Nexus Network Journal
https://doi.org/10.1007/s00004-024-00785-w

RESEARCH

Diego De Riaño and the Transition to the Renaissance at the Collegiate Church of Osuna

Juan Clemente Rodríguez Estévez[1] · **Antonio Luis Ampliato Briones**[1]

Accepted: 23 May 2024

Introduction

The collegiate church of Nuestra Señora de la Asunción, the dynastic emblem and pantheon of the Téllez de Girón family, counts of Ureña (Figs. 1 and 2), was built during the second quarter of the 16th century in the town of Osuna, in the old kingdom of Seville. The town had been incorporated into the family's jurisdiction in 1464 (Viña Brito 1990: 279) and a century later, in 1562, Philip II granted the duchy of Osuna to the descendants, consolidating one of the most important noble houses in Spain. At decisive moments in its history, the family's ambitious project was bolstered by the immense symbolism of the new church that looked down upon an ennobled and rapidly expanding town. In 1534, with the works well underway, the former parish of Osuna was elevated to the status of a collegiate congregation by virtue of a papal bull of Paul III (Rodríguez Buzón 1982: 14).

As the church acquired its shape and form, Spanish architecture was quickly transitioning to the Renaissance, which in the kingdoms of Granada and Seville was driven by the presence of Emperor Charles V, throughout 1526, for his marriage to Isabella of Portugal. In Granada in 1528, Diego Siloé presented his design for the new Renaissance cathedral (Ampliato and Acosta 2020b). In Seville, Diego de Riaño was appointed master builder of the city hall in 1527 and of the cathedral in 1528, both milestones in a brilliant career that contains significant documentary lacunae and has caused a certain amount of historiographical controversy (Rodríguez and Ampliato 2022). The master appears to have begun his apprenticeship with Juan Gil de Hontañón, one of the great figures of the Spanish Late Gothic. From the mid-1520s, after a few years in Portugal, he became very active in Seville, experiencing

✉ Antonio Luis Ampliato Briones
alab@us.es

Juan Clemente Rodríguez Estévez
jcre@us.es

[1] Universidad de Sevilla, Sevilla, Spain

Published online: 10 June 2024

Fig. 1 The collegiate church of Osuna on the hill overlooking the old town

Fig. 2 Nave and aisles section of the collegiate church of Osuna

a rapid and profound evolution in the latter years that was abruptly interrupted by his untimely death at the end of 1534. He only managed to oversee the beginning of his first Renaissance works, among which we must include the nave and aisles section in Osuna, a hitherto undocumented attribution for which we provide new evidence.[1] The nave and aisles of the collegiate church constitute an exceptional testament to the time in which a young master, with sound training in the Gothic style, began to tentatively experiment with the new Renaissance forms.

The collegiate church of Osuna is composed of three clearly differentiated sections (Fig. 3). The first is a large apse with three chapels, the central one greatly altered, built with brick walls, splendid Late-Gothic plaster vaults, and roofs of timber and tile (Figs. 4 and 5). In front of this section are the aforementioned nave and aisles, with stone support structures and vaults and a classical language. Constituting the third element, beneath the main chapel or chancel, are the crypts of the family pantheon presided over by the Sepulchre chapel. The loss of documentary records and

[1] The nave and aisles section has been attributed to an anonymous Gothic master associated with Juan Gil de Hontañón or Diego de Riaño, to the circle of Diego Siloé, and even to an Italian architect (De la Banda 1995: 6). The attribution to Diego de Riaño was tentatively proposed by Fernando Marías (1989: 402) and has been endorsed most notably by Alfredo Morales (1989: 140–143) and María Fernanda Morón de Castro (1995: 81).

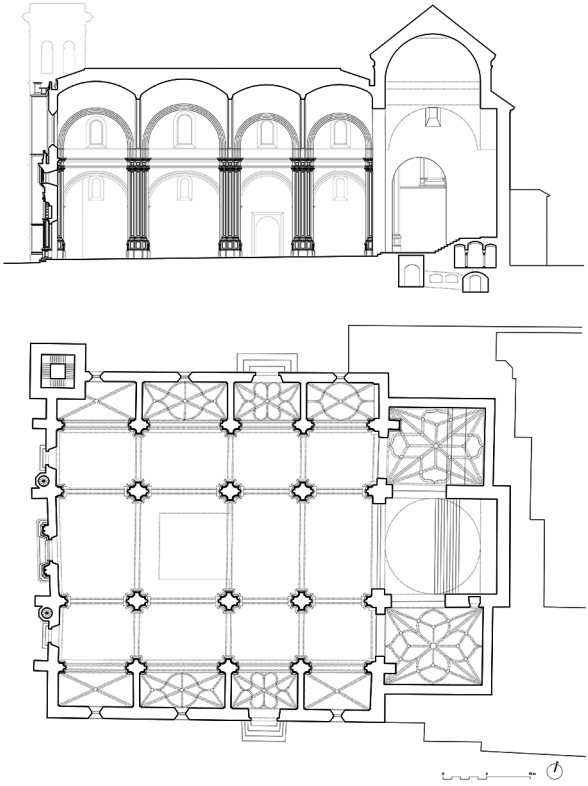

Fig. 3 Floor plan and longitudinal section of the collegiate church of Osuna

the complex material reality of the collegiate church of Osuna have turned the building into a historiographical puzzle almost impossible to resolve, attracting diverse and inevitably speculative interpretations.[2] The main data available are nevertheless sufficient to establish certain chronological milestones and the process has acquired greater coherence following the discovery of a will signed in November 1526, which confirms that the works on the apse began that year or thereabouts.[3] Other significant data consist of the year 1533, as inscribed twice on the cartouches of the upper capitals on the main portal (Fig. 6),[4] the aforementioned papal bull of 1534 that led to the creation of the collegiate institution, and a second bull of 1545 that created an independent collegiate institution for the family pantheon (Cabello and Ledesma 2018: 34). We will insert the remaining and much more scattered data that have been

[2] According to the most detailed study on the church to date (Rodríguez Buzón), the nave and aisles were built between 1531 and 1537, and the apse at a later date. This hypothesis was endorsed in the construction reports of the architect who carried out the restoration, Rafael Manzano (Spanish State Archives, Culture Records, Monument restoration files 26/00327, 1971). It has also been suggested that the apse was begun earlier (Morón de Castro 1995: 81), but that hypothesis has barely been investigated.

[3] In the document, a son of the second count of Ureña leaves 50,000 marvedis 'for the work and construction of the main chapel of the church in this town, where my body is to be buried' (Cabello y Ledesma 2018: 32).

[4] The date has sometimes been transcribed erroneously as 1535 (Rodríguez Buzón 1982: 14–15; de la Banda 1995: 10).

Fig. 4 General view of the apse of the collegiate church of Osuna. Image: Archive of the University of Seville, rec. no. 020576, n.d

Fig. 5 North chapel of the apse of the collegiate church of Osuña: entrance arch and interior

preserved as we progress through our discussion of the building process. On the other hand, the ensemble defined in the 16th century has undergone considerable alterations through the ages: the Baroque renovation of the chancel (Rodríguez Buzón 1982: 61–65; Cabello 2015: 43–44), the remodelling of the crypts in the 19th century (Rodríguez Buzón 1982: 103–107; Besa Gutiérrez 2016: 103–109), the recon-

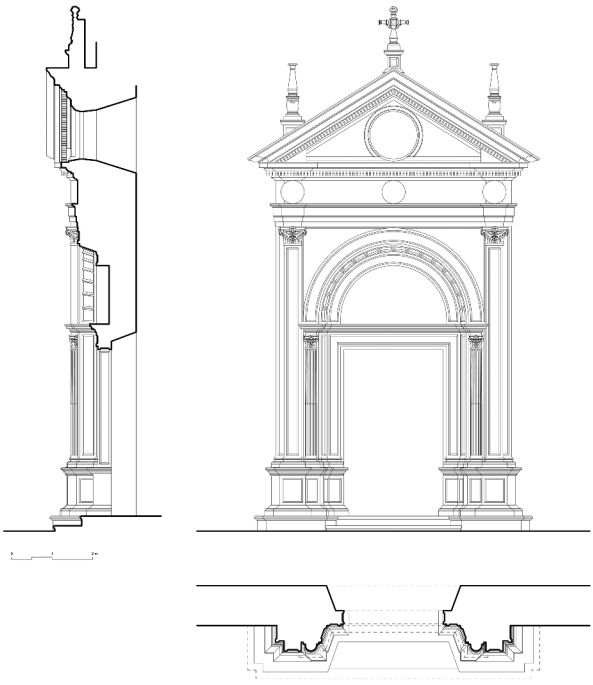

Fig. 6 Main portal of the collegiate church of Osuna

struction of the tower in 1924 (Moreno de Soto 2004: 31–41; Rangel and Sánchez 2009: 98–105), and the emergency structural consolidation carried out in the 1970s (Moreno de Soto 2004: 40).[5]

The primary purpose of our research is to acquire as deep a knowledge as possible about the way in which the building was formulated and constructed, in an attempt to understand its architectural conception in the context of the transition to the Renaissance in Spain. This not only requires a chronological scheme but also a geometric model and a formal characterisation, all of which are hindered by the severe loss of documentary records, the significant structural deformations presented by the building, and possible changes to the original design. Our methodology is based on the firm belief that the elucidation of the material history of the building can largely compensate for the documentary lacunae. The temporal organisation of the main construction sequences enables us to reinsert the scant information preserved in the discourse about the building. Furthermore, the re-examination of that information offers new and valuable insights, facilitating a reasoned definition of the most important phases of the work, while the reconsideration of all the available evidence sheds new light on the identity of the authors. Our methodological strategy comprises the geometric and material analysis of the building, the compilation and interpretation of

[5] Aided by richly detailed and unpublished documents in the Spanish State Archives, Enrique Infante Limón has studied the interventions carried out in the second half of the 20th century, most notably the ones led by Rafael Manzano. We thank the author for access to the documents and the conclusions of his research.

the associated historical documents, and the appraisal of the building's formal characteristics, all as part of an open dialectic process throughout the entire investigation.

The backbone of this strategy is a new and highly accurate set of architectural plans, accompanied by the painstaking recording and analysis of all the geometric singularities observable at ground level, where the horizontal deformations are minimal (Fig. 7). To draw up the new plans, we generated a colored point cloud from a laser scanner, with a resolution of 21 millimeters at 20 m, a minimum range of 0,5 m and a degree of conformity of a measured quantity to its actual (true) value of 5 millimeters. We have followed the methodology used for the acquisition and processing of the cloud data of other large religious buildings, described in Fassi et al. (2011) and Acosta et al. (2022). Using cross-sections and projections, we developed a complex process of geometrisation that provided us with a sound basis for graphically reverting the considerable structural deformations of the upper areas (Fig. 8). Fortunately, the information obtained in this way presents a fairly consistent logic that facilitates the incorporation of all the available documentation (in some cases, hitherto unpublished) as well as other observations on different material and formal aspects.

As indicated above, we present two hitherto unpublished documentary sources. The first is the textual and photographic report on the major interventions carried out in the 1970s, kindly provided by the studio of the architect Rafael Manzano, which offers an exceptional testimony on aspects of the building that are no longer visible (Fig. 9).[6] The second is the recording and classification of the numerous mason's marks engraved on the stone surfaces, which identify the different operatives in the workshop, of which we have noted 298 specimens belonging to 51 types

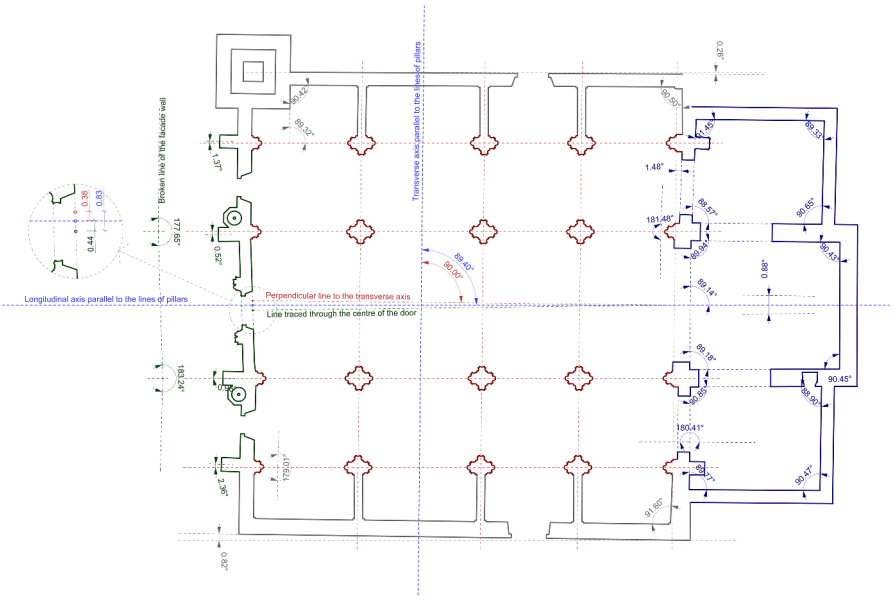

Fig. 7 Geometric singularities in the floor plan of the collegiate church of Osuna

[6] We thank university lecturer Antonio Gámiz Gordo for his mediation in obtaining these images.

Fig. 8 Geometrisation of the point cloud and graphical reversion of the structural deformations

(Fig. 10). Although a detailed analysis of the entire set of marks is still in progress, their morphological variations and spatial distribution provide important preliminary data about certain logics inherent to the building processes. Thanks to the comparative study, the marks also shed valuable light on the identity of the workshop and its main master.

Fig. 9 Collegiate church of Osuna: structure of the original roof of the apse chapels and material composition of a vault over the nave and aisles section Image: photographs from the archive of the architect Rafael Manzano's photographs 1972-73

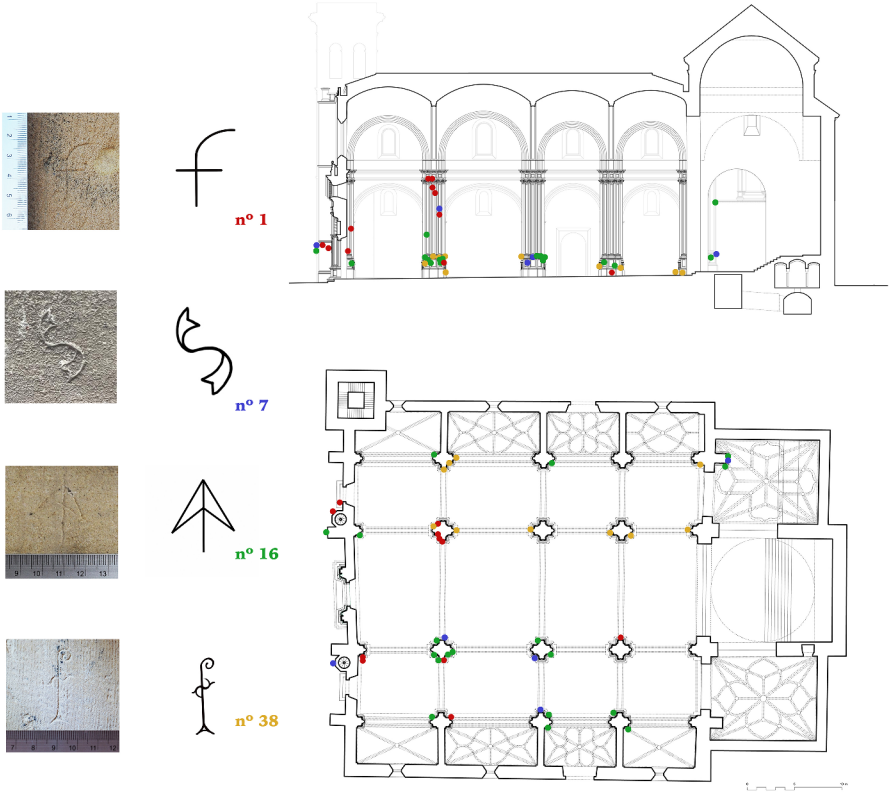

Fig. 10 Graphical synthesis of the spatial distribution of four of the 52 types of mason's marks found in the nave and aisles section of the collegiate church of Osuna

The Nave and Aisles Section and the Apse

The existing plans of the collegiate church have always represented a perfectly regular, symmetrical ensemble. However, the new digital data reveal a very different reality, with numerous geometric alterations that we analyse here and compare with all the other available data (Fig. 7).

The floor plan shows the sharp contrast between the regularity of the grid of piers and the profusion of angular deformations in the peripheral wall structures. Particularly remarkable are the two setbacks in the facade wall and the considerable deviation of the main portal. In addition, the facade wall presents a significant irregularity in its material composition, to which we will return shortly. In the Renaissance piers, all of which are derived from a single cluster model, the geometric centre is located at the nodes of a grid. This includes the ones adjoining the apse but not the ones adjoining the facade wall. The two directions in this grid are not orthogonal but form an angle of 89.4º, sufficient to produce a deviation of 38 cm in the total length of the nave. We think it unlikely that this rhomboidal deformation is owing to an error in the set-out survey because it is systematic and precise, and its consequences are even discernible in the longitudinal section, despite the limited depth of field (Fig. 3). Rather, we believe that it may obey an attempt to partly offset the misalignments between the apse and the facade: the deviation of the portal from the axis of the nave (Fig. 7) is 44 cm, but it would have been 82 cm, almost double, without the slight deformation of the grid. This hypothesis implies considering a certain anticipation in the construction of the facade, or the portal at least. For the moment, we merely observe that, due to their rigorous geometric alignment and formal homogeneity, and the abundance and homogeneous distribution of the mason's marks recorded, the piers in the nave and aisles constitute a coherent construction unit. The mason's marks also provide significant information about the facade wall, where we have identified 90 specimens engraved on the surfaces of the wall, buttresses, spiral staircases and side portals. These 90 specimens belong to 29 types, of which 16 also appear on the interior piers (116 specimens), thus establishing a clear construction relationship between the two sectors. All of these factors enable us to formulate our first conclusion: despite its geometric and material irregularities, the facade wall was largely executed as a single unit in coordination with the piers in the nave and aisles, all carried out by one workshop.

The discontinuities in the facade wall have cast reasonable doubt on its construction timeline and relationship with the interior (Fig. 11). Another team in our project has conducted a thorough analysis of this wall using different methods to analyse the surface based on a high-resolution orthophotograph.[7] The discontinuities are plain to see: the rows of ashlars on the buttresses and spiral staircases are made of a different stone from the one used for the ashlars on the rear wall panel, to which they are also attached in an irregular manner, while the entire surface presents notable variations in materials and bonds.[8] The analysis by the other team establishes three important con-

[7] We thank Fernando Díaz-Moreno and Eduardo Acosta for access to their study.

[8] Only the buttresses are discussed, in a text that reiterates the general opinion that they were introduced as reinforcements at a later date to resist the thrust of the vaults (Moreno de Soto 2004: 31).

Fig. 11 Orthophoto (fragment) of the facade of the collegiate church of Osuna. Image: Fernando Díaz Moreno and Eduardo Acosta

clusions. The first, consistent with the findings derived from the in-plane geometric deviation, is that the assembly of the portal commenced somewhat earlier (perhaps only a few months) than the rest of the wall, resting on two fragments that have a distinctly different bond. As we have already indicated, we have not identified any mason's marks on the main portal, but we have found consecutive Roman numerals on the upper part of the cornice to dictate the order for the placement of the ashlars, which supports the hypothesis that the portal was built in the workshop. The second conclusion—in this case, a reasoned hypothesis—is that the set-out survey for the placement of the portal and the cumbersome infrastructure necessary to compensate for the sharp drop in terrain may have been hindered by the topography and also by the fact that the first parish church was probably still standing on the site of the current nave and aisles (we will return to this point). The third conclusion is that the superimpositions of the construction sectors identified confirm that, despite the evident heterogeneity of the construction, the entire facade up to the first cornice was executed continuously and in a short space of time, assuming as the generic reference the date of 1533 inscribed on the portal. These observations corroborate our initial conclusions that the facade corresponds to a coherent construction unit and that it was executed in coordination with the nave and aisles.

At the opposite end to the facade, the apse is formed by the chancel, or main chapel, and two side chapels originally interconnected by large arches that were filled in the 20th century (Figs. 4 and 5). Their wall structure presents continual geometric deviations (Fig. 12), such as the angle of 0.88º between the two longitudinal panels of the chancel, which open slightly towards the nave, and the angle of 1.41º formed by the wall of the entrance arch to this main chapel and the wall of the entrance arch to the north chapel, in theory aligned. Without entering into the internal logics of these deviations, their contrast with the strict regularity of the grid of piers draws our atten-

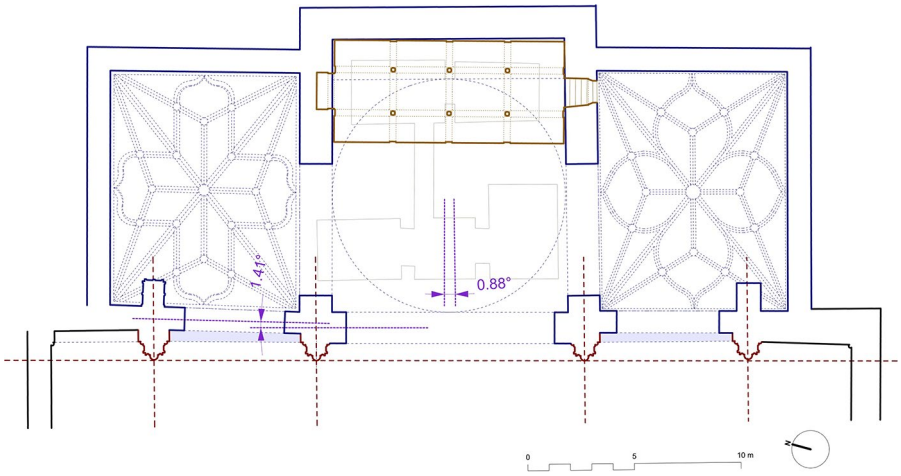

Fig. 12 Collegiate church of Osuna: main geometric singularities in the apse, first line of piers and underground chapel of the Holy Sepulchre

tion to the point of contact between the two structures. The first line of demi-piers, which establishes the geometric guide for the nave and aisles, is aligned with the entrance arch to the chancel and extends to both sides, leaving the two side chapels in the apse slightly set back. These small setbacks are counteracted by wall arches whose projection on the plane, in the case of the more deformed north chapel, forms the distinct figure of a trapezoid. The main order of the nave and aisles occupies these setbacks by means of simple supplementary pilasters, whose mouldings and ornaments only partially prolong the main ones. This is plainly visible in the photographs taken before the restorations carried out in the 1970s (Fig. 4). It is a different case altogether with the continuity of the main entablature over the apse wall, which was added at that time and alters the much more distant relationship that originally existed between the order and the apse wall. We may therefore conclude that the set-out survey for the system of piers in the nave and aisles absorbs the irregularities of an apse necessarily built at an earlier date. To continue in this same place, the side chapels of the apse are wider than the corresponding aisles, exposing a series of thrusts counteracted by isolated buttresses made of stone inside the chapels (Figs. 5 and 12). On the buttress in the north chapel, we recorded nine specimens of mason's marks corresponding to six different types, all present not only on the nave and aisle piers but also on the exterior facade. These factors enable us to conclude that, contrary to the usual assumption (see the notes in the first section of this article), the execution of the apse was already at an advanced stage when the portal, the wall facade, the nave and aisle section, and the buttresses inside the apse were built. Despite diverse incidents, all of these elements belong to a single clearly defined phase and timeframe as the components of an object conceived to be geometrically autonomous as well as physically self-supporting.

To complete this itinerary, we pause briefly at the underground chapel of the Holy Sepulchre located under the high altar (Fig. 12), whose perimeter forms a perfect rectangle that is slightly divergent from the walls around it. Both figures are related

at the foundation level and therefore could not have been built at the same time. Although we cannot rule out the presence of earlier more modest crypts, the current ones, and the Sepulchre chapel, were excavated after the construction of the apse. This can also be gleaned from the available documentation.[9]

The conclusions formulated thus far, combined with all the available documentation, enable us to create a reasoned narrative of the entire construction process. The new apse for the parish church of Osuna was begun in about 1526, with three interconnected chapels composed of brick walls, Late-Gothic vaults, and roofs of timber and tile. As already mentioned, these plaster vaults have been dated to the 17th century, but on the window of the north chapel the finials of the Renaissance decoration, with the ducal coat-of-arms, overlay the wall arch, which confirms that the vault was built at an earlier date (Fig. 13). The new apse had to be compatible with the preservation of an earlier parish church, which the population data suggest must have been considerably smaller (Ledesma 2003: 85 and 33–34). That church likely remained in use until the beginning of the 1530s because the bells were renovated in 1521 (Moreno 2004: 31), various funeral services were held there in 1528 (Cabello and Ledesma 2018: 33), and it hosted the election of the *síndico personero* (citizen representative) in 1530 (Ledesma 2003: 69). The monumental new apse must have been built outside its perimeter.

The apse roofs were likely completed at the beginning of 1532 because an altarpiece was commissioned for one of the chapels in 1531 (Rodríguez Buzón 1982: 85–86) and two stained-glass windows with the counts' coat-of-arms were commissioned in March 1532 (Nieto 1969: 208). There is no record of where the windows, now lost, were installed, but we do know their dimensions: 1.25×0.73 m (6×3.5 palms). On the point cloud we were able to take accurate measurements of the two small windows in the chancel surrounded by profuse Baroque decoration (Figs. 3

Fig. 13 Renaissance ornamentation on the window of the north chapel of the apse, with the ducal coat-of-arms, overlaying the wall arch of the vault

[9] The second count of Ureña died in 1528 and was buried in the castle chapel (Morón de Castro 2007: 20). After 1531, the fourth count of Ureña commissioned the construction of the Sepulchre chapel and the transfer of his ancestor to the crypts there (Cabello and Ledesma 2018: 31). In 1545, the bodies of the second count of Ureña, his wife and two of his children had already been laid to rest in the crypts, which therefore must have been finished (Cabello and Ledesma 2018: 34).

and 4), obtaining the dimensions of 1.20×0.91 m, a reasonable coincidence given the manipulation undertaken. The completion of the apse likely overlapped with the start of the new Renaissance section. This change in language may have postponed the execution of the planned Late-Gothic plaster vault in the chancel until a new design had been created, and it was therefore covered with a timber and tile structure that remained in place until the beginning of the 17th century, as gleaned from a brief description (Cabello 2015: 44).[10]

The set-out survey for the new nave and aisles section, and the demolition of the old parish church, must have occurred around 1531, the year of the unexpected death of the third count of Ureña and the proclamation of his brother as his successor (Rodríguez Buzón 1982: 14–15). Although we cannot rule out the fact that the deceased may have already undertaken an initiative in this respect, even with participation from his brother, the truth is that the fourth count arrived with an enormous desire to promote construction in a town that was hitherto little more than a village, leaving numerous foundations and, among them, a monumental university (Díaz Garrido 2022: 65–73). The new nave and aisles section and the portal of the collegiate church likely spearheaded this modernisation project. The continuing existence of the original parish church and the sharp drop in terrain at the foot of the new church must have complicated the set-out survey for the infrastructure required to level the site and position the new portal, which was likely under construction at a workshop in Seville. The definitive set-out survey revealed the initial misalignment in the position of the portal, partly counteracted by a slight rhomboidal deformation in the grid of piers. The recorded mason's marks indicate that the nave and aisles section was executed by approximately 50 stonemasons, a very large number that suggests the desire to greatly reduce the execution timeframe. In 1534, with the works well underway, Pope Paul III issued a bull converting the parish church into a collegiate church. The new statutes were proclaimed on 29 January 1537 at a formal ceremony held in the choir, the most suitable and representative place for such an important event (Rodríguez Buzón 1982: 23). Most of the vaults must have been in place by then. The swift provision of liturgical equipment during this period is consistent with this timeframe.[11]

Following completion of the nave and aisles section, and with the chancel covered but awaiting its new vaulting, works likely commenced on the expansion and ornamentation of the family crypts, including the new underground Sepulchre chapel. The ensemble was recognised as a collegiate institution by virtue of a new papal bull in 1545. The excavation of the crypts would have prevented the installation of scaffolds

[10] The Baroque dome over the chancel dates to the first third of the 18th century (Rodríguez Buzón 1982: 46–48). However, in a report from 1713 (Archives of the Archbishopric of Seville, Justice, 2nd Class Constructions, Box 11,326) the sculptor Francisco María de Ceiba claimed a series of outstanding payments for the chancel altarpiece on which he had been working for 'more than twelve years,' with a first section already installed and a second section awaiting placement. These dates imply that the Baroque vaulting must have been finished at the end of the 17th century, although not the decoration.

[11] In 1534 the fourth count donated a Gothic silver processional cross and two Renaissance choir books. Also recorded in the same period are a Renaissance monstrance, a gilded silver chalice, a paten made of the same material, and other objects (Rodríguez Buzón 1982: 84–99).

for the vault over the chancel, causing a new delay that may have lasted longer than anticipated due to the family's increasing distance and loss of interest.

Between Gothic and Renaissance

In the Spanish context of the first third of the 16th century, the widespread use of a classically-inspired language like the one observed at the collegiate church of Osuna represents a phenomenon of great significance (Fig. 2). The main reference, due to its proximity in both space and time, is Diego Siloé's design for the new cathedral in Granada, presented in 1528, whose execution must therefore have overlapped with the works in Osuna (Fig. 14). The historical importance of Siloé's support structures, even in the general context of the European Renaissance, was robustly expounded by Earl Rosenthal (1990: 103–108), while their influence on the supports at the collegiate church (Marías 1989: 402) is reflected in the compact volumetry, the uni-

Fig. 14 Pier in Granada Cathedral (left) and pier in the collegiate church of Osuna (general and details)

formity of the spatial distribution, and even details like the inclusion of cylindrical pedestals.[12]

While the formal language of the piers in the nave and aisles of the collegiate church is still somewhat imperfect, all the basic articulations are discernible and the ensemble conveys strength and decision, which reinforces its merits. Rather than entering into a comprehensive formal analysis, which is the subject of a separate study, we proceed with our line of reasoning through aspects related to the impact of the architectural order on the three-dimensional structure of the space, simultaneously attempting to explain its specificity as a phenomenon of transition. First, we examine the main dimensional references of the nave and aisles, then the systematisation of the order in all their positions, and lastly the coexistence of continuity dynamics attributable to successive linguistic systems.

The main dimensional references for the section comprising the nave and aisles are synthesised in the elevation of the side chapels (Fig. 15). Here, we identify three structural decisions related to the classical order that appear to have been taken in a manner that was not entirely articulated: (i) the distances between pier axes; (ii) the height of the impost planes for the side chapel vaults; and (iii) the height of the impost planes for the vaults in the nave and aisle section. The intervals between piers appear to obey a pattern that has since undergone alterations: the first two modules from the apse are relatively homogeneous and the width of the third one emphasises the position of the choir, but the final section is immersed in the complexity of the facade. The choir module therefore stands out as a specifically collegiate space, which is wider and has larger windows.[13] With the predominance of the choir, the

[12] On the evolving style of Riaño and the overlaps between Granada and Seville: Rodríguez and Ampliato

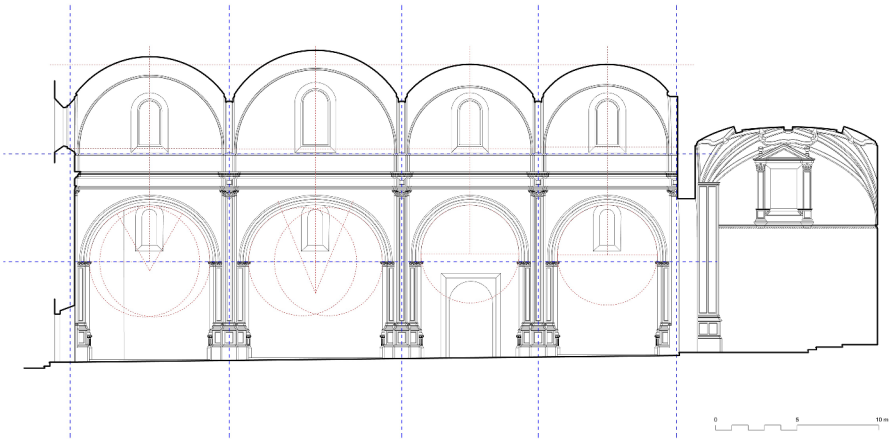

Fig. 15 Geometric references on the interior elevation of the front of the side chapels in the collegiate church of Osuna

2022: 124–128.

[13] Dismantled around 1970, some of the choir stalls are on display in the collegiate church museum.

nave and aisles section acquires its own clearly recognisable hierarchy with respect to the apse. However, the combination of the wider choir and the two impost planes presents considerable challenges for achieving a homogeneous vertical deployment of the side chapel arches, among which several oval shapes are observed. By contrast, the circular geometry above the main entablature is deployed unhindered.

The systematisation of the classical order (Fig. 16) is clearly discernible in the radical decision to maintain a single cluster model, adapted to the different situations by simply eliminating one or more shafts. Consequently, a single plan gives rise to different vertical developments. This is particularly notable in the case of the demi-columns: while they all have the same diameter, the ones on the free-standing piers are much taller than the ones on the entrance arches to the side chapels, evidencing the endurance of Gothic modes in the articulation of the classical order.

Lastly, in relation to the continuity dynamics we mentioned, the greatest singularity is the presence of small cylindrical fillets at the concave corners of the cluster composition of the classical support structures (Fig. 14), culminating in a capital smaller than all the others and resting on tall octagonal-prism pedestals in the Gothic manner. In the side chapels, these fillets appear in two different ways (Fig. 17): isolated and corbelled at the corners of the rear wall, and integrated into the inner corners of the classical supports of the entrance arch. The four fillets are connected to Late-Gothic vaults with delicate curved ribs, forming a closed, self-sufficient and distinctly Gothic-inspired structure juxtaposed with the classical articulation of the piers. The angular fillets are maintained on the tall supports in the nave and aisles, but in that section the vaults present a much more austere design, without any ribs, so the fillets are disconnected, appearing simply as formal appliqués. This different relationship between support structure and vault in the nave and aisles suggests the possible modification of the original design, which was likely similar to that of the

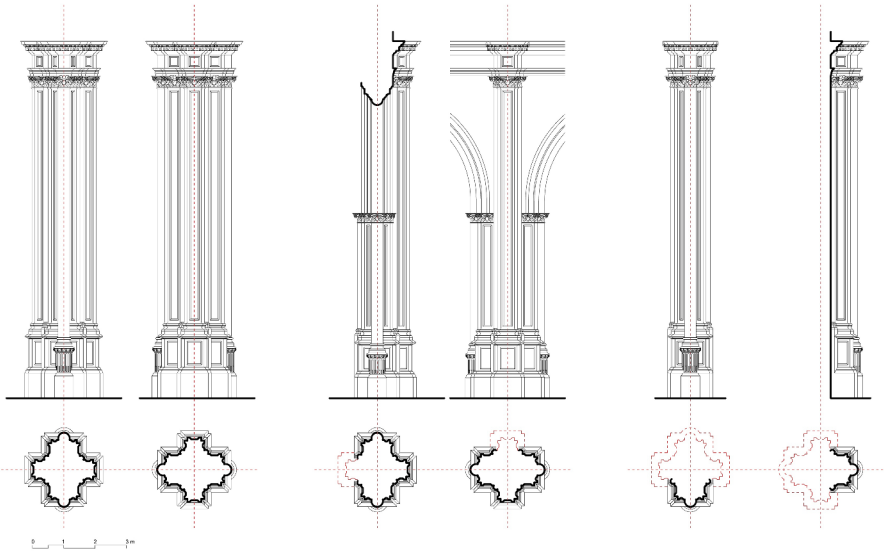

Fig. 16 Adaptation of the piers in the collegiate church of Osuna to different positions

Fig. 17 Side chapels and south aisle of the collegiate church of Osuna

side chapels, generating a space much richer in terms of form and more coherent with the design of the supports (Fig. 18). Gothic vaults were commonly combined with classical supports in the early Spanish Renaissance, as evidenced by the solution Diego Siloé adopted for the cathedral in Granada and for many of his other churches, where the maximum expression of the classical language was always reserved for the vaulting over the chancels (Acosta 2023).[14]

The photographs taken during the structural consolidation of the 20th century (Fig. 9) reveal how the vaults over the nave and aisle section of the collegiate church are composed of curved rows of roughly cut stone voussoirs sealed in position with mortar. This was an economic and versatile solution which, despite demanding a mortar cladding for the interior finish, permitted a speedier execution. The considerable deformation of the vaults visible today (Fig. 8) makes it difficult to calculate the exact original geometry, but the estimates obtained by comparing the length of the deformed profiles of the arches with their original spans offers a limited range of variations—around 37 (±10) cm—for the dimensions of the stilting. Until more detailed verifications are forthcoming, we must at least consider the possibility that the nave and aisles at the collegiate church were among the first manifestations in Spain of a space systematically covered by sail vaults (Figs. 2 and 3), understood as the adaptation of a hemisphere to a rectangular plan by means of flat vertical cuts.[15]

This change of criterion in the vaulting at the collegiate church affords a greater degree of precision in terms of the possible general authorship of the design, aided by various other pieces of evidence. A little before 1534, the sculptor Nicolás de Léon and the glassmaker Arnao de Vergara were commissioned to create an altarpiece for the collegiate church (the exact location is not recorded). De Vergara subsequently withdrew from the project, leaving only the former, who had been recommended

[14] We recall the hypothesis about the circumstances that may have surrounded the interruption of the chancel in Osuna.

[15] Martín de Gaínza played an important role in the implementation and subsequent development of the sail vault in Spain (Natividad 2017: 249–266). This master was responsible for the design and execution of the first perfectly hemispherical vault of the Spanish Renaissance: the one over the main sacristy at Seville Cathedral, erected in 1543 (Pinto 2002: 157–171).

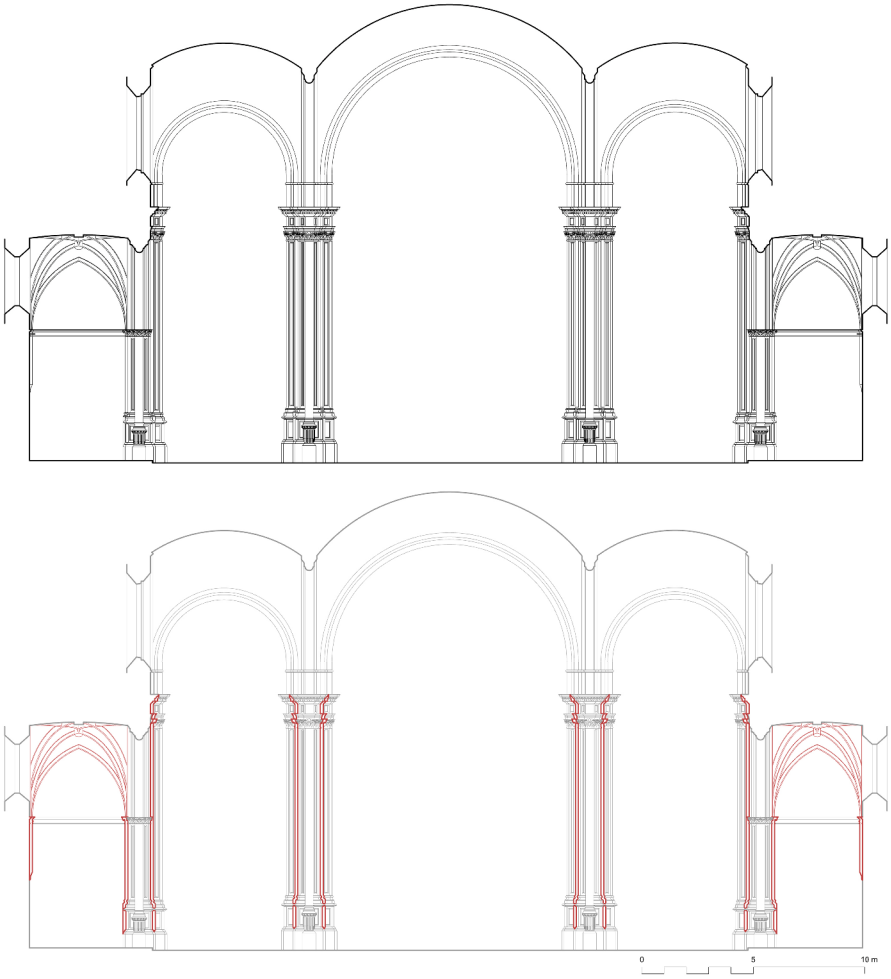

Fig. 18 Collegiate church of Osuna: cross section of the choir and variations in the support-vault relationship

by the stonemasons Juan Picardo and Martín de Gaínza. All four figures appear frequently on the cathedral payroll, the latter three in particular playing an important role in Riaño's workshop (Gómez Sánchez 2010: 52–57/65–66): Gaínza and Picardo were his accountants between 1533 and 1534, while after Riaño's death, and having long served as his quantity surveyor, Martín de Gaínza succeeded the master in his position at the main sacristy of the cathedral in Seville (Hernández Díaz 1933: 10–11). The presence of important members of Riaño's workshop in Osuna is therefore evident, although due to the loss of the accounting ledgers we cannot assert that this was definitely the case with the collegiate church. Meanwhile, of the 51 types of mason's marks identified at the church, 12 types appear in the lower parts of the sacristies at Seville Cathedral, the most important work begun by Riaño (Rodríguez and Ampliato 2019: 114–130), another four appear in the church of San Miguel in

Morón de la Frontera, sponsored by the counts of Ureña and with the documented presence of Riaño (Morón de Castro 1995: 71–81), and four types also appear in the church of Nuestra Señora de la Asunción in Aracena, where in 1528 Riaño embarked on his first and incomplete design for a hypostyle liturgical space with classical supports (Infante Limón 2022: 157–162). In view of all of these factors, it is more than likely that Riaño's stonemasonry workshop was involved in the construction of the collegiate church in Osuna, and that the master himself oversaw the works.

Conclusion

The analysis of the geometric singularities in the construction of the collegiate church in Osuna, together with the review of the scant documentary information available, has enabled us to formulate a reasoned and detailed hypothesis of the entire building process, hitherto shrouded in uncertainties and contradictory interpretations due to the limited documentation preserved, now partly remedied by some new contributions. Meanwhile, the articulation of the classical order at the church, with the reference of Diego Siloé's advanced proposals in Granada, is situated at a unique intermediate point between the Renaissance rigour deployed in that city and the most advanced solutions of the Iberian Gothic tradition, constituting an extremely valuable experience for understanding the complex dynamics of transition processes. In the original conception of the collegiate church, the nave and aisles were likely covered with the same vaults with curved ribs that were used for the side chapels, articulated with the main classical order by means of the insertion of small angular fillets in the Gothic manner. Diego de Riaño's responsibility in the design for the nave and aisles is highly probable, based on our analysis and the data provided, while the replacement of Riaño master by Martín de Gaínza, after the master's death in 1534, led to a significant change of criterion for the vaulting. In light of the first measurements taken on the extensive deformations, that change of criterion may have given rise to one of the first systematisations of the sail vault in the Spanish Renaissance.

Riaño's use of spatial and formal references that stem simultaneously from two historically successive languages (Gothic and Renaissance) is articulated through a complex and profound organisation and integration of the parts, generating a unified and coherent overall design. This general conclusion about the conception of the collegiate church confirms what we expounded in an earlier paper on an interesting minor work by Riaño (Ampliato and Acosta 2020a). It also reinforces our hypothesis about the existence of a solid conceptual base underpinning the master's architectural approaches.

Funding Funding for open access publishing: Universidad de Sevilla/CBUA

References

Acosta, Eduardo. 2023. Ribbed vaults with Renaissance characteristics: singular design and construction in some of Diego Siloé's vaults. SCIRES-IT - SCIentific RESearch and Information Technology, 13(I): 1–14.

Acosta, Eduardo, Franco Spettu and Fausta Fiorillo. 2022. A procedure to import a complex geometry model of a heritage building into BIM for advanced architectural representations. International Archives of the Photogrammetry, *Remote Sensing and Spatial Information Sciences*, XLVI-2/W1-2022: 9–16.

Ampliato, Antonio and Eduardo Acosta. 2020a. A Gothic–Renaissance Synthesis in a Diego de Riaño Vault. Nexus Network Journal 22: 429–447

Ampliato, Antonio and Eduardo Acosta. 2020b. On the use of perspective in a drawing attributed to Diego Siloé. In: Nexus Network Journal 22: 577–600.

Besa Gutiérrez, Rafael. 2016. Intervenciones en el santo sepulcro de la Colegiata de Osuna: 1880–1896. Cuadernos de los Amigos de los Museos de Osuna 18: 103–109.

Cabello Ruda, Ana María. 2015. Nuevos datos sobre Francisco María de Ceiba y Pedro García de Acuña. Cuadernos de los Amigos de los Museos de Osuna 17: 41–45.

Cabello Ruda, Ana María and Francisco Ledesma Gámez. 2018. La memoria del Linaje. La capilla del Santo Sepulcro en Osuna. Cuadernos de los Amigos de los Museos de Osuna 20: 30–34.

Díaz Garrido, Mercedes. 2022. Arquitectura y ciudad en Osuna en torno al señorío de los Condes de Ureña. In *Diego de Riaño, Diego Siloé y la arquitectura en la transición al Renacimiento*, ed. A. L. Ampliato, R. López and J.C. Rodríguez: 65–73. Seville: Ed. Universidad de Sevilla and Ed. Universitaria de Granada.

Fassi, Francesco, Cristiana Achille, Fiorella Gaudio and Luigi Fregonese. 2011. Integrated strategies for the modeling very large, complex architecture. International Archives of the Photogrammetry, *Remote Sensing and Spatial Information Sciences*, XXXVIII-5/W16: 105–112.

Gómez Sánchez, Juan Antonio. 2010. De Arnao de Vergara a Vicente Menardo. Nuevos documentos de artistas vidrieros del Renacimiento sevillano. Laboratorio de Arte 22: 51–71.

Hernández Díaz, José. 1933. *Documentos para la historia del arte en Andalucía*, Vol. VI. Seville: Ed. Universidad de Sevilla.

Infante Limón, Enrique. 2022. Diego de Riaño y el proyecto fundacional de la iglesia de la Asunción de Aracena. In *Diego de Riaño, Diego Siloé y la arquitectura en la transición al Renacimiento*, eds. A. L. Ampliato, R. López and J.C. Rodríguez: 65–73. Seville: Ed. Universidad de Sevilla and Ed. Universitaria de Granada.

Ledesma Gámez, Francisco. 2003. *Las murallas de Osuna*. Osuna: Fundación El Monte.

Marías, Fernando. 1989. *El largo siglo XVI. Los usos artísticos del Renacimiento español*. Madrid: Taurus.

Morales, Alfredo J. 1989. Tradición y modernidad, 1526–1563. In Victor Niego, Alfredo Morales and Fernando Checa, *Arquitectura del Renacimiento en España, 1488–1599* Madrid: Cátedra.

Moreno de Soto, Pedro Jaime. 2004. El fénix irresoluto o la sublimación del patrimonio: la torre de la Colegiata de Osuna y su sino histórico. Cuadernos de los Amigos de los Museos de Osuna 6: 31–41.

Morón de Castro, Mª Fernanda. 1995. *La iglesia de San Miguel. Cinco siglos en la historia de Morón de la Frontera (XIV-XVIII)*. Seville: Universidad de Sevilla/Fundación Fernando Villalón.

Morón de Castro, Mª Fernanda. 2007. El condado de Ureña frente al ducado de Medina-Sidonia. Cuadernos de los Amigos de los Museos de Osuna 7: 16–21.

Natividad Vivó, Pau. 2017. Bóvedas baídas de cantería en el Renacimiento español. Unpublished doctoral thesis. Universidad Politécnica de Cartagena. https://repositorio.upct.es/handle/10317/6324.

Nieto Alcaide, Víctor. 1969. *Las vidrieras de la catedral de Sevilla*. Madrid: CSIC, Instituto Diego Velázquez.

Pinto Puerto, Francisco. 2002. *Las esferas de piedra. Sevilla como lugar de encuentro entre arte y ciencia en el Renacimiento*. Seville: Diputación de Sevilla.

Rangel Pineda, Miguel and Mª del Mar Sánchez Carrión. 2009. Actuaciones de restauración en el conjunto histórico de la Colegiata de Osuna. Cuadernos de los Amigos de los Museos de Osuna 11: 98–105.
Rodríguez Estévez, Juan Clemente and Antonio Luis Ampliato Briones. 2019. Diego de Riaño y la Sacristía Mayor de la Catedral de Sevilla: nuevas consideraciones sobre su autoría. Laboratorio de Arte 31: 97–112.
Rodríguez Estévez, Juan Clemente and Antonio Luis Ampliato Briones. 2022. Reconstruyendo a Diego de Riaño: Materiales para una nueva visión del arquitecto y su obra. In *Diego de Riaño, Diego Siloé y la arquitectura en la transición al Renacimiento*, eds. A. L. Ampliato, R. López and J.C. Rodríguez: 65–73. Seville: Ed. Universidad de Sevilla and Ed. Universitaria de Granada.
Rodríguez Buzón, Manuel. 1982. *La colegiata de Osuna*. Seville: Diputación de Sevilla.
Rosenthal, Earl. 1990. *La Catedral de Granada: un estudio sobre el Renacimiento Español* (1961). Granada: Universidad de Granada.
Viña Brito, Ana. 1990. Don Pedro Girón y los orígenes del señorío de Osuna. In: Historia, Instituciones, Documentos 17: 267–285.

Juan Clemente Rodríguez Estévez PhD in Art History and senior lecturer in the Art History Department at the University of Seville (Spain). His doctoral thesis, published with the title Los canteros de la Catedral de Sevilla. Del gótico al Renacimiento (Seville, 1998), marked the beginning of his research into Late-Gothic architecture and the early Renaissance in southern Spain. He has since made numerous contributions to the field, most recently including a monograph entitled El Universal Convite. Arte y alimentación en la Sevilla del Renacimiento (Madrid, Cátedra, 2021), and his coordination and participation in the collective work Diego de Riaño, Diego Siloé y la arquitectura en la transición del gótico al Renacimiento en España (Seville, 2022). He has also dedicated his attention to Islamic art and is the author of the book El alminar de Isbiliya (Seville,1998) and numerous other publications.

Antonio Luis Ampliato Briones PhD in Architecture and holder of the chair in Architectural Graphic Expression at the University of Seville (Spain). His research into Renaissance and Late-Gothic architecture examines the conception of space from a hermeneutic perspective. His first book on the Renaissance period, Muro, orden y espacio en la arquitectura del Renacimiento andaluz (1996), has been followed by many other publications, including two monographs: El proyecto renacentista en el tratado de arquitectura de Hernán Ruiz (2002) and La Giralda Renacentista (2011). On the subject of Late-Gothic architecture, he has not only published numerous articles but has coordinated and participated in several collective works, such as La catedral gótica de Sevilla, fundación y fábrica de la obra nueva (2006), La Prioral de El Puerto de Santa María. El proyecto gótico original (2010) and La obra gótica de Santa María de Carmona (2017). In collaboration with Juan Clemente Rodríguez, he has led several R&D projects with funding from the Spanish government.