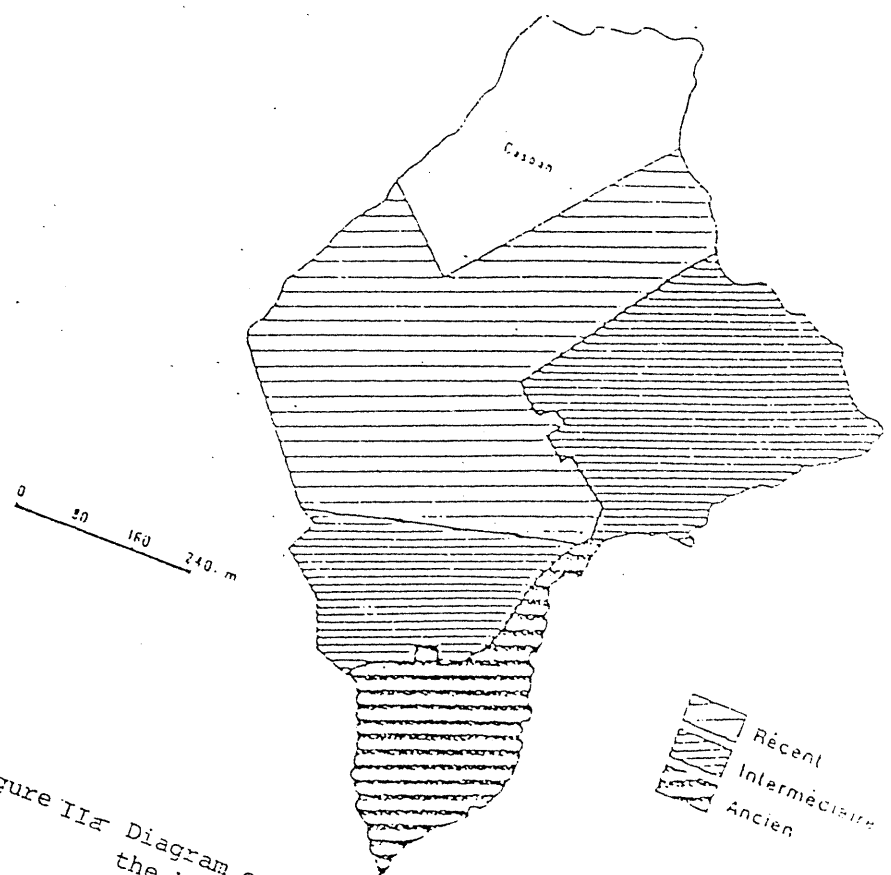


Figure IIA Diagram of the medina showing the age of the houses.



Figure IIB-Diagram of the medina showing different types of houses



Plate I8 - The medina has lost a large number of its old houses.

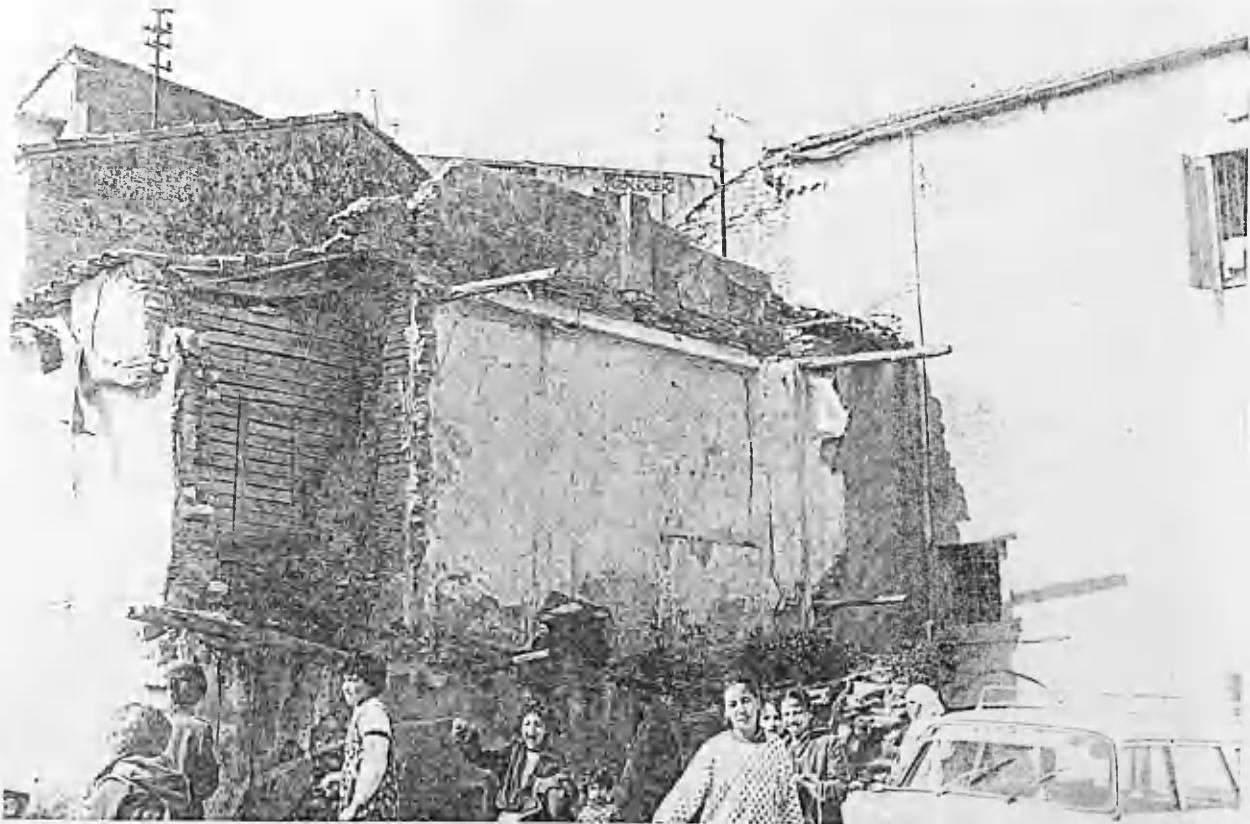


Plate I9 - Houses are threatening to collapse



Plate 20 - Traditional
houses are falling
into disrepair
while in use

Plate 21 - Traditional
courtyards are
partitioned to
provide more
space for the
family

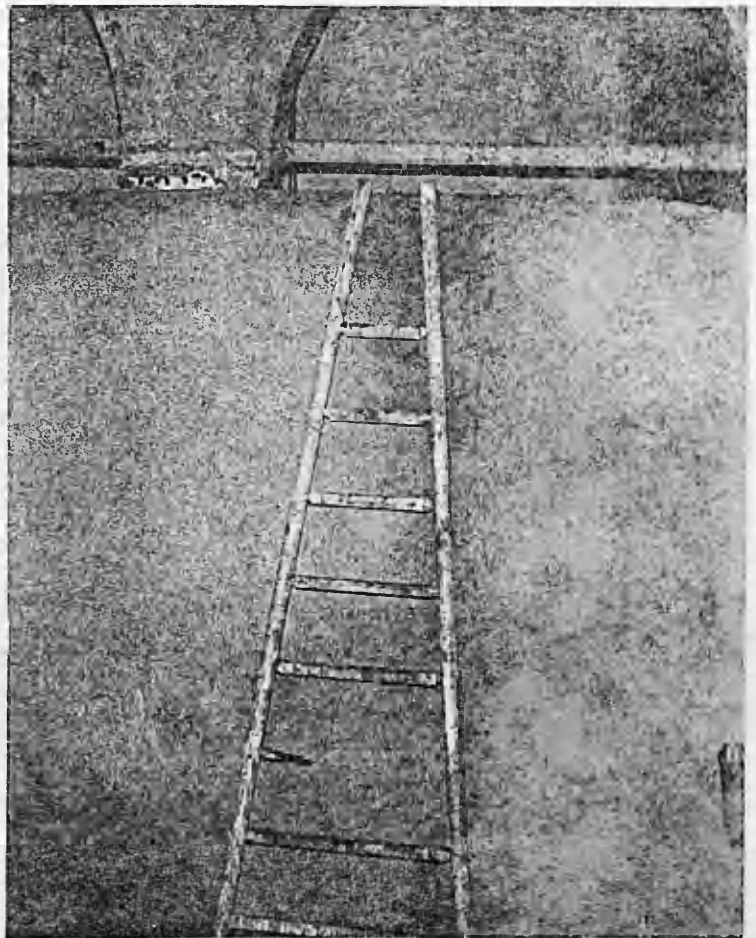




Plate 22 - Gap-site may be made pleasant by planting trees.



Plate 23 - Traditional building material from ruinous houses should be salvaged for future restoration work.

CHAPTER IV

THE SIDI AL KETTANI MOSQUE AND MADRASA

I THE FOUNDER

II GENERAL DESCRIPTION

1. The Mosque

2. the Madrasa

SIDI AL-KETTANI MOSQUE AND MADRASA

I The Founder: Salah Bey

Salah Ben Mustapha, Bey of Constantine, was born at Smyrna (modern Izmir in Turkey) in 1725.⁴⁶ Obligated to escape after having killed one of his friends, he secretly boarded a ship sailing for Algiers. After several menial jobs such as a waiter in a café, he enlisted in the Turkish regiment of the Yoldachs (Jannisaries). He was sent to the eastern beylik where his energy and bravery soon brought him to the notice of the Bey Ahmed al-Qoli. The Bey married his daughter to him and made him his khalifa (deputy). Ten years later 1771 he succeeded Ahmed al-Qoli as governor (Bey) of Constantine.⁴⁷ Besides his qualities as a good administrator, Salah was a good soldier. He led several expeditions against Berber tribes such as the Ouled Nail and Ouled Amor.

In 1775 he helped to repel a Spanish attack on Algiers.⁴⁸ This success led the Pasha of Algiers to fear his ambitions and so he was dismissed from office and the Turk Brahim Bey- Bu. Sebaa was named as the new governor of the eastern beylik. His reign lasted for only three days. According to some historians, Salah Bey killed Brahim.⁴⁹ At any rate, twenty days after Brahim's death, a new Bey was appointed. The arrival of this Bey was accompanied by riots in the

46. Cherbonneau op cit p 116.

47. Cherbonneau op cit p 117.

48. Cherbonneau op cit p 115

49. E. Mercier: *Histoire de l'Afrique septentrionale, III*
(Paris, Ernest Leroux, editeur Paris 1891).

streets of Constantine. Salah Bey, who was hiding in his palace, resisted the troops of this new Bey but eventually surrendered. He was taken to the Qasbah where he was summarily strangled.

Salah Bey left in Constantine and its province a reputation for good administration and big buildings. Like his predecessors, Bu-Hanek, Bu-Kamia and Ahmed al-Qoli, Salah Bey concentrated his attention on the embellishment of the town. During the period of his governorship, Constantine was furnished with fine buildings such as the mosque and madrasa of Sidi-al Kettani, the Salah Bey Palace and its dependancies, the madrasa of Sidi Lakhdar, and a new quarter Sharia to the north of the town. He also restored the bridge of al-Qantara.

II GENERAL DESCRIPTION

1. The Sidi al-Kettani Mosque

The Sidi al-Kettani Mosque, also known as Salah Bey Mosque, is one of the main mosques of Constantine. It was founded by Salah Bey in 1776.

The Mosque is an impressive stone structure, rectangular in plan, roofed with traditional terracotta tiles (plates 28 and 29). A cylindrical minaret with a typical "pencil point" cap rises in the north-east corner (plate 25).

The mosque presents three facades to the street. The fourth wall abuts on the adjoining Sidi al-Kettani madrasa to the north (see fig 12). The west facade is articulated in a series of blind arches at ground floor level and semicircular arched windows at upper floor level (see plate 26). The other two facades are more elaborately decorated, each comprising a central entrance door flanked by shops at ground level and by semicircular arched windows at the upper level (see plate 24). The south facade has its ornamentation concentrated on the central doorway, which seems to have been the main entrance to the mosque in the time of Salah Bey for it is adorned with an inscription carved on a marble panel giving the date of its construction 1776 (see plate 27)

Mercier informs us that the whole east facade and the east end of the south facade were restored by the French.⁵⁰ Vaysettes, writing in 1868 states that this work was done "in recent times".⁵¹

50. Mercier: *Histoire de Constantine*. op cit p 292

51. Vaysettes: op cit p 354

In the east facade an ornamental pedimented porch projecting into the market place now serves as the main entrance (plate 25).

The original entrance in the south facade gives direct access to an open courtyard surrounded by an arched portico and containing in its centre a fountain (see plate 30). A doorway in the east wall of the courtyard opens into a corridor leading to the present entrance porch (in the east facade) past rooms where Koran instruction is given to children (see fig 13a, b).

A remarkable semicircular mihrab-like alcove (see plate 30) containing a bench seat (see plate 31) in the north wall of the courtyard is flanked by two flights of marble stairs leading up to a prayer hall on the upper floor (see fig 13, and plate 33). A room for ritual ablutions is located in a low barrel-vaulted chamber under the stairs (see plate 32).

The prayer hall of the mosque, like that of Sidi Lakhdar mosque, is unusual in being on the upper floor. Five carved wooden doors (plate 44) lead from a gallery around the courtyard to the prayer hall (fig 13b), which has five arcades running parallel to the *qibla* wall intersected by a central nave leading to the *mihrab* (see plate 34 and fig 13b). The arcades are supported by white marble columns (see plate 38 and 39) and the central nave is roofed by three eight-faceted domes resting on octagonal drums on fluted squinches (see plate 42). A tiled dado runs around all four sides of the prayer hall (see plate 35). the mihrab in the centre of the *qibla* wall is elaborately decorated with carved plasterwork (plate 36). A timber gallery facing the *qibla* wall provides accommodation for women (see plate 40 and 41). It is reached by two wrought-iron

spiral staircases at either end and is fitted with a small projecting dikka from where the words of the *imam* could be repeated by the *muballigh* to ensure that the women might hear the service clearly. To the right of the mihreb stands a richly sculptured marble minbar (see plate 37 fig.13b).

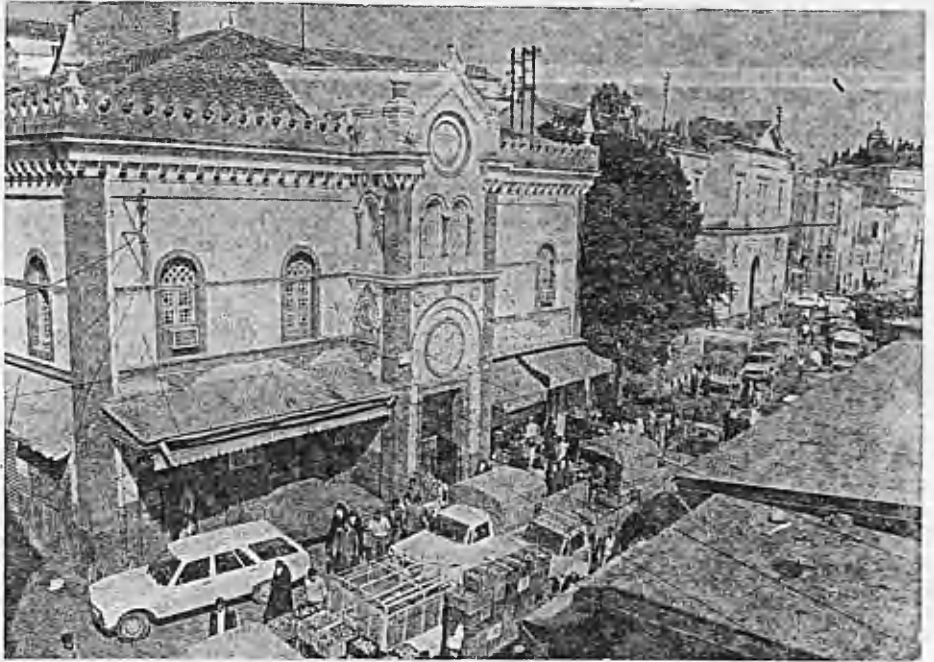


Plate 24 - Sidi al-Kettani mosque:main facade.



Plate 25 - Cylindrical minaret with "pencil point" cap.

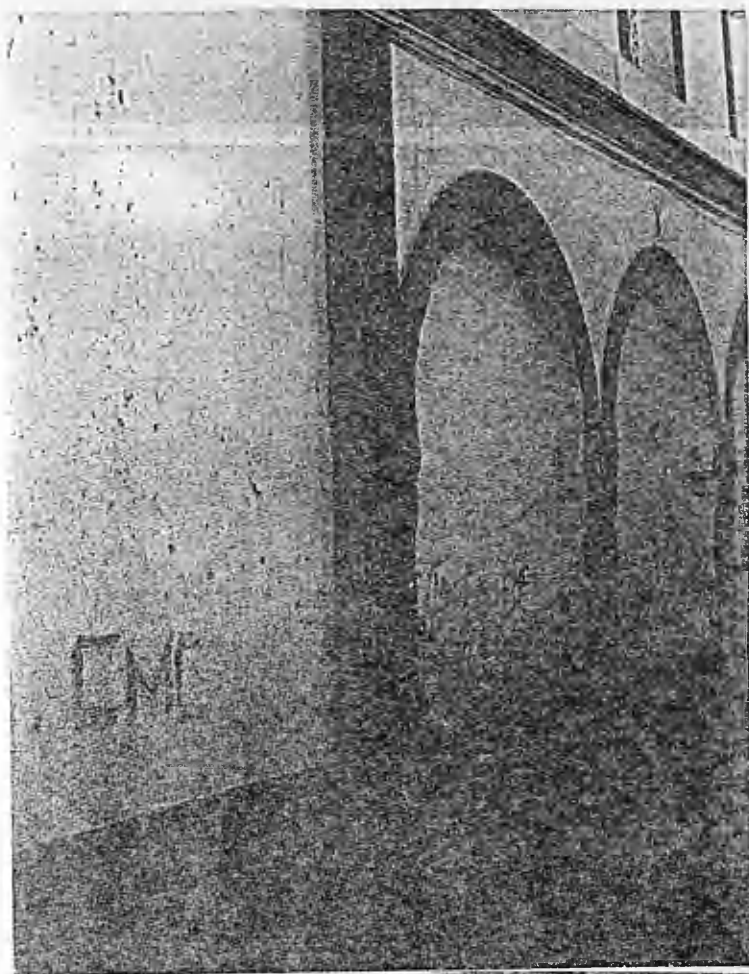


Plate 26 - West facade.

Plate 27 - South facade



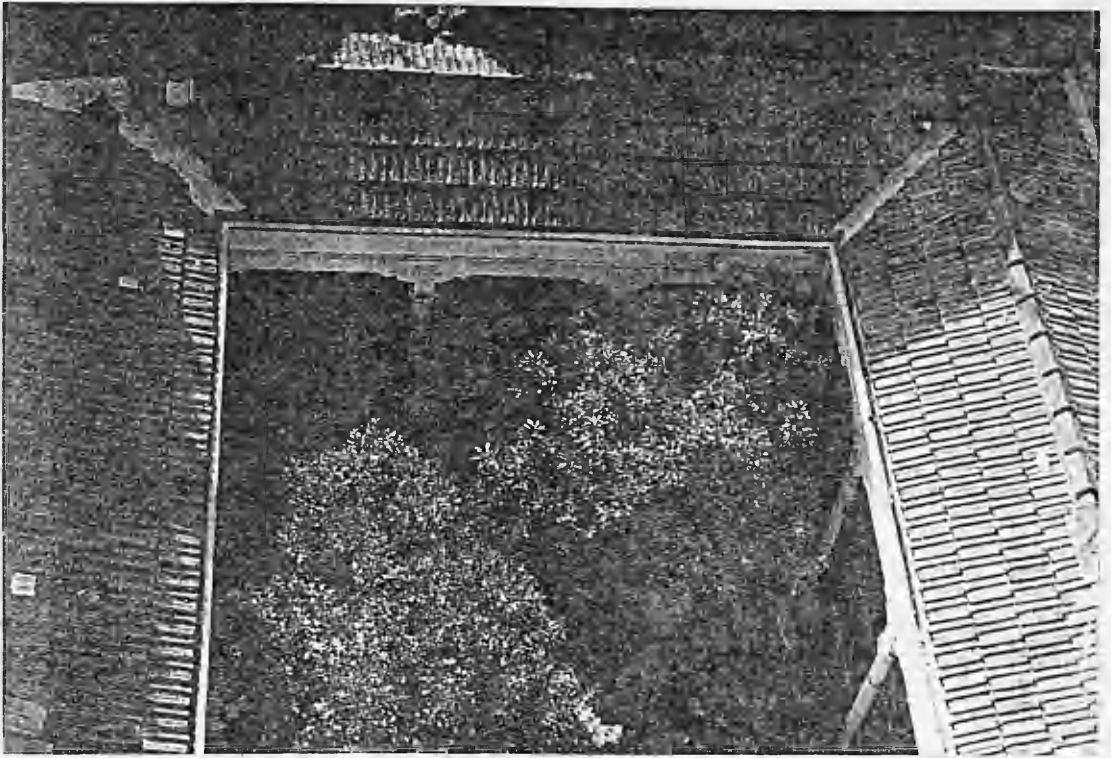


Plate 28 - Terra-cotta tiled roof around the courtyard.

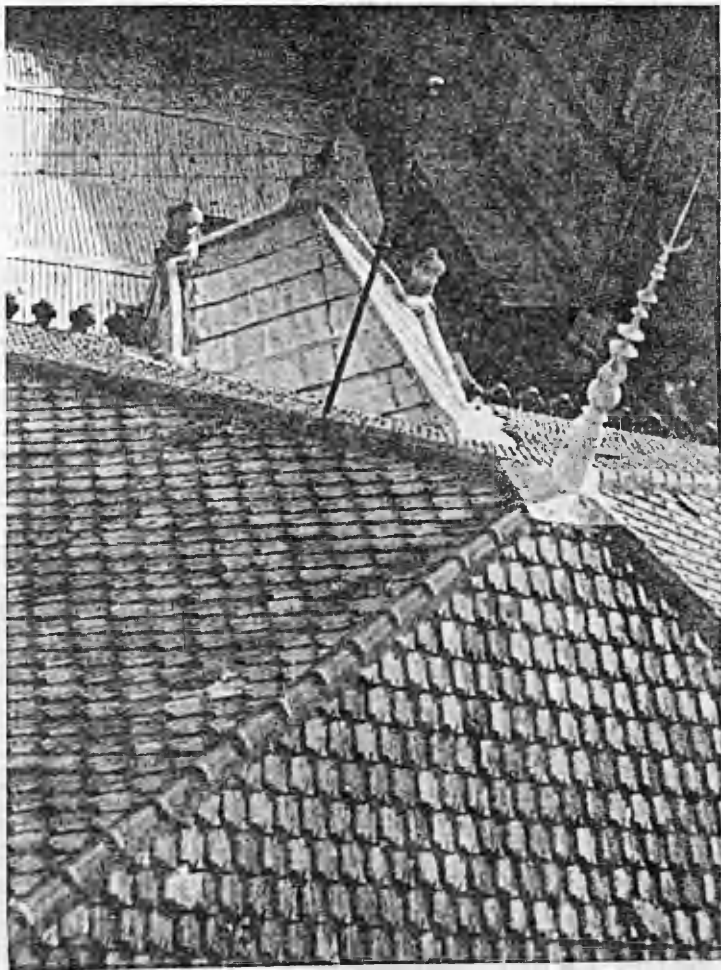


Plate 29 - Terra-cotta tiled roof over the prayer hall.

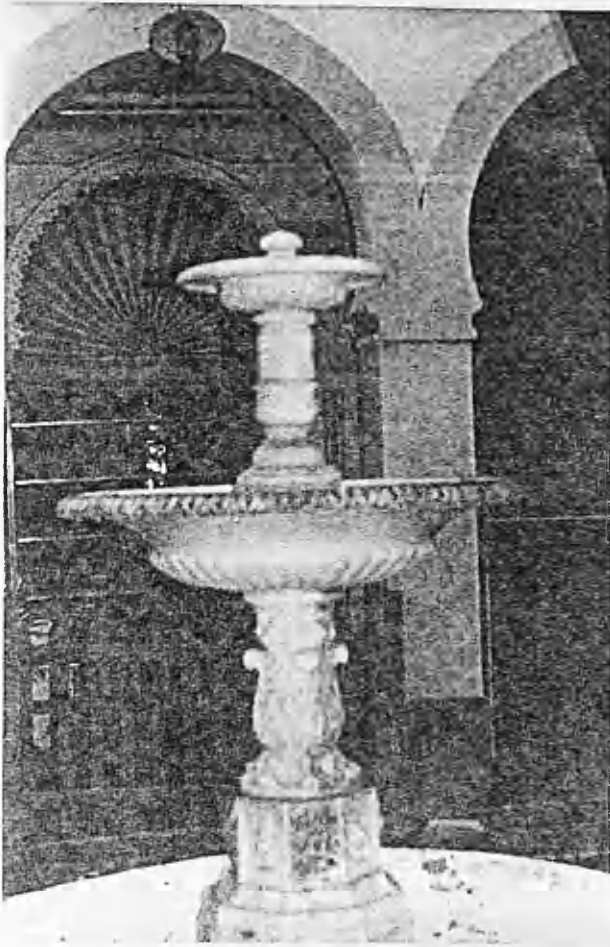


Plate 30 - View of the fountain in the fore-ground and the mihrab shaped niche in the back-ground.

Plate 31 - Detail of the bench seat contained in the mihrab shaped niche



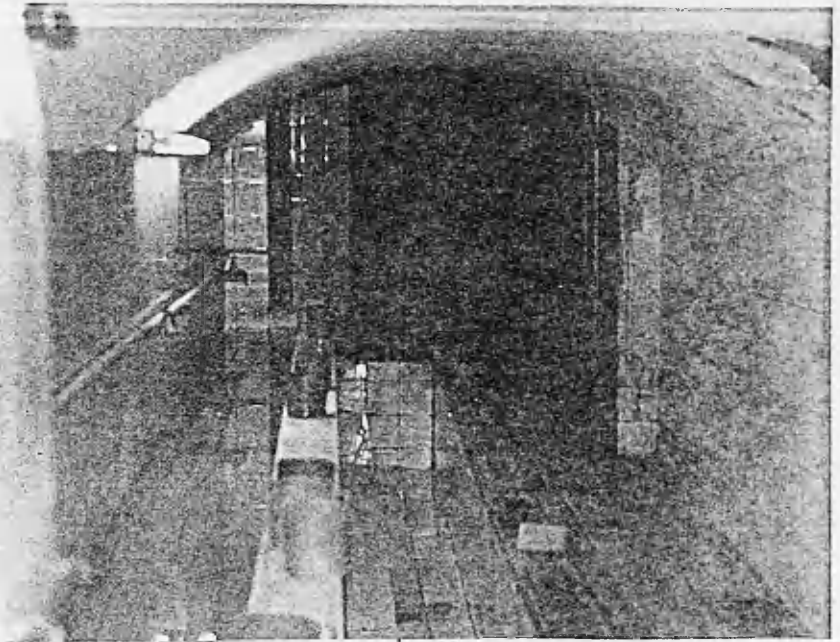


Plate 32 - Ablution room located under the staircase.



Plate 33 - Stairs leading up to the prayer hall.

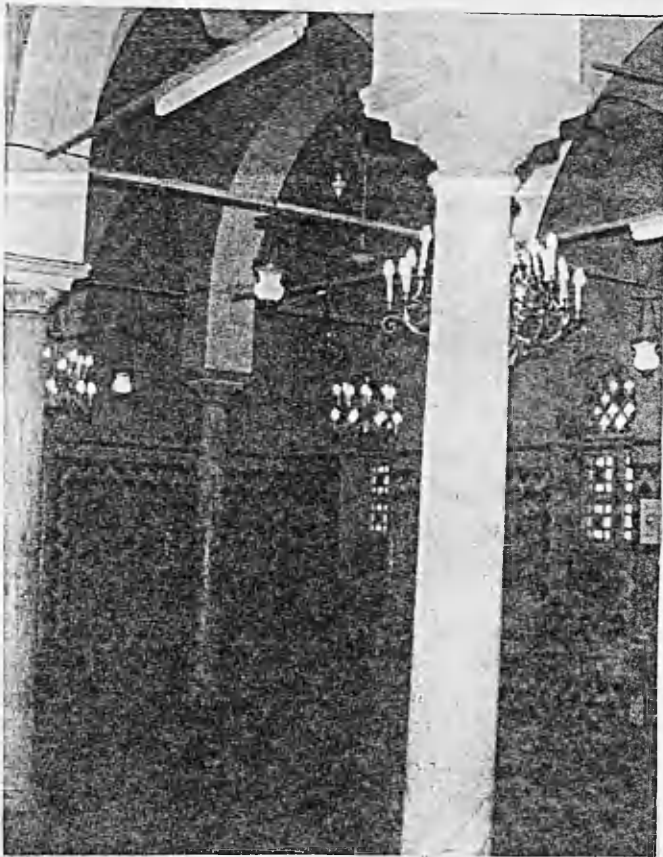


Plate 34 - Interior view of the prayer hall

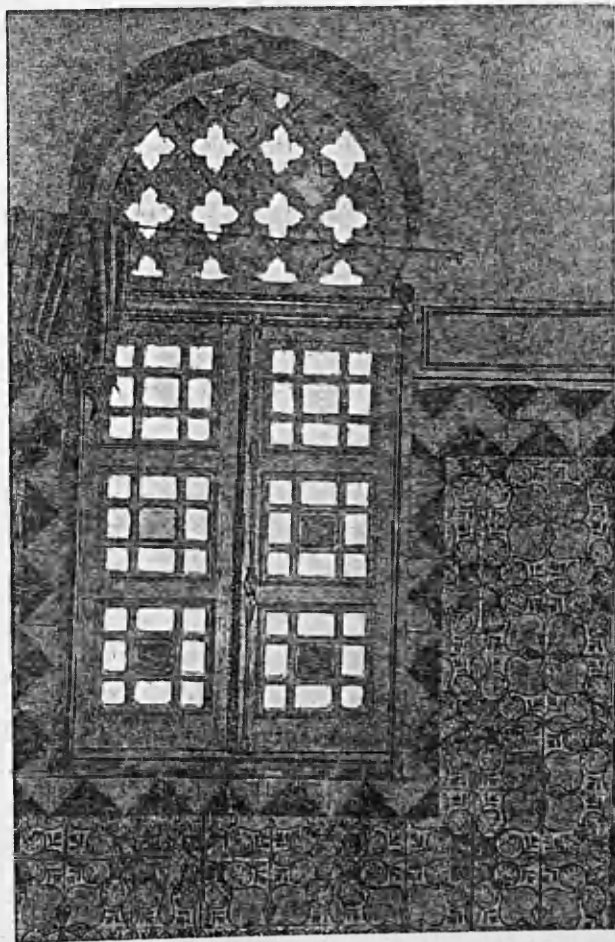
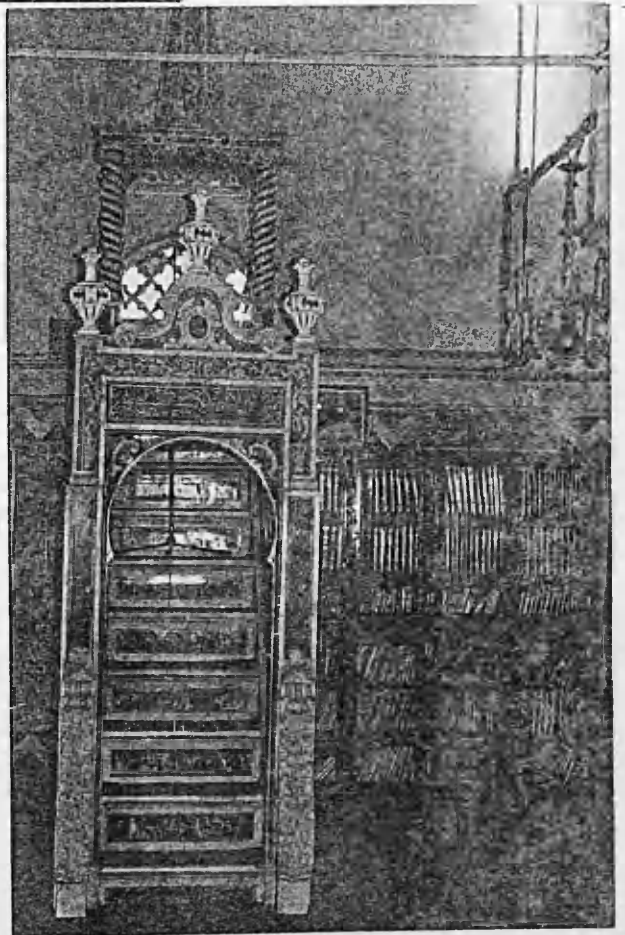


plate 35 - All four walls of the prayer hall are lined with polychrome tiles.



Plate 36 - The mihrab

Plate 37 - The fine
marble minbar



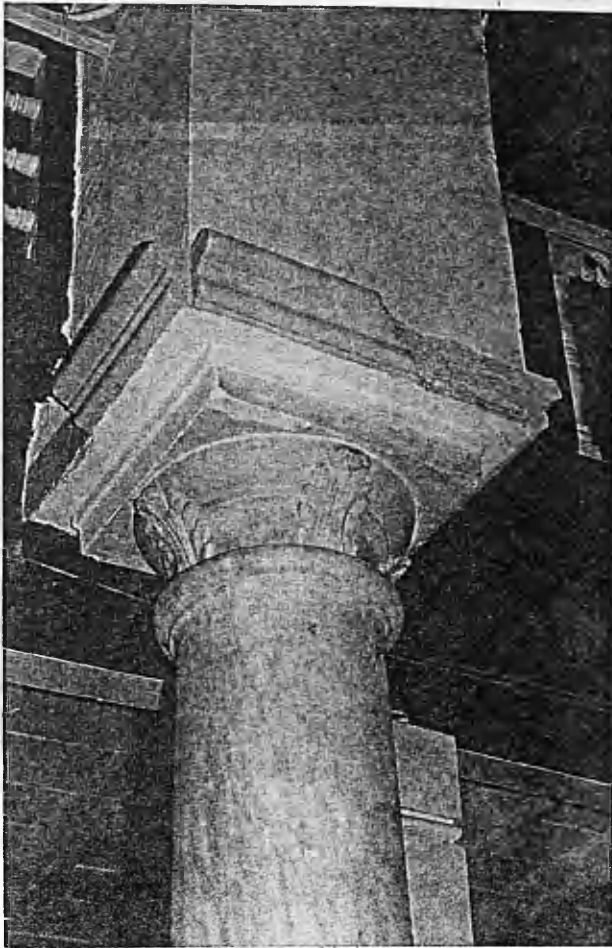
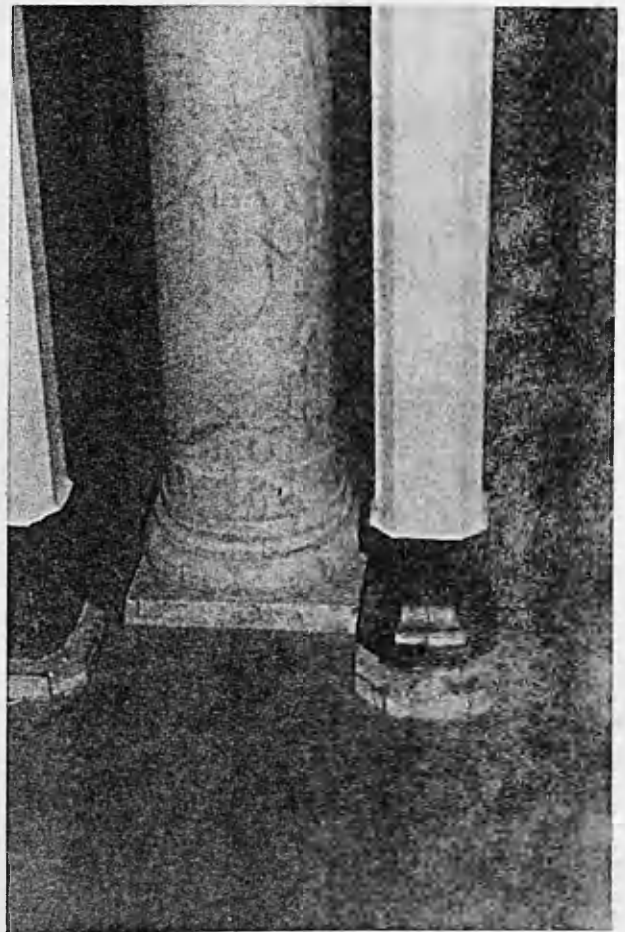


Plate 38 - Marble column:
detail of the capital

Plate 39 - Wooden columns
supporting the
dikka.



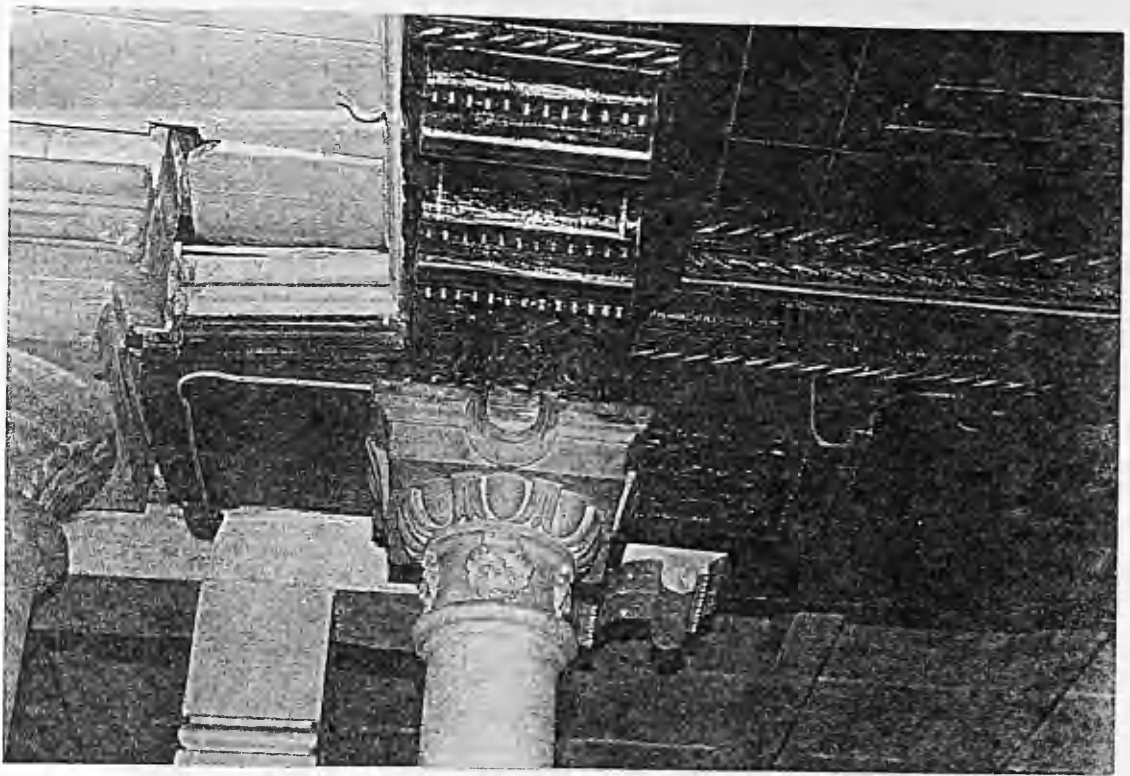


Plate 40 -Detail of the ceiling under the dikka.

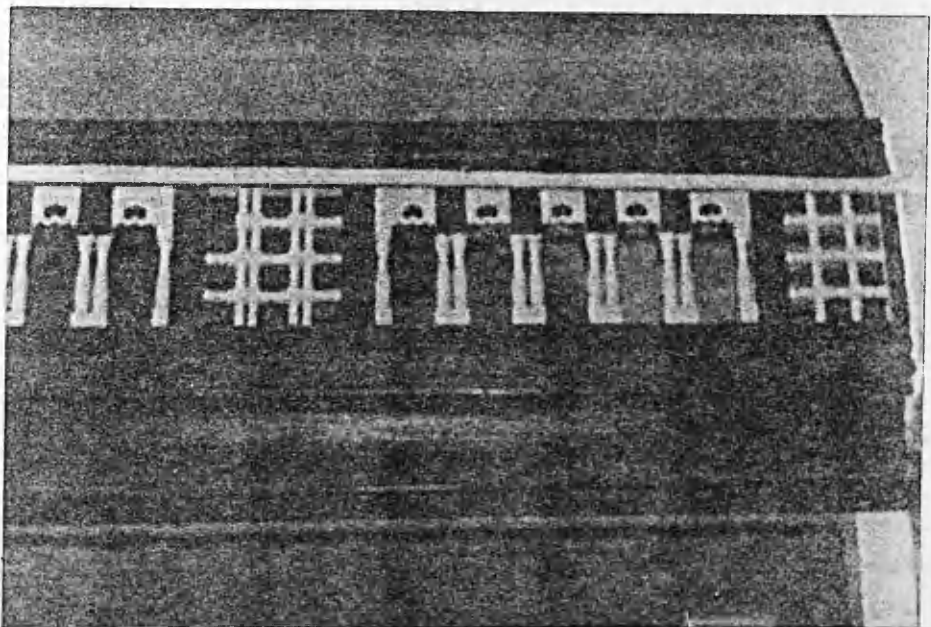


Plate 4I - The balustrade of the dikka

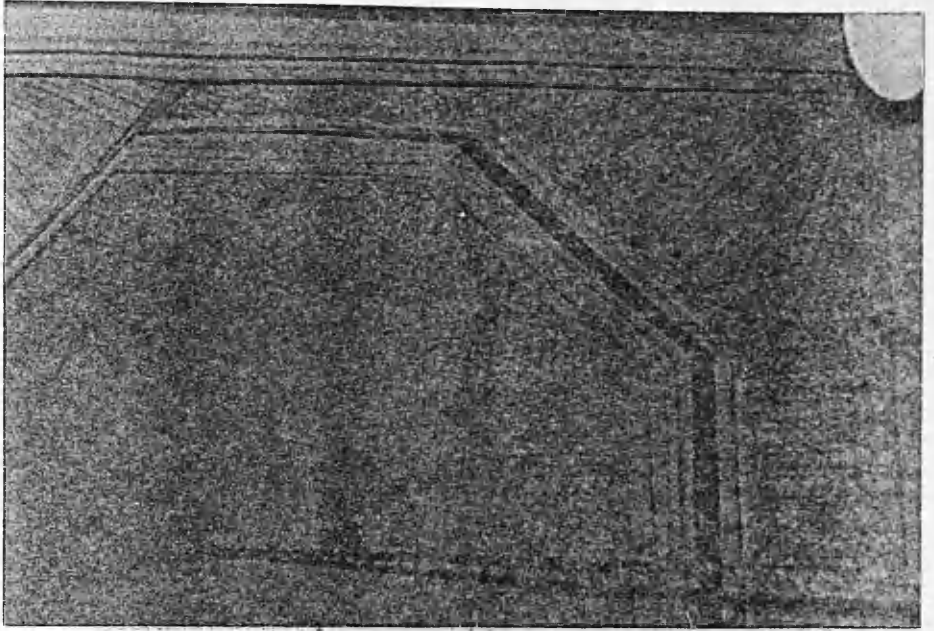


Plate 42 - Eight-faceted dome over the central nave.

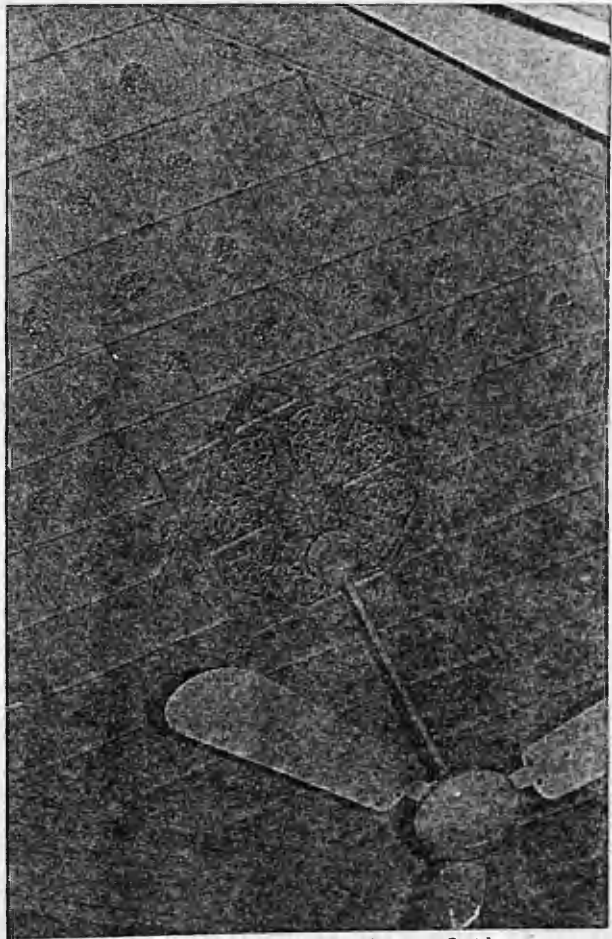


Plate 43 - Wooden ceiling of the prayer hall.

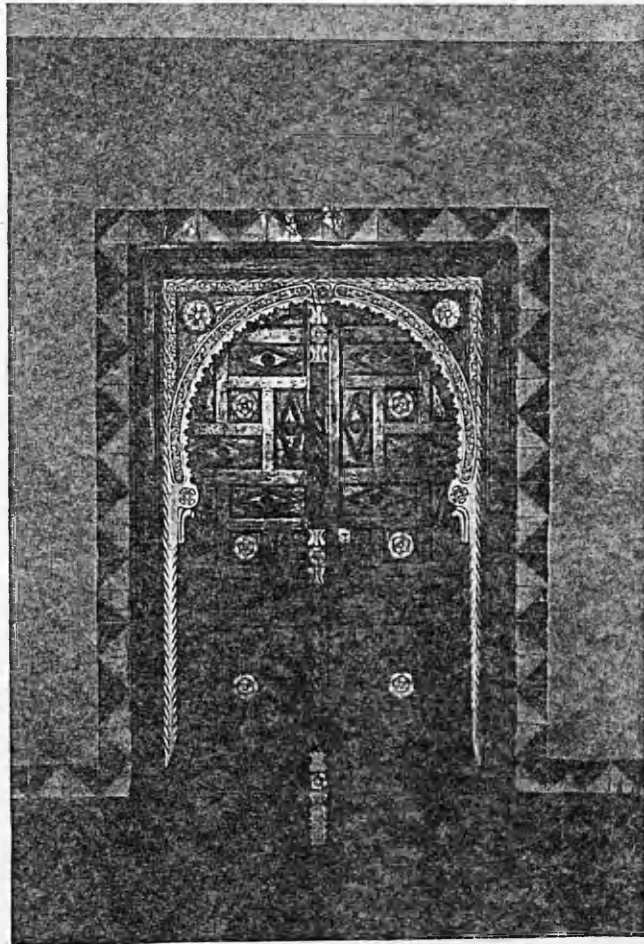


Plate 44 - Carved wooden door opening into
the prayer hall.

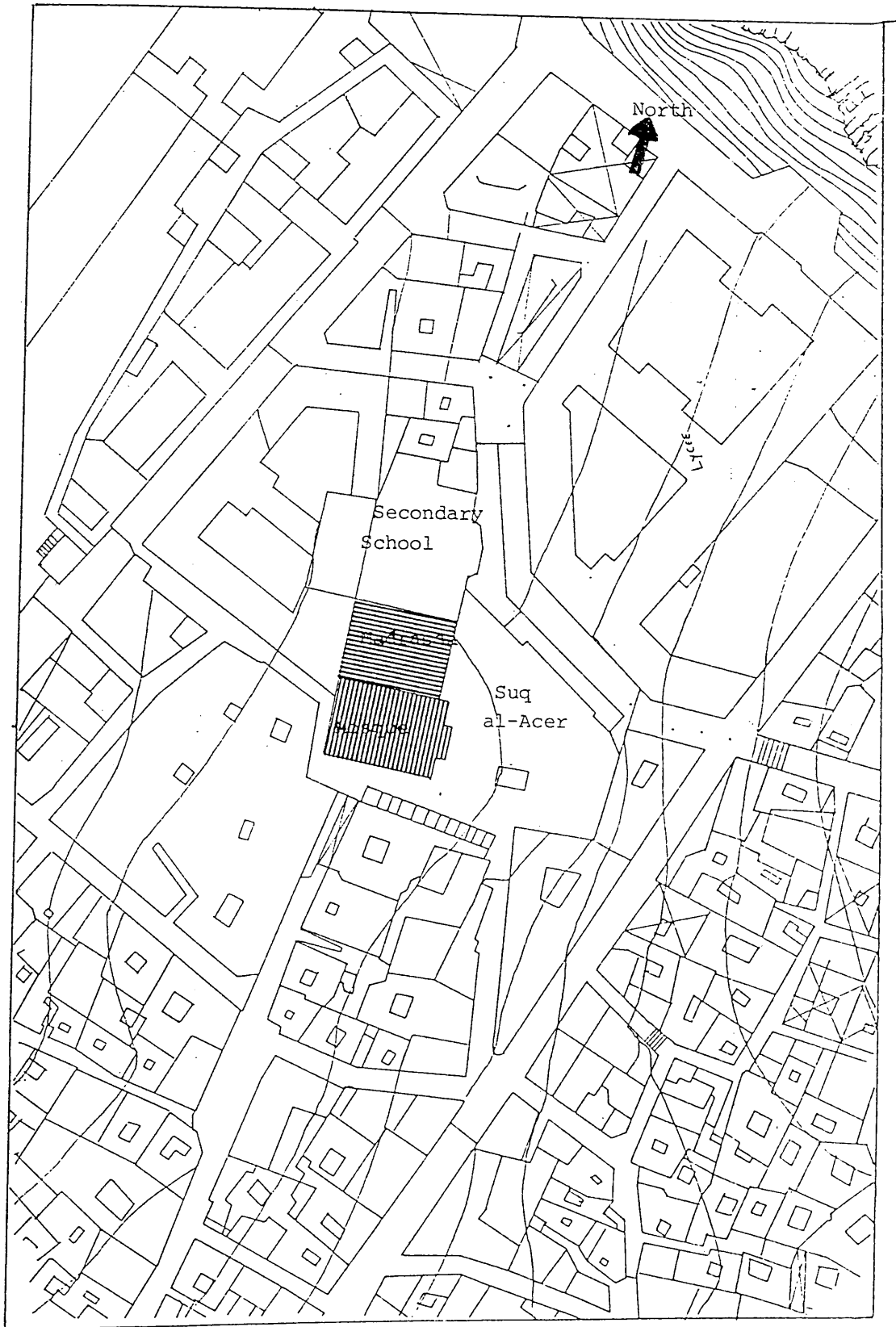


Figure 12--Location plan of Sidi al-Kettani madrasa and mosque.

2. The Sidi al-Kettani Madrasa

The Madrasa is situated immediately to the north of Sidi al-Kettani mosque (see fig 12). It was constructed around the grave of a local holy man, Sidi al-Kettani, from whom the madrasa and the mosque get their names.

A carved plaster panel set in the rear (west) wall (see plate 59b) of the madrasa gives the date of its construction by Salah Bey, 1775. The madrasa is two storeys high, built in the traditional manner of stone and brick with a timber pitched roof of red tiles. A central open courtyard is surrounded by various rooms, including a prayer hall to the east and a tomb chamber to the west (see fig 13a). The building has undergone transformations throughout its history. In the 1860s it was reported to have been almost completely rebuilt.⁵² The burial chamber, the arcade around the courtyard and the prayer hall all appear to remain more or less intact, but it is none the less difficult to know exactly what the original plan was or how the madrasa looked before the French restoration. What is clear is that the present facade was built in the 1860s in harmony with the new Palais de Justice to the north (see plate 47) and the new facade of the mosque to the south. The rooms alongside the prayer hall and the courtyard also appear to belong to this restoration.

52. Vaysettes: op cit p354

There is only one facade facing the market square (see plate 45b). The other three sides are enclosed by adjoining building. The mosque to the south, houses to the west and the Palais de Justice (now a secondary school) to the north (see fig 12).

The facade on the market square is arranged symmetrically about the central axis of the main entrance (see fig 16). It is pierced by arched windows at the lower level, and by rectangular windows at the upper floor level. A short flight of steps leads up to the arched doorway of the main entrance which opens into a wide vestibule (see plate 48a and 48b).

At either end of the vestibule are two small rooms numbered 1:1 and 1:2 on the plan (see fig 13a). The back wall of the vestibule has a dado of polychrome tiles interrupted by a painted inscription containing verses of Koran and poetry and giving the name and titles of the founder, Salah Bey.

Two doors at either end of the vestibule open into corridors leading to the central courtyard. Immediately on the right (north) of the northern corridor is a staircase to the upper floor (see plate 58). A door on the left (south) side of the southern corridor gives access to a latrine. Between the corridors is the prayer hall, entered from the east side of the courtyard through a doorway fitted with two carved wood doors (see fig 13a and plate 51a). The four walls of the prayer hall have a tiled dado (plate 52a). In the qibla wall, facing towards Mecca, is the mihrab flanked by two columns of black marble (plate 52a and 52b).

The courtyard is surrounded by arcades (see fig 13a plate 49a,b,c,). Set in the arcade opposite the prayer hall is the tomb

chamber, the raised floor of which is reached by five steps. The tomb chamber contains eleven graves with a further three in a raised eastward projection into the west arcade of the courtyard (see fig 15, plate 49a). All these cenotaphs mark the graves of members of Salah Bey's family and their associates. Most of them have a headstone crowned by a typical Ottoman stone turban, which denotes the rank and profession of the deceased.⁵³

There are two more cenotaphs in a room to the south of the tomb chamber, one of which marks the grave of Sidi al-Kettani (see fig 15, plate 59c).

The walls of the tomb chamber are richly decorated with polychrome tiles. An epigraphic plaster band (plate 41) runs around the three sides of the chamber. The central part of the chamber is roofed with an eight-sided dome flanked by a barrel vault on either side (see fig 15, and plate 59g).

The upper floor of the madrasa comprises rooms grouped around three sides of the courtyard, the fourth side being taken by the dome of the tomb chamber (see fig 13b and 15).

53 - G. Michell, *Architecture of the Islamic World*.

(London, Thames and Hudson Ltd 1978).

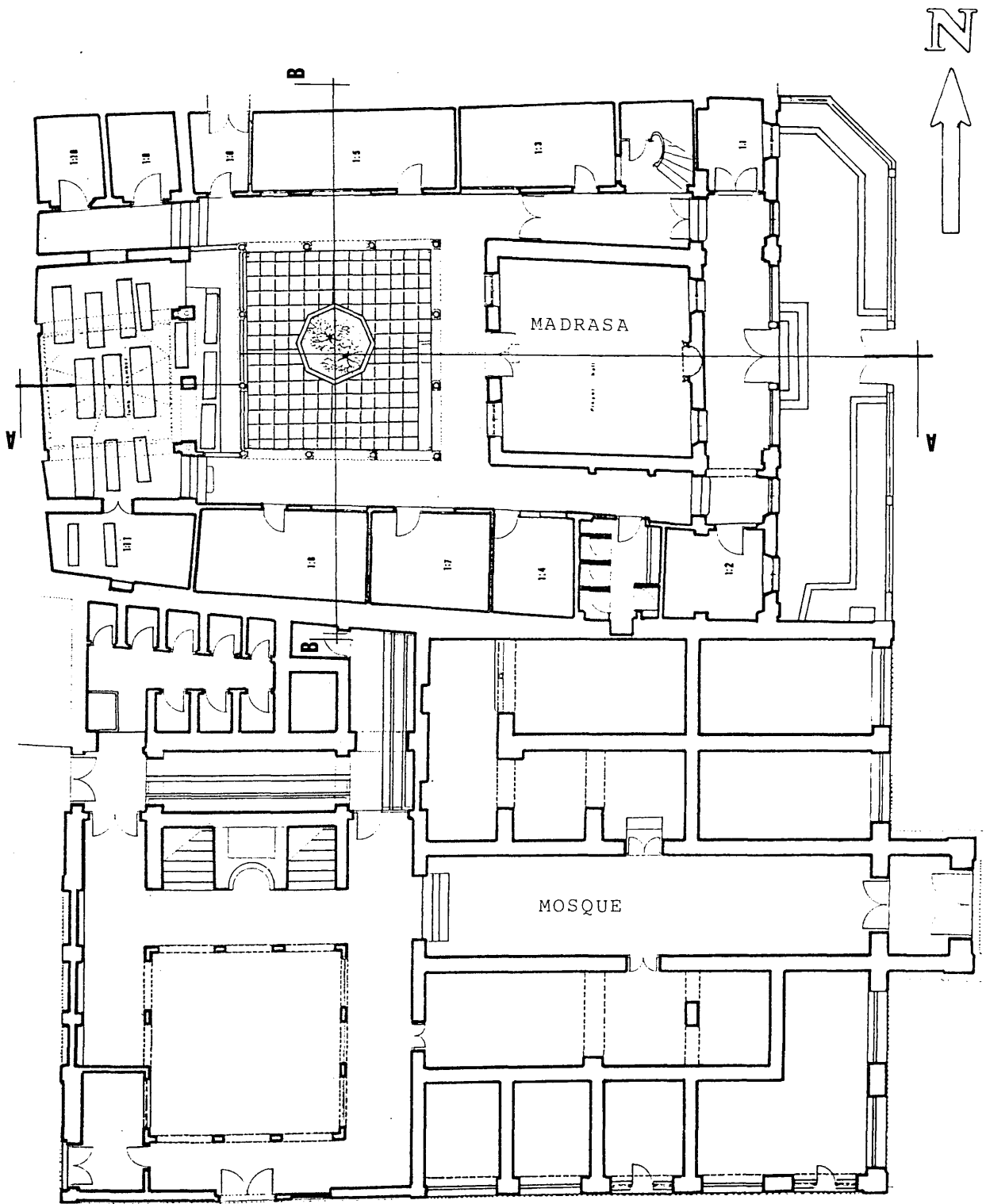


Figure 13a -Sidi al-Kettani madrasa and mosque
ground floor plan

scale 1200

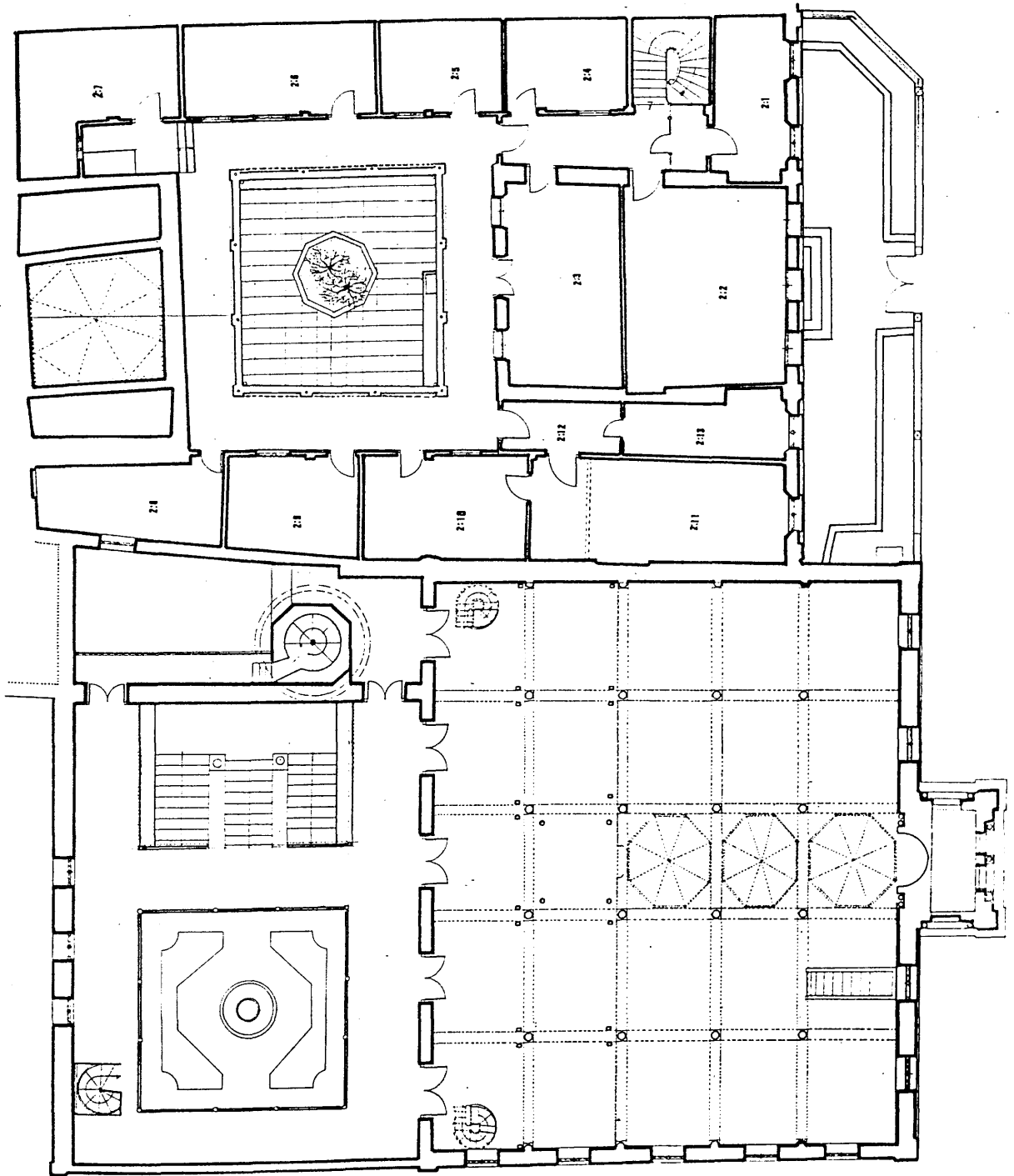


Figure 13 - Sidi al-Kettani mosque and madrasa
first floor plan

scale 1200

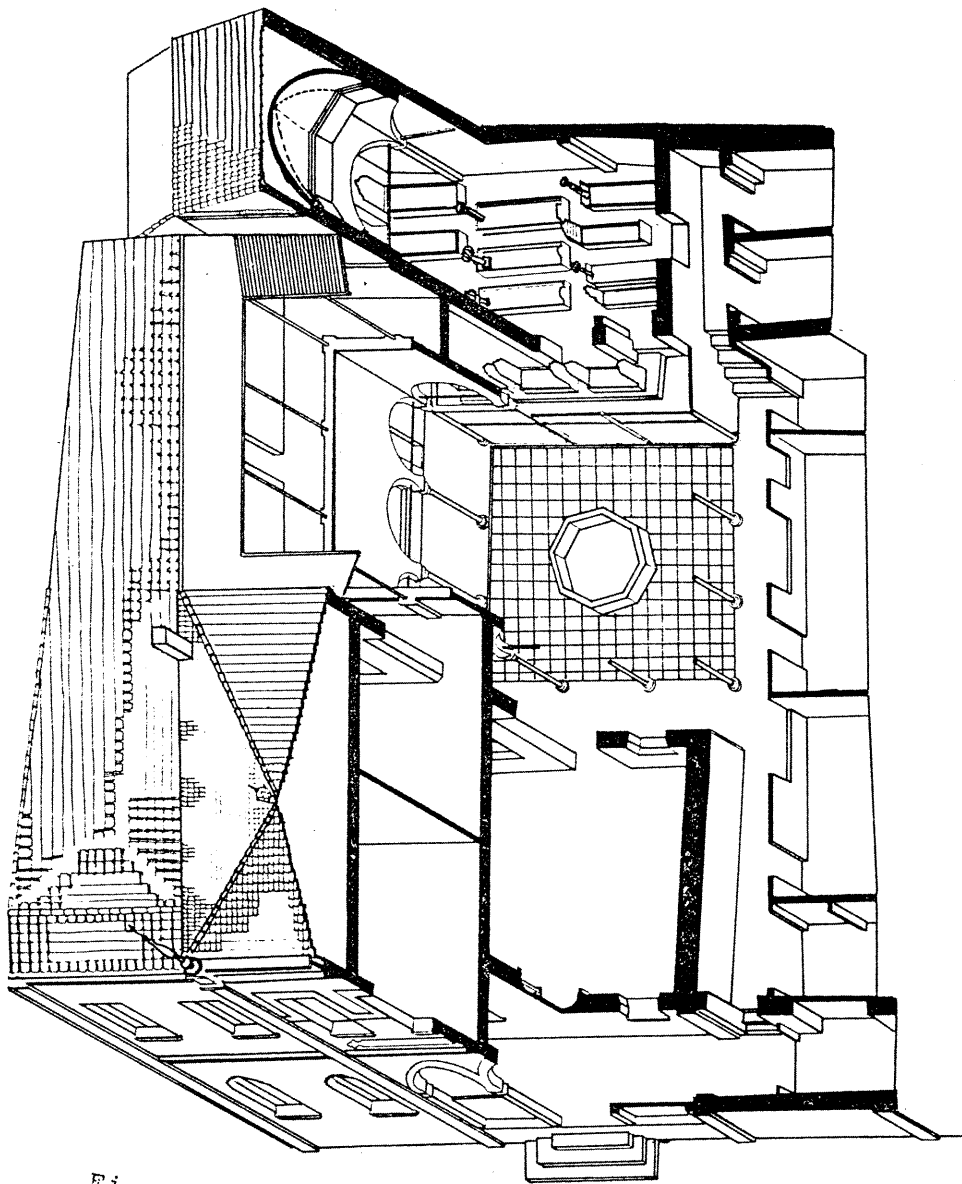


Figure 14 -Sidi al-Kettani mosque and madrasa
Axonometric projection

scale 1200

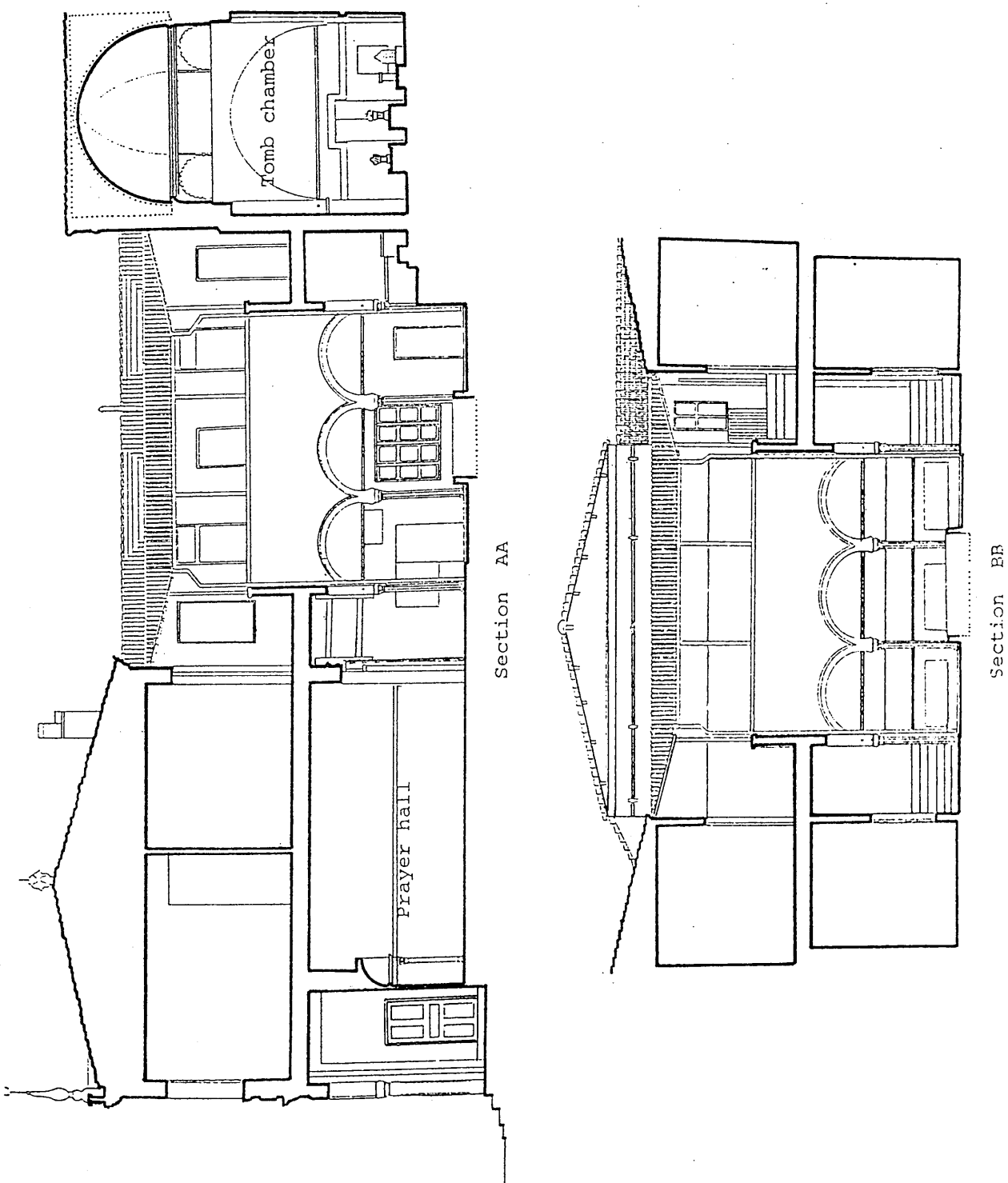


Figure I5 - Sidi al-Kettani madrasa sections.

Scale 1:200

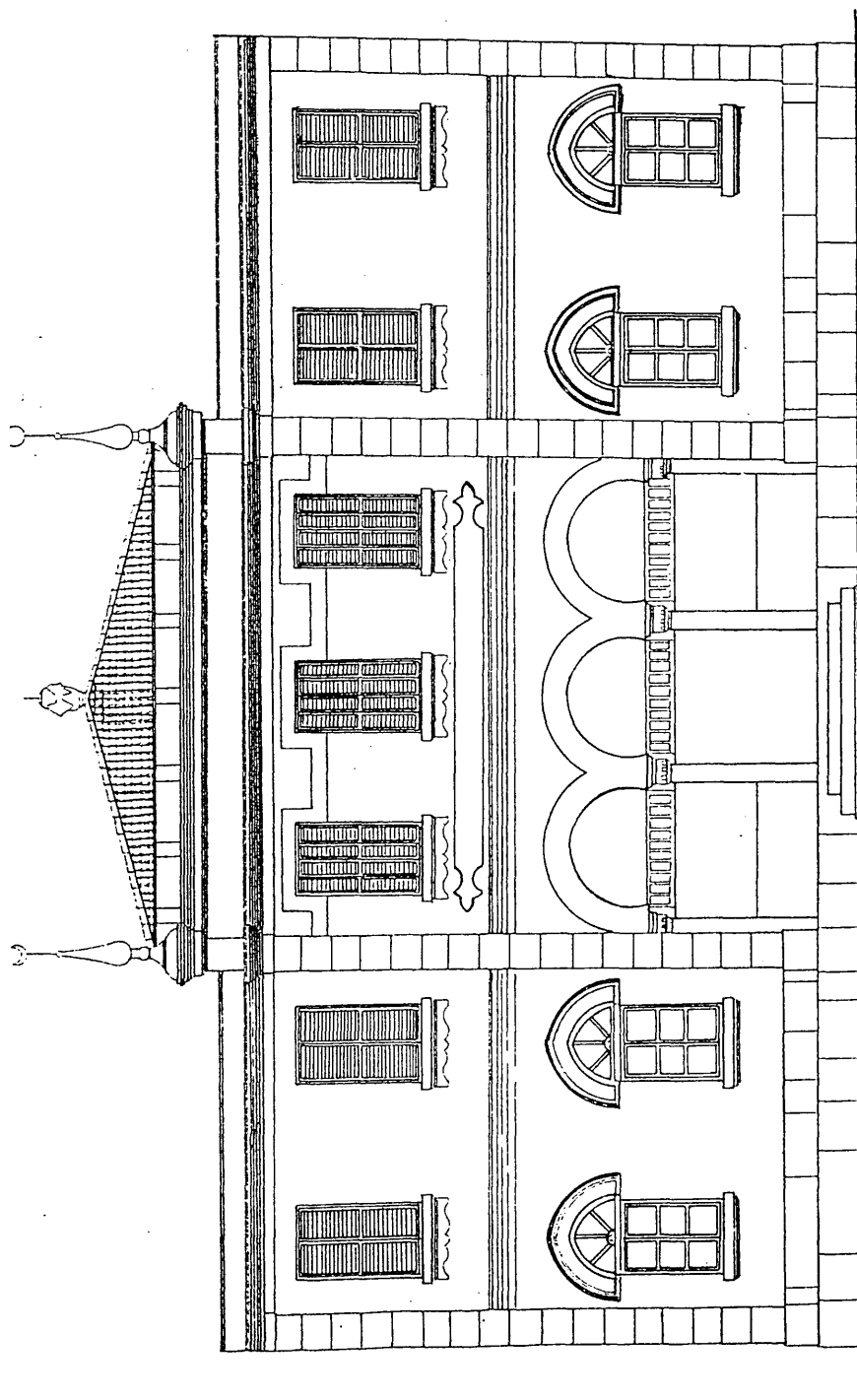


Figure I6 - Sidi al-Kettani madrasa
Elevation

Scale 1:100

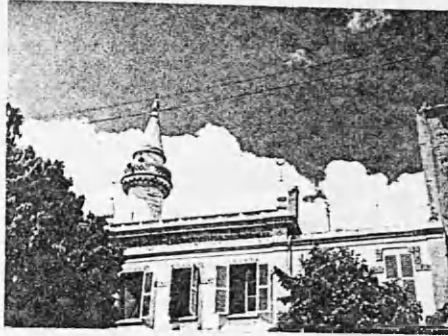


Plate 45a- Polychrome tiles surround
all upper floor windows.



Plate 45b- Facade with the arcaded entrance.

CHAPTER V

SIDI AL KETTANI MADRASA

SURVEY OF THE CONDITION

1. Ground floor
2. First floor
3. Roof and rainwater system
4. Facade

III THE MADRASA: SURVEY OF THE CONDITION

1. Ground floor

Vestibule. Rectangular in plan, the vestibule is 11.8m long and 1.86m wide. The west wall is partly lined with polychrome tiles (some of which are now missing), interrupted in the middle by a historical inscription, containing Koranic verses and verses of poetry, stating that Salah Bey built the madrasa and "renewed" it. Since the inscription is painted on the wall it must be in situ, and so the wall must be part of the original building and may even be the original facade. However, the more or less undamaged condition of the inscription suggests that it was originally protected by some kind of roof. What this roof was is now impossible to say but the present vestibule may replace an earlier one, or alternatively there may have been a portico (*portico in antis*) in front of this wall announcing the main entrance to the madrasa.

On either side of the inscription are two grilled windows into the prayer hall. On the marble sill of each is carved a representation of a bearded man wearing a turban (fig 17a). Who this man was is a mystery, yet the carving bears a noticeable resemblance to a popular portrait of Ibn Badis (see plate 54) a renowned religious reformer who lived in Constantine. An Arabic inscription in both carvings gives the name of Mahmud al...? which may be the name of the carver.

Room 1:1 is entered by an original carved wooden door of two leaves similar to those found in the mosque (plate 44). The upper panels contain an eight-pointed star in a cruciform frame; the lower panels

have fretworked arched heads and three rows of decorative nail-heads. The carving survives intact except for part of the fretwork in the right-hand leaf (plate 48b and 51b) but the detail is lost under several coats of gloss paint. The east wall of the room is pierced by a semicircular arched window opening in the facade. The floor is raised one step above the floor of the vestibule and is covered with red tiles in poor condition. Traces of dampness are apparent on the south and west wall, evidently caused by water penetration from the upper floor.

Room 1:2. At the opposite (south) end of the vestibule, room 1:2 has a modern plain wooden panelled door (see plate 48a). The floor and east wall are similar to those of Room 1:1.

North Corridor. At the north end of the west wall of the vestibule three steps lead up to a modern glazed double door opening into a narrow corridor leading through another door to the courtyard. The south wall of the corridor is decorated with a tiled dado. The staircase leading to the upper floor and the door into Room 1:3 open in the north wall of the corridor.

Room 1:3. has no special architectural features since it is part of the 1860s restoration work. Its partition walls are thin and its windows and doors modern. The floor, covered with a layer of cement, shows no sign of tiles. The walls are painted, now in a dirty condition, and superficial cracks are apparent in the plaster at the top of all four walls.

South Corridor. At the south end of the vestibule a second corridor leads to the courtyard. The entrance door to this corridor is missing but the frame remains. The north wall has a tiled dado

similar to the one in the north corridor. Doors in the south wall of the corridor open into the modern latrines and Room 1:4. A recess in the south wall of the latrines coincides with the outline of a blocked door in the north wall of the mosque, suggesting that the mosque was once linked to the madrasa by this door (see fig 13a)

Rooms 1:4, 1:7, 1:8. like room 1:3 and 1:5 on the other side of the courtyard, have no special features worthy of note. They are relatively recent constructions with thin walls, modern doors and windows, presumably part of the 1860s restoration.

The Prayer hall is located between the two entrance corridors and is entered from the courtyard through a carved wooden door, similar to that of Room 1:1, surmounted by a panel of open mashrabiyya (plate 51a and fig 18 and fig 19). The prayer hall contains a mihrab with a fluted conch and tiled decoration in good condition (plate 52a,b) in its eastern wall. (A small hole pierced in its lower part to allow cleaning water to be drained from the hall into the vestibule has caused some damage to the adjoining tiles). A tiled dado, 1.55m high, runs around all four walls (plate 53b). The west wall has six tiles missing and their place filled with plaster and pieces of broken tiles, some of which are completely unlike any others found in the madrasa. Tiles on the south and east walls are loose and in danger of falling (see plate 46). The hall is lit by four windows, two with low sills in the east wall and two with high sills in the west wall. The north-east window sill has one tile missing and shows signs of water penetration with consequent damage to the tiles, which are delaminating under the action of chemical efflorescence (plate 55a,55b and 55c). Traces of a rectangular hole are visible

immediately inside the entrance door. This hole was dug recently, presumably during the conversion of the madrasa into a Hygiene laboratory. The floor is covered with red tiles in very bad condition, mostly broken into small pieces (plate 55d).

The courtyard. Nearly square in plan, the courtyard is surrounded by an arcaded portico (plate 50a, 50b and fig 13a). The floor of the west portico is raised and protected by a tiled balustrade set between four marble columns (see plate 49a). The wall forming the lower part of the balustrade seems to be original for it incorporates the same marble slabs and polychrome tiles found in the madrasa. The screen of pierced concrete blocks forming the upper part of the balustrade appears to be a recent addition; an old print (plate 59a) shows a wooden balustrade. The southern arch of this west portico has a crack 2cm wide at the crown, which extends diagonally across the wall above (plate 56a).

The absence of supporting arches in the four corners of the portico (visible in the old print, but presumably removed during the French restoration) has caused cracks to appear in the four corners. Two wooden frames have been erected to support the south-east and south-west corners, but one of these (south-east) is distorted, indicating continuing movement in the structure.

A wooden tie beam in the northern arch is cracked in the middle (plate 56c). The letters "K.S" found on some of the marble columns are carved at eye-level, suggesting that they are graffiti (fig 17b).

The floor of the portico is paved with plain red bricks. The open courtyard is paved with earthenware tiles. Three downpipes in

the four corners of the courtyard drain water from the roof onto the courtyard.

In the middle of the courtyard is an octagonal basin containing two orange trees (see fig 13a). The old print also shows trees in the basin but originally it must have been a pool, perhaps with a fountain. Such pools are typical features of the Maghribi madrasa.⁵⁴

2. First Floor

On the right-hand side of the north entrance corridor on the ground floor, a modern spiral staircase (see plate 58) - presumably replacing an old one, the wooden structure of which can be seen under the present stair - leads up to the first floor. At the head of the stairs a small corridor leads through a modern door to the gallery around the courtyard. Rooms 2:2, 2:3, and 2:4 are entered from this corridor (see fig 13b). At the east end of the corridor is a small vestibule through which is reached room 2:1 (2.32m, x 5.03m). This room is lit by two rectangular windows overlooking the market square to the east. A wide recess in the south wall contains a cupboard. Water penetration in the east wall is due to a defective box gutter.

Opposite the head of the stairs, room 2:2 (6.46m x 5.38m) is entered by a new wooden door. In the tiled floor of this room are traces of an earlier wall (see plan, fig 13b) and a fireplace in the middle of the north wall. This raises two questions: was this space

54. Derek Hill op cit p53

formerly occupied by a room and a corridor, or was it originally a single room, smaller than the present room, entered from room 2:3? Since there is a recess in the south wall, coinciding with the width of the traces of the presumed corridor in the western part of the room, the first suggestion is the more likely. The room is lit by three windows opening in the east wall above the main entrance. An air conditioning unit, fitted in the upper part of the middle window (see plate 46c and 46d) is an unsightly intrusion. Traces of dampness in the north-east corner are caused by rainwater penetration from the defective gutter mentioned above.

Room 2:3 (3.79m x 6.49m) is immediately to the west of room 2:2 and has two doors. The first, in the north wall, is from the corridor at the head of the staircase and the second, in the west wall, is from the gallery around the courtyard. The latter has two leaves surmounted by a window which has been adapted to accommodate an air conditioning unit (see plate 60a). The door from the corridor is a modern panelled single-leaf door. Traces of a fireplace remain visible in the middle of the south wall (see fig 13b).

Room 2:4 (4.03m x 3.11m). Immediately to the right of the staircase a blocked door once provided access to this room, which is now entered by a new door on the right-hand side of the corridor. The floor is in poor condition with signs of subsidence in its eastern part. The western part of the floor is differently tiled, which suggests that the room was originally smaller and that the western part once belonged to room 2:5.

Room 2:5, 2:7, 2:8 and 2:9 are more or less recent work, presumably dating from the French restoration if not later. Like the rooms

below on the ground floor, there is no special architectural feature worth describing. There is evidence of water penetration in several of these rooms, presumably due to faulty gutters, and the floor tiles in all of them are in poor condition.

Room 2:10 has a bulge in its south wall, which corresponds to the north-west corner of the prayer hall of the adjoining mosque (see above). Cherbonneau states that the mosque's prayer hall bridged a lane leading to the madrasa,⁵⁵ but this is not evident now for the lane was blocked during the French restoration work. The east wall is recent work, as are the doors in the north and east walls.

Room 2:11 is entered either from room 2:10 to the west or through a corridor (2:12) to the north. Traces of a partition wall on the floor suggest that this room was once much smaller and entered only from the corridor.

Rooms 2:12 and 2:13 appear originally to have been a corridor. Their width is too small to have allowed them to serve as useful rooms. The wall separating these two spaces is low (2m), tending to confirm the above suggestion. A recess in the north wall of room 2:13 similar to the corresponding one in room 2:1 (see above) supports the suggestion made above that the original facade of the madrasa was on the line of the east wall of the prayer hall on the ground floor. The thicker part of the north and south walls of room 2:12 coincides with the line of the west wall of the vestibule on the ground floor, and the recesses correspond to the width of the

55. Cherbonneau; op cit p112.

vestibule, indicating that the structures to the east are later additions made during the French restoration.

The gallery around the courtyard is paved with red tiles. These are badly cracked in places, notably in the south-east and south-west corners (see plate 60c). A heavy water tank carried on steel tubes at the south end of the western gallery (see plate 60c) has caused cracks to appear in the east wall of the tomb chamber and in the portico arch below (see above). A water trough at the east end of the southern gallery is in daily use and though water splashed from it lies on the floor of the gallery no damage to the structure is apparent (see plate 60d).

The gallery is sheltered by a modern roof of corrugated asbestos sheets supported by tubular steel columns anchored at their bases in a modern concrete balustrade (see plate 60a, 60b and fig 15).

3. The Roof

Inspection of the condition of the roof has been limited to external features since we were unable to gain access to the roof void.

The shallow pitched roofs are constructed of timber covered with red clay tiles. The roof over the prayer hall is pyramidal, sloping in four directions from an earthenware cap at the apex (see plate 61a). To the north and south of this roof monopitch roofs slope (a) east to drain into a gutter behind the parapet on the market square frontage and (b) down to a valley gutter running westwards towards the central courtyard (Fig 13c). The roofs on the north and south sides of the courtyard drain into a gutter around

the courtyard. At the west end of the courtyard a gabled roof (see plate 61c) drains to north and south towards adjoining monopitch roofs. The monopitch at the south-west corner of the building drains directly onto the roof of an adjoining building.

"Roman" red clay tiles are used throughout, except for modern terracotta pantiles on the south side and on the monopitch at the south-west corner. The gabled roof at the west end is most likely original since the whole west part of the building has undergone few alterations. The tiles are generally in good condition with only a few repairs being necessary.

The gutters, on the other hand, are badly in need of repair. Rainwater from a lead gutter behind the parapet on the facade is penetrating the building through open joints in the masonry base of the parapet. There are lead valley gutters at the east end of the north and south roofs. The southern is in good repair but the northern is torn and leaking. Elsewhere the roof drains into zinc gutters, all of which need to be replaced. Gutters at the north-east corner of the courtyard and along the south side of the courtyard are missing.

Chimneys pierce the roof in four places (on the north and south sides of the courtyard and in the north and south slopes of the roof over the prayer hall). The one on the south side of the courtyard is a simple metal flue. The others are of brick with mortar flashings to the roof.

Where the south roof abuts on the north wall of the adjoining mosque the present cement mortar flashing has come away from the wall allowing rainwater to penetrate.

4. The Facade

The stonework of the facade appears to be in sound condition. Only minor repairs are required. Fine cracks are apparent at the south end and mouldings under some window sills are lost because of damage caused by the insertion of metal flues for gas fires.

One window frame at the ground floor level is missing, and one at the first floor level is damaged. Tiles around the upper floor windows at either end of the facade are missing, as are finials at either end of the parapet.

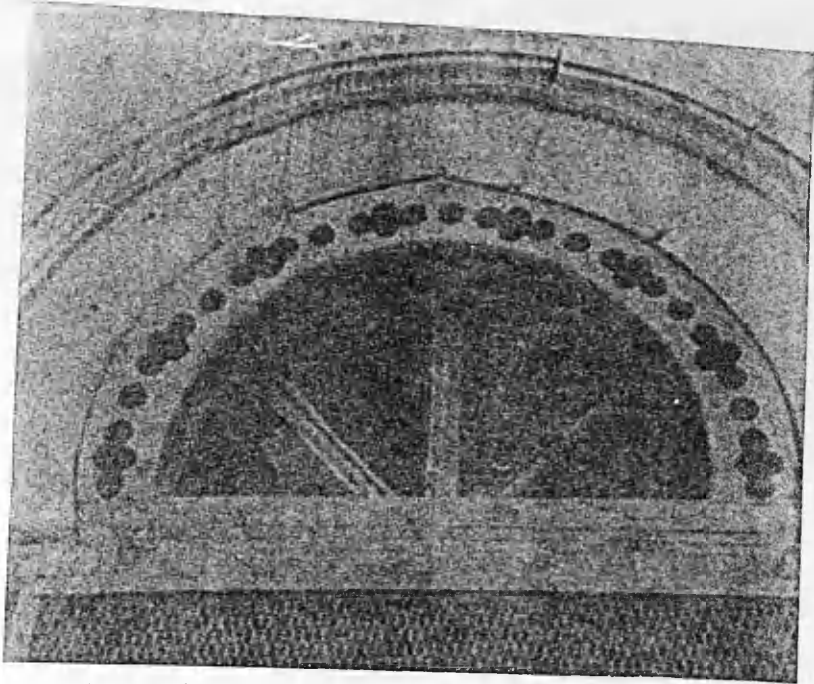


Plate 46a - Sidi al-Kettani madrasa: detail
of the first floor level windows.

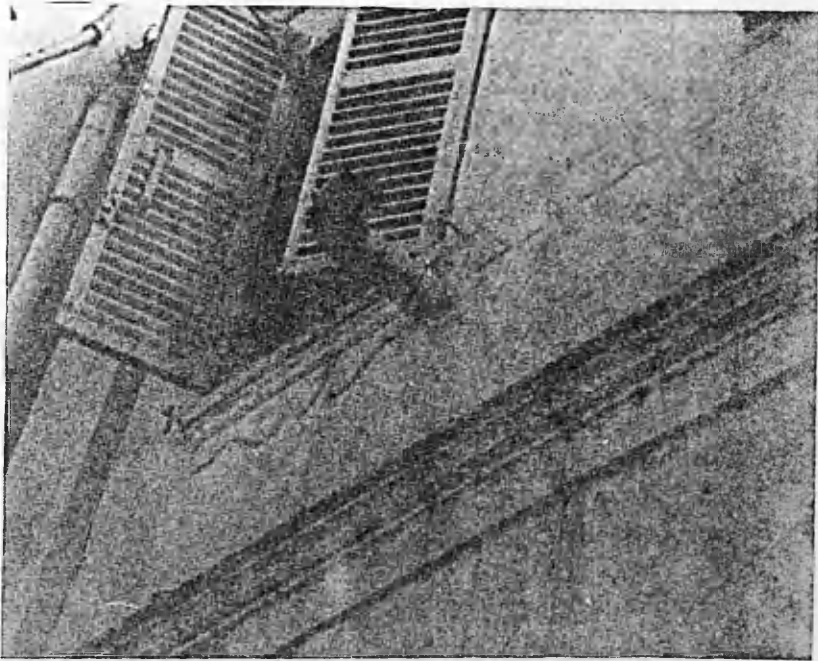


Plate 46b - Sidi al-Kettani madrasa facade:
metal flue pipe has caused some
damage to the moulding under some
window sills.



Plate 46c - Missing tiles on the parapet wall.

Upper part of the window adapted to accommodate an air conditioning unit.

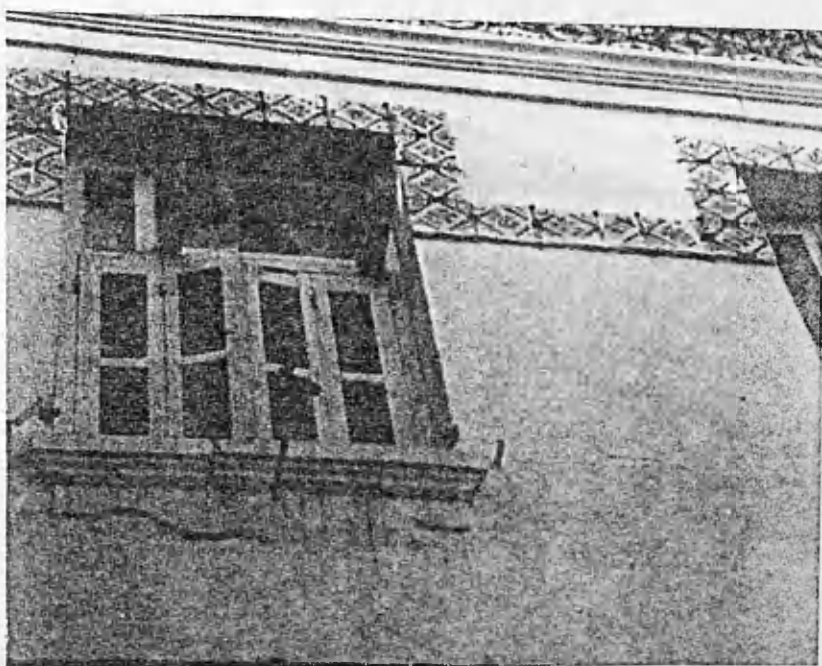


Plate 46d - Damaged moulding under window sill
badly repaired.



Plate 47 - Palais de Justice (now a secondary school).

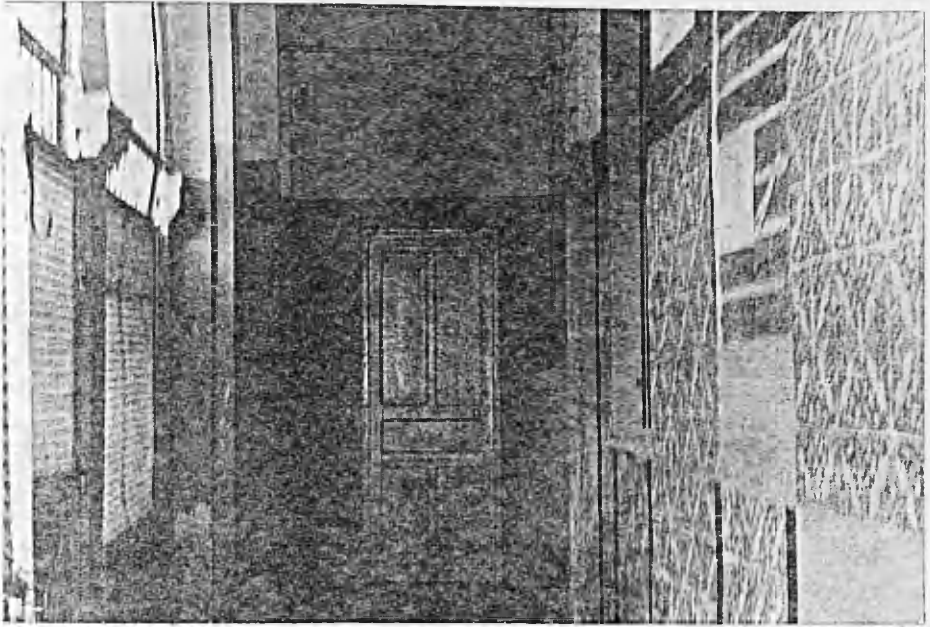


Plate 48a - View of the entrance vestibule
looking south.

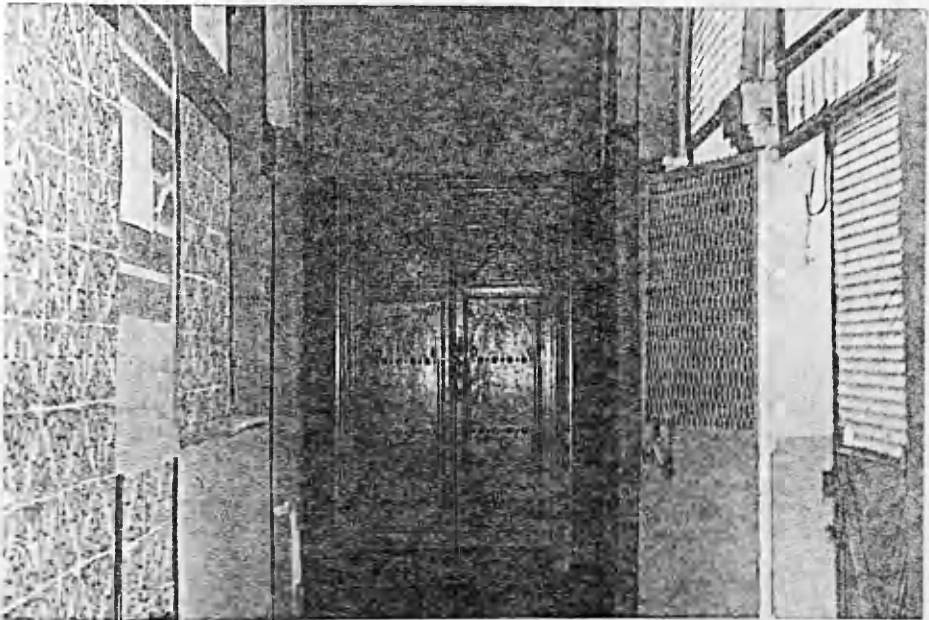


Plate 48b - View of the entrance vestibule
looking north.

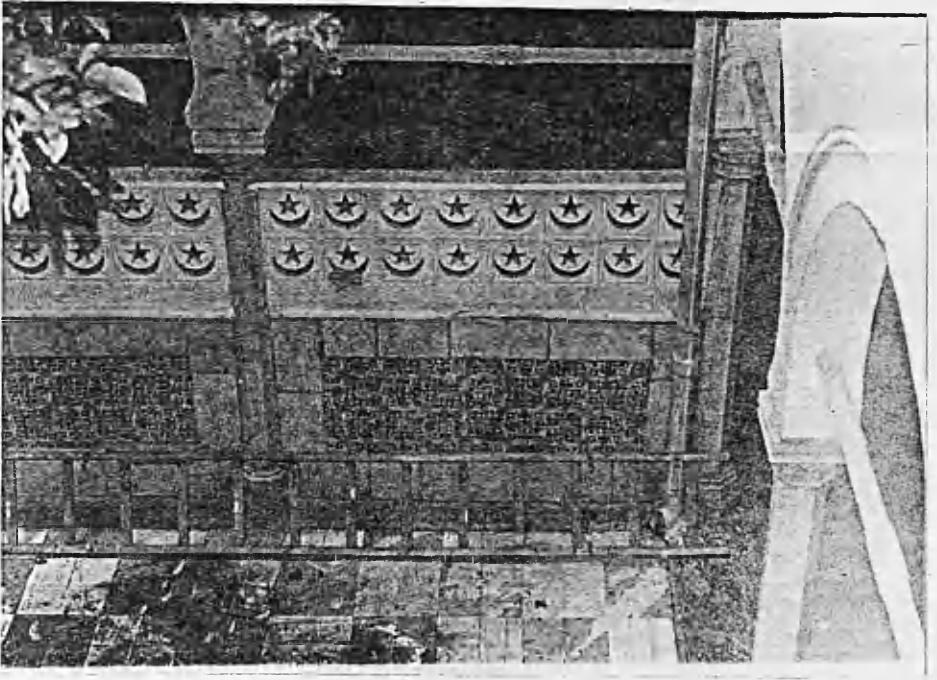


Plate 49 a - Sidi al-Kettani madrasa courtyard:
west gallery.

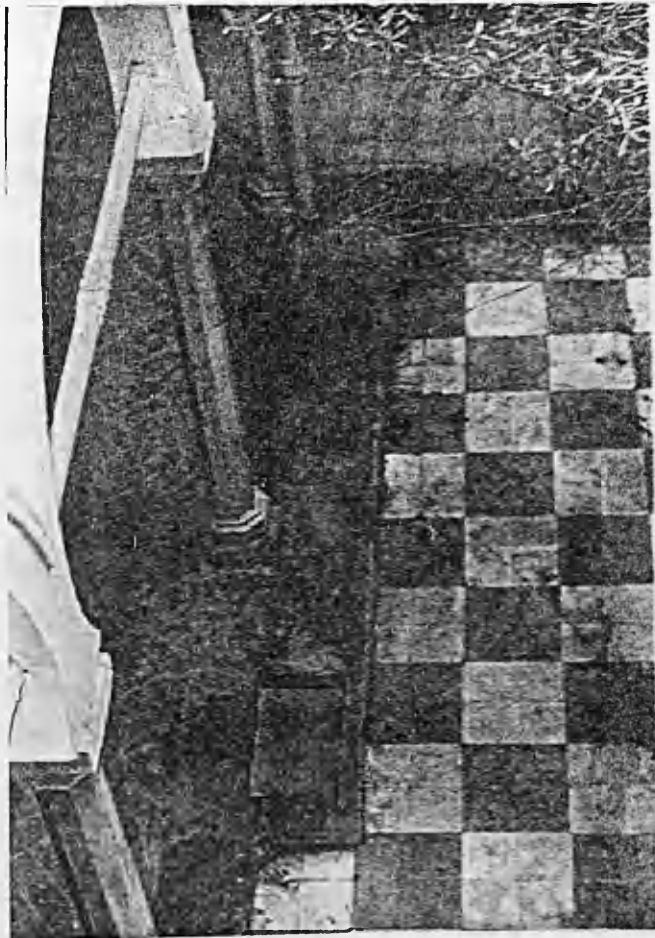


Plate 49 b - East gallery

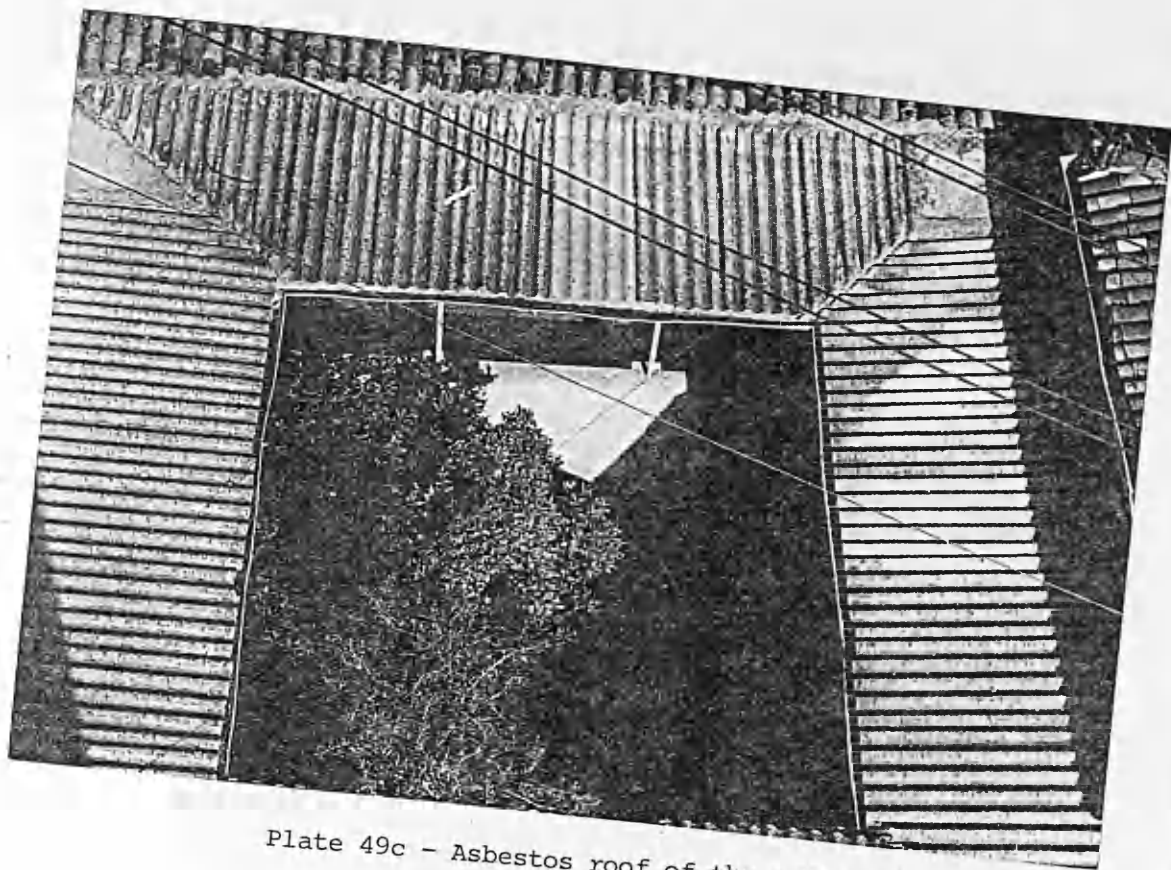


Plate 49c - Asbestos roof of the gallery
around the courtyard.



Plate 49d - Courtyard: detail of the marble
column capital supporting the
upper gallery.

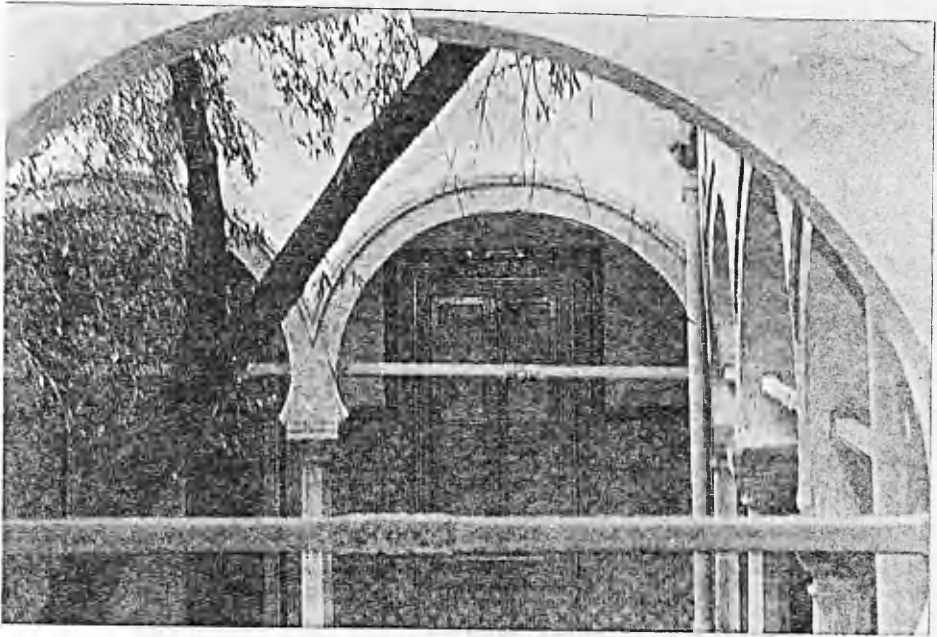


Plate 50a - View of the east gallery showing in the background the wall of the prayer hall.

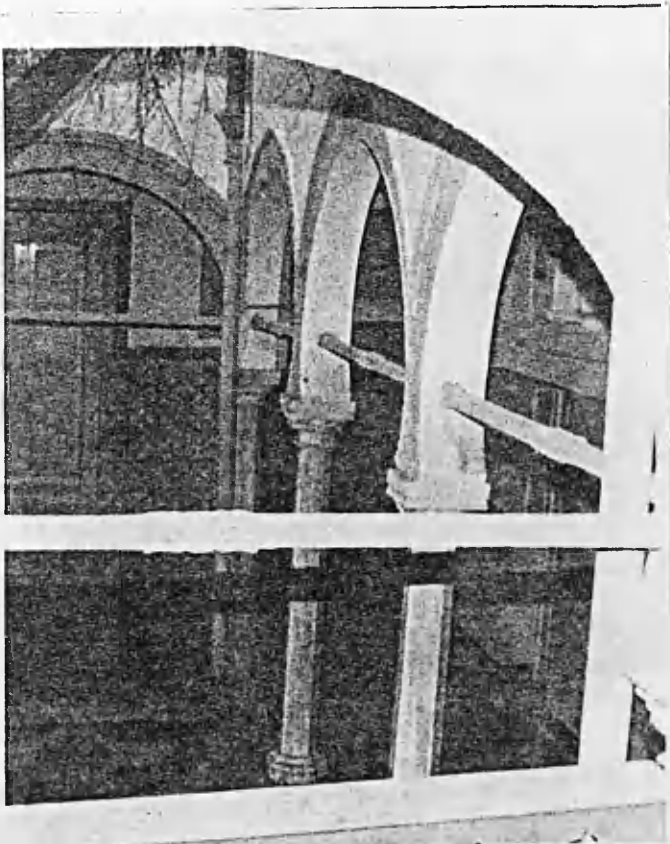


Plate 50b - View of the courtyard gallery

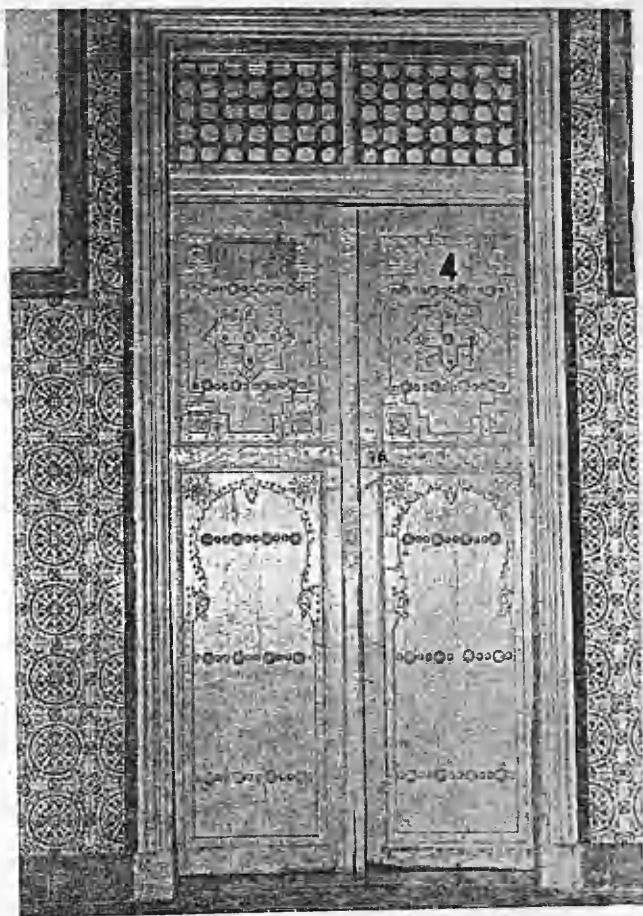


Plate 5Ia - Original door of the prayer hall.

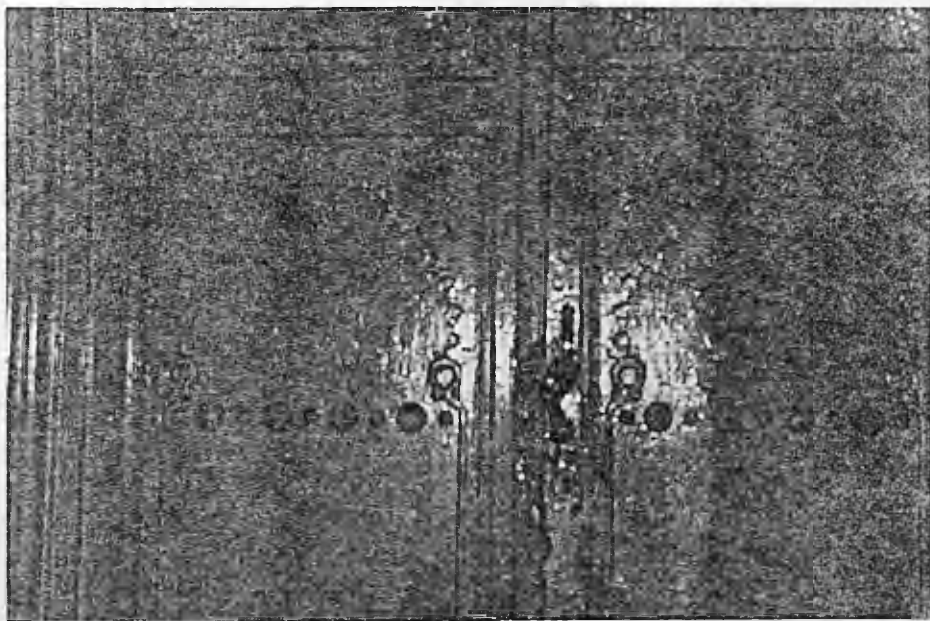


Plate 5Ib - Detail of original door in room I:I

Plate 52a - The mihrab
niche of the
prayer hall.

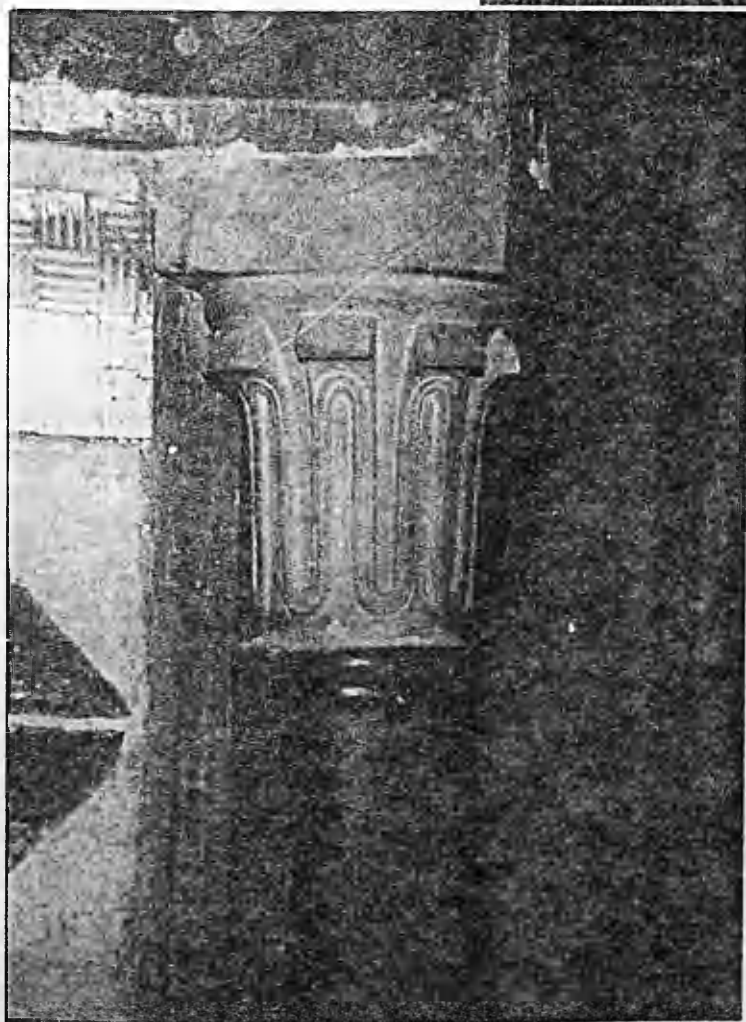
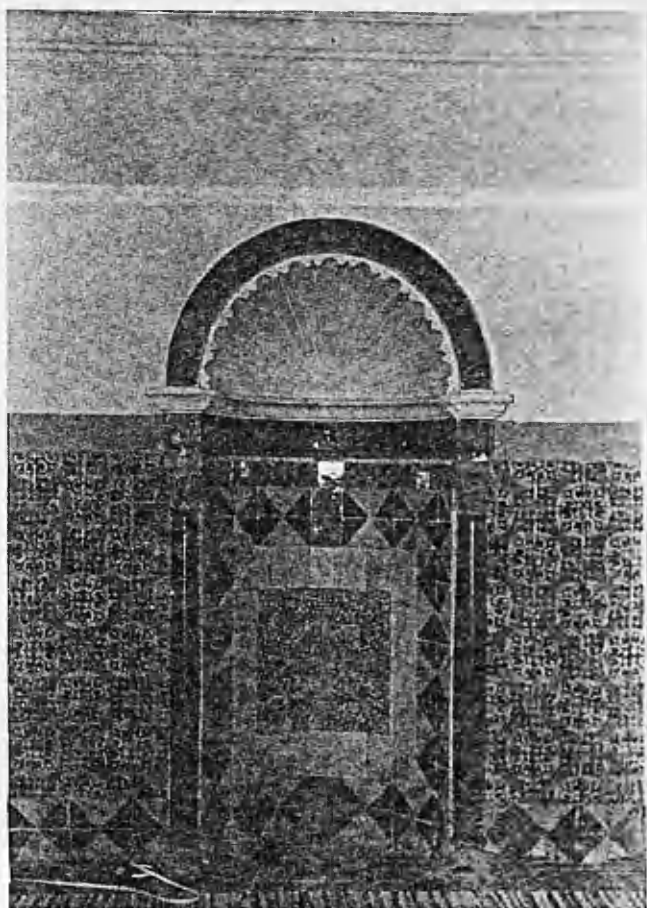


Plate 52b - Detail of
the black marble
column of the
mihrab.

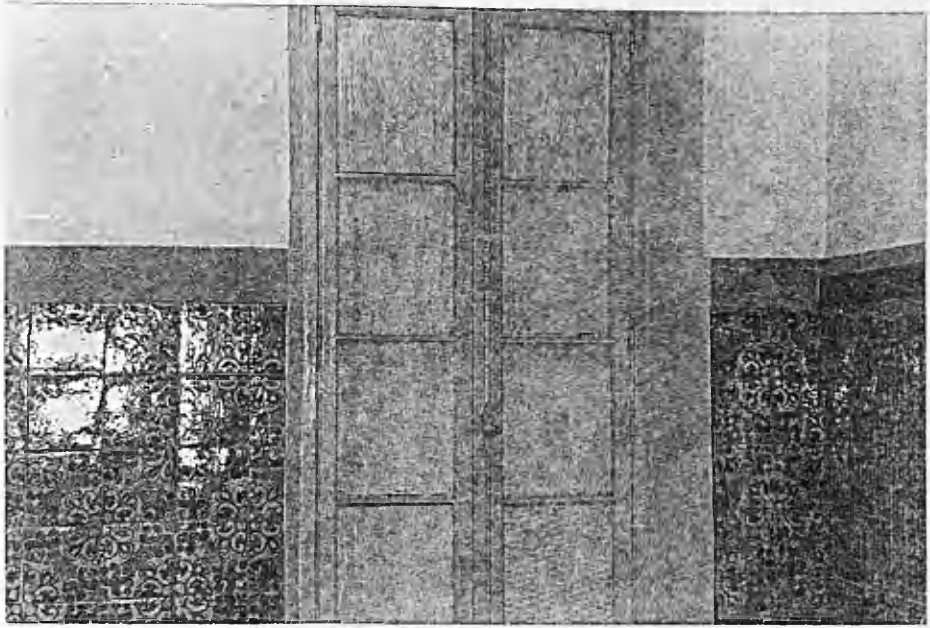


Plate 53a- South east window of
the prayer hall

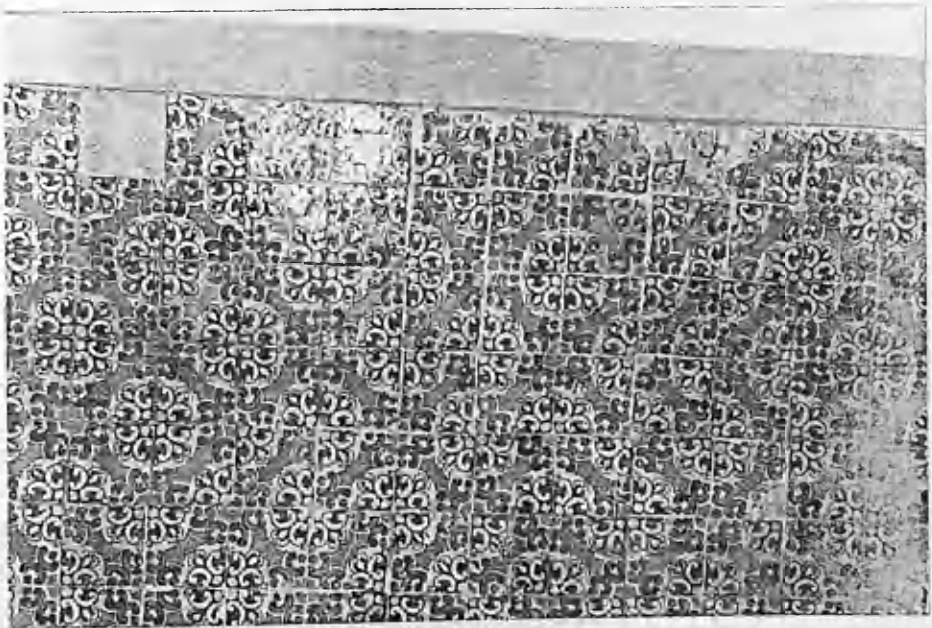


Plate 53b- Prayer hall walls are
lined with a polychrome
tiled dado.



Figure 17a- Carved representation of bearded man on the window sill of the prayer hall



Plate 54 - Abdulhamid Ibn Badis

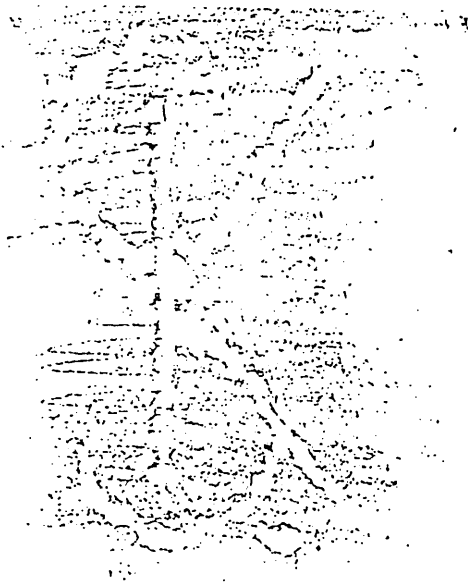
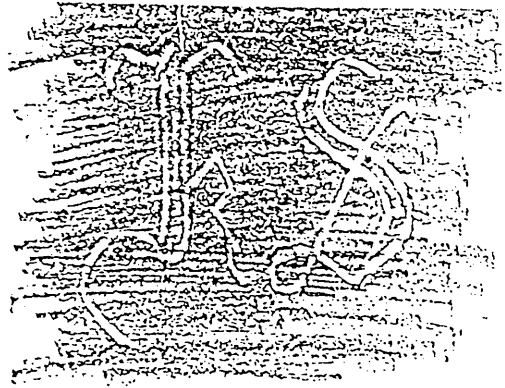


Figure I7b - "K.S"carved at eye-level found
on some marble columns of the
courtyard gallery.

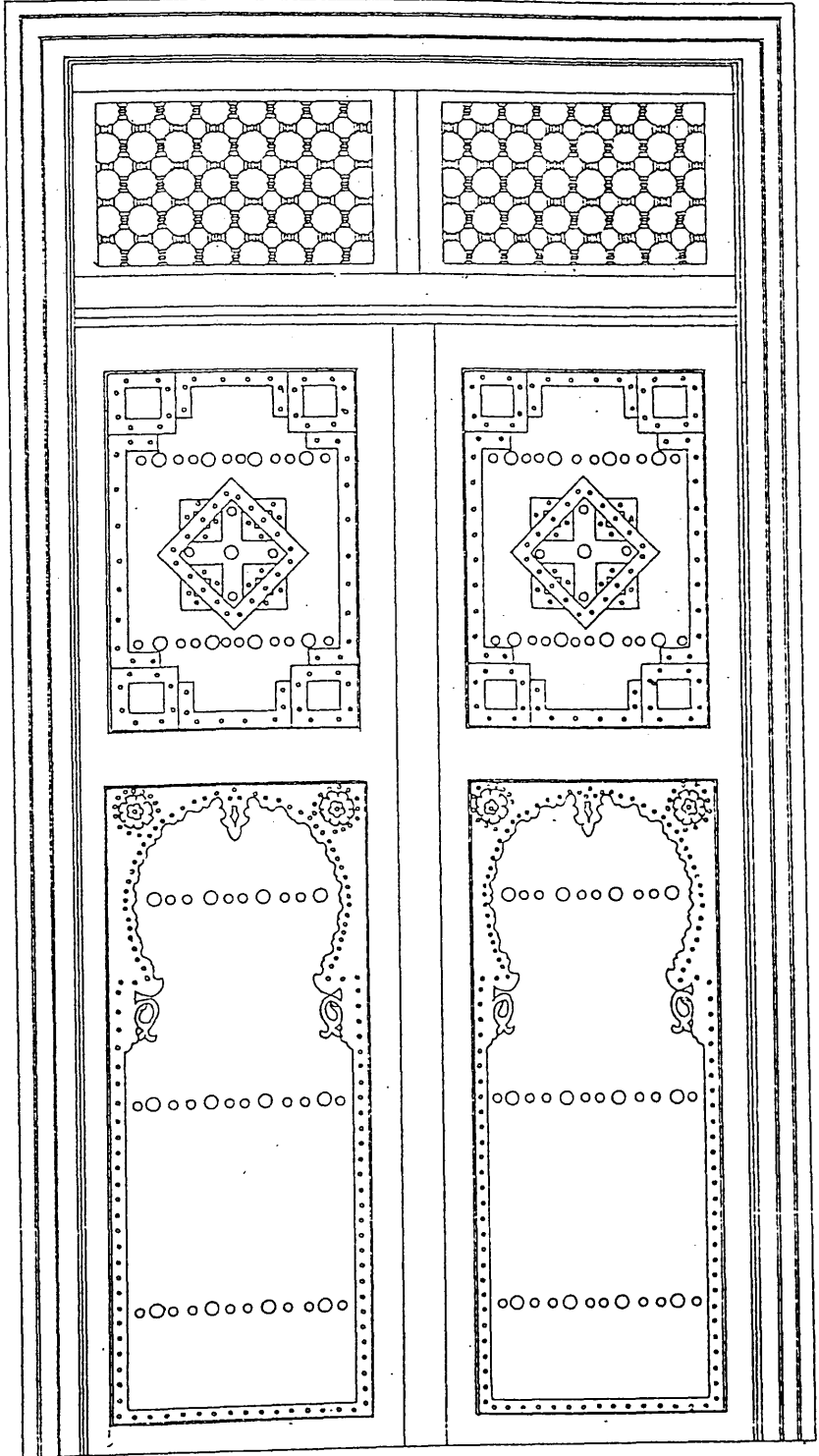


Figure 18 -Original door of the prayer hall.



Plate 55 a - Prayer hall: damage to the plaster and tiles caused by rising damp.

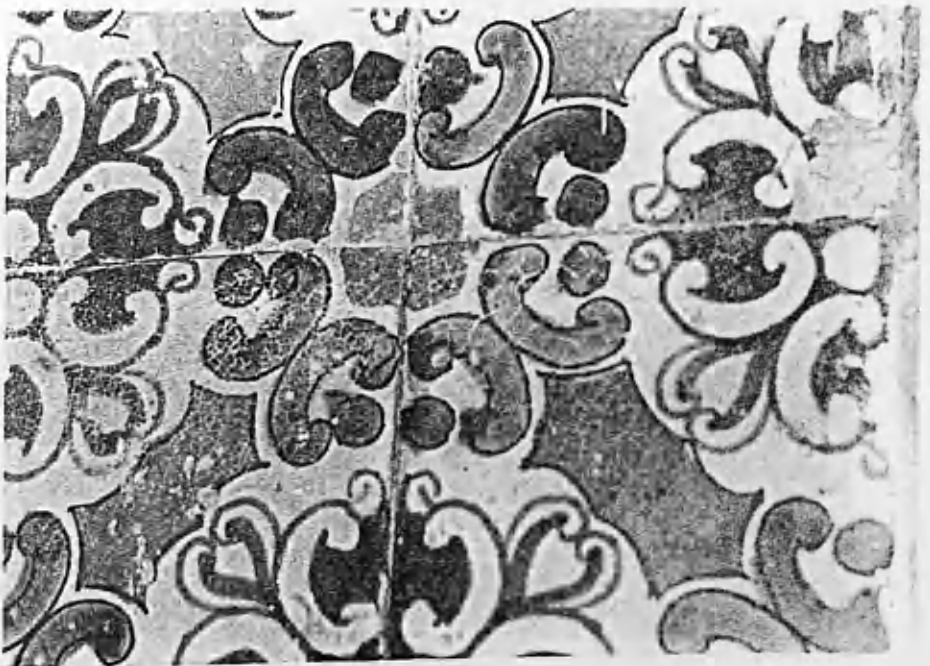


Plate 55 b - Prayer hall: chemical efflorescence is evident on the surface of the tiles.

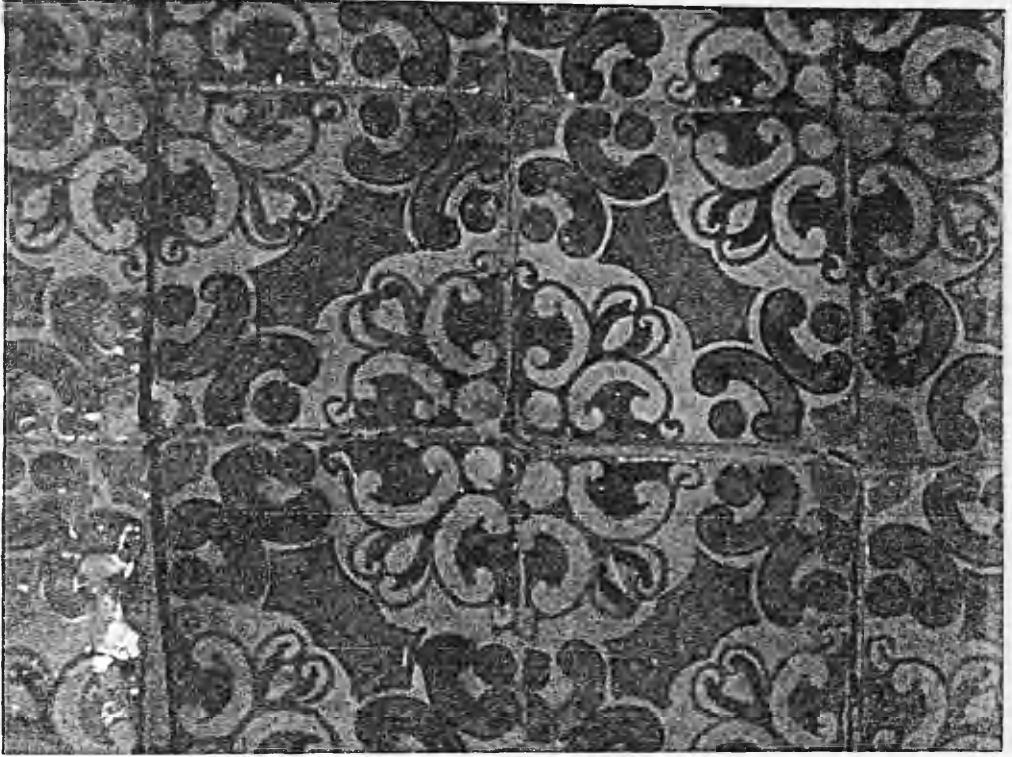


Plate 55 c - Prayer hall: tiles are loose and detached from the wall.

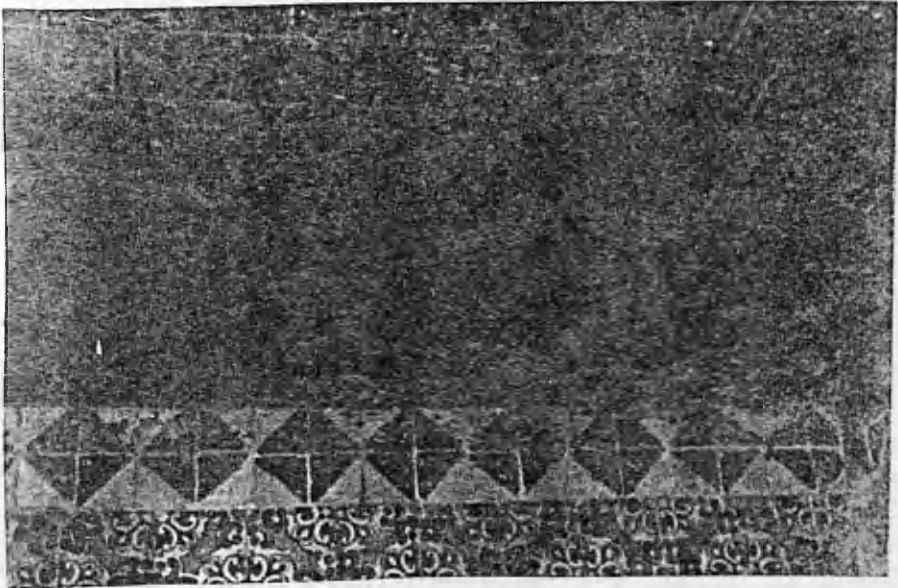


Plate 55d - Prayer hall: floor cladding is in poor condition.

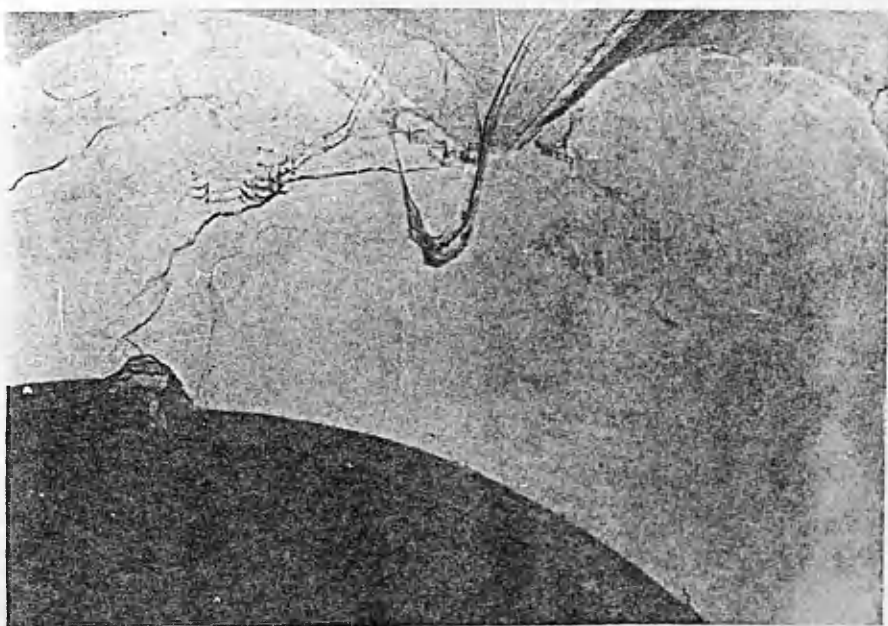
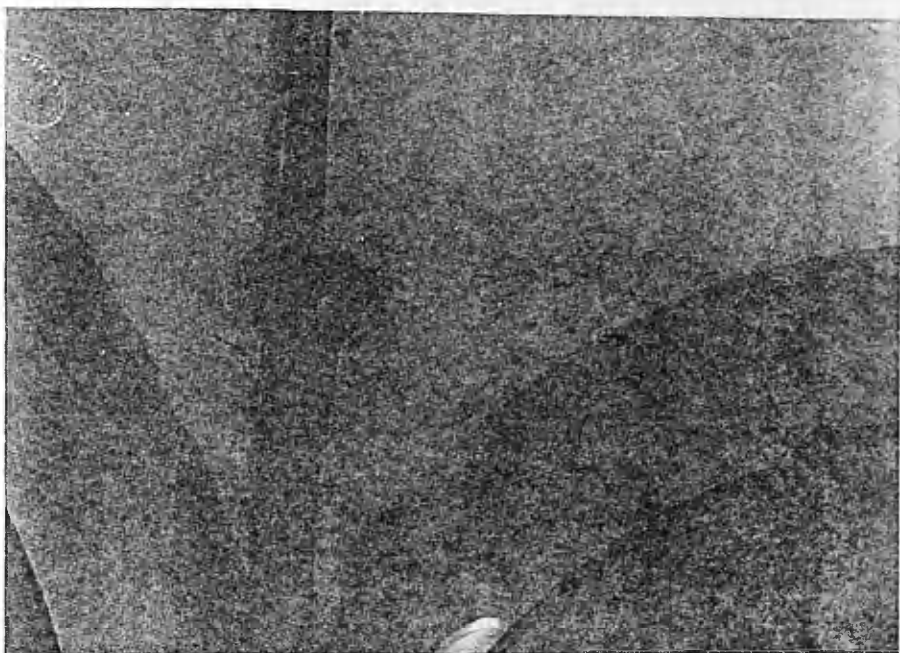


Plate 56a -Courtyard:crack at the crown of
the southern arch of the west portico.

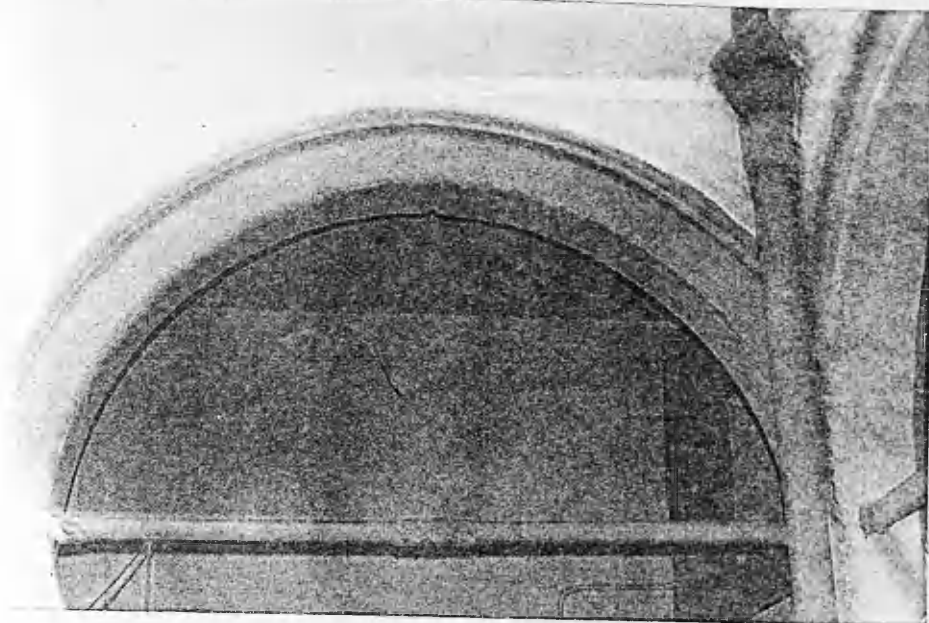


Plate 56b - Courtyard:the south-east wooden frame
in the background.

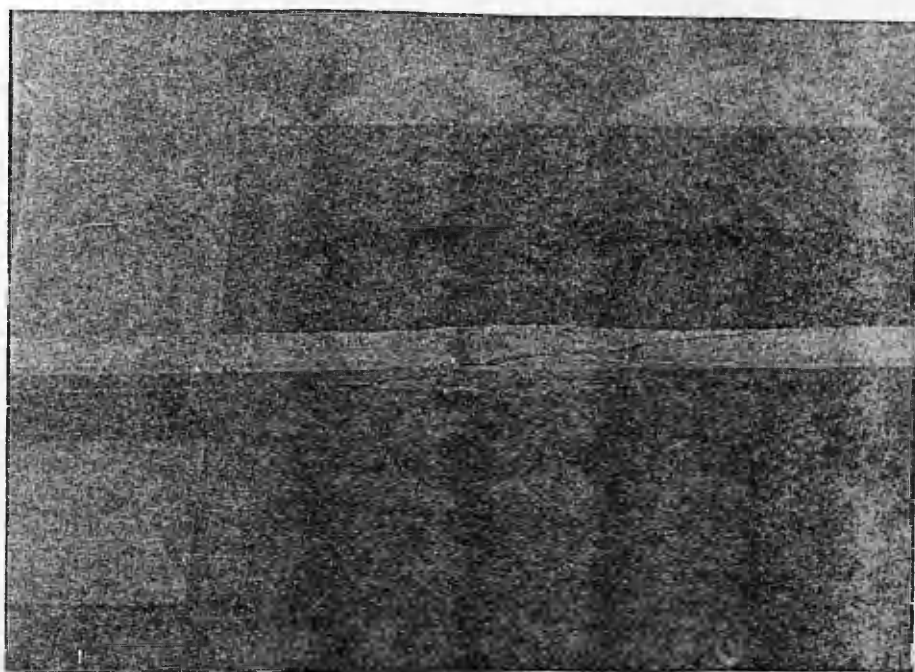


Plate 56 c - Courtyard:wooden tie beam cracked
in the middle.



Plate 57 - Room J:9 and I:10 at the back of the madrasa.

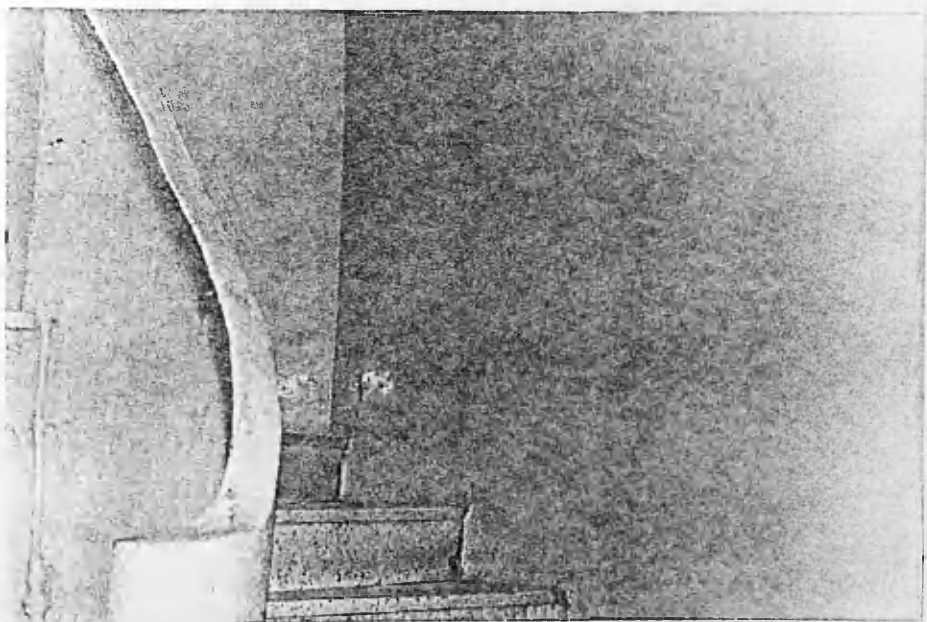


Plate 58 - Staircase leading up to the upper floor.

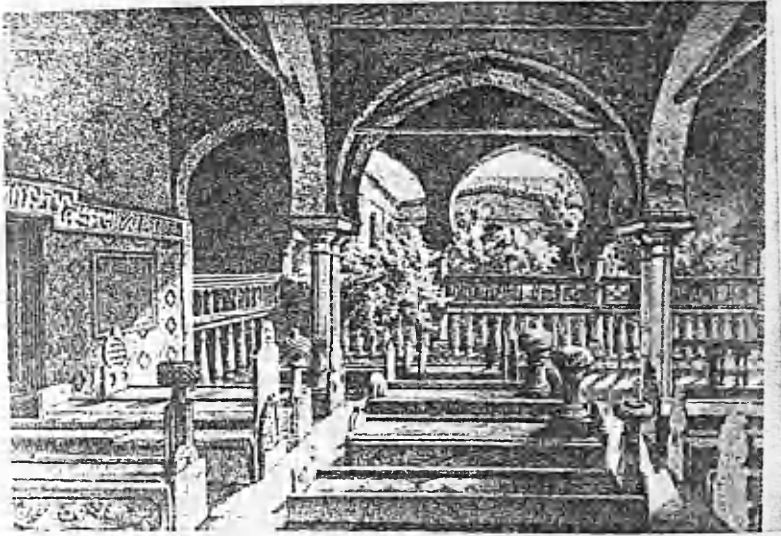


Plate 59 a -Tomb chamber:old print.

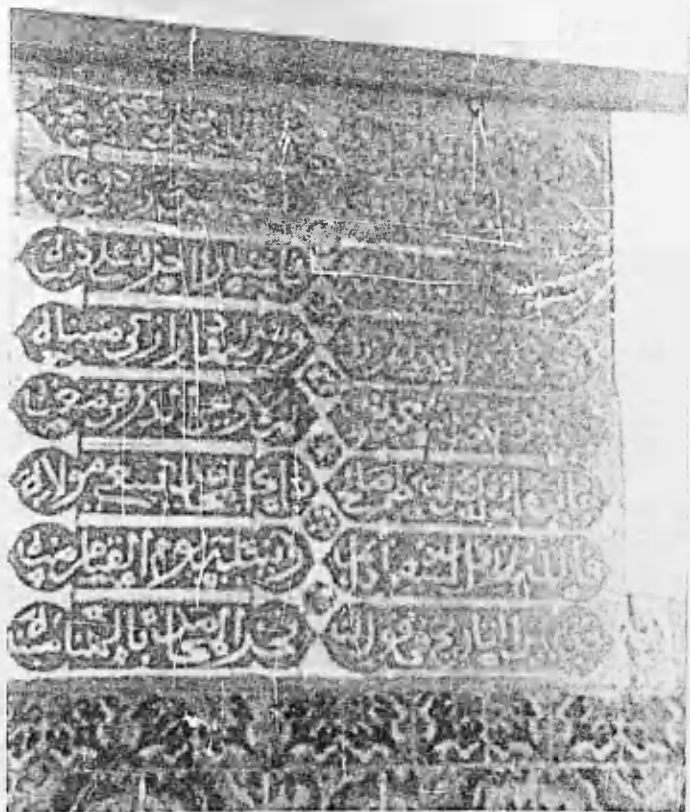


Plate 59 b - Tomb chamber:a carved plaster panel set in the back wall gives the date of construction of the madrasa.

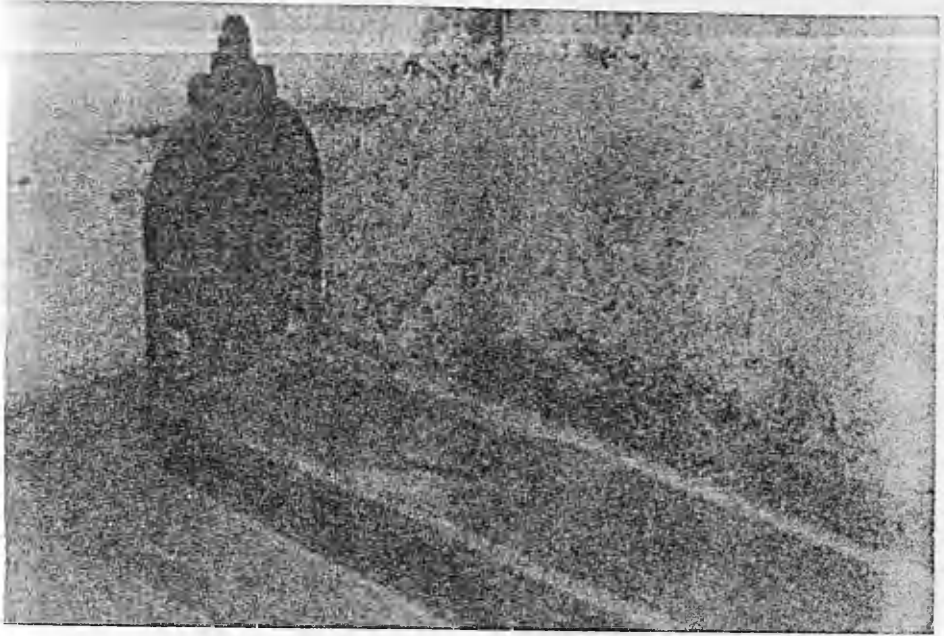


Plate 59c - Tomb chamber: Cenotaph of
Sidi al-Kettani

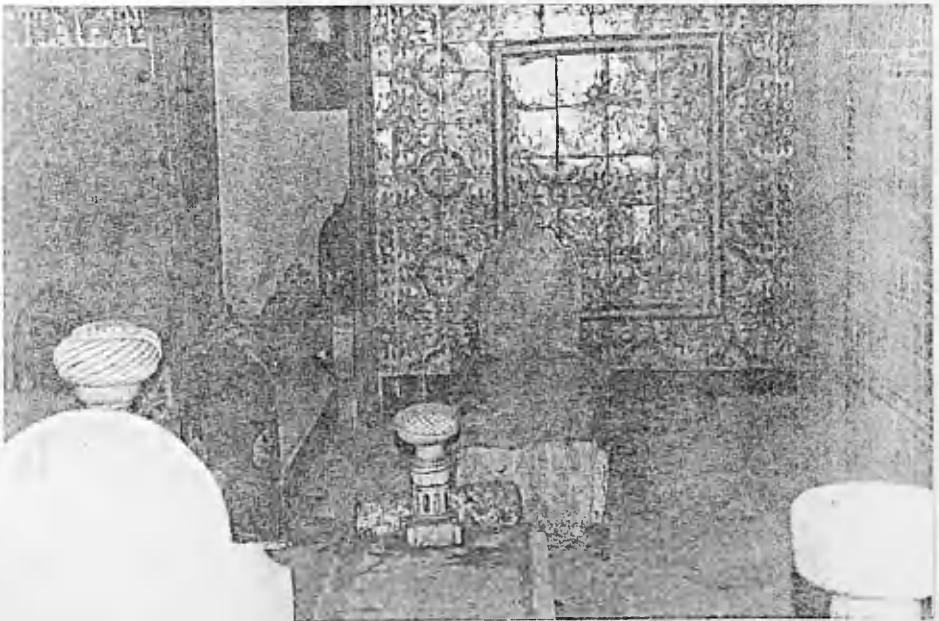


Plate 59d - Tomb chamber: cenotaph of
Salah Bey in the background

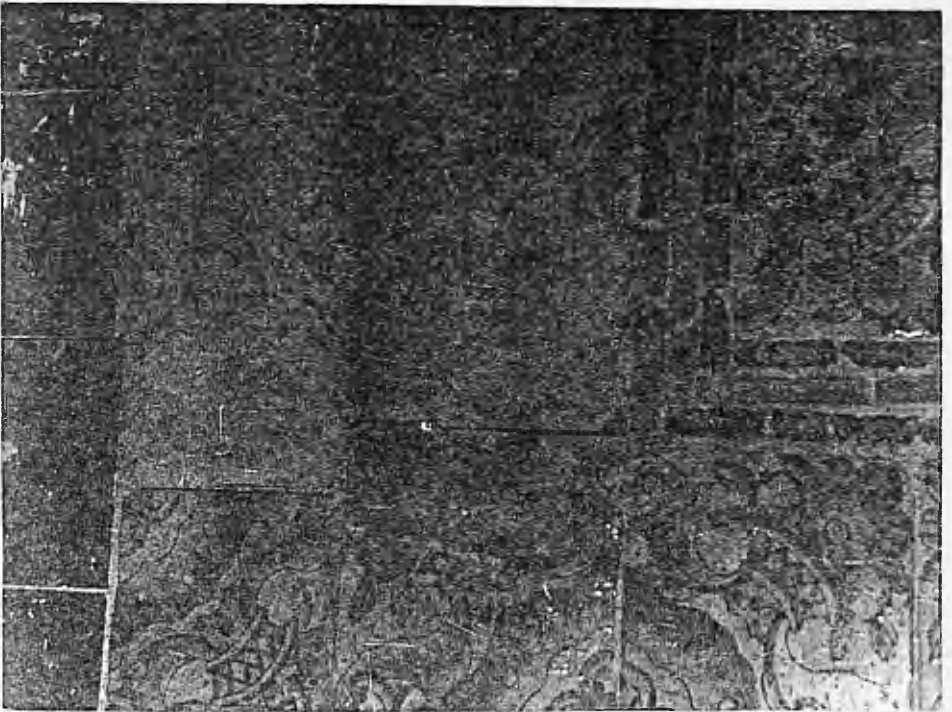


Plate 59e - Tomb chamber:plaster has perished
and tiles are coming off.

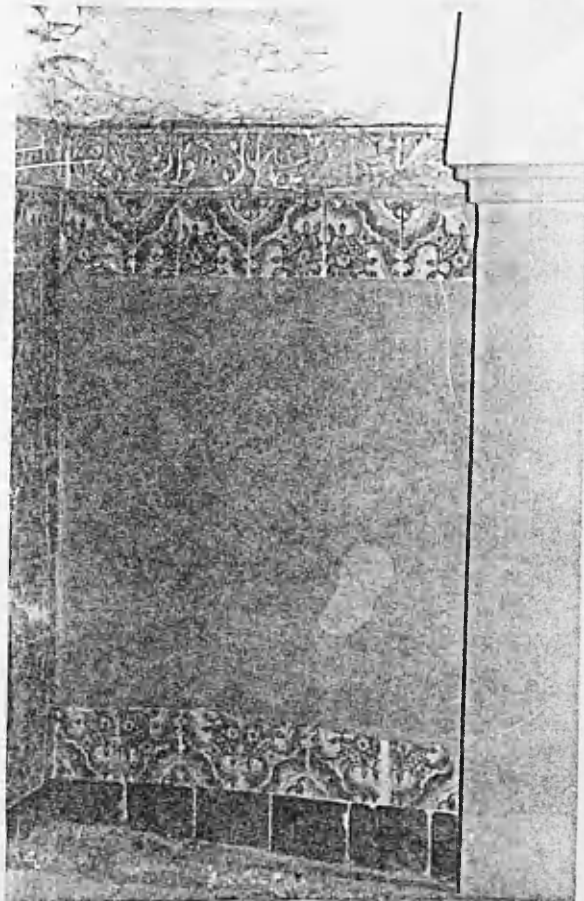


Plate 59f - Tomb chamber:areas of missing tiles
have been plastered.

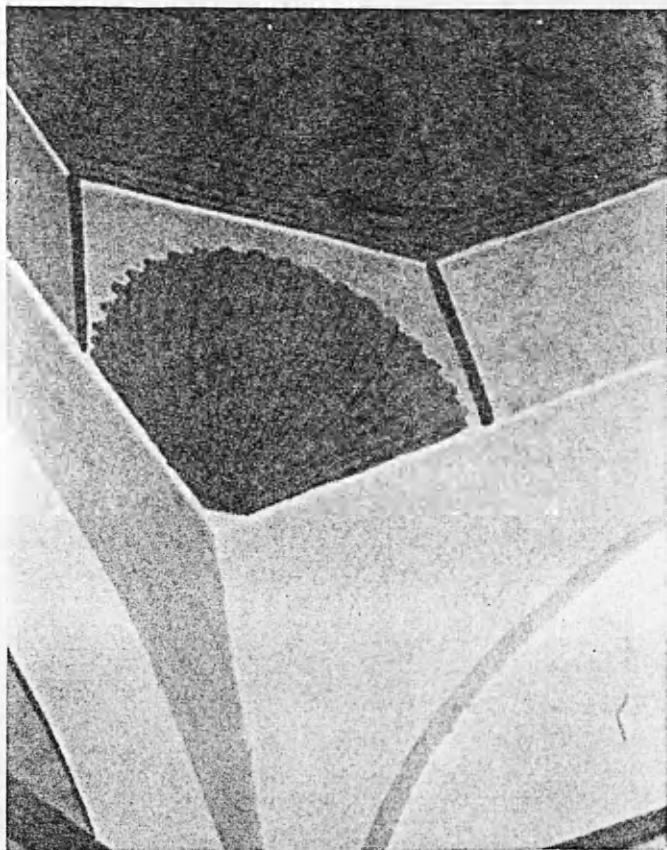


Plate 59g - Tomb chamber: detail of the fluted squinch of the dome roofing the central part of the tomb chamber.

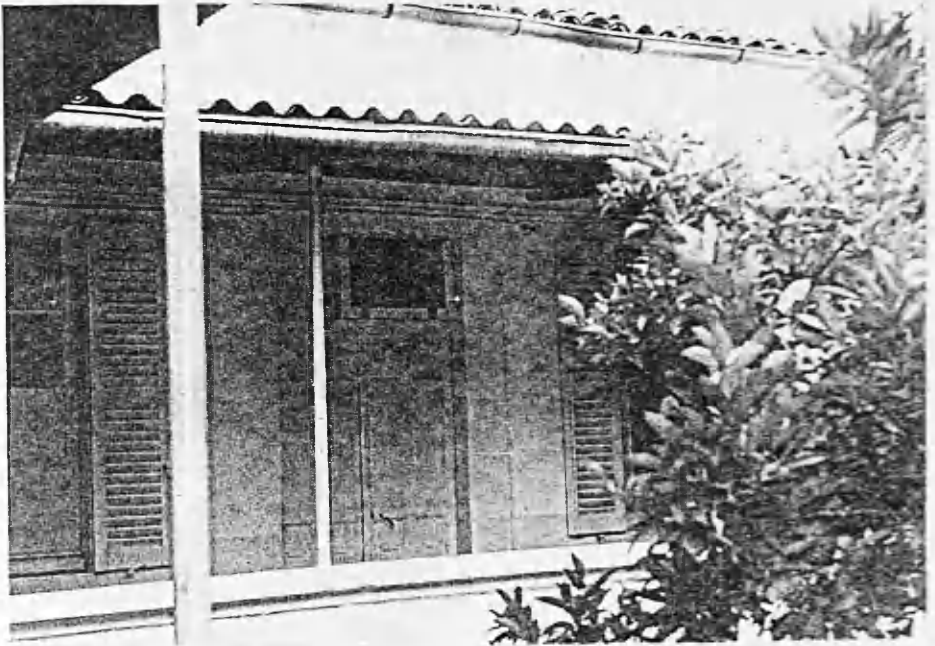


Plate 60a - Upper floor gallery: the upper part of the door (room 2:3) has been adapted to accommodate an air conditioning unit.

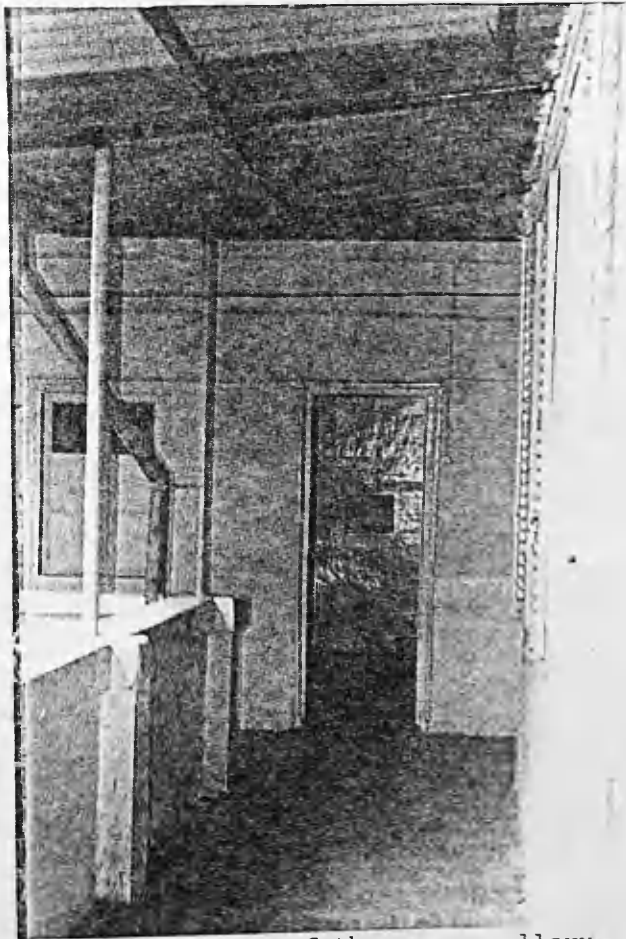


Plate 60b - View of the upper gallery.

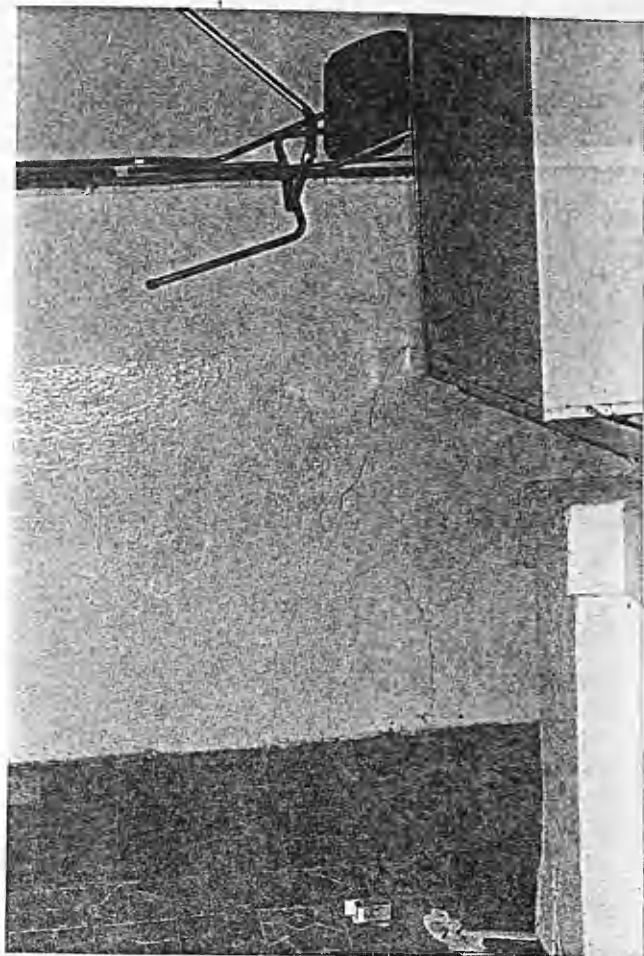


Plate 60c - Upper gallery;
cracks are evident
on the tomb chambe
and on the floor,
caused by the
heavy water tank.

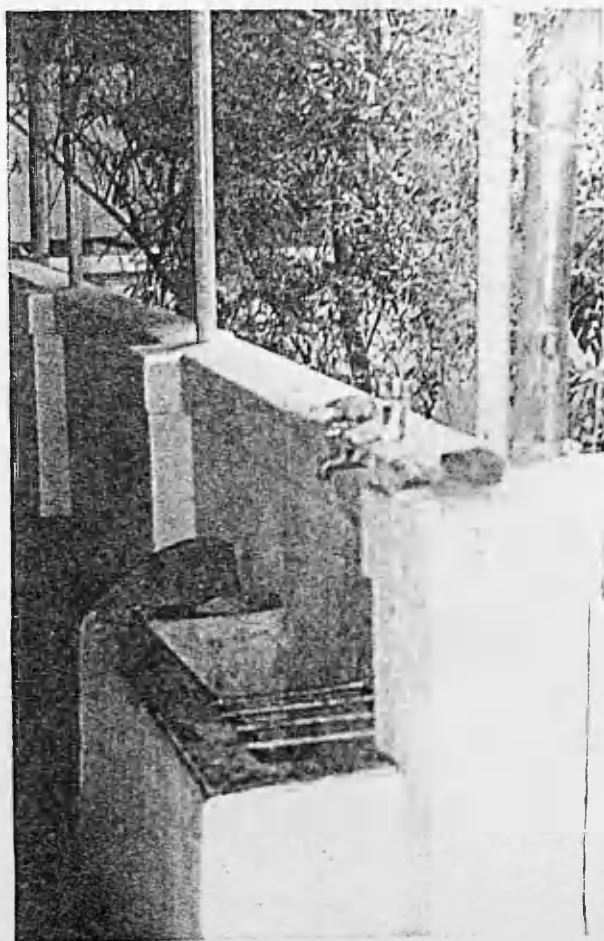


Plate 60d - Upper gallery;
Water trough.



Plate 6Ia - Roman clay tiled roof with an earthenware cap at its apex.



Plate 6Ib - Zin gutters are in poor condition.

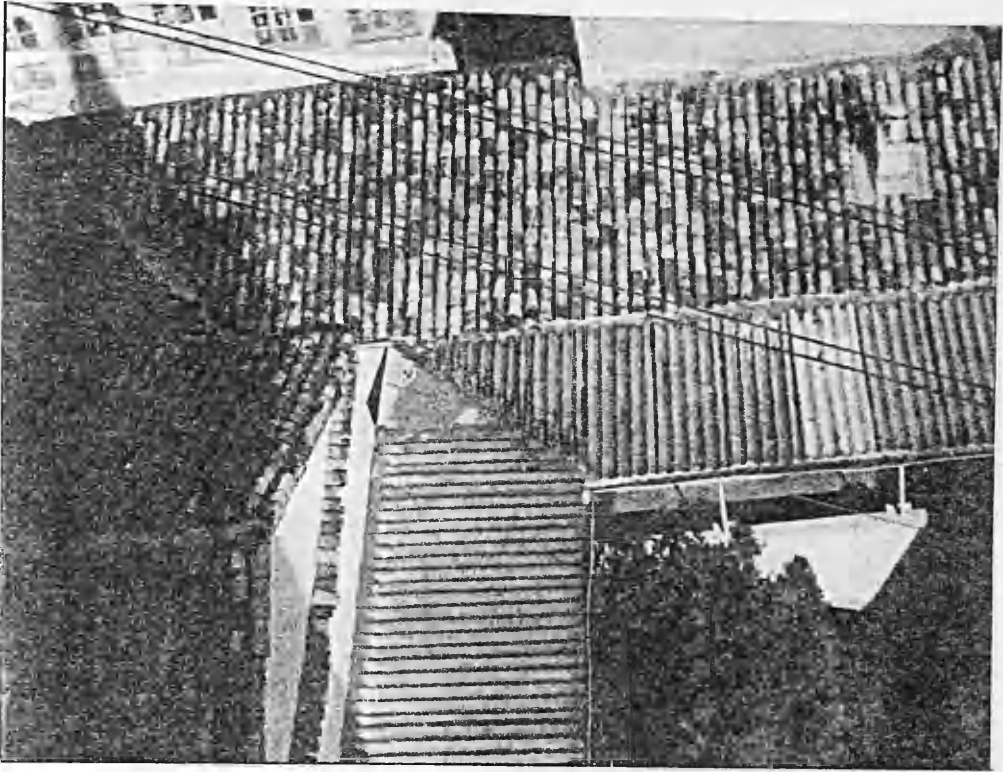


Plate 6Ic - Roman clay tiles.
(north roof).

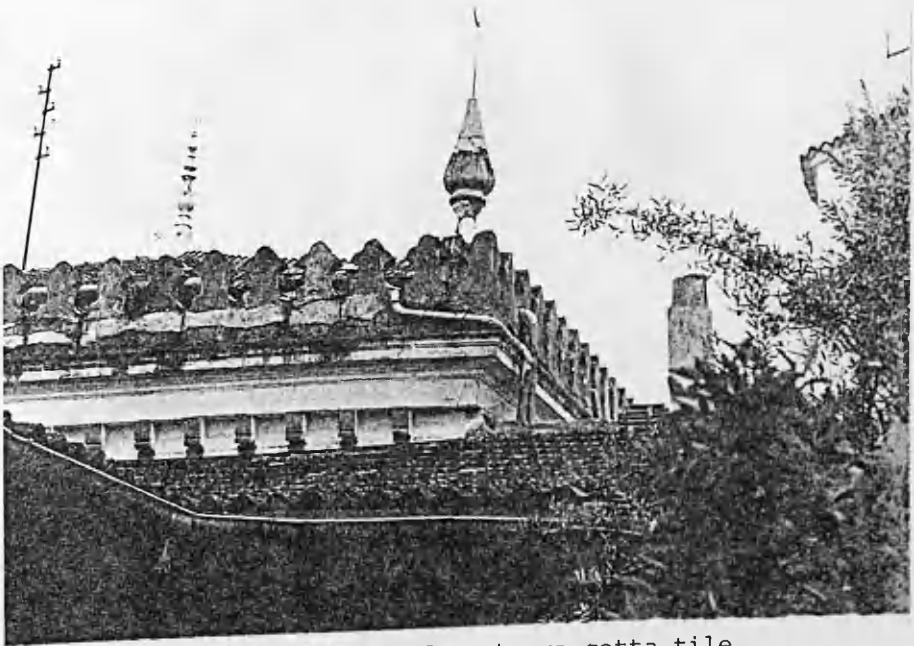
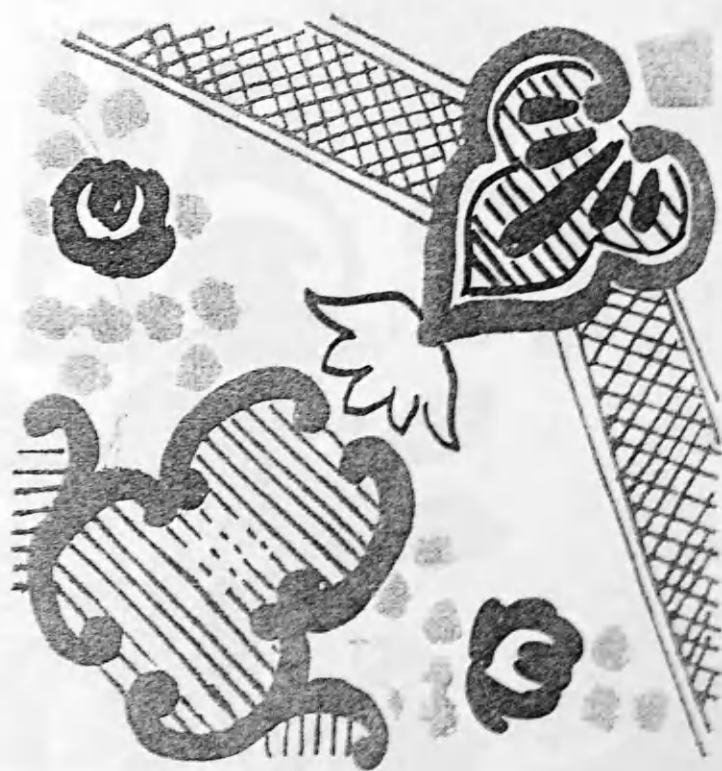
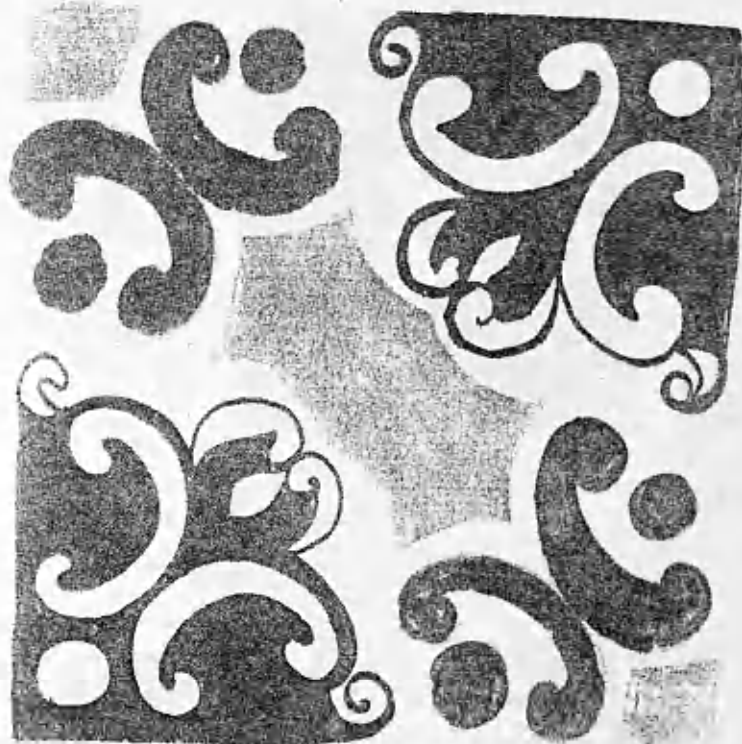


Plate 6Id - Modern terra-cotta tile
(south roof)

DIFFERENT TILES FOUND IN THE MADRASA



Vestibule



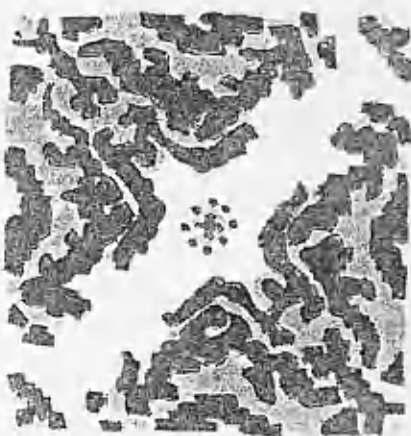
Mihrab



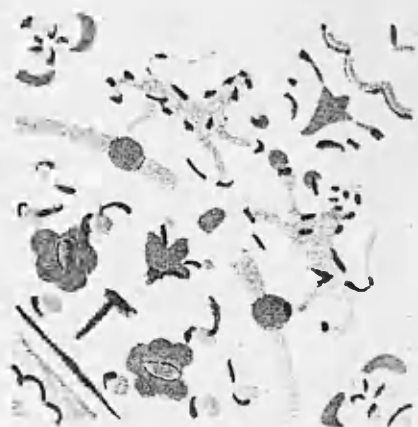
Tomb chamber



North corridor



South corridor



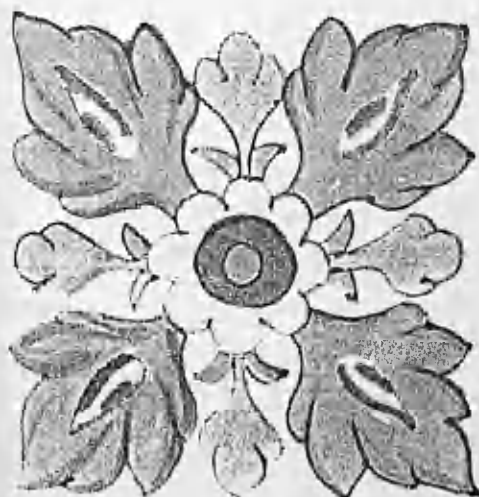
East gallery



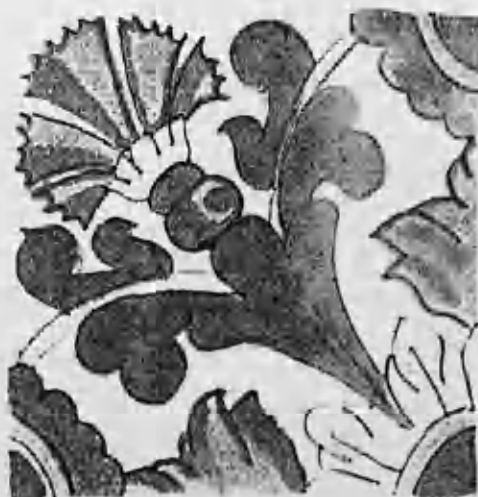
Tomb chamber



Mihrab



Tomb chamber



Tomb chamber

CHAPTER VI

SUGGESTIONS FOR RESTORATION AND REPAIR

- 1 - Walls
- 2 - Cracks
- 3 - Floors
- 4 - Roof
- 5 - Doors and windows
- 6 - Balustrades
- 7 - Miscellaneous

Suggestions for restoration and repair

1 - Walls

Main facade

Fine cracks in the facade are considered to be the result of initial settlement. They could be pointed with mortar to prevent rainwater penetration.

Disfiguring metal flues which have caused some damage to the stonework and to the moulding under the window sills should be removed and the holes repaired with new stone to match the existing. The damaged moulding are to be repaired with stucco to match the existing.

Missing tiles around two windows in the north part of the facade and two windows in the south part and on the parapet wall are to be replaced to match the existing. Iron fixings of the tiles on the elevation are to be removed and replaced with non-ferrous metals.

All vertical joints in the parapet wall are to be pointed with lime mortar and finished slightly recessed from the face of stonework.

The two stone finials missing at either end of the facade are to be replaced to match the existing finials.

The missing window frame at ground floor level is to be replaced to match the existing windows. The damaged window and shutter of the middle window at upper floor level is to be reinstated.

Internal walls.

Apart from the major problem of rising damp in the two original spaces (the prayer hall and the tomb chamber) all internal walls appear to be in sound condition.

Rising damp in the interior of the prayer hall and the tomb chamber has caused major problems in the lower part of the walls. Plaster is stained and efflorescence is evidently causing damage to the tiles which are cracking under the action of chemicals and salts. In the south wall of the prayer hall and the west wall of the tomb chamber dampness has reached a considerable height (see plate 54 and 55). The mortar has perished and tiles have become loose and detached from the walls.

In order to prevent the recurrence of this problem, it is necessary to remove the source of damp. All tiles are to be carefully removed from the wall, to be cleaned and set aside in order to be replaced once the work is completed. The plaster should be stripped out and the wall left to dry out. The efflorescent salts should be brushed off and new lime plaster reinstalled. A continuous damp-proof course around the lower part of the prayer hall and tomb chamber (both built of clay brick) is to be inserted. This can be achieved by silicone injection.

Damaged or missing tiles are to be replaced with new ones produced in the traditional manner to match the existing. They are to be correctly bedded with mortar joints exactly matching the original.

2. Crack in arcade.

A crack in the south arch of the west arcade appears to be the result of the weight of a water tank above coupled with the failure of a tie arch in the corner which was presumably removed during the French restoration of the madrasa. This has caused a crack at the head of the arch, which has widened to about 2 cm. The water tank (which seems to be the major cause of the damage) and the heavy concrete balustrade around the gallery should be removed.

Structural analysis is to be carried out to help determine the causes of the crack and what remedial work might be required. As a first action, a pattern of tell-tales should be fixed across the crack and kept under observation in order to establish whether structural movement is active or not.

If the tell-tales and structural analysis reveal that movement is continuing, the remedy may be found in careful underpinning so that the loads from the arch to the columns are spread over a wider area, thus reducing local pressure. On the other hand, if the movement proves to have ceased, the remedy may be simpler. The crack should be cleaned, wetted and grouted with lime mortar so to make it weathertight.

3. Floors

Almost all the floor cladding is worn and in very poor condition and should be replaced. The boarding of the first floor should be checked.

Two kinds of floor cladding have been chosen: red tiles (20 x 20cm) for internal rooms; and for the arcade floor red clay bricks

similar to those in the corridor leading to rooms 1:9 and 1:10. The gallery at the first floor level, currently paved with bricks in poor condition, should be paved with red tiles in order to reduce the load on the arcade (see fig 19).

The decision to opt for this cladding is inspired by the original cladding found in the prayer hall (red tiles 20 x 20cm) and in the arcade (red clay bricks).

4. Roof

From the general external survey, the roof tiles, whether Roman clay tiles or modern terracotta tiles, seem to be in good repair and show very few signs of damage. Some minor repairs are required, consisting mainly of fixing loose and dislodged tiles and replacing missing ones.

However, the major problems of the roof are a defective parapet gutter, a cracked valley gutter and a defective flashing against the wall of the mosque.

The perished lead gutter behind the parapet on the facade and the fractured north valley gutter should be replaced in lead.

The vertical abutment against the mosque wall should be provided with a lead flashing, upstands not less than 150mm high protected with cover flashing back 25mm over outer face.

All zinc gutters are to be replaced. A new gutter is to be provided for the roof at the south-west corner of the building. The zinc gutter draining the present asbestos roof over the upper floor gallery is to be replaced with the construction of a new gallery roof (see fig 23).

5. Doors and windows.

Two original doors with distinctive fretwork are a feature of the madrasa. The only defect affecting the two doors is that they have been covered by so many layers of gloss paint that the mouldings have become blurred. One of the two doors (in Room: 1:1) has its middle rail damaged due to morticing to take locks of various type (see plate 51b). When repairing these doors it may be necessary to take them down from their frame and remove the door furniture. After a dry scraping to remove the top layers of paint, the undercoats should be softened with a suitable paint solvent care being taken to identify and preserve any original paint or varnish. The doors are to be covered with a very thin coat of shellac sealer to make them waterproof, before finishing them by waxing with a prepared beeswax polish and the door furniture cleaned and replaced.

All windows in the madrasa are recent insertions; no original windows survive. They are of different shapes, sizes and patterns of panes. They should be replaced with new windows (see fig 22 based on the design and construction of traditional windows found in contemporary building such as the palace of Salah Bey.

The same remark is true of the doors, so a design for new doors is proposed (see fig 21) incorporating elements from the original doors.

6. Balustrade.

The heavy concrete balustrade around the gallery should be removed along with the water trough at the south east corner of the gallery.

The design of a new replacement balustrade (see fig 20) has been inspired by an old print of the interior of the madrasa showing the original balustrade in the west arcade (see plate 59a). The design incorporates turned wooden elements connected by wooden dowels. The balustrade is to be fixed to new columns designed to carry a new roof around the gallery.

The new balustrade in front of the tomb chamber consists of only one row of balusters because of the reduced height between the raised floor and the capitals of the columns. It is to be fixed to the floor and to the columns (see fig 26).

7. Miscellaneous

Concrete coating of the marble column in the tomb chamber, shown not to be original by the old print, should be removed.

The floors and walls of rooms 1:9 and 1:10, the tomb chamber and the courtyard should be cleaned.

Proposal for Conversion.

The madrasa, although it has always been in use, has been neglected since it ceased to serve its original purpose. Unlike the adjoining mosque dating from the same period, which has been relatively well maintained by the Ministry of Religious Affairs, the madrasa has lost the income generated by an endowment given by Salah Bey for its maintenance and upkeep. Since the arrival of the French this way of financing such public institutions has perished, for all the endowed properties were declared state property. Thus the deterioration started at the time of the abolition of endowment properties. The madrasa almost fell into ruin. The subsequent restoration of the building by the French, although it saved the two principal spaces (the prayer hall and the tomb chamber) and the gallery with its colonnade, none the less disfigured the original layout and use of the rest of the building.

From its original use as a school of religious higher education, the madrasa was used for a long time as a primary school before serving several municipal services (the last one being the "Police d'Hygiene").

During the survey of the building, in December 1987 and January 1988, the madrasa was empty, waiting for a new use. Speculation about its future use at that time ranged from a school of art to offices for the "Bureau de Restauration de Constantine" (service of the Ministry of Culture.)

Since the building has outlived its original purpose, which no longer exists since religious higher education is given at Constantine Islamic University, a new use needs to be found for it.

Both the Bureau de Restauration (BEREC) and the "Association pour la Sauvegarde de la medina" (ASM) are seeking a suitable home, and since the former (BEREC) is at present badly housed in the Ahmed Bey Palace, and the latter (ASM) is a newborn voluntary body with no convenient meeting place, my scheme proposes the conversion of the building into headquarters for the Bureau de Restauration including a meeting place for the Association pour la Sauvegarde de la Medina.

Since the madrasa has been used for several years as offices, the proposed conversion conforms with its most recent use. However replanning is judged necessary and requires the removal of some partition walls and the provision of separate lavatories. Internal doors and windows are to be replaced by new ones incorporating traditional elements inspired by the original doors. Room 1:1 is to be used as a reception room and is provided with a desk and chair for a receptionist and seats for visitors. Room 1:2 is to house the service equipment. The second door in the north corridor is to be removed and fitted in the entrance to the south corridor. The prayer hall is to retain its original use, but may be used as a meeting room when required. The ground floor provides 4 offices for 5 working persons, the first floor 8 offices for 17 persons, a secretariat office, a drafting room, a large meeting room and head office. The two original rooms (1:9 and 1:10) at the back of the courtyard are to be converted into darkrooms. The tomb chamber is to be cleaned and opened to visitors, giving them the opportunity to see the interior of the restored building. In this way public awareness of the merits of conservation of historic buildings in the medina may be aroused.

Red floor tiles (20x20cm)
to be laid to match existing

Red floor clay brick
to be laid to match existing.

New concrete floor to
be removed.

Concrete balustrade to
be removed, new wooden
one to be fitted (see
fig 20-24).

Concrete coating to be
removed.

New wooden windows to
be fitted (see fig 22).



GROUND FLOOR PLAN
SHOWING CONDITION
AND REPAIRS.

Figure 19a

Red floor tiles
(20x20cm) to be laid
to match existing

New concrete floor to
be removed.

Concrete balustrade
to be removed, new
wooden one to be fitted
(see fig 20).
2.6

New wooden windows to
be fitted (see fig 22).

Partition to be removed.

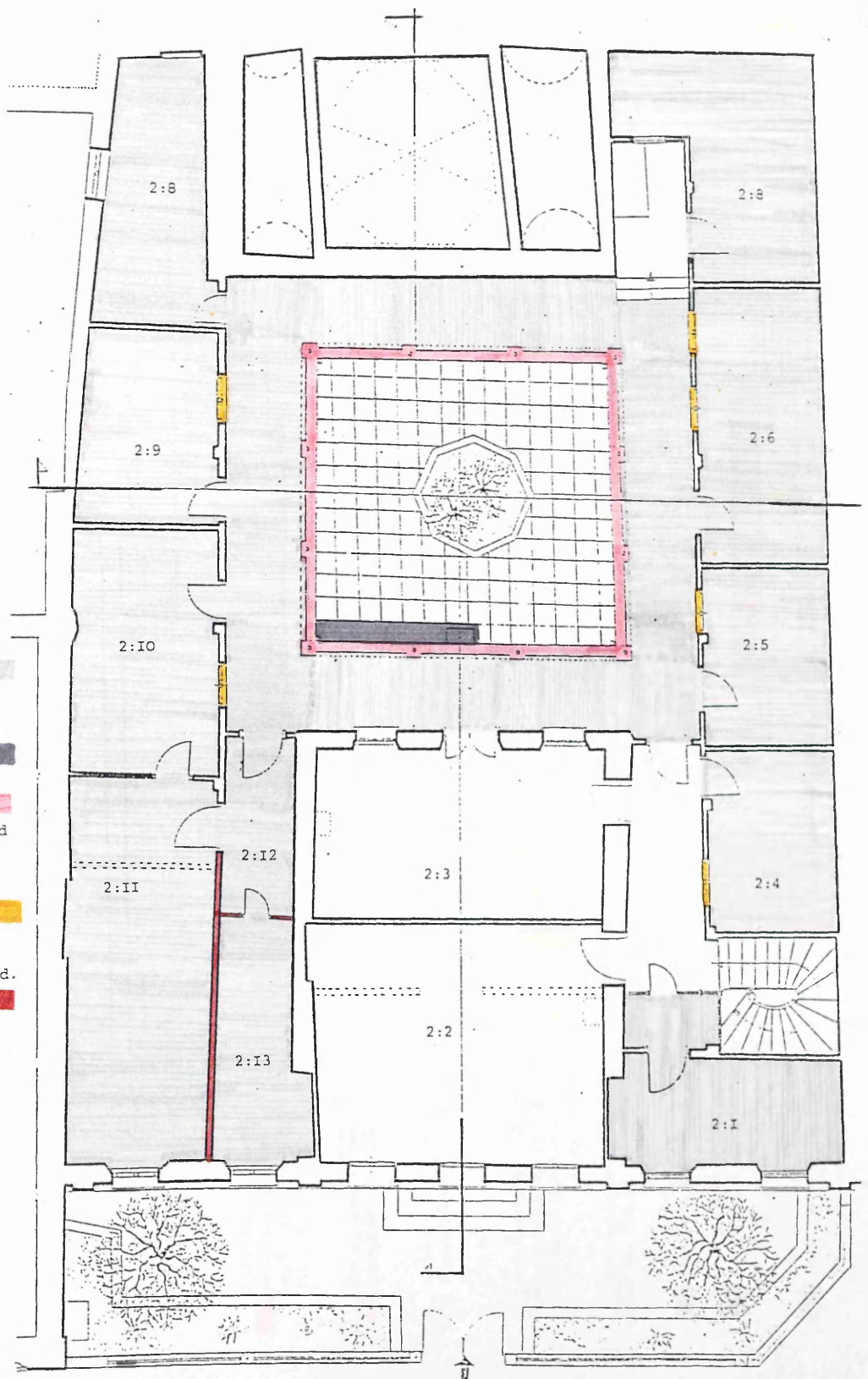


Figure 19b

FIRST FLOOR PLAN
SHOWING CONDITION
AND REPAIRS

Scale

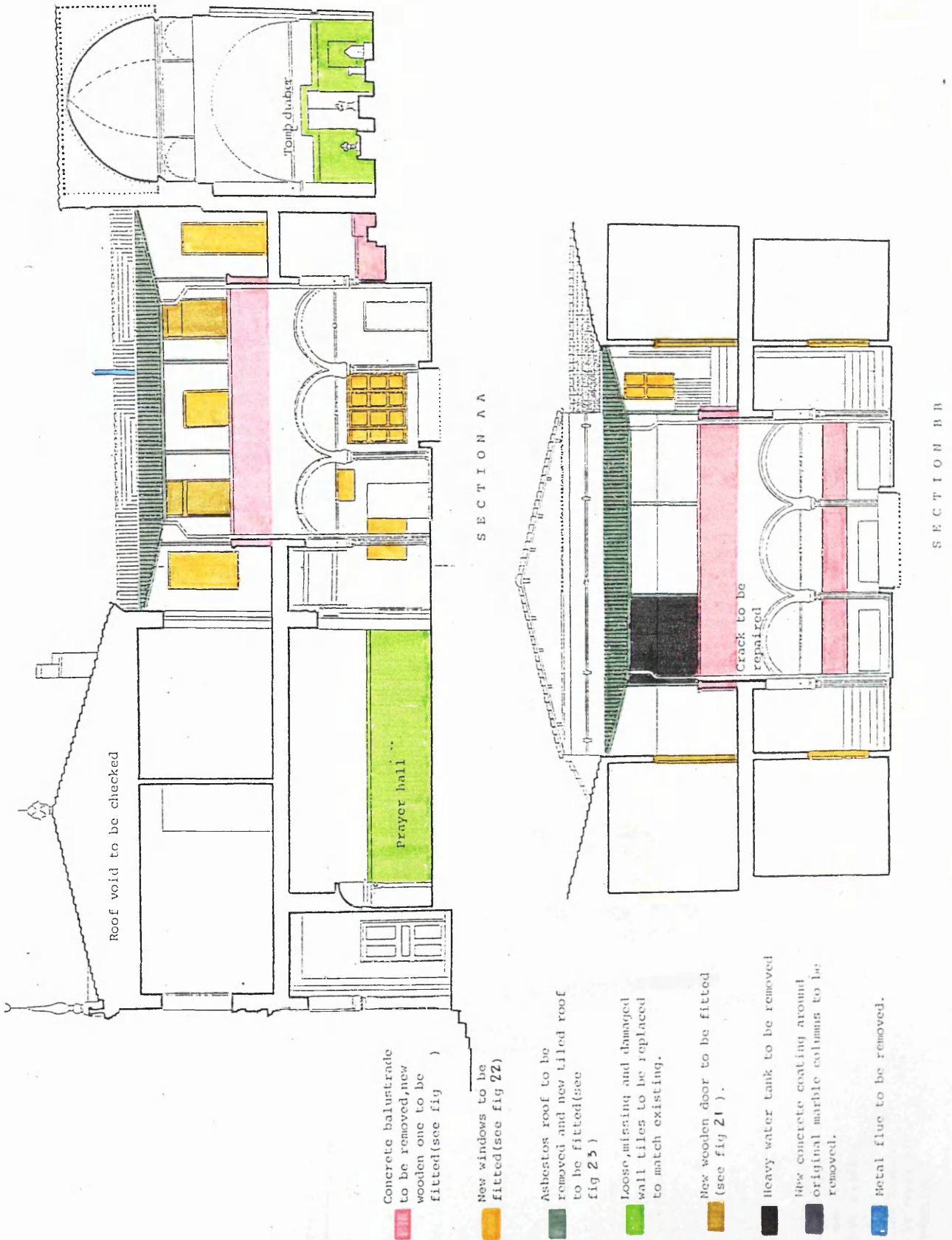


Figure 19c

Abutment with the wall of the mosque to be flashed.

Roof void to be checked.

Heavy water tank to be removed.

Crack in the arch to be repaired.

Tomb chamber to be cleaned.

Rooms to be cleaned.



Missing stone lintel to be replaced to match the existing.

Missing tiles around windows to be replaced to match existing.

Lead gutter in poor condition to be renewed

Damaged window top frame to be repaired

New window to be fitted (see fig 1).

New door to be fitted (see fig 2).

Red floor tiles (20x20cm) to be laid to match existing.

Red floor clay brick to be laid to match existing.

New concrete floor to be removed.

Concrete balustrade to be removed. New wooden one fitted (see fig 20).

Concrete coating to be removed around original marble columns.

Asbestos roof to be removed and new roof to be laid (see fig 23).

Loose, missing and damaged wall tiles to be replaced to match the existing.

AXONOMETRIC PROJECTION
SHOWING CONDITION AND
REPAIRS.

Figure 19d

PROPOSED UPPER BALUSTRADE

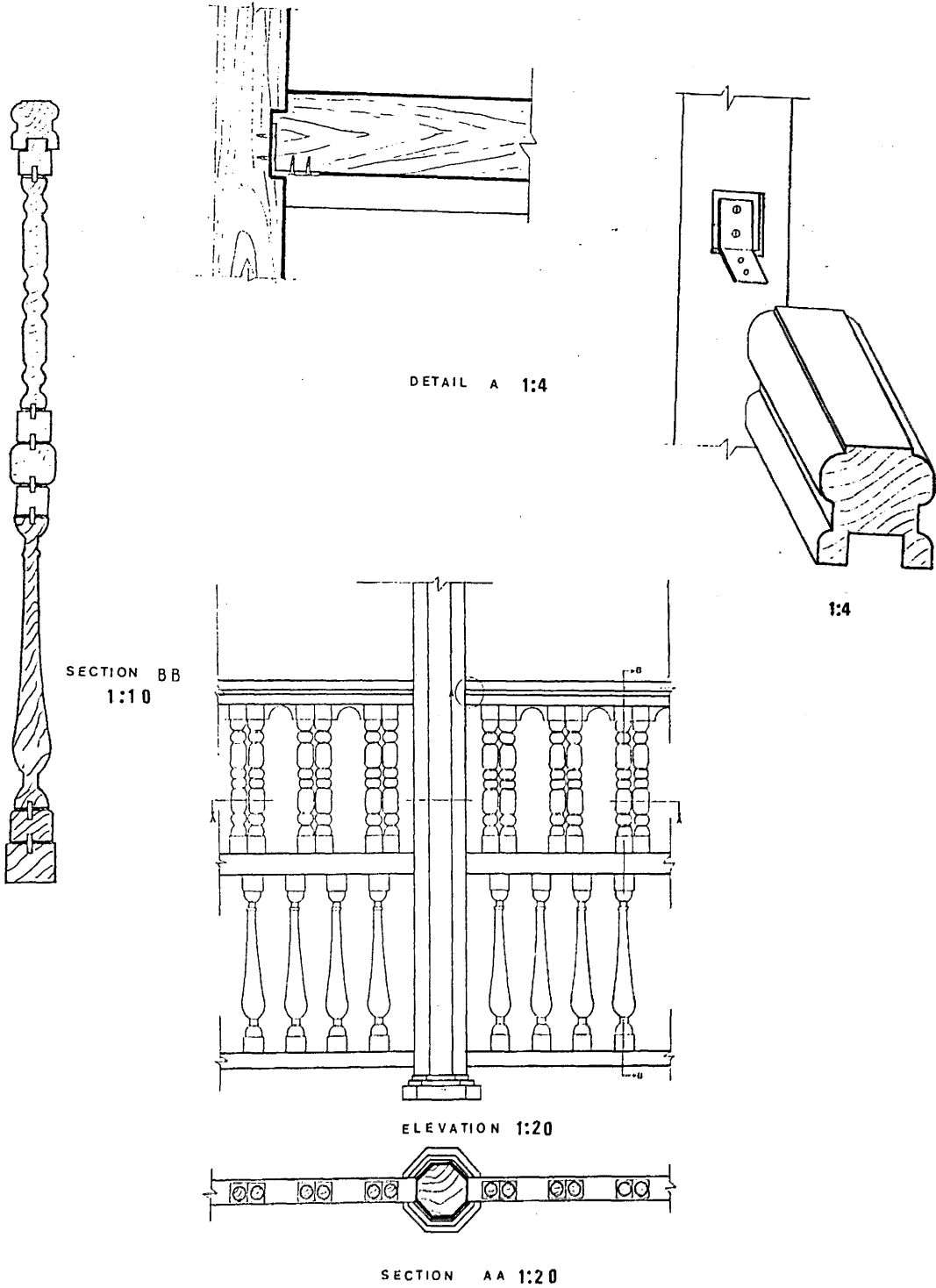
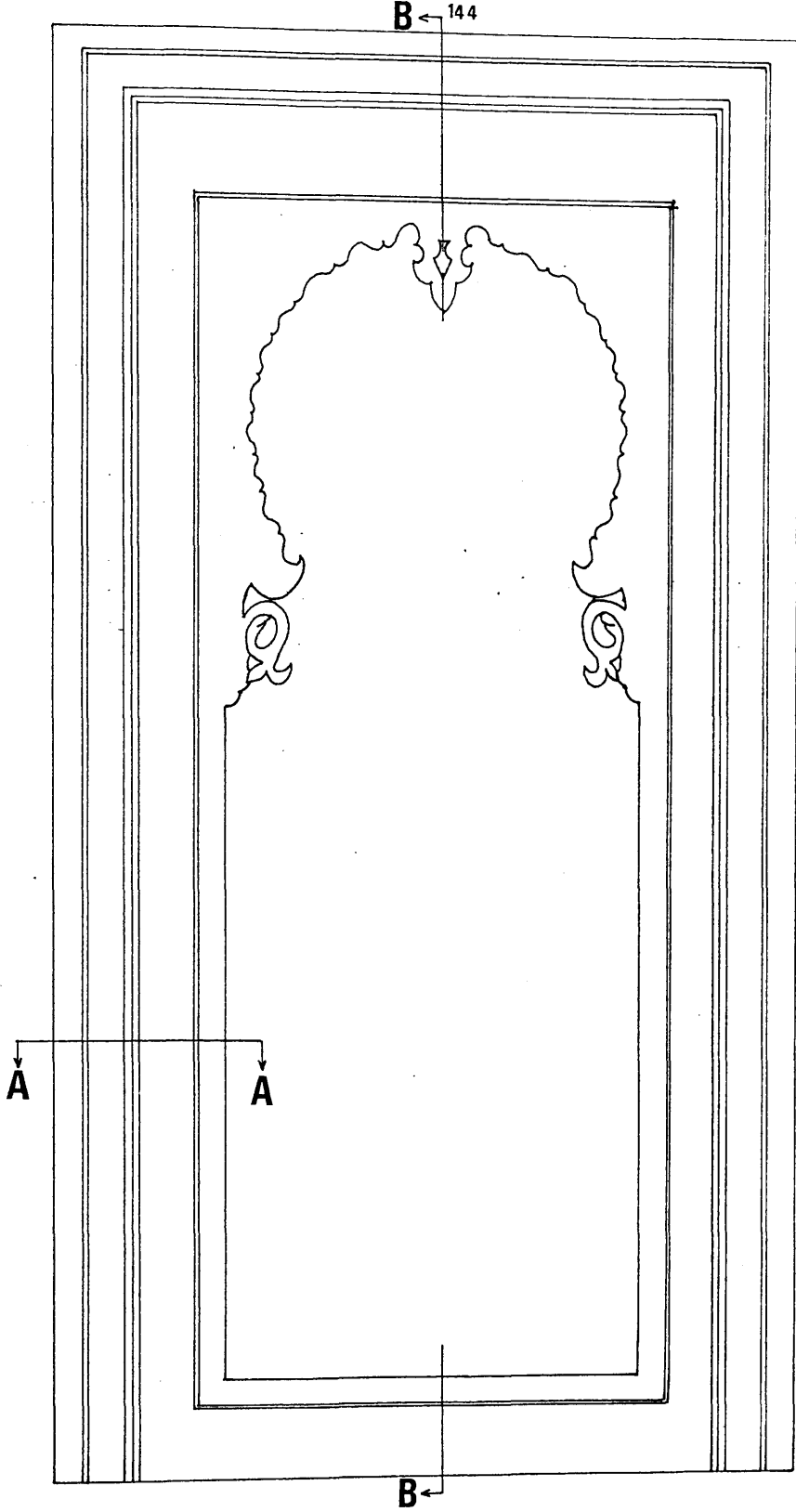
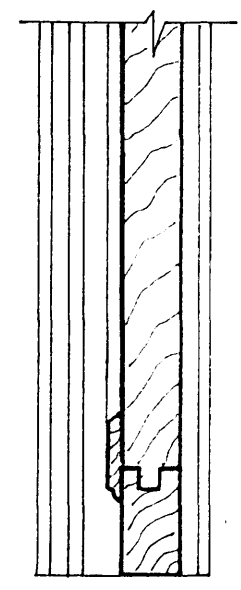
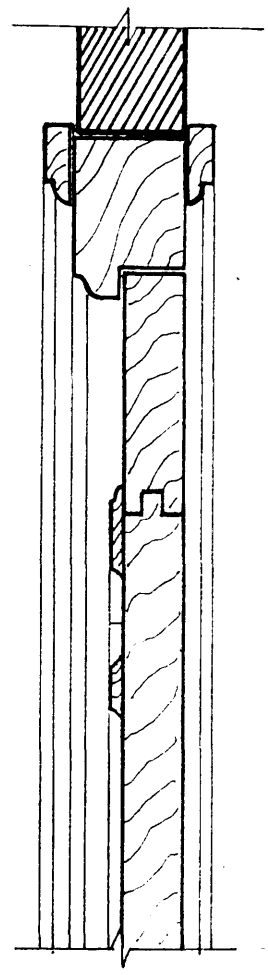


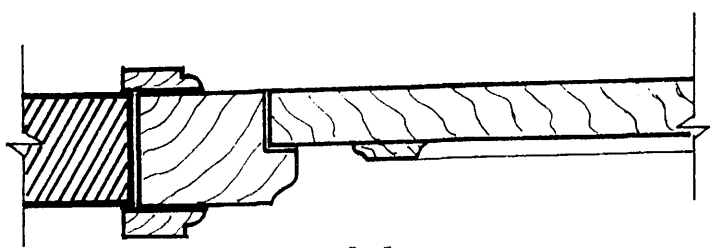
Figure 20



ELEVATION 1:10



BB 1:5



AA 1:5

PROPOSED
DOOR

Figure 21

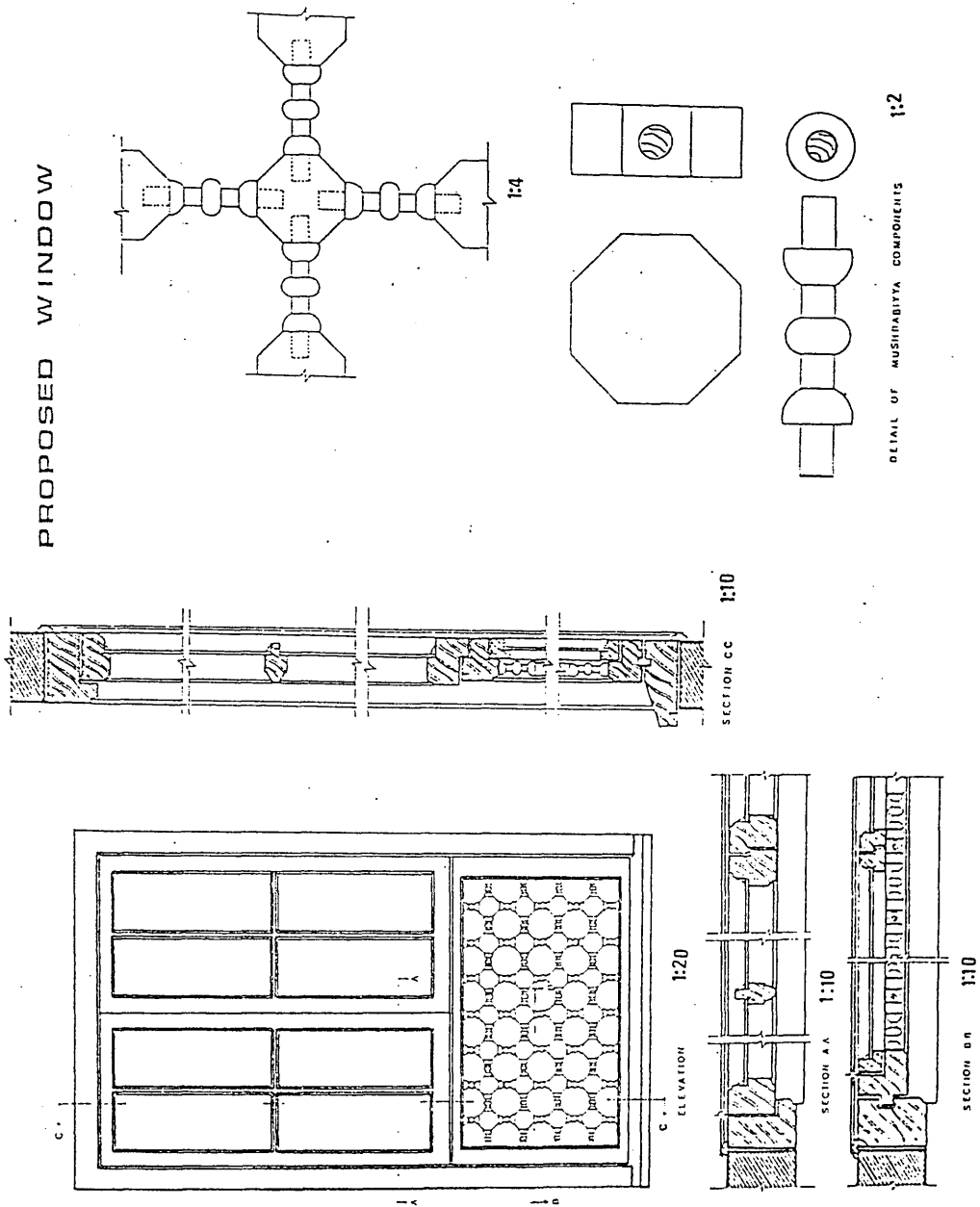


Figure 22 -Proposed window.

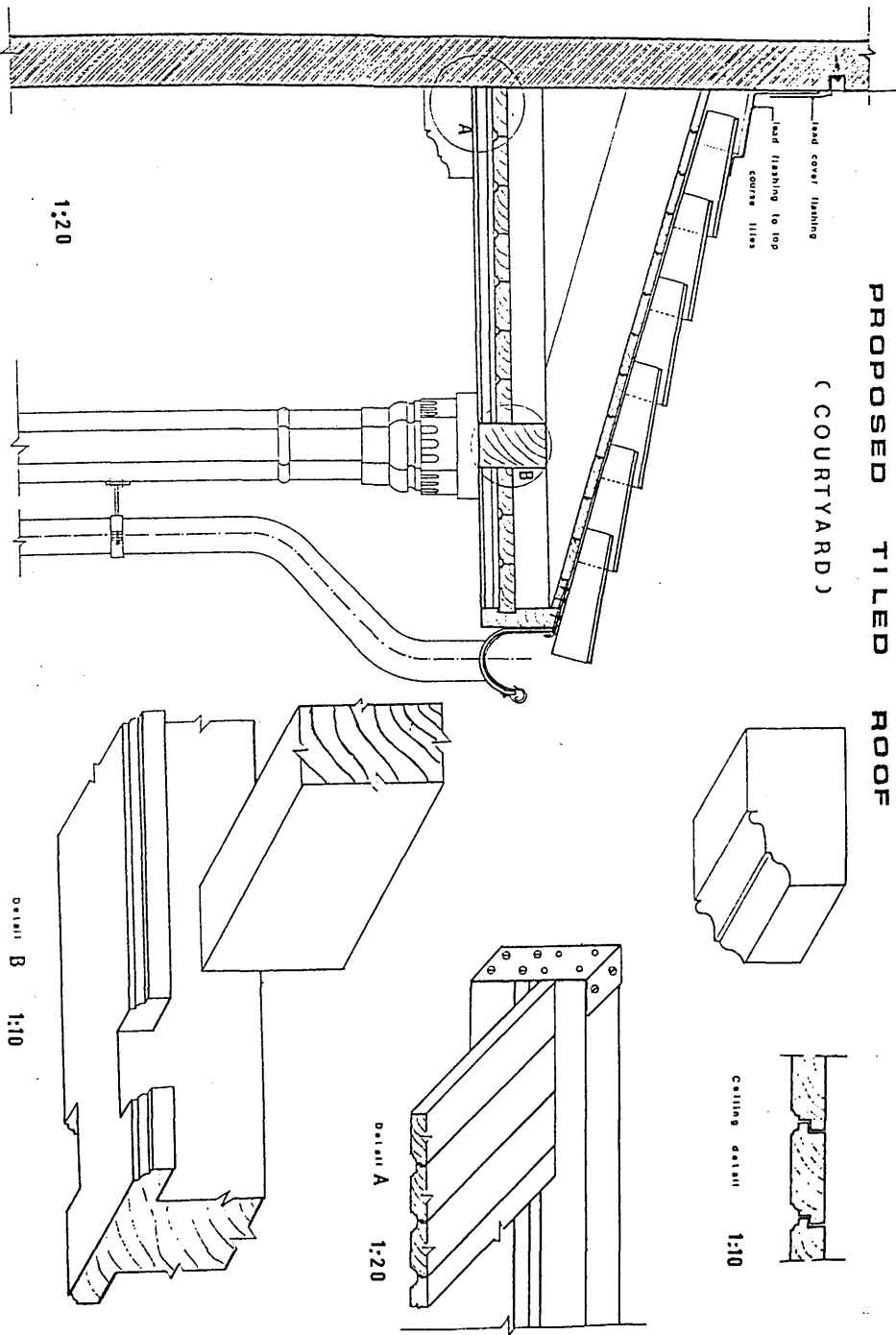
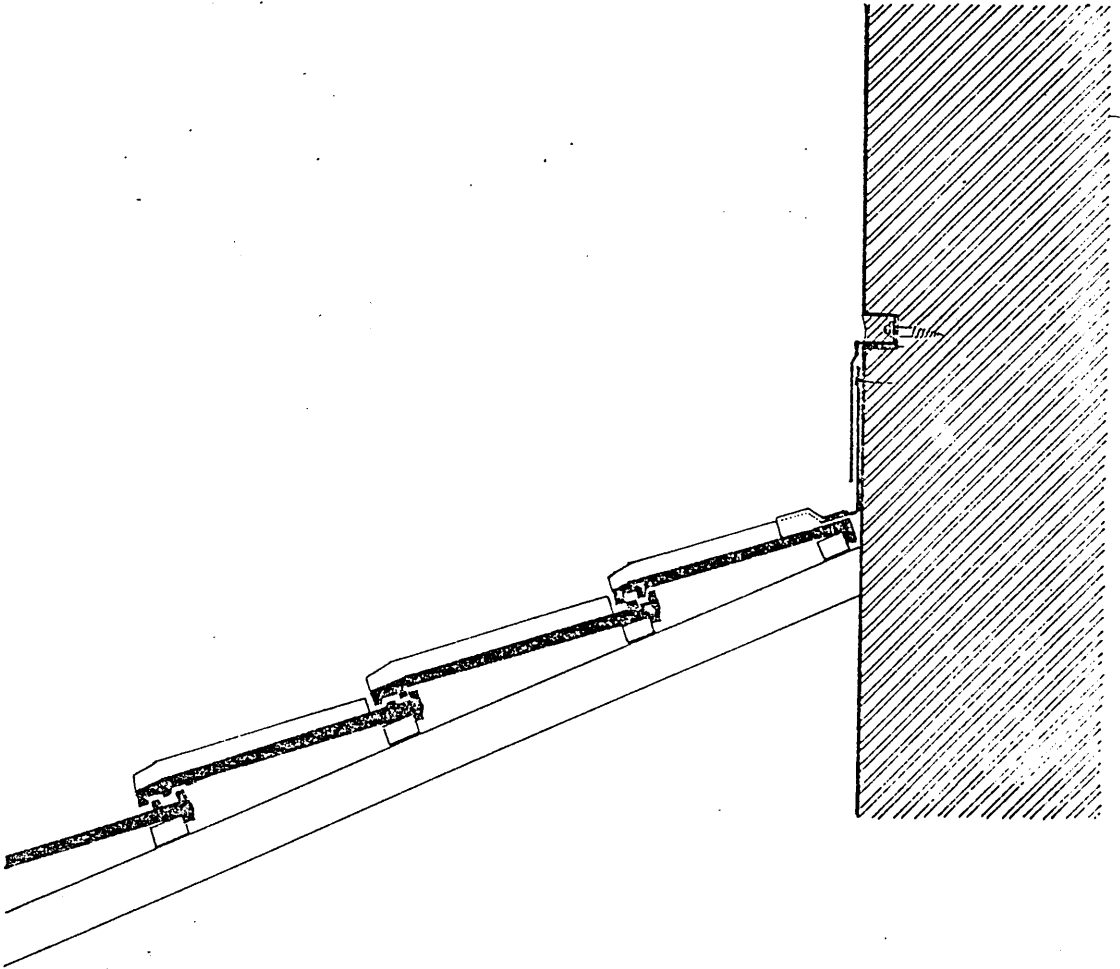


FIG.23

ABUTMENT DETAIL



1:10

Figure 24

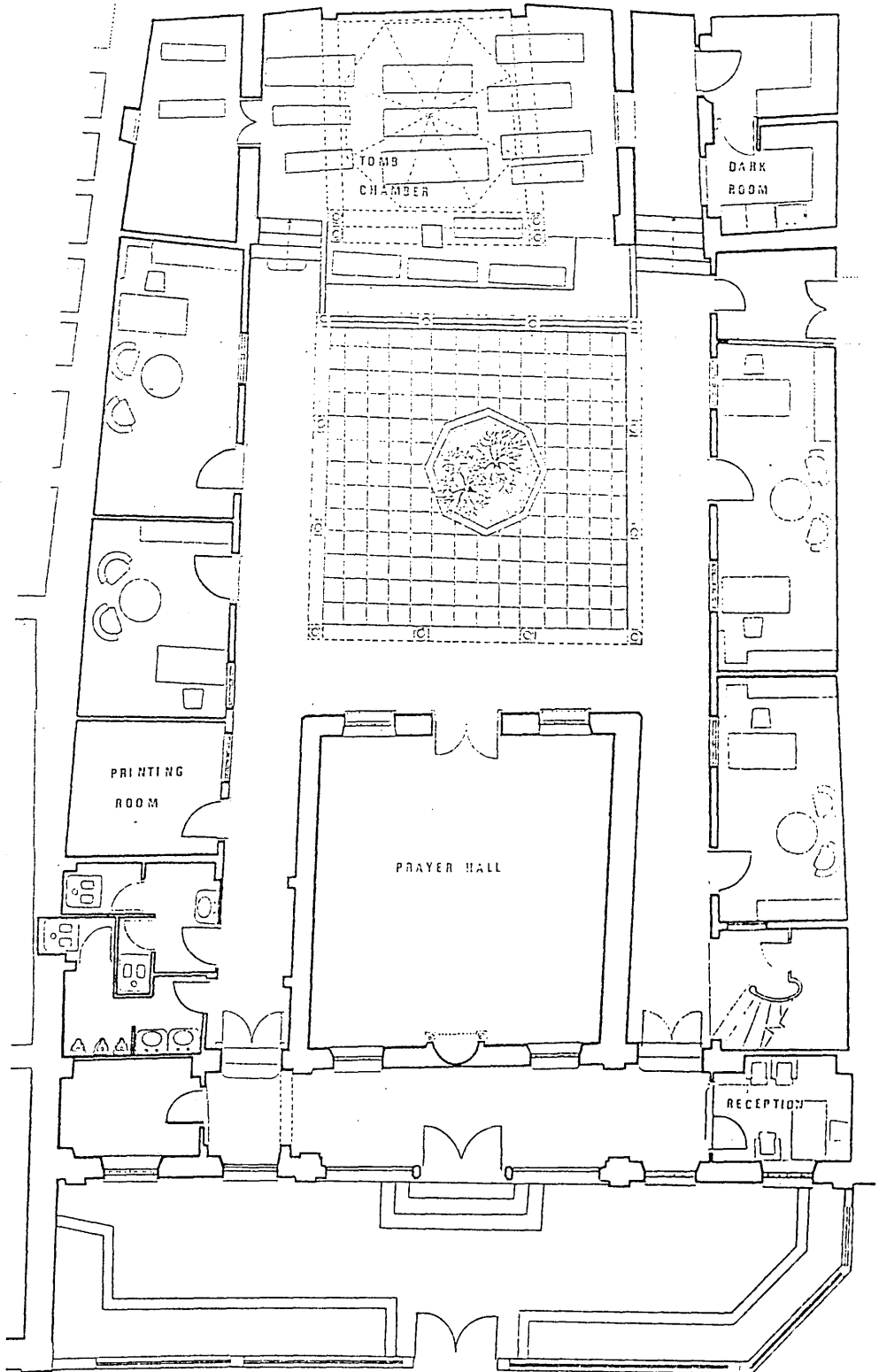


Figure 25a - Conversion ground floor plan.

0 1 4m

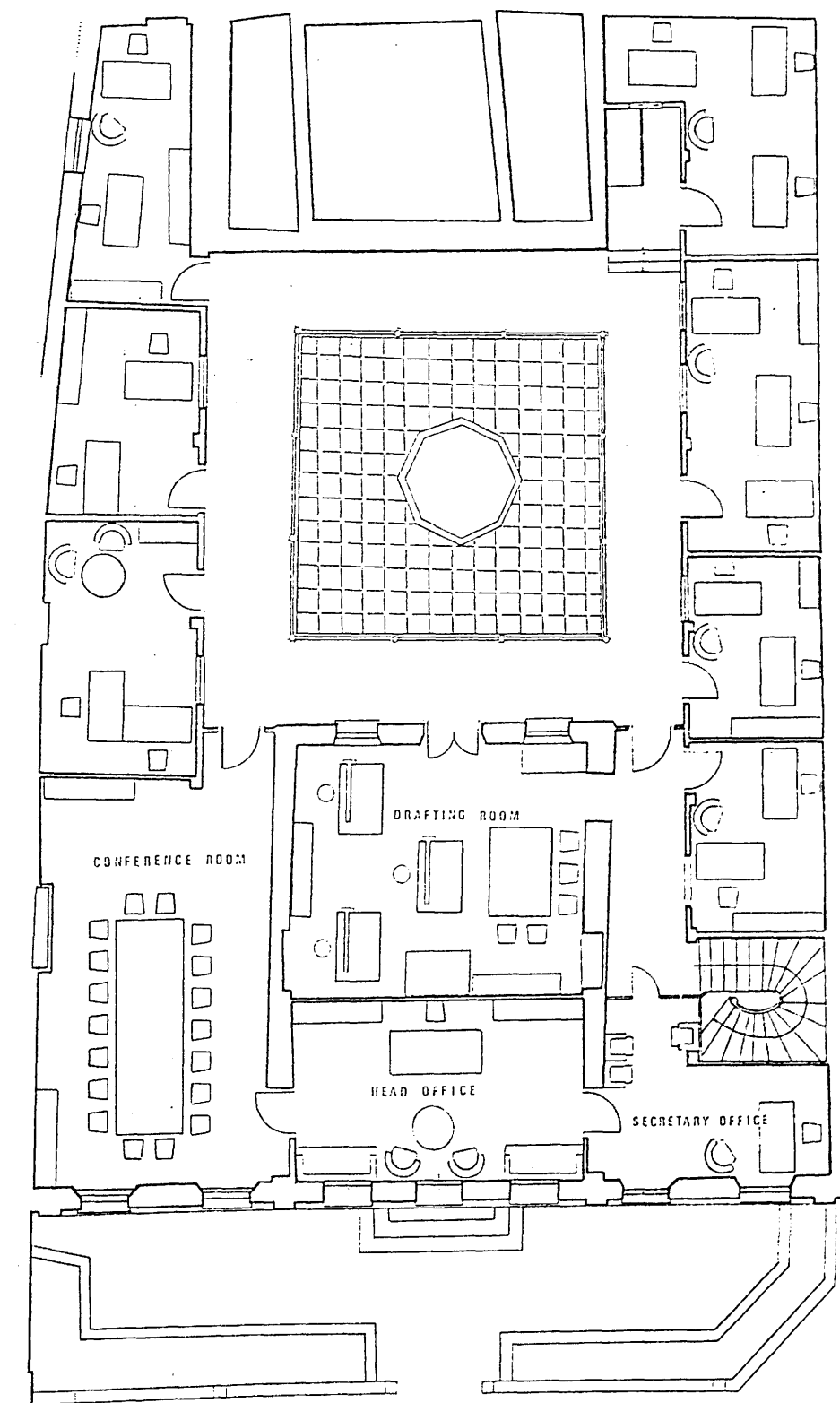


Figure 25b:conversion
first floor

PROPOSED BALUSTRADE (TOMB CHAMBER)

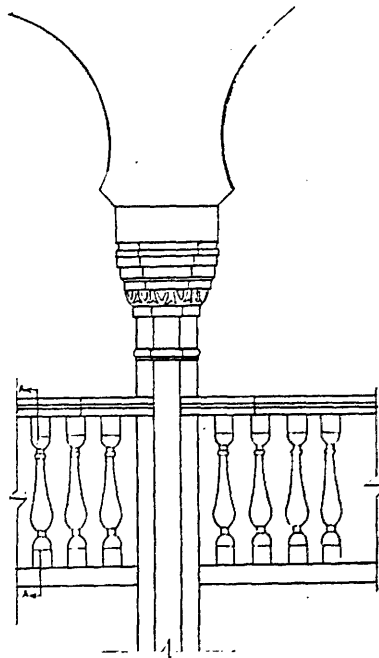
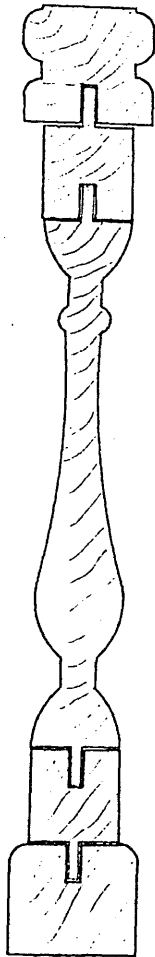
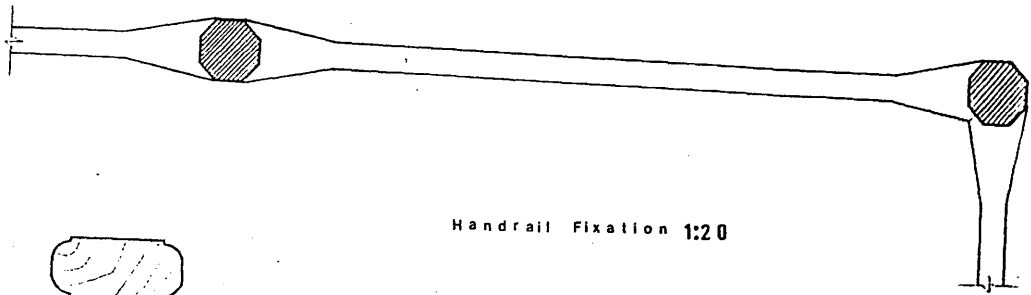


Figure 26

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ANNEXE - I.

Légende relative au classement des monuments historiques
(Epoque et civilisation)

MG : Mégalithique
 PH : Préhistorique
 AN : Antique
 IS : Musulmane
 MD : Divers

LISTE DES SITES ET MONUMENTS HISTORIQUES
 CLASSES A LA DATE DU 20 DECEMBRE 1967
 CONFORMEMENT A L'ARTICLE 23 DE L'ORDONNANCE
 N° 67-281 DU 20 DECEMBRE 1967.

DEPARTEMENT D'ALGER

COMMUNES	Arrondissements		DESIGNATION	DATE du classement
Ain Benian (ex Guyotville)	Alger-Sahel Chéraga	MG	Tombeaux mégalithiques sur le plateau de Beni Messous.	Liste 1900
Alger	Alger	MG. 1	Dolmens, Bologuine Ibnou Ziri (ex-Saint Eugène).	Liste 1900
		AN. 2	Inscription romaine gravée sur une pierre encastrée dans la façade d'un immeuble situé rue Bab Azzouar à l'angle de la rue Caftan.	23 août 1900
		AN. 3	Vestiges des fortifications dites du « Bastion XI ».	8 sept. 1930
		IS. 4	Mosquée Ketchaoua (ex-cathédrale).	26 mars 1908
		IS. 5	Mosquée Ali Bitchin (ex-église N.D. des Victoires).	29 avril 1949
		IS. 6	Grande Mosquée « Djamaâ El Kébir ».	30 mars 1837
		IS. 7	Mosquée « Djamaâ-El-Djedid (Pêcherie).	30 mars 1837
		IS. 8	Mosquée Abderrahmane El Taâlibi.	30 mars 1837
		IS. 9	Mosquée Sidi Ramdan.	26 fév. 1904
		IS. 10	Mosquée Djamaâ Safir.	13 mai 1905
		IS. 11	Mosquée Mohamed Chérif.	13 mai 1905
		IS. 12	Mosquée et marabouts dit « de Sidi Medjoub ».	17 Déc. 1951
		IS. 13	Marabout du jardin « Marengo », connu sous le nom de tombeau de la reine.	13 mai 1905
		IS. 14	Marabout à coupole Hassen Pacha dit « Ben Ali » situé rue du même nom.	13 mai 1905
		IS. 15	Groupe de maisons mauresques (bastion 23) ex-rue du 14 juin.	30 oct. 1905
		IS. 16	Dar El Souf (ex cour d'assises).	12 fév. 1837
		IS. 17	Maison du Khaznadji (ex archevêché).	12 fév. 1837
		IS. 18	Dar Mustapha Pacha (ex-bibliothèque nationale).	
		IS. 19	Kasbah (forteresse).	30 mars 1837
		IS. 20	Porte turque de l'arsenal.	Liste 1900
		IS. 21	Porte de Penon.	17 fév. 1905
		IS. 22	Fontaine de la cale aux vins.	13 mai 1905
		IS. 23	Fontaine de l'amirauté.	13 mai 1905
		IS. 24	Fontaine arabe et marabout au Hamma, dit « les platanes » au jardin d'Essai.	20 fév. 1911
		IS. 25	Citadelle du fort l'Empereur. (El Biar).	24 nov. 1950
		IS. 26	Villa Abdel Tif.	29 sept 1923
		IS. 27	Villa des arcades	31 juill. 1945
		IS. 28	Villa Mahieddine.	26 avril 1927
		IS. 29	Bordj Pagnac (Bouzaréa).	4 oct. 1948
	Dar El Beldja	IS.	Fort ture (du Cap Matifou).	Liste 1900
	Blida	AN.	Mausolée royal dit « Tombeau de la Chrétienne ».	Liste 1900

DEPARTEMENT D'ALGER (suite)

COMMUNES	Arrondissements		DESIGNATION
Staouéli	Alger-Sahel	AN.	Extrémité Nord-Ouest de la presqu'île de Sidi Frej (a. militaire) contenant des ruines romaines.
Tipasa	Blida	AN. 1	Château d'eau.
		AN. 2	Remparts romain et cimetière punique.
		AN. 3	Restes du théâtre.
		AN. 4	Restes d'une basilique et cimetière.
		AN. 5	Ruines d'un prétoire.
		AN. 6	Sarcophages et fragments antiques.

DEPARTEMENT D'ANNABA (Ex Bône)

Annaba	Annaba	AN. 1	Citerne d'hippone.
		AN. 2	Ruines d'hippone.
Cherif	Tébessa	PH. 1	Stations-abris de Bir Sedet. Garet Retba.
		PH. 2	Chabet az Siboun.
		PH. 3	Chabet Retba.
		PH. 4	Damou Kermala.
		PH. 5	Fadje Relilal Men art.
		PH. 6	Foum-Relilal Men uebba.
		PH. 7	Merget Sem El Charbi.
		PH. 8	Oued Retem.
		PH. 9	Relilal (Thidjen).
El Kala (Ex El Calle)	El Kala	MD. 1	Eglise de El Kala.
		MD. 2	Ruine du Bastion de France entre El Kala et Annaba.
Guelma	Guelma	AN.	Restes de théâtre et thermes.
Hanench	Souk Ahras	AN.	Restes de citadelles, enceinte byzantine de Thifra, (El de Numidie).
Héliopolis	Guelma	AN.	Piscine romaine Hammam Baris.
MDaourouche (Ex Montesquieu)	El Aouinet (Ex Fontaine)	AN. 1	Ruines du palais byzantin.
		AN. 2	Mausolée romain.
Morsott	El Aouinet	AN.	Ruines antiques.
Sedrata	El Aouinet	AN.	Territoires et monuments de l'antique Thubarsium Numidum (Khamisa).
Sellaoua Announa	Guelma	AN.	Ruines de la ville Thiblis.
Taoura (Ex Gambetta)	Souk Ahras	AN.	Mausolée romain situé sur un terrain domanial dans le des Ouled Souk (Ksar El Annar).
Tébessa	Tébessa	AN. 1	Temple romain de Tébessa-Khalla.
		AN. 2	Tour du Djebel Mastiri.
		AN. 3	Territoires et monuments de l'antique Trevas.

DEPARTEMENT DE L'AURES (Ex-Batna)

COMMUNES	Arrondissements		DESIGNATION	DATE du Classement
Ain Djasser	Marouana (Ex Corneille)	AN.	Territoires et monuments de l'antique Dana - Veteranorum (Zana).	Liste 1900
Ain Yagout	Batna	AN.	Mausolée des rois numides dit « le Medracen ».	Liste 1900
Barika	Barika	AN.	Ruines de la ville antique de Tobna.	21 nov. 1950
Biskra	Biskra	AN. 1	Restes de thermes à Biskra.	Liste 1900
		AN. 2	Ruines de Gémelae.	18 juill. 1953
		IS. 3	Porte en bois à la mosquée de Sidi Okba.	Liste 1900
El Kantara	Biskra	AN. 1	Milliaire de Seba-Mgata	25 sept 1933
		AN. 2	Pont romain.	Liste 1900
		AN. 3	Inscription encadrée à la porte du caravansérail (El Outaya).	Liste 1900
		AN. 4	Ruines de l'amphithéâtre (El Outaya).	Liste 1900
Tazoult (Ex-Lambese)	Batna	AN. 1	Arcs de triomphe de Markouna.	Liste 1900
		AN. 2	Territoires et monuments de l'antique Lambesis.	Liste 1900
Timgad	Batna	AN. 1	Territoires et monuments de l'antique Thamugadi.	Liste 1900

DEPARTEMENT DE CONSTANTINE (I)

Constantine	Constantine	MG. 1	Dolmen de Salluste, situé auprès de l'emplacement des anciens jardins de Constantine, à peu de distance de Constantine.	27 sept. 1911
		AN. 2	Aqueduc romain.	Liste 1900
		AN. 3	Fragments antiques et inscription dans la square.	Liste 1900
		AN. 4	Inscriptions des martyrs Saint Jacques et Saint Marien.	Liste 1900
		AN. 5	Mosaïque de Penthesilée découvert aux oueds Agla et actuellement déposée à la préfecture.	18 mars 1954
		AN. 6	Pont romain d'Antonin.	25 juill. 1950
		AN. 7	Tombeau de Praecellus.	Liste 1900
		IS. 8	Mosquée Souk El Ghezal (ex-cathédrale).	27 avril 1903
		IS. 9	Mosquée de Sidi Lakhdar.	5 janv. 1905
		IS. 10	Partie de l'ancienne médersa qui renferme les tombeaux de Salah-Bey et de sa famille.	17 juill. 1913
		IS. 11	Palais Ahmed Bey (ex-Palais de la division).	31 mars 1934
Djemila	Mila	AN.	Territoires et monuments de l'antique Cuccur.	Liste 1900
El Khroub	Constantine	MG. 1	Dolmen et Cromlechs à 35 km du Sud de Constantine, Ras El Aïn, Bou Merzoug, Ouled Rahmoun.	Liste 1900
		MG. 2	Dolmens et cromlechs au lieu dit « Djebel Ksalbi » à 32 km de Constantine, Ouled Rahmoun.	Liste 1900
		MG. 3	Dolmens et cromlechs au lieu dit « Djebel Mazala » à 16 km d'El Khroub Ouled Rahmoun.	Liste 1900
		MG. 4	Mausolée greco-punique appelé « Souma ».	Liste 1900
Mila	Mila	AN.	Ruines de Millev.	23 avril 1910
Id Athménia	Constantine	AN.	Bains de Pompéianus.	Liste 1900
Roknia	Skikda	MG.	Dolmens et grottes funéraires à 12 kms au nord de Hammam Meskhoutine.	Liste 1900
Sigus	Aïn M'Lila	MG.	Dolmens et cromlechs au Sud de Constantine.	Liste 1900
Skikda (Philippeville)	Skikda	AN.	Théâtre romain et fragments d'architecture qu'il renferme.	Liste 1900

DEPARTEMENT D'EL ASNAM (Ex-Orléansville)

COMMUNES	Arrondissements		DESIGNATION
Cherchell	Cherchell	AN. 1	Aqueduc à 5 km de Cherchell.
		AN. 2	Citerne sous la caserne.
		AN. 3	Restes des thermes Ouest et Est.
		AN. 4	Restes de l'amphithéâtre.
		AN. 5	Restes du théâtre romain.
		IS. 6	Chaire construite en l'an 981 de l'hégire dans la mosquée.
El Asnam	El Asnam	AN.	Mosaïque de l'église dite de « St Réparatus ».
Sidi Amar (Ex Zurich)	Ténès	AN.	Aqueduc antique.
Ténès	Ténès	AN. 1	Ruines romaines de la Kalaa des Ouled Abdallah.
		IS. 2	Mosquée du vieux Ténès.

DEPARTEMENT DE MEDEA

Djelfa	Djelfa	MG. 1	Dolmens du Moulin de Djelfa.	1
		MG. 2	Dolmens à droite de la route d'Alger. (Oued Djelfa) à Lachouat.	1
Djouab	Sour El Ghozlane (Ex-Aumale)	AN. 1	Monuments funéraires émergeant du sol de l'ancienne nécropole.	1
		AN. 2	Restes de maison, l'enceinte, de porte à Rapidum.	1
		AN. 3	Territoires et monuments de l'antique Rapidum.	1
Tletat Ed Douair (Ex Arthur)	Ksar El Boukhari (Ex Boghari)	AN.	Site de Benia constituant l'emplacement de l'ancienne d'Yachir à 4 kms au Sud-Ouest de Tletat ed Douair.	20

DEPARTEMENT DE MOSTAGANEM

Bou Hanifla El Hamamat	Mascara	AN. 1	Ruines de l'antique Aquae Sirenses.	21
		IS. 2	Mosquée Djamaâ-E.-Kébir.	25
		IS. 3	Mosquée Ain Beïda	25
		IS. 4	Mosquée au douar d'el Guelna.	29
Oued Rhlou (Ex-Inkermann)	Oued Rhlou	AN.	Ruines de Kaoua	14
Sidi Kada (Ex-Cacherou)	Tighennif	IS. 1	Ruines de la Zouana de « Sidi Mahléddine ».	29
		IS. 2	Bains dits « l'Emir Abdelkader ».	39
		IS. 3	Remparts en terre avec ses créneaux, ruines concernent l'Emir Abdelkader.	29
Tighennif (ex-Pallkao)	Tighennif	PH.	Gisement préhistorique de Ternifina.	23

DEPARTEMENT D'ORAN (I)

Bettlous (Ex-Saint Leu)	Oran	AN. 1	Restes d'une villa romaine.	1
Oran	Oran	PH. 1.	Abri Alain (Oran)	18
		PH. 2	Grotte d'El Cuari.	23
		PH. 3	Mosaïque provenant de Bettlous (ex-Saint-Leu) déposée au Musée Demaeght.	23
		IS. 4	Mosquée Mohamed El Kebir.	24
		IS. 5	Mosquée Mohamed El Maouri.	25
		IS. 6	Mosquée du Pacha.	26
		IS. 7	Minaret du campement.	26
		IS. 8	Minaret de la mosquée du Pacha.	26

OAN (suite)

rondissements		DESIGNATION	DATE du classement
Oran	IS. 9	Hôtel de la division.	23 juill. 1952
	IS. 10	Caravansérail.	19 janv. 1952
	IS. 11	Pavillon de la favorita.	23 juill. 1952
	IS. 12	Maison du Bey.	23 fév. 1954
	IS. 13	Porte espagnole du château dite « porte d'Espagne ».	29 déc. 1903
	IS. 14	Porte de la manutention militaire.	26 nov. 1907
	MD. 15	Ecusson espagnol sculpté sur l'extérieur du mur d'enceinte du château neuf.	23 juill. 1952
	MD. 16	Tambour de San José.	2 janv. 1952
	MD. 17	Eglise Saint Louis.	2 janv. 1952
	MD. 18	Fontaine de la place Emerat.	2 janv. 1952
	MD. 19	Porte du Santon.	6 août 1953
	MD. 20	Porte de Canastel.	2 janv. 1952
	MD. 21	Porte d'entrée du château neuf.	23 juill. 1952
	MD. 22	Façade espagnole.	23 fév. 1954
	MD. 23	Chapelle de Santa-Cruz.	6 oct. 1950
	MD. 24	Inscription de la rue du Vieux Château.	21 oct. 1952
	MD. 25	Echauguette d'angle du mur d'enceinte du château Neuf.	23 juill. 1952

OASIS, DE LA SAHOURA ET DE SAIDA :

Aïn Sefra	PH.	Nécropole de Djorf-Torba.	17 déc. 1951
Ghardaïa	IS.	Rempart de Béni Isguen.	10 juill. 1958
Ouargla	IS.	Ruines de Sédrata.	24 sept. 1954

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Bejaïa	MD. 1	Restes de l'enceinte fortifiée de la porte Fouka.	17 nov. 1903
	MD. 2	Fort Moussa dit Fort Barral.	17 nov. 1903
	MD. 3	Fort de la Kasbah.	17 nov. 1903
	IS. 4	Porte dorée ou porte de la mer.	Liste 1900
Bou Arreridj	AN.	Ruines de l'ancienne cité de Tihamamine situées sur le territoire des Ouled Khellouf.	29 nov. 1908
M'Sila	IS.	Kalaa des Beni Hammad.	14 janv. 1952

TARET

Afliou	PH.	Dessins rupestres d'El Ghicha.	8 mars 1913
Frenda	MG.	Djeddars.	23 juin 1913
Tiaret	PH. 1	Station de Columnata.	17 déc. 1951
	PH. 2	Station de Columnata.	18 nov. 1951
Tiaret	MG.	Dolmens.	Liste 1900

OUZOU

Azazga	AN.	Ruines romaines dites « El Habs el Ksour » formant le lot domanial n° 243 du sommaire de consistance d'Agazga.	24 avril 1903
el Ouzou	AN.	Mausolée romain de Teksebt.	23 avril 1902
el Ouzou	AN.	Ruines romaines, temples, basiliques.	Liste 1900

DEPARTEMENT DE TLEMCEN :

COMMUNES	Arrondissements		DESIGNATION
Beni Senous	Sebdou	IS.	Mosquées des Beni Snous, villages Tafessara, Tlela et Sal.
Khemis	Maghnia	IS	Mosquée de Khemis.
Nedroma	Ghazaouet (ex-Nemours)	IS. 1	Remparts de la Citadelle.
		IS. 2	Bain Maure.
		IS. 3	Mosquée des Guecharine.
		IS. 4	Mosquée de Sidi Mendil.
		IS. 5	Grande Mosquée.
		IS. 6	Marabout de Sidi Ibrahim.
		IS. 7	Mausolée de Sidi Bouali.
Remchi (ex-Intagnac)	Beni Saf	PH.	Glissement du lac Aurar.
Tlemcen	Tlemcen	IS. 1	Mosquée de Sidi Bou Médienne et dépendances : médersa, kobba, latrines publiques, bains, maison de l'oukhl et des pelerins.
		IS. 2	Mosquée de Sidi Bou Ishaq El Tayar, ruines et minaret et cimetière de Sidi Senouci à El Obbad.
		IS. 3	Grande mosquée et dépendances.
		IS. 4	Minaret de la mosquée de Sidi Bel Hassen et Rachidi et village du même nom.
		IS. 5	Minaret d'Agadir.
		IS. 6	Minaret de la mosquée Sidi Hacène.
		IS. 7	Mosquée de Sidi Bel Hassen.
		IS. 8	Mosquée de Lalla R Royat, rue des Almohades.
		IS. 9	Mosquée de Sidi E. Senoussi, rue de Mascara.
		IS. 10	Mosquée du Méchouar.
		IS. 11	Mosquée Bab Zir et deux marabouts du cimetière d'El Obbad et des Saffil.
		IS. 12	Mosquée des Oulad El Imam.
		IS. 13	Ancienne mosquée de Sidi El Ghaly, rue Lamoricière.
		IS. 14	Marabout de Sidi Ibrahim.
		IS. 15	Marabout de Sidi F. Wahhab.
		IS. 16	Kobba dite du Khalifat, cimetière de Sidi Yacoub.
		IS. 17	Kobba de Sidi ed Daoudi.
		IS. 18	Kobbas de Sidi Abd Allah ben Mançour et de Sidi Ben Ali Aïn El Hout.
		IS. 19	Mosquée et minaret de Mansoura et dépendances.
		IS. 20	Mosquée Sidi El Hout et dépendances.
		IS. 21	Tombeaux dits « de la Sultane » et Kobba dite « de Khalifa » et cimetière de Sidi Yacoub.
		IS. 22	Petit Palais des Sultans à El Obbad el Fouqui.
		IS. 23	Magasin et agence des monuments historiques.
		IS. 24	Enceinte en pisé de Mansoura et ruines de la Meçalla.
		IS. 25	Porte de Mansoura.
		IS. 26	Fragments divers de l'époque arabe au musée de la mairie.
		IS. 27	Colonnes provenant de la mosquée de Mansoura.
		IS. 28	Tours et ruines de la porte de Sidi ed Daoudi, sur le front Est.
		IS. 29	Porte dite « Bab el Kermadine » sur le front Nord Ouest et improprement appelée « Bab el Tol ».
		IS. 30	Porte dite « Bab el Khemis » entre Tlemcen et Mansoura.
		IS. 31	Reste de l'enceinte arabe.
		IS. 32	Restes de fortification ; (Tlemcen Mansoura).
		IS. 33	Bordjs et autres ouvrages dépendant des fronts Sud et Ouest.

ANNEXE - II -

LISTE DES OBJETS MOBILIERS CLASSES
A LA DATE DU 20 DECEMBRE 1967 CONFORMEMENT
A L'ARTICLE 62 DE L'ORDONNANCE N° 67-231
DU 20 DECEMBRE 1967.
OBJET

DENTS	COMMUNES	DESIGNATION
	Alger	Bible d'autel dans le temple protestant de la rue Chartres. Divers objets de culte dans les synagogues de l'impasse Boutin, n° 2 et la rue Médée. Rouleaux de la loi et divers objets de culte en argent, appartenant à la synagogue de la place Randon au 2ème et 3ème étages de l'immeuble du consistoire, 1, rue Volland. Parchemins dits séraphines et garnitures de la synagogue de la rue Scipion. Mosaïque de la mosquée de Tadjina à Tlemcen, déposée au musée Stéphane Gsell, appartenant à l'Etat.
	Souk Ahras	Statues et fragments antiques déposés au jardin de la commune.
	El Kantara	Collections lapidaires déposées à El-Kantara au musée Vulpières appartenant à l'Etat.
	Constantine	Mosaïque de Penthésille découverte aux Oulet-Agla et déposée à la préfecture de Constantine.
	Constantine	Objets antiques déposés au musée de Constantine, appartenant à l'Etat.
	Skikda	Objets antiques déposés au musée de Skikda, appartenant à l'Etat.
	Skikda	Toile représentant l'ensevelissement du Christ attribué à Van Dyck.
	Cherchell	Objets antiques déposés au musée de Cherchell, appartenant à l'Etat.
	El Asnam	Mosaïque de l'église dite de St-Reparatus.
	Sour El Ghoulane (ex-Auziale)	Inscriptions et fragments antiques déposés à Sour El Ghoulane sur l'esplanade (appartenant à l'Etat).
	Oran	1 - Collections préhistoriques déposées au musée d'Oran, appartenant à l'Etat. 2 - Objets antiques déposés au musée d'Oran appartenant à l'Etat. 3 - Mosaïque provenant d'une maison romaine de Bettlous (St-Leu), déposée au musée d'Oran, appartenant à l'Etat.
	Tlemcen	Fragments divers de l'époque arabe, déposés au musée de Tlemcen, appartenant à l'Etat.

ANNEXE - III -

LISTE DES SITES ET MONUMENTS NATURELS
CLASSES A LA DATE DU 20 DECEMBRE 1967
CONFORMEMENT A L'ARTICLE 62 DE L'ORDONNANCE
N° 67-231 DU 20 DECEMBRE 1967.

ALGER

Arrondissements		DESIGNATION	DATE du Classement
Dar el Beïda		Fort turc de « Lapérouse » Bordj el Bahri (ex-Cap Matifou)	10 déc. 1952
Alger	1	Forêt domaniale du télégraphe dite « bois de Boulogne » Birmandreis.	28 fév. 1923
	2	Bois entourant le Fort l'Empereur à El Biar.	24 nov. 1930
	2	Jardin d'Essai du Hamma.	24 oct. 1947

DEPARTEMENT D'ALGER (suite)

COMMUNES	Arrondissements		DESIGNATION
Alger	Alger	4	Jardin Marengo.
		5	Parc de la Liberté (ex Galland).
		6	Partie Nord de la falaise Saint-Raphaël, comprenant les parcelles ou parties des parcelles n° 1225, 1296, 1300, 1309, 1313, 1315 à El Biar.
		7	Place publique de la Bouzaréa.
		8	Abords de la villa les arcades.
		9	Abords de la villa Mahieddine.
		10	Abords de la villa Louvet à Hussein Dey.
		11	Abords du Bordj Pagnac à la Bouzaréa.
		12	Villa « Second-Winter » et le bois de pins qui l'entoure sur l'éperon de la falaise Saint-Raphaël à El Biar.
		13	Cimetière de Sidi Medjoubia à Bouzaréa.
		14	Belvédère du chemin des Crêtes.
Blida	Blida		Chemin Abel de Céréa.
Bou Ismail	Blida		Cascade de Bézar.
Bouzaréa Bologuine Ibnou Ziri (ex-St Eugène) Cheraga Ain Benian	Alger et Alger Sahel		Forêt de Balnem.
Staouéli	Alger Sahel Cheraga		Forêt de Sidi Fred.
Tipasa	Blida	1	Littoral de Tipasa comprenant les parcelles.
		2	Parcelles de terrain comprises entre la route du phare et mer.
		3	Place publique de Tipasa.

DEPARTEMENT D'ANNABA

Hamмамет	Tébessa	1	Village de Youkou.
Région de Morsott	Tébessa	1	Gorges de Bou-Akrous.
		2	Grotte de Bou-Akrous.
Région de Oued Charef	Guelma	1	Grottes du Djebel Taya.

DEPARTEMENT DE L'AURES

Bouhmama	Khenchela		Village de Tizgarta.
Bouzina	Arris	1	Village de Bouzina.
		2	Village de Tagous.
Chechar	Khenchela	1	Village de Djellal.
		2	Village de Tabard.
El Kantara	Biskra		Gorges d'El Kantara.
Khangat Sidi Nadjil	Khenchela	1	Village de Khenga Sidi Nadjil.
		2	Gorges de Khangat Sidi Nadjil.
M'Chounèche	Arris	1	Gorges et villages de Djemina.
		2	Gorges de M'Chounèche.
		3	Gorges de Sidi Masmoudi.
		4	Village de Kebach.

T DE L'AURES (suite)

Arrondissements		DESIGNATION	DATE du Classement
Arris	1	Village d'Amentane.	30 janv. 1928
	2	Village de Menaa.	30 janv. 1928
	3	Gorges de Tighanimine.	30 janv. 1928
Barika	1	Gorges de Tillatou.	20 janv. 1948
Batna		Gorges de Foun Ksentina.	30 janv. 1928
Arris		Canon de Rhouffil.	30 janv. 1928
Khenchela	1	Vallée Oued Béni Barbar.	30 juin 1928
	2	Gorges de l'Oued El Arab.	30 janv. 1928
	3	Grotte de Fringal.	30 janv. 1922
	4	Gorges de Chabet Akra.	30 janv. 1928

T DE CONSTANTINE

Constantine		Gorges du Rhummel.	20 janv. 1928
Djldjelli		Grotte merveilleuse.	12 avril 1948

T D'EL ASNAM

Tenlet El Had		Parcs nationaux d'Ain N'Sour et Tenlet El Had	16 avril 1948
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T DE MOSTAGANEM

Tighennif		Bols d'oliviers près des ruines se rapportant à la tradition de l'Emir Abdelkader.	14 mars 1940
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T D'ORAN

Oran		Ville punique des andalouses.	2 oct. 1950
Oran	1	Cimetière dit « des cholériques » situé au ravin de Ras El Ain	23 juil. 1932
	2	Promenade de Létang.	23 juil. 1933
	3	Site du Murdjadjo.	6 oct. 1950

T DE SAIDA

Ain Sefra		Traces de la jument de Sidi Cheikh.	7 sept. 1956
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T DE SAIDA
ENT DES OASIS ET DE LA SAOURA

Adrar		Ex-Place Laperrine.	17 juil. 1955
Laghouat		Rocher Fromentin.	27 nov. 1950
Timimoun		Ex-Place Laperrine.	25 oct. 1954

T DE SETIF

Bejaia	1	Corniche de Bejaia à Djidjelli.	12 mai 1948 3 fév. 1954
Bougaa (ex-Lafayette)		Village de Tidget, Guergour.	20 janv. 1928
		Gorges de Chabet Akra.	30 janv. 1928

T DE TIARET

Frenda		Bled Touta Lakanla et grottes se rapportant à la tradition de l'historien Ibn Khaldoun.	4 mars 1949
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T DE TIZI OUZOU

Bouira		Forêt des Azerou cantons Taoulalt et Tikjda (Maison de Ras-Tigounatine).	10 juil. 1950
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