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Early Mosques in Al-Andalus: two singular examples of eighth-century CE Muslim architecture on the margins of the Islamic world

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ABSTRACT

This research contributes to the historiographical debate on the spread of the first mosques in the Islamic world and their role in the expansion of Islam, specifically in the case of al-Andalus. It highlights the apparent contradictions between written sources and material evidence, and the need to construct a complementary narrative from the perspective of archaeology. The article analyses the relevance of early mosques as indicators of wider dynamics of cultural transfer and transmission of knowledge, while questioning their chronology. In addition to addressing all the known examples of early mosques in the Iberian Peninsula, two unpublished, in-depth, detailed case studies have been added: the early mosques excavated at the sites of Tossal de la Vila (Castelló) and El Molón (Valencia), which are early examples of Islamic architecture in rural and peripheral contexts. To this end, a detailed analysis of various aspects of these buildings was performed and compared with other known examples, from their morphology and construction techniques to their orientation. The article attempts to redefine our knowledge of early mosques in al-Andalus by placing them within a gradual process of religious adoption that transpired at a later date than that suggested by Islamic chroniclers and traditionists.

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Early mosques, between literary and archaeological accounts

The study of Islamisation in societies that were progressively integrated into the *dār al-islām* from the seventh to the ninth centuries CE has traditionally been approached from two perspectives: the analysis of written sources and the practice of archaeology. Although they provide complementary viewpoints, there are also many occasions

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when the conclusions reached by these two disciplinary methodologies are contradictory and difficult to reconcile. In this context, the building of early mosques is one of the most productive areas of research through which to analyse the progressive conversion of new populations. However, the process of adopting very clear cultural norms and ideological beliefs was not exempt from internal debate and dialogue with other religions with which it had to coexist. Ultimately, it would also be accompanied by a gradual transformation in the social and economic practices of a new society in the making.

The present study aims to contribute to current historiographical debates relating to the spread of the first mosques in the Islamic world and their impact on the expansion of Islam. It reflects the combined efforts of two archaeological research projects that amount to almost three decades of systematic excavations and surveys. Some of the oldest evidence of early Muslim settlement and religious architecture in the Iberian Peninsula has been documented at Tossal de la Vila (Castelló) and El Molón (València). Nevertheless, our aim is not only to present the aforementioned archaeological case studies corresponding to the two earliest known Muslim places of worship in the Iberian Peninsula, but ultimately to integrate them into a broader debate on the ability of our discipline to address cross-cutting issues such as the spread of mosques in al-Andalus, the architectural models to which they correspond, the functions they fulfilled and the historical, social and religious processes behind their construction.

Contradictions between written and archaeological sources

When dealing specifically with the issue of the construction of early mosques in al-Andalus between the eighth and ninth centuries CE, it is important to mention one caveat that research has been highlighting for decades: the reliance of historiography on written sources, which document events that occurred, in most cases, several centuries before they were actually recorded.¹ Thus, when eleventh-century CE Islamic authors extol the role of the Prophet's companions (*ṣaḥāba*) or his followers (*tābi'ūn*) in founding the first mosques, sometimes even linking them to miraculous events or divine revelations, their accounts should be understood in the context of legitimising authority and proselytising. This is the case with figures such as 'Amr b. al-'Āṣ in Fuṣṭāt (c. 22H/643 CE) and 'Uqba b. Nāfi' in Qayrawān (c. 50H/670CE), but also in the Iberian Peninsula with Mūsā b. Nuṣayr in Algeciras (c. 92H/711CE) and Ḥanash b. 'Abd Allāh in Zaragoza (c. 101H/720CE). Moreover, in the case of al-Andalus, it is not unusual for information on the destruction of churches, their reuse as Muslim oratories and the widespread construction of mosques during the first decades after the Islamic conquest to be poorly reflected in the archaeological sources analysed.²

In this context, the limitations of circular arguments that are based on the uncritical acceptance of the information contained in Arabic and Latin sources demand new ways of addressing the subject. This is where archaeology can play a leading role, despite the current lack of records and the limited examples available to study the spread of early mosques. One of the most important attempts to synthesise data is the colossal project initiated by Dr Hagit Nol at the Goethe-Universität Frankfurt, the *Early Islamic*

¹Marín, "Ṣaḥāba et tābi'ūn"; Noth, *The Early Arabic*; Donner, *Narrative of Islamic Origins*; Elad, "Community of Believers"; Donner, *Muhammad and the Believers*; Calvo, "Les premières mosquées"; Albarrán, "This is your Mihrab."

²Calvo, "Las primeras mezquitas," 177–80; Utrero, "Beyond 711," 254–58.

Mosques Database.³ The database has enabled the descriptive and contextual data of around 100 excavated mosques dated between the seventh and ninth centuries CE to be systematised, categorised and sequenced. The primary identifying feature of these ancient mosques is the *mihrāb* (pl. *maḥārīb*), which is located in the prayer room (*ḥaram*). A *mihrāb* is a niche in the wall of a mosque that indicates the qibla (from the Arab. *al-qibla*, lit. direction), the direction Muslims should face to pray. However, this is not the only characteristic element of this type of building. Other features that have been preserved include examples of courtyards (*ṣaḥn*), evidence of posts, pillars or columns that indicate a porticoed area (*riwāq*) surrounding this open space and, in later cases, a minaret (*manār*) to call to prayer.⁴ By analysing the data contained in the large database, Nol presents a general scenario in which the building of mosques was not generalised until well into the eighth century CE, with a few early, still debateable, exceptions. Even so, this lengthy process was very limited during the period in question, and almost all the cases identified are located in the Near East and the Arabian Peninsula, with a few exceptions in the historic region of Persia and North Africa.

The early mosques described in subsequent Islamic chronicles are only briefly mentioned as a literary topos on which later Islamic apologetic narrative is built, as no mosques are mentioned in the surviving epigraphic sources prior to 78H/698CE, nor is there conclusive archaeological evidence for their existence at the date in question.⁵ As a result, and owing to meticulous archaeological research, this new narrative casts doubts on the early foundation dates attributed to some mosques or, at the very least, on the early chronology of several typical floor plans, such as Kūfa, Fuṣṭāṭ and al-Aqṣā, and other more modest examples such as Ṣan'ā', al-Raqqa, Qayrawan, Zaytūna, Samarkand, Wāsiṭ, Ramla and Mafrāq, among many others.⁶ Hence, archaeological evidence postpones the spread of early mosques until the Abbasid Caliphate, once the old Islamic expansionist policies had lost pace. They then spread throughout the territories under Muslim rule thus multiplying the number of case studies. It is, therefore, important to note that mosques do not seem to represent one of the earliest indicators of the adoption of Islam throughout *bilād al-islām*, and it might be possible that prayer was initially performed in temporary locations, even perhaps in open-air oratories.⁷ Whatever the case may be, the only approach that seems to show any promise in tackling this issue is comparing archaeological research on equal terms with written texts in compiling, describing and systematising the earliest examples of mosques. However, the question arises as to the validity of this archaeologically proven model when we move away from the epicentre of the Islamic world.

³Hagit Nol, "Early Islamic Mosques Database." Released: 2021-11-14. Open Context. <https://opencontext.org/projects/95b1ef01-9ccb-4484-b0f2-540f4dc54672> <https://doi.org/10.6078/M7SB43WC>

⁴Frishman, "Islam and the Form of the Mosque;" Despite the prevalence of these Arabic terms in historiographical literature, Andalusi written and epigraphical sources rarely employ them. However, their universal significance renders them suitable for discussion with other areas of Islam, and thus, they are accepted in this context.

⁵Nol, "Early Mosques," 116–19; These approaches have not been without controversy, and have fostered an interesting debate on the limits of both archaeological and textual sources in historical interpretation. It is noteworthy that different interpretative frameworks have been developed for these early constructions by other researchers (Arce, "Umayyad Building Techniques", 494–98; Walmsey and Damgaard, "The Umayyad Congregational Mosque", 272–73; Antun, "The Architectural Form", 6–14; amongst others).

⁶Fenwick, "Conquest to Conversion," 201; Nol, "Early Mosques," 95–110.

⁷Calvo, "Los inicios de la arquitectura," 51–52; Negre et al., "La mezquita," 316–9.

From the periphery: early mosques in al-Andalus

Written sources have traditionally been the gateway to knowledge about the shaping of Islamic society throughout the first centuries after the Hijrah, both in the Mediterranean context in general and al-Andalus in particular. Arabic philology laid the foundations for a prolific school that has generated inexhaustible scientific material and a wide-ranging epistemological critique that forged a historiographical debate with solid foundations based on its contributions.⁸ Despite this positive context, the study of early al-Andalus mosques requires the amalgamation of both material and textual sources as two independent and complementary domains, thus breaking with the traditional circular arguments arising from a literal use of the information contained in Arabic writings for the purpose of dating archaeological remains. This objective seems to be taking shape in a more recent debates between philology and archaeology, in which new proposals have evolved that question the narrative constructed exclusively from texts.⁹

It is important to emphasise certain elements that are crucial for comprehending the current state of research on early mosques in al-Andalus. Firstly, it must be acknowledged that their analysis has been primarily concerned with urban contexts. This is due to two main factors: on the one hand, the interest of art history and architecture in monumental remains of the most relevant places of worship, located in the main cities; and, on the other, the development of intense management or public archaeology works in the urbanisation process of major cities on the Iberian Peninsula. Regarding the former, the pioneering work of prominent architects, such as Leopoldo Torres Balbás and Félix Hernández, and established art historians, such as Henri Terrasse and later Basilio Pavón, marked an important milestone in the study of the preserved remains of these temples, although they left many doors open for future research. Furthermore, archaeological practice was also involved in these early approaches, with cardinal examples such as the works carried out on the *aljama* or congregational mosque of Córdoba during the 1930s, with the aim of establishing their original floor plans and designs. Those excavations, which have been continued in more recent times by different archaeology teams, have gradually revealed the diachrony of these historically unique buildings, although in many cases precise dating of the construction phases remains elusive.

The study of the *aljama* of Córdoba is not an isolated case; other principal urban mosques, including those in Seville, Zaragoza, Toledo, Granada and Tudela, among others, have undergone a similar process of analysis, studying their material remains from similar perspectives, combining artistic and architectural approaches and, to a lesser extent, archaeological campaigns. Ultimately, it is important to acknowledge that, in recent decades, systematic intervention in the foundations of several of these monuments has facilitated a more in-depth exploration of the hypotheses and approaches proposed during early studies. For example, recent archaeological works, conducted in the 1990s by José Antonio Hernández Vera, have led us to question initial readings of the first congregational mosque of Zaragoza, one of the oldest places of worship in al-Andalus, according to written sources dating from the eleventh century CE onwards. During the archaeological excavation, several alabaster blocks were documented that formed part of the foundations of the first building constructed

⁸Marín (coord.), *Al-Andalus/España*.

⁹Calvo, "Los inicios de la arquitectura," 41–44; González-Gutiérrez, "Religious Buildings," 2–3.

on the site, which was previously occupied by the forum of the former Roman city.¹⁰ This first construction phase was dated to the eighth century CE, not on the basis of modest excavations, but from the accounts of Arabic sources written almost three centuries later.¹¹ Moreover, a general floor plan of approximately 32 m × 48 m, divided symmetrically into two large spaces, was proposed by directly comparing the *aljama* of Zaragoza with the mosque of Medina Azahara, built two centuries later. Based on that same analogy, it was suggested that the prayer hall would have had five naves, eight sections deep, perpendicular to the qibla, as well as a courtyard surrounded by a portico.¹²

Once more, the written sources indicate that a new phase of expansion and renovation of the building occurred in the mid-ninth century CE, financed by the spoils obtained after various campaigns against Barcelona. Concurrently, archaeological reports are consistent in their assertion of a second construction phase of a new mosque, resulting in the complete destruction of the building original foundations, leaving only the alabaster blocks previously referenced as a remnant. Nevertheless, those works again do not provide any evidence that would enable a more precise dating of the new project beyond the architectural and decorative parallels with other better-known examples, leaving the diachronic reading of the building mainly determined by the Arabic texts.¹³

The same scenario can be seen in the congregational mosque of Sevilla, commissioned by ‘Abd al-Rahmān b. al-Ḥakam through his delegate in the city, the *qadi* ‘Umar b. ‘Adabbas, as recorded in the building’s epigraph, dated 214H/829-830CE.¹⁴ For decades, this building was described on the basis of Islamic sources written centuries later.¹⁵ However, more recently, owing to the excavations directed by Manuel Vera and Fernando Amores during restoration work on the Iglesia del Salvador, a few remains have been discovered. The exhumation of these from the mosque has been limited, primarily due to the nature of the mosque itself. It was constructed using reused columns from ancient buildings, with minimal foundations, and most of it was demolished during the extensive construction works undertaken to lay the foundations for the Christian temple that replaced it in the thirteenth century CE. Nevertheless, in the Gospel nave of the church, the remains of T-shaped pillars belonging to the façade of the prayer hall facing the courtyard have been located, showing the presence of a wider axial nave and four naves to the west, as well as remains of the closing wall on that side. On the eastern side, three additional naves have been identified, but not the final wall, which would be situated beneath the front of the church.¹⁶ Based on this information, Antonio Almagro has proposed a hypothetical floor plan whereby the mosque would have had a rectangular floor plan measuring 40 m x 60 m and a proportioned layout between its prayer room, with nine naves, eight or ten sections deep, perpendicular to the qibla, and the courtyard, which would have been surrounded by a portico on three

¹⁰Peropadre and Souto, “Restos arquitectónicos”; Souto, “Restos arquitectónicos”; Hernández, “La mezquita aljama de Zaragoza,” 73–78.

¹¹Souto, “Textos árabes,” 392–98; Calvo, “Las primeras mezquitas,” 153–56.

¹²Hernández, “La mezquita aljama de Zaragoza,” 75.

¹³Hernández, “La mezquita aljama de Zaragoza,” 76–78.

¹⁴Ocaña, “La inscripción fundacional,” 145–51.

¹⁵Torres-Balbás, “La primitiva mezquita mayor,” 425–39; Valor, “La mezquita de Ibn Adabbas,” 301–2; Cómez, “Fragmentos de una mezquita sevillana,” 14–15.

¹⁶Amores, “Historias arqueológicas,” 73–76.

sides with a minaret at its northern end.¹⁷ Despite this excellent reconstructive exercise, the remains unearthed lack the necessary temporal depth to confirm that the suggested floor plan belongs to that of the foundational *aljama* of Sevilla, rather than to a subsequent phase.

The mosque of Tudela presents a very similar example. Significant research has been conducted there in architectural and art history, with prominent figures such as Manuel Gómez-Moreno and Basilio Pavón being particularly influential.¹⁸ It was Pavón who first posited the potential existence of two distinct phases in the evolution of Islamic oratory: the foundational phase, which he situates in the latter half of the ninth century CE based mainly on scarce written sources, and the subsequent reform and expansion phase, which he attributes to the conclusion of the Caliphate. In 1993–1994, during the redevelopment of Tudela's Plaza Vieja, a monitoring and excavation campaign was carried out under Luis Navas and Begoña Martínez, who documented the structures of the mosque for the first time.¹⁹ This work was expanded upon during 2002–2006 by a new team led by María Inés Tabar and Jesús Sesma, inside the cathedral, finally allowing the characteristics of the temple to be established.²⁰ The first building remains consist of a diminutive segment of the courtyard perimeter walls and a few pillars at the level of the foundations, which, by direct analogy drawn with the *aljama* of Cordoba, has led to suggest a floor plan measuring 25 m × 50 m comprising a prayer room with five naves perpendicular to the qibla and a porticoed courtyard. Due to the limited extant building remains from the original mosque, which does not align with any discernible archaeological contexts, it is challenging to establish a definitive dating for them. On the contrary, important architectural, numismatic and ceramic remains have been preserved from the building's renovation phase, which have been dated to the first half of the eleventh century CE.²¹ In short, attributing the meagre remains of the first phase of a building commissioned by Mūsā b. Mūsā in the mid-ninth century CE rests mainly on a circular argument based on written sources accounts. While the hypothesis is compelling, the current material evidence base does not permit corroboration at the levels suggested. (Figure 1)

Finally, the *aljama* of Córdoba represents a rare case in which the available archaeological information allows for a robust correlation to be established between the architectural layout of its founding mosque and the extant textual sources detailing its construction at the end of the eighth century CE. Without attempting to be exhaustive and focusing exclusively on researchers who have conducted significant excavations at the Cordoba church, Félix Hernández, Pedro Marfil and Alberto León all serve to illustrate the meticulous dedication exhibited by scholars in this discipline, as they strive to elucidate the enigma surrounding this edifice. In this instance, the architectural and artistic evidence has been substantiated by the stratigraphic archaeological record, which has facilitated more precise dating of the construction of its various phases. The first phase of the mosque of Córdoba, traditionally associated with the work begun by 'Abd al-Rahmān b. Mu'āwīya and completed by his son Hishām during the late eighth

¹⁷ Almagro, *Planimetría de la Iglesia*.

¹⁸ Gómez-Moreno, "La mezquita mayor de Tudela"; Pavón, *Tudela, ciudad medieval*.

¹⁹ Navas et al. "Excavaciones en la Plaza Vieja de Tudela."

²⁰ Sesma and Tabar, *Santa María de Tudela*, 19–21.

²¹ Navas and Martínez, "La mezquita mayor," 13; Sesma and Tabar, *Santa María de Tudela*, 51–53.



Figure 1. Distribution map of the archaeologically documented mosques on the Iberian Peninsula (8th-9th centuries). Basemap by Dirk Blaschta (DAI, USGS, GEBCO).

century CE,²² has far more archaeological evidence to support it. The material record that enables us to give a more precise date for its foundation is linked to a cesspit dug during the construction of the first prayer room, where a set of sixteen ceramic items attributed to the mid-eighth century CE were recovered.²³ Also, the earliest epigraphic evidence found for the structure is an inscription by the emir Muḥammad on one of the access doors to the primitive prayer room, dated 241H/855CE, which is the end of a renovation programme instigated by his father ‘Abd al-Raḥmān b. al-Ḥakam.²⁴ The foundational building is described as having a regular floor plan of 80 m × 80 m organised into eleven naves, twelve sections deep, perpendicular to the original qibla.²⁵ It also had a minaret, which is traditionally dated to the late eighth century CE.²⁶ The *miḥrāb* was a small room slightly protruded outwards, and its external width was approximately equivalent to the breadth of the central nave of the mosque.²⁷

One recent case study of great interest to this research is the mosque built at the Cortijo de las Mezquitas site (Antequera, Málaga), part of an urban development project that was never completed.²⁸ This case is currently under archaeological study as part of a research project led by Angelo Castrorao, although some preliminary

²²Souto, “La Mezquita Aljama de Córdoba,” 21; Viguera, “La mezquita de Córdoba,” 372–78.

²³Fernández-Puertas, *Mezquita de Córdoba*, 77–84.

²⁴Marfil, *Las puertas de la mezquita*, 155–61.

²⁵Antonio Almagro, (2017) “Mezquita de Córdoba—Planta mezquita Abd al-Rahman I. Reg. AA-101_17” Released: 2017. Real Academia de Bellas Artes de San Fernando. https://academiacolecciones.com/arquitectura/inventario.php?id=AA-101_17

²⁶Marfil, “Avance de resultados,” 187–92; Fernández-Puertas, “Mezquita de Córdoba,” 223–31.

²⁷León and Ortiz, “La ampliación,” 113–15.

²⁸Gozalbes, *El Cortijo “Las Mezquitas”*; Martínez Enamorado, *La mezquita de Lamāya*.

results have already been published thanks to the extensive work carried out in the field of architectural archaeology by Pedro Gurriarán and María de los Ángeles Utrero.²⁹ The mentioned place of worship would have been an almost square mosque, measuring around 30 m × 28 m, with strong, slightly irregular ashlar walls reinforced by buttresses finished with a perimeter fascia. The prayer room consisted of at least two naves parallel to the qibla, separated from each other by various arcades supported on pillars, which were carved with the *alhíz* of eight large, horseshoe arches with a span of 2.20 m. Seven of the arches would have opened onto the courtyard and the eighth, separated from the others by a wider-than-normal buttress, would have been connected to a side nave, probably as a porticoed passageway. The *mihrāb*, probably a small niche that projected slightly into the exterior, is centred on the alignment of the prayer room. However, its exact morphology is unknown as it was dismantled leaving a wide opening of 1.17 m. Archaeological works, which are still in progress, seem to confirm that it dated from the Emirate period, as suggested by the first archaeological analyses of the architecture, and that the major renovation of the building occurred after the proclamation of the Caliphate.³⁰

Although still in its preliminary stage of excavation, a final example should be added to this group: the mosque of Reccopolis (Zorita de los Canes, Guadalajara). Its large dimensions and orientation were determined by using geomagnetic surveying during a research project led by Lauro Olmo. If it is confirmed, it would be a markedly early case, given that the city was abandoned and its building materials plundered in order to build the new administrative centre of Zorita, little more than a kilometre away, which took place no later than the first half of the ninth century CE.³¹

In addition to the described examples of congregational mosques from major cities of al-Andalus, two notable examples of different urban mosques from this same period include those in Badajoz and Mérida, both of which were linked to small private oratories located in the urban citadels. The former was built, according to written sources, in 276H/889CE by ‘Abd al-Raḥmān b. Marwān al-Jilliḳī, governor of the city.³² The archaeological excavation directed by Fernando Valdés in the late 1990s revealed several of the foundational elements of the structure, such as its original floor plan with a usable space of approximately 6 m × 6 m. The concave *mihrāb* protruded slightly into the exterior and had a trapezoidal morphology. This small private oratory was later enlarged to 18 m × 18 m divided into five naves with a displaced qibla niche with respect to the alignment.³³ Given the material evidence and archaeological contexts available to give the building an absolute date, the limited finds suggest that the date proposed in the written sources, which place its construction at the end of the ninth century CE, could be accepted. As for the latter, the small oratory of the Alcazar of Mérida is dated to around 220H/835CE, when is believed to have been built in conjunction with the citadel complex, as studied by Miguel Alba and Santiago Feijoo. It has a very simple floor plan integrated into an architectural structure that gave access to the cistern on the lower level, and to a watchtower that would have projected above the mosque. The rectangular floor plan measured 13 m × 5 m, with a qibla located on the shorter

²⁹Gurriarán and Utrero, “El cortijo de las mezquitas,” 295.

³⁰Castorao et al., “Actividad arqueológica puntual”.

³¹Henning et al., “Reccopolis Revealed,” 735–51.

³²Lévi-Provençal, *La Péninsule Ibérique*, 58.

³³Valdés, “La mezquita privada,” 286–88.

side of the prayer room, and a horseshoe shaped *mihrāb* niche. This modest space would have served a limited number of people residing in the garrison.³⁴

Beyond these major examples, which are clearly monumental in nature and limited in terms of the information they can provide on a much more complex process such as the spread of the first mosques in al-Andalus, one of the lines of research that has seen the most development in recent years has been that of smaller or neighbourhood mosques, also linked to urban contexts.³⁵ The identification of this type of oratory has become more widespread and integrated into highly relevant works of synthesis, such as that developed by Carmen González-Gutiérrez for the city of Córdoba, despite the few examples that have been solidly linked to the early days of Andalusī Islam.³⁶

As previously stated, this increase in case studies is largely due to the widespread adoption of heritage protection laws, which required archaeological documentation to be carried out in parallel with public or private construction projects. These same working dynamics have facilitated the documentation of analogous examples in other cities, such as Toledo, Granada, Jaén, Vascos or Sevilla, albeit always within a different chronological framework. However, these studies have successfully combined textual and archaeological records, offering a valuable perspective on the subject.³⁷

A salient exemplar of such edifices in the early Islamic context of al-Andalus can be found in the mosque of the Ronda Oeste of Córdoba. Linked to one of the suburbs of the Andalusī capital, this small place of worship was excavated during the early twenty-first century by a team led by Cristina Camacho, which made it possible to date it to the second half of the ninth century CE.³⁸ Major renovation undertaken during in the Caliphate was also noted. Its floor plan measures 12 m × 9 m and is symmetrically divided between a single section prayer room with no partitions, measuring approximately 9 m × 6 m, with a square-shaped *mihrāb* completely protruding into the exterior, and the courtyard, measuring 9 m × 6.3 m.³⁹

It has been posited that the mosques of Puente de Gallegos, San Juan and Santiago may also be regarded as early exemplifications of this group of more modest early religious architecture in Córdoba.⁴⁰ A comparable example is evidenced by the Tornerías mosque in Toledo, whose foundation also appears to date back to the final days of the Emirate.⁴¹ Nevertheless the paucity of extant archaeological evidence necessitates a cautious approach when considering their inclusion within this categorisation.

Ultimately, it is important to note that, although cities have always been considered, in light of textual and material evidence, as the initial centres for the establishment and spreading of mosques throughout al-Andalus, we now know of other institutions that may have played this same role in rural and peripheral areas as early as, or even earlier than, urban centres. Examples of this type of parallel scenarios would include

³⁴Feijoo and Alba, "El sentido de la alcazaba," 569.

³⁵Calvo, "Las mezquitas de pequeñas ciudades."

³⁶González-Gutiérrez, "Las mezquitas de barrio."

³⁷Berges, "La Iglesia de la Magdalena"; Valor and Montes, "De Mezquitas a Iglesias," 145–48; Izquierdo and Prieto "Una pequeña mezquita"; Ruiz Taboada, "La excavación de la mezquita"; Trillo, "Mezquitas en al-Andalus," 86–90.

³⁸Camacho et al., "Intervención arqueológica," 210–30; Camacho, "Evolución del parcelario," 33–36; González-Gutiérrez, *Las mezquitas*, 139.

³⁹Calvo, *Las mezquitas*, 569–71.

⁴⁰Gutiérrez, *Las mezquitas*, 426–37.

⁴¹Ruiz Taboada, "La excavación de la mezquita."

construction programmes linked to the *ribāt* and *jihād* in border territories, where the building of early places of worship was a remarkable feature.⁴² Such cases have been thoroughly documented through their systematic excavation, as well as taking into consideration the radiocarbon dating of the biological remains recovered there. Below, we add to the list by focusing on two of these case studies with the final aim of outlining a coherent interpretation of the advent of early mosques in al-Andalus, their construction models and the role they played in the Islamisation of the population of the Iberian Peninsula prior to the proclamation of the Caliphate.

Hillforts and early mosques in Sharq al-Andalus: Tossal de la Vila and El Molón

Some of the most unique examples of early Islamic fortifications in the Iberian Peninsula are found in northern Sharq al-Andalus, which since the early ninth century CE lay within the sphere of influence of the cities of Tortosa and València. In general, they are the result of occupation dynamics in specific high-altitude sites founded between Late Antiquity and the Early Middle Ages, which have clear parallels in the rest of the Western Mediterranean.⁴³ Consequently, complementary readings have been proposed to explain the emergence of these enclaves and their role in history: as centres of local power,⁴⁴ as road checkpoints⁴⁵ or even as settlements linked to peasant communities that tried to escape the control of the major territorial powers,⁴⁶ among other explanations.

In the specific case of Sharq al-Andalus, we owe a great deal to the French archaeologist André Bazzana for illuminating the issue,⁴⁷ although any further development had been neglected until relatively recently.⁴⁸ It was Bazzana who proposed the identification of several of these fortifications, characterised by a series of similar features, including defences built with a certain level of complexity; location on top of topographically relevant elevations along the coast and/or communication routes, and structures or materials that ascribe them to the Emirate period. He also identified other enclosures of similar but less complex characteristics, which he refers to as “enigmatic” in his study.⁴⁹

Owing to recent surveys and systematic excavations that have given rise to a considerably expanded list, the picture now presented to us is richer in detail.⁵⁰ On the whole, those fortifications are generically described in Arabic sources as fortresses (*ḥuṣūn*, sing. *ḥiṣn*) and enclosures (*marābiṭ*, sing. *marbat*), which had diverse, complementary functions assigned to them. Whilst the former would correspond to complex strongholds, such as those presented herewith, the latter were primarily linked to temporary billeting for modest, itinerant garrisons.⁵¹ (Figure 2)

⁴²Negre, “Ribāt in the furthestmost.”

⁴³Schneider, “*Oppida et castra*,” 433–48; Catalán, Fuentes and Sastre, *Fortificaciones en la tardoantigüedad*; Gibert, *La fi del món antic*.

⁴⁴Schneider, “*Oppida et castra*,” 436–39; Castellanos and Martín-Viso, “The Local Articulation.”

⁴⁵Bazzana, *Maisons d'al-Andalus*, 277; Schneider, “*Oppida et castra*,” 440–42.

⁴⁶Bazzana, *Maisons d'al-Andalus*, 280; Acien, *De nuevo sobre la fortificación*, 60; Schneider, “*Oppida et castra*,” 439–40.

⁴⁷Bazzana, *Maisons d'al-Andalus*, 273–75.

⁴⁸Negre et al., “Una lectura contextual”; Negre, “Ribāt in the Furthermost.”

⁴⁹Bazzana, *Maisons d'al-Andalus*, 348–53.

⁵⁰Lorrio and Sánchez de Prado, “La mezquita y el hisn”; Lorrio and Sánchez de Prado, “El Molón”; Negre et al. “Una lectura contextual”; Negre et al. “La mezquita”, 301–19; Pérez-Polo et al., “Landscape Exploitation.”

⁵¹Negre and Suñé, “Territorio, fiscalidad,” 714–19; Negre, “Ribāt in the Furthermost,” 15–22.

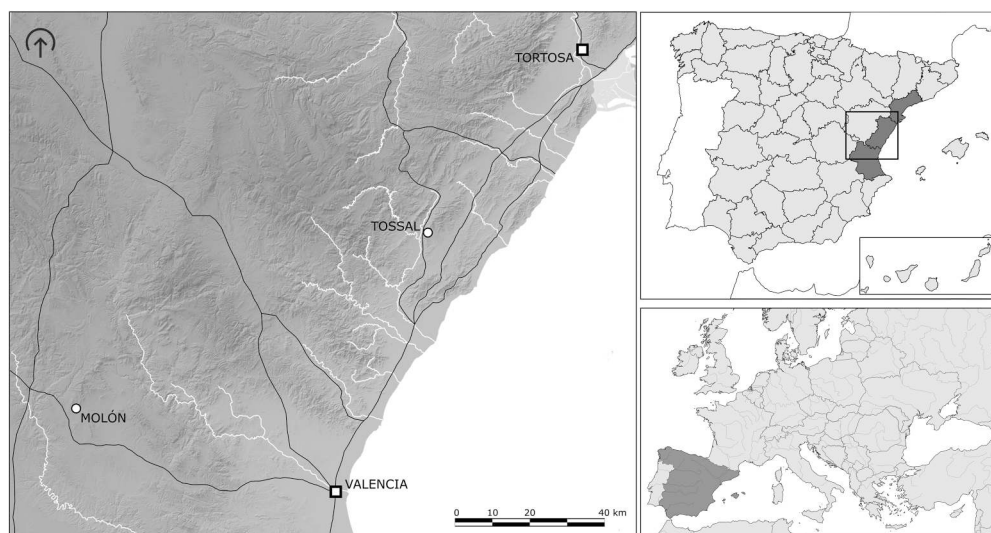


Figure 2. Location map of the two archaeological case studies presented in this paper.

The first of the case studies is the hillfort of Tossal de la Vila (Serra d'en Galceran, Castelló), where successive excavation campaigns have been performed over the last ten years. This site is located on one of the most prominent peaks in the south of the Serra d'en Galceran at 954 m above sea level, which spans a wide rocky platform of almost half a hectare. It is accessible from all directions except the east where steep escarpments prevent access. Based on the dates obtained from various biological samples, archaeological records and the different construction phases documented at the site, we can confidently suggest that the enclosure was occupied between the first half of the eighth and the early tenth centuries CE. It would have been abandoned in a planned and peaceful manner, probably during the military expeditions of Córdoba prior to the proclamation of the Caliphate. (Figure 3) (Tables 1 and 2)

The first Andalusí construction at this site was an imposing 2–3 m wide dry-stone wall, which was interspersed with towers and bastions, built on the remains of a Late Bronze Age/Early Iron Age defence (eighth-seventh centuries BCE) located on the most easily accessible sides. The only evidence of the structure of the enclosure's interior space is a series of buildings protected by the wall, which acts as an inner boundary for the simple rooms that are built at an angle facing a central open space.⁵² However, evidence of a more advanced phase in the life of the settlement has been identified by documenting the process of urban development, which revealed the addition of new perpendicular modules arranged around a courtyard. There is also a group of buildings with the same design at the southern end of the enclosure, which have been identified as stabling and storage spaces. Two of the structures are the only free-standing buildings documented at the site; one is a rectangular room built with clearly superior construction techniques that we attribute to the presence of a hierarchical figure within the hillfort organisation, and the other is a large building with 60 m²

⁵²Negre et al., "Poliórcética, morfología," 157–60.

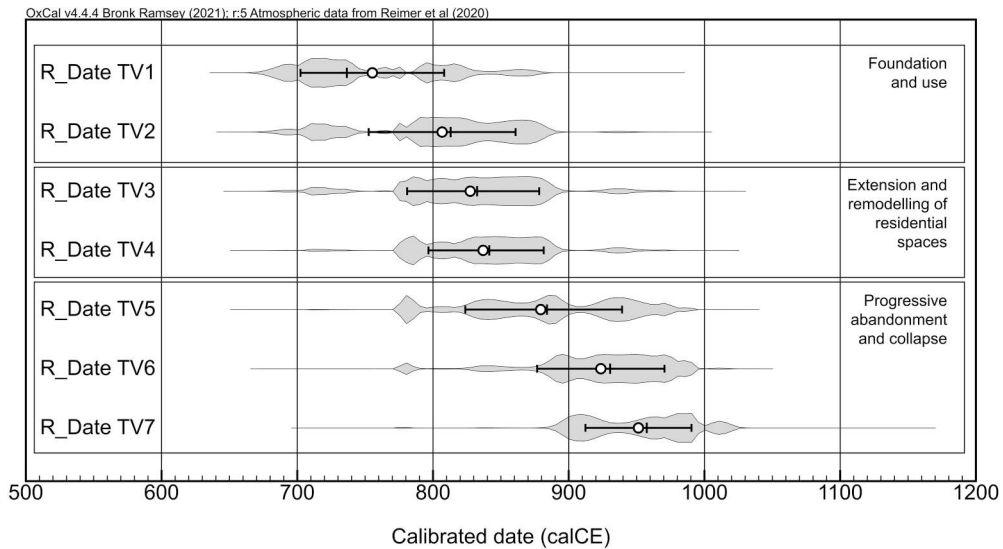


Figure 3. Graphical plot of radiocarbon dating from Tossal de la Vila.

Table 1. Periods of Andalusí occupation in Tossal de la Vila.

Period	Phase	Chronology	Dating Criteria
Emirate Andalusí period	Construction	8th. c. CE	TV1
Emirate Andalusí period	Use	First half 9th c. CE	TV2, TV-3, TV-4
Emirate fitna period	Abandonment	Early 10th c. CE	TV-5, TV-6, TV-7

of usable space, which has been identified as the mosque we are referring to here. Lastly, it is also worth mentioning that various constructions exist outside the walls, which are still under study, that might indicate that occupations or activities were performed beyond the main premises.

If we consider the architectural evidence, the analysis of the material contexts that were recovered and the enclosure's strategic location at the intersection of the roads leading from the city of València to Tortosa and Zaragoza, it leads us to consider this enclosure as a hillfort with a clear military vocation, what contemporary sources would have described as a *hişn*. This is also evidenced by a wide and diversified collection of weapons but very limited ceramic finds, which include some pieces made in production centres far from the site, such as Tudmir, Córdoba, and Africa.⁵³ Added to this is the lack of evidence of agricultural practices, the intensive use of the biotic resources available in situ, where the existence of suid remains is conspicuous by its almost total absence,⁵⁴ and the limited plant resources.⁵⁵ The abandonment of the site, which was detected using sequence stratigraphy, as well as the constant alterations to its living and storage spaces, suggest an occupation dynamic of unknown and intermittent

⁵³Negre et al., "Una lectura contextual," 205–9.

⁵⁴Pérez-Polo et al., "Landscape Exploitation," 20–22.

⁵⁵Carpological study conducted by Dr. Guillem Pérez-Jordà (Universitat de València).

Table 2. Andalusí radiocarbon dating of Tossal de la Vila.

ID	Laboratory Code	Sample Type	Conventional Radiocarbon Age (BP)	Calibrated Age (1 σ 68.3%)	Calibrated age (2 σ 95.4%)
TV-1	CNA7073.1.1	Bone collagen	1250 $\pm$ 25	687 (49.0%) 743 cal CE 791 (19.2%) 821 cal CE	675 (64.6%) 779 cal CE 786 (25.1%) 843 cal CE 850 (5.7%) 876 cal CE
TV-2	Beta-588420	Charred material	1220 $\pm$ 30	784 (42.5%) 835 cal CE 844 (22.9%) 877 cal CE 774 (2.8%) 778 cal CE	770 (77.9%) 888 cal CE 686 (17.5%) 742 cal CE
TV-3	Beta-503127	Charred material	1200 $\pm$ 30	788 (64.8%) 872 cal CE 774 (3.4%) 779 cal CE	706 (5.0%) 736 cal CE 771 (88.3%) 894 cal CE 929 (2.1%) 945 cal CE
TV-4	CNA7074.1.1	Bone collagen	1190 $\pm$ 25	777 (10.8%) 790 cal CE 822 (57.5%) 885 cal CE	772 (92.9%) 894 cal CE 929 (2.6%) 944 cal CE
TV-5	Beta-639687	Bone collagen	1160 $\pm$ 30	920 (22.3%) 955 cal CE 870 (19.3%) 898 cal CE 828 (18.8%) 861 cal CE 776 (7.8%) 787 cal CE	770 (83.9%) 978 cal CE 772 (10.2%) 790 cal CE 804 (1.3%) 810 cal CE
TV-6	Beta-588421	Bone collagen	1130 $\pm$ 30	915 (56.8%) 976 cal CE 889 (11.4%) 902 cal CE	875 (89.3%) 994 cal CE 830 (3.7%) 851 cal CE 776 (11.4%) 786 cal CE
TV-7	Beta- 419185	Charred material	1090 $\pm$ 30	896 (26.6%) 924 cal CE 950 (41.6%) 994 cal CE	890 (95.4%) 1020 cal CE

duration by groups of occupants who were not excessively numerous, perhaps around 50 individuals.⁵⁶ This is why both Tossal de la Vila and other examples in the region with similar characteristics have been associated with certain dynamics involving the mobilisation of voluntary troops, as well as early religious practices related to local forms of armed spirituality within the context of *ribāṭ* and *jihād* in the Iberian Peninsula.⁵⁷

Regarding these concepts, while the former is strongly linked to defence (usually passive) and surveillance of frontiers, especially from the eighth century CE onwards, the latter emerged contemporaneously as a spiritual ascetic activity that sometimes entailed taking up arms, combining the service of God with defence of the Islamic faith.⁵⁸ Both concepts are models of praxis and behaviour that link religion and its armed defence within an ideological framework that had already taken shape in Late Antiquity, not only in the Muslim but also in the Christian sphere, and which Islam incorporated and adapted.⁵⁹ (Figure 4)

A second case study is El Molón (Camporrobles, València), which is located in an important strategic area in the interior of the region of València, between the plateau, the Iberian Mountain Range and the Mediterranean coast. The site was the object of archaeological investigation between 1995 and 2011. It occupies the summit of a large, elongated Cretaceous flat-topped hill at 1,124 m above sea level and spans an area of approximately one hectare. It is practically inaccessible from all directions due to steep rocky escarpments, which are less marked in the west, the main access to the enclosure. From the material record, which is reduced almost exclusively to a few locally produced pottery items, and the radiocarbon dating of anthropological remains from the area of

⁵⁶Negre et al., "Poliorcética, morfología," 161.

⁵⁷Negre, "Ribāṭ in the Furthermost," 10–16.

⁵⁸Donner, "Qur'ānicization," 85–89; Sahner, "The Monasticism," 149–83.

⁵⁹Sizgorich, "Violence and Belief," 180–86.

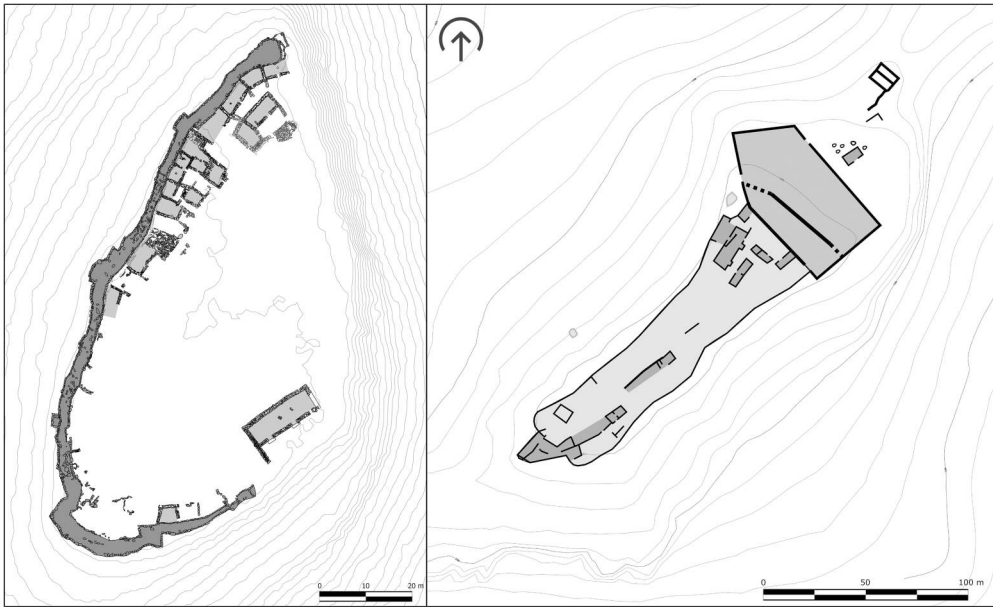


Figure 4. Site plan from Tossal de la Vila (left) and El Molón (right).

the mosque, the general chronology for the Andalusí occupation of the site has been dated to somewhere between the first half of the eighth and the first half of the tenth centuries CE. This can also be deduced from the notable absence of classical productions from the Caliphate period, which leads us to believe that it would have been abandoned in the same way as Tossal de la Vila under the pacification campaigns of ‘Abd al-Raḥmān al-Nāṣir and his subsequent policy of moving forts closer to cultivated areas and communication routes.⁶⁰ (Figure 5) (Tables 3 and 4)

An earlier occupation period was also documented at the site, in this case in the Iron Age (seventh-1st century BCE), when it became an important settlement surrounded by formidable defensive structures. Town planning and several cisterns carved into the natural rock of the hill were also documented. After sporadic episodes of occupation of the site during the first centuries of the common era, a new settlement period began in the Andalusí era, in which some of the major protohistoric works were reused. Thus, two of the three cave cisterns were harnessed, while the old wall served as the foundation for the construction of a new fortified perimeter in the eastern area, which substantially modified the main access gate to the platform. Moreover, the Iron Age dwellings themselves show evidence of significant stone plundering in order to build new constructions. The new settlement was structured in various, clearly segregated sectors.⁶¹ The actual settlement is located in the western area in around half a hectare. It is divided between a public space and a residential area surrounded by a robust perimeter wall. The enclosure comprises a large building, identified as a mosque, and four free-standing constructions that have been catalogued as collective areas or areas for common use. In the rest of the sector, several groups of multi-cellular dwellings have

⁶⁰Lorrio and Sánchez de Prado, “La mezquita y el hisn”; Lorrio and Sánchez de Prado, “El Molón.”

⁶¹Lorrio and Sánchez de Prado, “El Molón,” 144–53.

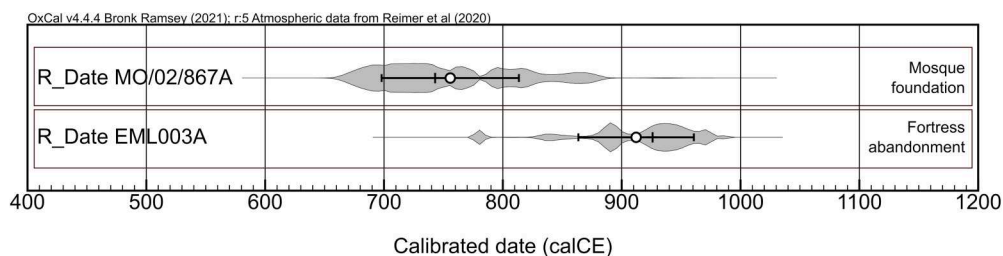


Figure 5. Graphical plot of radiocarbon dating from El Molón.

Table 3. Periods of Andalusi occupation in El Molón.

Period	Phase	Chronology	Dating Criteria
Emirate Andalusi period	Construction	8th c. CE	MO/02/867A
Emirate Andalusi period	Use	9th c. CE	Ceramics and stratigraphic
Emirate fitna period	Abandonment	Early 10th c. CE	EML003_A

Table 4. Andalusi radiocarbon dating of El Molón.

ID	Laboratory Code	Sample Type	Conventional Radiocarbon Age (BP)	Calibrated Age (1σ 68.3%)	Calibrated age (2σ 95.4%)
MO/02/867A	Beta183527	bone collagen	1260 +/- 40	677 (49.1%) 751 cal CE	666 (66.5%) 778 cal CE
				757 (7.9%) 772 cal CE	785 (21.0%) 838 cal CE
				791 (6.1%) 804 cal CE	845 (7.9%) 877 cal CE
				809 (5.2%) 820 cal CE	
				882 (18.5%) 900 cal CE	773 (5.3%) 787 cal CE
EML003.A	50459	bone collagen	1145 +/- 21	918 (45.4%) 960 cal CE	829 (6.3%) 855 cal CE
				966 (4.4%) 972 cal CE	873 (83.8%) 980 cal CE

been documented which show a certain degree of planning, some even present several construction phases. It is worth mentioning that the urban development of a potential suburb has also been discovered, located on the south-eastern slope of the hill, and is still under study. To the east of the walled settlement is a new open-air enclosure, also protected by a perimeter wall, that would have incorporated the protohistoric defences on its north side. Lastly, at one extreme of the high plateau there is a final sector, in the centre of which are the remains of a large structure built over an ancient cave cistern, as well as abundant silo-landfills that are delimited by impressive pre-Roman defences and imposing vertical cliffs. Given that there is no evidence of generalised urban development in this sector, it might have been associated with a privileged occupation from a topographical-defensive perspective and/or the control of certain storage structures from a spatial syntax perspective.

The material evidence for the enclosure, its strategic position within the region and its imposing defensive structures lead us to conclude that a considerably sized fortified settlement was established on the hill. The ruins of a large mosque on the site reinforces this belief. Again, this is the reality that sources referred to when using the generic term *hışn*. In this case, this enclosure was located on the border between the historical regions of Santaver and València; a point of recurring conflict between the central power and various Berber groups who were settled there throughout the first centuries of the Andalus period. Regarding economic strategies, the archaeological record from El Molón

depicts practices primarily linked to subsistence farming, fundamentally based on sheep and goats for their meat, milk, wool and hides.⁶² The remains of bovids have also been recovered, which seem to have been exploited exclusively for their consumption, whereas the remains of swine, rabbits and hares are very limited. The economic base of these populations would have been supplemented by the agricultural exploitation of the flat areas surrounding the Camporrobles lagoons, as suggested by carpological and palaeo-dietary studies.⁶³

Located on prominent hills and/or next to important crossroads, the two fortifications show identical occupation dynamics, extending from at least the mid-eighth century CE until the proclamation of the Caliphate. With their analogous poliorcetic solutions and limited urban development, both settlements respond to models in which a simple dwelling design and minor alterations were the norm. This was combined with economic strategies that seemed to favour the most basic subsistence in which secondary products from livestock took precedence over consumption-oriented exploitation, evidenced by a very limited record of agricultural activity. There are also important indicators that point to the Islamisation of the occupants at a very early stage, especially if we take into account the peripheral and marginal location of both examples. These include, for example, the dietary orthopraxis, in which the consumption of pork was practically non-existent, as well as the construction of both mosques, probably in the middle decades of the eighth century CE. Taking all this evidence into consideration, and by way of a hypothesis, we can link both enclosures with recently arrived populations or even groups of volunteers—perhaps accompanied by their families—that written sources ascribe to the early *ribāt* and *jihād* operations deployed in these territories.⁶⁴

The mosques of Tossal de la Vila and El Molón

As mentioned above, both sites have buildings that have been interpreted as mosques. These may be two of the earliest examples of this type of edifices excavated in al-Andalus. Written sources offer very little information on the construction, function and evolution of Andalusí places of worship during the Emirate, and, in many cases, the texts are peppered with apologetic overtones.⁶⁵ Data becomes even more scarce in the case of rural environments, and the knowledge acquired about the buildings has been based on commonplaces, analogies and general models. Thus, the two cases presented here may be significant in describing the early spread of Islam in peripheral rural areas. Moreover, they are examples of the diffusion of particular architectural models, whose vectors of cultural transmission are relevant to research on early Islam as a whole.

Orientation

One of the elements that is often the first to be considered when identifying a mosque is its orientation. The Quran's directive to face in the correct direction for prayer, sacrifices,

⁶²Archaeozoological study conducted by Dr. Pilar Iborra (IVCR+i, Generalitat Valenciana).

⁶³Llorio and Sánchez de Prado, "El Molón," 155; Carpological study conducted by Dr. Guillem Pérez-Jordà (Universitat de València); Paleo diet study conducted by el Dr. Gonzalo Trancho (Universidad Complutense de Madrid) and Dr. Beatriz Robledo (Museo de América).

⁶⁴Negre, "Ribāt in the Furthestmost," 10–16.

⁶⁵Calvo, "Los inicios de la arquitectura," 31.

burials and many other daily activities is one of the primary obligations of the Muslim community and, as a result, has given rise to extensive juridical-religious literary production. The executors of this directive were astronomers and al-faqihs, the former because of their knowledge of orientation and alignment—usually limited by the difficulty of establishing the geographical location of each mosque—and the latter because of the jurisprudential nature of their deliberations, which could authorise or invalidate the astronomical calculations. Despite this, there is no single accepted qibla but several similar directions, given that methods and orientations vary according to the period and the prevailing social, legal and religious conditions. This situation within the Iberian Peninsula led to the coexistence of different practices regarding the orientation of mosques but always framed within the general SE quadrant which points towards Mecca (in an azimuth⁶⁶ range between 100° and 105°). (Figure 6)

The orientation⁶⁷ of the SE alignment of the mosque of Tossal de la Vila corresponds to an azimuth of $148.3^{\circ} \pm 1.2^{\circ}$ and its perpendicular alignment to the east corresponds to an azimuth of $58.3^{\circ} \pm 1.2^{\circ}$.⁶⁸ It then follows that the direction of the shorter side of the mosque shows an unmistakable astronomical bias. By using the local horizon, it was determined that the building was planned by aligning it towards the rising of a star with a declination⁶⁹ of $+22.5^{\circ} \pm 0.8^{\circ}$, a value very close to that of the sunrise during the summer solstice ($+23.6^{\circ}$ when the structure was built).⁷⁰ The same methodology was applied to orientate the qibla of the mosque of El Molón, which gave an azimuth of $118.0^{\circ} \pm 3.2^{\circ}$. The corresponding declination of the star that rises at the point on the local horizon towards which the *mihrāb* is pointing is approximately $-21.7^{\circ} \pm 2.4^{\circ}$, a range of values coinciding with the sunrise at the winter solstice (-23.6°).⁷¹ (Figure 7)

In sum, the discovery of these places of worship, which were perfectly oriented according to the known position of the sun at the time and built to high quality standards—despite the recondite, austere and precocious contexts in which they were erected—indicates the presence of a group of occupants with an unquestionable degree of adherence to Muslim praxis, at a very early stage in the formation of al-Andalus. It is important to remember that these buildings were erected in the eighth century CE, more than two weeks' journey from Córdoba, and several days' journey away from the nearest authorities in Tortosa and València.

⁶⁶The sexagesimal horizontal angle to geographic north measured clockwise on the map, i.e., from north to east.

⁶⁷Performed using the Google Earth Pro angle measurement tool (satellite image of 27/05/2022).

⁶⁸The associated error of 1.2° is obtained by the quadratic sum of the standard deviation of the measurements of the three walls (only 0.6° , indicating the high degree of orthogonality of the building) and the statistical error of 1° which is estimated for the azimuths obtained using Google Earth Pro.

⁶⁹The sexagesimal angle between a star and the celestial equator measured along the great circle passing through the celestial poles and the star in question. It is one of the equatorial coordinates (along with right ascension) used to locate the stars in the celestial sphere, regardless of the observer's position; the range of possible values of declination varies between $+90^{\circ}$ and -90° .

⁷⁰Applying the same methodology to determine the orientation of the *aljama* mosque of Córdoba, we obtained an azimuth for the qibla of $150.6^{\circ} \pm 1.0^{\circ}$ while, to the east, its perpendicular alignment presents an azimuth of $60.6^{\circ} \pm 1.0^{\circ}$, which corresponds to the rising of a star with a declination of $+23.3^{\circ} \pm 0.8^{\circ}$, fitting perfectly (even more precisely than Tossal de la Vila) with the sunrise at the summer solstice ($+23.6^{\circ}$).

⁷¹An interesting detail regarding the development of the orientation in the case of El Molón is that, unlike the mosque of Tossal de la Vila, the mosque did not have a clear view of the horizon in the direction of the qibla, as there were other constructions blocking it. In contrast, due to its position within the settlement, it would be much more likely that the western horizon was visible and that, instead of using the sunrise at the winter solstice, the sunset at the summer solstice would have been used to determine the mosque's orientation. Although both points are diametrically opposed, this method is valid provided that the difference between the height of the points on the horizon where both phenomena occur is not significant, as is the case here.

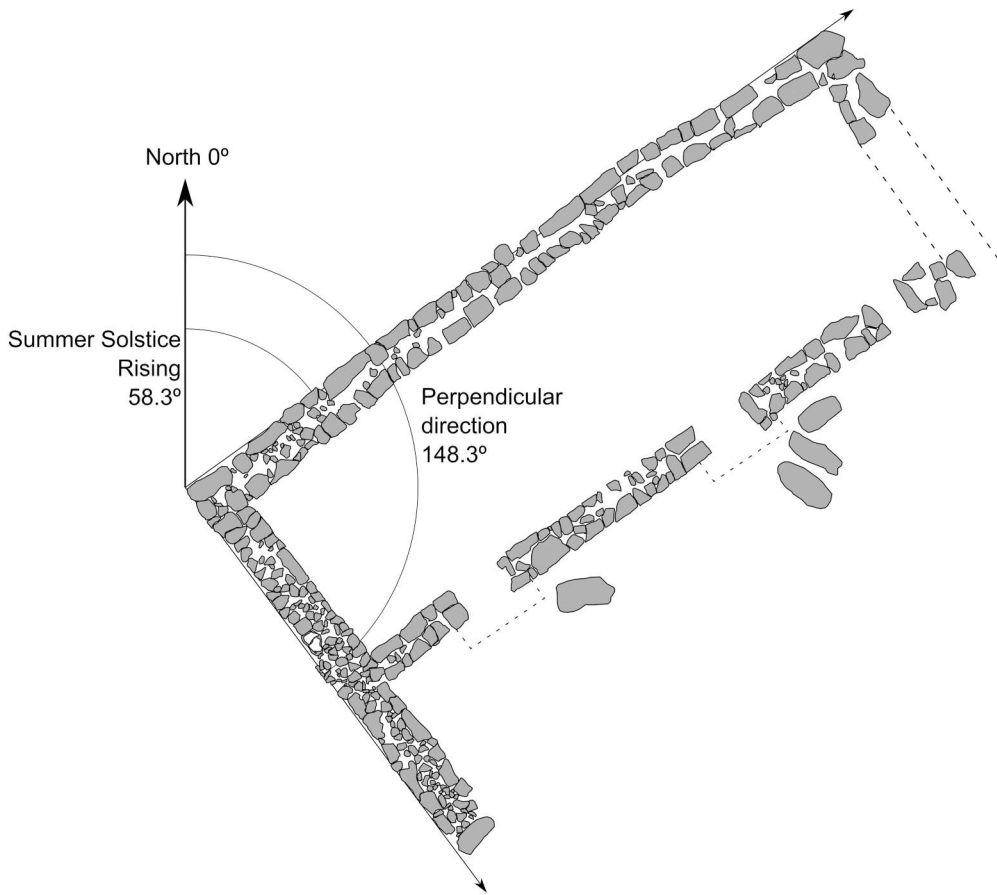


Figure 6. Orientation floor plan of the mosque of Tossal de la Vila.

General building morphology

Another very important element for the study of early mosques is the building's design, which tends to follow typologies that do not overly diverge from one another. In order to propose scenarios for the transfer of technical knowledge, especially in terms of architectural models, we used systematisation and comparative analyses which enabled us to address the study of the actual process of the spread of Islam and its most defining material expressions. It is, therefore, of the utmost importance to gather every possible piece of data on the structure of the buildings that comprise these religious complexes, as well as their most important affiliations and physiognomic characteristics.

In the case of the mosque of Tossal de la Vila, the entire building is built on a geological level of limestone rock, which was hollowed out by successive quarrying until an almost flat surface was achieved, on which the building rests. It comprises a single prayer room with no internal divisions, and a semi-open courtyard that is symmetrical to the rest of the building. The room has a rectangular floor plan. The exterior measures $17.02 \text{ m} \times 5.27 \text{ m}$ and the interior $15 \text{ m} \times 4 \text{ m}$, with a usable internal space of approximately 60 m^2 . The courtyard is located behind the mosque's qibla, along the same wall as the main entrance to the oratory, which is adapted to the topography of the site. The

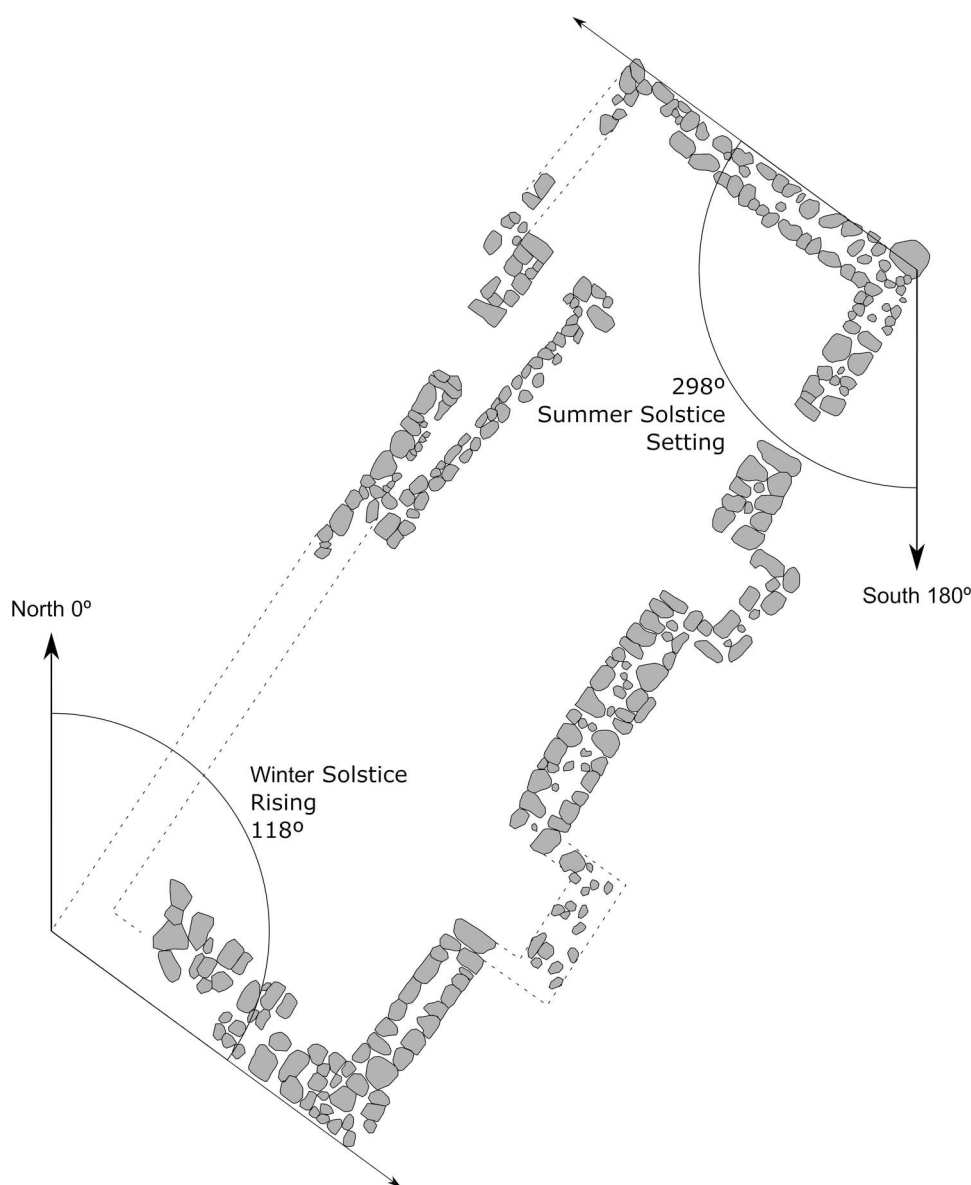


Figure 7. Orientation floor plan of the mosque of El Molón.

structure, built as a single unit, uses the south-west wall as its main axis, which covers this side of the prayer hall and the courtyard itself, in order to separate it from the adjoining spaces dedicated to stabling and storage. (Figure 8)

There are three hiatuses in the mosque's qibla wall, which are interpreted below in terms of functionality. The two southernmost recesses are built from the geological level up and have widths of 1.03 and 1.13 m respectively. During the excavation, several large stone blocks were found in the vicinity of both spaces that were slightly displaced from their original position due to modern plundering. On the external face of the wall of the qibla, several stone blocks were also found that perfectly interlocked into the

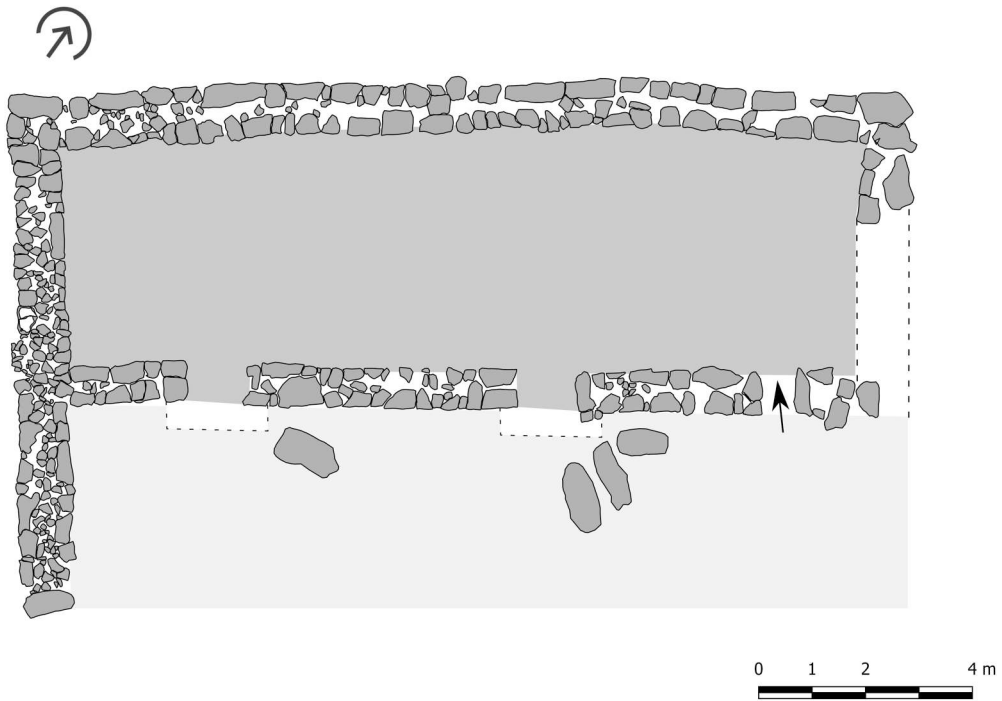


Figure 8. Floor plan of the mosque of Tossal de la Vila.

wall, which, together with the orthostats, must have formed part of the structure of the two spaces that would have been designed as niches in the wall inside the oratory, measuring approximately $1.20 \text{ m} \times 1 \text{ m}$. This indicates that each one of them was originally a *mihrāb*, an architectural element whose purpose is to mark the qibla for prayer. The third hiatus in the qibla wall is located at the north end. It is much smaller than the other two, only 0.62 m wide, and owing to the rocky outcrop it is at a slightly higher level than the rest of the platform, which creates a small step that would have protected the building from water and cold entering from the outside. These characteristics, together with the similarity between the light of this opening and that of the entrances to most of the modules built in the enclosure, led us to identify it as the only ingress to the prayer room from the courtyard. This is further supported by the discovery of a level of flat limestone slabs on the outside of the doorway, which, due to their arrangement, we interpret as part of the fallen roof. This has led to the suggestion that it could have been a small wooden porch that would have protected the main entrance and might have served as an antechamber where ablutions could be performed prior to entering the oratory.

The mosque of El Molón has a very similar design, with a single nave for the prayer hall and a symmetrical courtyard, in this case, on the opposite side to the building. The mosque is one of the principal edifices in the settlement and is built on top of two protohistoric dwellings located next to the entrance. Its state of preservation has been significantly affected by the unevenness of the site. The prayer hall has a single rectangular nave measuring $17 \text{ m} \times 6 \text{ m}$ on the outside and $15.20 \text{ m} \times 4.80 \text{ m}$ on the inside, with a usable space of around 70 m^2 . The courtyard could be accessed from the nave through a trapezoidal elbow-shaped entrance, which served as an anteroom and connected the two

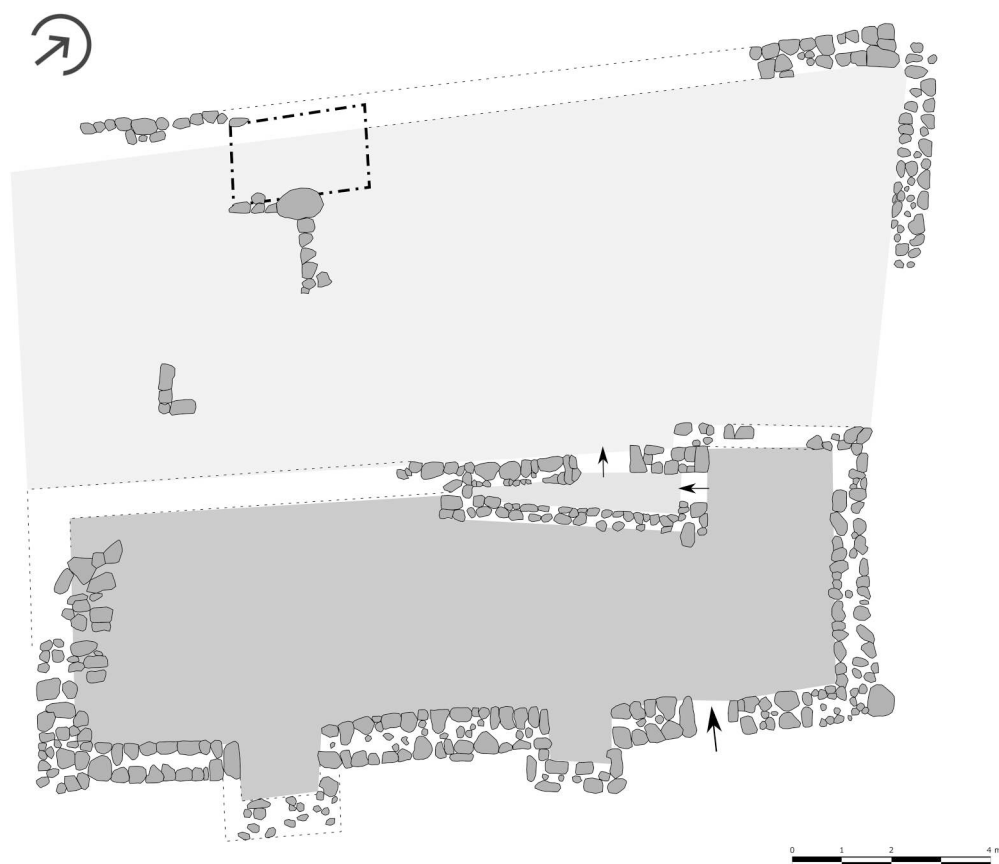


Figure 9. Floor plan of the mosque of El Molón (dashed-dotted square marks the location of qibla-oriented burials).

spaces by means of a series of steps that bridged the steep slope. Two tombs, one of them double, were found in the southwest corner of the courtyard oriented in relation to the qibla. Both tombs have provided data that enable us to date the time of construction, as mentioned earlier. (Figure 9)

The solid construction of the qibla wall, which extends 16 m to the exterior and is attached to the southwest enclosure wall, is notable for its four independent sections that ultimately define three openings of different dimensions. The first has been identified as the main entrance, measuring 0.94 m wide, while the other two have been identified as *maḥārīb*, the southernmost of which had been dismantled. It was initially proposed that the prayer room might have been separated into two spaces, each with a *miḥrāb* divided by a reused wall from the protohistoric period. However, the idea that it was a single prayer room is reinforced by the absence of evidence for the re-building of the partition wall during the Andalusi period. The best-preserved niche has a quadrangular floor plan that protrudes 0.87 m from the principal wall. The exterior measures 1.94 m and the interior 1.50×1.25 m. Only the gap in the wall for the second niche as a section of the qibla remains. However, the quadrangular space can be reconstructed from the remains to show an internal space of 1.70×1.50 m, which is somewhat larger than the first one.

Construction systems and techniques

The technical aspects of mosque construction have often been used to support chronological ascriptions and/or to links to specific social groups. However, we now know that these building designs respond to stylistic and economic criteria such as those mentioned above, but also to the availability of raw materials and know-how. This is why, in certain cases, specific relationships can be discerned between workshops, building equipment and techniques, and specific territories, where there would be easier access to certain resources or where vernacular architecture was more deeply rooted. This scenario, in which the particularities in the execution of buildings acquire a regional character, is highly relevant when it comes to explaining the development of the buildings analysed in this paper.

In the case of Tossal de la Vila, the general structure of the entire building is built on a base made of dry-laid masonry, with two faces of large and medium-sized blocks that are perfectly fitted together, filled with smaller stones and rubble. All the raw material for the mosque came directly from the natural quarry where it was subsequently built. The platform where it is located was levelled during the excavation of the quarry. The fact that the walls were predominantly made of stone without mortar required that the walls had to be built wider than usual for a single-storey building. As a result, the average thickness recorded is around 0.90 m. and the height of the wall that still stands today is between one and three courses of blocks, never more than one metre and always placed directly on the geological level. This is the most common construction technique used in the initial phase of the site. It can be seen both in the base for all the buildings and the fortress walls, and is one of the distinctive features of early Andalusí constructions in the region. (Figure 10)

The back longitudinal wall of the mosque, which is parallel to the qibla, has the largest number of orthostats in place, while smaller masonry blocks were used in the construction of the shorter sides. Larger blocks were also used to build the two *maḥārīb* and reinforce the corners, which strengthens the interlocking between the walls. The technique used to build the walls contrasts with that of the qibla wall, which was built with perfectly interlocking medium-sized blocks, approximately 0.70 m wide. In general, the blocks that constitute the base show no signs of having been worked, but there does seem to have been a conscious selection of masonry and a tendency to standardise the height. On top of the stone base were erected the rest of the walls, which, just like the rest of the constructions at the site, are made of compressed earth, as documented during the excavation of the collapsed levels. In parts of the interior of the mosque where the quarry was not level with the walls of the building, the remains of a layer of some type of plaster or facing were also documented. The roofs of both the building and the porch were made from wooden joists covered with branches, mud and flat slabs of limestone from the surrounding area. The thick walls of the mosque would have acted as load-bearing structures for the roof, probably together with two or three wooden pillars inside the temple, of which no traces have survived.

In El Molón, mud-mortar masonry is the predominant construction technique used for the mosque's base, comprising two faces filled with rubble, with no remains of plaster. The qibla wall, with an average width of 0.75 m, is more carefully constructed using large blocks of up to half a metre as angular reinforcements in some of the corners of the building, as also documented in the previous case. The base rests directly



Figure 10. Image of the mosque of Tossal de la Vila.

on the geological level and is elevated between 0.35-0.45 m in height. The two *maḥārīb*, in different states of preservation, have the same technical execution, and rest on the remains of a protohistoric pavement and the geological level itself. The rest of the walls are in a worse state of preservation, in some areas they are practically dismantled owing to the steep slope on the west side that characterises the platform on which the mosque stands. (Figure 11)

It was considered that the building might have been made of masonry, as can be inferred from the volume of stones identified in the interior. However, this cannot be confirmed with certainty given the plundering of masonry for agricultural use during the twentieth century. Another option also taken into consideration is that the walls were built using compact earth combined with smaller stones, consistent with the stratigraphy. It should be mentioned that in the case of the sloping roof, it is suggested that plant and ligneous resources were used, as in the previous case.

Construction and stratigraphic sequence

The way in which the technical execution of the mosques was planned enables us to infer certain details about their initial design. Thus, if we are able to sequence the building of the walls, then we can compare the order of their construction, as well as the direction adopted as the main reference when orienting the building. In this regard, the two buildings in this study are clear examples of the need for a stratigraphic architectural reading and of its usefulness in the interpretation of these mosques. Taking the first example, the



Figure 11. Image of the mosque of El Molón.

initial construction of the mosque of Tossal de la Vila corresponds to the founding of the enclosure, with no signs of destruction or partial deterioration until the complete abandonment of the fort during the first half of the tenth century CE. The remains of the mosque are isolated with no apparent connection to any other sector in the enclosure. They are located in a space far from both the living area and the auxiliary rooms used for stabling and storage. The building process began by choosing a natural quarry face from where the blocks that would be used to build the main walls were extracted. The levelling of the quarry face is particularly evident at the intersections between the walls of the mosque, while at other points less care has been taken to smooth the quarry face. The wall at the shorter southern side of the mosque, followed by the rear load-bearing wall, were the first to be built, then the shorter northern side and finally the various sections of the qibla. These findings seem to confirm the hypothesis already put forward regarding the orientation of the mosque, which would have used the sunrise during the summer solstice as a reference to align its shorter sides. The initial building would have been finished with a tiled floor, which has survived to the present day but in a very altered state as there is very little preserved in situ. Zooarchaeological remains were identified beneath the pavement, which formed part of a fine layer of surface preparation. They have been used to date the mosque's foundation with a high degree of probability to the mid-eighth century CE. The floor was probably covered with a thin layer of vegetation, straw or similar, to insulate it from the cold and humidity rising from the geological level. In reference to context of use, there are no structures associated with domestic or craft activities. The only sign of anthropic action is a small deposit of sieved ashes under one of the preserved flagstones, which raises the

possibility that it was an activity linked to heating the environment by using coals or embers from a hearth outside the oratory.

The mosque of El Molón also seems to have been built at a single point in time, as no renovation work or additions to the original design of the building were detected during the excavation process. What seems to have taken precedence when choosing where to locate the mosque was finding a privileged position within the enclosure to give it clear views of the western horizon in order to correctly orientate the building. The land was also levelled and at least two dwellings or rooms were dismantled practically down to the foundations. It was possible to establish the building's construction sequence by analysing the stratigraphic relationship between the walls. The work began with the construction of the northeast wall and the first section of the qibla, which would have been oriented towards the sunset during the summer solstice. This was followed by the different sections of the qibla, spacing everything adequately in order to leave openings for the entrance and the two niches, before building the exterior of the oratory, the southern wall and the enclosure to the west. The structure's floor level seems to have been built by using collapsed and levelled pre-Roman adobe dwellings. No hearths or any other element that could be related to domestic or artisanal activities of any kind were identified inside the building, which once again lends consistency to the hypothesis that it was built and used uninterruptedly as a mosque in the settlement.

Some considerations on early mosques in Al-Andalus

Taking into consideration only those examples that have been reliably dated using archaeological evidence, the list of early mosques in al-Andalus amounts to nine cases, one of which is still in doubt as it has only been identified by geomagnetic surveying. Based on these examples, we can establish some initial reflections, relating to the main characteristics of the buildings and their importance during the Islamisation process in the Iberian Peninsula.

As regards the more general dating of mosques in al-Andalus, the available evidence indicates—in the same way as in the rest of the Islamic world—later dates than traditionally assumed from written sources. The construction of the *aljama* mosque in Córdoba at the end of the eighth century CE is consistent with its role as the capital of the new and last Umayyad ruled state, which had no more possessions to hold on to after the dynasty was overthrown by the Abbasids. The dynamic of the spread of congregational mosques almost a century after the arrival of Islamic troops in the Iberian Peninsula may also have been reflected in other urban centres, such as Zaragoza, Sevilla and Reccopolis. However, the archaeological results do not yet allow us to determine the foundational architectural remains with certainty, much less their complete floor plans.

The two buildings studied in this paper belong to the same chronological framework, although the evidence suggests a foundation date that predates even the urban cases. Their location on inaccessible high peaks and their association with fortified enclosures, was surely related to militarised populations who had early adopted Islam to a high degree. They were probably volunteers who settled in conflict zones, whether in frontier areas, on the coast or in insurgent regions. The very specific context of religious-military practices, such as *ribāṭ* and *jihād*, that were at their height at that time in the Western Mediterranean would explain such early architectural expressions in such marginal

and peripheral places as those described above. This phenomenon is not limited to the cases mentioned here, given that other examples could also be added including the more than probable case of the mosque of Ribāṭ Kashkī, at the mouth of the Ebro, founded in the early ninth century CE, or the renowned *muṣallā* of Guardamar, built in the second half of the same century. All are examples of ascetic military practices that were being extensively disseminated throughout these territories.⁷²

Smaller, private oratories were built at a slightly later date and are associated with the first urban citadels of the period, for example Mérida and Badajoz, as well as the larger *aljama* mosque of the city that never was in the Cortijo de las Mezquitas, all of which can be dated to the mid-ninth century CE. These mosques seem to be the result of the generalisation of this type of building in major al-Andalus urban centres in response to both state initiative and various emerging local powers acting in partial or total opposition to Córdoba. It is also important to add other cases to the list that are documented in written sources and have a certain, albeit imprecise, material resemblance, such as Tudela, Baena and Jaén. Just as these secondary centres developed their first congregational oratories in major medinas, especially Córdoba, a second construction phase began in their suburbs that shows clear examples of neighbourhood mosques such as that which is documented in the Ronda Oeste.⁷³ It is highly probable that this is not an isolated case, and that progress in new archaeological excavations in Córdoba and other similar cities, such as Sevilla, Zaragoza, Mérida and Toledo, will provide a longer list.

In conclusion, the context of Andalusī religious architecture during the eighth century CE is far removed from the descriptions provided in written sources. As previously suggested by Utrero and Calvo, there is no significant evidence to suggest that churches were reused for Muslim worship, or to justify the existence of a widespread mosque-building programme until almost a century after the conquest.⁷⁴ The first examples of Muslim architecture appeared in the Iberian Peninsula from the ninth century CE onwards, albeit still in a very nascent form and under models that we have only recently begun to glimpse. Only mosques linked to early religious-military institutions or the Cordoba *aljama* itself escape this general scenario.

One of the most important factors for understanding the process of the spread of early mosques in al-Andalus is their orientation, which has been a subject of debate since the early days of Islam. In this regard, the detailed studies performed on this subject have enabled us to discern various methods used to orientate early places of worship, which correspond to a variety of criteria.⁷⁵ (Figure 12) (Table 5)

First, written sources highlight the importance of aligning early mosques towards the rising of the star al-Qalb al-ʿAqrab (Antares, Alpha Scorpii). In al-Andalus, this direction roughly coincided with sunrise on the winter solstice (c. 120°), a criterion that was well established after the conquest, as described by the polymath Abū Marwān ʿAbd al-Malik b. Ḥabīb (d. 238H/853CE).⁷⁶ Alternatively, the qibla could also be orientated towards sunset on the summer solstice (c. 300°), in view of its completely opposite direction to

⁷²Negre, "Ribāṭ in the Furthestmost," 20–22.

⁷³González-Gutiérrez, "Religious Buildings," 12–14.

⁷⁴Calvo, "Las primeras mezquitas," 177–80; Utrero, "Beyond 711," 254–58.

⁷⁵King, "The Orientation"; Rius, *La Alquibla*; King, "La alquibla"; Valdés, "La desorientación"; Jiménez, "La qibla extraviada"; Negre et al., "La mezquita," 305–9.

⁷⁶Rius, *La Alquibla*, 182.

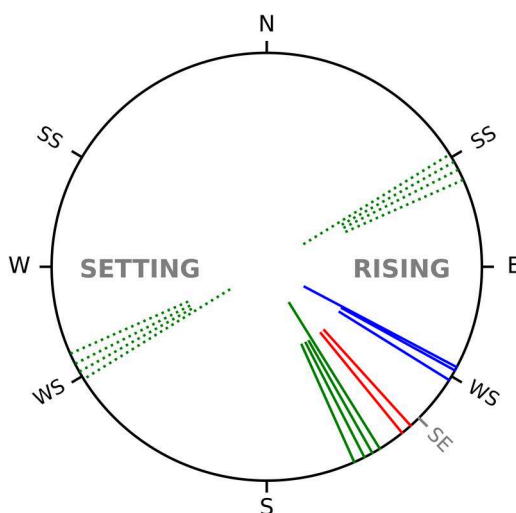


Figure 12. Diagram of the orientations of early mosques in al-Andalus in relation to sunrise and sunset during summer solstice (SS) and winter solstice (WS).

Table 5. Orientation of early mosques in al-Andalus.

Mosque	Azimuth	Orientation
El Molón	c. 118°	Sunrise at Winter Solstice
Cortijo de las Mezquitas	c. 119°	Sunrise at Winter Solstice
Reccopolis	c. 122°	Sunrise at Winter Solstice
Ronda Oeste	c. 138°	Rising Fomalhaut
Mérida	c. 141°	Rising Fomalhaut
Tossal de la Vila	c. 148°	Perpendicular to Sunrise at Summer Solstice
Córdoba	c. 150°	Perpendicular to Sunrise at Summer Solstice
Badajoz	c. 153°	Perpendicular to Sunrise at Summer Solstice
Guardamar	c. 156°	Perpendicular to Sunrise at Summer Solstice

the abovementioned. There are two perfectly documented examples within this group, El Molón and El Cortijo de las Mezquitas (Antequera, Málaga), to which Reccopolis might also be added following further research. This custom gave continuity to previous practices performed in North Africa, at least if we take at face value some of the information gathered by written sources in relation to the founding of the mosque of Qayrawān (Tunisia) by ‘Uqba b. Nāfi’, and the reorientation of the oratory of ‘Amr ibn al-‘Āṣ in Fuṣṭāṭ (Egypt), for which, however, we have no material evidence.⁷⁷

The second orientation method documented in al-Andalus used the rising of the star Suhayl (Canopus, Alpha Carinae), the second brightest star in the night sky, as a reference point. On the Arabian Peninsula, this point on the horizon is located at an azimuth of around 150°. However, from the Iberian Peninsula, which has a more northerly latitude, it is not visible above the horizon. Therefore, as an alternative and to maintain the orientation, the shorter sides of the mosque were oriented towards the sunrise on the summer solstice (c. 60°). This guideline, the same that was used to orient the al-Ka‘ba enclosure itself, was widely used in Syria, where it corresponded to the direction of

⁷⁷Rius, *La Alquibla*, 157–66, 174–76.

Mecca. This tradition was probably brought to al-Andalus by the Umayyads after their expulsion from Damascus, thereby maintaining a criterion that was far removed from the astronomical arc appropriate for the Iberian Peninsula. For example, this criterion has been identified in the case of Tossal de la Vila, as well as in the citadel of Badajoz, the *muṣallā* of Guardamar and the *aljama* of Córdoba.

Lastly, the third method is represented by the last two mosques documented in this study, the citadel of Mérida and Ronda Oeste in Córdoba. Both are oriented in a general azimuth of around 140°. Although there is no fully conclusive explanation for this last practice, one possibility that is taking shape is that the qibla is orientated towards the rising of the star Fomalhaut (from Arab. *fam al-ḥūt*, “the mouth of the fish,” Alpha Piscis Austrini), one of the brightest stars in the night sky which lacked stars of similar intensity. Alternatively, Castor and Pollux, the brightest stars in the Gemini constellation, also enabled the shorter sides of mosques to be orientated accurately (c. 50°), similar to using the sunrise and sunset to establish the perpendicular direction of the qibla used by the other orientation methods discussed above. The correlation between the relative position of these stars in the night sky, their high visibility from the Iberian Peninsula and the importance of Islamic astral treatises support this proposal.⁷⁸

Early Islam gave rise to an accelerated process of doctrinal production, even the direction of prayer shifted from Jerusalem to Mecca, most probably in parallel with the writing of the Quran during the second half of the seventh century CE.⁷⁹ However, beyond establishing the origin and the correct orientation of the qibla, it is much more important to identify which directions were considered acceptable in this formative context.⁸⁰ Due to the limited knowledge of trigonometry and alignment during this early period, our case studies suggest that vernacular astronomy methods, based on the known position of the sunrise and sunset on both the summer and winter solstices, were the most widely used to build early mosques in al-Andalus.

The archaeological remains of these edifices also present notable common features that enable us to propose a series of general typologies that reflect specific homogeneity and coherence in their construction. In general terms, based on morphological criteria, these buildings can be classified into two large groups common to the Islamic world as a whole: large congregational mosques and small oratories.⁸¹ (Figure 13)

The former comprise larger buildings located in urban centres. Typical examples in al-Andalus include the *aljama* of Córdoba, but also other lesser-known cases such as the congregational mosque of Cortijo de las Mezquitas and, perhaps, Reccopolis. Common characteristics have also been proposed for these places of worship in the rest of the Islamic world. They include a square floor plan that would barely exceed 50 m in length, two or three naves parallel to the qibla, and *miḥrāb* that could go from being recessed in the wall to projecting progressively towards the outside of the building. The courtyard would occupy approximately two-thirds of the total floor plan and would

⁷⁸Rius, *La Alquibla*, 246, 297–302.

⁷⁹Dye, “Le corpus coranique,” 822–23; Donner, *Muhammad and the Believers*, 214–24; Calvo, “Los inicios de la arquitectura,” 44–45.

⁸⁰Katz, *Prayer in Islamic*, 18–19; King, “The Orientation,” 253–54; Rius, *La alquibla*, 85–92, 256–62; King, “La alquibla,” 216–17.

⁸¹Nol, “An Archaeological Independent Narrative,” 527–29.

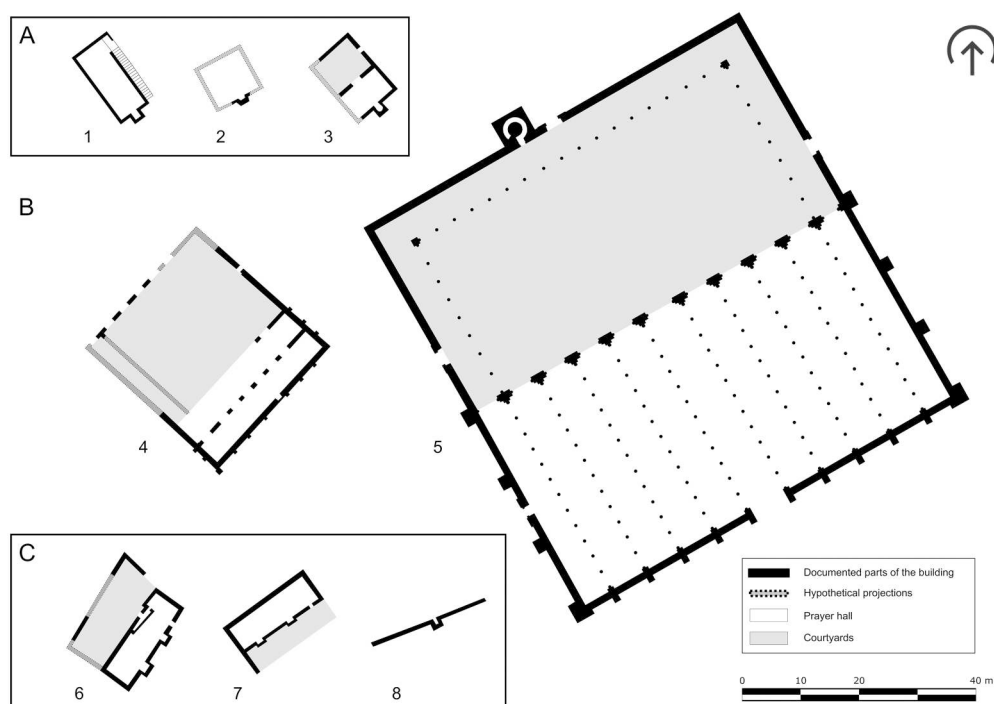


Figure 13. Floor plans of early mosques in al-Andalus. A, Private and secondary oratories: 1. Mérida, 2. Badajoz, 3. Ronda Oeste; B, Urban mosques: 4. Cortijo de las Mezquitas, 5. Córdoba; C, Ribât mosques: 6. El Molón, 7. Tossal de la Vila, 8. Guardamar. All images, except 6 and 7, are modified reproductions of floor plans published by the authors cited in the text.

have one or more porticoed sides. Minarets are very rare in this type of early urban mosque, and unprecedented in rural case studies.⁸²

When we compare this model with the cases documented in al-Andalus, the *aljama* of Córdoba seems to differ significantly. It has a quadrangular floor plan of much greater magnitude than the mosques that can be dated with precision to the same period. In this regard, it should be noted that several recent studies question the early chronology traditionally assigned to the mosques of Wāsiṭ, Ramla, Ḥamā, Kūfa, Al-Aqṣā, ‘Amr, Al-Raqqā or Qayrawan.⁸³ Although written sources assigns them to the seventh or eighth century CE, the archaeological study of their oldest material remains dates their earliest known floor plans to the ninth, tenth or even eleventh century CE.⁸⁴ In addition, the mosque of Córdoba has colonnaded naves that are perpendicular to the qibla, for which it is necessary to explore parallels that extend far beyond the conventional architectural analogies with al-Aqṣā,⁸⁵ which are now being called into question. In this sense, it might be worthwhile to consider the hypothesis that a potential influence in the design of the *aljama* seems to be the eighth-century CE palace architecture of the Umayyad court and reception rooms, such as Khirbat al-Minyā (Galilee, c. 92H/711CE), Quṣair

⁸²Bloom, *Minaret*, 53–55.

⁸³Creswell, *A Short Account*; Sauvaget. “The Mosque and the Palace”; Mostafa. “The Early Mosque Revisited.”

⁸⁴Nol. “Early Mosques,” 95–110, especially Tab. 1, Tab. 2.

⁸⁵Ewert, “Tipología de la mezquita en Occidente,” 180–81; Souto, “La Mezquita aljama,” 42–43; Calvo, “Analogies.”

‘Amra (Jordan, c. 94H/713CE), ‘Anjar (Lebanon, c. 95H/714CE), Qaṣr al-Ḥayr al-Sharqī (Syria, c. 110H/728CE) and Mushattā (Jordan, c. 125H/743CE).⁸⁶

In contrast, the congregational mosque near Antequera has characteristics that are far more similar to those of its contemporaries in the Levant, with its quasi-square floor plan divided between the prayer room, a qibla marked by a slightly projecting *miḥrāb*, and a courtyard with at least one porticoed gallery. Its dimensions, morphology and proportions are therefore consistent with large mosques built during the eighth and ninth centuries CE in the rest of the Islamic world, as exemplified by Banbhore (Pakistan), Al-Yamāma (Saudi Arabia), Jarash (Saudi Arabia), Al-Rabadha (Saudi Arabia), Zuwila (Libya), Kharāb Sayyāb (Syria) and Ramla (Palestine/Israel), among other excavated examples.⁸⁷

The second group of mosques comprises smaller structures, which include those located in fortifications, private oratories and those serving neighbourhoods and suburbs. Although this is a much more heterogeneous typology, they all have certain common characteristics. Notably, the fact that they are organised around a small quadrangular prayer hall, from 5 to 15 m on each side, with no subdivisions and could have an adjoining courtyard that replicates the morphology of the covered area. The buildings are consequently rectangular in shape, with a polyhedral *miḥrāb* projecting outwards from the qibla. Several of the presented case studies seem to fit this model. This appears to be substantiated by the characteristics of the private oratories, for example, Badajoz and Mérida, and the neighbourhood mosques, such as the mosque of Ronda Oeste in Córdoba, which could be integrated without too much difficulty into the archaeological category of small early mosques documented in al-Ḥumayma (Jordan), Umm al-Walid (Jordan), Be’er Ora (Palestine/Israel), Sede Boqer (Palestine/Israel), Nahal La’ana (Palestine/Israel), Nahal Omer (Palestine/Israel), Tulūl al-Ukhayḍir (Iraq) and Jabl Says (Syria), among others.⁸⁸

In contrast, the mosques of Tossal de la Vila and El Molón are the first known examples of a new typology that might have some characteristics similar to those of the abovementioned groups but has others that have not been documented so far in other regions of the *dār al-islām*. In this regard, it is important to note the design of a rectangular prayer hall with no subdivisions and a courtyard that is relatively symmetrical to it, as seen in previous examples of small oratories, as well as the longitudinal arrangement of the room with regard to the qibla, in a manner similar to that of large mosques. However, the floor plans of this new group of mosques, which were unprecedented at the time, placed the main access to the prayer hall in the sacred wall, as well as two identical, quadrangular, contemporary, slightly outward projecting *maḥārib* in the qibla. All this, together with a well-established chronology around the eighth century CE, leads us to consider the possibility that we are dealing with a local architectural model that must be related to the first religious manifestations of Islam in frontier or conflict territories located in peripheral areas of al-Andalus. (Figure 14)

These structures are very different from the other examples presented in this study in terms of building techniques. In more prestigious buildings, carved stonework, especially

⁸⁶Arnold, *Islamic Palace Architecture*, 7–9; Nol, “An Archaeological Independent Narrative,” 538, Tab. 1.

⁸⁷Nol. “An Archaeological Independent Narrative,” 538, Tab. 2.

⁸⁸Nol. “An Archaeological Independent Narrative,” 538, Tab. 2.



Figure 14. Illustrated reconstruction of the hypothetical image of the mosque of Tossal de la Vila. Iñaki Diéguez.

ashlar and ashlar masonry, seems to predominate. In contrast, in both case studies, we documented approaches that make use of local resources and vernacular building traditions, which in many cases solve similar problems with different solutions, that gives rise to a much more flexible architectural model. These findings are the basis of our proposal, which links early mosques in peripheral and marginal areas of the Iberian Peninsula to the spread of certain early Islamic institutions, such as *ribāt* and *jihād*.⁸⁹ In fact, within the context of the expansion of these practices along the coasts of the Islamic West, it is not strange to find a proliferation of buildings that respond to a very similar model to that of Tossal de la Vila and El Molón, as can be seen in the cases of Guardamar (Spain) and Igiliz (Morocco).⁹⁰ (Figure 15)

A long road ahead: early Islamic archaeological narratives

After the reflections articulated in the first few pages of this paper on the study of the spread of early mosques, it seems perhaps unnecessary to insist yet again on the need to develop a complementary archaeological narrative. The extant written sources, which were penned long after the events they describe, purport motivations which, despite having been repeatedly highlighted by scholars specialising in Arabic studies, do not appear to have been fully assimilated into the historiographical discourse, which effectively replicates them in their

⁸⁹Negre, "Ribāt in the Furthestmost," 20–22; van Staëvel, "Ribāt in Early Islamic Ifrīqiya," 16.

⁹⁰Azuar, *El ribāt califal*, 26–27; Ettahiri, Fili and van Staëvel, "Nouvelles recherches," 1125–27; van Staëvel, "Ribāt in Early Islamic Ifrīqiya," 11–13.



Figure 15. 3D reconstruction of the hypothetical image of the mosque of El Molón.

literal form. In turn, archaeology seeks to provide a more nuanced perspective on this discourse and attempts to construct a new narrative based on material evidence, without discarding information from Arabic authors. However, the biggest problem with this new approach is the elongated timescales involved in our discipline, which does not understand haste or urgency and requires the combined efforts of large interdisciplinary teams. This scenario, unfortunately, is difficult to accommodate in the culture of immediacy in which we currently live. The dynamics of archaeology are highlighted in the examples of Tossal de la Vila, where the fifteenth excavation campaign will be performed in 2025, and El Molón where the same number of excavations were performed between the late 1990s and the first decade of the 2000s, which is the only way to obtain quality data with which to build new knowledge. This long-term approach, nevertheless, has only recently become increasingly prevalent in the discipline, and very few case studies are available to analyse this phenomenon.

Despite these limitations, we believe that this study facilitates the contribution of hugely important unpublished data to the debate, as well as proposing a common scenario to which new case studies can be added in the immediate future. The critique of the traditional use of written sources is in no way intended to be detrimental or to cast doubt on their ability to generate high-quality reports and information. However, we urge reflection on the difficulties posed by the relationship between material evidence and written descriptions that are uncritically and automatically integrating in studies. The scenario this process generates in the Iberian Peninsula is difficult to reconcile with the rest of the Islamic world, especially if we do not pay attention to the more precise chronological resolution that we are progressively obtaining from radiocarbon dating, numismatics and precise stratigraphy of early mosques.

If archaeology calls into question the foundations on which the analysis of early mosques in the Levant has been built, and with it the architectural analogies on which much of the reading of this phenomenon in al-Andalus is based, then so be it. Our objective now should

only be to reach the same level of progress in fieldwork as the research teams who have tackled this problem on the other side of the Mediterranean. We must expand and improve the data available on early mosques in al-Andalus in order to be able to compare our case studies on an equal footing. In this regard, we believe that this study offers very positive results, therefore, we should continue to row collectively in the same direction and not be intimidated by the cultural shock of questioning everything.

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