

A photograph of the interior of the Basilica of Santa Maria Novella in Florence, Italy. The image captures the nave, showing a series of high, pointed Gothic arches supported by large, cylindrical columns. The arches are decorated with alternating black and white stripes. The floor is made of dark stone tiles. In the distance, the altar area is visible, featuring a large, ornate crucifix and a colorful stained glass window. The lighting is soft, highlighting the architectural details.

ELIZABETH BRADFORD SMITH

# Building Santa Maria Novella

## Materials Tradition and Invention in Late Medieval Florence

«L'ERMA» di BRETSCHNEIDER





*le m **A** r t e*  
*monografie*  
3 2



<i>lermArte 1</i>	MARIA CRISTINA TERZAGHI Caravaggio, Annibale Carracci, Guido Reni, tra le ricevute del banco Herrera & Costa.	<i>lermArte 18</i>	MARTA BOSCOLO MARCHI La cattedrale di Ferrara. In età medievale. Fasi costruttive e questioni iconografiche.
<i>lermArte 2</i>	ARNOLD A. WITTE The Artful Hermitage. The Palazzetto Farnese as a Counter-Reformation Diaeta.	<i>lermArte 19</i>	LUIGI GALLO Pierre-Henri da Valenciennes (1750-1819). L'artiste et le théoricien.
<i>lermArte 3</i>	LAURE FAGNART Léonard De Vinci en France. Collections et collectionneurs.	<i>lermArte 20</i>	COSTANZA BARBIERI ( <i>a cura di</i> ) Dall'Iconologia al Gender. Giornata di studi in onore di Rona Goffen.
<i>lermArte 4</i>	EMILIE BECK SAIELLO Napoli e la Francia.	<i>lermArte 21</i>	RODNEY LOKAJ Amicitia nel Rinascimento. I carmi di Baldassarre Castiglione e Domizio Falcone.
<i>lermArte 5</i>	I pittori di paesaggio da Vernet a Valenciennes. CRISTIANO GIOMETTI Domenico Guidi 1625-1701. Uno scultore barocco di fama europea.	<i>lermArte 22</i>	LUISA CAPODIECI E GAYLORD BROUHOT ( <i>a cura di</i> ) Il sogno d'arte di François I <sup>er</sup> . L'Italie à la cour de France.
<i>lermArte 6</i>	FULVIO LENZO Architettura e antichità a Napoli dal XV al XVIII secolo. Le Colonne del tempio dei Dioscuri e la chiesa di San Paolo Maggiore.	<i>lermArte 23</i>	LUISA CAPODIECI Villa Guicciardini Corsi Salviati. Arte e storia.
<i>lermArte 7</i>	GIUSEPPE FAZIO La Madonna di Tindari e le Vergini nere medievali.	<i>lermArte 24</i>	YURI STROZZIERI Luigi Poletti. Gli orientamenti del restauro nella prima metà dell'Ottocento.
<i>lermArte 8</i>	GIULIO GIRONDI Residenze patrizie a Mantova. Decorazioni del Rinascimento e del Manierismo.	<i>lermArte 25</i>	ANDREA BRUNO Segni e disegni inediti Ettore Janulardo.
<i>lermArte 9</i>	CLAIRE CHALLÉAT Dalle Fiandre a Napoli. Committenza artistica, politica, diplomazia al tempo di Alfonso il Magnanimo e Filippo il Buono.	<i>lermArte 26</i>	LOUIS CELLAURO, GILBERT RICHAUD Palladio and Concrete. Archaeology, Innovation, Legacy.
<i>lermArte 10</i>	FRANCESCO FREDDOLINI Giovanni Baratta 1670-1747. Scultura e industria del marmo tra la Toscana e le corti d'Europa.	<i>lermArte 27</i>	SALVATORE LORUSSO, ANDREA NATALI ( <i>a cura di</i> ) A Second Mona Lisa? Challenges of attribution and authentication and various possibilities for evaluating a work of art.
<i>lermArte 11</i>	SEFY HENDLER La guerre des arts. Le Paragone peinture-sculpture en Italie, XV <sup>e</sup> - XVII <sup>e</sup> si ècle.	<i>lermArte 28</i>	JOHN SHEPHERD Palladio and Concrete Villa Wolkonsky a Roma. La storia di un tesoro nascosto.
<i>lermArte 12</i>	RITA BALLERI Modelli della Manifattura Ginori di Doccia. Settecento e gusto antiquario.	<i>lermArte 29</i>	LUCA CRETÌ Le chiese di Corneto nel XII e XIII secolo. Tra autonomia innesti e scambi di culture architettoniche.
<i>lermArte 13</i>	ORietta LANZARINI, ROBERTA MARTINIS «Questo libro fu di Andrea Palladio». Il codice Destailleur B dell'Hermitage.	<i>lermArte 30</i>	BEATRICE PERIA La prospettiva invisibile. Forme visuali della temporalità nell'arte.
<i>lermArte 14</i>	FABIO BELLONI Militanza artistica in Italia 1968-1972.	<i>lermArte 31</i>	SALVATORE LORUSSO (Angela Mari Braidà and Andrea Natali) Is the Louvre Mona Lisa Leonardo's second version?
<i>lermArte 15</i>	R. CIOFFI, S. MARTELLI, I. CECERE, G. BREVETTI ( <i>a cura di</i> ) La Campania e il Grand Tour. Immagini, luoghi e racconti di viaggio tra Settecento e Ottocento.	<i>lermArte 32</i>	ELIZABETH BRADFORD SMITH Building Santa Maria Novella. Materials, Tradition and Invention in Late Medieval Florence
<i>lermArte 16</i>	DALMA FRASCARELLI ( <i>a cura di</i> ) L'altro Seicento. Arte a Roma tra eterodossia libertinismo e scienza.		
<i>lermArte 17</i>	ETTORE JANULARDO La ville, la construction, les arts. Visions italiennes 1909-1939.		



For Michael



ELIZABETH BRADFORD SMITH

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Materials Tradition and Invention  
in Late Medieval Florence

«L'ERMA» di BRETSCHNEIDER  
Roma-Bristol



ELIZABETH BRADFORD SMITH

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Materials Tradition and Invention in Late Medieval Florence

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*In copertina*  
Santa Maria Novella. Nave interior towards choir. [Ece Erdogan]

**ELIZABETH BRADFORD SMITH**

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## TABLE OF CONTENTS

Acknowledgments . . . . .	11
List of Illustrations . . . . .	13
Introduction . . . . .	19
 CHAPTER ONE. <i>Beginnings. The State of the Question</i> . . . . .	29
1. The Dominicans Decide to Build a New Church in Florence . . . . .	29
2. State of the Question. . . . .	31
2.1 The Old Church: Santa Maria delle Vigne. . . . .	31
2.2 The New Church: The So-called “Transept Church” . . . . .	35
2.3 The New Church: The Nave. . . . .	39
 CHAPTER TWO. <i>Planning for the New Church</i> . . . . .	43
1 Preparations for Construction: Documents and Sources . . . . .	43
2. Basic Features of the Original Design for Santa Maria Novella . . . . .	44
3. Potential Sources of the Original Design for Santa Maria Novella . . . . .	46
3.1 The Dominican Network . . . . .	46
3.2 Florence and its Surrounding Region . . . . .	47
3.3 Cistercian Church Design in Central Italy . . . . .	49
3.4 Potential Sources: A Brief Summary. . . . .	54
4. Architectural Models in the Late Middle Ages: A Brief Survey of Forms and Applications . . . . .	55
5. Aldobrandino Cavalcanti (1217-1279) and his Model for the New Church . . . . .	56
5.1 Cavalcanti and the Papal Court in Viterbo and Orvieto . . . . .	61
6. The Problem of Fra Sisto and Fra Ristoro . . . . .	69
7. Laying the Cornerstone of Santa Maria Novella . . . . .	71
 CHAPTER THREE. <i>Collaboration with the Commune of Florence and the Early Years of Construction at Santa Maria Novella</i> . . . . .	75
1. Collaboration with the Commune of Florence: The New City Walls and the New Piazza of Santa Maria Novella . . . . .	75
2. Recruiting the Workforce . . . . .	82
3. Funding Construction: Contemporary Sources . . . . .	84



4. The Transept (1279-1295) . . . . .	85
4.1 Overview of Construction. . . . .	85
4.2. Duccio's Rucellai Madonna (1285) in Relation to the Construction of the Transept . . . . .	89
4.3 The Corpus Domini Festival of 1295 and its Relevance to the Chronology of the Transept and Upper Nave . . . . .	94
5. The Upper Nave, ca. 1295-1301 . . . . .	96
6. The Exterior Envelope of the Church, 1279-1302 . . . . .	100
6.1 The South and East Perimeter Walls and the Avelli . . . . .	100
6.2 The Cimitero Superiore . . . . .	102
6.3 The 1302 Portal: its Role in the <i>Modellum</i> , within the Cimitero Superiore and in the Redesign of the Lower Nave. . . . .	107
VASARIAN EXCURSUS. . . . .	112
CHAPTER FOUR. <i>The Nave Vaults and a New Design for the Lower Nave</i> . . . . .	119
1. The Disconnect between the Model and the Nave as We See it Today . . . . .	119
2. Florentine Building Materials and Methods: Tradition and Invention at Santa Maria Novella . . . . .	121
3. Methods of Vault Construction Compared: The Even-level-crown Ribbed Vault and the Domical or Lombard vault . . . . .	123
3.1 The Even-level-crown Ribbed Vault . . . . .	123
3.2 The Domical or Lombard Vault . . . . .	124
4. Vaulting the Rectangular Bays of the Upper Nave at Santa Maria Novella . . . . .	129
5. Redesigning the Lower Nave: <i>C'est la voûte qui commande</i> . . . . .	133
5.1 The New Plan for the Lower Nave . . . . .	135
5.2 <i>Omnes illas testudines egregia arte confectas</i> : The Vaults of the Lower Nave . . . . .	138
5.3 The Elevation of the Lower Nave: An Ingenious Solution . . . . .	146
6. Further Evidence for the Construction Sequence. . . . .	149
6.1 Architectural Elements: The Bases and Capitals in the Nave. . . . .	149
6.2 The Mural Decoration: The Frescoes on the Aisle Walls and the Frescoes on the Transverse Arches . . . . .	150
7. Summary of the Argument. . . . .	155
CHAPTER FIVE. <i>Redesigning and Completing the Nave: Problems of Chronology and Agency</i> . . . . .	157
1. Introduction. . . . .	157
1.1 1302-1317: Economic and Political Upheavals in Florence, and the Consequent Pause in Construction . . . . .	157
1.2 1317: Resumption of Work on the Nave . . . . .	159
2. Lay-Brother Masons and Craftsmen at Santa Maria Novella; The Activity of Fra Giovanni da Campi and Fra Jacopo Talenti . . . . .	161
2.1 The Dominican Tradition of Lay-brother Craftsmen . . . . .	161
2.2 Fra Giovanni da Campi (act. 1317, d. 1339) . . . . .	162
2.3 Fra Jacopo Talenti (act. 1316, d. 1362) . . . . .	163
3. The Operarius or Supervisor of Works . . . . .	168

4. The Chronology and Agency of the Lower Nave and its Vaults: Summary of a New Proposal . . . . .	171
CONCLUSION . . . . .	173
LIST OF ABBREVIATIONS . . . . .	175
APPENDIX A: Selected Documents Regarding Santa Maria Novella (1221–late 15th century) . . . . .	175
BORGHIGIANI APPENDIX . . . . .	181
BIBLIOGRAPHY . . . . .	205
INDEX. . . . .	217





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# LIST OF ILLUSTRATIONS

[All unattributed images are the author's.]

## Introduction

- Fig. 1. Santa Maria Novella. Nave interior towards choir. [Ece Erdoganmus]
- Fig. 2. Santa Maria Novella. Main façade from the Piazza of Santa Maria Novella. [E. Erdoganmus]
- Fig. 3. Santa Maria Novella. Nave vaults. [E. Erdoganmus]
- Fig. 4. Santa Maria Novella. Plan. [John Wood Brown 1902]
- Fig. 5. Santa Maria Novella. Plan of convent complex. [Opera per Santa Maria Novella]

## Chapter One

- Fig. 6. Santa Maria Novella. Plan with historical stages of the church from 1094 to 1279. [Wood Brown 1902]
- Fig. 7. Composite plan reconstructing the church of Santa Maria Novella (as per Wood Brown) in its the urban context with its old and new piazzas. [Giovanni Fanelli 2002, fig. 42]
- Fig. 8. Santa Maria Novella. Transept and Cappella Maggiore seen from the northeast. [E. Erdoganmus]
- Fig. 9. Santa Maria Novella. East flank of the church complex from the Piazza dell'Unità Italiana. [E. Erdoganmus]
- Fig. 10. Santa Maria Novella. Transept interior, looking east towards the Rucellai Chapel. [Kristen Barry]

## Chapter Two

- Fig. 11. Santa Maria Novella. Bay 2, transverse section. [Tom Boothby]
- Fig. 12. Bologna, San Domenico. Plan and elevation. [Venturino Alce 1972]
- Fig. 13. Florence, San Miniato al Monte. Nave interior. [([https://commons.wikimedia.org/wiki/File:San\\_Miniato\\_al\\_Monte\\_Florence\\_Italy.jpg](https://commons.wikimedia.org/wiki/File:San_Miniato_al_Monte_Florence_Italy.jpg)) by Kucharek, 3 November 2006. Public Domain.]
- Fig. 14. Casamari, Cistercian Abbey. Plan of monastic complex. [Camille Enlart 1894]
- Fig. 15. Casamari, Cistercian Abbey Church. Nave interior. [Guglielmo Villa]
- Fig. 16. San Galgano, Cistercian Abbey Church. Nave interior towards choir.
- Fig. 17. San Galgano, Cistercian Abbey Church. Plan. [Antonio Canestrelli 1896]
- Fig. 18. San Galgano, Cistercian Abbey Church. Nave elevation. [Canestrelli 1896]
- Fig. 19. Reims Cathedral, interior and exterior elevations. Sketchbook of Villard de Honnecourt (ca. 1235), Paris, Bibliothèque Nationale, MS. fr. 19093. [Arthur Kingsley Porter 1909-1912, vol. 2, ill. 216 (misabeled as the Cathedral of Cambrai)]
- Fig. 20. Santa Maria Novella. Author's proposed reconstruction of the *modellum*. Plan, option 1, with sexpartite vaults in the transept. [Valerio Dario]
- Fig. 21. Santa Maria Novella. Author's proposed reconstruction of the *modellum*. Plan, option 2, with quadripartite vaults in the transept. [V. Dario]

- Fig. 22. Santa Maria Novella. Author's proposed reconstruction of the *modellum*. Longitudinal section. [V. Dario]
- Fig. 23. Santa Maria Novella. Author's proposed reconstruction of the *modellum*. Transverse section through Upper Church. [V. Dario]
- Fig. 24. Santa Maria Novella. Author's proposed reconstruction of the *modellum*. Transverse section through Lower Church with a portal on the east aisle wall. [V. Dario]
- Fig. 25. Map of the Dominican Provincia Romana in the 14th century. [Joanna Cannon 2013, fig. 8.]
- Fig. 26. Viterbo, Papal Palace. General view with the Loggia dei Papi. [([https://commons.wikimedia.org/wiki/File:Viterbo,\\_palazzo\\_e\\_loggia\\_dei\\_papi,\\_02.jpg](https://commons.wikimedia.org/wiki/File:Viterbo,_palazzo_e_loggia_dei_papi,_02.jpg)) by Sailko, 10 July 2017. CC BY-SA 4.0 (<https://creativecommons.org/licenses/by-sa/4.0/legalcode>).]
- Fig. 27. San Martino al Monte Cimino Cistercian Abbey Church. Plan. [Enlart 1894]
- Fig. 28a. San Martino al Monte Cimino Cistercian Abbey Church. Interior of south transept, with sexpartite vaulting. [Enlart 1894]
- Fig. 28b. San Martino al Monte Cimino, Cistercian Abbey Church. Interior of south transept, with sexpartite vaulting. [Valentino Pace]
- Fig. 29. Orvieto, San Domenico. South transept portal.
- Fig. 30. Orvieto, San Domenico. Transept, interior view.
- Fig. 31. Orvieto, San Domenico. Transept Chapel. The masonry below the fresco (*Death of St. Peter Martyr*) shows the marks left by the *martellina dentata*.
- Fig. 32. Santa Maria Novella. Transept, detail of *pietra serena* engaged pier showing the use of the *martellina dentata*.
- Fig. 33. Santa Maria Novella. South wall of east transept, Tomb of Aldobrandino Cavalcanti. ([https://commons.wikimedia.org/wiki/File:Smn,\\_transetto\\_dx,\\_monumento\\_ad\\_aldobrandino\\_cavalcanti,\\_vescovo\\_di\\_orvieto,\\_1280-90.JPG](https://commons.wikimedia.org/wiki/File:Smn,_transetto_dx,_monumento_ad_aldobrandino_cavalcanti,_vescovo_di_orvieto,_1280-90.JPG)) by Sailko, 11 March 2013. CC BY-SA 3.0 (<https://creativecommons.org/licenses/by-sa/3.0/legalcode>)
- Fig. 34. Santa Maria Novella. Cappella della Pura, lintel with inscription recording the foundation of the new church. ([https://commons.wikimedia.org/wiki/File:Smn,\\_cappella\\_della\\_pura,\\_iscrizione\\_trecentesca.JPG](https://commons.wikimedia.org/wiki/File:Smn,_cappella_della_pura,_iscrizione_trecentesca.JPG)) by Sailko, 9 October 2013. CC BY 3.0 (<https://creativecommons.org/licenses/by/3.0/legalcode>)

### Chapter Three

- Fig. 35. Plan of 14th-c. Florence within its new circuit of walls; in red, the four Mendicant churches; in green, the main roads that intersect at the Mercato Vecchio; in blue, the mid- 14<sup>th</sup>-c. division of the city into four parts. [Enrico Guidoni 2002]
- Fig. 36. Florence, Porta Romana (ca.1330), the last of the city gates to be built, viewed from outside the walls.
- Fig. 37. Florence, new city walls, detail of *pietra forte* masonry.
- Fig. 38. Santa Maria Novella. East aisle wall, detail of *pietra forte* masonry.
- Fig. 39. Santa Maria Novella. The Cappella Maggiore and the chapels in the east arm of the transept. [K. Barry]
- Fig. 40. Santa Maria Novella. Transept vaults.
- Fig. 41. Duccio di Buoninsegna, *Rucellai Madonna*, Florence, Galleria degli Uffizi (in deposito dalla chiesa di Santa Maria Novella a Firenze, Comune di Firenze). ([https://commons.wikimedia.org/wiki/File:Duccio\\_di\\_Boninsegna,\\_Madonna\\_Rucellai,\\_Uffizi.jpg](https://commons.wikimedia.org/wiki/File:Duccio_di_Boninsegna,_Madonna_Rucellai,_Uffizi.jpg)) by Ghislainn, 5 July 2015. CC BY-SA 4.0 (<https://creativecommons.org/licenses/by-sa/4.0/legalcode>).
- Fig. 42. Santa Maria Novella. Laudesi Chapel (now the St. Gregory Chapel). [K. Barry]
- Fig. 43. Santa Maria Novella. Transept, south wall, Duccio fresco of *Madonna and Child* in the lunette over the doorway to the Cappella della Pura.
- Fig. 44. Giotto di Bondone, attr., fresco, *Verification of the Stigmata*, Assisi, Basilica di San Francesco d'Assisi, Upper Church ([https://commons.wikimedia.org/wiki/File:Giotto\\_di\\_Bondone\\_\(und\\_Werkstatt\)\\_004.jpg](https://commons.wikimedia.org/wiki/File:Giotto_di_Bondone_(und_Werkstatt)_004.jpg)) The Yorck Project, 2002. Public Domain.

- Fig. 45. Santa Maria Novella. Upper Church viewed from transept. [K. Barry]
- Fig. 46. Santa Maria Novella. Upper Church, nave pier between bays 1 and 2: *pietra serena* capitals. [E. Erdogmus]
- Fig. 47. Santa Maria Novella, Upper Church, nave bay 2: detail of arcade and west aisle showing vault ribs dying into the engaged columns. [E. Erdogmus]
- Fig. 48. Santa Maria Novella. Upper Church, west side aisle, bays 1 and 2: view showing the lack of interrelation between the vault ribs and the supports below. [E. Erdogmus]
- Fig. 49. Santa Maria Novella, exterior view (ca.1890). [Alinari Archives, Florence.]
- Fig. 50. Santa Maria Novella. East aisle wall with *avelli*, viewed across the Cimitero Superiore.
- Fig. 51. Santa Maria Novella. *Avelli* lining the exterior of the east aisle wall. [K. Barry]
- Fig. 52. Prato, San Domenico. Nave, north flank with *avelli*: general view.
- Fig. 53. Prato, San Domenico. Nave, north flank: detail of *avelli*.
- Fig. 54. Piero di Jacopo di Massaio, *Map of Florence* (ca.1472-1473), from *Ptolomaei Claudii cosmographia*. [Vatican Library, Urb. Lat. 277, fol. 130v.]
- Fig. 55. Piero di Jacopo di Massaio, *Map of Florence* (ca.1472-1473), detail: Santa Maria Novella, with the Cimitero Superiore and the 1302 Portal prominently indicated. [Vatican Library, Urb. Lat. 277, fol. 130v.]
- Fig. 56. Santa Maria Novella. 1302 Portal: exterior view
- Fig. 57. Plan of the Cimitero Superiore of Santa Maria Novella showing the late 16<sup>th</sup>-c. buildings of the Confraternity of San Benedetto Bianco. [Vincenzo Fineschi 1790a]
- Fig. 58. Santa Maria Novella. Exterior view (ca. 1860), with the buildings of the Confraternity of San Benedetto Bianco visible inside the precinct wall of the Cimitero Superiore. [Alinari Archives, Florence]
- Fig. 59. Santa Maria Novella. Nave interior, Bay 4, view towards 1302 Portal.

### Vasarian Excursus

- Fig. 60. Fra Carnevale (Bartolomeo di Giovanni Corradini), *Presentation of the Virgin in the Temple* (?), oil and tempera on panel, Museum of Fine Arts, Boston (Charles Potter Kling Fund, Inv. n. 37.108).
- Fig. 61. Early 18<sup>th</sup> c. plan of Santa Maria Novella, in which Vasari's alterations are clearly visible. [Hall 1973, fig. 3]
- Fig. 62. Eighteenth-century engraving of the east flank of the nave of Santa Maria Novella, from the 1302 Portal to the transept. Notable are the rectangular windows designed by Vasari to replace the original lancets. [Fineschi 1790a]

### Chapter Four

- Fig. 63. Santa Maria Novella. Nave interior looking towards the façade wall. [K. Barry]
- Fig. 64. Santa Maria Novella. Nave interior, corner of west aisle and façade walls showing vaults terminating in corbels.
- Fig. 65. Santa Maria Novella. Nave plan: in red, the seven rectangular bays of the original *modellum* (as proposed here); in black, the six-bay nave as constructed. [Mara Biffi]
- Fig. 66. Diagram of vault forms: left, a domical vault and right, an even-level crown vault.
- Fig. 67. Reims Cathedral. Cross-section of the nave. [Eugène-Emmanuel Viollet-le-Duc 1854-1868, vol. 2, p. 318]
- Fig. 68. Rivolta d'Adda, SS. Maria e Sigismondo. Nave interior. [([https://commons.wikimedia.org/wiki/File:Basilica\\_-\\_Rivolta\\_d'Adda\\_05-08\\_-\\_panoramio.jpg](https://commons.wikimedia.org/wiki/File:Basilica_-_Rivolta_d'Adda_05-08_-_panoramio.jpg)), by adirricor, 2 May 2008, CC BY 3.0 (<https://creativecommons.org/licenses/by/3.0/legalcode>)]
- Fig. 69. Rivolta d'Adda, SS. Maria e Sigismondo. Exterior view of nave.
- Fig. 70. Rivolta d'Adda, SS. Maria e Sigismondo. Plan. [Porter 1915-1917, vol. 4, pl. 193]
- Fig. 71. Rivolta d'Adda, SS. Maria e Sigismondo. Cross-section. [Porter 1915-1917, vol. 4, pl. 194]
- Fig. 72. Rivolta d'Adda, SS. Maria e Sigismondo. Longitudinal section. [Porter 1915-1917, vol. 4, pl. 195]
- Fig. 73. Rivolta d'Adda, SS. Maria e Sigismondo. Extrados of a domical nave vault.
- Fig. 74. Viboldone, Abbey church of SS. Pietro e Paolo. Above nave vaulting: detail of join between transverse wall and clerestory wall forming a masonry box



- Fig. 75. Bologna, San Domenico. South transept: underside of sole surviving original 13<sup>th</sup>-c. domical vault
- Fig. 76. Bologna, San Domenico. South transept: upper side of original 13<sup>th</sup>-c. domical vault
- Fig. 77. Santa Maria Novella. View of the vaults in the two rectangular bays of the Upper Nave, with Giotto di Bondone's *Crucifix*. [E. Erdogmus]
- Fig. 78. Santa Maria Novella. View from above of the vaults over the rectangular bays; note. [Julia Triolo]
- Fig. 79. Santa Maria Novella. Bay 2: multifaceted analytical diagram of the rectangular vault together with its boundary walls, showing its form, dimensions and crack patterns. [Politecnico di Milano]
- Fig. 80. Santa Maria Novella. Corner of façade and east aisle wall, used in 1287 as a defining point in the establishment of the Piazza Nuova of Santa Maria Novella. NB: to the left of the extant lancet, a walled-up window, vestige of the original seven-bay plan for the nave
- Fig. 81. Fra Giovanni di Pistoia, Project drawing for, or plan of the conventual complex of San Francesco in Arezzo. Parchment. Arezzo Archivio diocesano e capitolare, Fondo "Ex Archivis variis", n. 873. [Courtesy of Joanna Cannon]
- Fig. 82. Santa Maria Novella. Nave plan as constructed. [T. Boothby]
- Fig. 83. Santa Maria Novella. Nave interior towards choir. [E. Erdogmus]
- Fig. 84a. Chartres Cathedral. Nave interior towards choir. ([https://commons.wikimedia.org/wiki/File:Chartres\\_Cathédrale\\_Notre-Dame\\_de\\_Chartres\\_Innen\\_Langhaus\\_Nordost\\_1.jpg](https://commons.wikimedia.org/wiki/File:Chartres_Cathédrale_Notre-Dame_de_Chartres_Innen_Langhaus_Nordost_1.jpg)), by Zairon, 30 April 2020. CC BY-SA 4.0 (<https://creativecommons.org/licenses/by-sa/4.0/legalcode>)
- Fig. 84b. Paul Durand, View from above of the nave vaults of Chartres Cathedral after the fire of 1836, etching after a drawing. [[https://commons.wikimedia.org/wiki/File:Vo%C3%BBte\\_Chartres\\_1836.jpg](https://commons.wikimedia.org/wiki/File:Vo%C3%BBte_Chartres_1836.jpg)]
- Fig. 85. Santa Maria Novella. Nave bay 5: domical vault seen from above. [Ryan Binkowski]
- Fig. 86. Viboldone, Abbey Church. Brick pattern on the upper surface of a domical vault exemplifying Lombard brick vault construction
- Fig. 87. Santa Maria Novella. East aisle vault. Brick pattern on the upper surface of a domical vault. [Biffi 2007]
- Fig. 88. Santa Maria Novella. Diagram of the brick pattern in the domical vaults of the Lower Nave. [Biffi 2007]
- Fig. 89. Santa Maria Novella. Above nave vaults: in the background, transverse wall between bays 3 and 4. [E. Erdogmus]
- Fig. 90. Santa Maria Novella. Above nave vaults: transverse wall between bays 2 and 3 (separating Upper and Lower Church). [R. Binkowski]
- Fig. 91. Santa Maria Novella. Above nave vaults: transverse wall between bays 4 and 5. [R. Binkowsky]
- Fig. 92. Santa Maria Novella. Above nave vaults: stone tie at conjunction of clerestory wall and transverse wall. [R. Binkowsky]
- Fig. 93. Santa Maria Novella. Diagram of square vault (Bay 5) with boundary walls, tie beams and crack patterns. [Politecnico di Milano]
- Fig. 94. Santa Maria Novella. Diagram of nave and aisle vaults with boundary walls, tie beams and crack patterns. [Politecnico di Milano]
- Fig. 95. Santa Maria Novella. 3D model of clerestory and transverse walls above the nave vaults: conditions of aisle vaults shown only for bays 2 and 5. [Politecnico di Milano]
- Fig. 96. Santa Maria Novella. Above aisle vaults: view showing the top of a vault, a crypto-buttress on the left, and the outer aisle wall. [R. Binkowski]
- Fig. 97. Santa Maria Novella. Above west aisle vault: detail showing the disconnect between a crypto-buttress and the outer aisle wall. [R. Binkowski]
- Fig. 98. Santa Maria Novella,. Convent. Chiostro Verde, east walk: foundations of the west aisle wall
- Fig. 99. Santa Maria Novella. West flank of nave, bays 1, 2 and 3 seen from across the Chiostro Verde. [R. Binkowski]
- Fig. 100. Santa Maria Novella. West flank of nave, bays 4, 5 and 6 seen from across the Chiostro Verde. [R. Binkowski]
- Fig. 101. Santa Maria Novella. East aisle, view towards transept. [E. Erdogmus]
- Fig. 102. Santa Maria Novella. East aisle, vaults of bays 5 and 6. [E. Erdogmus]

- Fig. 103. Santa Maria Novella. Nave plan and elevation. [T. Boothby]
- Fig. 104. Santa Maria Novella. Upper Nave, elevation of a rectangular bay (Bay 2). [E. Erdogmus]
- Fig. 105. Santa Maria Novella. Lower Nave, elevation of a square bay (Bay 5). [E. Erdogmus]
- Fig. 106. Santa Maria Novella. View across the Lower Nave towards northeast. [E. Erdogmus]
- Fig. 107. Santa Maria Novella. Group One nave pier base 2E.
- Fig. 108. Santa Maria Novella. Group Two aisle pilaster base 6E.
- Fig. 109. Santa Maria Novella. Group Three nave pier base 5E.
- Fig. 110. Santa Maria Novella. Lower Nave, view of vaults in bays 5 and 6 separated by transverse arch with frescoes of female saints. [E. Erdogmus]
- Fig. 111. Santa Maria Novella. Detail of female saint on the transverse arch seen in Fig. 109. [Erdogmus]
- Fig. 112. Santa Maria Novella. East wall, Bay Five. Fragments of the 14<sup>th</sup>-century fresco of *St. Maurice and his Soldiers*, hidden behind a Vasarian altarpiece in the 16<sup>th</sup> c., and uncovered and restored in the early 21<sup>st</sup> c. [J. Triolo]

## Chapter Five

- Fig. 113. Convent of Santa Maria Novella, Chiostro Verde. [K. Barry]
- Fig. 114. Convent of Santa Maria Novella. Spanish Chapel, view of vault designed and built by Jacopo Talenti. [K. Barry]
- Fig. 115. Florence, Cathedral of Santa Maria del Fiore. Plan. [Georg Dehio 1887-1901]
- Fig. 116. Florence, Cathedral of Santa Maria del Fiore. Nave interior. ([https://commons.wikimedia.org/wiki/File:Duomo\\_Firenze\\_Apr\\_2008.jpg](https://commons.wikimedia.org/wiki/File:Duomo_Firenze_Apr_2008.jpg)) by Gryffindor, April 2008. CC BY-SA 3.0 (<https://creativecommons.org/licenses/by-sa/3.0/legalcode>)





Fig. 1 – Santa Maria Novella. Nave interior towards choir. [Ece Erdogan]



## INTRODUCTION

During the first half of the 14th century, a significant change took place in the architecture of central Italy, characterized by a new interior spaciousness and monumentality quite unlike anything seen in the Italian peninsula since Antiquity. Flourishing in tandem with the republican city-states, this new architecture, while largely ecclesiastical, possessed a monumentality expressive of the wealth and civic identities of these cities. At the forefront of this crop of buildings, scholars have continually placed the Florentine church of Santa Maria Novella (1279-1355) (**Figs. 1, 2**). Its new openness – almost equal to that of hall churches – was identified by Jean Bony as important in the development of what he called the second, international period of Gothic architecture.<sup>1</sup> In the words of Caroline Bruzelius, Santa Maria Novella is as “radically new and ‘modern’ as anything in 13th century France.”<sup>2</sup> Few, however, have made a concerted effort to understand just how this new spaciousness at Santa Maria Novella was achieved.<sup>3</sup> The present study is an attempt to take up this challenge.

Fundamental to any such investigation is the recognition of the essential bond in medieval architecture between constructional practice and design. In 12th-century France, for example, the transition from Romanesque to Gothic went hand-in-hand with the development of the rib vault, a new form effective both for increased ease of construction and increased clarity in conception of the design. This close interrelation between design and constructional methodology is famously represented by the choir of Saint-Denis (1140-1144), whose architect took advantage of the linear character of the rib to re-imagine the relationship between each bay of the choir and ambulatory, resulting in the open and luminous view so vividly described by Abbot Suger in his *Libellus de consecratione ecclesiae S. Dionysii*.<sup>4</sup>

The unusual nature of the nave of Santa Maria Novella first came to my attention as I prepared an article on the structural features that characterize the large-scale vaulted churches erected in the Italian peninsula during the Gothic era.<sup>5</sup> Because the specific focus of my research on this occasion was on the vaulting and its abutment in a

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<sup>1</sup> Jean Bony, *French Gothic Architecture of the 12th and 13th Centuries* (Berkeley 1983), p. 456. These dates, supported by conventual archival sources and in much of the relevant art historical scholarship, will be referenced throughout the course of this study.

<sup>2</sup> Caroline A. Bruzelius, “A Rose by Any Other Name: The ‘Not Gothic Enough’ Architecture of Italy (Again)” in *Reading Gothic Architecture*, ed. Matthew M. Reeve (Turnhout 2008), p. 106. On p. 104, the author remarks tellingly, “Although it slaps us in the face when we think about it, not so much has been written about the startling originality of Italian architecture between 1290 and 1350.”

<sup>3</sup> Kathleen Giles Arthur, “The Strozzi Chapel: Notes on the Building History of Sta. Maria Novella,” *Art Bulletin* 65 (1983), p. 276, rightly observed that insufficient attention had till then been given to the construction history of the nave of Santa Maria Novella.

<sup>4</sup> See Abbot Suger and Erwin Panofsky, ed., *On the Abbey Church of St.-Denis and its Art Treasures* (Princeton 1979), pp. 100-101, for an English translation of Suger’s description. Much has been written on the choir of Saint-Denis. An excellent and succinct analysis of the brilliance of its design is in Bony 1983, pp. 90-93.

<sup>5</sup> Elizabeth Bradford Smith, “*Ars mechanica*: problemi di struttura gotica in Italia” in *Il Gotico Europeo in Italia*, ed. Valentino Pace and Martina Bagnoli (Naples 1994), pp. 57-70; republished in English as “‘Ars mechanica’: Gothic Structure in Italy” in *The Engineering of Medieval Cathedrals*, ed. Lynn T. Courtenay (Aldershot 1997), pp. 219-233.



Fig. 2 – Santa Maria Novella. Main façade from the Piazza of Santa Maria Novella. [Erdogmus]

number of Gothic churches, I attempted to trace the building process, paying special attention to the abutment required to stabilize the vaults both during their construction and after completion of the structure. Among the examples I chose to represent Italian structural solutions, Santa Maria Novella, with its airy light-filled interior capped by soaring domelike vaults, attracted my attention from the first as a worthy counterfoil to the cathedrals of Gothic France (**Fig. 3**).

Before Santa Maria Novella, Florence was in many ways an architectural backwater. It had no tradition of vaulting large spaces; the simple presence of its vaults was itself a departure from local practices.<sup>6</sup> In fact, prior to the Gothic era, there does not seem to have been a tradition either in Florence or in Tuscany as a whole for covering church naves with vaults on point supports. The nave of Santa Maria Novella, however, with its soaring domical vaults, would set a new standard in Florence and beyond, serving immediately upon its completion as a model for the enormous nave of the new cathedral of Florence, Santa Maria del Fiore.<sup>7</sup>

<sup>6</sup> For an overview of Florentine ecclesiastical architecture before Santa Maria Novella, see Walter Horn, “Romanesque Churches in Florence: A Study in their Chronology and Stylistic Development,” *Art Bulletin* 25 (1943), pp. 112-131; on Tuscany, see Mario Salmi, *L’Architettura romanica in Toscana* (Milan 1926); Fabio Redi, *Edilizia medievale in Toscana* (Florence 1989); on Florence, see Sara Rinaldi, Aldo Favini and Alessandro Naldi, *Firenze romanica: le più antiche chiese della città, di Fiesole e del contado circostante a nord dell’Arno* (Empoli 2005). Before Santa Maria Novella, the only large-scale vaulted structure in Florence was the Cathedral Baptistery of San Giovanni. Covered by an eight-sided, dome-like vault (probably constructed in the mid-12th century) abutted by walls around its entire periphery, the Baptistery was an anomaly in medieval Florence and would not engender a vaulting tradition, nor would it serve as either a structural or constructional model for the vaults of Santa Maria Novella; on the Baptistery, see Giuseppe Rocchi Coopmans De Yoldi, ed., *S. Maria del Fiore e le chiese fiorentine del Duecento e del Trecento nella città delle fabbriche arnolfiane* (Florence 2004), pp. 43-48, Franklin Toker, “A Baptistery Below the Baptistery of Florence,” *Art Bulletin* 58 (1976), pp. 157-167; and Antonio Paolucci, ed., *Il Battistero di San Giovanni a Firenze* (Modena 1994).

<sup>7</sup> For an analysis of the structure of the nave of Florence Cathedral, see Giuseppe Rocchi Coopmans De Yoldi, *S. Maria*