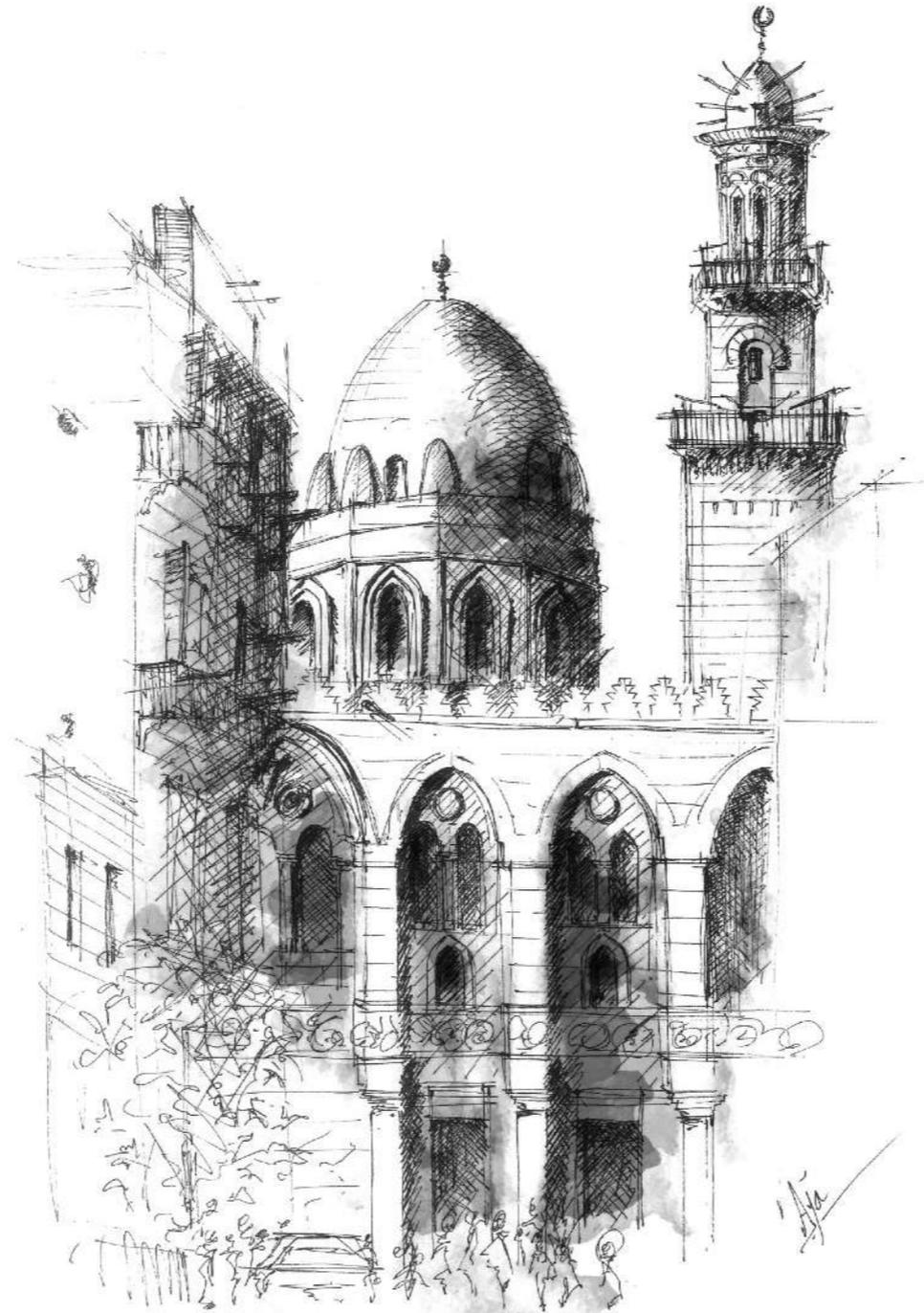
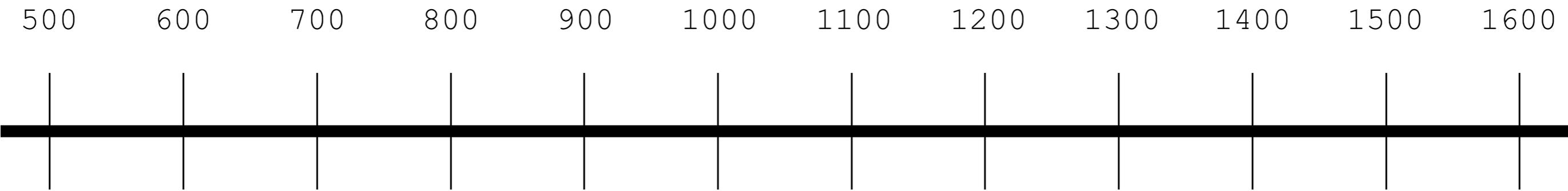


History of Architecture
Islamic Architecture





Byzantine empire (330-1453)

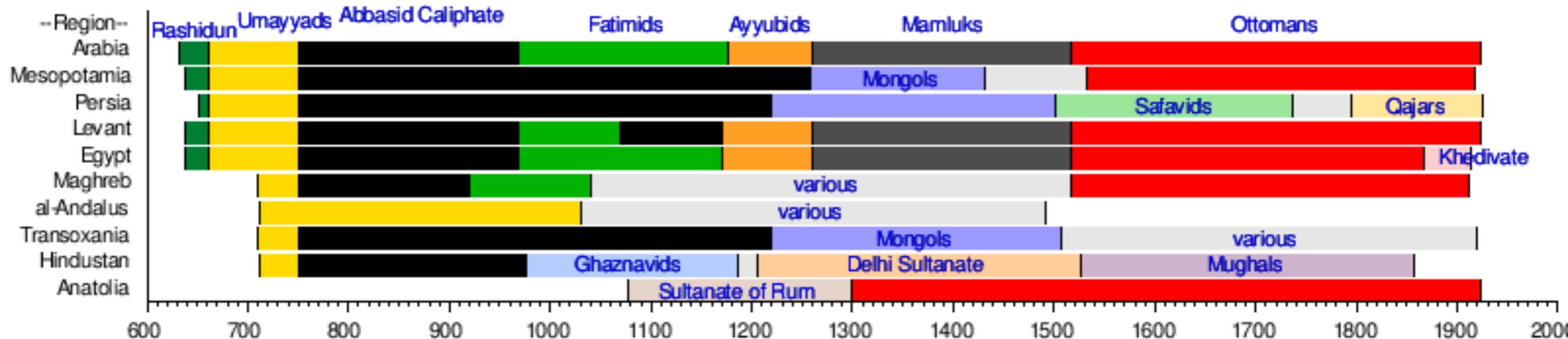
Romanesque period (800-1200)

**Gothic period
(1150-1500)**

Islamic period (622-1600)

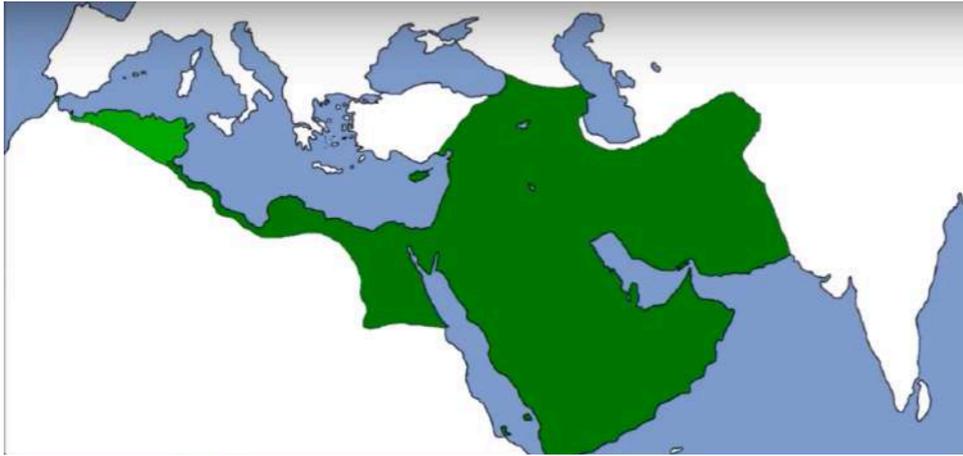
History

- Islam started in the 7th century, the beginning of the Muslim era referred to the Hijra to Al-Madina in **622**
- Prophet Muhammad died in **632** and the rule was followed by:
 - Rashidun Caliphate (632-661)
 - Umayyad Caliphate (661-750)
 - Abbasid Caliphate (750-1258)
 - Fatimid (909-1171)
 - Mamluk Sultanate (1250-1517)
 - Ottoman Caliphate (1517-1924)



Geography - Islamic world and expansion

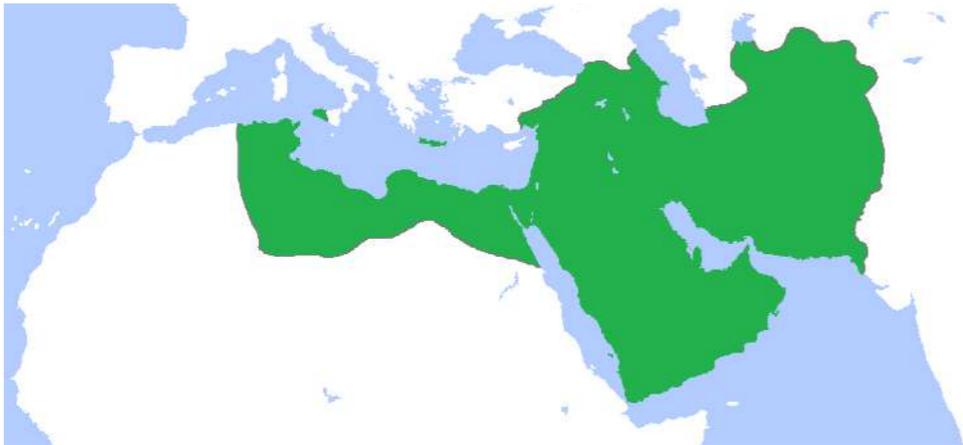
Rashidun Caliphate (655)



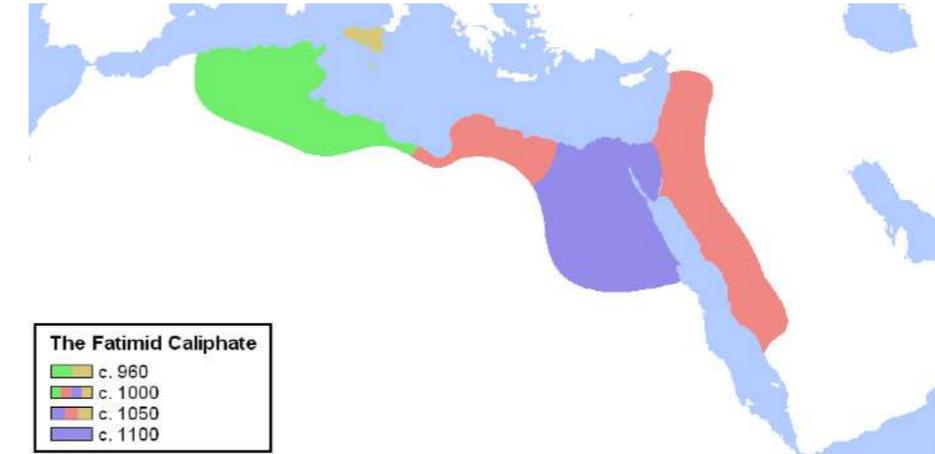
Umayyad Caliphate (750)



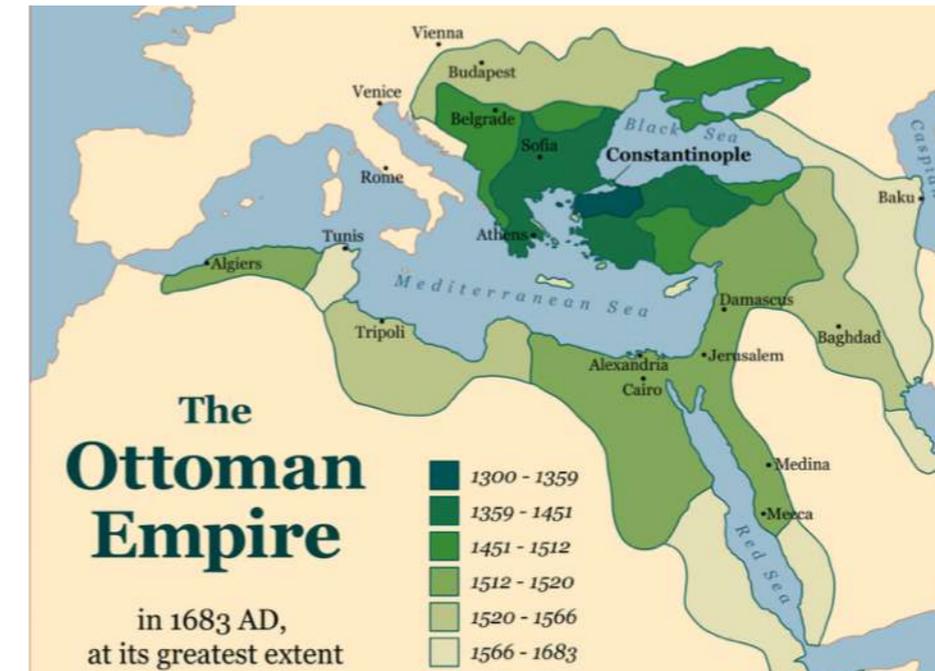
Abbasid Caliphate (850)



Fatimid (850)



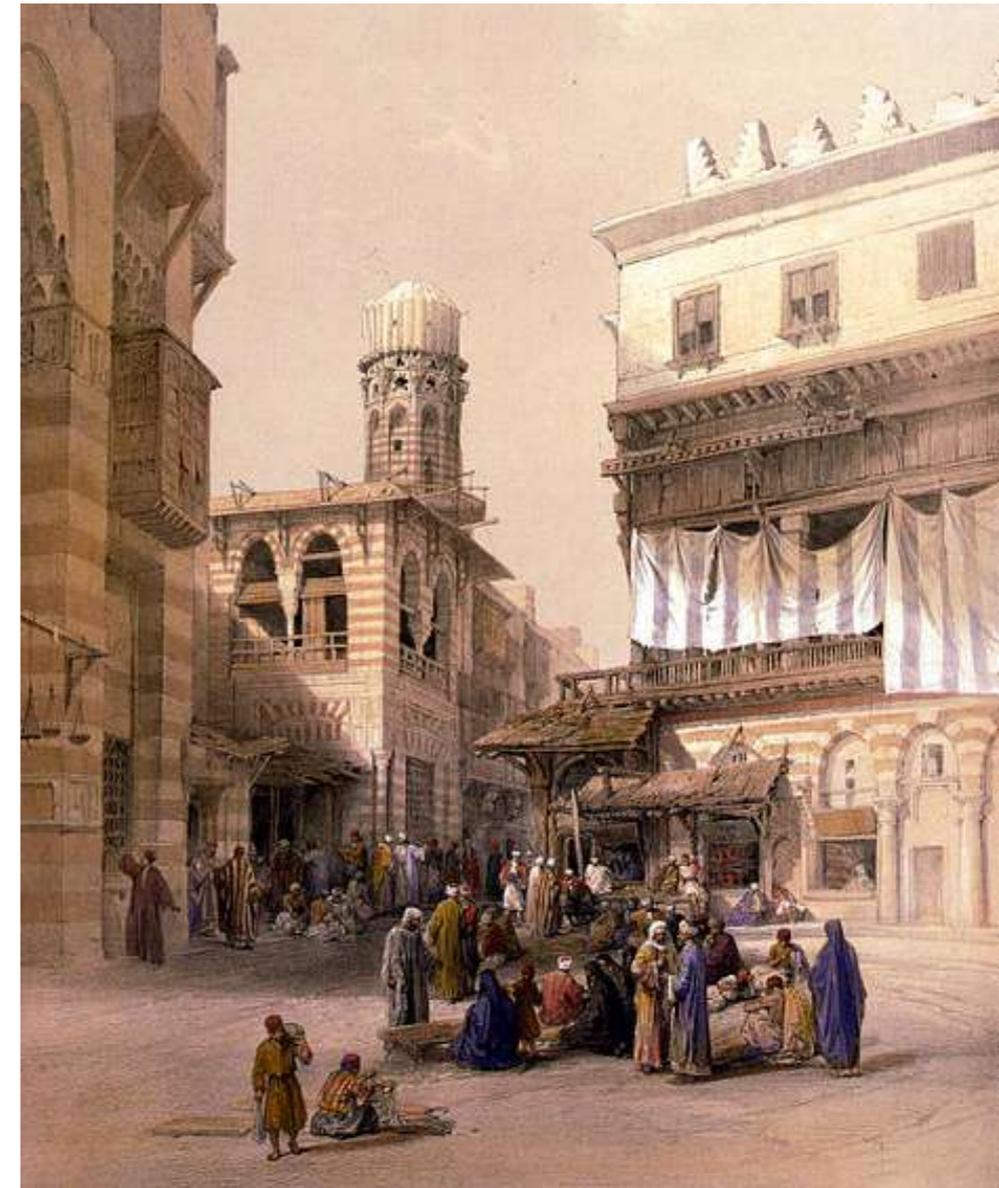
Mamluk sultanate (1279)



Ottoman Empire

Geology & Society

- The countries into which Islam first expanded were **rich in building traditions**
- Abundance of natural resources, and building materials (**brick, marble, stone, ceramic**)
- The Arab groups (the early muslims) were essentially **tribal**, their behavioural patterns and cultural attributes were **based on the traditions of the desert**
- As muslim communities become stabilized over the succeeding centuries, a clear **social pattern emerged**



Architecture

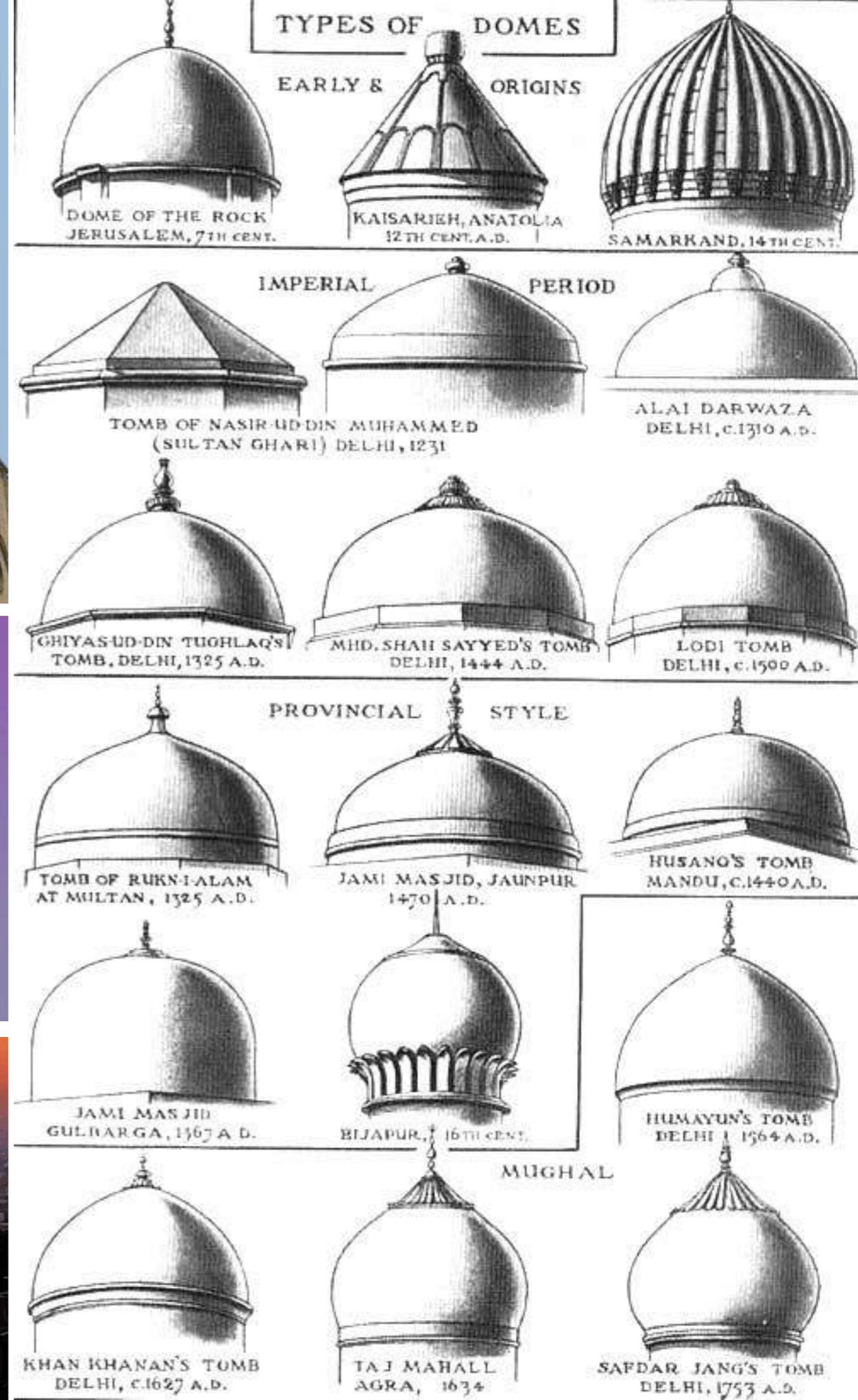
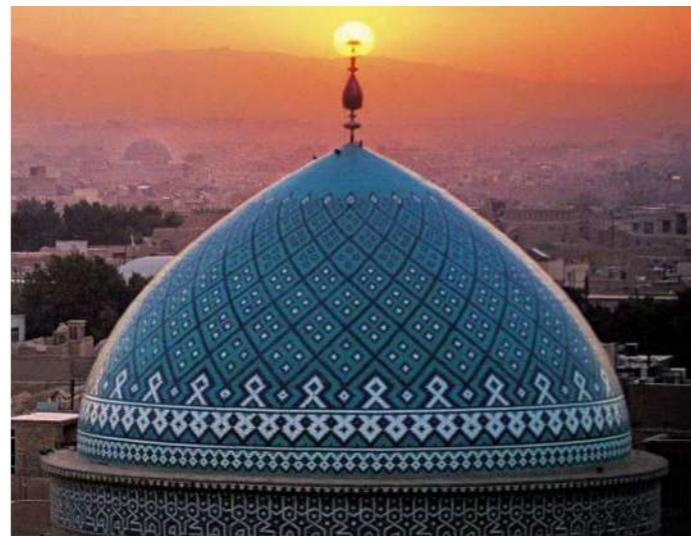
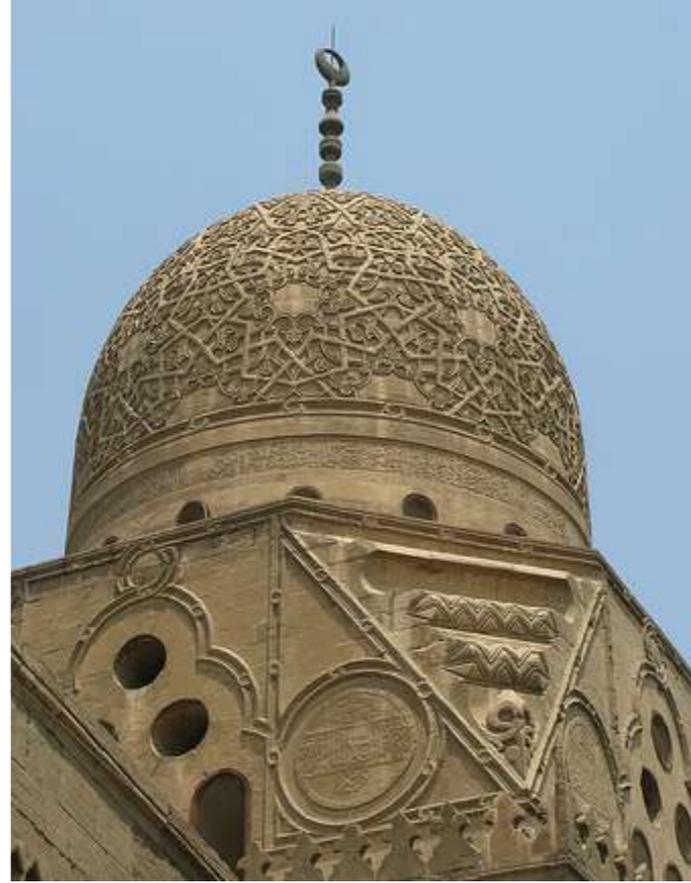
- Islamic architecture encompasses a wide range of **secular and religious buildings**
- Influenced by:
 - **Greco-Roman** traditions and **Byzantine** architecture
 - Eastern traditions of **Mesopotamian and Persia**
- The main architectural types are: **Mosques (Schools & Hospitals), Tombs, Palaces, and Forts**
- Islamic architecture contain:
 - **Balance and symmetry**
 - **Concept of perfect creation**
 - **Formal landscape**
 - **Centred upon god**



Architectural Character and Elements

1. Domes:

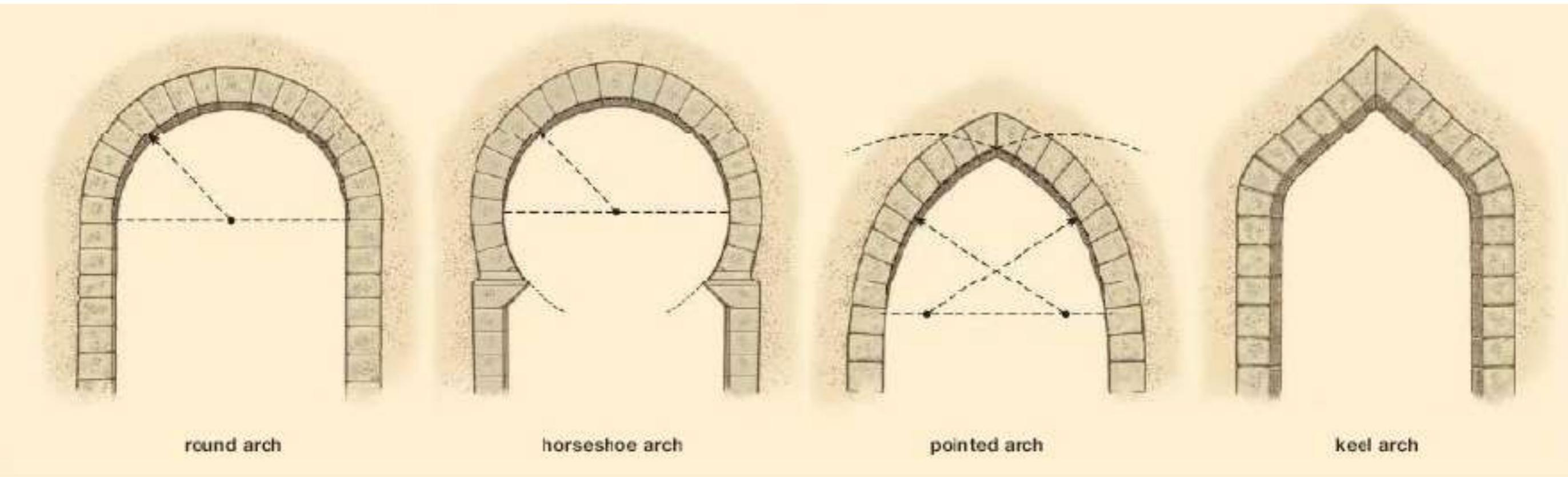
- The domes form was derived from the **Byzantine architecture**
- The first dome appeared in **691** (the Dome of the Rock)
- **Persia, Mughal and Egypt domes** tended to be pointed





2. Arches:

- The **Horseshoe arch** became popular in Islamic structures
- Colors were added to accentuate its shape
- The pointed arch



3. Muqarnas

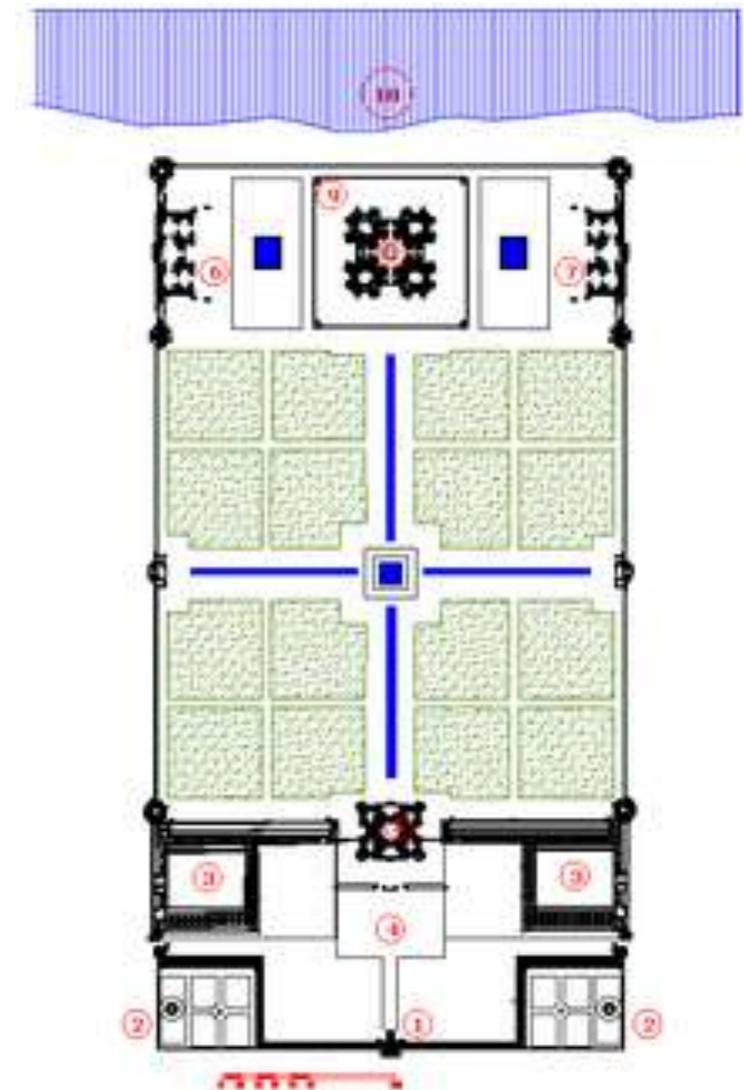
- Geometric subdivision of a vaulting structure into minor superimposed pointed arch structures
- Developed in **Iran and Maghreb** (10th century)
- Made from stone, or brick, or wood or stucco





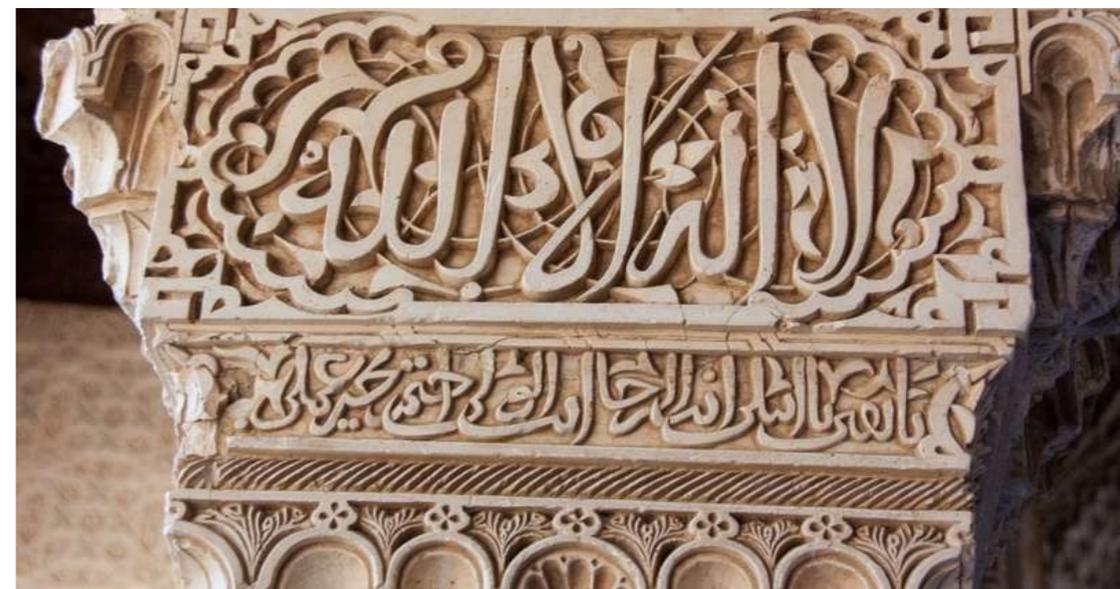
4. Paradise Garden

- Influenced by the classical form of the **Persian Garden**
- **Rectangular** irrigated space with pathways dividing the garden into sections of equal size
- Highly **geometrical form**
- Water elements; cooling, decorating, reflection and emphasizing the **visual axes**



5. Ornaments:

- **Geometry:** mathematically complicated elaborate geometric and interlace patterns
- **Arabesque:** floral motifs
- **Calligraphy:** inscription, including quotations of the Quran
- The geometric floral repeated pattern symbolize the concept of **infinite existence of one eternal God**
- **No iconography**, ornaments should be without any figures



6. Mashrabiya:

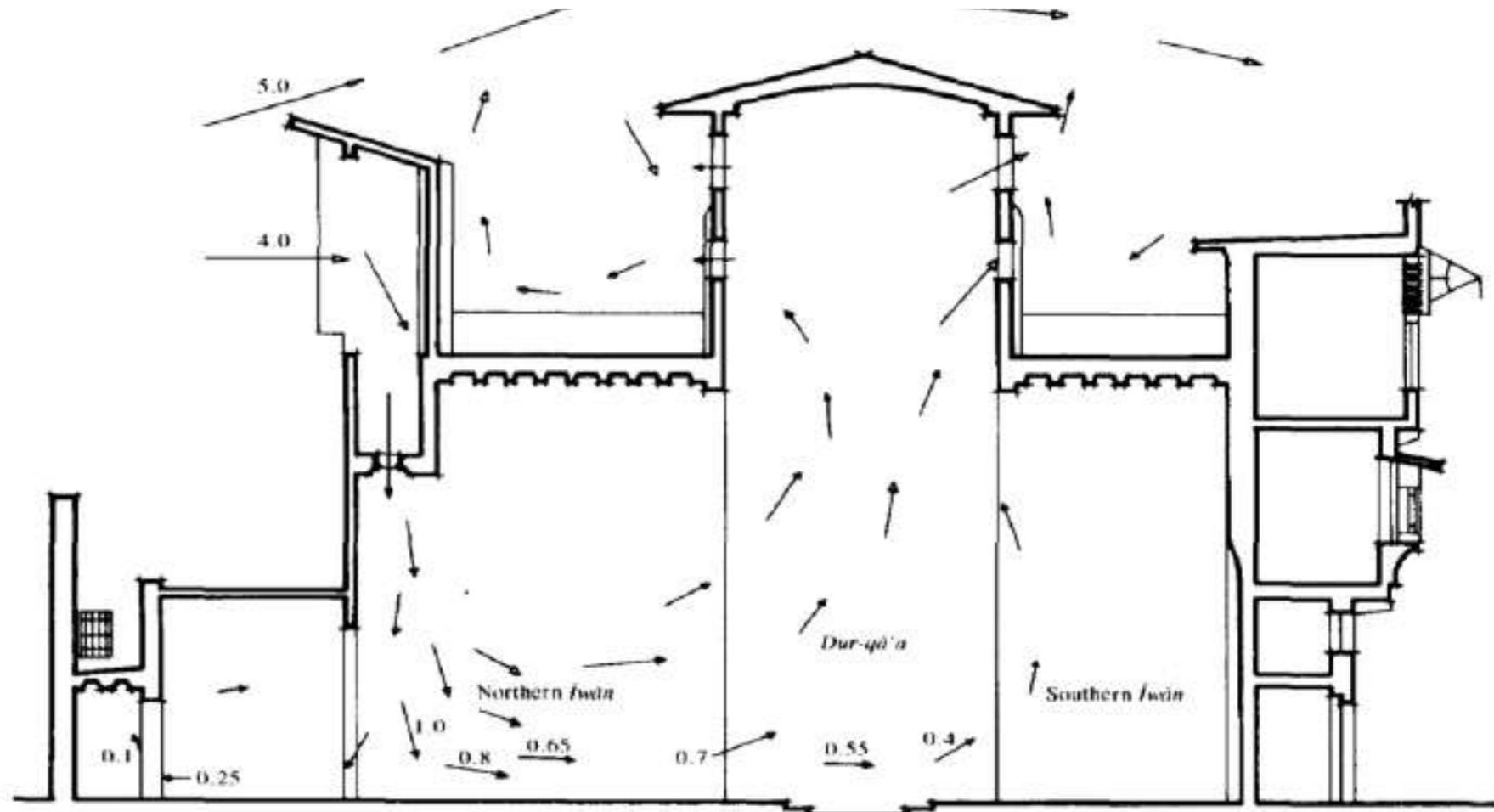
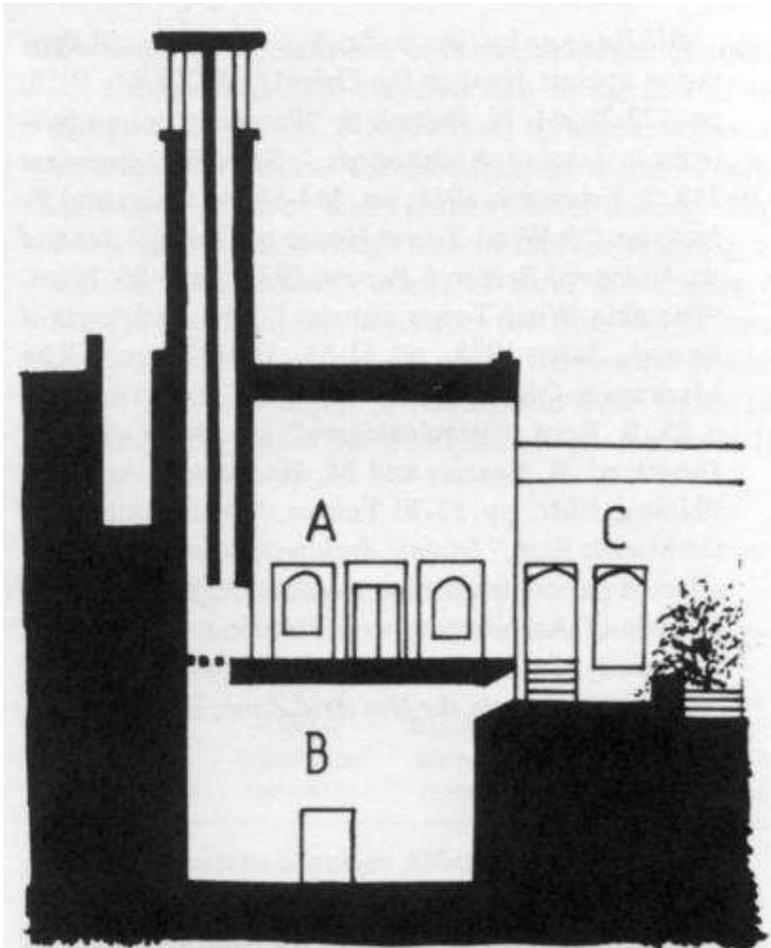
- Projecting windows inclosed with carved wood lattice work
- Mostly used on the street side of the building

- Mashrabiya used for **privacy**
- It gives **shade** and **protection** from the hot **summer sun**, while allowing the cool air from the street to flow through



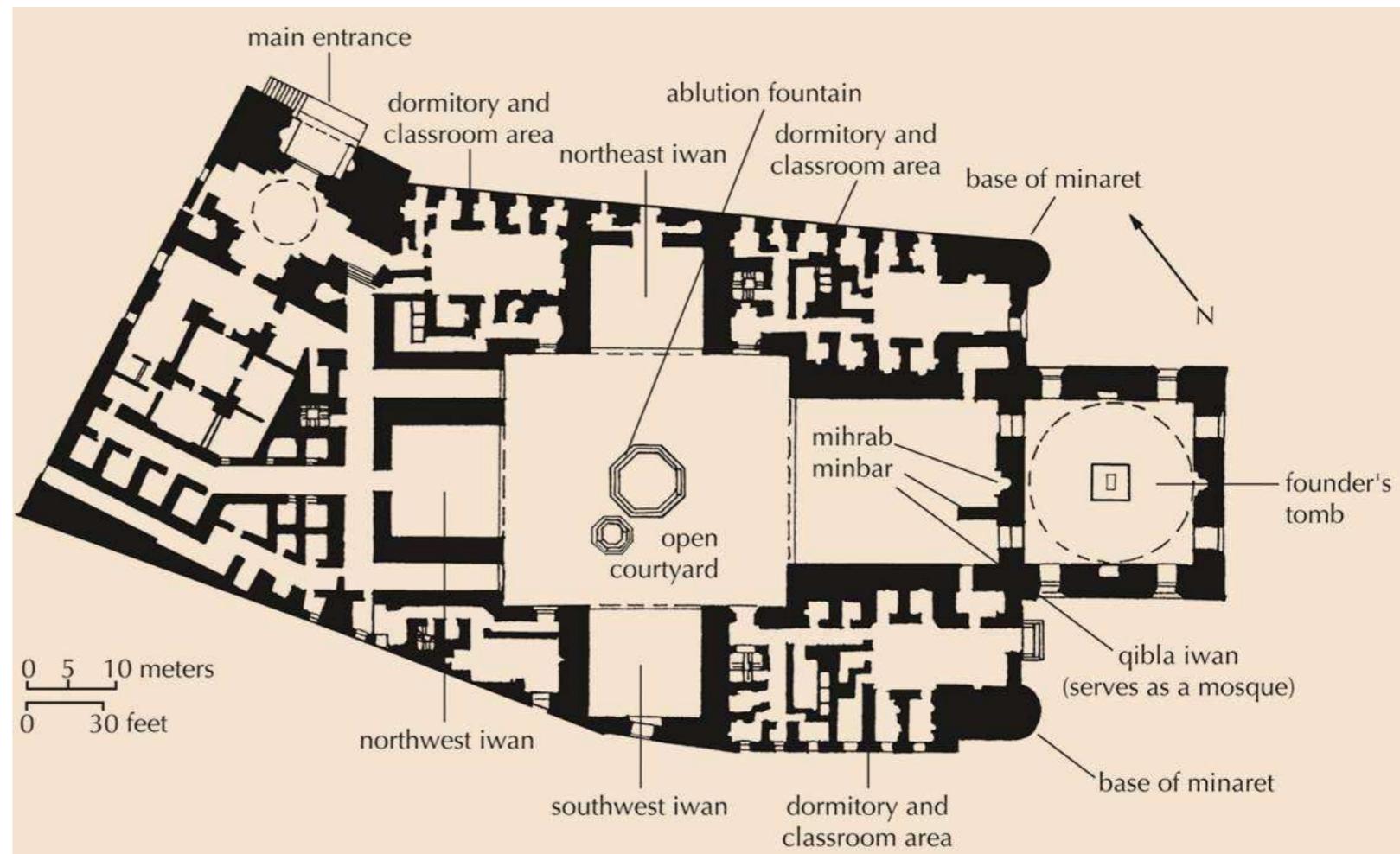
7. Malqaf (wind catcher)

- Wind scoops, added to the construction techniques in order to meet climate conditions



8. Iwan

- An open fronted rectangular hall or space, usually vaulted, walled on three sides
- Typically opens into the courtyard
- A new form of mosques emerged in the 11th century called the four-iwan mosque



Towns and Cities

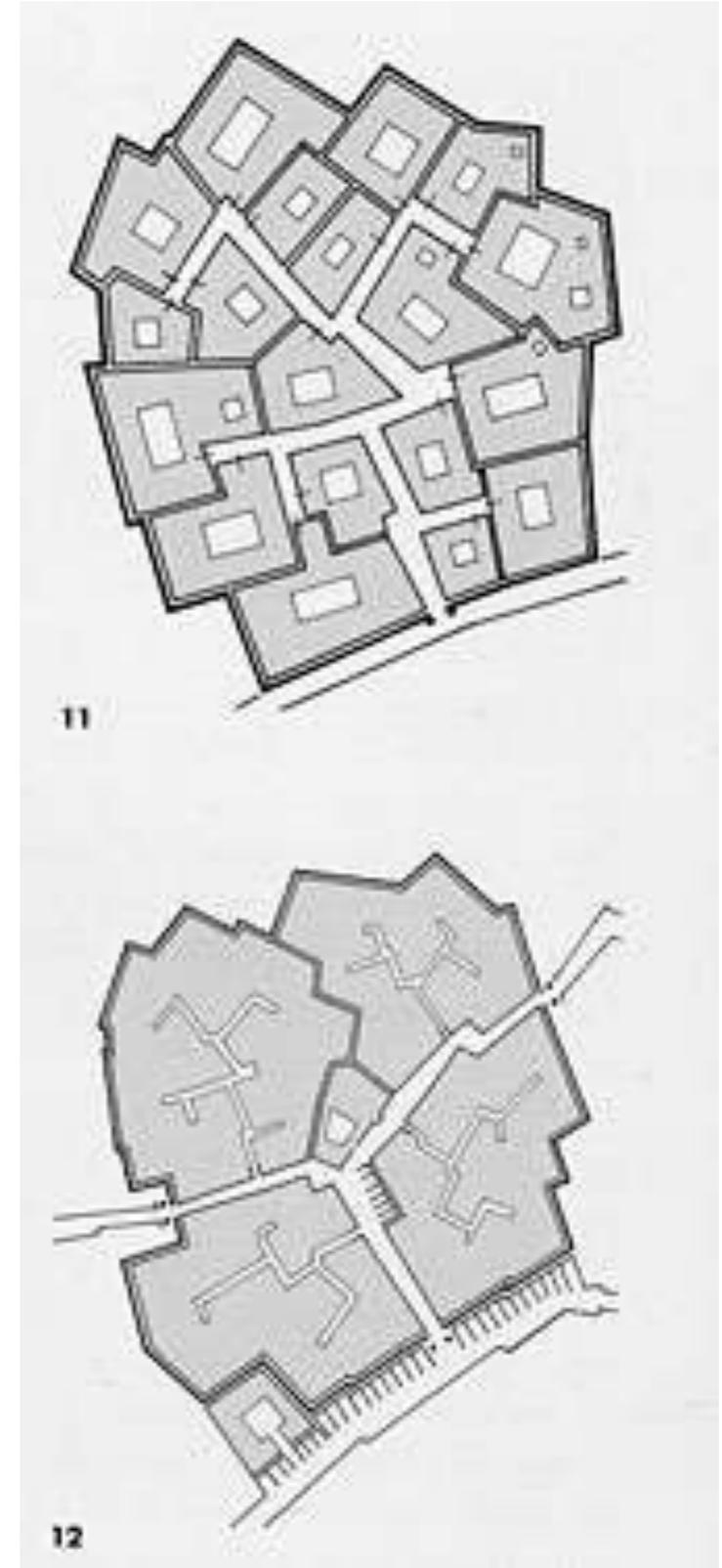
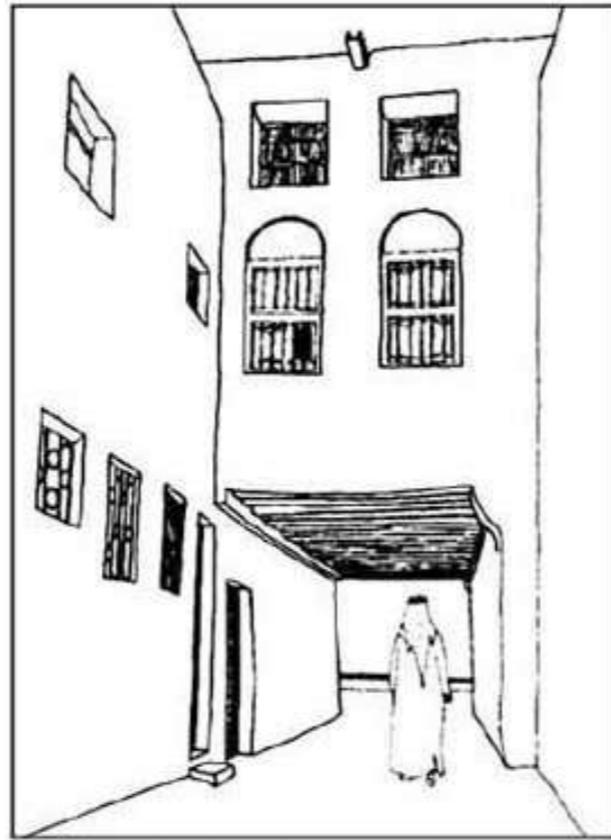


Marrakech, Morocco

The Islamic city reflected the socio-cultural, political, and economic structures of the newly created society based on the following factors

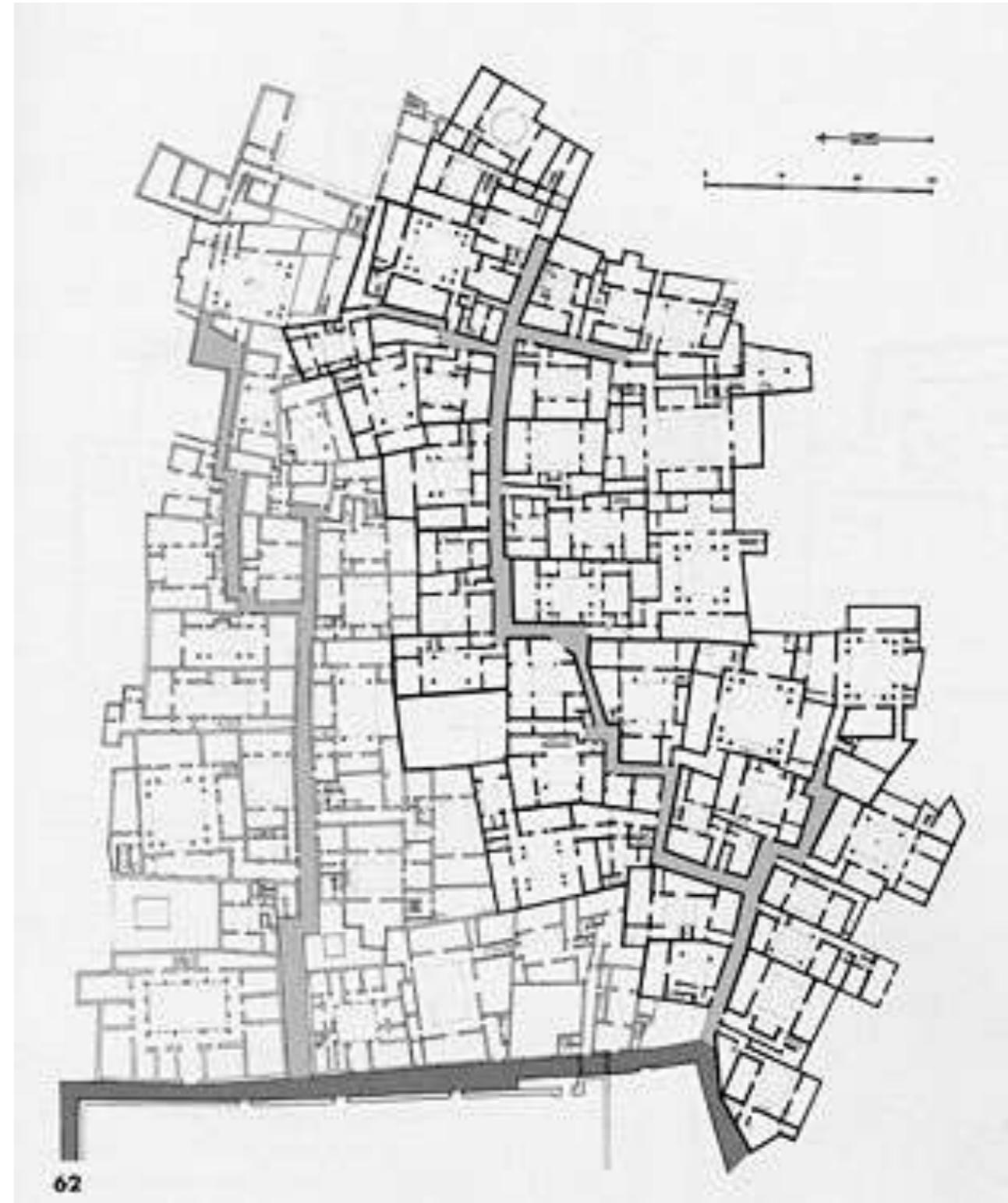
1. Natural laws

- The built form and plan responded to the natural circumstances (weather and topography)
- Courtyard, terrace, narrow covered streets and gardens were designed to cope with hot weather conditions



2. Religious and cultural beliefs

- The mosque had the central position in spatial and institutional hierarchies
- Separating public and private lives
- Narrow streets and cul-de sacs separating private and public domains
- The separation of male and female users
- Economic activity was separated from residential use and concentrated in public areas and in the main streets



3. Design principles stemmed from Shariah law

- The privacy principle was made into a law (for example: the height of the wall should be above the height of a camel rider)

4. Social principles

- The social organisation of the urban society was based on social groupings sharing the same blood, ethnic origin and cultural perspectives
- Different groups (Arabs, Moors, Jews ...etc) were reflected in the concept of quarters



Fez, Morocco



The main features of the Islamic city:

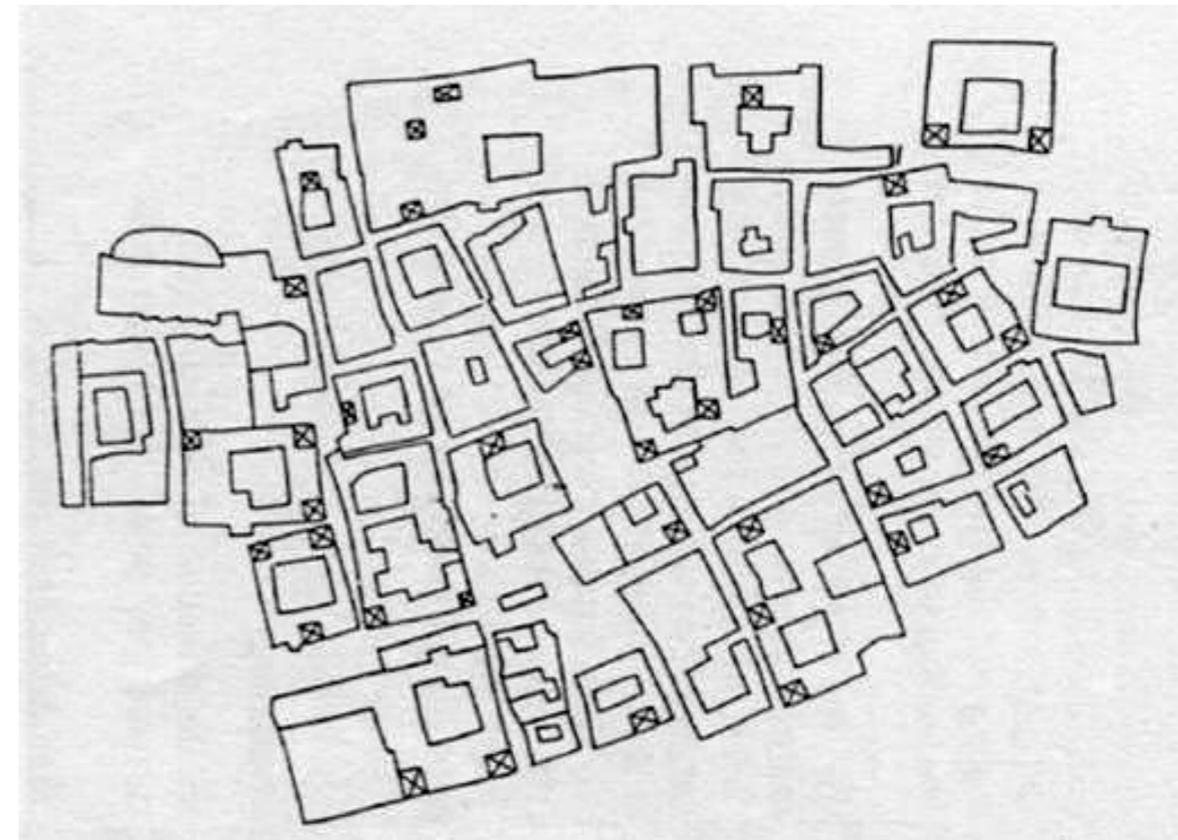
1. The main Mosque

- At the heart of the town
- Usually surrounded by the *Suq* (market)
- Attached to it there was the *Madrasa* (school or college)



2. Suqs

- Located outside the main mosque
- The central area was also the gathering of other public activities such as *social services, administration, trade, arts and crafts and baths and hotels*



The main features of the Islamic city:

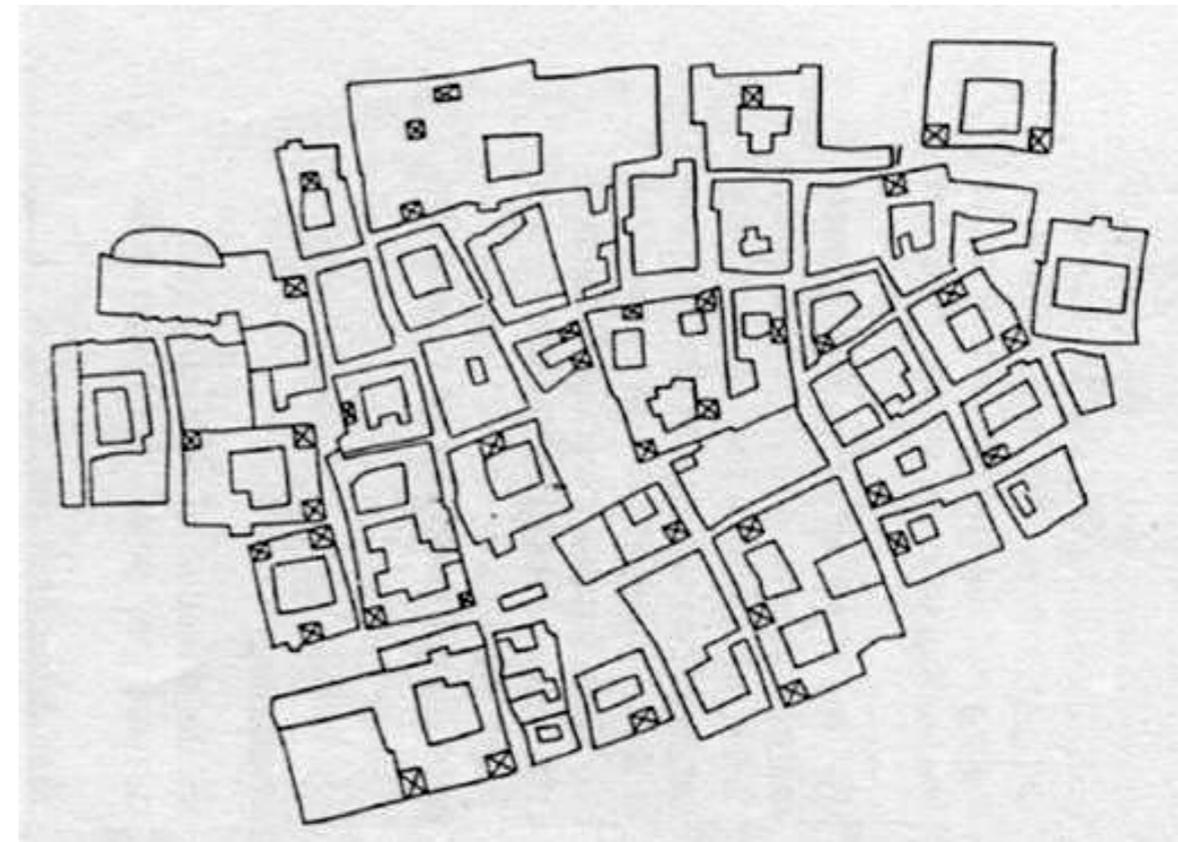
3. Citadel (Casabah)

- The palace of the governor
- Surrounded by its own walls and constituted a district on its own with mosque, guards, offices, and residence
- Usually located in the high part of the town near the wall



4. Residential Quarters

- Clusters and dense houses
- Ethnically organised quarters, each had its own mosque, school, bakery, shops and other functions
- Buildings tend to be more inwardly oriented separated from the surrounding by walls



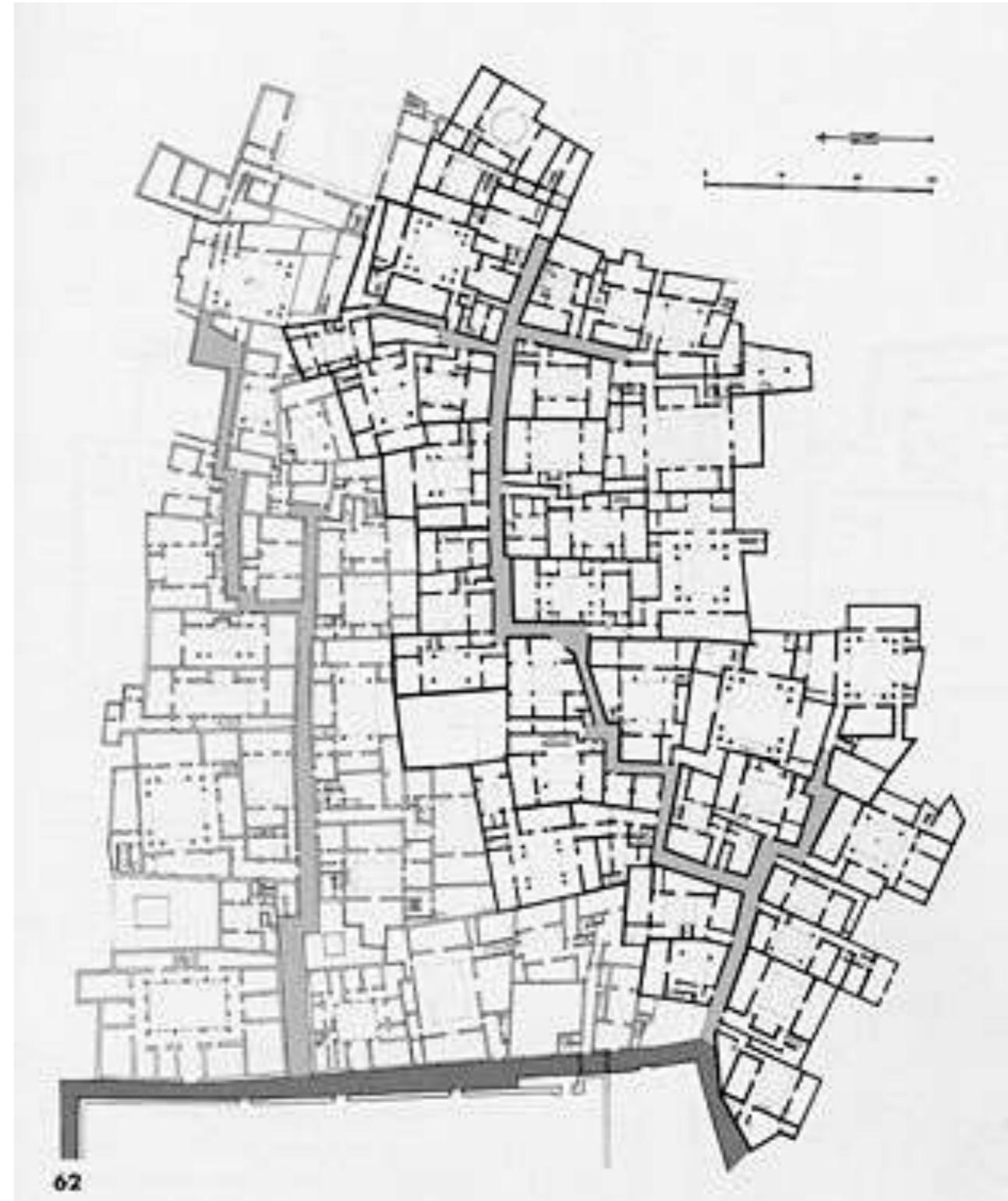
The main features of the Islamic city:

5. Street network

- Narrow winding streets consisting of public and private and semi-private streets and cul de sacs

6. Wall

- A well-defended wall surrounded the town with a number of gates





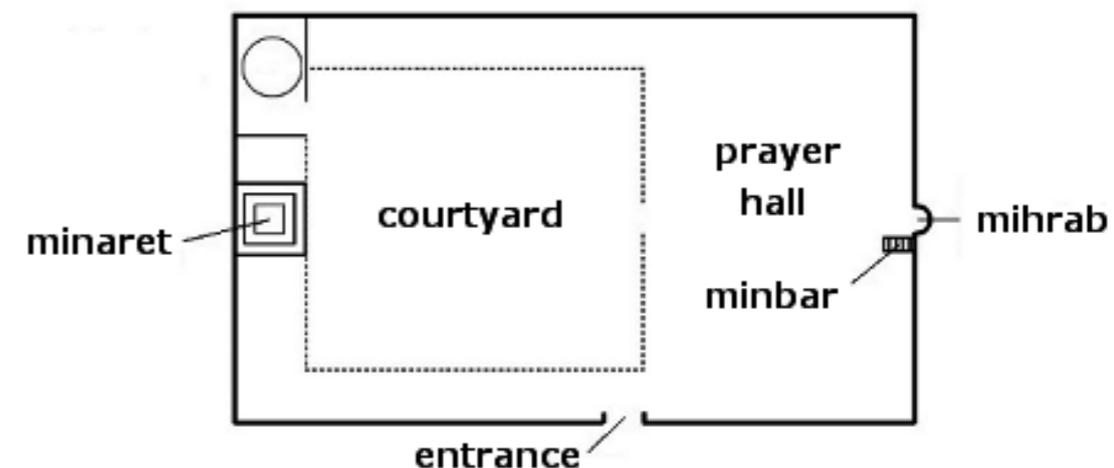
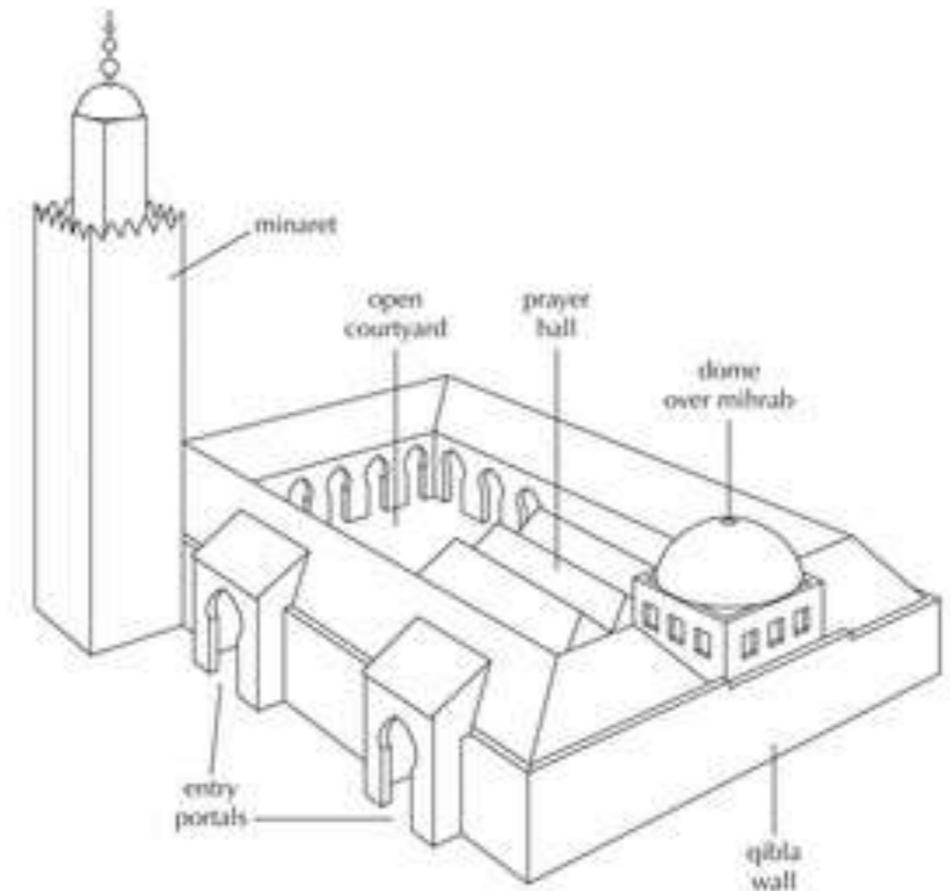
The Mosque

A mosque may have many functions than prayer, such as **schools**

The main features of the mosque are:

1. The courtyard (Sahn صحن) :

- Found in secular and religious buildings
- Descended of the basilica's **atrium** and the **Egyptian temple courtyards**
- The courtyard were **arcaded**
- The sides had: **the prayer hall, gateways, arched porches (Iwan)**
- Within the courtyard is usually an **ablution fountain**



The main features of the mosque are:

2. The hall of worship (prayer hall): was mostly a space consisting of rows of columns (hypostyle)

3. The Mihrab:

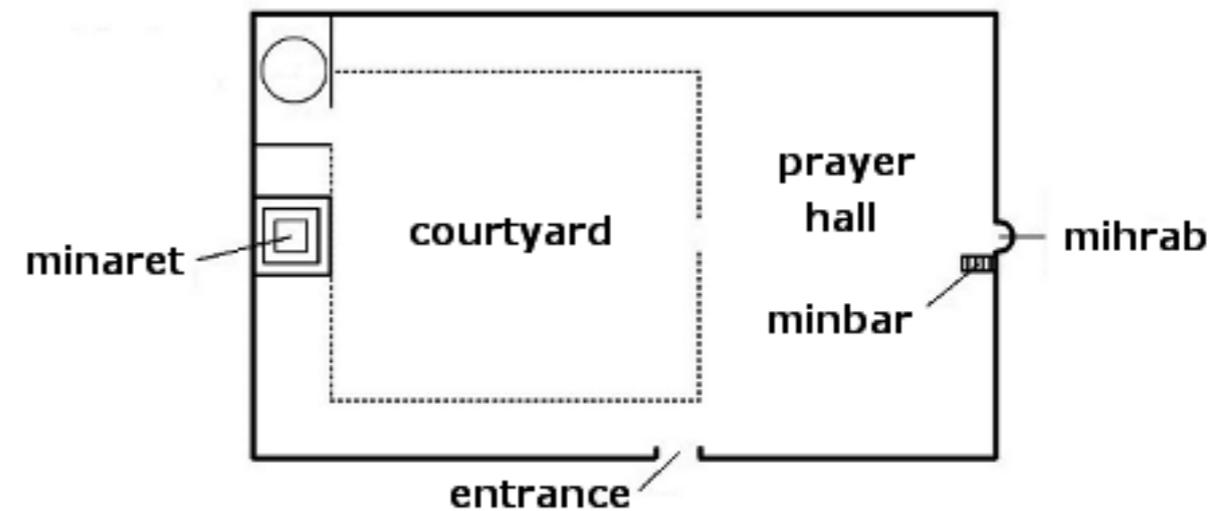
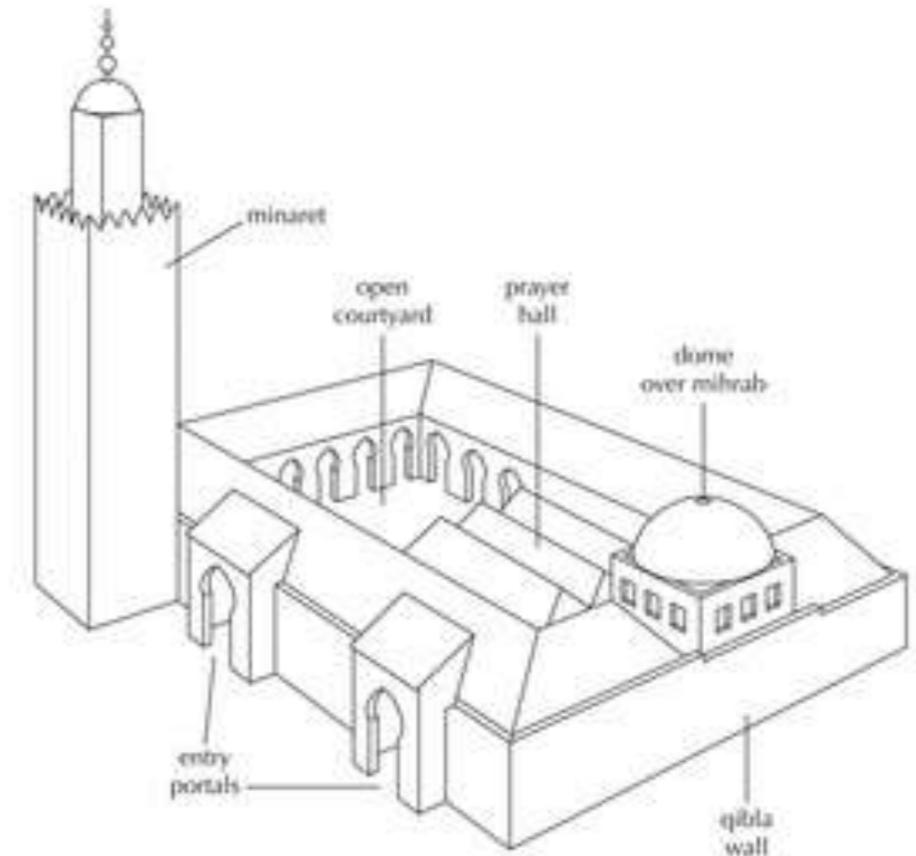
- A semicircular niche indicates the Qibla

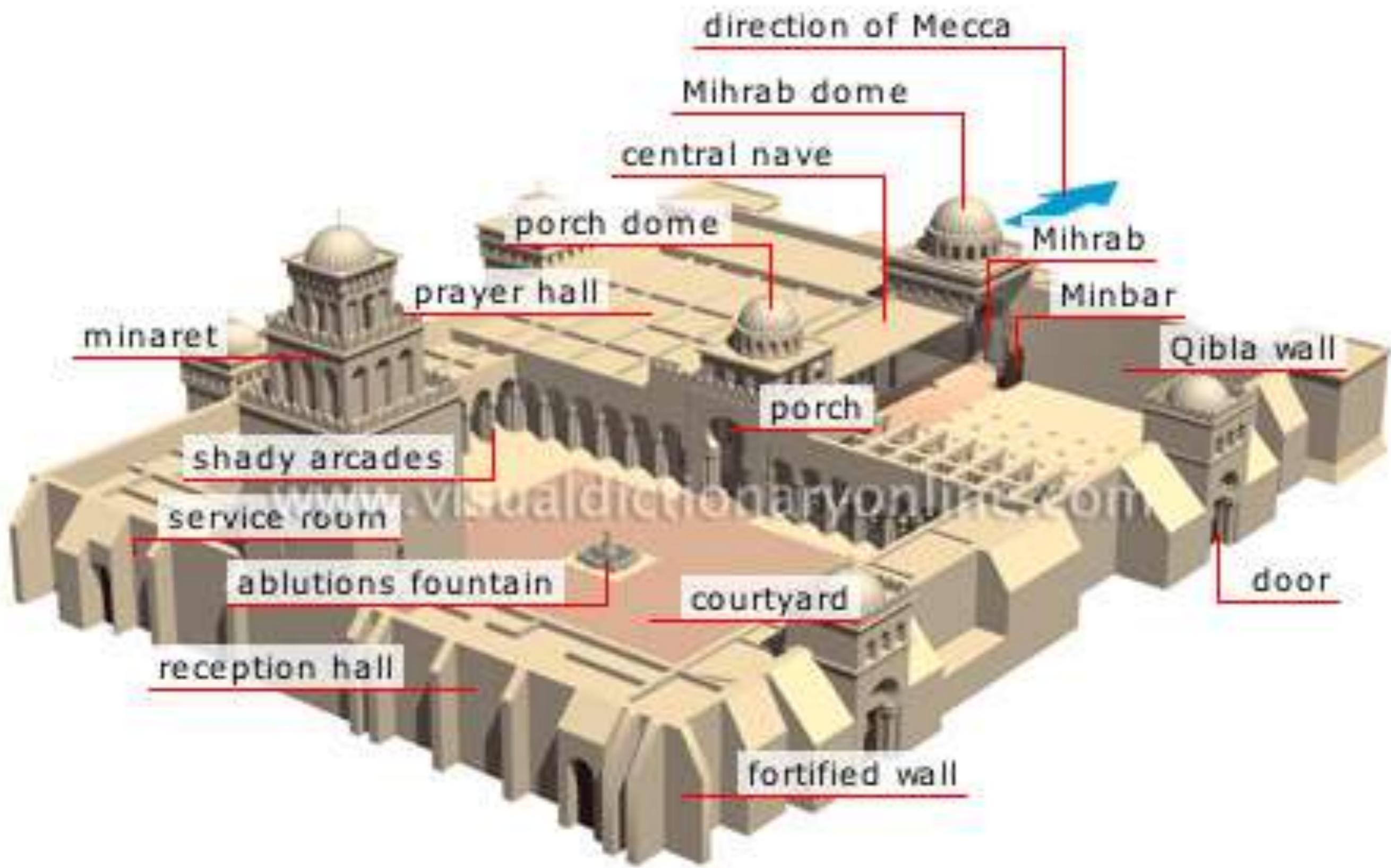
4. The minbar

- To the right of the mihrab
- A pulpit from which sermons are delivered

5. The minaret

- A tower (visual focal point) to call the faithful to prayers





direction of Mecca

Mihrab dome

central nave

porch dome

prayer hall

minaret

Mihrab

Minbar

Qibla wall

porch

door

shady arcades

service room

ablutions fountain

courtyard

reception hall

fortified wall

Umayyad Architecture (661–750)

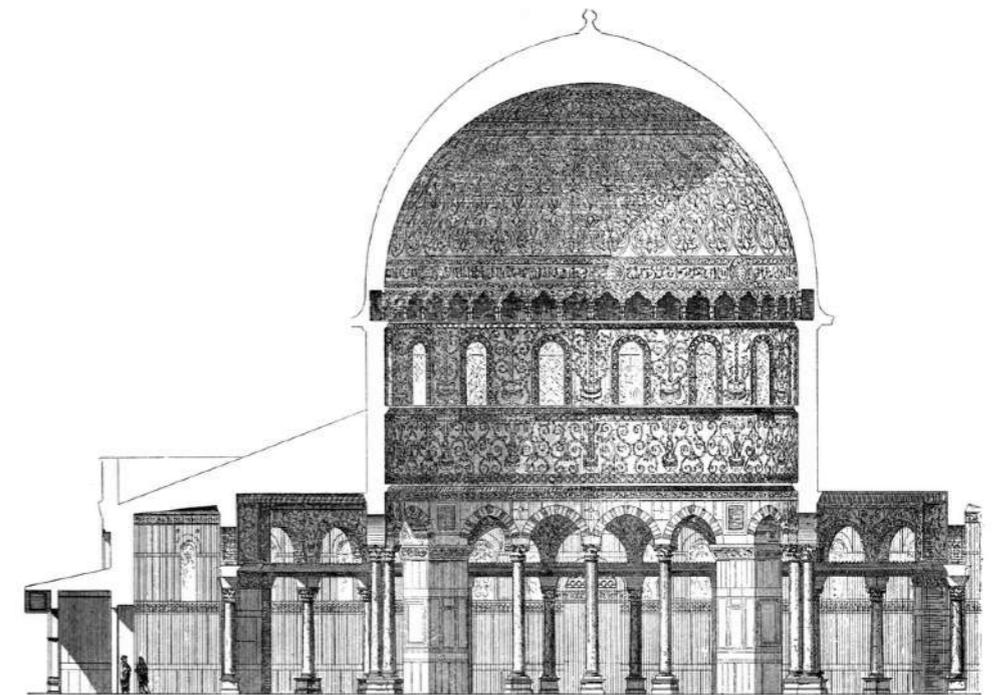
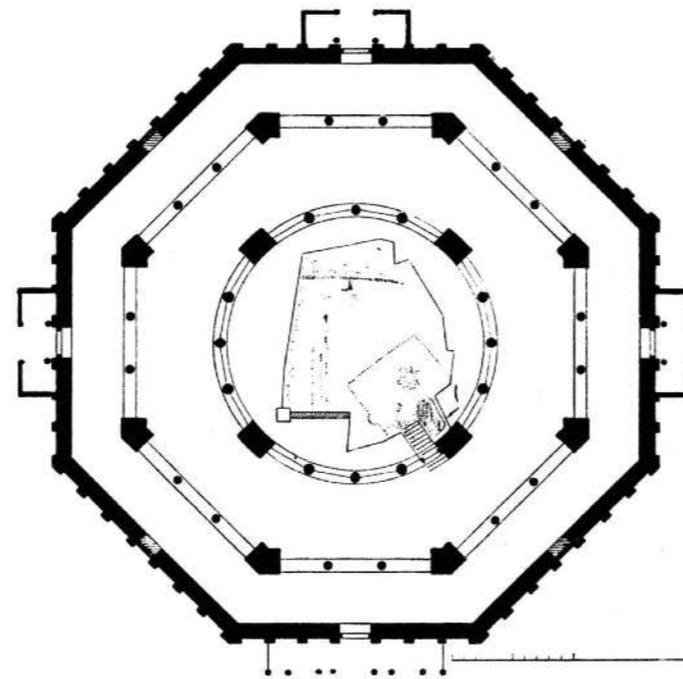
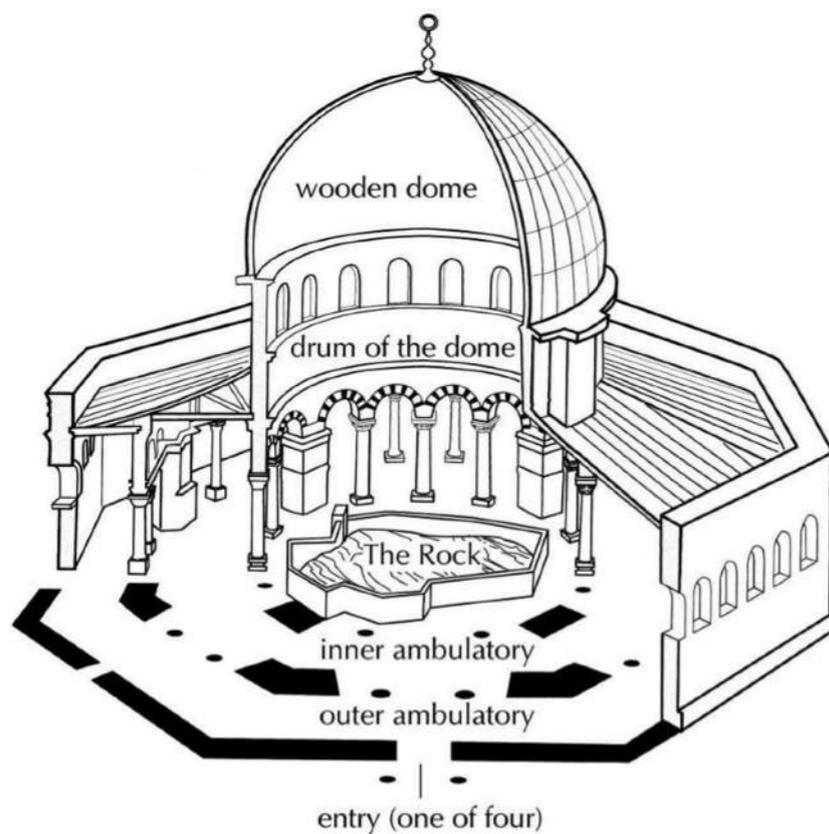
Mosques

The Dome of the Rock, Jerusalem (691)



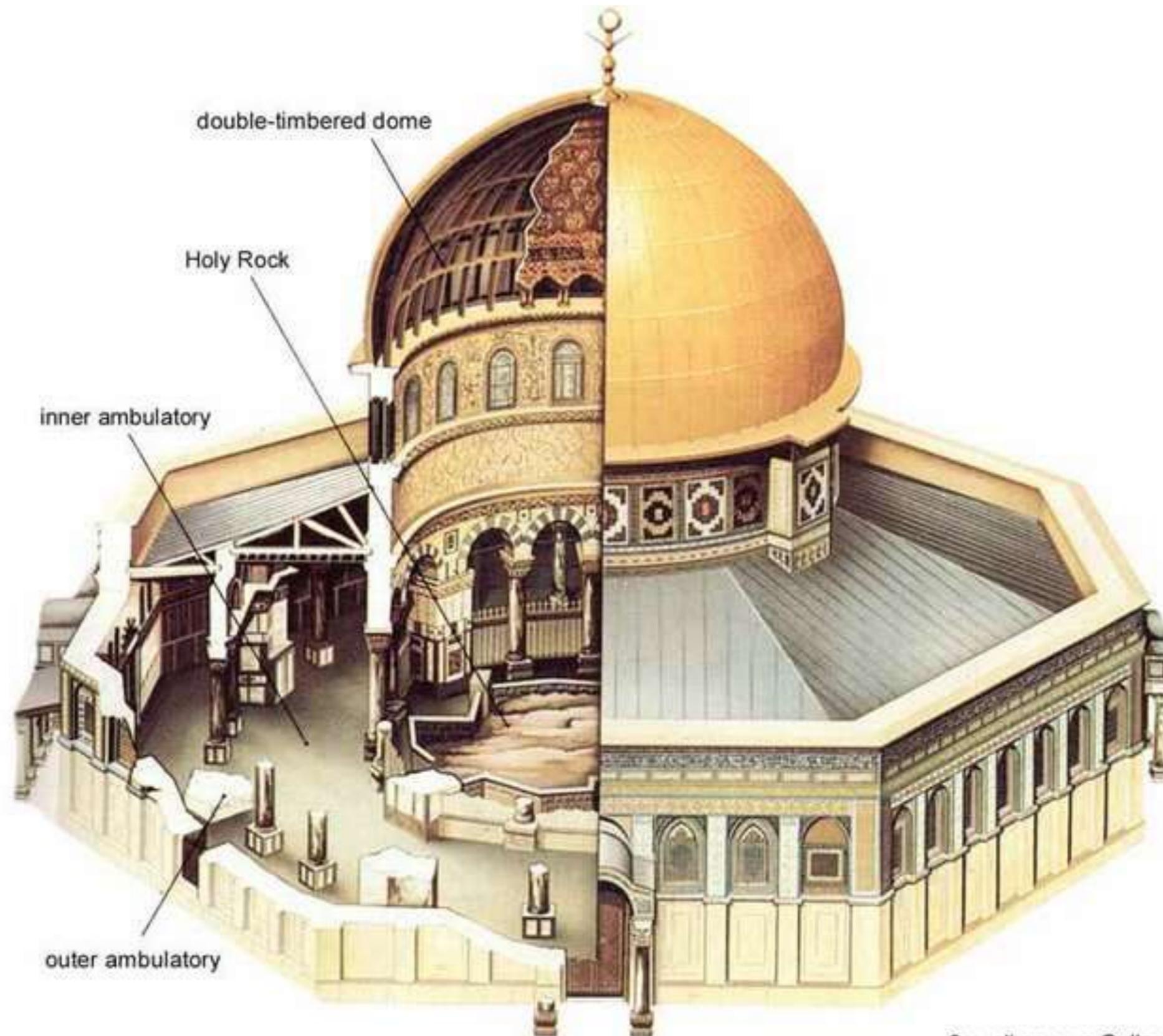
The Dome of the Rock, Jerusalem (691)

- **Octagonal plan**, influenced by the Byzantine architecture
- Can be entered on all fourth points of compass
- Interior space covered by circular wooden dome. The dome reaches 20m across the rock, its drum rests on a **double system of pillars and columns**, the middle one circular, the outer one octagonal



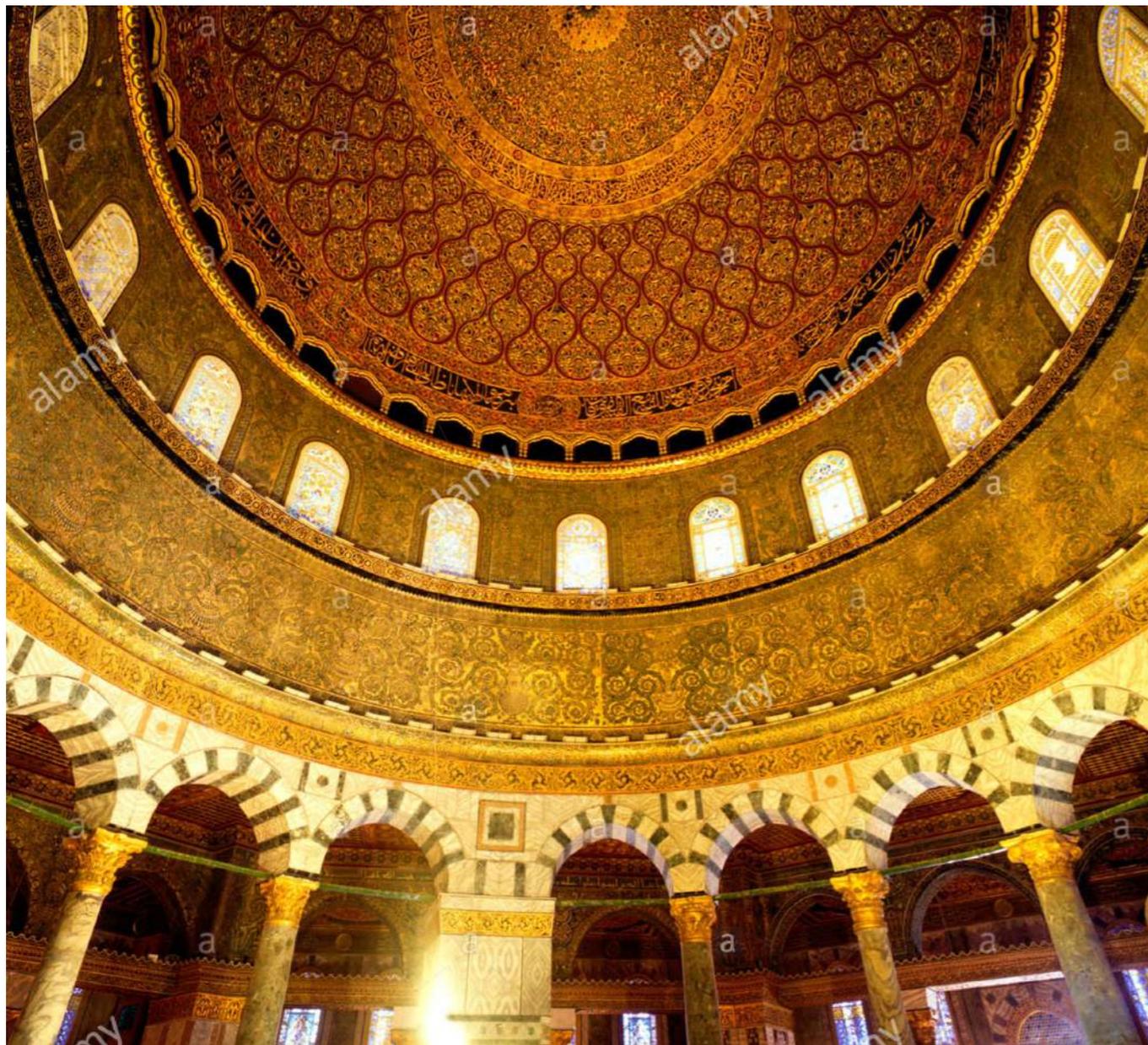
3. JERUSALEM: DER FELSENDOM.

The Dome of the Rock, Jerusalem (691)



The Dome of the Rock, Jerusalem (691)

Byzantine Christian artists were employed to create its mosaics, a repeated decorative arabesque patterns

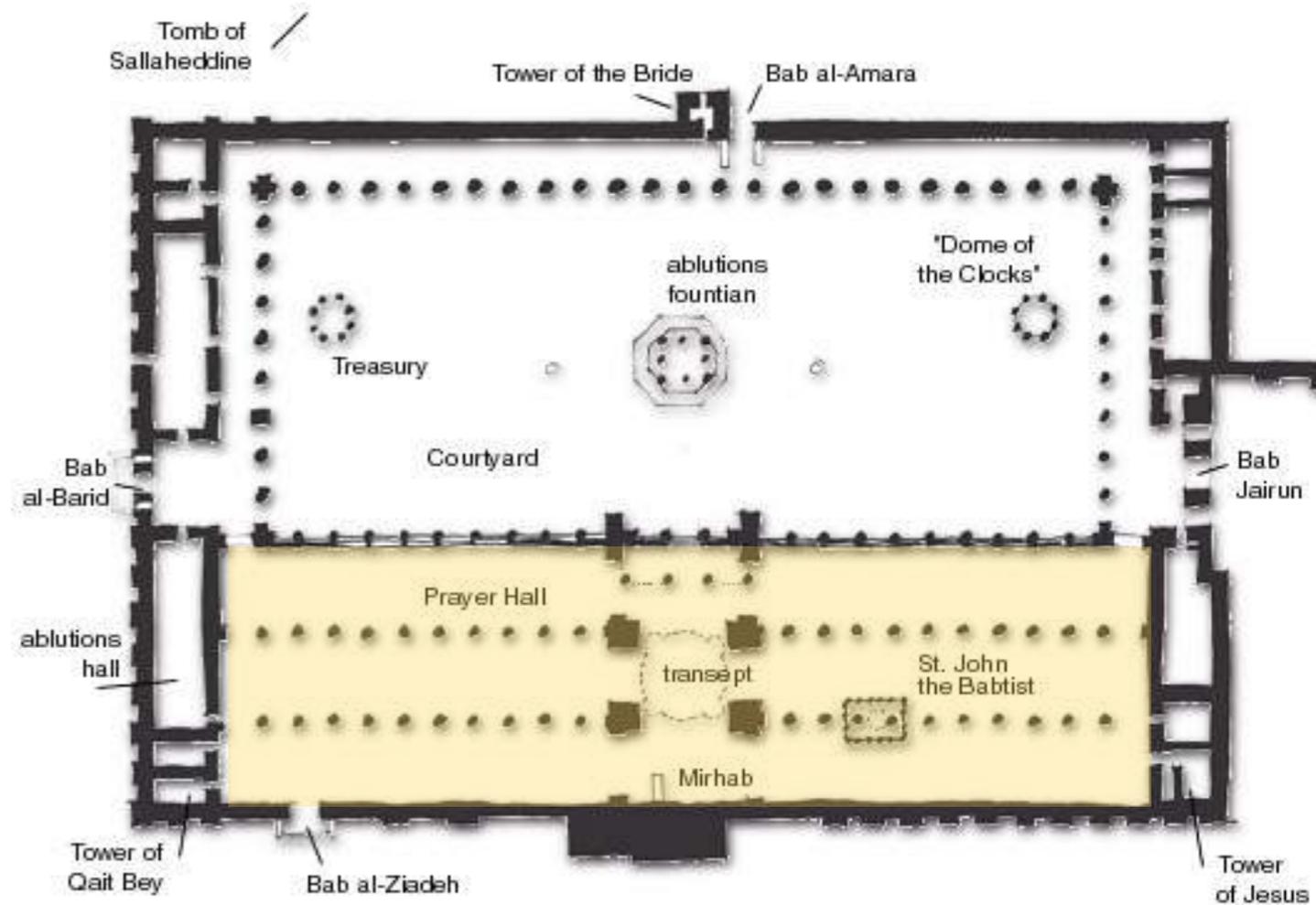


The Great Mosque of Damascus (715)



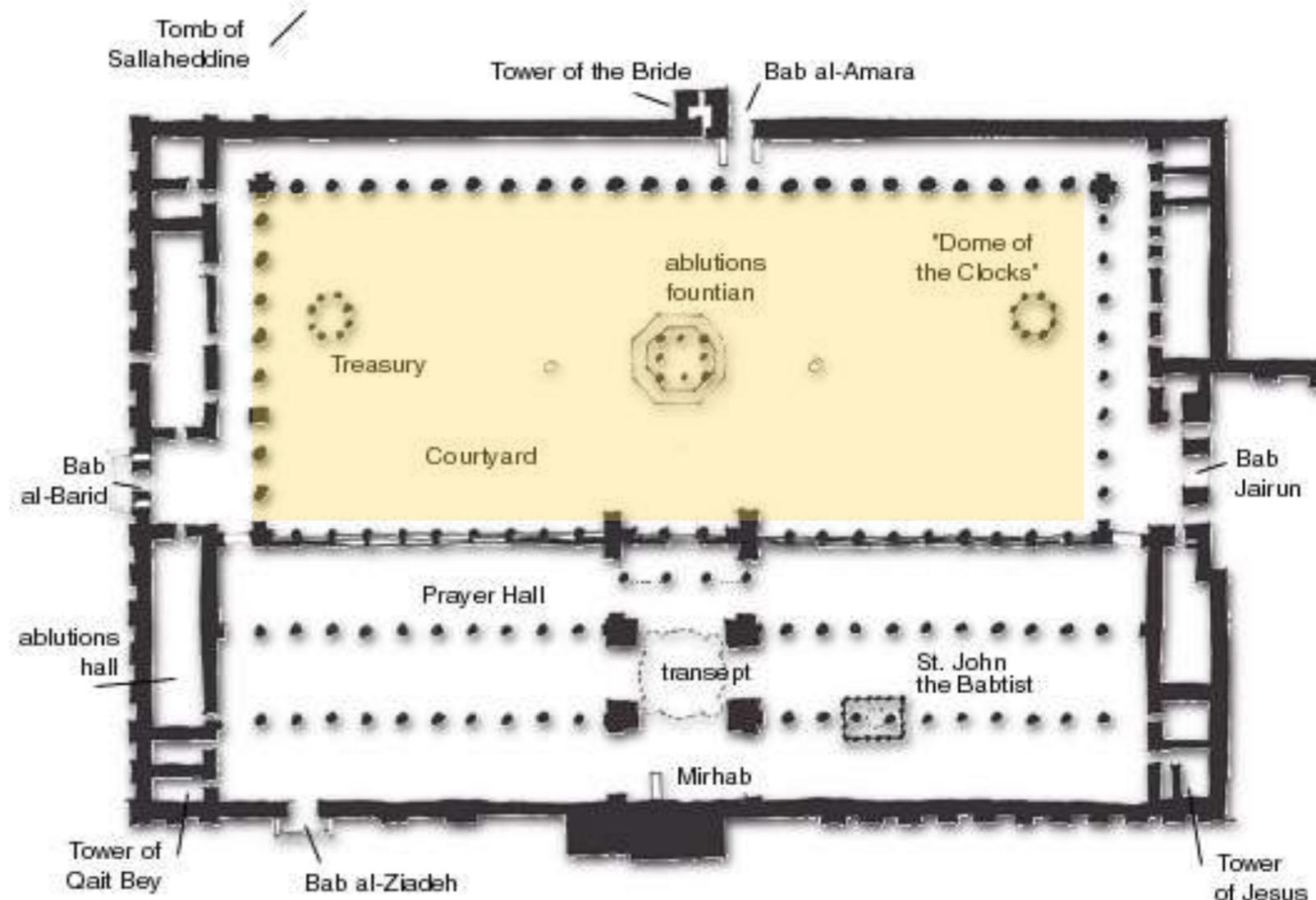
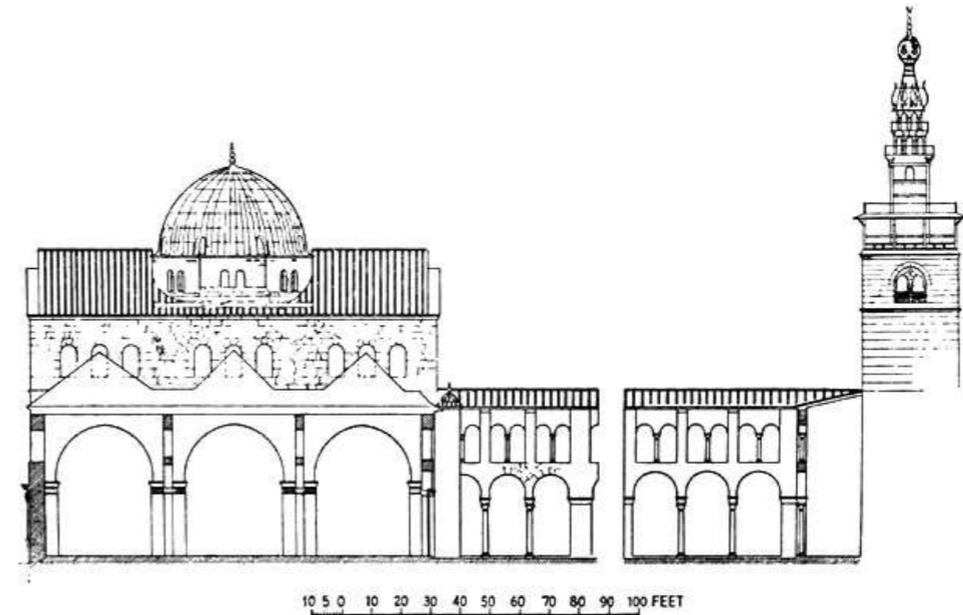
The Great Mosque of Damascus (715)

- The oldest surviving mosque, an architectural model for nearly all later mosques
- Built on the site of a basilica
- It is a large rectangular with an enclosed structure on its long southern half
- Made up of three parallel rooms divided by two rows of repeated classical round arches springing from column to column



The Great Mosque of Damascus (715)

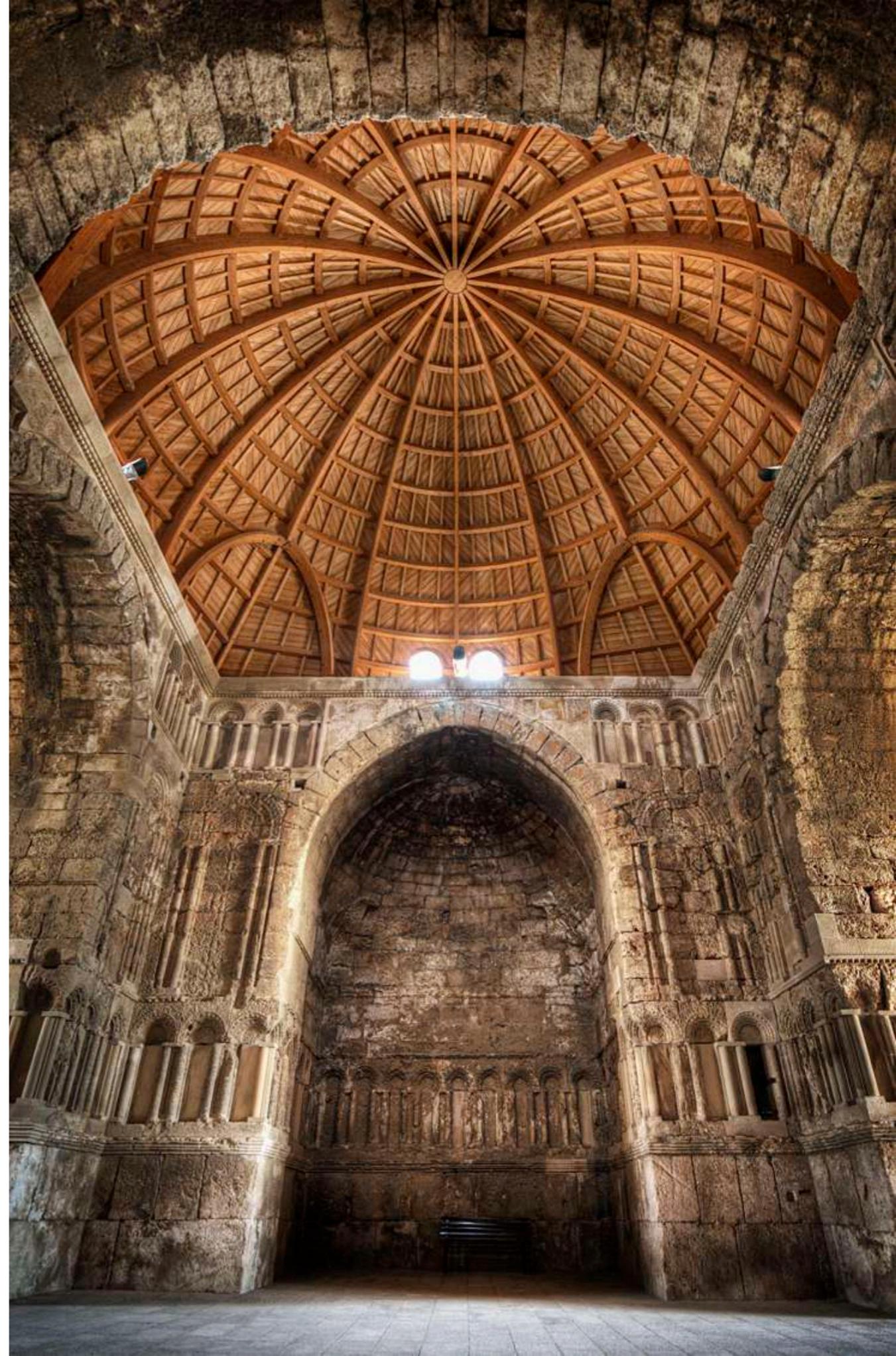
- North of the prayer hall there is an **open court** (the sahn) **surrounded by arched arcades on columns (riwaq)**
- In this courts there is a **fountain** used for ritual ablution before prayer



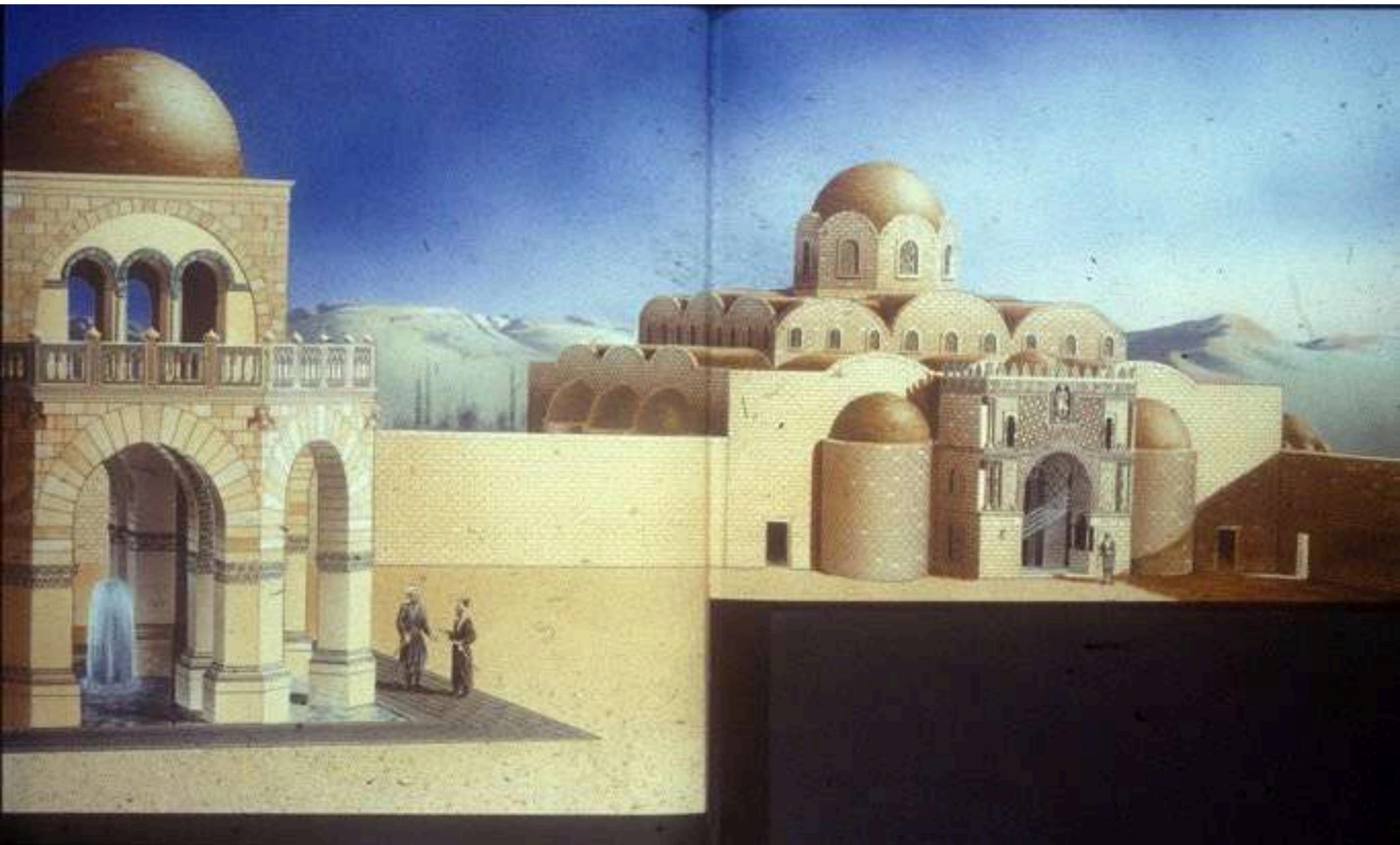
Umayyad Architecture (661–750)
Palaces

Umayyad Palaces characters:

- **Square enclosures**
- **Monumental portals**
- Two storied, porticoes courtyard structure
- **Hunting Lodges** with remarkable quality and highly ornamented
- **Figural representation of rulers, and scenes**
- **Luxury and public baths**

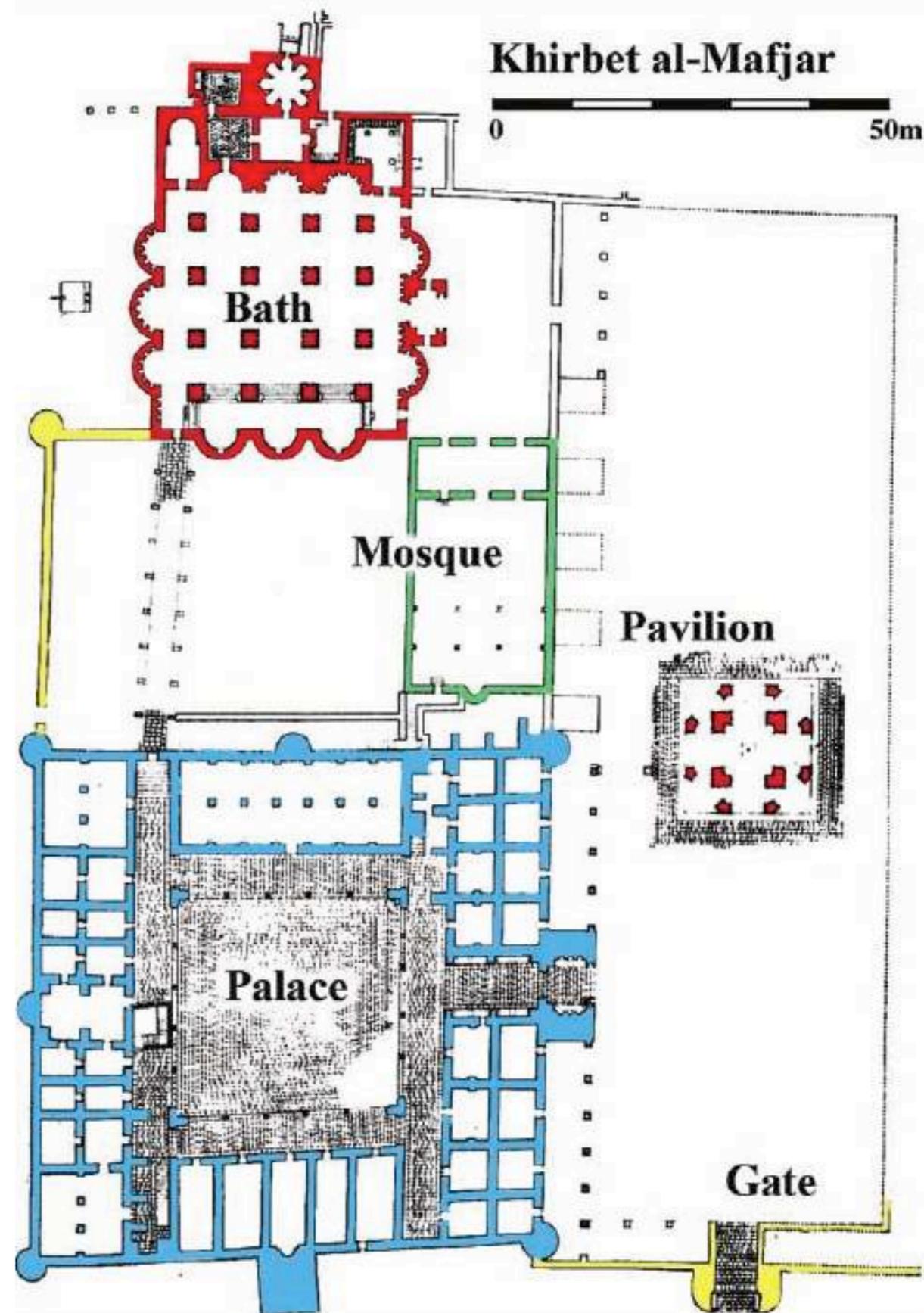


Khirbat Al Mafjar - Qasr Hisham (743)

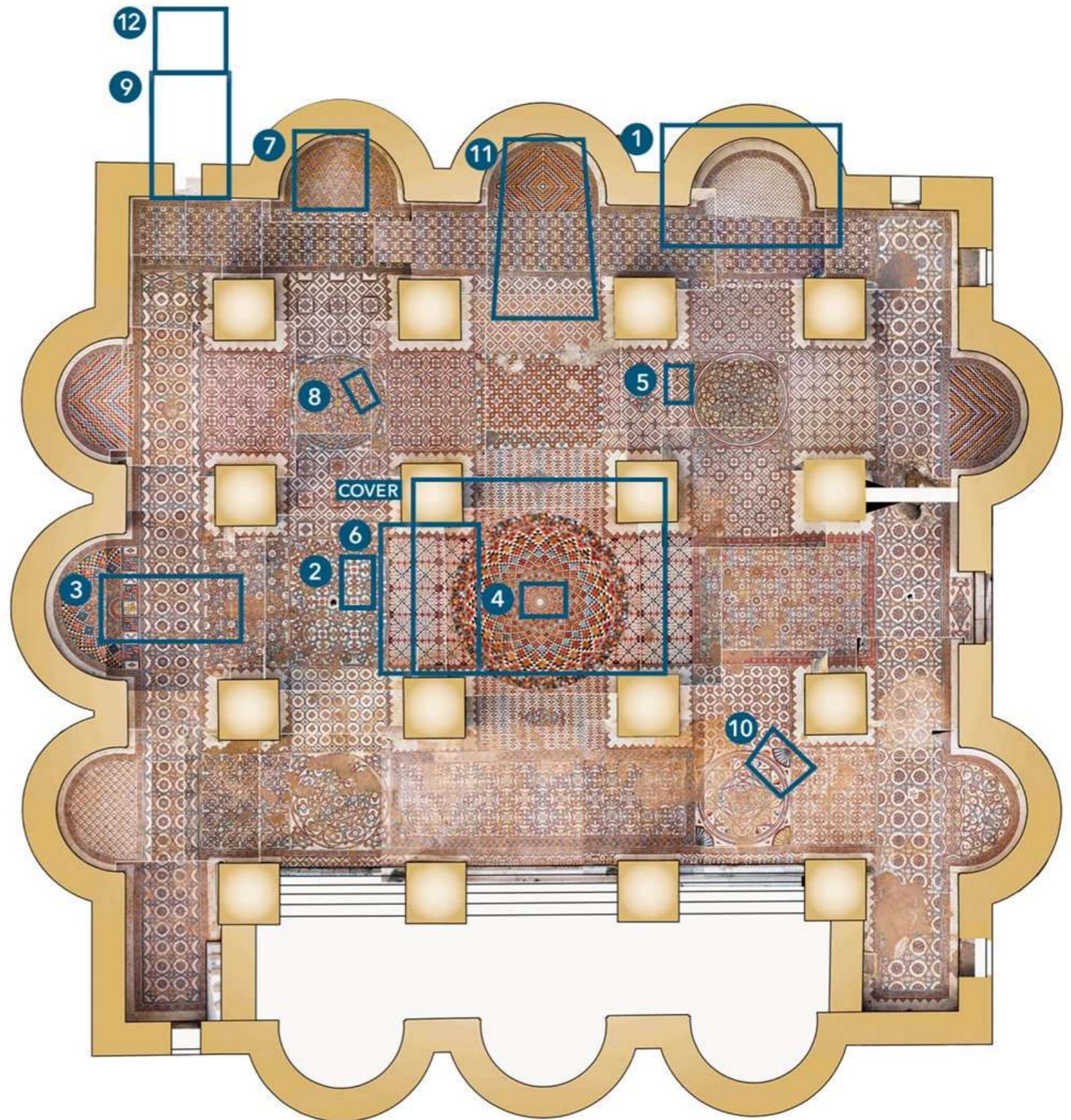
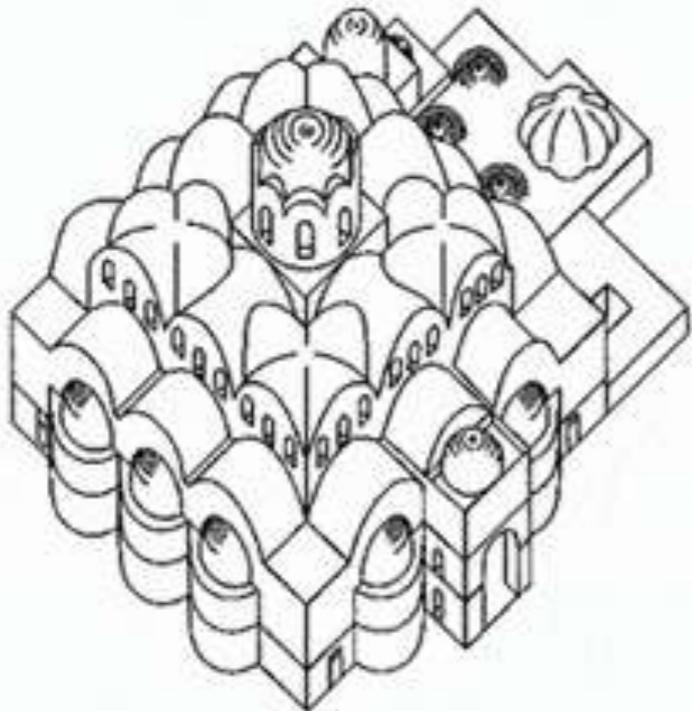


Khirbat Al Mafjar - Qasr Hisham (743)

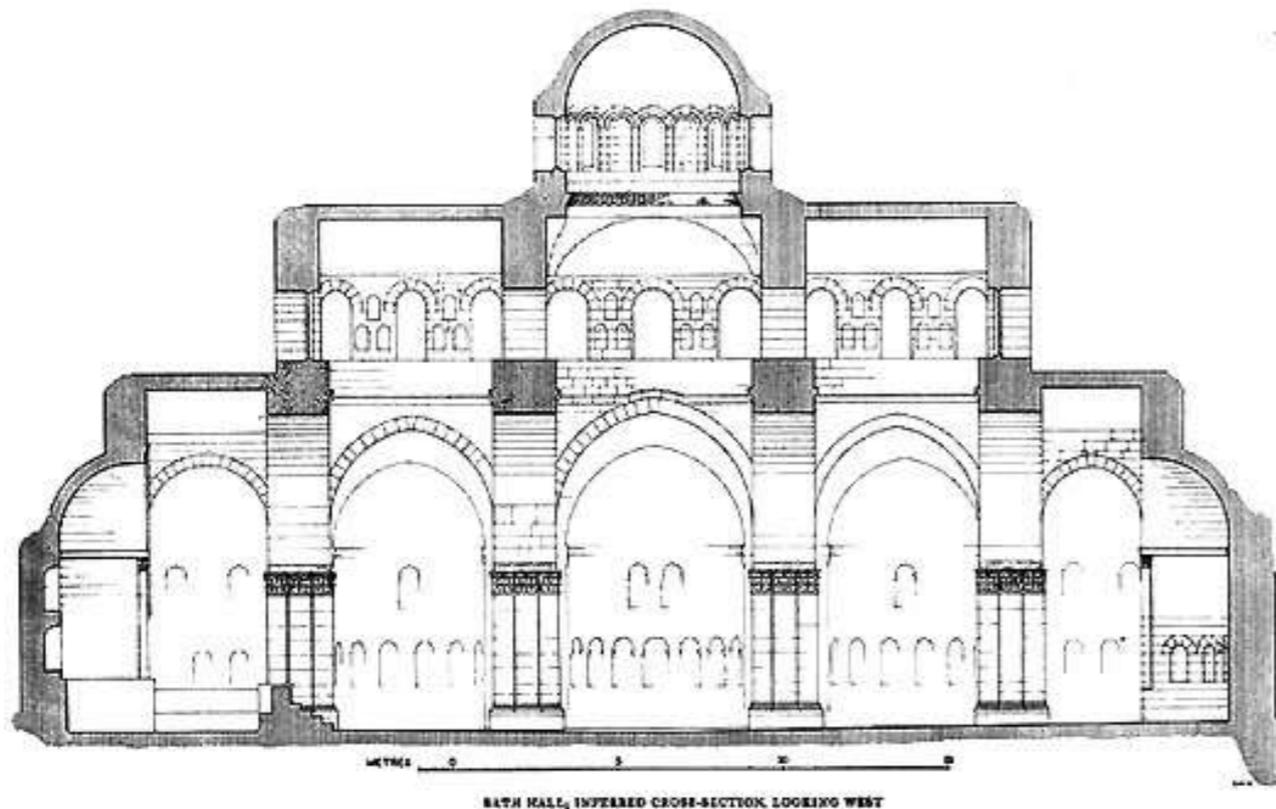
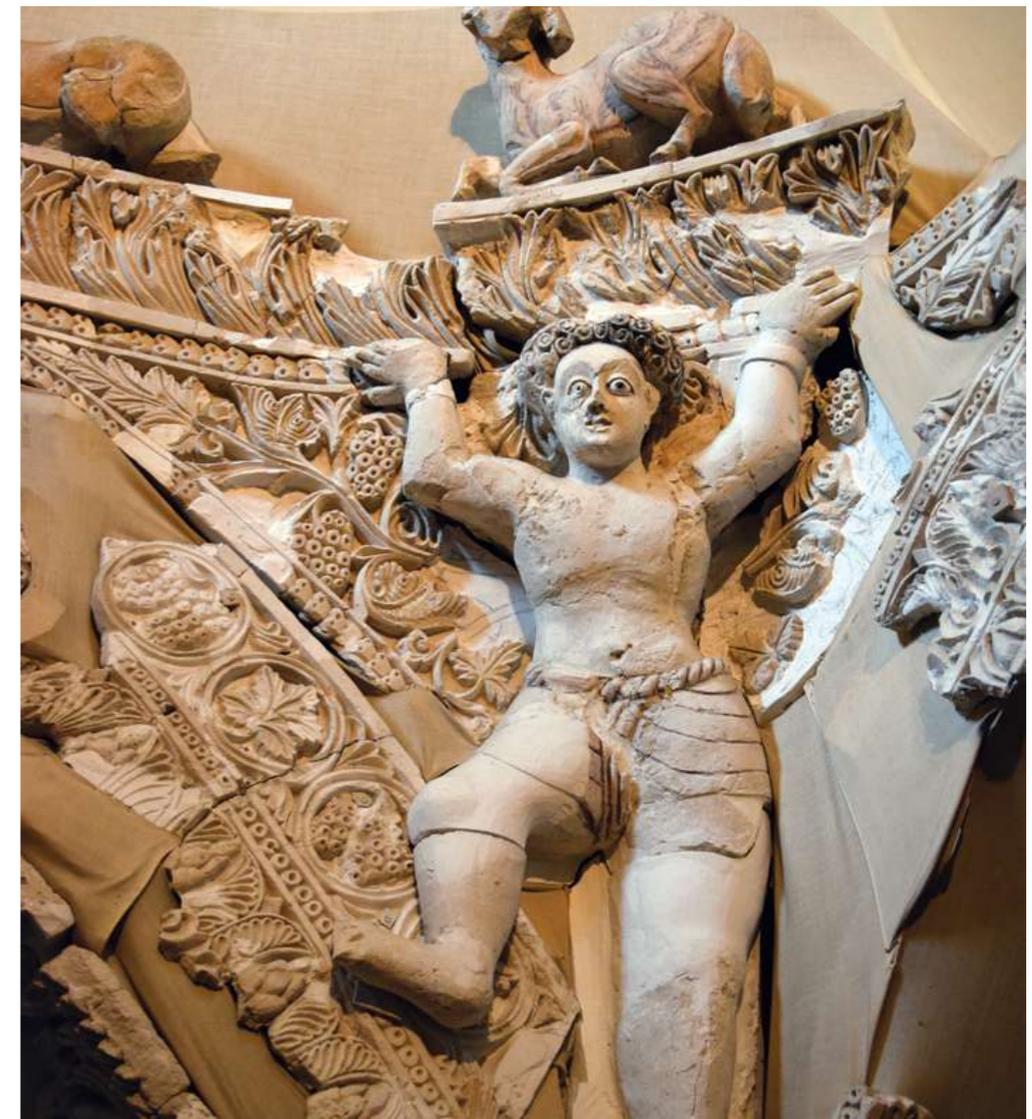
- A complex comprises a square palace, a mosque, and a large bath
- Irregularly planned and unified by a forecourt with a fountain structure
- Different statues (human and animal status) in the transitional zones under domes and pendentives
- Geometric and symbolic mosaic panels in bath hall



Khirbat Al Mafjar - Qasr Hisham (743)



Khirbat Al Mafjar - Qasr Hisham (743)



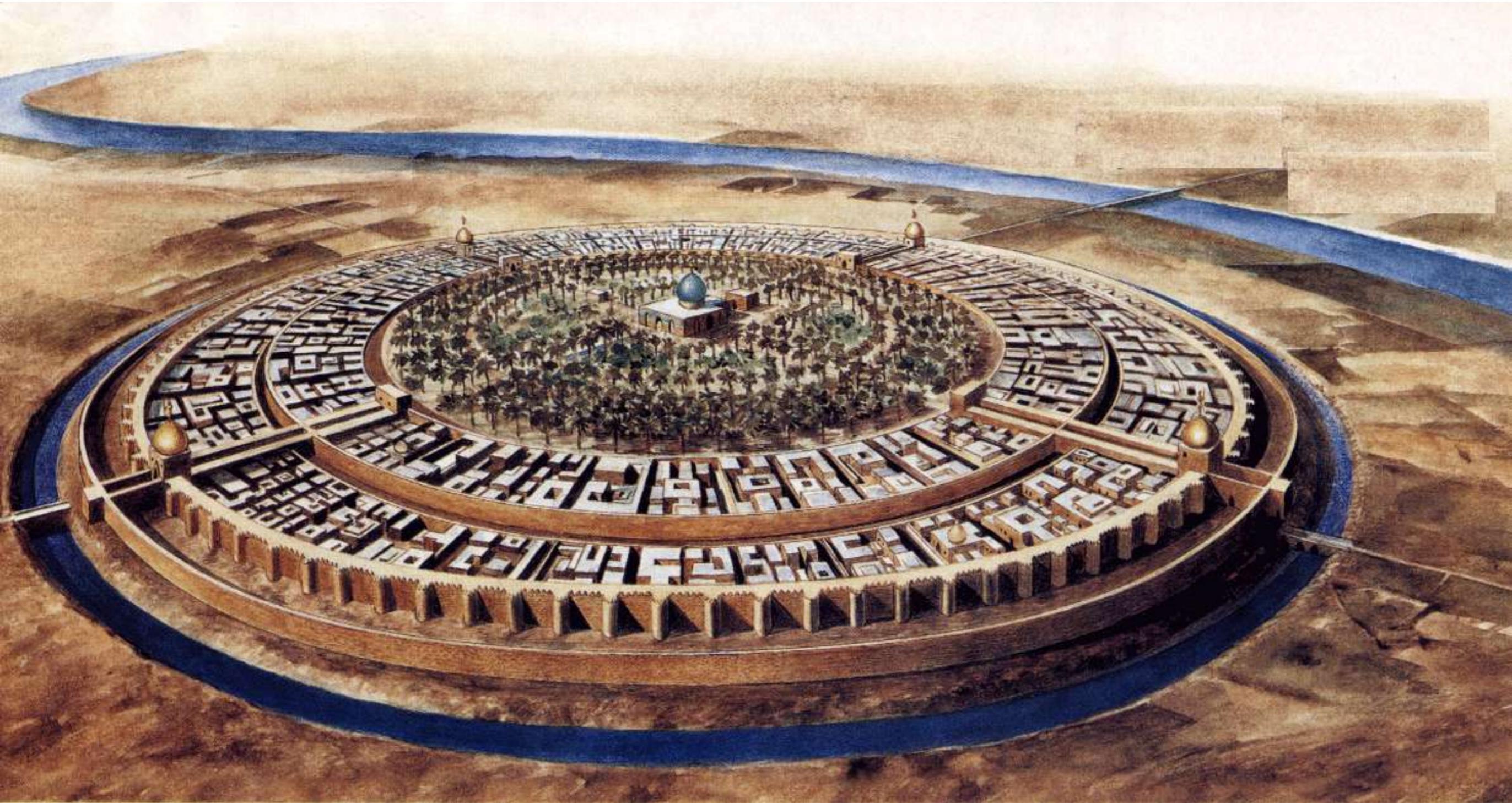
BATH HALL, INFERRRED CROSS-SECTION, LOOKING WEST

Abbasid Architecture (750–1258)



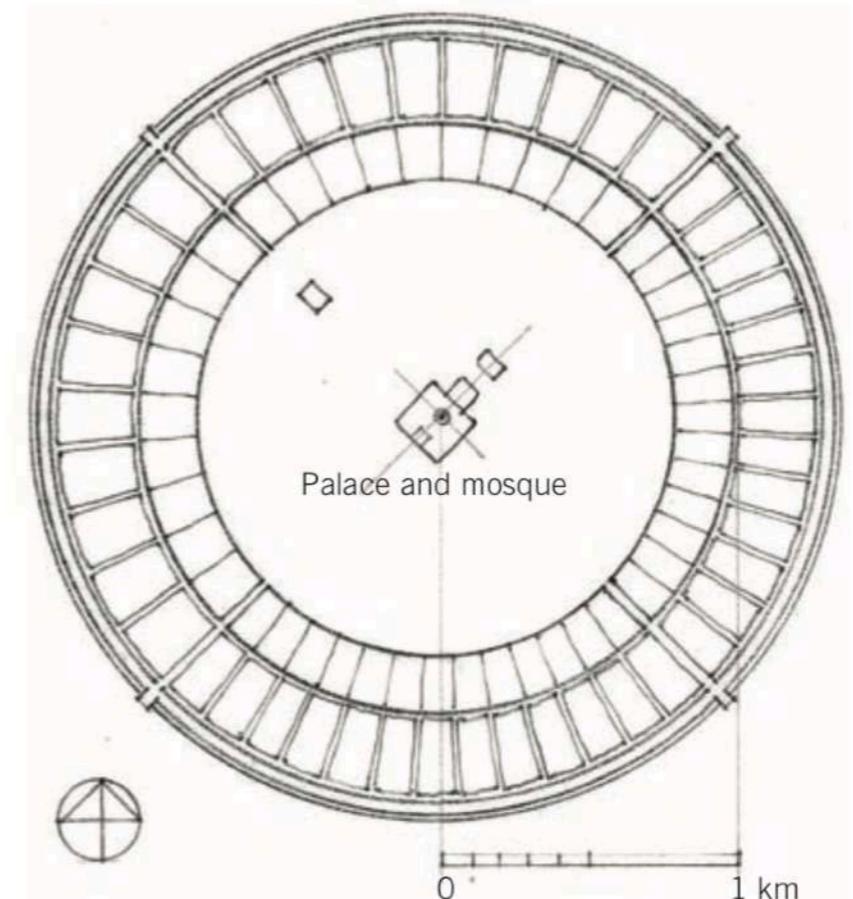
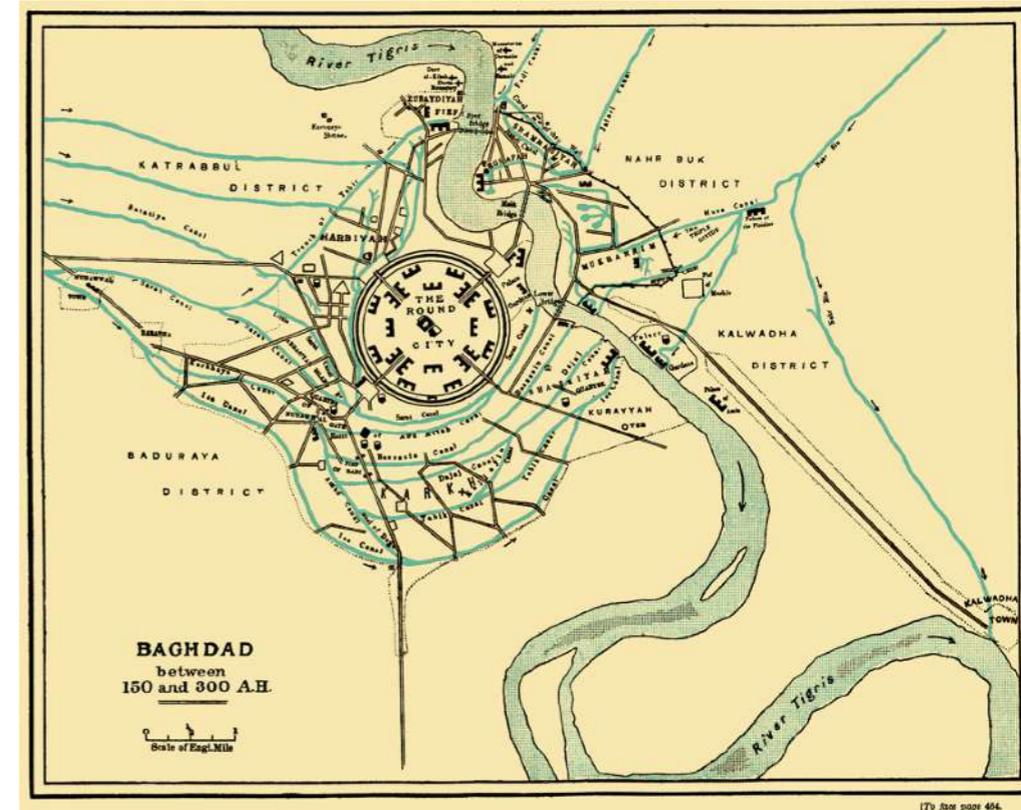
- The Abbasid moved the capital to Iraq (**Baghdad**)
- They inherited the Persian architectural traditions in Mesopotamia
- The period between 750 and 900 was described as the **Islamic Golden Age**
- Early Abbasid architecture was built with mud bricks

The round city of Baghdad



The round city of Baghdad

- One of the most remarkable examples of town planning in history, was the official residence of the Abbasid court
- Was a simple **circle** about 3,000 meters across
- The walls were built of **bricks and ornamented with colorful tiles**
- Two rings of **residential zones** lined the inside walls, leaving a vast area open in the middle for the **palace and mosque**
- The walls were punctured by **four gates**



Al Andalus Architecture (711-1492)



CALIPHATE OF CÓRDOBA

KINGDOM OF LEÓN

KINGDOM OF NAVARRE

KINGDOM OF FRANCE

COUNTY OF CASTILE

RIBAGORÇA

COUNTY OF BARCELONA

Saraqusta (Zaragoza)

Larida (Lleida)

al-Tagr al-A'la (Upper March)

Turtuxa (Tortosa)

Madinat-Salim (Medinaceli)

Tulaytulah (Toledo)

al-Tagr al-Awsat (Middle March)

al-Xarq (Levante)

Balansiya (Valencia)

al-Tagr al-Adna (Lower March)

al-Lixbuna (Lisbon)

Batalyaws (Badajoz)

al-Garb

Silb (Silves)

Isbiliya (Seville)

Qurtuba (Córdoba)

al-Mawsat

Bayyana (Benahadux)

Mursiya (Murcia)

al-Mariyya (Almeria)

al-Yazirat (Algeciras)

Tanja (Tangier)

Mayurca (Majorca)

Mediterranean Sea

Cantabrian Sea

Atlantic Ocean

ZENATA TRIBES

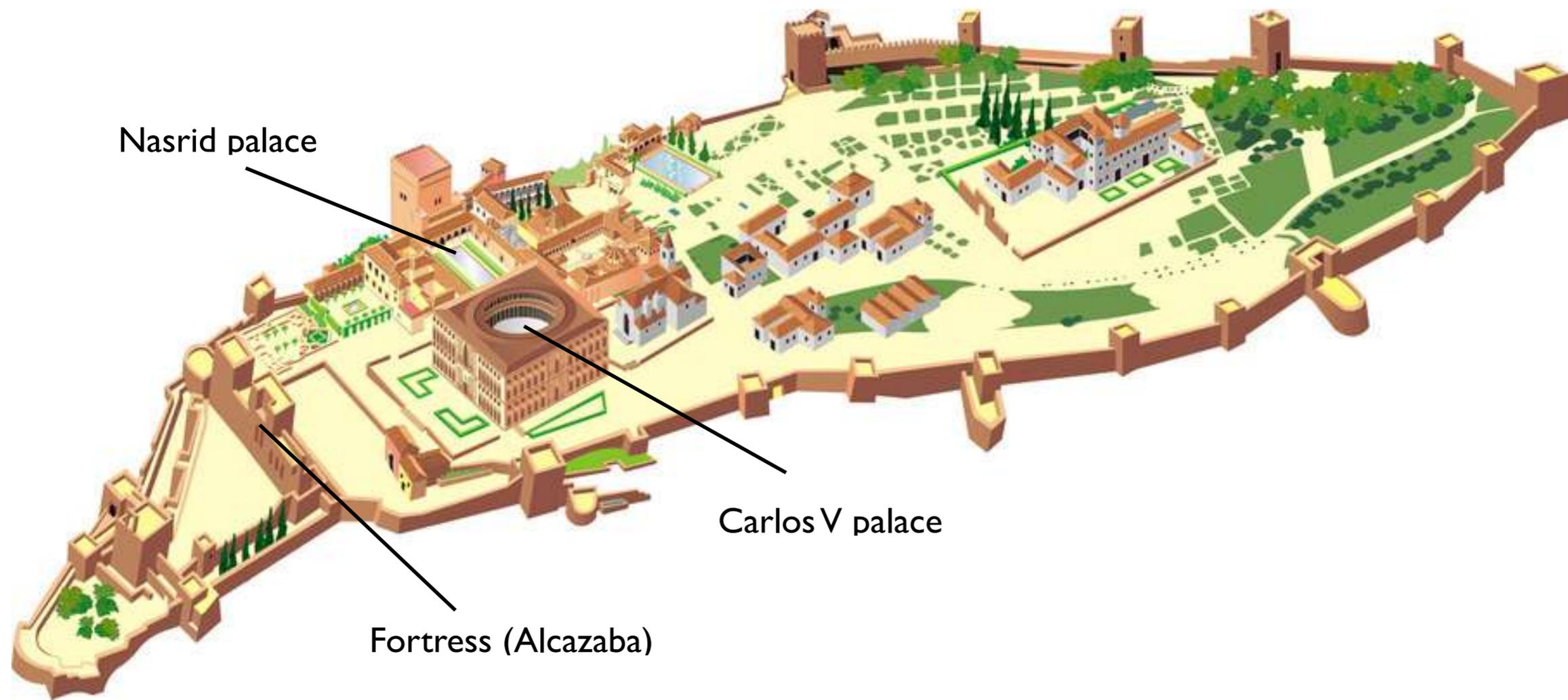
EMIRATE OF NEKOR

Alhambra Palace, Granada



Alhambra Palace, Granada

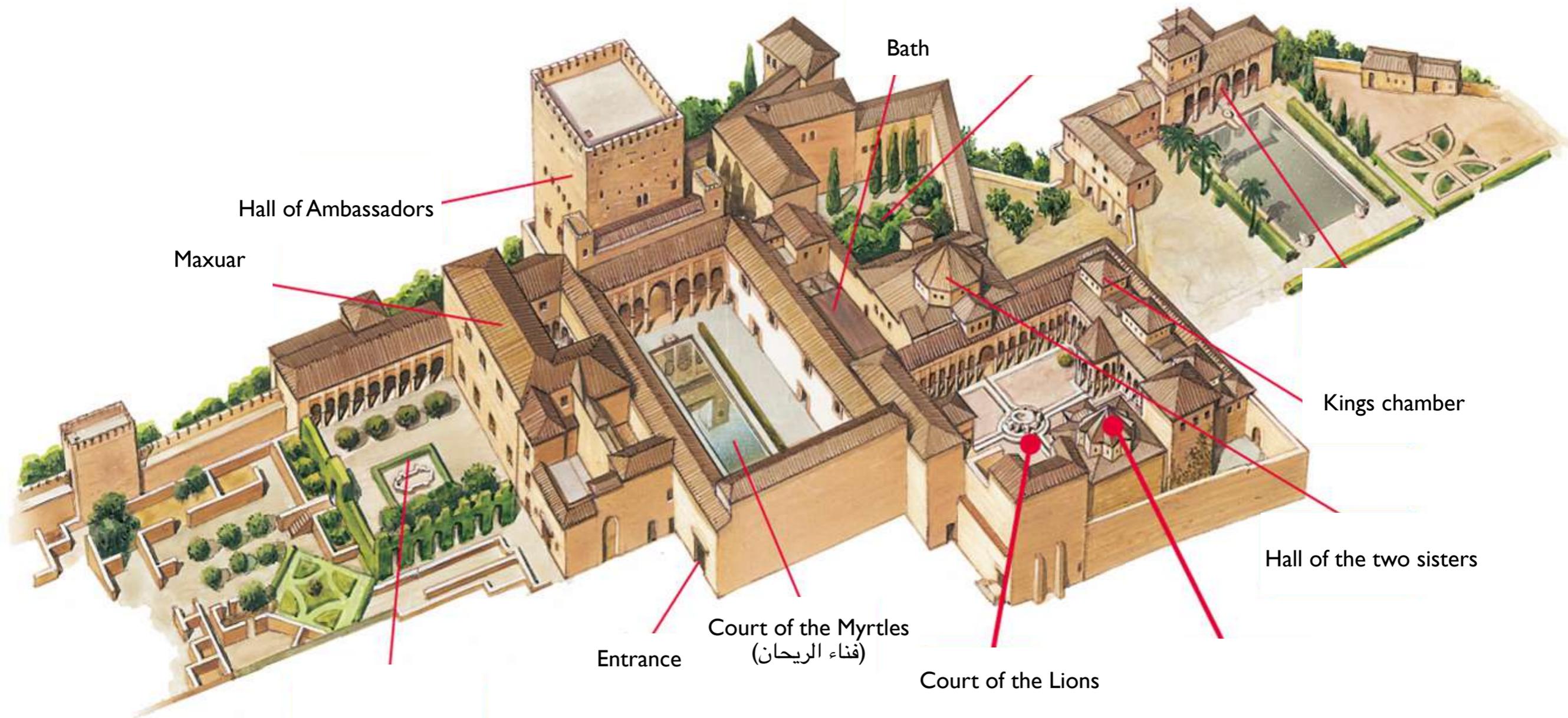
- A palace and fortress complex, originally constructed in 889, then rebuilt in mid 12th century, completed (1333-1353)
- Reflection of the culture of the last centuries of the Moorish rule (Muslim inhabitants of the Maghreb) of Al-Andalus
- The Alcazaba (القصبة) - the citadel, is the oldest part



Alhambra Palace, Granada

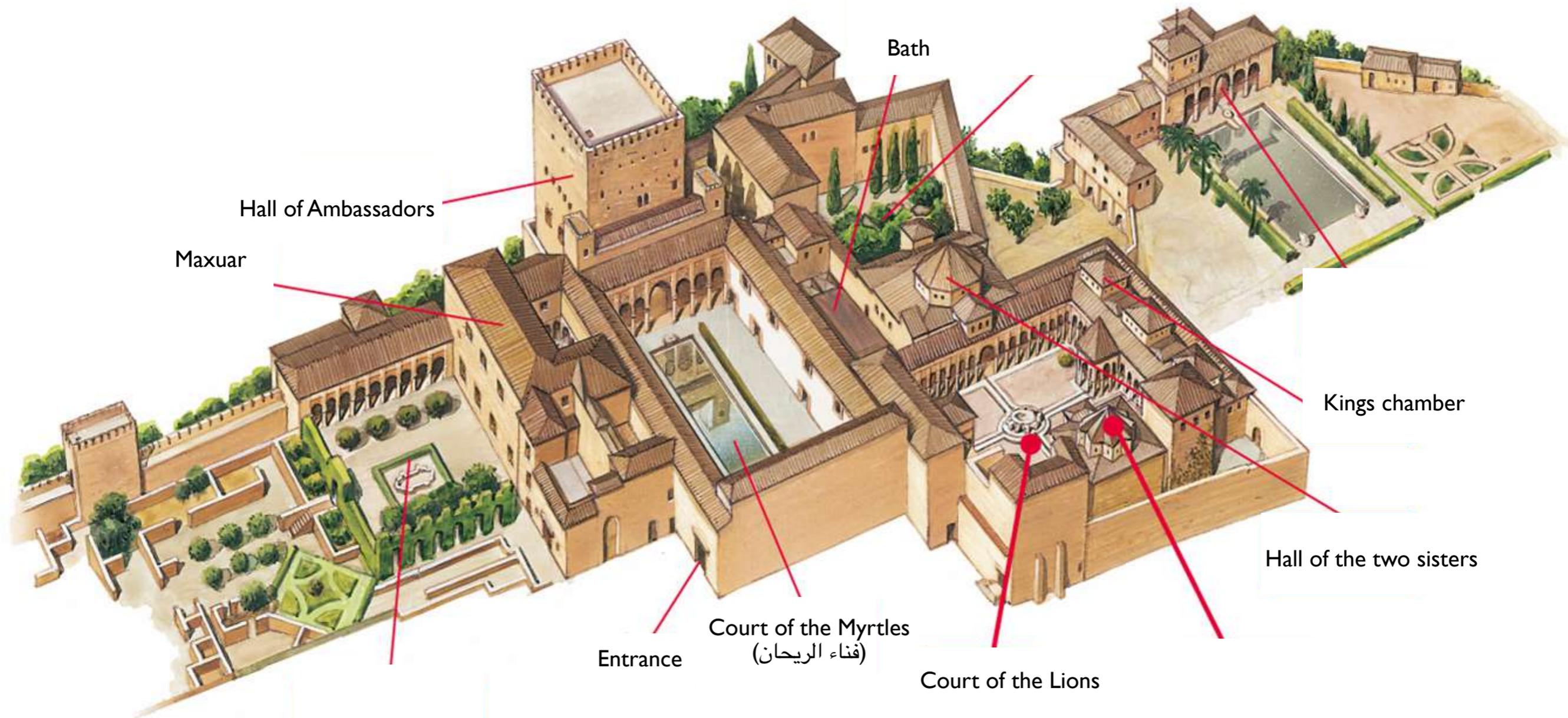
The royal complex had:

- **Mexuar**: functional areas for business and administration
- **The Court of the Myrtles** (فناء الريحان)
- **The harem**: living quarter for wives and mistresses, baths
- **The court of lions**

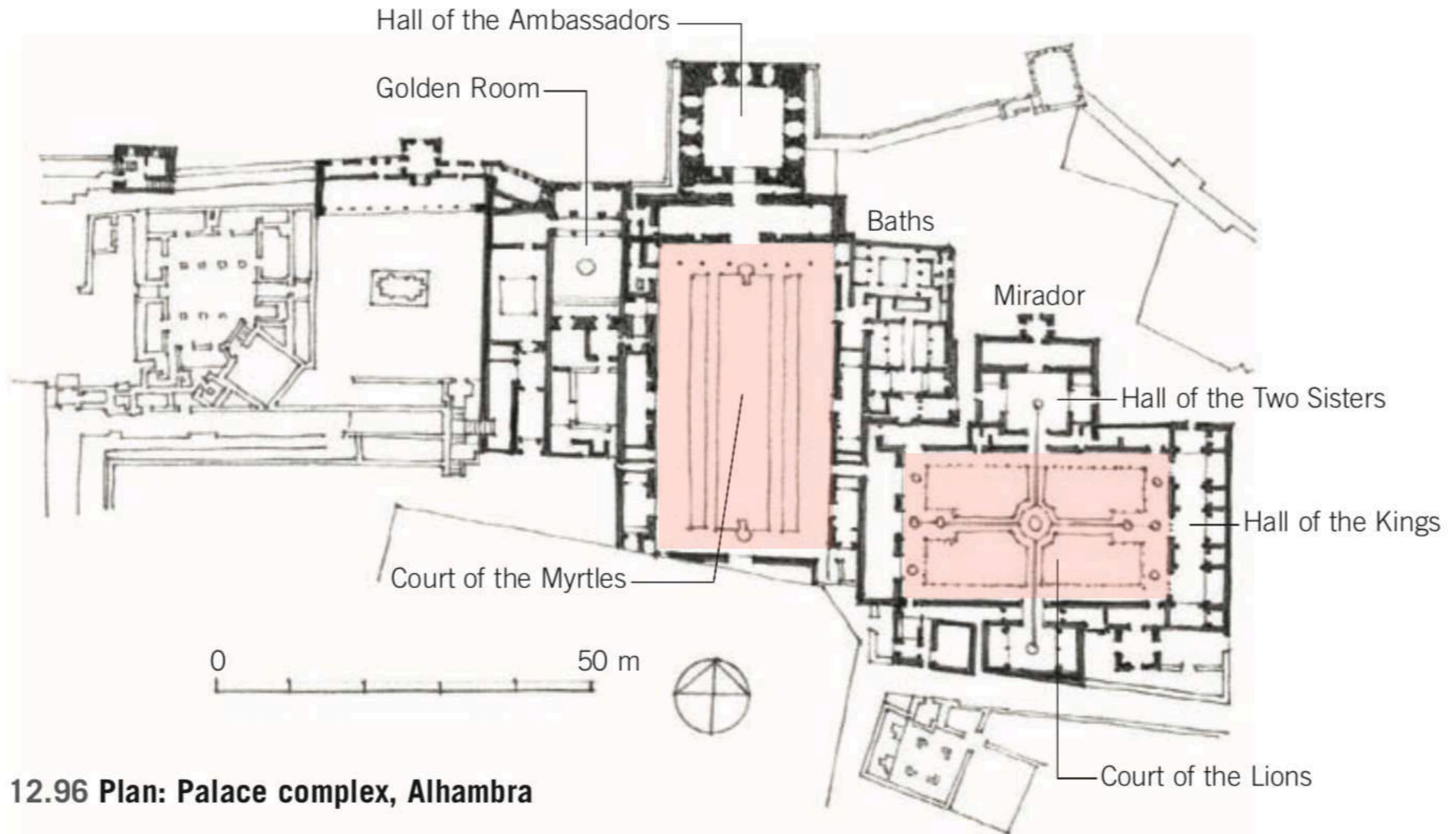


Alhambra Palace, Granada

The palace was designed as a dense network of rooms, mediated by two large patio-gardens placed at right angles to each other and defining two separate areas, a public/political zone and a private zone.



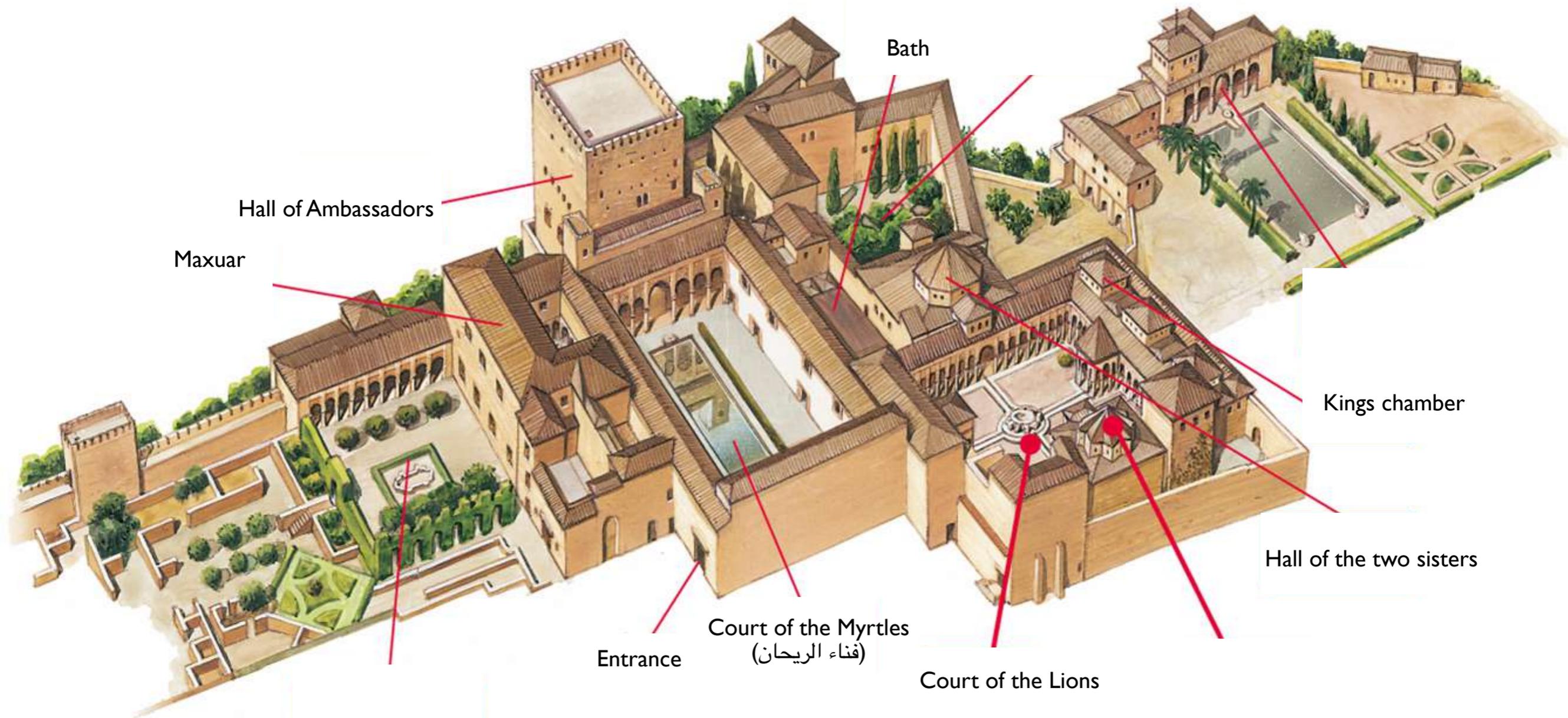
Alhambra Palace, Granada



12.96 Plan: Palace complex, Alhambra

Alhambra Palace, Granada

The **Court of the Myrtles**, with its long reflecting pool, served as the center of the political activities. It focused on the Hall of the Ambassadors, a square room with a high and richly ornamented ceiling



Alhambra Palace, Granada



Muqarnas

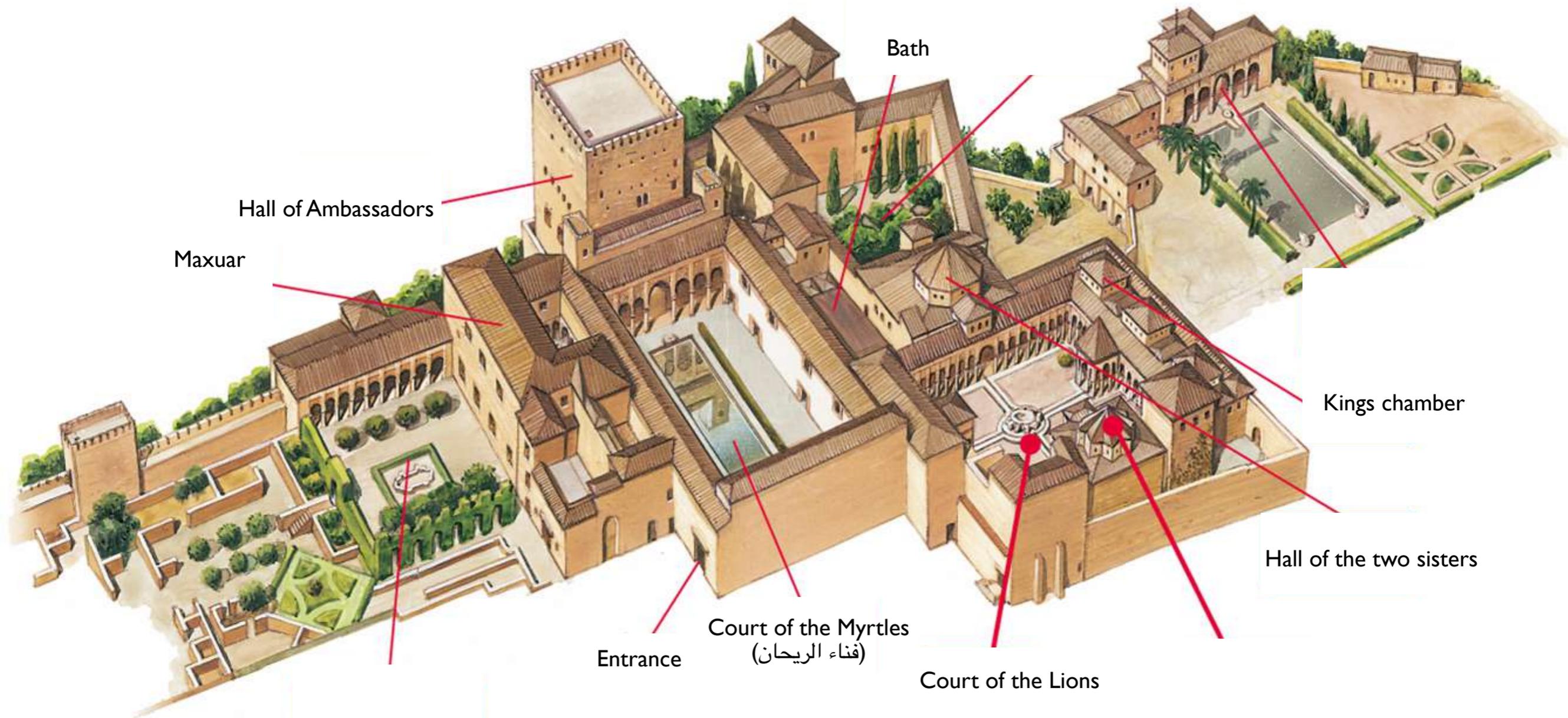
Alhambra Palace, Granada

Court of the Myrtle



Alhambra Palace, Granada

The **Court of the Lions**, by contrast, was the private court for the queen. It has four channels of water representing the four "rivers of paradise" extending cardinally within the columnar portico to a fountain held up by stone lions



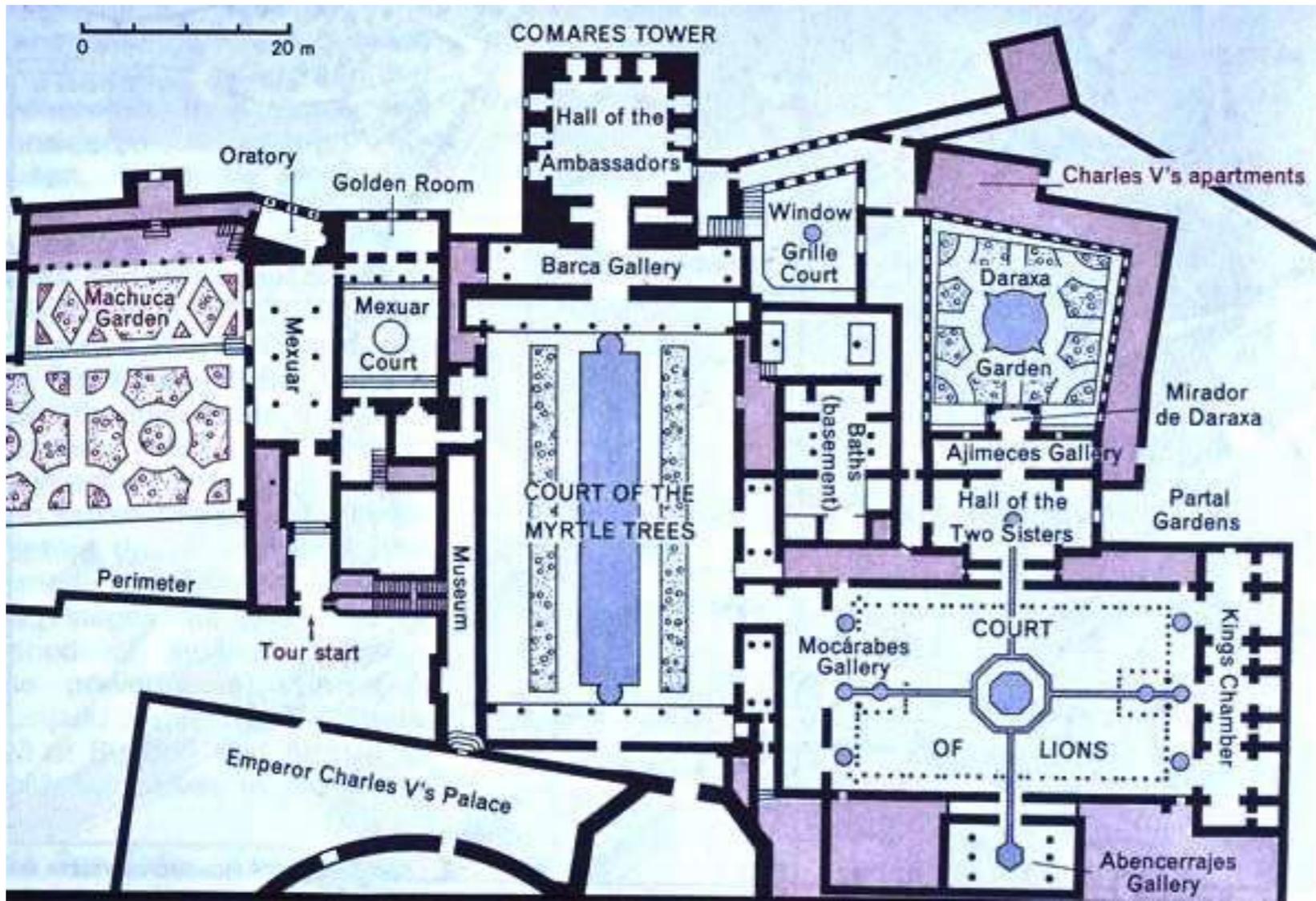
Alhambra Palace, Granada



Court of the Lions

Alhambra Palace, Granada

- The palace was themed as a **paradise on earth**
- Column arcades, fountains with running water, and reflecting pools were used to add to the **aesthetic and functional complexity**



Links

<https://www.youtube.com/watch?v=h04SmywiZ2s>

Next lecture

Renaissance Architecture