Disjunctions between contemporary Catholic architecture and the liturgical and representational needs of the Church often reflect conflict between the client’s sacred concerns and architecture’s secular culture, or divergence between the architectural needs of other denominations and those specific to Catholicism. But historically this was not always the case. A look at the early modern era—the period of Renaissance and Baroque architecture, and of the Counter Reformation—reveals a substantial tradition of the Church producing its own architecture, with architects drawn from the ranks of priests and other religious. Although such arrangements did not guarantee a lack of conflict between architect, clients, and donors, the practice generally met the needs of the Church in a period of rapid expansion. These priest-architects represent a unique architectural culture set somewhat apart from the rest of the early modern era, during which the architectural profession changed profoundly and secular architects sought to distance themselves from their origins in the crafts and trades through a process of professionalization. This involved, among other things, establishing a body of architectural literature, bringing architecture into the learned discourse of scientific scholarship, and founding architectural academies. Priest-architects contributed to this process in the secular world, but also within the context of religious institutions.

The new religious orders founded in the sixteenth century, both before and after the Council of Trent, were at the heart of the priest-architect phenomenon. The orders of regular clergy, such as the Jesuits, Barnabites, and Theatines, as well as the newly reformed branches of medieval orders, such as the Capuchins and Discalced Carmelites, frequently drew on the architectural talents of their own members when constructing new churches, houses, and other institutional buildings. To be sure, the orders also employed secular architects during this period, particularly when generous local patrons played a prominent role in decision making. Yet architects from the orders could always help evaluate plans, fill in as construction superintendents, or provide designs themselves, particularly when funding was precarious. This essay furnishes an overview of some of these men and their buildings across Europe from c. 1550 to 1750, and situates their work within the institutional culture of the religious orders.

The first generation of Jesuit, Barnabite, and Theatine architects, active from the mid-sixteenth century through the early decades of the seventeenth century, generally had obtained their architectural training outside the order. These men with a background as craftsmen, such as the Jesuit Giuseppe Valeriano (1542–1596) who originally trained and worked as a painter, generally joined the new orders later in life. The Theatine Francesco Grimaldi (1543–1613) also entered the order at age thirty-one, but had already been ordained a priest prior to joining the Theatines. Grimaldi provided the first plans for Sant’Andrea della Valle in Rome, designed several churches in

*Photo: Angelo Costanza*
Naples, and the Theatines’ Sant’Irene in Lecce (1588). In contrast to Valeriano and Grimaldi, Lorenzo Binago (1554 – 1629), the first prominent Barnabite architect, joined the order while young, at age eighteen. Yet Binago also seems to have had previous training in drawing or architecture, since his earliest known drawing—made a year after entering the order—is already quite accomplished.

These priest-architects began to establish architectural identities for their religious communities as the orders moved from the temporary quarters of their earliest years to create permanent architectural presences in rapidly expanding networks of churches and houses across Italy and throughout Europe. Such early churches were often simple, since the immediate functional needs during expansion and financial constraints overrode wishes for more elaborate designs.

After this first generation, the Jesuit Orazio Grassi (1583 – 1654) marks the transition to the later type of institutionalized scholarly priest-architects. By the early seventeenth century, the new orders had established themselves as centers of learning and education as well as patrons of architecture, constructing not only churches and convents, but also colleges and seminaries, hospitals, libraries, and other institutional buildings. The traits manifested in Grassi’s career came to characterize most priest-architects over the next century. These men were usually trained in mathematics through the educational programs of the orders—mathematics in its early modern sense of quantifiable crafts and activities such as mathematical astronomy, perspective, and architecture (“mixed mathematics”), in addition to the developing field of what is now known as pure mathematics. Thus equipped, the priest-mathematicians pursued vocations as teachers and scholars within their orders, and they participated as architects or consultants in many of their orders’ building projects.

Grassi’s career in the broad field of seventeenth-century mathematics unfolded primarily at the Collegio Romano, where he briefly considered establishing a Jesuit architectural school, but became most famous for his clashes with Galileo Galilei regarding comets. Grassi designed several buildings for the Jesuits, foremost Sant’Ignazio in Rome (begun 1626), the church of the Collegio Romano, but also at least portions of other buildings for the order, such as San Vigilio, Siena, and Sant’Ignazio (now Saint-Charles-Borromæi) in Bastia on Corsica. Although Sant’Ignazio was not completely to Grassi’s plans, it stands as a monument to the architectural-mathematical scholarship and practical skills promoted in the Jesuit curriculum at the Society’s colleges.

Under Grassi, the Jesuit order institutionalized the connection between architecture and mathematics, appointing the professor of mathematics at the Collegio Romano the order’s consiliarius aedificiorum. The consiliarius reviewed all plans for new architectural projects within the order, with his approval necessary before projects could proceed. The consiliarius commented on the plans, and when necessary, made suggestions for improvements—these were generally practical and economic in nature, rather than aesthetic. The plans were submitted in duplicate to the consiliarius, with one copy returned to the building site, and the
other retained for the order’s archives; these plans are now all preserved in the Bibliothèque Nationale in Paris.\textsuperscript{12}

In addition to architectural skills cultivated for the order’s own immediate needs, the Jesuit colleges throughout Europe often instructed their secular pupils in military architecture, such as the art of building fortifications. This met a future need for young men planning to pursue a military career, and was therefore included within their mathematics curriculum.\textsuperscript{13}

Similar architectural needs, educational programs, and—sometimes—institutional mechanisms led to similar architectural cultures in other early modern religious orders, particularly those associated with the Counter Reformation. For these orders, architecture fit into a larger vision of the scholarship that priests would normally pursue, and indeed could be considered a kind of apostolate for the order. In this sense, when a priest designed churches for his order—or other buildings for its patrons, thereby also supporting the order indirectly—he was doing work that was part of his vocation as a priest.\textsuperscript{14}

The Theatine Guarino Guarini (1624 - 1683) is perhaps the best-known of these architects, joining the ranks of major secular architects such as Bernini and Borromini in histories of Baroque architecture. Yet precisely this success has obscured his origins within the architectural culture of early modern religious orders. His early works in Messina and Modena, while accomplished and innovative in some respects, do not yet herald the radically inventive designs—particularly daring open-work domes—that he produced at the Savoy court in Turin, such as the Theatines’ ducal chapel of San Lorenzo (1670 - 1680) or the Chapel of the Holy Shroud (1667 - 1694) between the ducal palace and the cathedral. Guarini even officiated at the inaugural mass in San Lorenzo on May 12, 1680, although considering the dozens of early modern priest-architects, this was perhaps not quite the unique occurrence Rudolf Wittkower imagined.\textsuperscript{15}

Guarini was so successful as a court architect for the Savoy that he seems to have had various assistants supporting him toward the end of his career. Documents mention a Theatine lay brother assigned to help him, although the records do not specify if this help was specifically architectural, or simply general logistic assistance.\textsuperscript{16} For his two large secular projects for the Prince of Carignano, the Palazzo Carignano and the Castello of Racconigi, the surviving drawings show at least two or three other draftsmen besides Guarini. These draftsmen seem to have been secular architects hired by the patron to assist the priest busy with numerous publication projects as well as other duties beyond the building site.\textsuperscript{17}

After publishing philosophy and geometry textbooks, and smaller works on astronomy, fortifications, and construction measurement, Guarini finally seems to have turned to writing his architectural treatise during the last five or six years of his life. Indeed, right up to the end of his life, Guarini remained a scholar: he died in Milan apparently while there supervising the publication of his two-volume astronomy treatise Caelstis Mathematicae (Milan: Ludovic Monti, 1683). Had he lived longer, he may well have written the theology textbook, a Cursum scholasticae theologiae, which he had intended to write at least since his time in Paris in the 1660s.\textsuperscript{18} For Guarini and many other early modern priest-architects, architecture and scholarship were not separate activities pursued in addition to the priesthood, but rather integral parts of their vocations. Richard Pommer best expressed this in relation to Guarini when he remarked, “for him, architecture was a form of erudition.”\textsuperscript{19}

Active priest-architects were not confined to Italy, but also based in Spain, France, the German regions, and the Southern Low Countries. Through the international ministries and missions of their orders, they often traveled extensively, spreading as well as gathering architectural ideas all along the way.

The Spanish Cistercian Juan Bautista Caramuel y Lobkowitz (1606 - 1682) was a polymath who published works in diverse disciplines and traveled extensively throughout Europe; he became bishop of Vigevano in Lombardy in 1673.\textsuperscript{20} Like Grassi and Guarini, Caramuel also approached architecture as a branch of mathematics, and he is best known for his architectural theory, first included in his mathematics treatise Mathesis Biceps (2 vols., Campagna, 1670), and then published separately as Architectura civil, recta y obliqua (Vigevo- no, 1678). The latter treatise is remarkable for its system of “oblique architecture,” which incorporated adjustments to architectural elements such as staircase balusters or colonnades on curved plans in order to avoid awkward transitions between rectilinear and oblique elements, or to compensate for other irregular optical effects.

Caramuel’s single built work is the facade of the cathedral of Sant’Ambrogio in Vigevano, Italy, completed in 1680, which finished off the fourth side of the city’s Piazza Ducale designed by Bramante in 1492-94. The facade’s idiosyncratic design with four bays rather than three or five masks the church’s skewed orientation to the square and thus breathes the
spirit of the architectura obliqua system. The solution was perhaps inspired by Guarini’s façade for Santissima Annunziata in Messina of twenty years earlier, but Caramuel also looked to a Roman model: the portal on the far left leads simply to a street as do the lateral portals at Pietro da Cortona’s Santa Maria della Pace in Rome (1656 - 1657), while the three other portals lead to the three aisles of the church.

The Belgian Jesuit François Aguilon (1567 – 1617) was known chiefly for his scientific work in optics, Opticorum libri sex philosophis juxta ac mathematicis utiles (Antwerp, 1613) with its frontispiece and six illustrations by Peter Paul Rubens. He directed the Jesuit college in Antwerp with its famous mathematical studies, and he also designed the splendid Jesuit church in Antwerp (1615 - 1621), St. Ignatius (now St. Charles Borromeo), together with the lay brother Pieter Huyssens (1577 - 1637) who took over the project after his death. Rubens also collaborated with Aguilon on this project, not only with his high altarpiece of the Deposition and thirty-nine ceiling paintings installed in the side aisles (now lost), but also contributing the design for various sculptural elements on the façade.

The church suffered a devastating fire in 1718 which destroyed much of the interior, but one can still appreciate Aguilon’s original design in the façade.

Étienne Martellange, Jesuit novitiate church, Paris (begun 1630), print by J. Marot, 1652-61
rich façade and the barrel-vaulted nave with superimposed arcades, where the upper gallery was accessible to students from the adjacent college. The interest in optics at the Antwerp college probably also stood behind the innovative indirect lighting effects in the church’s Houtappel chapel, designed by Huyssens and perhaps inspired by Bernini’s early work at Santa Bibiana in Rome.

Many early modern priest-architects remain relatively unknown even today, with their accomplishments often obscured by misattributions to more famous secular architects. The pilgrimage chapel at Telgte (1654 - 1657) in northwest Germany furnishes an example of such an oversight. The chapel was commissioned by the Prince-Bishop of Münster, Christoph Bernhard von Galen, soon after he established the Telgte pilgrimage in 1651, with its focus on the sculpted Gnadenbild (a devotional Pietà) of c. 1370. Long attributed to the Danish architect Peter Pictorius the Elder active in Münster, twenty years ago the historian Helmut Lahrkamp uncovered evidence reattributing the original octagonal chapel to the Observant Franciscan Pater Jodokus Lücke (ordained 1642, died 1681). Lücke also designed portions of the Franciscan churches in nearby Hamm and Warendorf, and held administrative positions in the order, serving several times as the provincial superior. Interestingly, Lücke’s design for Telgte was preferred to that of another religious architect, the Franciscan lay brother Gerhard Mahler.

Although gradually supplanted by academically trained priest-architects, lay brothers in the various religious orders continued to be active as architects and construction superintendents into the eighteenth century, although most of these men—lacking the formal education of priests—came from families already engaged in the building trades or other crafts. A few of these lay brother-architects achieved particular distinction.

The son of a painter in Lyon, the Jesuit lay brother Étienne Martellange (1569 – 1641) provided designs for numerous Jesuit churches in France, such as the Jesuit Novitiate church in Paris (begun 1630), closely modeled on Giacomo della Porta’s Santa Maria ai Monti in Rome. Known also for his drawings of French cities and landscapes, Martellange entered the Jesuit novitiate in Avignon in 1590, and is referred to as an architect beginning around 1603 when he took his vows as a Jesuit frère coadjuteur temporel.

The Jesuit lay brother Andrea Pozzo (1642 – 1709) worked primarily as a painter, particularly noted for his illusionistic quadratura frescoes with architectural elements, as in Sant’Ignazio, Rome, and for his altars. But he also was a prolific architect, designing churches in Dubrovnik, Ljubljana, Trent, and Montepulciano, among others. Perhaps inspired by the erudite publications of his more learned priest colleagues, Pozzo published his influential treatise Perspectiva pictorum et architectorum (2 vols., Rome, 1693 - 1700) in a parallel Latin–Italian edition that was widely translated in similar bilingual editions, thus addressing both craftsmen and scholars. His younger brother Giuseppe Pozzo worked as a lay brother artist of the Discalced Carmelite order in various churches in Venice.

Caspar Moosbrugger (1656 - 1723) was a Benedictine lay brother from a family active in the building trades in the Vorarlberg region around Bregenz in western Austria, one of the dynasties comprising the so-called Vorarlberger school of architects and craftsmen. Moosbrugger trained and then worked as a stonemason until entering the order in 1682, around which time he began taking on the responsibilities of an architect. His architectural knowledge is preserved in the Auer Lehrgang, a manuscript treatise and pattern book...
architecture in Italy, France, and Germany. Her publications include the book Guarino Guarini (Umberto Alendrati & C), co-edited with G. Dardanello and H. A. Millon. She serves on the governing committee of the European Architectural History Network, and was founding editor of the Network’s EAHN Newsletter (2007-2010). Website: www.susanklaiber.wordpress.com.

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Endnotes


5. Stabhan, 34.


10. Vallery-Radot, Recueil, 8*71. The several volumes of plans in Paris may now be consulted online through the Gallica digitization project: http://gallica.bnf.fr/Search?ArticleWine dex@index&lang=EN&q=Recueil+-+contient+tous+les+Plan s+originaux+des+Maisons&p=1&type=deoded (consulted May 29, 2013).


15. On the other hands in these drawings, see Augusta Lange, Disegni e documenti di Guarino Guarini, in V. Viale, ed., Guarino Guarini e l’internazionalità del barocco (Turin: Accademia delle scienze, 1970), 1:100-102.


19. Concerns about the extent of Galica’s engravings were apparently added later: for the engraving of Pater Lücke’s chapel in Antwerp, see Anthony Pelican History of Art, 6th ed., rev. by Joseph Connors and Carleton University, Ottawa).


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