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SCIentific RESearch and Information Technology
Ricerca Scientifica e Tecnologie dell'Informazione
Vol 14, Issue 1 (2024), 1-12
e-ISSN 2239-4303, DOI 10.2423/i22394303v14n1p1

CASPUR-CIBER Publishing, http://www.sciresit.it

MODERNITY DEALING WITH THE PAST. GIOVANNI AMICO AND THE LATE-BAROQUE TRANSFORMATION OF THE SANTISSIMA ANNUNZIATA CHURCH IN TRAPANI

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Abstract

The Carmel church and monastery of the Santissima Annunziata - later the Agostino Pepoli Regional Museum- were among the most important centres of worship in western Sicily. The church is an interesting case study for the coexistence of elements from the fourteenth, the sixteenth and the eighteenth centuries and for the late-baroque transformation led by the Sicilian architect Giovanni Amico. A survey campaign conducted with laser scanning and photogrammetry in the crossing and apses revealed architectural and constructive solutions developed by Amico in his innovative project. The research methodology was based on interdisciplinary approach that integrated the disciplines of the history and representation of architecture. It enabled a deeper understanding of the "nuova idea di architettura" by the architect and offered insights into his approach to the ancient, balancing preservation and function.

Keywords

Church of Santissima Annunziata, Giovanni Amico, Trapani, gothic apse, stratification, dome with hidden light sources, construction history

1. *Introduction*

The proposed research deals with the process of stylistic and structural transformation undertaken between 1741 and 1763 by the Sicilian architect Giovanni Amico in the fourteenth-century Carmel church of the Santissima Annunziata in Trapani, focusing on the eastern area. The architect significantly transformed the late-Gothic three-nave Basilica with polygonal main apse in a monumental hall with freestanding columns against the walls, the crossing covered by the last example of his theatrical domes with hidden natural light sources. The late-Gothic ribbed cross vaults, now visible in the three apses, were apparently integrated into the eighteenth-century project almost seamlessly (Figures 1-2).

Despite the considerable literature on the prestigious church of the Santissima Annunziata and its sixteenth-century chapels—in particular those covered by sixteenth-century stone domes with niches, masterpieces of Sicilian stereotomy: the chapel of the Madonna behind the main apse, which houses the venerated sculpture of the Virgin, and the chapel of the Sailors on the left of the first bay of the southern nave (Giuffrè, 1996; Nobile, 2016; Scuderi, 2011) —, the eighteenth-century transformations of the eastern front have not been explored in depth.

Fig. 1: View of the nave of the Santissima Annunziata

The first eastern bay of the three medieval naves and the apses saw the most stratifications and transformations over the centuries. The polygonal Gothic main apse was altered to create two entrances to the chapel of the Virgin as early as the

Fig. 2: View of the dome and main gothic apse

fifteenth century. In 1578, an adaptation to the classicist style began, commissioned by two Priors of the Carmel monastery, Edigio Onesti and Cecilio Cavarretta, which continued until the 1620s. This involved covering the gothic vaults and walls with stucco and frescoes, as well as adding two Carrara marble portals for the Virgin chapel entrances and new liturgical furnishing (Scuderi, 2011, 97-132; Scibilia, 2016).

After a partial collapse of the church foundations in 1721 and the damage from the Palermo earthquake of 1726, Giovanni Amico, the renowned architect from Trapani, undertook the restoration (Mazzamuto 2003; Pantina 2004). His initial design for the Santissima Annunziata, drafted around 1741, was published in 1750 in the second volume of his treatise *l'Architetto Pratico* (Amico, 1750) (Fig. 3-4).

The plate of the project, accompanied by a graphic scale expressed in Sicilian *canne*, features a transversal and longitudinal section of the church and a plan. The plan is a remarkably extraordinary and innovative drawing for its time, as it shows a comparison between the medieval church and the proposed new design. It consists of two semi-plans divided along the longitudinal axis of the church. One illustrates the survey of the three-nave fourteenth-century church and the other shows the half of the new monumental single hall with free-standing columns against the walls, a lower transept, and a circular main apse. If significant differences were highlighted by scholars between the design and the completed nave (Mazzamuto, 2003, 105; Pantina, 2004, 37), only recently has the execution of an entirely unpublished project in the eastern part of the church been identified, which introduced, above the bay between the nave and the gothic apse, a dome with natural sources hidden by a balustrade (Cannella, Nuccio, Sutera, 2023, 151-159). No drawings exist for this second design and the published documents on the construction site, though abundant (Mazzamuto, 2003, 138-140; Pantina, 2004), do not specify when or why changes to the design were made. Therefore, the core issue was to understand the development and building of Amico's new design, both from a geometrical and constructive point of view, in relation to the existing structure and to the initially published drawings. The goal was to interpret and read the existing church through the history of its

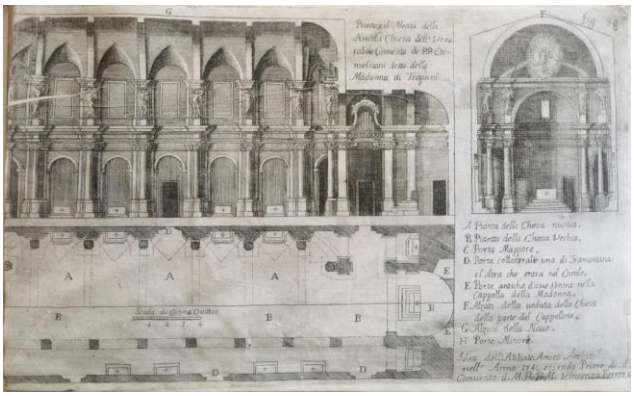

Fig. 3: First project for the renovation of the Santissima Annunziata by Giovanni Amico. Engraving published in *L'Architetto pratico*, 1750, Library of DARCH, Palermo.

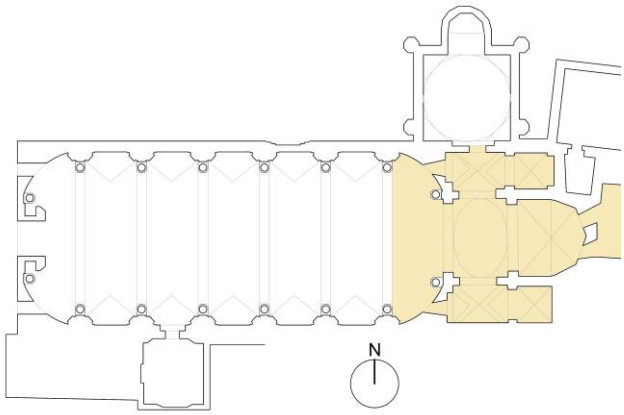

Fig. 4: Plan of the church of SS Annunziata with investigated part evidenced in yellow.

construction. Two paragraphs focused on three main questions:

1.Is there evidence within the structure of Giovanni Amico's initial design for the presbytery area?

2.Did changes to the project influence the construction process in any significant way?

3. How did the 18th-century architect engage with the pre-existing Gothic apses?

The research methodology combines approaches from the history of architecture, digital drawing, and the history of construction. (For an introduction to the value of this method we refer to Adembri, Cipriani, Fantini, Bertacchi, 2015. A similar investigatio, dealing with the case study of layered architecture was undertaken by Acosta, 2023). Investigations centered on a comparison between a detailed survey of the current church, Giovanni Amico's 1750 project, construction documentation, and an exploration of the building's history prior to its eighteenth-century redesign. For a more comprehensive understanding of the transformations in the eastern part of the church, the first eastern bay and the apses were examined independently.

2. *Survey and Representation*

For the first time, a comprehensive survey of the eastern front of the Annunziata using laser scanning tools was conducted. The survey integrated laser scanning and photogrammetric methodologies. Specifically, the laser scanning acquisitions (undertaken using a Leica HDS 7000 scanner, with point clouds oriented and registered using Autodesk ReCap Pro software) targeted the interior spaces and the external facades of the church, while a photogrammetric project was carried out to survey the "camera di luce", as the path to reach this area did not allow for easy transport of the laser scanner. The photogrammetric model was referenced using coordinates of points measured by the laser scanner (Fig. 5).

The various representations were developed using rendering processes, and the digital models were produced in CAD environment (specifically,

Fig. 5: Laser-scanning, photogrammetric survey with digital 3D model of the studied spaces.

the 3D models of the tribune of the church of the Annunziata using Rhinoceros software). They were rendered with the Blender software. The surfaces of the models were intentionally left without texture to facilitate the reading of the parts and the understanding of the geometry and volumes. The sections shown in the drawings accurately represent the actual thicknesses where such information is available from the survey. In general, the greater thicknesses are indicative of masonry while the thinner ones correspond to reeds and plaster vaults. Two different rendering engines, Cycles and Freestyle, were utilized; the latter allows marking the edges of the surfaces of the models and drawing lines along the edges, thereby facilitating the reading of the compositional and structural architectural elements.

3. The transept

3.1 Has the church ever had transept?

Vincenzo Scuderi posited the two symmetrical volumes, adjacent to the dome with hidden light sources structure, were remnants of the Medieval transept of the church (Scuderi, 2011,29-31), (Fig. 6).

However, a comparison with historical iconography raised some doubts in this regard as engravings of the church from sixteenth and early seventeenth centuries clearly show the compact and tall volume of a transept (Braun-Hogemeberg's *Veduta della città di Drepanum*; G. Orlandi's *La città di Trapani in Sicilia*). Yet, mid-seventeenth and eighteenth-century representations exclude this architectural element (as seen in M. Gebbia's *Erice antica e moderna*; the anonymous painting of the procession of the statue of the Madonna from the city to the sanctuary; and Amico's survey of the church). Since no documentation has been found on the history of the church in the seventeenth century, any transformations from this period remain speculative. Some fourteenth-century churches to which the Santissima Annunziata is compared in the literature due to their everted polygonal apses lack a transept in their original design. This includes the church of Santa Maria di Gesù in Trapani or the nearby cathedral of Erice (Guastella, 2006, 29-30). The latter was founded in the fourteenth century and completed with a transept on the facade in the fifteenth century. Side chapels with complex Gothic vaults and dome on niches were built in the sixteenth century. The apse area was covered with stuccos by professionals also active at the Santissima Annunziata and enriched by a Gaginian marble tribune. Giovanni Amico himself was called in 1746 to check the structural damage to the bell tower, while working at the Annunziata (Guastella, 2006). The solution of transept corresponding to the first bay and portico in front evoked that of the Barcelona cathedral in the same period (Nobile, 208, 67-68). An example of a portico on the façade could also be found in the church of the Santissima Annunziata, which was probably demolished in the eighteenth century.

Fig. 6: View of the main apse and presumed transept (north).

3.2 Survey and analysis of the presumed transept space

Laser scanning survey was conducted on the northern section of the presumed transept, the only one accessible through a window (Fig.7). The survey revealed architectural elements concealed by eighteenth-century transformations:

1-The end of the eastern wall bears the trace of a decorated pointed arch surmounted by a coat of arms. It was identified with the access arch to the northern gothic apse, as it perfectly matches the trace of the arch remaining in the internal wall of the apse. Above the arch there is evidence of a pitched roof and further above, a walled-up square window (Figures.7-8).

2-The end of the wall that separates the presumed transept and the tribune features the first ashlars of a destroyed round arch (perhaps relating to the sixteenth-century transformations).

Two pillars with modest capitals bear a walled arch spanning 4.05 meters. In line, on the same

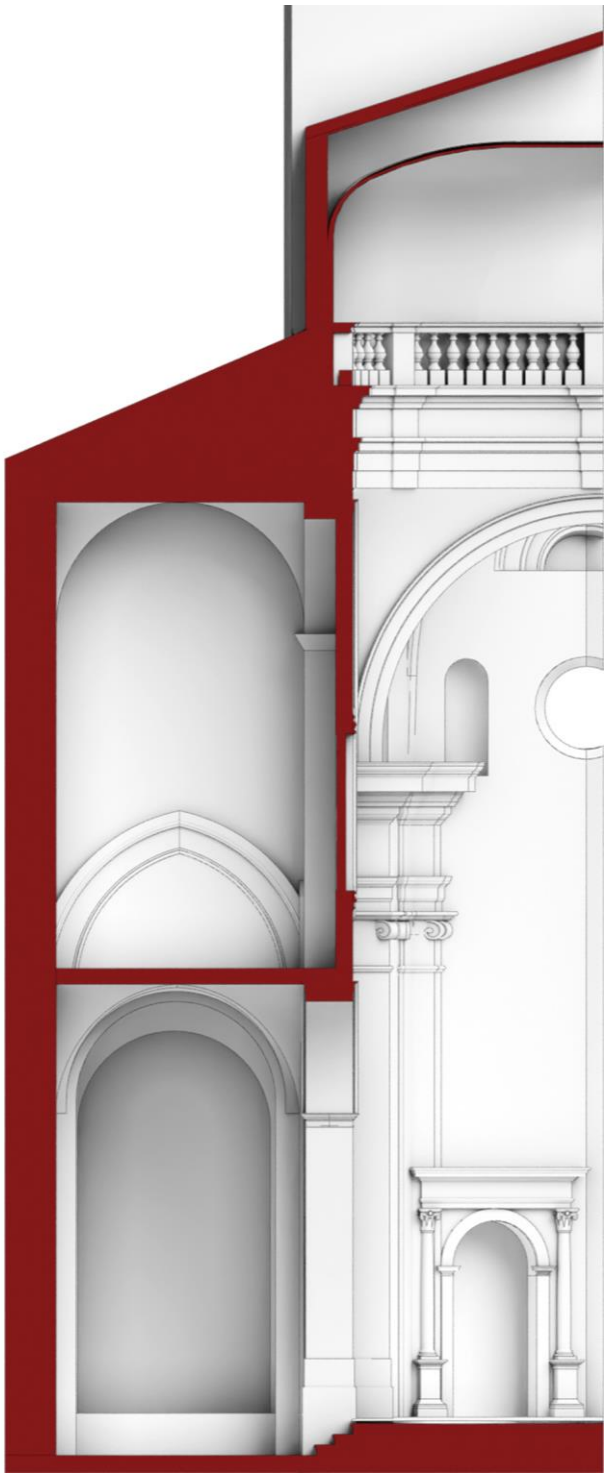

Fig. 7: Cross-section of the presumed northern bay of the transept and current state of the tribune with dome.

wall, there are the traces of the rear part of the blind window visible from inside the church. (Fig.8). The vault is therefore also not aligned with the central axis of the cross. The laser scanning data of this environment show that both the cross vault and the full-center arch of the north wall

Fig. 8: View of the eastern wall of the presumed dismissed transept: remnants of the pointed arch of the lateral chapel.

align with the same vertical axis bisecting the center of the vault. However, they are both offset towards the west relative to the planimetric layout of the room. The analysis of the metric data acquired, point clouds generated through laser scanning and photogrammetry survey, has also highlighted that the cross vault, walled-up arch and walled-up window are not aligned - both relative to the ideal center of the wall and to the upper dome with hidden light sources, deviating by about 50 cm towards the nave of the church.

3-The chamber itself is covered by a "real" cross vault, i.e., made of stone, albeit heavily restored. One of its forming arches is embedded in the walled-up arch of the tribune wall.

Such displacement, however, appears to be consistent with the depth of the apse in the initial design by Giovanni Amico, suggesting that such masonry work was carried out in an intermediate phase between the initial implementation of the project and its subsequent modification. A comparison of the drawing of the church renovation project and the dimensions and layout of the masonry structures found shows a perfect congruence. For the renovation of the bay preceding the altar, Amico used a compositional scheme - very similar to the one he adopted ten years earlier, again in Trapani, in the church of the Immacolatella. This involved a rectangular space,

Fig. 9: View of the eastern cross-vault of the lateral apse and pointed arch.

delimited by four pillars, covered by a barrel vault featuring a pair of opposing lunettes. In the design of the Annunziata, the lunettes were to accommodate the organ pipes, placed behind a balustrade, in correspondence with the spring of the lunettes.

The space between the pillars was therefore free and did not provide for any diaphragm element towards the other lateral environments in front of the minor apses.

Therefore, the barrel vault never built had to be arranged on the same transverse axis shared with the rear cross and related to the arch found in the room, with the lunette that was to rest on the latter. In fact, this displacement is fully compatible with that already observed, also confirmed by the correspondence between the pair of pillars that support the full-center arch and those marking the north side of the sacred area of the church.

What remains uncertain is why the Trapani architect chose to shift these structures westwards. Perhaps the answer lies in further traces always present inside the small room consisting of fragments of the full-center arch, oriented east-west, whose springing is found to be in line with that of the pointed arch that marked the entrance of the lateral apse.

These latter traces, certainly attributable to a previous process of renewal of the church that warrants further study, are in line with the masonry structures already described present in the same room. It therefore appears highly plausible that the renovation project considered the previous masonry works already in place, thus determining the noted offset (Figures.9-10).

The exact timeline of these structures remains elusive. However, the offset of both the arched opening to the side rooms and the blind window, in relation to the tribune's roofing structures, suggest they were realized between the commencement of Amico's initial project and its subsequent modification to incorporate the upper “camera di luce”.

The exact timeline of these structures remains elusive. However, the offset of both the arched opening to the side rooms and the blind window, in relation to the tribune's roofing structures, suggest they were realized between the commencement of Amico's initial project and its subsequent modification to incorporate the upper light chamber.

Fig. 10: View of the wall separating the presumed dismissed transept from the tribune: walled-up arch and traces of the blind window.

3.3 Acknowledgement on the first project and construction site progress

As previously stated, the comparison of the northern structure of the presumed transept with Giovanni Amico's initial design revealed an incontrovertible correspondence between the walled southern arch and the dimension of the lateral space housing the organ pipes in the engravings. Moreover, the perimeter wall texture of the room is identical to that of the second order of the nave, built in the eighteenth century. It is therefore possible to hypothesize that the two symmetrical rooms that flank the cross do not correspond to a medieval transept but rather to a relic of Giovanni Amico's initial project, either constructed anew or reconstructed from a pre-existing structure during the early phases of the construction site (1742-1749). Such a revelation not only grants a deeper comprehension of the project unveiled in 1750 but also suggests that parts of Amico's initial vision for the church's eastern expanse were realized. These were eventually sealed off when the crossing's design evolved, offering fresh insights into the construction's development.

In his initial design, by unifying the first eastern bay of the medieval church's three naves into a single full-height body, Giovanni Amico built a sort of transept, contained within the confines of the lateral naves. In accordance with the principles of theatrical architecture already implemented in the dome with hidden light sources project of the church of the Immacolatella, Giovanni Amico thus hid the open space of the transept and the source of music behind the triumphal arch, isolating the darker and mysterious eastern body intended for the Eucharistic celebration from the nave full of light.

The new project led to the isolation of the central bay. It is highly probable that the revised project led to the sealing of arches. The cross became a rectangular tribune (in documents *Ciborio*), with the side walls conclude with two full-centre arches that reach the height of the two triumphal arches located between the nave and the apse. These arches appear non-structural, defined instead by decorative stucco cornice on the wall. Above, four pendentives connect the four spring arches, facilitating the transition between the rectangular perimeter of the tribune and the oval oculus. The latter, marked by a high cornice, opens onto the dome device: a rectangular room covered by a pavilion vault and illuminated by two windows opening onto the side walls. The balustrade that develops along the perimeter of the oculus is tangent to the internal walls of the dome, rendering the gallery largely impracticable.

Resulting lateral bays were divided by the architect in two levels. He left the first level as a passage and roofed it by cross vaults to reach the side apses and the entrance to the Sailors' chapel to the south (Fig. 11). The upper levels were walled up and correspond to the lateral rooms identified by laser scanning. Ingeniously, Amico repurposed these overhead spaces as auxiliary light chambers, introducing two windows overlooking the cross. The light, filtered through the small openings of external perimeter right to the middle high of the cross, without generating contrast with the zenithally direct rays from the upper dome. This is a masterly orchestration of the lighting design. A similar system was built in the previous century by Guarino Guarini to filter the light at the lower levels of the chapel of the Holy Shroud in Turin.

Pertaining to the construction's evolution, as spotlighted by Mazzamuto and Pantina, documentation chronicles a structured progression of construction stages. First, the southern half of the single hall, which flanks the

courtyard, was built and, starting from 1749, the second half of the nave and its roof were built. Scholars also assert that the eastern area was the last part to be transformed, together with the building of reed and plaster roofing of the hall (Mazzamuto 2003, 105-107; Pantina 2004, 27-37). The survival of the transept belonging to Amico's initial project suggests that the eastern part of the church was, instead, the first to be modified. The "chapter" dated May 3rd 1749, corroborates that the construction of the eastern body of the church followed the new design. That means that lateral bays of the transept belonged to a previous phase. The chapter already prescribes the construction of the spandrels and the balustrade of the light chamber. The construction of a "real" stone vault was also ordered, probably the cross vault covering the passage span to the lateral apse (Genovese, minute of May 3, 1749; Mazzamuto 2003,139).

4. The medieval structure and the apses

4.1 Gothics ribbed vaults of the Santissima Annunziata between concealment and integration.

The architectural theme of the main polygonal apse with a ribbed umbrella vault is present in many cases in the city of Trapani in the thirteenth century. Of these, the only one to have survived intact is probably that of the church of Santa Maria di Gesù. The apses of the Santissima Annunziata and those of the church of San Domenico have instead witnessed transformations in relation to the stratification over the centuries. The last of these has only the polygonal external perimeter visible while the interior is covered by a semicircular wall, supporting a lunette vault adorned with lunettes (Garofalo 2015, 175-176; Nobile 2019, 14-15).

The main apse of the Santissima Annunziata—certainly restored in the twentieth century to restore the ribs to their original state—presents a complex stratification (Fig.2). An original central rib that connected with the corner of the central axis was probably eliminated due to the opening of the central oculus. In the external perimeter of the apse, it is possible to find two further walled lateral oculi. The exact dating of these windows has yet to be documented. Literary sources attribute the sequence of shell-accented niches to late sixteenth-century reconfiguration efforts (Scuderi 2011, 103-107). A central and still difficult issue to resolve is that of the possible concealment of the

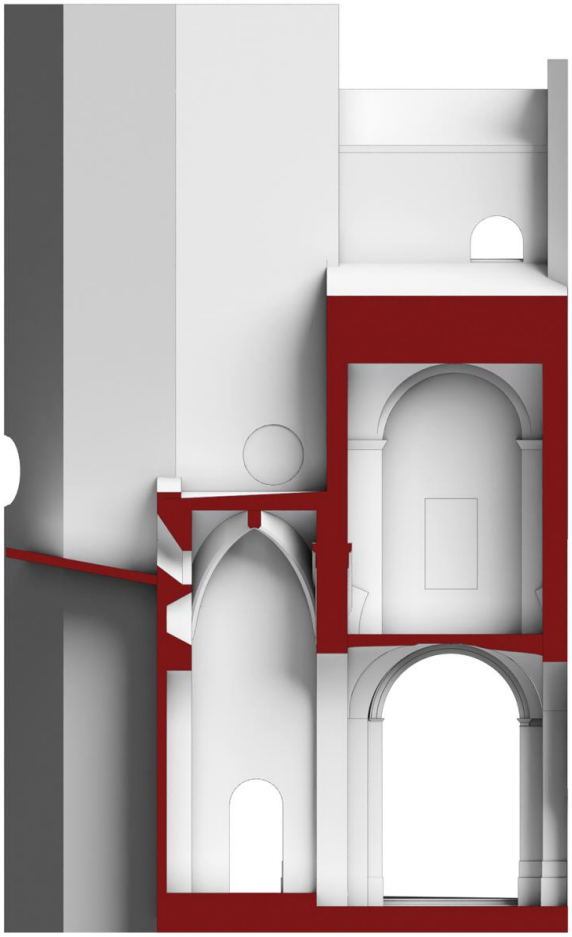

Fig. 11: Longitudinal section passing through the north lateral apse and the presumed transept.

Gothic structure with a semicircular apse before Giovanni Amico's alterations. This question has recently been raised due to the semicircular representation of the apse in the survey plan published in 1750 (Amico 1750). Should this masking have transpired, its chronological placement likely lies between the refurbishments commissioned by Egidio Onesti and Basilio Cavarretta (1578-1627) and the church foundation's unfortunate collapse in 1721. Notably, an early seventeenth-century illustration presents the polygonal main apse in conjunction with the three chapels—Sant' Alberto, the Madonna chapel, and the San Vito chapel—found in the *Libro di scritture* by the same Prior Cavarretta (Cavarretta 1630). The 1750 survey plan introduced the first depiction of the circular apse (Fig.3). Giovanni Amico's initial design also indicates the architect's preference for retaining the apse's semi-circular configuration. However, the construction documents and the current state of the church demonstrate different developments.

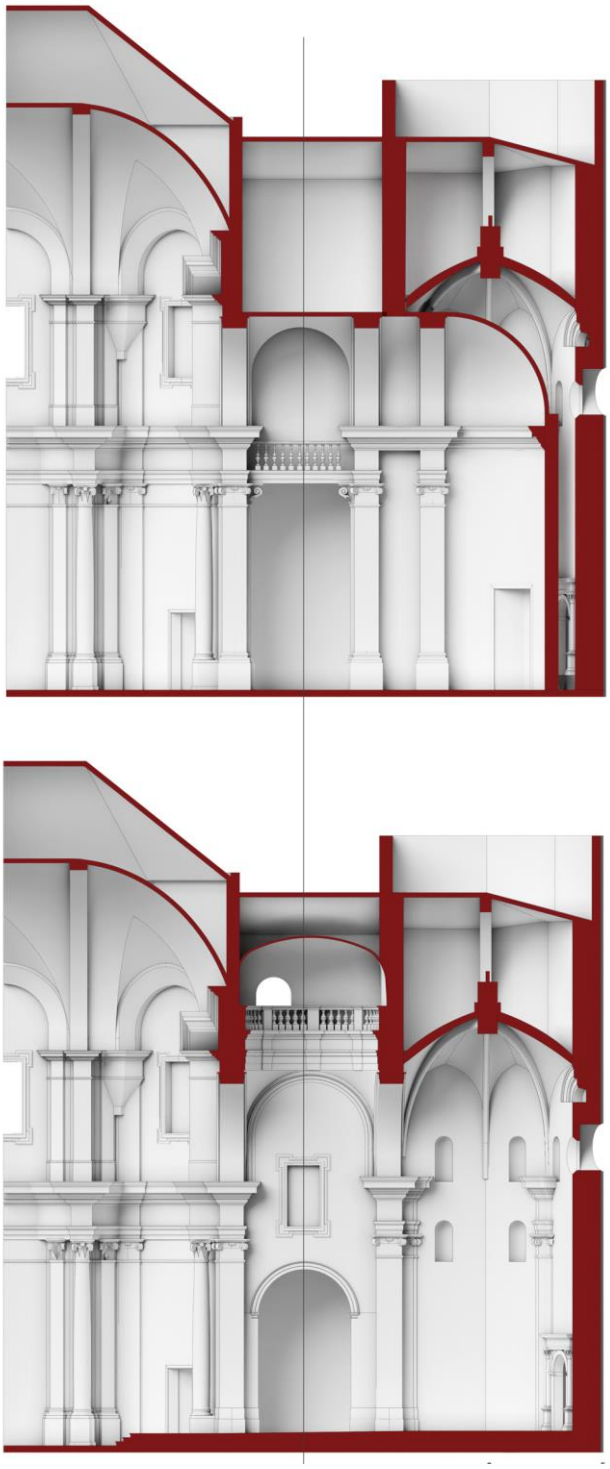

Fig. 12: Longitudinal section of the tribune according to the Amico project (top); longitudinal section of the digital model of the current state (bottom). The vertical axis helps to visualize the misalignment of the masonry structures between the different parts of the tribune.

4.2 The initial project by Giovanni Amico

An analysis of the plate dedicated to the renovation of the church, published by Amico in the second volume of *L'Architetto pratico*, shows that the apse area, as well as the nave, was to undergo major renovations, which, however, as can be observed, have no correspondence in the current state.

Notably absent in the old medieval structure's representation is the polygonal apse. It is plausible that a previous alteration had already converted the medieval apse into a circular form. Amico seemingly intended to preserve this circular apse, incorporating it into his transformative vision while introducing minor amendments. The drawing suggests the circular layout would be retained, supplemented by additional elements—a set of opposing pilasters and an arch—near the junction of the apse and the two masonry walls that separate it from the lateral environments. The modifications relating to the apse, as planned in the renovation project, were never implemented, and the current configuration of the space appears to be quite different: the area has a greater extension in the longitudinal direction and the roofing system is not entrusted to a barrel vault with lunettes but to a light chamber, a solution already theorized by Amico in the *Tempio Esagonale* and implemented in the chapel of the Santissimo Crocifisso in the church of San Domenico, Trapani.

The pillars also differ. They are not free from structures, as in the design, but are instead affected, on the short side, by two masonry walls on which two fornixes and, in line with them, two blind windows characterized by rich molded frames are opened. Through the elaboration of digital models— the one based on the initial project for the renovation of the church and the other corresponding to the actual state and— it was possible to analyze and understand the relationship between the modernization works of the eastern bay and the apse and the pre-existing masonry structures (Fig. 12). Specifically, by superimposing the two models, it emerged that the cylindrical surface of the apse was obtained inside that of the Middle Ages, very likely deviating from it. Likewise, the apsidal conch did not interfere with the ribbed star vault.

4.3 How Giovanni Amico dealt with the gothic structure

The chapters of May 3rd, 1749, provide evidence that already on that date the architect knew the Gothic structure of the apse and was intervening on it. "Devono ammodernare l'altro arco maggiore della Tribuna, e farlo dell'istesso compasso del primo in semicircolo perfetto col suo piede dritto, dovendo tagliare li pilastroni del vecchio arco, ed a vivo di detti impostarci l'arco, dovranno formare come sopra, con metterci la scocca del cornicione architravato, alla sommità di detti vecchi pilastroni" (Genovese, May 3d, 1749, Mazzamuto, 2003, 139). The passage from the document refers to the transformation of pointed arch of the Gothic *tribuna* into a round arch. Mauro Pantina stated this transformation interested the triumphal arch, which divides the nave from the presbytery area. That work is instead described in a different part of the document, allowing us to identify the word *tribuna* with reference to the Gothic apse (Pantina 2004, 29). The terminology used in the document facilitates interpretation. At the time, the term *ammodernare* was generally understood as the transformation of older structures according to the modern language of classicism. The term *tribuna* was used in this case to distinguish the Gothic termination from the *Ciborio* that precedes it, where Giovanni Amico was creating his light chamber structure. Until the death of Giovanni Amico in 1753, there is no evidence of the intention to hide the apse in the construction documents. Conversely, the pilasters and the late Baroque decoration of the internal walls of the apse testify to an—at least temporary—integration of the pre-existing structure into the eighteenth-century project. Positing that Giovanni Amico possessed an architectural culture free from prejudice towards the Gothic is not entirely far-fetched if one considers the inclusion in his later projects of elements that could recall the Gothic construction: a tribune with an ambulatory in the church of the Immacolatella in Trapani, a ribbed vault to cover the single nave of the Santissima Annunziata in the published project and the detail of the inverted pyramid corbels in the corners of the nave, echoing Sicilian Gothic

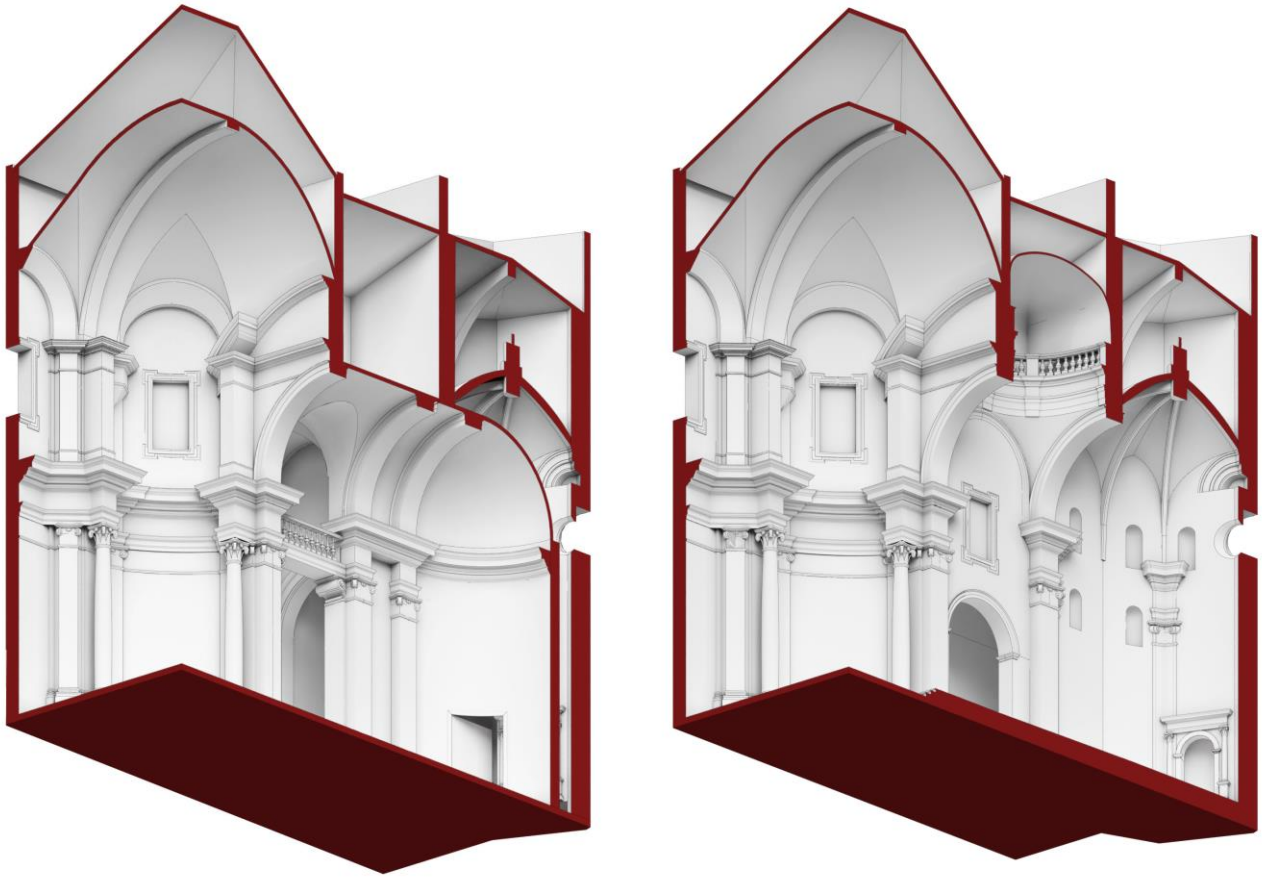

Fig. 13: Axonometric cross-section of the digital model of the tribune and apse: on the left according to Amico's first project, on the right the current estate.

architecture. However, it was only post-Amico's death that his protégé, Luciano Gambina, exhibited an intention to encase the Gothic apse, adopting a semicircular design aligned with Amico's original vision (Pantina, 2004). "Deve come s'obliga detto di Pisano portare a mezzo circolo il cappellone di detta chiesa facendogli li due pilastroni, e riempire tutti l'angoli di pietra e calcina incominciando dal pavimento sino al cornicione come pure tirare all'intorno di detto cappellone il cornicione di pietra di perrera di smarrato, come nel disegno e voltare sopra detto cornicione il Dammuso reale di cantoni di Favignana" (Genovese, January 6, 1763). However, this masonry modification seems to have never materialized. In fact, Scuderi mentions the removal of a false apse "from the Baroque era" which closed the medieval structures only in 1968, following the Belice earthquake (Scuderi, 2011, 128).

5. Conclusions

As highlighted, the constructive history of the Santissima Annunziata is characterized by a process of constant updating due to changing tastes, which modified the church both on an epidermal and structural level over the centuries. A close case, as explored in paragraph 2.1, is that of the nearby Mother Church of Erice. However, the comparison with the events of other construction sites can also be misleading in the presence of very fragmentary documentary repertoires.

This research, conducted with a consolidated multidisciplinary approach, crossing disciplines of digital drawing and history of architecture, shed new light on a small but significant part of the complex case study. A future investigation could be oriented to the study of the twentieth century restoration process, to better understand the church to its present state. The documents relating this phase, in small part consulted by scholars (Piazza 2015), result unfortunately today difficult to find at the local *Soprintendenze* and maybe research at the *Archivio Centrale dello Stato* in Rome could lead to the finding of unpublished information. The research also enabled further exploring a central figure in western-Sicily architecture in the eighteenth century. Giovanni Amico's well-established and appreciated technical skills are underscored by his ability to utilise pre-existing structures, as demonstrated by the transformation of the transept as proposed in the 1750 design into a central ciborium with a dome-shaped light chamber, complemented by two rooms that were also transformed into light chambers to enhance the lighting effects of the dome. His approach to Gothic architecture remains elusive. However, despite an initial project that included a classicist apse, the Gothic apses of the Santissima Annunziata remained exposed as long as the architect was alive and active on the construction site. This approach, combined with his innovative theatrical solutions, the constructive prowess, and the strategic planning of the light put in his architectures and in the treaty *L'Architetto pratico* places him among the most avant-garde and experimental architects of his time.

Acknowledgements

The research was conducted jointly by the authors, that co-drafted Introduction and Conclusions. Mirco Cannella wrote paragraphs 1; 2.2 and is the main author of 3D models and drawings; Gaia Nuccio wrote paragrphs 2.1; 2.3 and 3, she compiled the Bibliography and the Archival sources. Credits of pictures and drawings belong to the authors.

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