distinctive design solutions, arguing that his “abstract” and stripped-down interpretations of classical forms were widely admired and emulated.

Dosio’s relocation to Florence coincided with his decision to turn from sculpture to architecture, and the third section thus focuses exclusively on building projects. Major realized commissions included the Gaddi family chapel at Santa Maria Novella and the Niccolini family chapel at Santa Croce. We learn that Dosio, in addition to orchestrating architectural forms, relief sculpture, and painted decoration for such projects, was actively involved in the established marble trade between Rome and Florence. According to Andrew Morrogh, Dosio may be credited with introducing the characteristic marble revetment of cinquecento Rome to Florence in his design for the Gaddi chapel. As Spinelli affirms in his essay, Dosio was also a talented construction manager, successfully negotiating the acquisition of enormous quantities of highly coveted marble for the Niccolini chapel despite diminishing supplies and skyrocketing costs.

Morrogh and Barletti’s fascinating collaborative chapter on the “casa dell’orto” for Niccolò Gaddi deserves special mention among the essays on Dosio’s Florentine palaces and villas. A series of newly discovered drawings allows the authors to recuperate Dosio’s design for a long-lost garden enclave to house the Gaddi collections, built across the street from the family palace. Morrogh’s close reading of the drawings reveals how Dosio made subtle alterations to introduce spacious new circulation routes and sightlines in a dense preexisting urban setting. Like many of Dosio’s buildings, the complex was largely effaced by later construction, but the juxtaposition of current conditions to surviving graphic and textual evidence in this essay highlights the originality and elegance of Dosio’s design.

Despite the increased scale of Dosio’s building projects in Naples, less survives from the Neapolitan phase of his career than from his time in Rome and Florence. Few drawings are preserved, perhaps as a result of local workshop practices, and the physical remains have suffered damage and neglect. But if the essays in the final section are compelled to rely heavily on contemporary photographs for evidence, they still speak to Dosio’s ingenuity as a designer. Del Pesco discusses how Dosio recalled both the early Christian basilica and the churches of Brunelleschi in his design for the Oratorian church of the Gerolamini, thereby alluding to the history of the early church as well as the Florentine origins of Filippo Neri, founder of the order. Despite extensive renovations of the Certosa of San Martino, investigated here by Maria Ida Catalano, Dosio can be credited with the design of its spacious courtyards as well as much of its marble revetment and many of its stuccoreliefs. Finally, Lucia Giorgi reconstructs Dosio’s Palazzo del Boschetto for Andrea Matteo Acquaviva, an erude garden retreat largely destroyed during the successive transformations of the royal palace at Caserta. Despite such losses, these designs reveal the sophisticated work of an expert practitioner, whose mastery of both Roman and Florentine models made him highly desirable to patrons in Naples.

The treasury of information provided by the essays collected in this volume is supplemented by a detailed and useful chronology of Dosio’s life. Additionally, a copious bibliography features excerpts from primary sources that facilitate quick consultation of original texts. The volume is an essential source on Dosio and should prompt scholars to reconsider many established conventions, most notably the status of Dosio as a minor follower of Michelangelo.

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Robert Bork
The Geometry of Creation: Architectural Drawing and the Dynamics of Gothic Design
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In 1383 the Troyes cathedral chapter paid Henry de Bruisselles 20 sous “for a portrait for the … choir screen made on parchment … to show to the bourgeois and to the laborers of the city side by side with another portrait made by Michelin, the mason. The said bourgeois and laborers held that the portrait of Henry de Bruisselles was the better.”

At about the same time, Peter Parler or his son, Wenzel, designed the upper stories of Prague cathedral’s south transept, revising a drawing begun three decades earlier. The same drawing, taken to Vienna by Wenzel, informed his work on the south tower of the Stephansdom. Drawings on parchment, complemented by wood or paper templates, small sketches, and full-scale engravings on walls and pavements, embody one intricate facet of the robust technology of architectural representation. Vehicles of communication, construction guides, and instruments of public persuasion, they informed all aspects of the late medieval building process.

Robert Bork’s The Geometry of Creation: Architectural Drawing and the Dynamics of Gothic Design presents case studies of the use of drawings in architectural projects from the thirteenth to the sixteenth century. Although most of the six hundred surviving Gothic drawings are connected to building projects in the Holy Roman Empire, Bork extends his inquiry to examples in France and Italy to argue that the same design procedures were shared by masons working throughout Europe. Reconstructions of the geometry used to design plans, elevations, towers, tabernacles, and tombs are presented in precise diagrams using Vectorworks CAD software that allows information, gathered through meticulous observation of the original parchments, to be processed “with unprecedented flexibility and rigor” (20). Bork, whose account features masons at their drafting tables with compass and straightedge, resists excursions into the swamps of symbolic interpretation, and although he illuminates microhistories of major buildings, the book is not primarily an account of the translation of line into masonry.

The Geometry of Creation asserts that European designers generated form and space by unfolding and repeating chains of dynamic geometry. Bork reveals the importance not only of the triangle and square but also of “octature,” that is, the extrapolation of proportions from inscribed octagons. In this, he challenges Konrad Hecht’s Maß und Zahl in der gotischen geometry.
Baukunst (1969), which presented static arithmetic systems as the basis of design. To the contrary, Bork demonstrates that both arithmetic modularity and dynamic geometry were frequently combined. Thus, a stack of six octagons establishes the armature for Cologne façade Plan F, drawn circa 1300 (110–21), and late in the fourteenth century Ulrich von Ensingen used modules to begin the Ulm Minster tower, bringing in geometry to add flex to the design and to elaborate details (285–300). These spectacular parchments, with their graphic fireworks, express in geometry, often articulated by tracery and ornament, the clarity of thought with which they were conceived.

Geometric planning and drawing were not born in the Gothic age, but because earlier visual records are sporadic, their role in building remains difficult to reconstruct. Bork begins his study in the thirteenth century, when stylistic innovation coincided with an “effusion of architectural drawing” (29) in which ecclesiastical structure metamorphosed into a frame assembled from finely detailed, replicable parts. Further, the “anticipatory character” of these components, seen in the multiple planes of tracery represented in a mullion section, demanded a precise coordination of two-dimensional plan and three-dimensional form that necessitated preparatory drawings.

The earliest and richest compilation of architectural drawings was not the work of an architect at all. Whatever his métier, Villard de Honnecourt prepared drawings in a variety of modes ranging from the schematic to the pictorial. Bork examines two with care: the plan and elevation of the Laon cathedral tower. Cogently explained by rotated squares and nested octagons, the plan appears to be copied from a workshop rendering (33–36). Three centuries later, the power of drawing appears center stage in chapter 2, “The Flowering of Rayonnant Drawing in the Rhinelands.” Extant plans and finished structures usher Bork behind the scenes to successive phases of project development, and he takes full advantage of his access. If drawing responded to increased architectural intricacy, it soon became, he stresses, a force in design thinking. Strasbourg Plans A and B and Cologne Plan F capture the impact of the medium between 1250 and 1300. These monumental parchments—Cologne F is over 4 meters high—allowed the draftsman to think through design as a whole rather than as a collection of parts. The curious spire that crowns Plan B, however, reveals the “Faustian bargain” concluded when masters, according to Bork, “adopted drawing as a central tool of design” (96), for it encouraged experimentation free of the constraints of construction. Likewise, Ulrich von Ensingen’s drawing for the 500-foot Ulm tower, for all its geometric coherence, provided no guidance for calculating its foundations, which began to fail in 1493 (305). Nevertheless, as echoed in the epilogue of the Troyes choir screen, drawing furnished the means to evaluate options critically before chisel was set to stone.

If the Strasbourg drawings witness the liberation of imagination, Cologne’s plans relate a process of focused refinement that Bork sets into deep geometric as well as broad geographic contexts. Foreshadowed by Villard’s Laon tower sketches, the west façade scheme coordinated plan with elevation: Plan D’s octature-based method, nearly identical to that of Strasbourg Plan B, was projected up through the façade, pictured in Plan F, culminating in openwork spires that rise out of the gables and pinnacles below. Although Cologne’s towers would not be completed until the nineteenth century, the traceried spire soon materialized at Freiburg Minster, then migrated through drawings to Fribourg, Switzerland, and on to Vienna, where Bork takes up the story of the Stephansdom’s south tower in chapter 4. With stops at Prague, Ulm, Regensburg, Frankfurt, and Strasbourg (again), Bork elaborates his case that “even the most highly complicated works of the medieval architectural imagination can be understood in terms of a geometrically based design process” (355).

Looking beyond the empire, chapter 3, “Italian Drawings up to 1350,” and chapter 5, “Wider Horizons,” confirm dynamic geometry as the lingua franca of architectural planning. Orvieto cathedral façade designs O1 and O2 emerge out of a grid overlaid by ad quadratum and ad triangulum geometries like those seen in Strasbourg Plan A. And those same figures underpin the 1506 drawing by Joost de Metsijs for the Pieterskerk façade in Leuven. Bork finds the octagon key to the 1496 project for a flamboyant-style west façade at Clermont-Ferrand, proposing that it reaches back to the geometry of the thirteenth-century choir, whose scheme Matthias of Arras may
have transmitted to Prague. I am not fully persuaded that the octagon explains the Clermont choir section; moreover, during construction the cathedral's central vessel was widened by over a meter, thus altering the original proportions of the choir. Yet Bork is surely correct in discerning a terseness behind the restless curves of the façade drawing and pursuing the possibility of far-flung connections that “underscore the continuity of Gothic design practice over geographical as well as temporal distance” (400).

That continuity ruptured in the sixteenth century and changed the role of architectural drawing. As outlined by Bork in chapter 6, “The Italian Challenge to the Gothic System,” Renaissance illustrations were redeployed as didactic servants of the treatise. Image was now united with text to create an accessible multimedia narrative often broadcast through print. A Renaissance builder, rather than generate form in a purely architectural idea of vision to Plato's Ideal Forms. Architectural drawing is then read as a contributor to wholesale changes in Greek concepts of vision in relation to nature and the cosmos.

The stated aim of the first chapter is to examine how temples “were created during the Archaic and Classical periods” (26). Senseney points out that evidence from a limited number of examples indicates that reduced-scale drawing was probably not used before the fourth century; rather, simple whole-number ratios underlie most aspects of design, at least as far as can be deduced from the physical remains. Furthermore, these overall proportions, in conjunction with full-size models of details (paradesignata) and written instructions, would easily have sufficed to transmit the architect’s concept to the masons responsible for the actual construction, even in the case of the Parthenon. The next step is the difficult one: Senseney suggests that plans drawn to scale, which may have existed in this early period even though he demonstrates that there is no evidence that they actually did, may have been called ideai, also on little evidence, and may have anticipated and influenced Plato’s discourse on ideai, universal truths, and the cosmos. Although what he suggests is not impossible, Plato’s writings—as Senseney himself admits (57)—provide no direct evidence of this connection. Its absence, however, does not prevent him from using Plato to theorize about the nature and existence of linear perspective and reduced-scale plans in the Classical period.

This theorizing is the focus of chapter 2, “Vision and Spatial Representation,” the most speculative of the book’s chapters. It raises stimulating—but ultimately unanswerable—questions about the influence of circular geometry, integral to Greek ideas about the movements of the heavens and the mechanisms of vision, on the evolution of ground plans. The arguments move from the obvious starting point of circular temples, which although created with compass and straightedge did not require scale drawings, to the planning of Greek (and in passing, Roman) theaters. Here Senseney argues that the use of sets of equal squares or triangles circumscribed by the circle of the orchestra, as described by Vitruvius...