Tishk International University
Engineering Faculty
Architecture Department

...... ISLAMIC ARCHITECTURE I......

TOPIC: Islamic City Planning (8)

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Definition:

The city in general, and Islamic city in particular, is more than just a geographical or historical phenomenon. Rather, it is, first and foremost, a cultural-religious phenomenon characterized by the reconstruction and organization of its place, and in the material laws and Islamic spiritual values are mixed, and therefore it is a reflection of a belief system, social and cultural. It is confined to the life of the concerned group, but goes beyond it to affect the planning of the city itself.

The emergence factors of Islamic city:

1- The religious factor: An example is the many settlements between Baghdad and Najaf, and between Baghdad and Makkah Al-Mukarramah.
2- Administrative (political) factor: for example, the city of Fustat, Baghdad and Kairouan
3- Defensive (military) factor: The caliphs wanted to show strength to their neighbors, in addition to their fear of living without protection in cities that were not previously under their protection. These factors have been translated into building camps and castles, and have transformed over time into great cities, examples of Islamic city defense cities: Basra, Kufa, Tunisia, Damascus, Saada and Sana'a.
4- The natural factor (position and location): Some Islamic cities did not choose a place randomly, but rather relied on a number of natural factors:
   a. Choose a strategic location, such as on a hill, near a river (like Baghdad and Samarra), or near the desert border (like Kufa).
   B. Proximity to arable land.
   C. Health care taken into consideration (Fresh Air)

5- The economic factor (especially the commercial factor): Many factors fall under this factor in planning the Islamic city. The tribute paid by non-Muslim countries that do not wish to enter the war with Muslims, in addition to the expansion that took place in the Islamic empire, all this encouraged the caliphate to spend huge sums in search of a luxurious life.

6- The social factor: During the expansion of the Islamic empire, many people became interested in the Islamic way of life, and at times the caliph wanted to compete and imitate neighboring empires, which were famous for their architecture and urban structures. The Caliph set out to establish new cities due to his belief in the necessity not to stay in the cities that were established before Islam. There is a close relationship between the Islamic religion and urbanization as the Muslims established mosques in their areas and gathered around it from both supporters and immigrants, then it will develop over time into a small urban center and then into a city.
Classification of Islamic city:

1 Pre-planned town: They are the cities that arose as a result of the will of the Muslims, which is called Al-Emsar. These cities are the centers of congregation for the armies of the Islamic conquests, such as Kufa, Askar, and Fustat.

2 Spontaneous Towns: They are the cities that arose and developed organically and without planning from a governmental authority or a central power such as Basra.

3 Cities that Islam entered and turned to the traditional fabric: They are existing cities and Islam has entered them, as they are cumulative cities with continuous organic growth, such as the city of Damascus, and these cities have evolved over time in a manner that meets the requirements of Muslims and is in line with the teachings of the Islamic faith, which at the same time expresses the strength of the Islamic religion and its new concepts in changing the features of cities Old
Planning elements of the Islamic city

A- City Center:  
1- Jama Masjid  
2 public squares  
3 Markets  
4 Palaces

B- Movement Network:  
1 Public  
2 Dead-end streets

C- Residential neighborhood:
Planning elements of the Arab Islamic city

A - City Center:
The central area consists of a dense fabric of religious, commercial, administrative and social activities, as the Jama Masjid often occupies a central location in the heart of the city at the intersection point of the main roads.

1 Jama Masjid:
The mosque plays an important role in the spiritual and religious life of the city's residents, and it is the religious, cultural, political and social center of the -Islamic city, as it is the center of all activities in it and the center of spiritual and intellectual activity for Muslims, as many religious and worldly activities are performed in it.

2 public squares:
The public squares in the Islamic cities almost disappeared in their form known in other cities, because the courtyard inside the mosque has this function, and from here the public squares in the city center did not appear a prominent element in their planning

3 Markets:
Markets are the most important element in the city after the mosque and one of its essential requirements. Its distinctive characteristics, development and urban integration are one of the tributaries contributing to the development of the city. Therefore, it is an important input in the planning of commercial areas as one of the important elements to link the contemporary Islamic city with its ancient civilizational heritage.

4 The palace and its administrative extension appeared at times within the city's compounds.
**B- Movement Network:**

1 Public Road Network:

They are on three levels, the first level, which are the main roads and form the backbone of the traffic system in the city. The streets of this level sometimes connect the main gates of the city to its center, as the mosque and the main markets are located. The second level is the main local roads and links between the first level streets, and it also serves as the main arteries that connect the neighboring shops. The third level is the secondary roads in the locality, which in turn achieve interconnecting corridors for the areas within a single locality that are not served by the roads from the second level.

2 Dead-end streets can be divided into two parts:

a. It can be striped, in which a group of individuals splits a piece Land and part of it set closed streets.

B may appear over time, by increasing growth in the contiguity of properties as a necessary space for movement.
C- Residential neighborhood:
The traditional residential neighborhood (Mahalla) represents a unit consisting of demographic elements with a homogeneous social structure united by the religious, tribal or national bond, and these shops perform residential, military and religious functions as well.

Characteristics of the urban structure fabric in Islamic city:

1) The horizontal formation of the general formation in the skyline of the city and breaking that horizontal with prominent elements such as minaret and domes.

2) Respecting the human scale, although the explicit scale is not rejected.

3) Unity and diversity: [the unity of the general formation and the mass diversity of the individual building units in the form that creates visual pleasure].

4) Organic composition as well as the clear engineering of the important buildings in a way that blends two different patterns (the general organic planning pattern for the area with the strict engineering planning of public buildings).

5) The structural coverage is denser than the outer space surrounding it, or that which permeates it through courtyards and movement channels, creating the so-called positive masses / positive spaces.
Characteristics of the urban structure fabric in Islamic city:

6) Flexibility in addition and horizontal extension (in case of future expansion).

7) The clarity of the space hierarchy in the relationship between the public space and the private space in a way that distinguishes the Islamic city from other cities.

8) Organic public spaces such as alleys, assembly spaces, and the engineering of external spaces such as internal yards.

9) The cohesion between the building blocks, and the openness of the building units towards the interior (Inward Looking Planning).

10) The element of surprise is one of the important elements that characterize the planning pattern of the traditional Islamic city.

11) Harmonious response to the topography of the site and taking into account the elements of the natural environment (such as climate, etc.).
The Early Amsar:

((The necessity to maintain contact with the caliph in Medina. In general, it was decided to settle them in new cities, called misr (pl. amsar)).

The first two were in Iraq, Basra and Kufa, both founded in 17 (638).

1- Old Basra was located at the modern town of al-Zubayr, west of modern Basra, and much of it remains an open archaeological site, but it has been little excavated. It was divided into five tribal quarters in the early period, and the site of the mosque is known.

2- Kufa is much better known from the texts but since a modern town exists there over the top of it, only the site of the mosque and governor’s palace is known archaeologically. In its initial form, there was a central square with a mosque with a prayer hall with reused columns from al-Hira. Although there was a ditch around the mosque, the city was unwalled, and at the end of the Umayyad period there were 15 avenues dividing the tribal quarters.
3- The third misr of importance was Fustat in Egypt, the ancestor of Cairo. Here the tribal quarters were distributed north and south of the mosque of ‘Amr, the conqueror of Egypt. Under the later Fatimid construction, very little of early Fustat is preserved. However, the only part of a seventh-century misr revealed by archaeologists in the outlying sector of Istabl Antar: narrow irregular lanes with small mud-brick buildings.

The model of the misr, as the garrison, continued to spread at Qayrawan in Tunisia (670s), and at Merv in Turkmenistan, although in that case the army was settled throughout the Merv oasis.

Whatever the origins of this kind of urban settlement, the components are not very different from those of the complexes of the desert castles, the country residences of the Umayyad elite. Anjar possesses the same elements as Jabal Says, a complex of castle, mosque, bath, and house, but it is presented in an urban aspect with fortifications and an orthogonal plan.
Figure 2.6 Fusṭāṭ (Egypt). House VI with a T-shaped hall (maqālīs al-Hirī) on either side of a central courtyard.

2.7 Fusṭāṭ (Egypt). Reconstructed view across the courtyard of House VI.
Baghdad

((Abu Jaʿfar al-Mansur Abbasid Caliphate founded Baghdad in 762–766. Baghdad, formally Madinat al-Salam (City of Peace), was laid out in a way that developed from the amsar. At the center, on the west bank of the Tigris, was the caliph’s circular city, called Madinat Abi Jaʿfar (known to us as the Round City). To the south of it lay the market area of al-Karkh)).

Characterized by:

1- its foundation Baghdad was a circular city, a tightly controlled form of cosmogram with the palace of the caliphs at its center,

2- From the four gates of the Round City, the four Grand Avenues extended into the suburbs. The suburbs were divided into four quarters. and each was governed by an associate of al-Mansur. There was a further Grand Avenue (shariʿaʿazam) on the Tigris.
3- The new element in the plan, apart from the fact that the quarters were no longer divided by tribe, was the Round City. famous for being circular, with the mosque and the caliph’s palace placed in the center.

4- Present thinking of researchers is that the Round City was about 2500–2638 m in diameter.

5- The concept of the Round City, if new, was based on existing ideas, including partly on the plans of the amsar. However, in reality, circular plans are quite frequent in Mesopotamian architecture, and concentric roughly circular city plans are already known from the Bronze Age at Mari and Tell Chuera in Syria.
The Abbasid Caliph, al-Mansur, established his new **City of Baghdad** (767 onwards) a few miles north of the decaying Sassanian city of Ctesiphon. Although called the Abode of Peace, his new capital became known as the Round City. It was nearly 2750 m (9000 ft) in diameter, had entrances on the four principal axes, and was surrounded by a massive mud-brick towered fortification 18 m (59 ft) high, consisting of several walls and a moat. An outer ring of living quarters surrounded a circular open space, in the middle of which stood the Caliph’s and other palaces and a congregational mosque. The high, copper-covered dome of the palace came to symbolise the capital. The inhabitants were the ruler’s entourage with supporting troops and households, while the populace lived outside the walls. Not a trace of the city remains above ground.
in the center of the (courtyard) lay the palace of al-Mansur, whose gate was called Bab al-Dhahab (Golden Gate), 400 cubits each side, and the mosque, 200 cubits square. In a circle around the rahba were the following buildings:

A- The residences of the younger children of al-Mansur, and his vassals (mawali) who are close to him in his service,

B- the bayt al-mal (the treasury),

C- the arsenal, the diwan l-rasa’il (bureau of correspondence), the diwan al-kharaj (the land tax), the diwan al-khatam (the seal), the diwan al-jund (the army), the diwan al-ḥawaʾij (requirements), the diwan of the entourages (ahsham), the public kitchen, and the diwan al-nafaqat (expenditures).
D- Then there were four vaulted streets (*taqat*), which led to the gates of Kufa, Basra, Khurasan, and al-Sham (Damascus).

E- There were also 45 radial streets (*sikka*), which were “known by [the names of] his *quwwad* and his *mawali.*” the leaders.

In conclude that the Round City was intended by al-Mansur to accommodate the palace, the mosque, the administration, the servants of the palace, and an important part of the army. This was the new concept in Baghdad: a royal city
Samarra

(Samarra was built as a new seat of the caliphs and as a military base in 221 (836). The city of Samarra, laid out on the east bank of the Tigris, can be described as composed of an unwalled agglomeration of a number of units, each one with an orthogonal grid of streets)).

Characterized by:

1- The central unit was the city of al-Muʿtasim, Surra Man Raʿa (He who sees it is delighted), founded in 221 (836).
2- The caliph’s palace was placed at the north end of the city. It was called the Dar al-Khilafa (Palace of the Caliphate) but has been generally known as al-Jawsaq al-Khaqani (Castle of the Khaqan) in modern literature. It was divided into two units: the Dar al-ʿAmma (House of the Public) and al-Jawsaq al-Khaqani.
3- From the south gate of the Dar al-Khilafa, a main avenue led to the mosque of al-Muʿtasim, the markets, and then further south.
4- On both sides of the avenue, there were military cantonments.
The City of Samarra, Iraq (836 onwards), was founded by the Caliph al'Mu'tasim. It was large, informally planned and lay on the east bank of the river Tigris. After three phases of expansion it was abandoned when the Abbasid court returned to Baghdad in 892. A small mediaeval walled town now stands in the middle of the site. The ruins of Samarra are of major importance in tracing the evolution of Muslim architecture from the tenth century onwards. In its remaining buildings the evolution of the four-centred arch can be discerned. The deeply cut stucco decoration of the early period is closely related to stucco work of the early Muslim period in Ctesiphon. A second, transitional stage is notable for its flowing lines and softer contours, and in the third period had evolved abstract moulded forms which took the place of the earlier naturalism. This new form eventually produced the sinuous arabesque patterns so important to the character of later Islamic architecture. It was at Samarra also that the first Muslim tomb was built.

The layout of Samarra, 836–892.
5- The basic plan of palace, avenue, and grid of streets was copied for the cantonment.

6- The city of Samarra contained elements both of the “created” and “spontaneous” city. That is, the central city was founded in 221 (836), and then continued to develop in a spontaneous way,

7- New planned quarters were added around the central core. There was little difference between the military cantonments and the civilian settlement, other than the fact that the military quarters were planned with a regular orthogonal layout. In particular the same basic model was used for the city of the caliph (ex. al-Mutawakkiliyya), and the military cantonments
8- al-Mutawakkiliyya
((One of the most interesting parts of Samarra is the new royal city added to the north by al-Mutawakkil in 245 (859)–247 (861))

**Characterized by:**
As a consequence the plan is almost perfectly preserved and has survived in the main until today.
The plan matches that of al-Mu‘tasim’s Surra Man Ra’a: a main palace, al-Ja‘fari (after the personal name of the caliph al-Mutawakkil), linked to an avenue which runs straight for 7 km, past the Abu Dulaf Mosque and the houses of the elite with their followings. It is the only case where the entire plan is preserved over 1100 hectares.
Plan of al-Mutawakkiliyya, 859–861
Andalusia (Al Andalus)

(Originally, the Spanish territories were administered by a provincial government established in the name of the Umayyad caliphate based in Damascus. But when that dynasty was overthrown, its last surviving member, Emir Abd al-Rahman I, fled to Spain. Under him, Córdoba became the quasi-autonomous (semi-independent) capital of a vibrant Islamic culture. By the end of the 10th century, it had become the largest city in Europe, with a population of about one hundred thousand. It was also an important center of Arabic learning, making crucial contributions to European civilization).
Cordoba

((The city had been founded by the Romans at a place where the main road from the port of Cadiz on the Atlantic Ocean to Rome crosses one of its main obstacles, the Guadalquivir River (Wādi al-Kabīr, “Great River,” ancient Betis). Because of its strategic location the city had served as the capital of the Roman province Hispania Ulterior Baetica, though Seville (Išbīliya, ancient Hispalis), a harbor city of economic importance at the then-mouth of the river, had sometimes taken its place.

**Characterized by:**

1- At the end of the third century a huge palatial complex was built outside the city walls, either by Emperor Maximian or—what appears more likely—by the provincial governor.

2- The first Islamic governors appointed by the Umayyad caliphs to the Iberian Peninsula stayed at Seville, In 717 the governor al-Ḥurr moved his capital to Cordoba, taking residence in a building near the bridge, in the Balāt al-Ḥurr.
3- The horseshoe-shaped arches are thought to have been adapted from the remains of local Visigoth architecture.
4- During the period of the Umayyad caliphate, Cordoba was a flourishing urban center, parallel only to Kairouan, Cairo, and Baghdad.

5- Cordoba became the center of Islamic culture in the west, its influence eventually spreading to neighboring Christian regions and across the western Maghreb.

6- The cityscape was dominated by huge avenues, many more than 10 meters wide.

7- Streets had boardwalks, as well as a developed system of drainage channels. Some streets were even paved.

8- Many residential quarters had an orthogonal plan, probably not evidence of centralized planning but a reflection of the regular division of plots by commercial sellers of land. The houses were often constructed according to standardized types; houses of the same kind were placed in long rows or even blocks and Larger houses.
9- The blocks were higher than they were wide, either in a proportion of 3:4 or 1:2. The standard block size was about 40 centimeters high, 20 centimeters wide, and 100 centimeters long.

10- Public buildings were larger sizes used, for example in the Great Mosque, where blocks are 70 centimeters high and 47 centimeters wide. The size of walls was largely determined by the size of the stones. Most walls are therefore 90–100 centimeters thick.
Umayyads of Cordoba set about building a palatine city just outside of Cordoba, a suitable stage for the projection of their claims to universal rule. Despite the old enmity between the Abbasids and Umayyads, the scale and conception of this new Umayyad satellite capital, called Madinat al-Zahra’, owed much to Baghdad and Samarra. The increased Located some 8 km west of Cordoba’s old city walls,

Madinat al-Zahra’ consists of:
three broad terraces ascending the lower slopes of the Sierra Morena mountain range.
In plan the city forms a rectangle of approximately $1500 \times 745$ m, with fortified double walls enclosing an area of 9 hectares. It was arranged hierarchically, with the lowest level used for markets, housing for soldiers, and other functions associated with city life. The administrative, residential, and official buildings of the Umayyads and their court were situated upon the two upper terraces, separated from the lower level by walls and gates, and oriented toward the south. The city was thus designed to take maximum advantage of a site that afforded dramatic vistas of the fertile plain that stretches from the mountain range south to the Guadalquivir River.
Madīnat az- Zahrā’. View across the city from the top terrace.
Figure 2.21 Madinat az-Zahrā'. The Dār al-Mulk from the east.
Hyderabad

((The name Hyderabad means "Haydar's city" or "lion city", from haydar 'lion' and ābād 'city', after Caliph Ali Ibn Abi Talib, also known as Haydar because of his lion-like valour in battle)).

**Characterized by:**

1- The site of the present city of Hyderabad was selected in 997/1589 by the fifth Qutib Shah dynast, Muammad Shah, on the right bank of the river Musa, a tributary of the Krishna, some 5 km. east of the fortress of Golkonda.
2- A city quickly grew up on this site, since there was no room for expansion in the overcrowded Golkonda where, moreover, the water-supply was inadequate.

3- Hyderabad was not at first fortified, Golkonda remaining as the citadel of the capital. At this time North India was in the hands of the Mughals, and envoys from Akbar were well received in 999/1591;

4- The new city prospered, some of its nest buildings dating from this time (see below) the fortification of the city by a stone wall.
5- The old city is surrounded by a bastioned wall, completed by the first asf Jah, with thirteen gates and a number of smaller posterns.

6- The city is connected to the northern suburbs by four bridges, the oldest of which (Purn Pul) was built by Muammad Qul Qub Shh in 1001/1593.

7- The same ruler was responsible for the buildings in the central focal point of the city, notably the Char Minar ‘four minarets’, Char Kamn ‘four bows’, Char su ka hauz ‘carfax cistern’, all around a crossing of four roads leading to the four quarters of the old city; also the Dr al-shif, shr-khna, and Jami Masjid.
8- The old remains of a contemporary *hammam* stand in its courtyard.

9- In the north-east quarter of the city, a large building with arcaded chambers for the care of the sick, lying all round a paved quadrangle, formerly in use also as a school for the Yunani system of medicine; a mosque, built at the same time, stands opposite its entrance.
Thanks for your listening