Universitat de les Illes Balears

Research carried out by the UIB solves the jigsaw puzzle of the construction of the Cathedral of Mallorca

The book *L'evolució constructiva de la Catedral. Històries, tècniques i materials en els llibres de fàbrica* (1570-1630), by Miquel Ballester Julià, documents and interprets roughly 40 per cent of the Cathedral's surface, as well as its completion.

The study reveals mysteries about the building process which had remained unsolved to this date, like the importance of the old mosque and the main façade, as well as revising the chronology of the construction of the temple.

The author provides an unprecedented comprehensive analysis of the building process of La Seu over 400 years, from its beginnings in the 13th century up to the end of its construction in the 17th century.

The University of the Balearic Islands and the Cathedral of Mallorca have published the book *L'evolució constructiva de la Catedral. Història, tècniques i materials en els llibres de fàbrica (1570-1630),* by Doctor Miquel Ballester Julià. This work is the result of the research conducted in the course of preparing his doctoral thesis, and it is set within the context of the research activities carried out by the *Grup de Conservació del Patrimoni Artístic Religiós* (Group for the Preservation of Artistic and Religious Heritage) of the UIB. It implies the disclosure, for the first time, of a comprehensive analysis of the complexities of the building process of the Cathedral of Mallorca, from a technical and material perspective of the building as a whole, and from the contribution of unpublished historical documentation.

Miquel Ballester's study is an unprecedented contribution to the comprehensive knowledge of the construction of the Cathedral of Mallorca, which is one of the oldest cathedrals in Europe. The cathedral, which was built between the 13th and 17th centuries, preserves all its original space. Due to its structure, it is an exceptional building in the context of European cathedrals, since it has a monumental size at the edge, implying that with a reduced number of building components it can offer a maximum volume of space.

The publication of this book confirms the view that the architecture of the Cathedral of Mallorca, built over a period of 400 years, is the result of a construction process which

extended over time, with a structural logic of its own, which is determined by the techniques and materials used.

In the prologue of the book, Doctor Mercè Gambús, principal investigator of the Group for the Preservation of Artistic and Religious Heritage of the UIB, and scientific-technical coordinator of the *Departament de Cultura de la Catedral de Mallorca* (Department of Culture of the Cathedral of Mallorca) states that 'The research conducted by Dr. Ballester modifies the general chronology of the building process, sets forth unheard of historical information about the place where the factory was built, in connection with the mosque and the urban planning, and analyses the building methodology as it connects the old construction works with the new. This is the first time the construction of the temple has been studied in its entirety, and the effects must lead to the revision or validation of the lines of research implemented in this field up to now'. In the prologue, Doctor Gambús establishes the scientific assessment of Ballester's work, and formulates a reflection about the unavoidable need for a renewal of the historiography on the studies of the construction of la Seu. Likewise, the prologue incorporates unpublished documents to prompt a historiographical reflection on the chronology and the preservation of the monument.

Original contributions

Among other updates, Ballester's work modifies the chronology of the construction of the temple. On the one hand, it provides new insights according to which the building of the temple started in the 13th century, few years after the conquest of 1229. Thus, while traditional historiography states that the beginning of the construction of the cathedral dates back to the year 1306, according to Jaume II's codicil (which sets the stage for the construction of the *capella de la Trinitat*, or Trinity Chapel, as the burial place for the dynasty of Mallorcan kings), the author claims that in fact it started roughly half a century earlier. On the other hand, Ballester states that the temple's building process was completed in 1630, with the construction of the main façade, nearly three decades after the benediction of the main portal or of l'Almudaina (1601), which up to now was considered to be the last element to be built in the Cathedral. Overall, Ballester's contributions point to the fact that the constructions of the Cathedral of Mallorca would have spanned from the mid-13th century to the first third of the 17th century, nearly one hundred years more than had been previously assumed.

Ballester documents and explains the logic behind the construction works carried out in the last phase (between the years 1570 and 1630), corresponding to 40 per cent of

the temple's surface. That is, from the side portals to the main one; in other words, the last four sections of the three naves, as well as some side chapels. Until the publication of this book, only the medieval part of the building had been documented and interpreted. With the new documentary sources that have been incorporated, the cathedral can finally be analysed in its entirety, reaching the conclusion that its structural logic and the alterations performed have been the cause for the preservation problems that have marred the history of this monument.

Regarding the construction of the main façade or of l'Almudaina, the author documents an unknown and decisive fact for the study of the Cathedral: he registers the year 1503 as the starting point for the construction of the main façade, thus presenting the hypothesis that in the same year the perimeter of la Seu was already marked. The author's revision allows us to visualize a façade which bears traces of Sagrera's tradition, and which is linked with the late Gothic style of l'Almudaina's side portal and the *Casa de l'Almoina*'s (Alms House) façade, thus generating a cohesive Gothic setting. At the same time, Ballester establishes the different stages of construction of the façade, from 1503 up to 1630, and links them to the construction method adopted to build the four new *navades*[1].

Ballester puts forward the formal and functional hypothesis of the mosque inside the cathedral as a predetermined element of the construction. Thus, the author points out that not only the cathedral's naves were built on the earlier Muslim temple, but also the mosque determined the cathedral's positioning, orientation and size. Ballester recognises an initial plan for the construction drafted in a comprehesive manner, in which the Cathedral's *cap nou* or presbytery (Trinity and Royal chapels) and a single nave are included. This first plan absorbs the surface of the mosque corresponding to the prayer room, and it introduces the construction of the bell tower. Regarding this tower, the author cogently discards the option that it might have been an old minaret. In addition, he explains the size of the first three naves, and the change in height starting in the first main chapel (including its rose window, which is one of a kind in Europe, owing to its monumental size), is to be attributed to the connection between the Cathedral's presbytery and the mosque. This way, the author discusses the mosque's morphology, its gradual collapse and its transformation into the usable space of the *navades* under construction.

Ballester's work not only solves critical gaps about the cathedral's building process, but it also provides us with key information for the temple's preservation. The author contributes relevant data regarding the materials used in the construction of the

[1] Catalan term that refers to the space between two pillars or pilasters of a nave in a temple's roof.

cathedral, like quarries, stone, wood, metals, earth types, gravels and other additives, aggregates and glues, clay, vegetal fibres, glass and water. At the same time, he has related these materials to the techniques and procedures applied in the construction process. All this information will be instrumental so as to draw up a diagnosis of the Cathedral's state of preservation.

The author

Doctor Miquel Ballester Julià (Campos, 1969) is a member of the Group for the Preservation of Artistic and Religious Heritage and an associate lecturer of the *Departament d'Enginyeria Industrial i Construcció* (Department of Industrial Engineering and Construction) of the University of the Balearic Islands. He is also a municipal technical architect of the Town Hall of Campos. He has co-authored several articles on the local history of Campos. On a more general level, he has co-authored the book *Entre poc i massa sa mesura passa* (2002) and is the author of the books *Habitatges tradicionals: Característiques arquitectòniques, tipològiques i constructives dels habitatges en sòl rústic a Mallorca*. 2013 (1st edition) 2015 (re-edition). Edicions UIB. *Els materials de construcció a Mallorca. La documentació històrica (segles XIV-XVIII)*. 2017. Lleonard Muntaner Editor.

In 2018, Miquel Ballester was awarded his doctoral degree at the UIB, for the doctoral thesis *Evolució constructiva de la Catedral de Mallorca. Història, tècniques i materials en els llibres de fàbrica (1570-1630)*, supervised by Doctor Mercè Gambús.

The book is part of the research plan corresponding to the project HAR2015-66307-P '*Estratègies documentals aplicades als processos de restauració i divulgació del patrimoni artístic religiós de Mallorca*' (Applied Documentation Strategies Applied to the Processes of Restoration and Dissemination of the Artistic and Religious Heritage of Mallorca, MINECO/FEDER), of the Group for the Preservation of Artistic and Religious Heritage (CPAR) of the University of the Balearic Islands. R&D projects of the National Programme for Fostering Excellence in Scientific and Technical Research. State Subprogramme for Knowledge Generation. Ministry of Economy and Finance. The Spanish Government. The European Union. European Regional Development Fund.

Related news

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Appendix

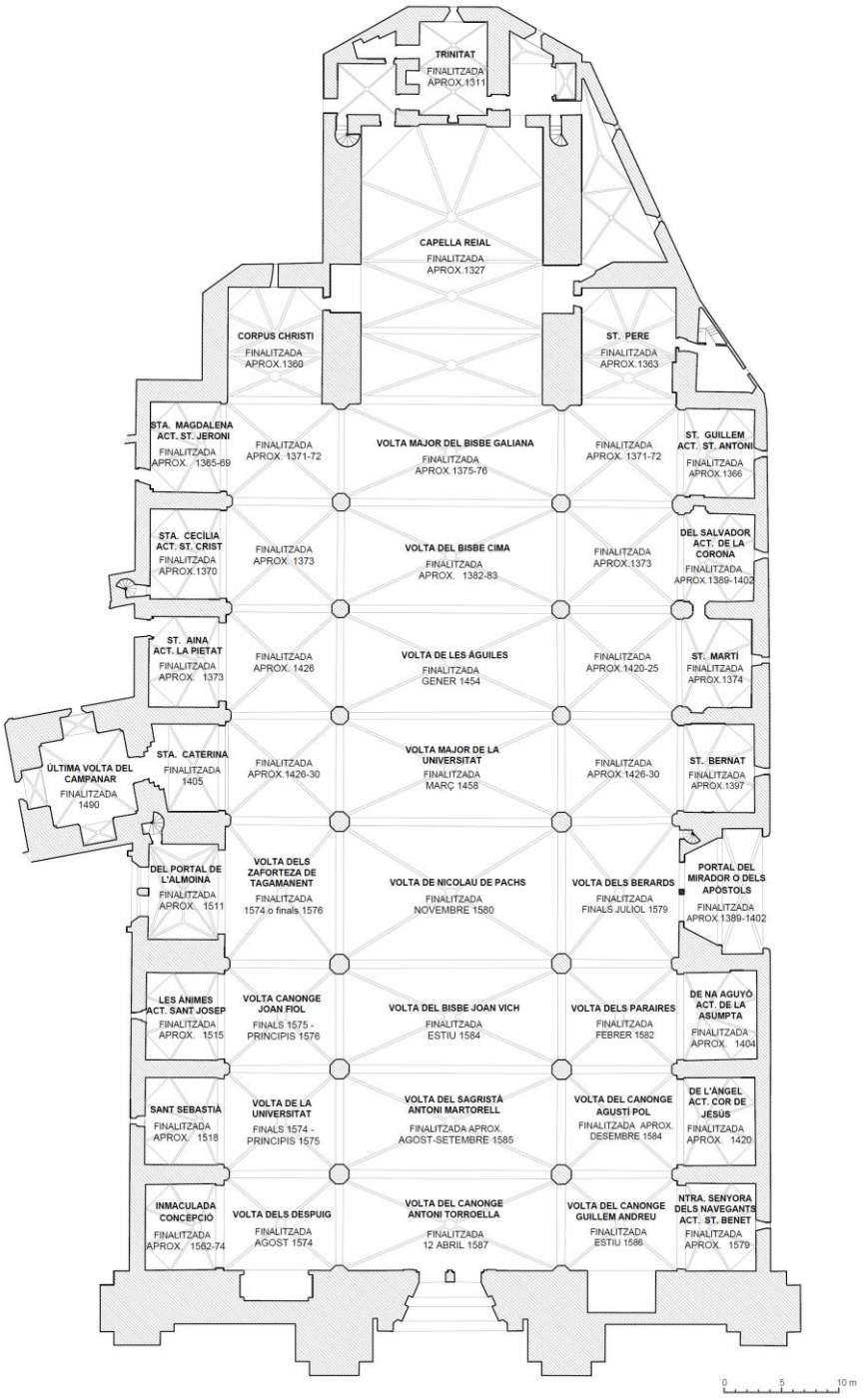


Image 1: Chronological evolution of the construction of the Cathedral of Mallorca. Author: M. Ballester.

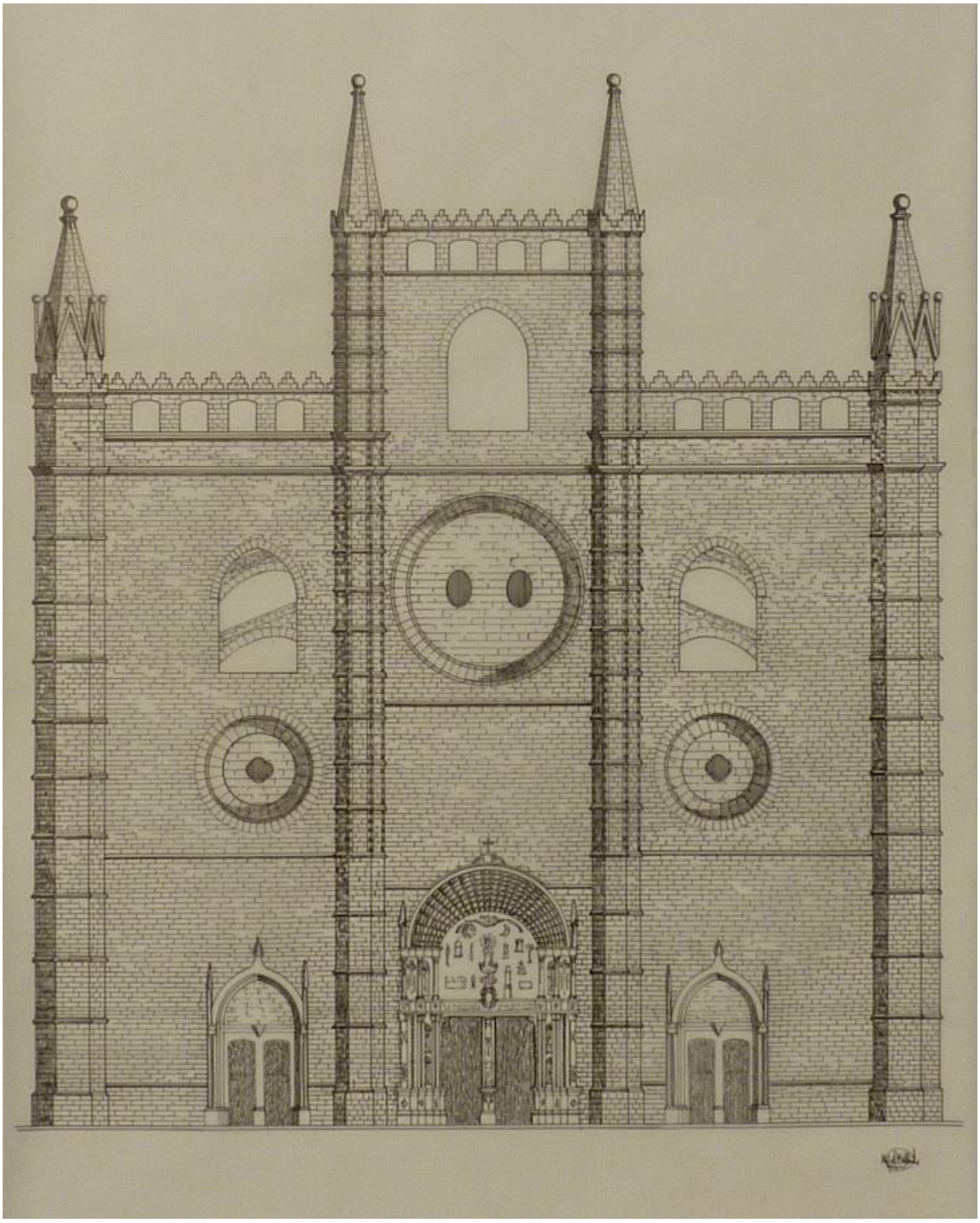
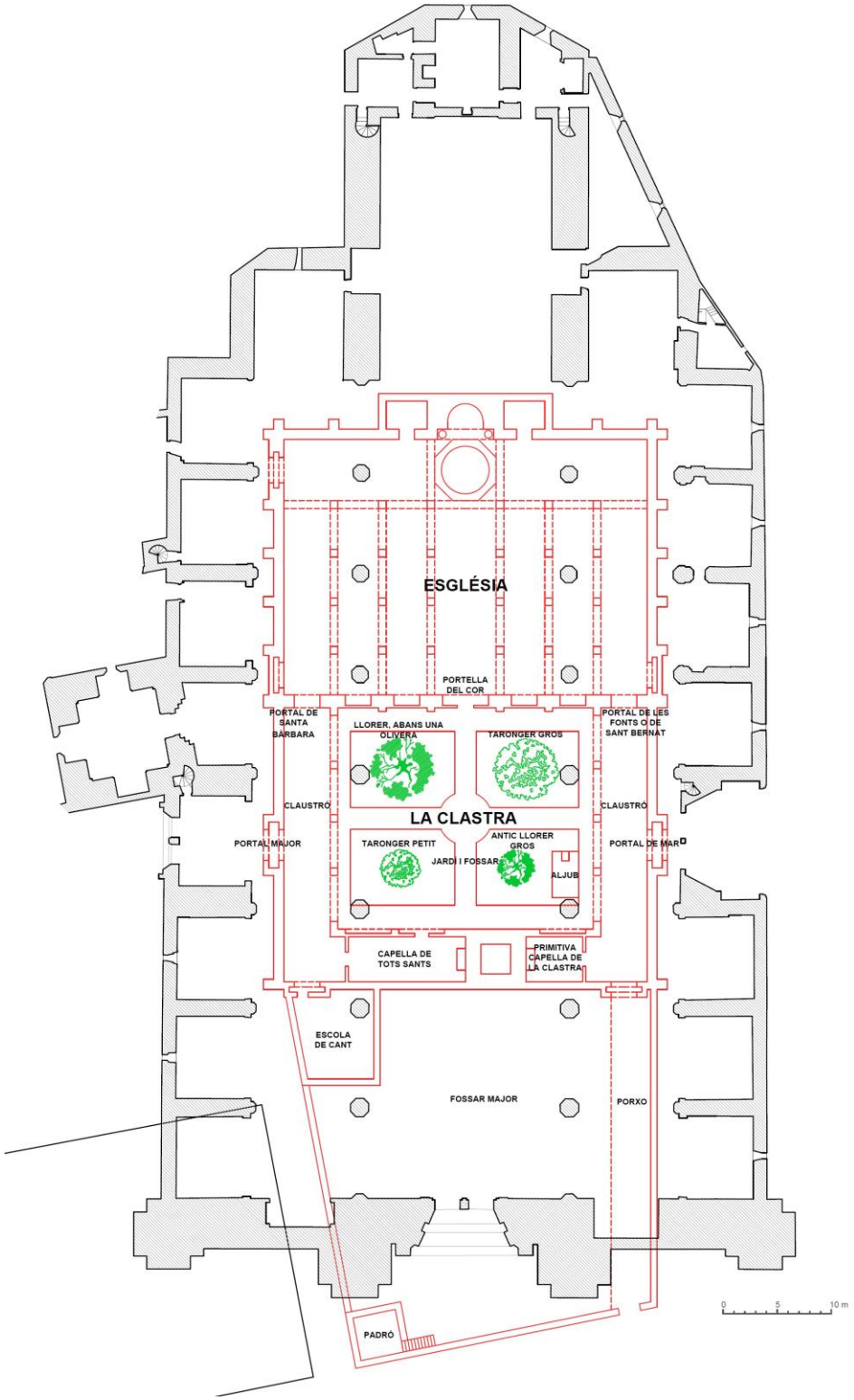


Image 2: Recreation of the Almudaina facade. Author: M. Ballester.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