The King, the Architects and the Philosopher: Invention in Mallorcan Architecture around 1300

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One of the most astoundingly original designs in existence and, beyond question, the work of one of the greatest masters of the Middle Ages. With these words, the architect Ralph Adams Cram described in 1932 the cathedral of Palma de Mallorca (Fig. 3.1). He could have claimed more or less the same for Bellver Castle, built at the same time and less than three kilometres from the cathedral (Fig. 3.2). Since the eighteenth century, much has been written about their history and their unusual architectural composition. My approach aims to reflect on some aspects of the decision-making involved in the early stages of both projects.

Why were a new cathedral and castle begun in Mallorca in the first years of fourteenth century? The answer to this question has a great deal to do with the consolidation of an extremely young kingdom, Mallorca, whose origins can be traced to James I of Aragon (1213–1276), who conquered the island of Mallorca in 1229 and the kingdom of Valencia in 1238. In his will of 1272, he divided the kingdoms and territories he possessed into two parts. His son Peter would inherit Aragon, Catalonia and Valencia. Another son, James, was given a new kingdom consisting of the islands of Mallorca, Ibiza, and Formentera, the counties of Roussillon and Cerdagne, and the seigneury of Montpellier (Fig. 3.3).

When James I died in 1276, the division became effective. Peter III succeeded to the throne of Aragon, but he did not accept his father’s decision, opposing James’s inheritance. Some years later, given that he was married to Constance of Hohenstaufen (the granddaughter of Emperor Frederick II), Peter accepted the crown of Sicily as a consequence of the Sicilian Vespers (1282). His brother James then joined the French king, Philip IV, and Pope Martin IV against Peter (1283). Peter died in 1285, but the war went on. Alfonso III, Peter’s son, attacked James of Mallorca in Perpignan and invaded the island. Alfonso’s death in 1291 brought his brother, also called James, to the throne of Aragon. For twenty years, two kings—uncle and nephew—reigned with the same name and ordinal, James II, one in Aragon and the other in Mallorca (Fig. 3.4). In 1295, urged by Pope Boniface VIII, the nephew returned Mallorca to his uncle, who pledged fealty to him. James II of Mallorca could finally go back to the island, thus starting the second part of his reign, in which he undertook to completely transform Mallorcan society. He enacted laws, founded new towns, reorganised farming and—most pertinent to this essay—initiated large building projects.

The need to defend the entrance to the city of Palma from the west, where the recent invasions had come from, represented more than sufficient reason to build Bellver Castle quickly. As for the cathedral, this was grounded in the wish to replace the former mosque which had been ‘purified’ and converted into a church dedicated to the Virgin Mary. The new building would also serve as a pantheon for the new dynasty. Indirect sources tell us that the monarch, the clergy, and the faithful from the city and the diocese collectively bore the costs of building the cathedral. Unfortunately, we only have written testimony of the sovereign’s wish. In a codicil added to his will in 1306, James II ordered a chapel dedicated to the Trinity to be built in a suitable place in Santa María, with enough space for his tomb. He also provided the substantial sum of two thousand Mallorcan pounds for the cathedral works. In 1309 he authorised collections in Menorca ‘ad opus Ecclesiae Sedis Maioricarum’. We do not know when building began, but from...
two other documents it can be inferred that it was before James II’s death in 1311. The first document records that in 1313 payment was made for work done on the east end (‘lo cap’, or ‘the head’) following James II’s instructions; the second, a letter of 1327 from Prince Philip of Mallorca, affirms that the works in the cathedral east end were begun by his father James II.11

There is nothing unusual about these resolutions, but both patrons and architects opted for unique shapes in the cathedral and in the castle, substantially deviating from the norm. At first glance, Palma Cathedral consists of the juxtaposition of three architectural volumes in which right angles dominate, each larger than the other: the Trinity Chapel, the Royal Chapel, and the nave and aisles (Fig. 3.5).12 Massive orthogonal buttresses flank the chapels, making a strong visual impact. Conversely, as Alexandre Cirici memorably described it, Bellver is a ‘festival of circles’, with a circular courtyard surrounded by a two-tier gallery with round arches in the lower part and intersecting pointed arches in the upper (Fig. 3.6).13 Between the gallery and the external wall, also circular, are halls, rooms, stairs, a chapel, a kitchen, and so on. Three semi-circular towers mark the perimeter, alternating with four cylindrical defence posts. The entrance is protected by a fourth, larger tower on the outside, also circular. The plans for the cathedral and castle could not seemly be more different from one another. Nevertheless, both are based on elementary geometrical shapes, combined to create designs that were extraordinarily unconventional at the time.

These differences have not prevented some academics from attributing at least one stage of both buildings to the same architect, Pons Descoll, who specialised in walls and shapes, combined to create designs that were extraordinarily unconventional at the time.

For the cathedral’s east end, the king commanded that part of the Mirador be pulled down.23 The letter from the king to his representative in Menorca in 1309, granting permission to collect alms for the building, confirms that authorities were involved with the support of the local population.24 It is important to point out that in at least one payment in 1313, the city contributed forty percent.25 Joan Domènech has shown that the building of the cathedral was possible thanks to a confluence of initiatives.26 Thus, the start of the new cathedral was an endeavour which included the participation of the monarch, the councillors of Mallorca, the clergy (Bishop Guillem de Vilanova, r. 1304–1318, gave 250 pounds) and the faithful of the diocese.27 Prince Philip’s letter of 1327 reveals that testamentary dispositions in favour of the cathedral building were numerous.28 Although the Trinity
Chapel was reserved for the sovereign, everything points to the clergy and populace being equally involved in the new edifice from the outset, as shown by the coat of arms of the city of Mallorca carved on a keystone of the Royal Chapel. It is easier to understand the council’s participation in a project that, from the very beginning, included not only places for the king and the canons, but also nave, aisles and chapels for the laity.

The Trinity Chapel is arranged on two levels, with subsidiary spaces in the ground floor (Fig. 3.7). Marcel Durliat believed it recreated a type of two-storied mausoleum of ancient origin. Scholars have cited other funerary models, from the mausoleum of Theodoric in Ravenna to the royal chapels in Seville and Córdoba, and even San Isidoro in León. Nevertheless, the intended funerary function of the lower room (Fig. 3.17) is more than doubtful. From the beginning, as evidenced by strainer arches built from the outset in the external walls (Fig. 3.8), arches were planned and built in both side walls of the upper chapel, probably to be used as funerary arcosolia (Fig. 3.9). Conversely, the rectangular room at the lower level, with a splayed window and covered with two rib vaults, contains nothing which makes its original purpose completely clear. The pointed niche set in the northern wall and the original niches in the southern room were probably intended to serve as reliquaries. Both corridors leading to the central room could be closed by means of doors (the northern one is currently preserved). Despite all this, when James II died in 1311 his corpse was not entombed in the Trinity Chapel. This did not prevent the fact that some years later, in 1330, it was described as ‘the chapel of the lord king James’ (‘la capelanya del senyor rey En Jacme’).

In 1929, the architect Guillem Forteza developed a hypothesis that gained much support. In his opinion, the Royal Chapel was conceived as a cathedral without aisles, and with six bays and a presbytery, that is to say, four more bays than it has today (Fig. 3.10). Advocates of this hypothesis argued, among other reasons, that there is a long tradition of buildings with a single nave in southern France and in Gothic architecture in the Mediterranean in general. Although Forteza’s supposition was rejected by Emilio Sagristà with solid arguments, and was described by Gabriel Aïmors as a ‘deceitful fantasy’, the idea that the first plan included only the Trinity and Royal Chapels has had many followers, particularly Pierre Lavedan. Marcel Durlat distinguished three successive projects and defended the idea that the first project, ‘robust and a bit rude’, included the Trinity and the Royal Chapels, which he attributed to Pons Descoll. For him, this first design had limited ambition. The addition of aisles would thus have been part of a second project, more ambitious and refined, following a pattern very popular in large Gothic churches in Catalonia—though in order to maintain the Royal Chapel, the architect was prepared to forego an ambulatory, adding side apses instead. The third project, ‘colossal’ and definitive, would have raised the nave much higher (expressing what Durlat called ‘geni barceloní’, that is, a kind of Barcelonese ingenuity). Recently Joan Domenech, author of the most comprehensive study on the fourteenth-century building process, referred to Forteza’s proposal as ‘plausible’ and introduced some nuances to the three-stage process described by Durliat.

In the face of the surviving evidence, certain hypotheses about Palma’s building process have been gradually abandoned: for example, nobody asserts today that the cathedral was begun by James I the Conqueror. Nevertheless, there is still controversy over the relationship between...
the Trinity Chapel and the Royal Chapel, on the one hand, and between both chapels and the nave and aisles, on the other. Some find that the Trinity Chapel "denotes in its style a date of construction earlier than the rest." Others, in accordance with Sagristà and in contrast to Forteza's followers, consider that the initial project envisioned the enormous church as it is today, with the Trinity Chapel, the Royal Chapel, the parallel apses, and a huge nave with aisles and chapels between buttresses. It is this position with which I myself am aligned.

In fact, in addition to the reasons outlined by Sagristà, the inspection of masonry and the analysis of measurements suggest that the Royal Chapel was designed, from the very beginning, as the east end of a great building. Where the Royal Chapel's lateral walls turn at the junction with the nave, they swell to form half-piers with uninterrupted masonry courses. As Joan Domenge notes, these half-piers are consistent with the octagonal piers at the junction with the nave, they swell to form half-piers with uninterrupted masonry courses. As Joan Domenge notes, these half-piers are consistent with the octagonal piers that support the arcades between the nave and aisles (Fig. 3.11), and it is clear that they were intended to support enormous arches, rather than connecting permanently with the former mosque (the roof of the Almudaina Mosque must have been much lower than the vaults of the Royal Chapel, which rise to 27.4 metres).

It must be remembered that Mallorca Cathedral is neither a parish nor a mendicant church, which in the Iberian kingdoms were the type that most often had a single nave. It is certainly the case that in southern France some cathedrals were designed in the last third of thirteenth century with a single nave, as at Albi, whose dimensions and monumental east end far exceed the Royal Chapel in Palma. In my view, it is unthinkable that, around 1300, a cathedral would be designed with a single nave 15.85 metres wide and 24.45 metres long (or more or less fifty metres according to Forteza's proposal). It would be too small compared to the other cathedrals of the time in Catalonia or southern France. And not only in comparison with cathedrals: the parish church of Santa Eulalia in Palma de Mallorca, which held several major events for the Mallorcan monarchs and was built at a similar date to the cathedral, has three naves with chapels between the buttresses, plus an ambulatory opening onto three large polygonal and two rectangular chapels. It measures more than sixty metres in length and is twenty-seven metres wide. The church of San Francisco in the same city, where mass was first held in 1286, has a single nave with chapels more than seventy metres long and almost thirty metres wide. The Dominican church in Palma, no longer in existence, measured sixty metres long and thirty metres wide. Is it conceivable that a building destined to be the cathedral and royal pantheon would have been designed to be much smaller than the parish and conventual churches in the city?

Further reflection on the initial project may be useful. After 1250, cathedral buildings in the crown of Aragon were usually designed with a chevet composed of an ambulatory and radiating chapels. Why was this not done in Palma? Obviously, it was not a question of space. Mallorca Cathedral measures 118 metres from the east wall of the Trinity Chapel to the western façade, and its nave, aisles and side chapels are about sixty metres wide. By comparison, Barcelona Cathedral, which has an ambulatory, is ninety-three metres long and forty metres wide. The site in Palma certainly allowed for a large cathedral with ambulatory. But the architect and the sponsors preferred a very different and extremely original solution: on the one hand, the Trinity Chapel, reserved for the monarch, would occupy a place of honour both in location and elevation, and on the other, both clergy and laymen would have enormous and extraordinary spaces at their disposal. The most conventional feature of this solution, an east end with three polygonal apses, in fact has many parallels in southern French Gothic architecture.

The existence of a single project is not incompatible with the partial modifications of details that can be seen in the building and that are attributable to the intervention of successive architects or different construction workshops. Although the walls demonstrate changes in various places, I do not think that during the first stage of construction alterations were sufficiently consequential to indicate the implementation of a second project. Constructed during the first phase were the walls flanking the Trinity Chapel, the lower levels of the side walls of the Royal Chapel up to the point where they meet the lateral apses (Fig. 3.12), and all of the Trinity Chapel, including the side spaces (very much modified during subsequent centuries). By contrast, changes are evident in the elevations of the Royal Chapel. The Trinity Chapel squinches are half cones and the length of their diagonal front is equal to the distance between the squinches; meanwhile, the Royal Chapel squinches have ribs, and the length of their diagonal front is significantly smaller than the distance between them (Fig. 3.13). Likewise, while the three eastern
The windows of the Trinity Chapel are similar to each other—perhaps deliberately making reference to the chapel’s dedication, and in contrast to the lack of light which enters through the lateral windows—in the Royal Chapel the arch which opens onto the Trinity Chapel is much wider and more luminous than the windows that flank it. Moreover, the mouldings of the tracery and window jambs of the Royal Chapel are different to those employed in the windows of the Trinity Chapel. Similarly, the southern buttresses of the Royal Chapel differ from the northern ones, both in terms of their dimensions as well as in the carving of the ashlar of the passageways that pierce them (Fig. 3.14). All these differences lead one to think that the first architect was replaced during the Royal Chapel’s construction. The new architect (Jaume Fabre?), or perhaps a third architect, would have designed the junction with the lateral apses.

These modifications, which predate the obvious adjustments in the high level of the northern aisle’s eastern wall observed by Alcover (and later by Durliat), do not necessarily imply deviation from the broad outlines of the initial design. The greatest challenge came when the enormous nave was built. Octagonal piers 1.49 metres wide support diagonal pointed arches whose span reaches almost twenty metres, while the distance between piers is 17.81 metres. This makes Palma Cathedral one of the great creations of Gothic engineering (Fig. 3.15). José Carrasco noted that 17.81 metres is equivalent to nine Montpellier canas, the measurement then in use in Mallorca (with one cana equalling 1.98 metres), while the Royal Chapel’s width (15.81 metres) equates to eight canas. The most interesting thing is that, as calculated by Carrasco, the radius of the arches in the Royal Chapel and the main nave is the same—six canas—which allowed the architect to raise them with the same formwork. These coincidences lead one to think that the arches in the Royal Chapel and main nave might have been designed by the same architect. Of course, common units of measurement were used in the Trinity Chapel, the Royal Chapel and the nave.

From the very beginning, the cathedral’s design included innovations not seen in the region. Each of its three sections—the Trinity Chapel, Royal Chapel, and nave and aisles—has a different height, ground level and layout. The Trinity Chapel has two different kinds of windows and lacks buttresses. The exterior of the Royal Chapel is strictly divided between windows and buttresses that are almost square in plan. The aisles have two buttresses per section, the same as the side chapels. Every chapel has the same rectangular layout, with the corners angled over squinches.

The absence of an ambulatory affects the hierarchical layout of chapels for worship. It is not likely that religious arrangements in the cathedral were left to the architect. The bishop and canons of Mallorca were well aware of cathedrals designed with a chevet (comprising an ambulatory and radiating chapels), such as those in Narbonne, Barcelona and Gerona. Guillem de Vilanova, bishop of Palma when work started (1304–1318), had formerly been a canon in Barcelona. Why would the clergy have accepted or encouraged such a different east end? Some transaction, or even an alignment of the king’s intentions and those of the clergy, may have supported the initial decisions. The sponsors would have reached an agreement on the design of three sections laid out from east to west. In this way, the Trinity Chapel would be a royal space (‘la capeyla del senyor rey En Jacme’), as...
confirmed by the figure of the king praying to God in the keystones (Fig. 3.16). What is now known as the Royal Chapel was never regal, as it was dedicated to the Virgin, with more than sufficient space for the choir of canons. The nave and aisles, with their many chapels, were the place of worship of prosperous Mallorcan lay society.

Scholars have not sufficiently considered the unusual geometrical complexity and careful distribution of rooms, doors and staircases in the east end, while some plans even lack the spaces flanking the Trinity Chapel, as if they were not part of the original project. In my opinion, the adjective ‘rude’ employed by Durliat does not do justice to the design of the east end. Architectural composition and circulation planning reveal a peculiar finesse (Fig. 3.17). Pairs of doors and corridors equate in dimensions, design, and stone-cutting, and spiral staircases are settled in the prolongation of the Royal Chapel side walls, beside the squinches, in such a way that their presence does not affect the building strength. This truly inventive solution is unparalleled in Gothic architecture, as far as I know, as are the side spaces and the elevation of the Trinity Chapel in relation to the Royal Chapel.

It is probably not by chance that the walls under the Trinity Chapel are exactly three Montpellier canas apart, that the Trinity Chapel height is almost exactly seven canas, that each of the three sides of the east end measures almost exactly four canas, and that the Royal Chapel’s width is eight canas. These measurements were most likely used because of their symbolic value. Obviously, the number three refers to the Trinity. Could the number four, and its multiples eight and sixteen, be related to the quaternary systems so common in the books of Raymond Llull, of whom we shall say more below? Arithmetic, numerology and geometry are the foundations of Palma’s cathedral design, whose precision and absence of ornament made Forteza and Torres Balbís, inter alia, associate it with an architect specialized in fortresses such as Pons Descoll.

The orientation of Palma Cathedral, pointing exactly at the spot where the sun rises at winter solstice, was highly unusual in medieval churches, particularly in Iberia. The first rays shine on the windows of the Trinity Chapel on Christmas Day. It is not known whether the orientation of the cathedral was conditioned by that of the earlier mosque. Most scholars have suggested that the mosque was aligned with the cathedral tower, which is set at an oblique angle to the cathedral. If that is true, the qibla wall would correctly face Mecca. In 1979 Gabriel Alomar sketched a hypothetical floor plan of the mosque which showed the minaret on the northern side of the courtyard (sahn), where the tower stands today. His proposal is difficult to accept, because the qibla would be facing southwest. The discovery of Islamic tombs inside the cathedral in 1999, with a different orientation, also sheds doubt on his suggestion. The issue will only be resolved by means of further archaeological evidence: only then will it be possible to confirm whether the mosque’s orientation had a significant influence on the cathedral.

The orientation of the edifice towards the winter solstice shows a desire to praise the Nativity, celebrated with great splendour in medieval Mallorca. Although Palma Cathedral is dedicated to the Assumption of the Virgin, the sculptures of the Annunciation in the middle of the Royal Chapel (Fig. 3.18) commemorate the Incarnation. The dedication to the Trinity reflected the devotion of the king and clergy: the compiler of the Palma Cathedral’s Llibre Vermell in 1359 wrote that he dedicated his work ‘in honour of the Holy Trinity, from which emanates all good, and in honour of the Virgin Mary, who is the head and room of the Cathedral of Mallorca’. She is the head (‘lo cap’), as the Royal Chapel is to the building as a whole; and she is the body, as in the Gothic tabernacle-sculpture of the Virgin Mary that presided over the main Gothic altarpiece of the Royal Chapel (Nostra Dona de la Seu, today in the Trinity Chapel),
with a receptacle at her side for the Host (Fig. 3.19). Trinity and Incarnation were united from the very first moment in the cathedral project.

It is appropriate here to remember that the Trinity and the Incarnation are the main subjects in the apologetics of the most famous medieval Mallorcan: Raymond Llull. Born at some time in the 1230s, Llull was a noble who changed his life after having five visions of the crucified Christ over five nights. From then on, he spent his life trying to find a way to persuade non-Christians, mostly Muslims but also Jews, of the truths contained in the Christian faith. Several passages in his prolific literary outpourings include imaginary dialogues among scholars from the three religions, through which Llull tried to demonstrate that the Christians were in possession of the truth. The two subjects treated in most detail in the discussions between Christian, Jew, and Muslim representatives were, in fact, the Trinity and the Incarnation. Llull wrote a book on the subject, the Liber de Trinitate et Incarnatione, which included theoretical passages but also passages that applied to buildings. Although it is obviously not necessary to be a follower of Llull to design such a strongly geometrical building as the cathedral of Mallorca, it is nonetheless striking that specific principles in the composition of the cathedral remind us of Llull’s specific interest in geometric and arithmetical combinations. A fundamental part of Llull’s book is devoted to the way in which diverse geometrical figures contain others, a basic principle in the design of Mallorca Cathedral. Its east end consists of a segment of hexadecagon annexed to a rectangle. The segment contains a second smaller rectangle (the Trinity Chapel), which in turn contains triangles in its plan (the squinches). Something similar happens with the Royal Chapel, the rectangular base of which joins the segment and contains the triangles of the squinches. This last solution is replicated in every chapel.

Few studies link Llull to this cathedral, an area that deserves more study. Only Tina Sabater, on analysing the elevation of the Trinity Chapel six metres above the Royal Chapel, perceptively considered it ‘an expression of the place James II gave to himself and was given to him by his contemporaries, a place between God and men, as Ramón Llull wrote in the Doctrina Pueril’. Conversely, academics have cited Llull in their writings on Bellver Castle. Alexandre Cirici based his study on fragments from Llull’s Arbre de Ciencia (Tree of Science) to suggest that the architect used circles to create what Llull called the ‘great edifice’, mystically related to divinity. In 1986, Yvette Carbonell-Lamothe relegated to a footnote her thought that Bellver Castle was a ‘château de la philosophie’, writing that ‘the curious layout of its parts, the tendency for repeated circles, show that we are in a time of the philosophical ideas of Ramón Llull, a contemporary and perhaps partly inspiring the work’.

In an introduction to the castle in 2010, Pau Marimón writes that ‘Bellver could have been created as a moral parable in Llull’s style’, although he defines this idea in vague terms only. Joan Domenge considers that Llull’s praise of circular shapes could have had an impact on the requirements the king assigned his architect. Finally, in September 2016, an exhibition on Bellver and Llull’s squaring circle emphasised the relationships...
between the castle and the Mallorcan philosopher.\footnote{Belver Castle has an extremely striking floor plan (see Fig. 3.6). The construction did not follow the principle of adapting to the terrain, but to the finest geometry of the circle, shapes. However, various passages in the second book confirm the importance of the tower' and 'a church or palace with tower', although neither of these recommends circular plans as the circular crown of rooms.\footnote{Llull finished his book on geometry ‘in Paris in the month of July, year of Our Lord 1299 shortly before going back to Mallorca, where he met the king. Works in the castle and the cathedral began soon afterwards. In conclusion, the architectural programmes of Mallorca Cathedral and Belver Castle were innovative from the initial plans onwards. In the castle, spaces, shapes and sculptures proclaim Christian dogmas particularly opposed to Islam, The organisation of the cathedral into three sections was determined before construction began and probably had as much to do with a symbolic intention as with marking out distinct areas for the three groups that co-financed the work (king, clergy and the faithful). The architectural plan and its uncommon forms—including the Trinity Chapel, the Royal Chapel, and the nave and aisles—reflected these intentions from the outset, and for the most part these plans continued to be respected during the long building process. The architect who designed Mallorca Cathedral used geometric formulae in a manner that was unusual for cathedrals but which shares commonalities with Llull’s book of 1299. In a similar vein, the shapes employed in Belver also point to a higher principle, that of geometrical perfection based on a combination of circles. Even though the architect or architects cannot be identified with certainty (though for the cathedral it was most likely Pons Descoll), we find similarities in the creative processes, and we know there was a common sponsor for both buildings: King James II. Nevertheless, it is tempting to relate spiritual intentions in the cathedral project and the application of geometry in both buildings to Ramon Llull’s literary works, the idea that he played an active role in either project must, ultimately, be rejected.}

Mallorca's congregational mosque, an idea that was not Llull who sought to embody his intentions in the cathedral project and the application of geometry in both buildings to Ramon Llull's literary works, the idea that he played an active role in either project must, ultimately, be rejected.

3. I am extremely grateful to Mercè Gambús and Carolina Mar for permission and help in inspection and measurement of Mallorca Cathedral. Likewise, I would like to express my gratitude to David L. James for his careful consideration of my paper.
4. David Shulman, A Concise Mediterranean History of Architecture (Cambridge, Mass.: Harvard University Press, 1997), p. 136-145.\footnote{Crepúsculo imposible honorary opus duodecim incepsum in capitó dicte ecclesie Belf Murri iluminnatis dominium Jacobum memoriem recolende Regem Maioricarum genünum nostrum. Emilio Sagristà, La catedral de Mallorca. El origen de la Catedral de la Trinidad. Boletín de la Sociedad Geográfica de Cuba 28 (1952): p. 27. 12 Since the beginning, the Trinity Chapel was reserved for royalty. Disputes in name, what is called royal Chapel was, in fact, the probity. Because of building works, it was shared for years with the fort Stirling. In fourteen century, the royal Chapel was called just the ‘head’ (la cap).}
5. ‘Dimitimus operi ecclesie dicte sedis duo milia libras moneta, quae fos fera ei in cap de loghya de la Seu’. Vich, Documents, p. 108.
7. James de Villamaria, Viaje literario a las iglesias de España, vol. 1, Viaje a Mallorca (Madrid: Real Academia de la Historia, 1851), pp. 105-6.\footnote{La Seu (Palma, Majorca: Museu de Mallorca, 1995), pp. 133 and 140.}
11. ‘Cupientes insuper honorabile opus dudum incepsum in capitó dicte ecclesie Belf Murri iluminnatis dominium Jacobum memoriem recolende Regem Maioricarum genünum nostrum. Emilio Sagristà, La catedral de Mallorca. El origen de la Catedral de la Trinidad. Boletín de la Sociedad Geográfica de Cuba 28 (1952): p. 27. 12 Since the beginning, the Trinity Chapel was reserved for royalty. Disputes in name, what is called royal Chapel was, in fact, the probity. Because of building works, it was shared for years with the fort Stirling. In fourteen century, the royal Chapel was called just the ‘head’ (la cap).}
19. Consecrating congregational mosques after conquest was common practice in Iberian cities, but it did not happen in Mallorca Villamaria (Vigo literario, pp. 78-80) thought that Almudaina Mosque was Mallorcan congregational mosque, an idea echoed by a large number of scholars, but he was probably wrong.
35. Emilio Sagristà, ‘La catedral de Mallorca. Contribución a la historia, arquitectura e iconografía de la Seu de la Seu que si deu fer’. Durliat, L’art, etc., p. 291.

2. According to Gabriel Alomar, James II’s provisional sepulchre in the fourteenth century was between the Royal Chapel and the tomb of his father, Peter IV. See J. Renouvier and A. Ricard, ‘Des maitres de Pierre et de la Méditerranée, 2009), p. 301. The Trinity Chapel

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10. For even more details of the main nave dimensions, see the plan of Vich, 1232-1316.

15. Saint Vincent in Carcassonne, Saint-Paul in Clermont-l’Hérault, Saint-André in Montpellier, the cathedral and Saint-Dominic in the old Belfort, see E. J. A. de la Torre y de las E. J. A. de la Torre y de las

22. In Mallorca Cathedral the number three, related to the dogma of the Trinity to which James II dedicated his bu-}

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47. In the southern wall buttresses, two courses meet to any box with something written inside. Bonner, L’Ar t, see Carla Compagno, ‘El manuscrito de Llull: El testimonio insigne de una vez que se publica el libro de la Doctrina Christiana’ (PhD diss., Universitat Autònoma de Barcelona, 2015), pp. 143-45

64. Antonio Pons Cortés, ‘El panteón de los reyes de la casa de Mallorca’, in Rosa Alcoy Pe-}


61. As the orientation of Palma Cathedral is 123° from the north, and sunrise on the winter solstice at the latitude of Pal-}

59. Carles Llinares, Ensayos sobre Historia de las Islas Baleares (Murcia: Universidad de Murcia, 1978); 106-14.

51. The apse dimensions are offers to any box with something written inside. Bonner, L’Ar t, see Carla Compagno, ‘El manuscrito de Llull: El testimonio insigne de una vez que se publica el libro de la Doctrina Christiana’ (PhD diss., Universitat Autònoma de Barcelona, 2015), pp. 143-45

56. Durliat, L’art, see Carla Compagno, ‘El manuscrito de Llull: El testimonio insigne de una vez que se publica el libro de la Doctrina Christiana’ (PhD diss., Universitat Autònoma de Barcelona, 2015), pp. 143-45

4. For a similar perspective, see Boto, ‘Panteón’, in J. Martinez de Aguirre The King, the Architects and the Philosopher: Invention in Mallorcan Architecture around 1300

27. Carles Llinares, Ensayos sobre Historia de las Islas Baleares (Murcia: Universidad de Murcia, 1978); 106-14.

5. It is impossible to know what happened in the lower part of the windows, completely hidden by the walls and internal furnishings.

8. As far as I know, the tracery on the eastern rose window is unique in Mallorcan cathedrals of the fourteenth century, and there are instances close to the tower direction as well as to the cathedral’s 123°. See Mónica Rius, ‘La Capella de la T rinitat de la Seu de Mallorca’, in Rosa Alcoy Pe-

17. The rays of the sun fall through the eastern rose window (see the rays of the sun fall through the eastern rose window (see

48. Guillermo Forment, Teatro de la arquitectura canaria en el siglo XIII: La catedral de T ino, in A. C. Fuentes, Catedral de Mallorca, in Miquel Sagristà i Audin (ed.), Catedral de Mallorca. Contribución a la historia, arquitectura e iconografía de la Seu de la Seu que si deu fer’. Durliat, L’art, etc., p. 130.

106. The art of conversion. Christianity and al-Andalus varies widely, and there are instances close to the tower direction as well as to the cathedral’s 123°. See Mónica Rius, ‘La Capella de la T rinitat de la Seu de Mallorca’, in Rosa Alcoy Pe-


44. As far as I know, the tracery on the eastern rose window is unique in Mallorcan cathedrals of the fourteenth century, and there are instances close to the tower direction as well as to the cathedral’s 123°. See Mónica Rius, ‘La Capella de la T rinitat de la Seu de Mallorca’, in Rosa Alcoy Pe-

18. ‘Per exemple la plancha del mi Ministrador le por el cap de logeysa de la Seu que si deu fer’. Durliat, L’art, p. 130n54.

12. For a similar perspective, see Boto, ‘Panteón’, in J. Martinez de Aguirre The King, the Architects and the Philosopher: Invention in Mallorcan Architecture around 1300

76. In Mallorca Cathedral the number three, related to the dogma of the Trinity to which James II dedicated his bu-}

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Architectural Practices in Spain, 1370-1450: Documents and Drawings

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