

Books

Elizabeth Bradford Smith

Building Santa Maria Novella: Materials, Tradition and Invention in Late Medieval Florence

Rome: L'Erma di Bretschneider, 2022,
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At the end of his life and concluding an ecclesiastical career as bishop of Orvieto and papal vicar, Aldobrandino Cavalcanti returned to the convent of Santa Maria Novella in Florence, where he had spent time previously. The prelate's obituary, quoted in Elizabeth Bradford Smith's *Building Santa Maria Novella*, reports that before his death in September 1279, he "had the model of our church made, and he had all the materials prepared, namely cement, stones and wood for the construction" (57). The cornerstone was duly laid on 18 October 1279 by Cardinal Fra Latino Malabranca. Building the new monumental church of the Dominican community, along with its cloisters and conventual structures, occupied the following three-quarters of a century, at the "cost of one hundred thousand gold Florins" (198).

Smith trains her attention on this initial design that guided construction into the early fourteenth century as it established the exterior envelope of the church. In a second pivotal moment around 1319, the interior of the western

bays of the nave was rethought in terms of a spaciousness described as "radically new and modern" (19). A writer in the late fifteenth century captured the experience "of standing in the first door of the church and . . . with one glance you would see all the vaults made with excellent art, and with another glance you would see clearly in another direction with no obstacle" (179). This book explores the ways in which the interactions among local practices, external influences, the Dominicans, and Florentine secular society shaped the successive visions and final form of the convent church. Documents, especially those transcribed by Vincenzo di Lorenzo Borghigiani in the eighteenth century from the Santa Maria Novella archives, compose an efficient narrative of the project, from the purchase of land in 1271 to the stockpiling of building materials in 1272, the completion of the Capella Maggiore in 1320, and the beginning of work on the façade's marble veneer in 1350. These sources reveal the names of the master masons and individual donors, the ways in which funds and materials flowed from the commune of Florence, and the urban scale of the Dominican settlement that was coordinated with the creation of a new piazza, streets, and a circuit of walls in the expanding city. Smith then refines this history through careful observation of architectural and sculptural details that indicate phases of building, midstream changes in design, and the workshop connections of the craftsmen. Fitted together, text and building describe a creative process in which chance redirected intention.

In five chapters, *Building Santa Maria Novella* takes us through the backstory, conception, construction, and alteration of one of the enduring jewels of the built environment of medieval Florence.

Following an introduction that outlines the book's approach, scope, and goals, the first chapter surveys the early history of the Dominicans in Florence, beginning with their arrival in 1219 and their move into Santa Maria delle Vigne, which was given to the order by the archbishop in 1221. Defining the launch date of the new church project has been controversial: in 1246, Pope Innocent IV issued an indulgence to support construction of "a church and other buildings" (176), and this has led a number of scholars to see that date as marking the approximate onset of work.¹ However, this effort seems to have fizzled by 1251. Smith follows Stefano Orlandi's conclusions in his 1955 study of the Santa Maria Novella necrology to posit that the 1246 indulgence concerned conventual buildings, with the documents beginning in 1272 marking methodical preparations for the building that was inaugurated in the fall of 1279.

Chapter 2, "Planning for the New Church," and chapter 3, "Collaboration with the Commune of Florence and the Early Years of Construction at Santa Maria Novella," cover the period from 1279 to 1302, when the northern half of the church—that is, the transept and first two bays of the nave—was put into use, although not yet completed. This phase also included the façade and east walls, with their distinctive niche tombs (*avelli*) studied by Frithjof Schwartz, whose fine-grained architectural analysis informs Smith's history.² She suggests that these two long decades of work were guided by the model (*modellum*) furnished by Aldobrandino Cavalcanti, although its form—a set of drawings? a physical model?—remains completely conjectural. There is a degree of circular reasoning here in using the standing fabric

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to reimagine an initial scheme that was materialized in the built church at a time when comprehensive project documents did not exist (or, if they did exist, they have not been preserved).

Nearby Cistercian sites of Casamari, San Martino al Cimino, and San Galgano, disciplined by Dominican legislation and filtered through local craftsmanship, emerge as key sources behind the original *modellum*. Its plan, relying on Maria Teresa Bartoli's measurements, was generated through a lucid system based on a 25-braccia module. Seven nave bays of 25 by 18 braccia were planned, which intimates that a $\sqrt{2}$ relationship shaped interior space. Further, the elevation of "the inner space of the nave was conceived as two identical squares stacked one on top of the other . . . [which] reflects a system and an *a priori* model" (44). It is worth noting that remarkably similar spatial planning patterns, relying on double and rotated squares, are found in thirteenth-century French Gothic buildings, such as the Sainte-Chapelle in Paris and Saint-Urbain de Troyes, so that despite differences in style and effect, basic design methods were shared by master masons on both sides of the Alps and in projects ranging from aristocratic to mendicant.

Smith draws a hard boundary between conservative Florentine building traditions, exemplified by the twelfth-century San Miniato al Monte, and new architectural currents defined by rib vaulting and masonry techniques, such as *martellina dentata*, imported from France, which "set into motion a modernizing trend" (54) that would lead to Santa Maria Novella. Yet by 1280 central Italy was hardly isolated and passive, as witnessed by San Francesco in Assisi and San Francesco in Bologna, and Cavalcanti's scheme, possibly designed by the lay brothers Fra Sisto and Fra Ristoro, surely reflected architectural horizons that encompassed Rome and the papal courts in Orvieto and Viterbo, whose projects featured a creatively varied integration of "foreign" ideas.

Adhering to Dominican legislation that stipulated that "the church should not be vaulted in stone except perhaps for the choir and sacristy," Santa Maria Novella's 1279 scheme seems to have envisioned a seven-bay nave. As part of the friars' choir, the first two bays were

to be vaulted along with the transept and Capella Maggiore, while a timber roof was planned for the five succeeding bays beyond the choir screen, or *ponte*, that served as space for the laity. As outlined in chapters 4 and 5, this plan was scrapped and the lower nave was redesigned with four bays of rib vaulting, an opportunity that arose from the unanticipated confluence of changes in Dominican statutes around 1300 that deleted limitations on stone vaulting, the civic unrest that disrupted work between approximately 1305 and 1315, and local inexperience in building vaults that led to the arrival of a new team of masons headed by Jacopo Talenti and Giovanni da Campi. After fitting vaults over the existing rectangular bays of the friars' choir, they reconfigured the lower nave as square bays covered with domical brick vaults, a technique common to Lombardy and Northern Italy. Despite their expansion, these vaults do not rely on lateral buttressing for stability; rather, they are nearly self-supporting, although how exactly their shape, the herringbone pattern of the brickwork, the "crypto-buttresses," and the nave walls operate together as a structure remains vague. Smith posits that the vaulters themselves "drove the redesign of the Lower Nave" (133). Thus, the breathtaking airiness of the Santa Maria Novella interior, completed around 1350, was as much a by-product of construction technology as it was an innovative rethinking of the space of the basilica.

Building Santa Maria Novella's resolute focus on Florence as the source of the convent's friars, craftsmen, funds, and materials conveys a clear picture of the logistics of the church's construction. A broader perspective beyond the building process, one that considers the church within the network of Dominican architecture and as a thoughtfully composed image of the order's identity in conversation or competition with Assisi, Bologna, Rome, or Siena, would have enhanced readers' understanding of the purposes that "guided the Dominicans as they planned their new church and outlined the main features of its design" (22). However, this is the subject of another study, and we can thank Elizabeth Bradford Smith for combining primary sources, a century of scholarship, and a keen awareness of the importance of process and structure to explain the building of Santa Maria

Novella. She closes by remarking that the scholastic ideal of rational order "guided the Dominican lay brothers in their creation of the new design for the nave" (174); at the same time, those capacious vaults, hovering over slim piers and between flat walls, defying terrestrial forces of weight and gravity, may well have excited a sense of transcendental wonder. This book reminds us that architectural history is in its essence a history of human beings, one that finds room for the dreams of Aldobrandino Cavalcanti, the skill of Jacopo Talenti, and the prayers and sighs of Pampinea and her companions in the *Decameron*.

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Notes

1. See Paul Frankl, *Gothic Architecture* (Baltimore: Penguin, 1962), 159; Andrew Martindale, *Gothic Art* (New York: Praeger, 1967), 148. Both of these books include photographs of Santa Maria Novella with captions stating that the church was "begun before 1246."
2. Frithjof Schwartz, *Il bel cimitero: Santa Maria Novella in Florenz 1279–1348; Grabmäler, Architektur und Gesellschaft* (Berlin: Deutscher Kunstverlag, 2009).

Leslie A. Geddes

Watermarks: Leonardo da Vinci and the Mastery of Nature

Princeton, N.J.: Princeton University Press, 2020, 256 pp., 124 color and 14 b/w illus. \$68 (cloth), ISBN 9780691192697

As Leslie A. Geddes explains in *Watermarks: Leonardo da Vinci and the Mastery of Nature*, Leonardo da Vinci worked on the historical cusp between purely theoretical and more observational methods of analysis in the earth sciences. It was a time, too, that saw the artistic and analytic as intimately entwined. To understand better the special qualities of Leonardo's moment, not to mention his interdisciplinary mind, Geddes takes up the problem of water in his art and thought. She makes use of the art historian's methods, and the resulting book reads like an extended ekphrasis of those works touched by Leonardo's aqueous concerns, whether they address puzzles of engineering or render portraits of natural phenomena. From Madonnas to map-making, Geddes reveals how Leonardo's