

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

Fabrizio Anticoli
Independent scholar

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

Date of Submission: 10-06-2020

Date of Acceptance: 28-06-2020

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 niche¹ 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. concave²— for the very first time³.

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 approximate⁴. 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 stars⁵.

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*⁶, 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)⁷.

In the text reported by Balādhurī (d. 892) concerning the foundation of Kūfa⁸, the word *qiblawas* adopted as to indicate the west, namely towards the winter sunset⁹.

A similar case is featured in Fustāt: when in 641-42 (21 H) 'Amr b. al-'Aṣ founded the *miṣr* and its first congregational mosque¹⁰, 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 observation¹¹.

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)¹², he spent a lot of time observing the rise and set of the stars, in particular seeking to grasp the azimuth of the sunrise¹³.

Archaeological data testifies that this kind of early orientation was used for the mosque in Wāsiṭ and al-Aqṣā' 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 phases¹⁴, the first one represented by a building with a different orientation¹⁵. The *qibla* of this first mosque was due 234° N¹⁶, a direction that matches the azimuth of the winter sunset in Wāsiṭ¹⁷..

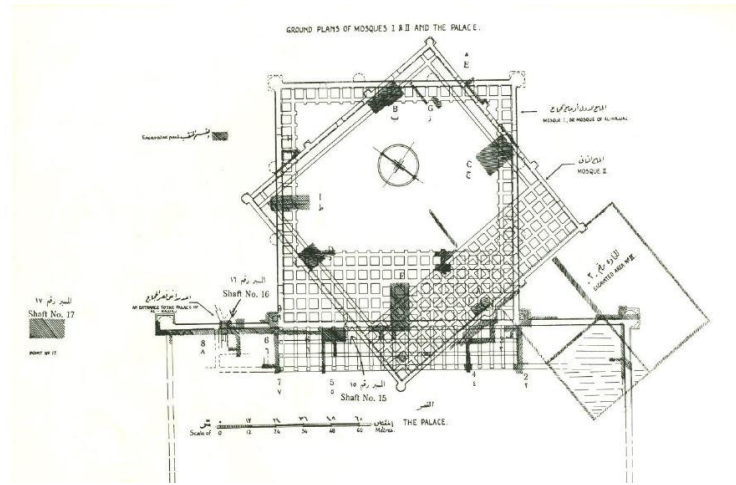


Fig.2: Wāsiṭ Mosque; hatching indicates test pits (Safar 1945).

In Jerusalem, Hamilton's analysis of al-Aqṣā' mosque documented three different phases¹⁸. The earliest phase – attributed to Mu'āwiya (661-680)¹⁹ – 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)²⁰.

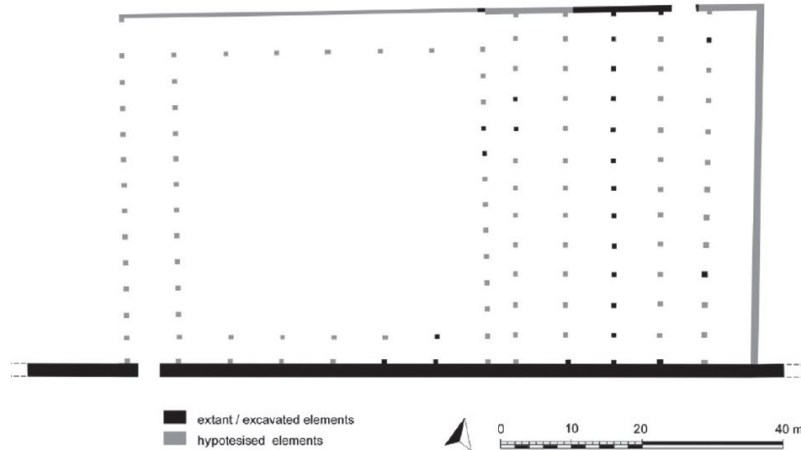


Fig.3:Reconstructive proposal of al-Aqṣā' I (Di Cesare 2017).

A quite different situation is that of the mosque in Ṣan'ā' whose foundation and early phases are known through al-Rāzī's (d. c. 1068) *Tārīkh Madīnat Ṣan'ā'*. 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 mosque²¹ – with the Jabal Dhīn²². 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. Qādim²³ located on the same Jabal Dhīn, suggesting that the builders could have relied on the same criteria²⁴.

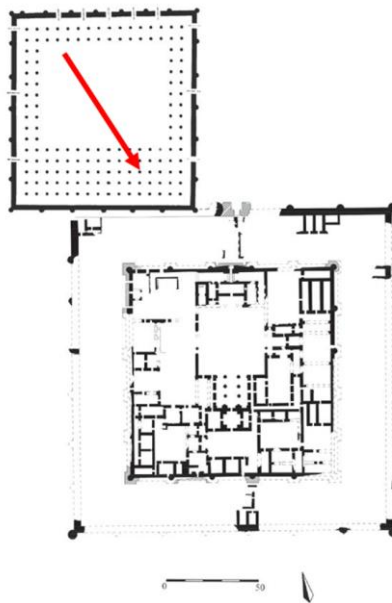


Fig.4:Kūfa, mosque–*dār al-imāra* in the Umayyad period. The arrow indicates the earlier *qibla* (Santi 2018, reworked)

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 apparently²⁵ Mecca-oriented *qibla*.

As for the *mihrāb*, it is generally assumed that the introduction of the niche occurred in Madīna when in 710 the governor ‘Umar b. ‘Abd al-‘Azīz rebuilt the Prophet Mosque²⁶: 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*²⁷. Thus, the *qibla* was changed during the building of the palace’s second layer²⁸ – whose dating has been recently attributed to a period between 697 and 753²⁹. 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 *mihrāb*, popular tradition ascribed to ‘Alī 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 mosque³⁰. On the other hand, during the same works it was noted that this phase featured a niche-*mihrāb*: 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 ‘Amr 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 caliph³¹. 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 foundations³² 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 ‘Amr’s *mihrāb* 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 niche³³. Although a *mihrāb* was mentioned – only by later sources – it should be pointed out that the concave *mihrāb* (*mujawwaf*) was not introduced before Qurra’s rebuilding³⁴.

The building campaign undertaken by al-Walīd I in Jerusalem also incorporated the reconstruction of al-Aqṣā³⁵. The new building profoundly altered the layout of the earlier mosque featuring the change to the *qibla*, now due south (169° 39’ 11” N)³⁶, and the introduction of the *mihrāb*, together with the axial nave which ideally linked the mosque with the Dome of the Rock³⁷.

The Great Mosque of Ṣan‘ā’ was rebuilt by governor Ayyūb b. Yaḥya al-Thaqafī during the caliphate of al-Walīd I: the governor sought to change the *qibla* of the mosque (fig. 5), establishing the present-day one,

and meanwhile introduced the niche-*mihrāb*³⁸. Some of the features uncovered during the restoration works carried out in the 1970s³⁹ and part of the decoration and some elements of the architectural decoration of the mosque⁴⁰ 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 Dhīn⁴¹.

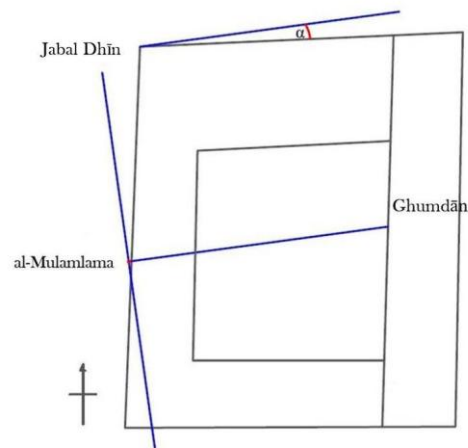


Fig.5: Axes of the mosque of Ṣan'ā' according to al-Rāzī's and al-Hamdānī's reports. α indicates the difference in orientation between the first *qibla* and that before Umayyad reconstruction (elaboration: F. Anticoli).

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 come 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, churches⁴². 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 mosque⁴³. There is no detailed information on the earlier *qibla*, but the new building was oriented south.⁴⁴ 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 century⁴⁵. 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 before but also how archaeologists could identify structures belonging to this category without relying on those markers.

* 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 Ṭabarī (1879-1901: s. I, vol. III, 1279-80)), when Muḥammad 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 *miḥrāb* see: Fehervari 1961; 1993; Papadopoulou 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.

³ Bisheh 1979: 263; Sauvaget 1947: 20-21.

⁴ See for example Safar 1945: 30.

⁵ King 1984; 1986; 1991; 1993; 1995; 2000

⁶ Cf. Di Cesare 2017: 89-90.

⁷ King 1995: 255-56.

⁸ Balādhurī 1866: 276, lls. 6-ff.

⁹ Di Cesare 2017: 87. Caetani (1910: 850, n.1) and Djāit (1986: 120) had already guessed that Balādhurī could refer to the west but they deemed this hypothesis as nonsense.

¹⁰ As for other *amsār*, there is no agreement on Fustāt's foundation year (the various traditions can be found in Caetani 1911: 554-ff.).

¹¹ Maqrīzī 1853: vol. II, 248, l. 5; cf. King 1984: 113.

¹² The written sources on this subject are summarised in Creswell (1979: vol. I, 61, n. 5; vol. II, 208, n. 5).

¹³ Nuwayrī, in Ibn Khaldun 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: 169; Wāsiṭ: Safar 1945: 34-35; Antun 2016: 13).

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.

¹⁹ Di Cesare 2017: 81.

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 'AbdKulāl, a regent of the kings of Tubba', who lived in the 5th century and was later revered as *hanīf* 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 Gerusalemmechenon della Mecca*' [Griffini 1914-15: 297]).

²⁵ The actual criteria to know the exact direction of Mecca in respect to each locality were developed only at 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.

³⁰ See Cook 2013: 106-7.

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).

³³ Behrens-Abouseif 1989: 47; Sauvaget 1947: 147-48; Whelan 1986: 210-11.

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.

³⁹ Costa 1974.

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 analysis, 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).

⁴³ Creswell 1979: vol. I, 181, 188-90.

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

⁴⁵ Avner 1998: 102-3.

BIBLIOGRAPHICAL REFERENCES

- [1]. Akkouch, M. 1940. Contribution à une étude des origines de l'architecture musulmane, La Grande Mosquée de Médine (al-Ḥaram al-Madānī). In *Mélanges Maspero III – Orient islamique*: 377–410. Le Caire: Imprimerie de l'Institut Français d'Archéologie Orientale.
- [2]. Antun, Th. 2016. *The Architectural Form of the Mosque in the Central Arab Lands, from the Hijra to the End of Umayyad Period, 1/622 – 133/750*. Oxford: BAR International Series.
- [3]. Avner, R. 1998. Jerusalem, Mar Elias – the Kathisma Church. *Excavations and Surveys in Israel* 20: 101–3.

- [4]. Balādhurī 1866. *Liber Expugnationis Regionum, auctore Imāmo Ahmed ibn Jahja ibn Djābi al-Belādsori*, M.J. De Goeje ed. Lugduni Batavorum: Brill.
- [5]. Behrens–Abouseif, D. 1989. *Islamic Architecture in Cairo: An Introduction, Studies in Islamic Art and Architecture* (Supplement to *Muqarnas* vol. III). Leiden: Brill.
- [6]. Bisheh, Gh.I. 1979. *The Mosque of the Prophet at Madīnah throughout the First Century A.H. with Special Emphasis on the Umayyad Mosque*. PhD Thesis. University of Michigan (unpublished).
- [7]. Caetani, L. 1905. *Annali dell' Islam*, vol. I, *Dall' anno 1 al 6 H*. Milano: Ulrico Hoepli.
- [8]. Caetani, L. 1910. *Annali dell' Islam*, vol. III, *Dall' anno 13 al 17 H*. Milano: Ulrico Hoepli.
- [9]. Caetani, L. 1911. *Annali dell' Islam*, vol. IV, *Dall' anno 18 al 22 H*. Milano: Ulrico Hoepli.
- [10]. Cook, M. 2013. Why Incline to the Left in Prayer? Sectarianism, Dialectic, and Archaeology in Imāmi Shī'ism. In Cook, M., Haider, N., Rabb, I., Sayeed, A. (eds), *Law and Tradition in Classical Islamic Thought. Studies in Honor of Professor Hossein Modarressi*: 99–124. New York: Palgrave Macmillan.
- [11]. Costa, P. 1974. La Moschea Grande di San 'ā'. *Annali dell' Istituto Orientale di Napoli* 34/4: 487–506.
- [12]. Creswell, K.A.C. 1979 (reprint of 1969). *Early Muslim Architecture*, 2 vols. New York: Hacker Art Books.
- [13]. Di Cesare, M. 2017. A qibla mušarriqa for the First al-Aqṣā Mosque? A New Stratigraphic, Planimetric, and Chronological Reading of Hamilton's Excavation, and Some Considerations on the Introduction of the Concave miḥrāb. *Annali dell' Istituto Orientale di Napoli* 77: 66–96.
- [14]. Diez, E. 1993 (Reprint Edition). Miḥrāb. In *First Encyclopaedia of Islam*, vol. V: 485–90. Leiden–New York–Köln: Brill.
- [15]. Djaīt, H. 1986. *Al-Kūfa. Naissance de la ville islamique*. Paris: Maisonneuve et Larose.
- [16]. Fehervari, G. 1961. *Development of the miḥrāb down to the XIVth Century*. PhD Thesis. University of London (unpublished).
- [17]. Fehervari, G. 1993 (Fourth Impression). Miḥrāb. In *The Encyclopaedia of Islam Second Edition*, vol. VII: 7–15. Leiden: Brill.
- [18]. Finster, B. 1978. Die Freitagsmoschee von San 'ā'. Vorläufiger Bericht, 1. Teil. *Baghdader Mitteilungen* 9: 92–133.
- [19]. Genequand, D. 2008a. An Early Islamic Mosque in Palmyra. *Levant* 40/1: 3–15.
- [20]. Griffini, E. 1914–15. Lista dei manoscritti arabi, nuovo fondo nella Biblioteca Ambrosiana di Milano (continuaz.). *Rivista degli Studi Orientali* 6/4: 1283–1316.
- [21]. Griffini, E. 1916–18. Il poemetto di Qudam Ben Qādim. Nuova versione della saga jemenica del reggente 'Adb Kulāl (400–480 di Cristo). *Rivista degli Studi Orientali* 8/2: 293–363.
- [22]. Guidetti, M. 2016. *In the Shadow of the Church. The Building of Mosques in Early Medieval Syria* (Arts and Archaeology of the Islamic World 8). Leiden–Boston: Brill.
- [23]. Hamilton, R.W. 1949. *The Structural History of Aqsa Mosque: A Record from the Archaeological Gleanings from the Repairs of 1938–1942*. Jerusalem: Oxford University Press.
- [24]. Ibn Khaldun 1852. Appendice II. Conquête de l' Afrique Septentrionale par les Musulmans et histoire de ce pays sous les émirs arabes. In *Histoire des Berbères et des dynasties musulmanes de l' Afrique Septentrionale*, M.G. De Slane ed. tome premier: 313–447, Alger: Imprimerie du Government.
- [25]. Khoury, N.N.N. 1998. The Mihrab: From Text to Form. *International Journal of Middle East Studies* 30: 1–27.
- [26]. King, D.A. 1984. Architecture and Astronomy: The Ventilators of Medieval Cairo and their Secrets. *Journal of the American Oriental Society* 104/1: 97–133.
- [27]. King, D.A. 1986. Kibla. In *The Encyclopaedia of Islam Second Edition*, vol. V: 83–88. Leiden Brill.
- [28]. King, D.A. 1991. Makka. In *The Encyclopaedia of Islam Second Edition*, vol. VI: 180–86. Leiden: Brill.
- [29]. King, D.A. 1993. Folk Astronomy in the Service of Religion: The Case of Islam. In Ruggles, C.L.N., Saunders, N.J. (eds), *Astronomies and Cultures. Papers derived from the third "Oxford" International Symposium on Archaeoastronomy, St. Andrews, UK, September 1990*: 125–38. Niwot: University Press of Colorado.
- [30]. King, D.A. 1995. The Orientation of Medieval Islamic Religious Architecture and Cities. *Journal for the History of Astronomy* 26: 253–274.
- [31]. King, D.A. 2000. Too Many Cooks... A New Account of the Earliest Muslim Geodetic Measurements. *Suhayl* 1: 207–41.
- [32]. Lammens, H. 1911a. Ziād Ibn Abīhi vice–roi de l' Iraq, lieutenant de Mo'āwia I. (Continuazione). *Rivista degli Studi Orientali* 4/2: 199–250.
- [33]. Mahfoudh, F. 2018. La Grande Mosquée de Kairouan : textes et contexte archéologique. In Anderson, D., Fenwick, C., Rosser–Owen, M. (eds) *The Aghlabids and their Neighbours. Art and Material Culture in*

- Ninth-Century North Africa* (Handbook of Oriental Studies. Section 1, The Near and Middle East 122): 163–89. Leiden–Boston: Brill.
- [34]. Maqrīzī 1853 (1270H). *Kitāb al-Mawā‘izwa-al-i‘tibār bi-dhikr al-khiṭaṭwa al-āthār*. 2 vols. Bulaq: Dāral-Ṭibā‘aal-Miṣrīya.
- [35]. Monneret de Villard, U. 1968 (reprint of 1966). *Introduzione allo studio dell’archeologia islamica: le origini e il periodo omayyade*. Venezia: Leo S. Olschki.
- [36]. Muqaddasī 1906. *Aḥsan al-taqāsīm: Descriptio imperii moslemiciauctore Shams ad-Dīn Abū Abdallah Mohammed ibn Ahmed ibn Abī Bekr al-Bannā al-Basshārī al-Moqaddasi*, editio secunda, M.J. De Goeje ed. Lugduni Batavorum: Brill.
- [37]. Muṣṭafa, M.‘A. 1963. Preliminary Report on the Excavation in Kūfa during the Third Season. *Sumer* 19: 36–65.
- [38]. Papadopoulo, A. (ed). 1988. *Le mihrāb dans l’architecture et la religion musulmanes. Actes du colloque international tenu à Paris en mai 1980 publiés et pourvus d’une étude d’introduction générale*. Leiden–New York–København–Köln: Brill.
- [39]. Rāzī 1989 (1409H) (3rd edition). *Tārīkh Madīnat San‘ā’*. al-‘Amrī, H. ed. Bayrūt: Dār al-Fikr.
- [40]. Safar, F. 1945. *Wāsiṭ. The Sixth Season’s Excavations*, Le Caire: Imprimerie de l’Institut Français d’Archéologie Orientale.
- [41]. Santi, A. 2019. *Il rapporto fra moschea edār al-imāranel periodo protoislamico. I casus studiidi Medina, Kūfa, ‘Anjar alla luce di una riconsiderazione dell’urbanistica delle origini*. PhD Thesis, Roma: Sapienza University (unpublished).
- [42]. Sauvaget, J. 1947. *La mosquée omayyade de Médine. Étude sur l’origine architecturale de la mosquée et de la basilique*. Paris: Vanoest.
- [43]. Serjeant, R.B. 1959. Mihrāb. *Bulletin of the School of Oriental and African Studies* 22: 439–53.
- [44]. Serjeant, R.B. and Lewcock, R. 1983. *San‘ā’: An Arabian Islamic City*, London: World of Islam Festival Trust.
- [45]. Ṭabarī 1879–1901. *Annales quod scripsit Abu Djafar Mohammed ibn Djarir at-Tabari.*, M.J. De Goeje ed. Lugduni Batavorum: Brill.
- [46]. Walmsey, A. and Damgaard, K. 2005. The Umayyad Congregational Mosque of Jarash in Jordan and its Relationship to Early Mosques. *Antiquity* 79: 362–78.
- [47]. Wensinck, A.J. 1986. Kibla. In *The Encyclopaedia of Islam Second Edition*, vol. V: 82–83. Leiden: Brill.
- [48]. Whelan, E. 1986. The Origin of the Mihrāb Mujjāwaf: A Reinterpretation. *International Journal of Middle East Studies* 18: 205–23.