Some remarks on the appearance of the mosque: the introduction of the niche-миhrāb and the change of the qibla*

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Abstract: Despite historical sources ascribe the foundation of the main mosques of many cities to the years of the conquests, the earliest archaeological evidences date back to the beginning of the 8th century. With very few exceptions, there are indeed no traces of this class of building before this date. It must be pointed out that the identification of a building as mosque often rely on the presence of the mihrāb or on the orientation of the building toward Mecca. An examination of historical sources highlighted that these pivotal features in identifying a building as a mosque was only introduced at the beginning of the 8th century. At this time many mosques were rebuilt by order of the amīr al-mu minīn al-Walīd I (705–715). Since historical sources and archaeological data attribute to the same time span this process of transformation, it seems likely that the archaeological visibility of this kind of building could be due to the definition of its peculiar characteristics during the reign of al-Walīd I.

Keywords: mosques, qibla, mihrāb, al-Walīd I, archaeological and written sources

The qibla and the mihrāb-niche are commonly the elements that identify a building as a mosque, but neither were adopted in the early days. As is well known, the niche first appeared between 707 and 710 when the amīr al-mu minīn al-Walīd I ordered the rebuilding of the Prophet’s Mosque in Madīna and introduced the niche-shaped mihrāb– or mujawwaf, i.e. concave– for the very first time.

Archaeological proof and information found in the literary sources has led scholars to suppose that during the early years of the Hijra the qibla was not a datable element of mosque foundations or it was very approximate. The studies carried out by D.A. King on folk astronomy and Islamic sacred geography, however, made it clear that the first mosques were not oriented according to a specific direction, but rather on the observation of stars.

According to King’s discoveries, a new analysis of the history of the congregational mosques in the main cities of the dār al-islām founded during the rāshidūn era has been pursued. It emphasises a transformation process involving both the adoption of a new qibla and the introduction of the niche-shaped mihrāb: in fact, the written sources seem to suggest a sort of leitmotiv according to which the governors in office were ordered by the caliph al-Walīd I (705-715) to pull down the mosque of their city in order to rebuild it larger. Moreover, they were commanded to give it a new qibla, also introducing the niche of mihrāb, which archaeological data does indeed seem to confirm first appeared at the beginning of the 8th century providing evidence of an overall reconstruction program.

This contribution will deal with this process of transformation of the mosque as witnessed in the main centres of the dār al-islām.

King’s studies mentioned above have shed light on the principles followed to determine the qibla, which were based on observation of the stars and their motion in order to astronomically align the walls of the early mosques with those of the Ka’ba(fig. 1).

In the text reported by Balādhurī (d. 892) concerning the foundation of Kūfa, the word qiblawas adopted as to indicate the west, namely towards the winter sunset.

A similar case is featured in Fustāt; when in 641-42 (21 H) ‘Amr b. al-‘Aṣ founded the miṣr and its first congregational mosque, he was assisted in fixing the qibla by eighty Companions of the Prophet ordering them to set the orientation of the mosque according to astronomical observation.

According to al-Nuwayrī (d. 1333), when governor ‘Uqba b. Nāfi decided to build the mosque – initially only traced on the ground – in Qayrawān, after its foundation in 670 (50H), he spent a lot of time observing the rise and set of the stars, in particular seeking to grasp the azimuth of the sunrise.
Archaeological data testifies that this kind of early orientation was used for the mosque in Wāṣīṭ and al-Aqṣāʾ mosque in Jerusalem. The first one (fig. 2) – unearthed during the excavation undertaken between 1936 and 1944 on behalf of the Iraqi Department of Antiquities – featured four building phases\(^1\). The first one represented by a building with a different orientation\(^1\). The qibla of this first mosque was due 234° N\(^\circ\), a direction that matches the azimuth of the winter sunset in Wāṣīṭ\(^\circ\).

![Fig.2: Wāṣīṭ Mosque; hatching indicates test pits (Safar 1945).](Image)

In Jerusalem, Hamilton’s analysis of al-Aqṣāʾ mosque documented three different phases\(^1\). The earliest phase – attributed to Muʿāwiya (661-680)\(^1\) – could have featured a different qibla in respect to the later ones based on the azimuth of the rising point of Canopus. The orientation of this building was affected by that of the platform of the Temple of Jerusalem built by Herod in 20-19 BCE, which in turn faced the rising point of Canopus (fig. 3)\(^2\).

![Fig.3: Reconstructive proposal of al-Aqṣāʾ I (Di Cesare 2017).](Image)

A quite different situation is that of the mosque in Ṣanʿāʾ whose foundation and early phases are known through al-Rāzī’s (d. c. 1068) ṬārīkhMadīnatSanʿāʾ. Accordingly, among the various orientation proposed for this first mosque, is cited the ideal line linking the al-Mulamlama rock – whose spot was marked still today by a marker stone placed in the nearby court of ablution, next to the west wall of the mosque\(^2\) – with the Jabal Dhīn\(^2\). The latter is a hill 30 km north of the city, which forms along with the mosque an axis oriented about 325° N, ten degrees less than the current orientation. Thus, astronomical elements are not mentioned, but it is noteworthy that the direction towards the Jabal Dhīn (to the north) almost matches that of the shrine of Qudam b. Qādim\(^2\) located on the same Jabal Dhīn, suggesting that the builders could have relied on the same criteria.\(^2\)
In the early years of the 8th century many mosques underwent a reconstruction and at the same time, as stated by the literary sources, a new qibla was adopted. Most of the cases cited above testify to this change: the earliest archaeologically attested phases of the mosques considered here corroborate a qibla different from that described in written sources and examined in the previous paragraph. In fact, this earlier astronomical direction was changed to an apparently Mecca-orientated qibla.

As for the miḥrāb, it is generally assumed that the introduction of the niche occurred in Madīna when in 710 the governor ʿUmar b. ʿAbd al-ʿAzīz rebuilt the Prophet Mosque: historical sources and archaeological data suggest that the niche was introduced in most mosques of the main Islamic cities for the first time during the caliphate of al-Walīd I along with the change of qibla. In Kūfa the change of the qibla occurred when the mosque was joined to the dār al-imāra. Thus, the qibla was changed during the building of the palace’s second layer – whose dating has been recently attributed to a period between 697 and 753 –. The early orientation inferable by Balādhurī’s account was therefore changed to a new one still preserved by the palace (fig. 4). As regards the miḥrāb, popular tradition ascribed to ʿAlī one of the maḥārīb in the present-day mosque, suggesting a niche before its introduction in Madīna: during the Safavid reconstruction of the mosque (1629-1638), it was clearly noted that this niche was added in a later phase and does not belong to the earlier phase of the Umayyad mosque. On the other hand, during the same works it was noted that this phase featured a niche-miḥrāb: thus, when this mosque was built, namely when it was bonded to the dār al-imāra, the niche was part of the project.

The mosque of ʿAmr in Fuṣṭāṭ was rebuilt by order of al-Walīd I: it was reconstructed thanks to the governor Qurra b. Sharīk who managed to rebuild the mosque by appointment of the caliph. Despite the various restoration works and enlargements that occurred over the centuries it is still possible to understand the orientation of the Umayyad mosque especially due to the excavations of 1925 which uncovered a part of Qurra’s mosque foundations and allows us to say that the orientation of today’s mosque is almost the same as that established in the Umayyad period. The case of ʿAmr’smiḥrāb in his mosque in Fuṣṭāṭ is one of the most discussed. Many studies point to the fact that there was a place in the Fuṣṭāṭ mosque where the governor used to sit and pray, but this place was not marked by a niche. Although a miḥrāb was mentioned – only by later sources – it should be pointed out that the concave miḥrāb (mujawwaf) was not introduced before Qurra’s rebuilding.

The building campaign undertaken by al-Walīd I in Jerusalem also incorporated the reconstruction of al-Aqṣā. The new building profoundly altered the layout of the earlier mosque featuring the change to the qibla, now due south (169° 39’ 11” N), and the introduction of the miḥrāb, together with the axial nave which ideally linked the mosque with the Dome of the Rock. The Great Mosque of Ṣanʿā was rebuilt by governor Ayyūb b. Yahya al-Thaqafi during the caliphate of al-Walīd I: the governor sought to change the qibla of the mosque(fig. 5), establishing the present-day one,
Some remarks on the appearance of the mosque: the introduction of the niche-mihrāb. Some of the features uncovered during the restoration works carried out in the 1970s and part of the decoration and some elements of the architectural decoration of the mosque suggest that the present-day mosque has preserved the orientation received with the Umayyad rebuilding. Thus, this new qibla, oriented 335° N, differs from the early one of 315° N, i.e. towards the Jabal Dhīn.

Most of the excavation reports reveal that the earliest structure, generally attributed to the Umayyad period, were built on virgin soil. This assumption may suggest a probable reference to the absence of monumental structures: as the cities in concern have been founded almost fifty years before the earliest archaeological traces, it seems very unlikely that there is no trace of human activity related to this period. Thus, this absence may agree with the source reports which state that before Umayyad times mosques were built with perishable materials such as reeds or clay. The latter, in fact, are hard to detect during an archaeological excavation unless a suitable method is employed. This can came out in favour of a process of monumentalisation of the mosques concerned, datable to the beginning of the 8th century. This process goes hand in hand with the appearance of the mihrāb and the qibla briefly sketched above.

The fact that al-Walīd I could be held responsible for a very important renovation program in the mosque building may be confirmed in the new role as mosque assumed by all edifices with a different function, such as, for example, churches. Above all, the case of Damascus should be mentioned where, between 706 and 715, the church of St. John was pulled down to build the mosque. There is no detailed information on the earlier qibla, but the new building was oriented south. Kathisma church in Jerusalem is also indicative of this situation: here, before the niche was built on the south side, no archaeological traces show that the structure had been adapted to the exigencies of the Muslim conquerors before the beginning of the 8th century. The conversion process of these mosques is paralleled by the renovation program highlighted for those built ex novo discussed in this paper.

Thus, most mosques of the main centres of the Islamic world underwent a modification under al-Walīd I’s caliphate. This can be considered part of a program characterised by the monumentalisation of the structures, the introduction of a new qibla, and the emergence of the niche-mihrāb: all the elements that denote a mosque as such.

In conclusion, al-Walīd I could be responsible for the appearance of the mosque since during his reign the main architectural features characterising it were introduced: thus, one must ask which were the elements – if they existed – that distinguished the mosque by the other buildings beforebut also how archaeologists could identify structures belonging to this category without relying on those marker.

Fig. 5: Axes of the mosque of Ṣanʿāʾ according to al-Rāzī’s and al-Hamdani’s reports. α indicates the difference in orientation between the first qibla and that before Umayyad reconstruction (elaboration: F. Anticoli).

1 The Qur’ān (2: 142-150) is the earliest source to mention that a change of the qibla occurred, according to the various reports, in a period of sixteen to eighteen months after the Hijra (different traditions concerning this matter were gathered by Ṭabarî (1879-1901: s. I, vol. III, 1279-80)), when Muhammad decided to change the direction of prayer from the masjid al-aqṣā to the masjid al-harām. These two places are generally identified with Jerusalem and Mecca, respectively (on this issue see: Caetani 1905: 466-70; Watt 1956: 198-99, Wensinck 1986: 82). It is generally assumed that this change implied a rebuilding (Akkouch 1940: 391; Caetani 1905: 377; Creswell 1979: vol. I, 13)
or a mere alteration (Bisheh 1979: 124, 131; Santi 2019: 74-76) to Muḥammad’s mosque/house. Regardless, this paper only focuses on the analysis of the planimetric and architectonic data related to the mosques from the rāshidūn era that can be obtained through archaeology and reports from the written sources.

1 For a general discussion on the mīhrāb see: Fehervari 1961; 1993; Papadopoulos 1988. As regards its architectural origins, the main proposals are found in: Creswell 1979: vol. I, 143; Diez 1993: 485; Lammens 1911a: 246, n. 1; Monneret de Villard 1968: 116; Sauvaget 1947: 149. On the origin and meaning of the word see: Khoury 1998; Serjeant 1959.

2 Whelan 1986: 206; 217, n. 2.


4 See for example Safar 1945: 30.


7 King 1995: 255-56.

Balādhurī 1866: 276, lls. 6-ff.

8 Di Cesare 2017: 87. Caetani (1910: 850, n.1) and Djait (1986: 120) had already guessed that Balādhurī could refer to the west but they deemed this hypothesis as nonsense.

9 As for other ansār, there is no agreement on Fustāṭ’s foundation year (the various traditions can be found in Caetani 1911: 554-ff.).


11 The written sources on this subject are summarised in Creswell (1979: vol. I, 61, n. 5; vol. II, 208, n. 5).

12 Nuwayrī, in Ibn Khaldūn 1852: 329. The mosques in Qayrawān and Wāsiṭ were not involved in this overall reconstruction program: the political contingencies in these cities may be among the reasons for this (Qayrawān: Mahfoud 2018: 13). For a detailed analysis of the various cases see Guidetti (2016).

13 The early mosque “re-discovered” by Genequand in Palmyra may confirm the assumption that only in the Umayyad period was Mecca aṭb Lands, from the Hijra to the

14 Safar 1945: 12.

15 Safar 1945: 30.

16 Safar (1945: 29) indicated 231° in reference to the magnetic north in Wāsiṭ in 1942. 234° N is the actual azimuth of the winter sunset, i.e. referred to the geographical north (Di Cesare 2017: 89, n. 41).

17 Di Cesare 2017: 89.

18 Hamilton 1949.


20 Di Cesare 2017: 86.

21 Serjeant and Lewcock 1983: 323.

22 Rāzī 1989: 127, lls. 6-7, 133, lls. 2-6.

23 He has been identified with ‘Abd al-Ḥalāl, a regent of the kings of Tubba’, who lived in the 5th century and was later revered as hānif by the Zaidiyya (Griffini 1916-18).

24 This sepulchre was oriented due 13° NW, as noted by Griffini, more in the direction of Jerusalem than Mecca (‘più in direzione di Gerusalemme che a Mecca’ [Griffini 1914-15: 297]).

25 The actual criteria to know the exact direction of Mecca in respect to each locality were developed only after the beginning of the 9th century (King 2000).

26 Sauvaget 1947: 81-84.

27 Di Cesare 2017: 88; on the suggested dating of this layer see Santi 2019: 202

28 See Mustafa 1963.

29 Santi 2019: 207-12.


31 Maqrīzī 1853: vol. II 247, l. 15, 248, l. 25, 249, l. 5.

32 The results of these excavations were roughly published by Creswell in the second volume of Early Muslim Architecture (Creswell 1979: vol. II, 189-90; fig. 168 facing p. 188).


34 Maqrīzī 1853: vol. II, 247, l. 15, 248, l. 25, 249, l. 5; see also Sauvaget 1947: 15-17.

35 Di Cesare 2017: 91.

36 Di Cesare 2017: 68.

37 Di Cesare 2017: 81.

38 Rāzī 1989: 135, lls. 5-6, 14-15.


40 Finster 1978.

41 The early mosque “re-discovered” by Genequand in Palmyra may confirm the assumption that only in the Umayyad period was Mecca a reference for the orientation of mosques. Despite the need for further analyses, it can be said to have been modified in the early 8th century reusing an earlier Roman building and adding a new qibla wall to it – with a peculiar orientation with respect to the rest of the structure – oriented south (Genequand 2008a).

42 For a detailed analysis of the various cases see Guidetti (2016).


44 It must point out that in Damascus, as in all the other converted buildings, the orientation depended on the pre-existing structures.


BIBLIOGRAPHICAL REFERENCES


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