
Drawings of the Pantheon in the Metropolitan Museum's Goldschmidt Scrapbook

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In the group of sixteenth-century drawings of ancient architecture known as the Goldschmidt Scrapbook at The Metropolitan Museum of Art, the ten sheets devoted to the Pantheon (catalogued in the Appendix) constitute one of the most thorough records of the building that were created during the Renaissance. Emilie d'Orgeix described the drawings as "the most accurate and complete study of the Pantheon to survive from the sixteenth century," and because of the drawings' comprehensiveness, scholars have used them to identify features of the ancient building that no longer exist today.¹ Yet the drawings in the Goldschmidt Pantheon series are significant not only for what they show but also for how they show it. A mix of sketched details and carefully constructed perspective views, the group resulted from a survey conducted by several draftsmen working in collaboration. As such, it offers an unparalleled body of evidence for considering how architects used drawings to study buildings in the sixteenth century. Furthermore, the Goldschmidt Pantheon series can be linked to earlier and later drawings in a chain of representations stretching from Raphael (1483–1520) to seventeenth-century France.

THE GOLDSCHMIDT PANTHEON SERIES: AN OVERVIEW

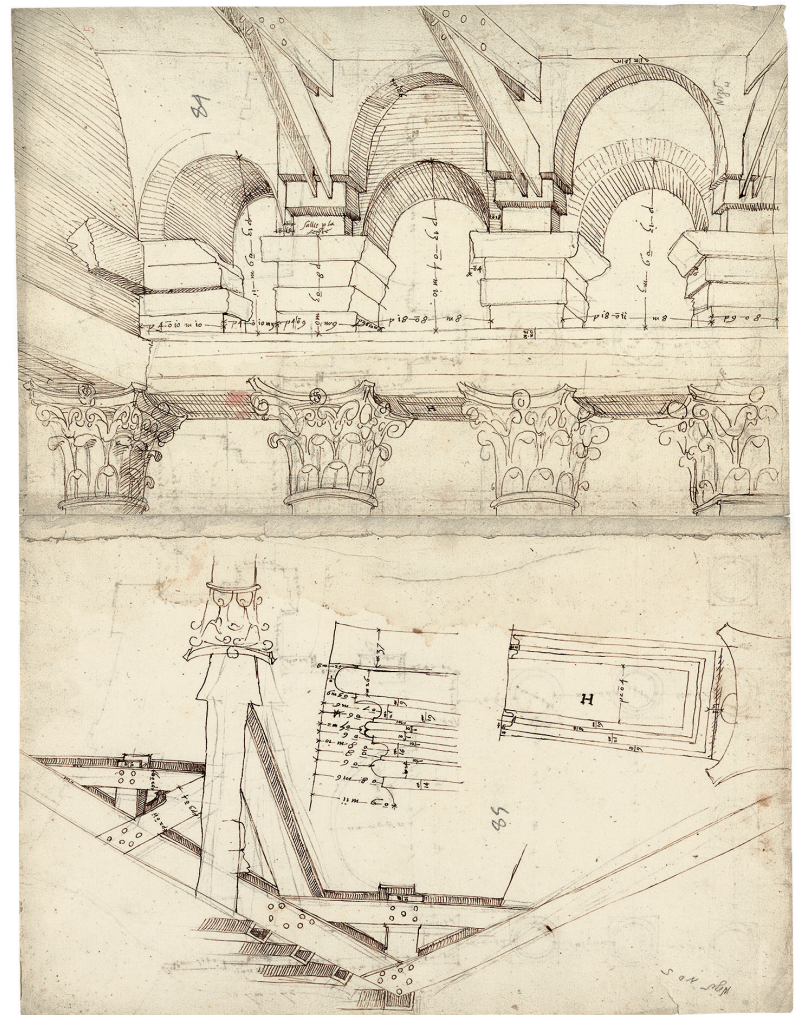
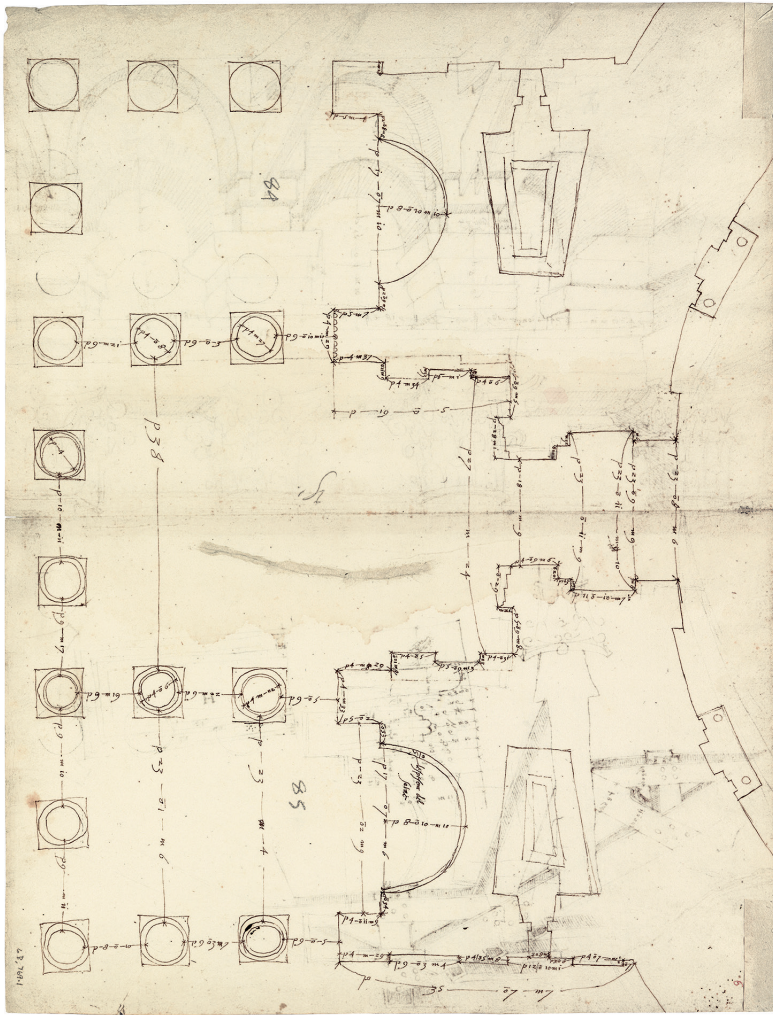
The Pantheon series is a distinct group of drawings within a much larger set of heterogeneous material. The Goldschmidt Scrapbook, to which it belongs, once formed a single collection together with the Scholz Scrapbook, another group of sixteenth-century architectural drawings also at the Metropolitan Museum. As established by Howard Burns and discussed by d'Orgeix, the original collection was probably assembled soon after the drawings were made, in either the late sixteenth or the early seventeenth century.² Subsequently,

probably about a century later, the collection was divided and bound into two volumes, now known as the Goldschmidt Scrapbook, made up of drawings of ancient architecture, and the Scholz Scrapbook, with the drawings of modern architecture.³ At some point the volumes were separated from each other and then passed through a succession of different owners before being reunited at the Metropolitan in the twentieth century.⁴

Within the Goldschmidt Scrapbook are several groups of drawings that focus on particular buildings—the studies of the Forum of Nerva are especially detailed—but none is as exhaustive as those in the Pantheon series. This group is relatively uniform. All the drawings are on half or whole sheets of the same laid paper, and although at least thirteen hands can be identified in the two scrapbooks, nine of the ten Pantheon sheets were drawn by just one of them, named Hand F by Burns.⁵ The following analysis focuses primarily on the nine sheets attributed to this draftsman; the tenth sheet (Figure 17) will be discussed later.

Made with black chalk and overlaid with brown ink, the Pantheon drawings vary in scale from a detail of a floral ornament measuring a few millimeters wide to a full-page perspective view of an interior alcove, complete with key marks, inscriptions, and dimensions. Within this range, the drawings can be divided into three categories: plans, details of elements such as cornices and moldings, and views. Although a rule was used on occasion, most of the drawings were made entirely freehand, a fact that heightens the sense that the draftsman spent time at the building studying and sketching. The views, in particular, have a personal quality: all are constructed from the perspective of someone standing on the floor, and the draftsman's position within the building can be determined for each one.

The drawings are arranged in groupings that chart a path through the Pantheon: a view up into the portico roof appears on the reverse of a portico plan, a plan of the cella is on the reverse of a view into one of the cella niches, and elevations of the attic story share a sheet with studies of the dome.



1 (cat. 1). Anonymous French draftsman, mid-16th century. Recto (left): plan of the Pantheon portico and intermediate block. Verso (right): elevations of the Pantheon portico roof structure and bronze truss; details of the portico column base and the portico architrave soffit. The Metropolitan Museum of Art, Purchase, Rogers Fund, Joseph Pulitzer Bequest, and Mark J. Millard Gift, 1968 (68.769.1). On the recto, the east side of the Pantheon portico is at the top of the sheet, and the row of columns at the front of the portico, the north side of the Pantheon, is at the left. Photographs of Figures 1, 3–8, 16, 17: Mark Morosse, The Photograph Studio, MMA

The dimensions inscribed on the plans also help to determine the draftsman's route. On the plan of the portico, for example, are detailed measurements of nearly every element except the easternmost bay (Figure 1r). In the sixteenth century this area was blocked off by a masonry wall, constructed after a fire damaged the three columns of the last row. This wall can be seen in several drawings, including a view under the portico by Maarten van Heemskerck (1498–1574) now in Berlin (Figure 2).⁶ Because the measurements on the portico plan stop at this point, one can see how the draftsman proceeded with his survey until the wall blocked his path.

The portico plan exemplifies how details in the Goldschmidt drawings help locate the draftsman not only in space but in time. As d'Orgeix pointed out, these details often focus on the building's structure, in contrast to the focus on ornament that predominates in other sixteenth-

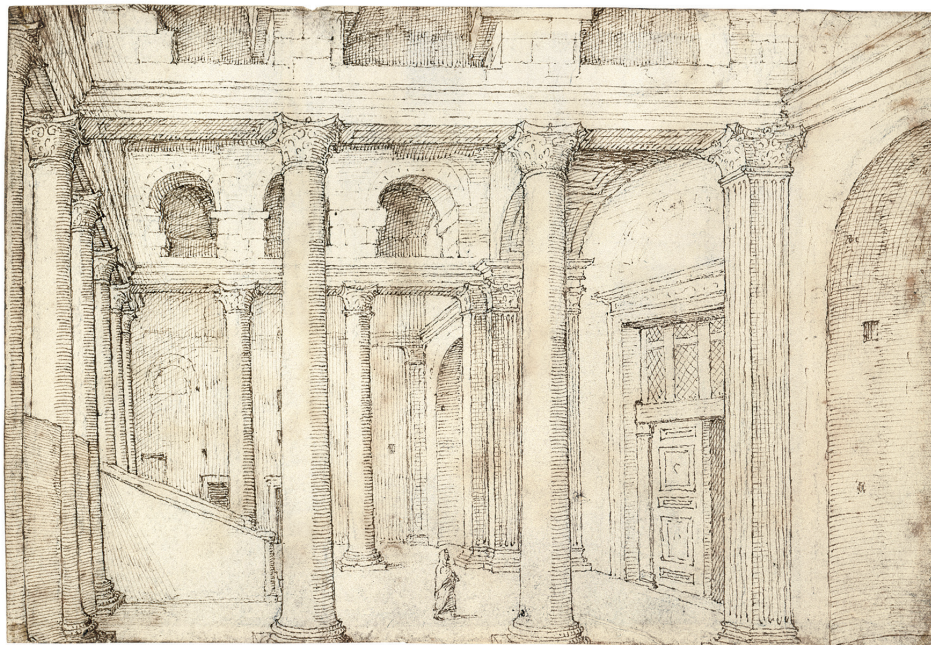
century representations of the building.⁷ As a result, there are elements that appear in the Goldschmidt series that can be found in few, if any, other representations of the Pantheon. Many of these elements are depicted in studies of how water drains and light moves through the building. The drawings of the roof (Figure 3r), for example, include details of the drainage system, such as the depressions that function as gutters to the pipes funneling water from the dome. On the verso of this sheet, the drawings of the intermediate block show the vaulting that spans the interior chambers and the openings in the ceiling of these rooms. Another drawing (Figure 4r) shows the rarely observed detail of the curvature of the floor near the partial plan of the cella.⁸

The Goldschmidt series also includes studies of circulation. The same sheet of roof studies (Figure 3r) shows not only the stairs that lead over the dome to the oculus but also the three sets of stairs at the dome's base. The plan of the

portico and intermediate block (Figure 1r) includes the two staircases on opposite sides of the main entrance (see Figure 1r). Renaissance architects rarely drew these staircases—the main routes of vertical access for the building—perhaps because they could not get inside them to take measurements or because they had no interest in them.⁹ Although the Goldschmidt plan has no dimensions for the stairs, the draftsman evidently was at least able to look inside the wall cavities, because he approximated their shape as well as that of the opening between the stairs and the side of the building.¹⁰

As noted above, the drawings record a number of architectural elements that are no longer extant. In one of the earliest publications on the Goldschmidt Scrapbook, Henry de Geymüller cited a sheet of studies that includes detailed views of the Pantheon dome (Figure 3r).¹¹ That drawing includes the bronze bars—now gone—that once were mounted on the vertical face of the oculus, presumably to support a frieze.¹² More recently, Arnold Nesselrath discussed a Goldschmidt drawing of the bronze trusses that Pope Urban VIII (r. 1623–44) infamously removed from the Pantheon portico roof in 1625 (see Figure 1v).¹³ Other now-lost elements include the bronze letters of the pediment inscription, which the draftsman recorded precisely with measurements, going so far as to draw in the plumb bobs used to establish the vertical on either side of the letter *S* (Figure 5v). These bronze letters were replaced with modern copies in the nineteenth century, and the Goldschmidt drawings may be the only extant renderings that have details of the originals.¹⁴ In addition, the view of the exterior vestibule shows the marble panels beside the main door as they were before plaques were later inserted between them (Figure 6r).¹⁵ The frame of the ancient bronze door itself, shown in a measured elevation, appears as it did through the seventeenth century, with pilasters that extend over the entablature and a bronze lattice that is divided into seven sections rather than the current six (Figure 7v).¹⁶ Inside the building, d’Orgeix observed that the view of the interior entrance vestibule shows the octagonal coffering, now gone, that once covered the barrel vault over the door (see Figure 16v).¹⁷ The drawings of the marbles that formerly decorated the attic story also capture details of ornament that has since been removed (see Figure 3v), in this case during the renovations conducted under Pope Benedict XIV (r. 1740–58). Finally, the view of the entablature at the central altar opposite the main entrance (Figure 8r) includes the acroterion, or decorative pedestal, with a cornice that no longer exists.¹⁸

These acutely observed details resulted from the Goldschmidt draftsman’s effort to record what he saw in front of him: unlike many of his predecessors and contemporaries, he did not offer speculations or critiques in his drawings.¹⁹ Andrea Palladio (1508–1580) added statues to



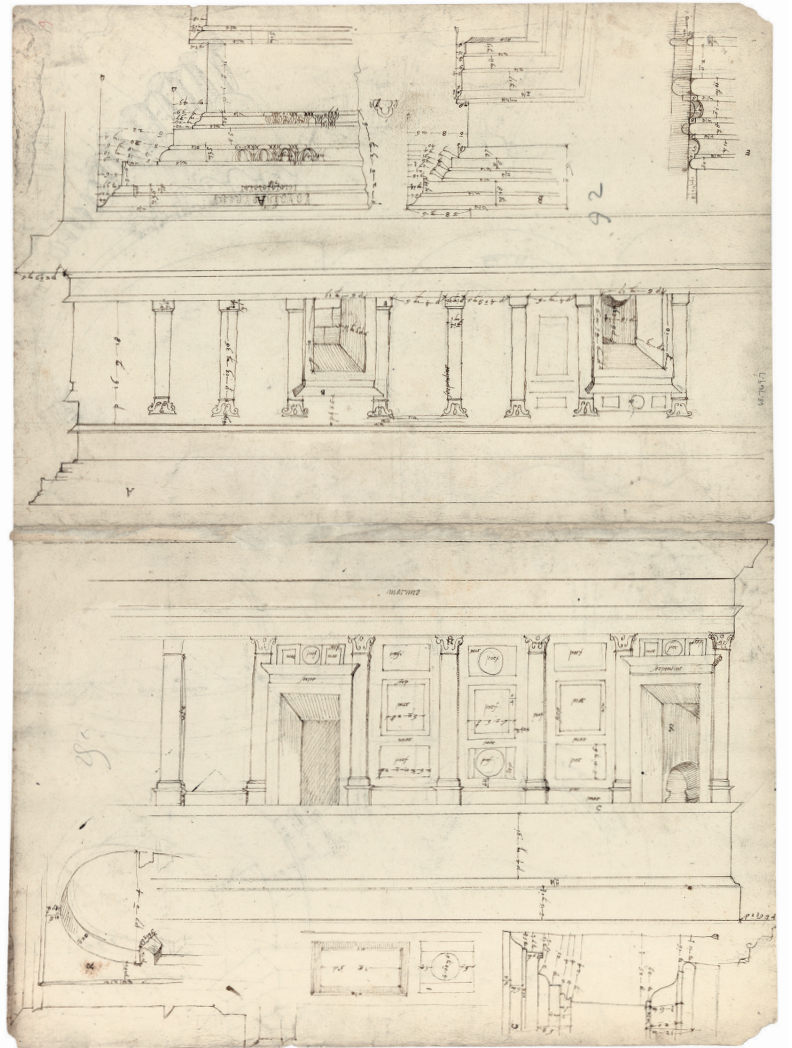
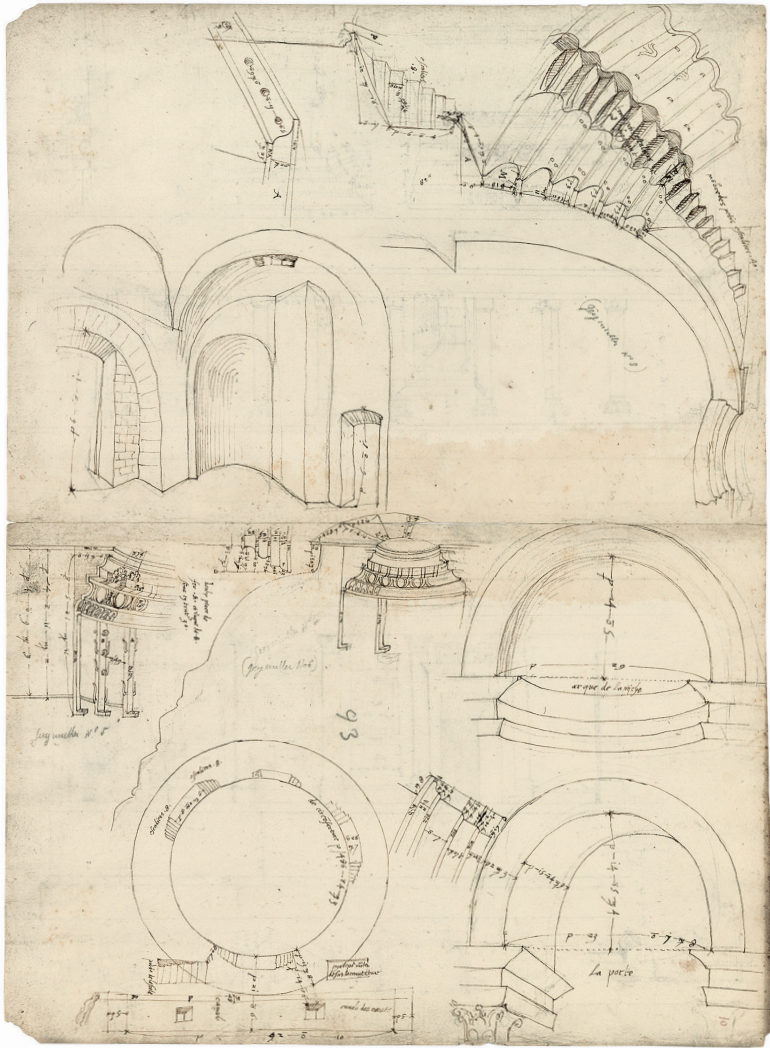
the portico pediment to re-create how he believed the building had appeared in antiquity, for example, but there are no such reconstructions in the Goldschmidt series.²⁰ Nor are there corrective adjustments such as the pilaster that Baldassare Peruzzi (1481–1536) added to the interior vestibule wall in order to remedy its asymmetry or the realignment of the cella interior decoration that appears in drawings by Francesco di Giorgio Martini (1439–1501) and others.²¹

DATING THE DRAWINGS

The evidence suggests that the Goldschmidt draftsman created his drawings sometime in the 1560s. Watermarks similar to the one found on the Pantheon sheets have been dated to both the 1540s and the 1560s, but the closest comparative examples are from the 1560s.²² Furthermore, the same watermark appears on a Scholz Scrapbook plan of the staircase, attributed to Michelangelo, in the upper garden of the Cortile del Belvedere at the Vatican.²³ That staircase was designed and built in 1550–51, which rules out a date in the 1540s for this drawing and, therefore, for the Goldschmidt Pantheon series.²⁴

Related drawings in other collections help to reinforce this conclusion. In his catalogue of the drawings of ancient Roman architecture from Cassiano dal Pozzo’s Paper Museum, Ian Campbell identified a sheet of studies of the Pantheon as being closely connected to the Goldschmidt series.²⁵ This sheet is found in *Architectura civile*, one of the twenty-two albums from Cassiano’s collection that are now in the Royal Library at Windsor Castle (Figure 9). Like the Goldschmidt Scrapbook, *Architectura civile* contains

2. Maarten van Heemskerck (Netherlandish, 1498–1574). View of the Pantheon portico showing walls to the north (the row of columns at the left) and the east (the row of columns in the background), ca. 1532–36. Pen and brown ink, 5³/₁₆ x 7¹¹/₁₆ in. (13.2 x 19.5 cm). Roman sketchbooks, vol. 2, fol. 2r. Kupferstichkabinett, Berlin. Photograph: Volker-H. Schneider



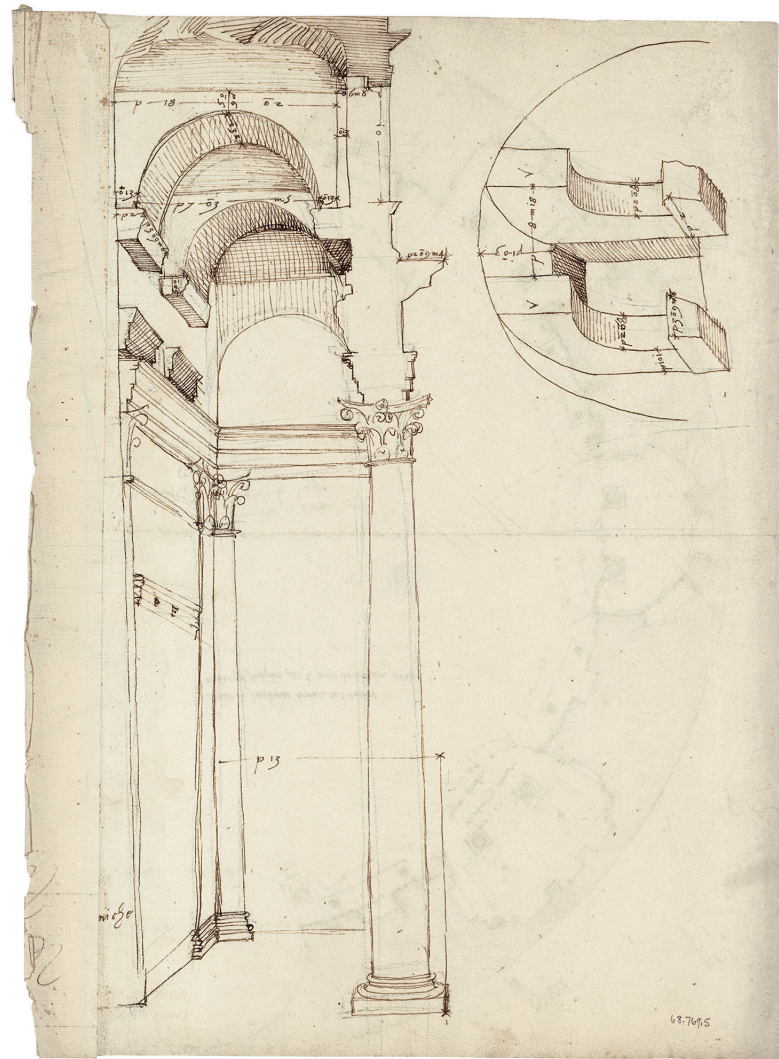
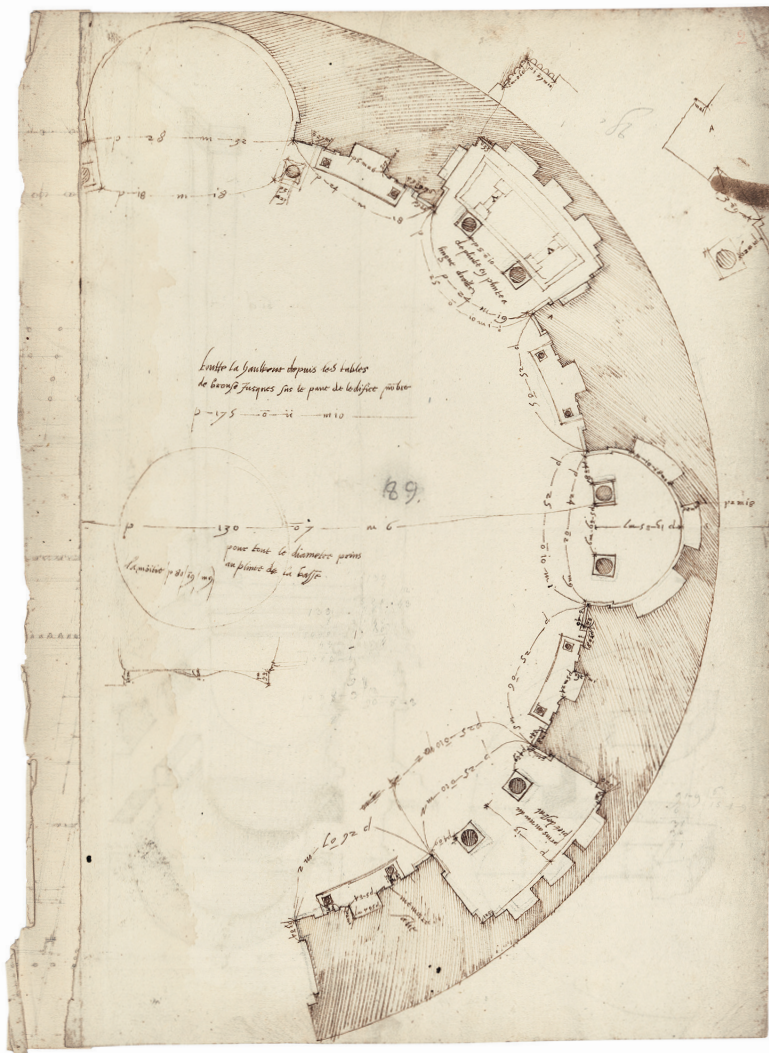
3 (cat. 8). Anonymous French draftsman, mid-16th century. Recto (left): detail views of the Pantheon dome, oculus, niches, door, and interior of the intermediate block. Verso (right): elevations of the Pantheon rotunda interior attic with partial section of the alcove ceiling and details. The Metropolitan Museum of Art, Purchase, Rogers Fund, Joseph Pulitzer Bequest, and Mark J. Millard Gift, 1968 (68.769.7)

drawings by many draftsmen, and the sheet with the Pantheon studies belongs to a discrete series within it. This series, attributed by Campbell to an anonymous Portuguese draftsman, has twenty-five sheets devoted mainly to ancient buildings in the Roman Campagna, to the east and south-east of Rome; only the Pantheon sheet and a sheet of drawings of antiquities from Tivoli depict other sites.²⁶ The thoroughness of these studies, combined with an apparent effort to order the buildings according to their topography, led Campbell to surmise that they had been made as part of a larger, systematic effort to record monuments and not simply for personal use.²⁷ Although the Pantheon sheet is undated, two other sheets in the same series have the dates June 9, 1570, and May 1568 in their inscriptions.²⁸

The close correspondence between the *Architectura civile* drawings and the Goldschmidt Pantheon series suggests that they were all made at approximately the same

time. Campbell noted the similarities in their renderings of the bronze portico roof trusses, observing that both drawings contain the same mistake of showing the lower diagonal web of the roof trusses resting directly on the architrave rather than on the stones above it.²⁹ This shared error, combined with the three identical measurements and matching perspectives of the two drawings, suggests that one is a copy of the other or that both are copies of a common source.

The latter possibility, that the drawings share a source, seems the more likely. In addition to the mistake that Campbell noted, the Goldschmidt series and the *Architectura civile* sheet have several elements in common, and comparison shows that the Goldschmidt versions are the more polished, drawn with a higher level of detail and finish. Although they include measurements, the *Architectura civile* drawings are sketches, usually encompassing less of each building element than their Goldschmidt counterparts.

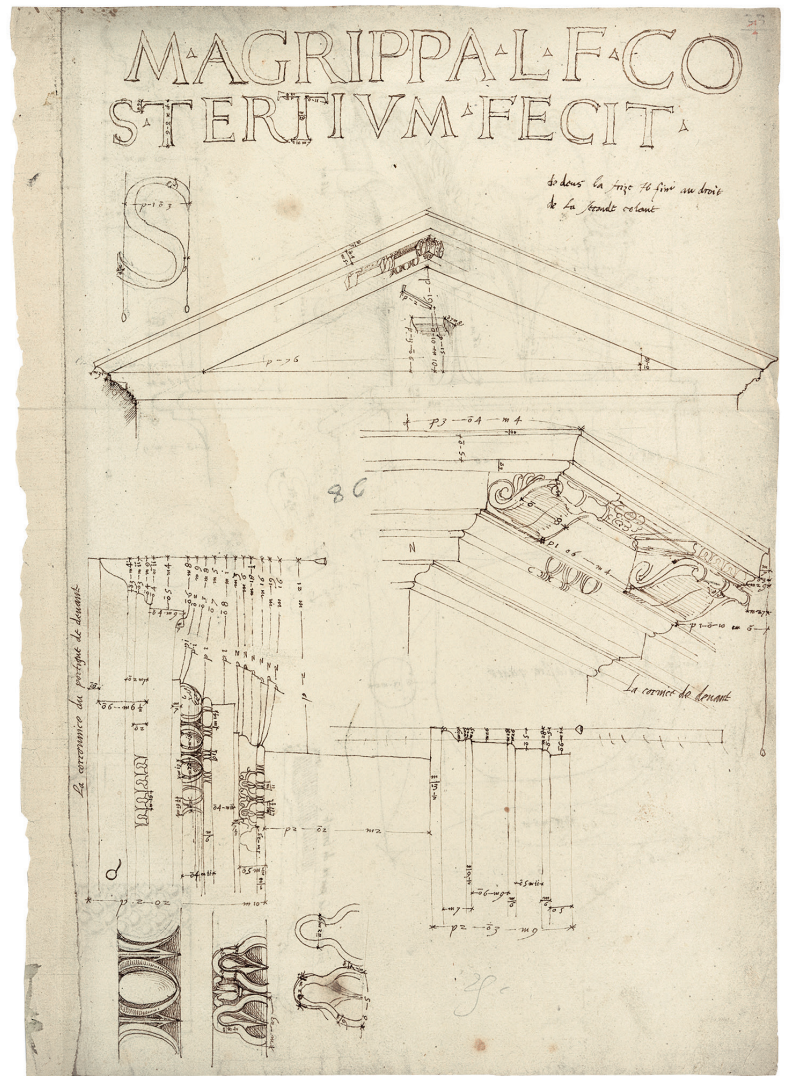
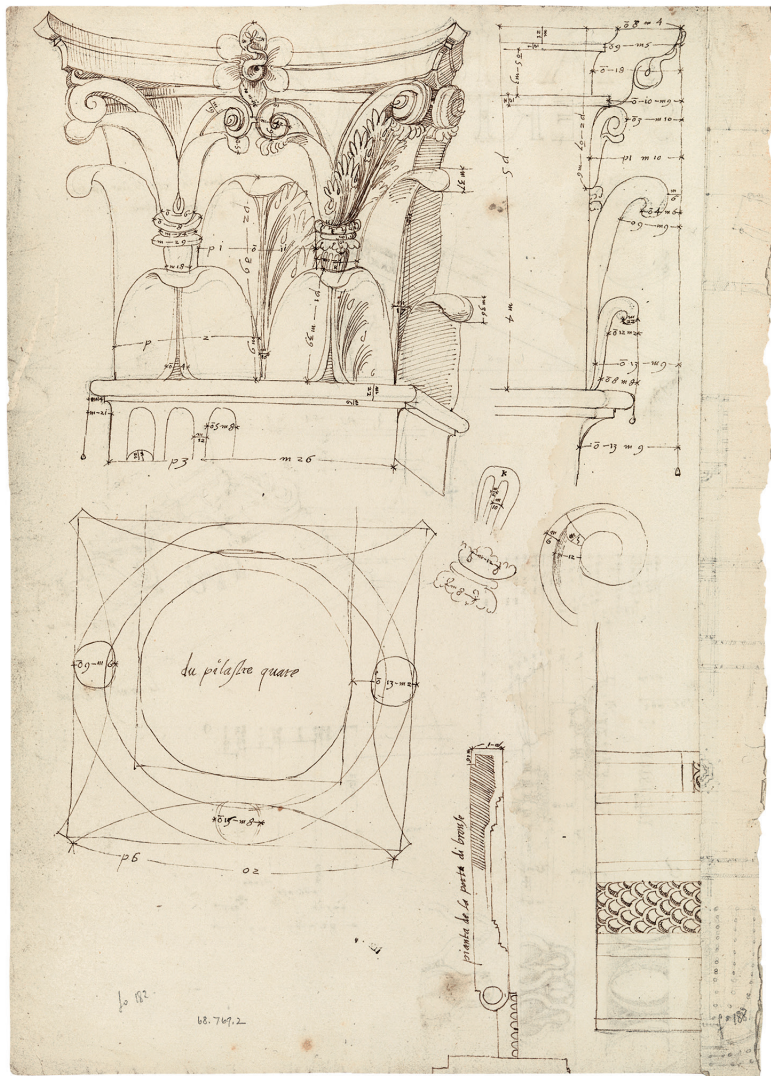


4 (cat. 7). Anonymous French draftsman, mid-16th century. Recto (left): partial plan of the Pantheon with diagram of the floor curvature and detail of the alcove corner. Verso (right): view, partial section, and detail of the Pantheon interior rectangular alcove. The Metropolitan Museum of Art, Purchase, Rogers Fund, Joseph Pulitzer Bequest, and Mark J. Millard Gift, 1968 (68.769.5). The drawings on the verso are upside down relative to the drawings on the recto.

The Goldschmidt series also includes many drawings that do not appear on the *Architectura civile* sheet; these are predominantly full-page views or plans that show an area of the building larger than a single architectural element, such as the plans of the alcoves (see Figure 6v). Nevertheless, the correspondence between the two helps date the Goldschmidt series to the 1560s; it also suggests that the Goldschmidt draftsman worked collaboratively, sharing drawings and information with others. Such collaboration is not surprising, considering that it takes more than one pair of hands to survey a building, particularly when those hands are taking measurements of hard-to-reach areas such as pediment inscriptions and rooftop beams.

That the Goldschmidt series includes the dimensions of so many elements that are inaccessible without ladders or scaffolding—the pediment inscription, the portico roof, and the cella attic, for example—suggests that the draftsman

studied the Pantheon when it was undergoing renovation. In 1565 Pope Pius IV (r. 1559–65) sponsored a project to refurbish the bronze doors at the main entrance; this project could have provided the necessary apparatus for the draftsman to survey the upper reaches of that area.³⁰ Several drawings in the series focus on the entrance, including multiple views of the vestibule and a partial elevation of the door and its frame (see Figures 16v, 5r, 7v). One intriguing aspect of the elevation is that it shows the bronze doors without any of the ornamental bolts that now adorn its leaves (see Figure 7v). In the seventeenth century, architects including Antoine Desgodetz (1653–1729) studied these bolts carefully, making detailed renderings of the three types of rosettes.³¹ Yet, earlier drawings such as Raphael's famous view of the main entrance, drawn in the first decade of the sixteenth century, do not show them, and neither do the printed illustrations in the treatises of Sebastiano



5 (cat. 3). Anonymous French draftsman, mid-16th century. Recto (left): elevation, profile, plan, and details of the Pantheon portico pilaster; plan and detail of the Pantheon door. Verso (right): elevation and details of the Pantheon portico pediment. The Metropolitan Museum of Art, Purchase, Rogers Fund, Joseph Pulitzer Bequest, and Mark J. Millard Gift, 1968 (68.769.2)

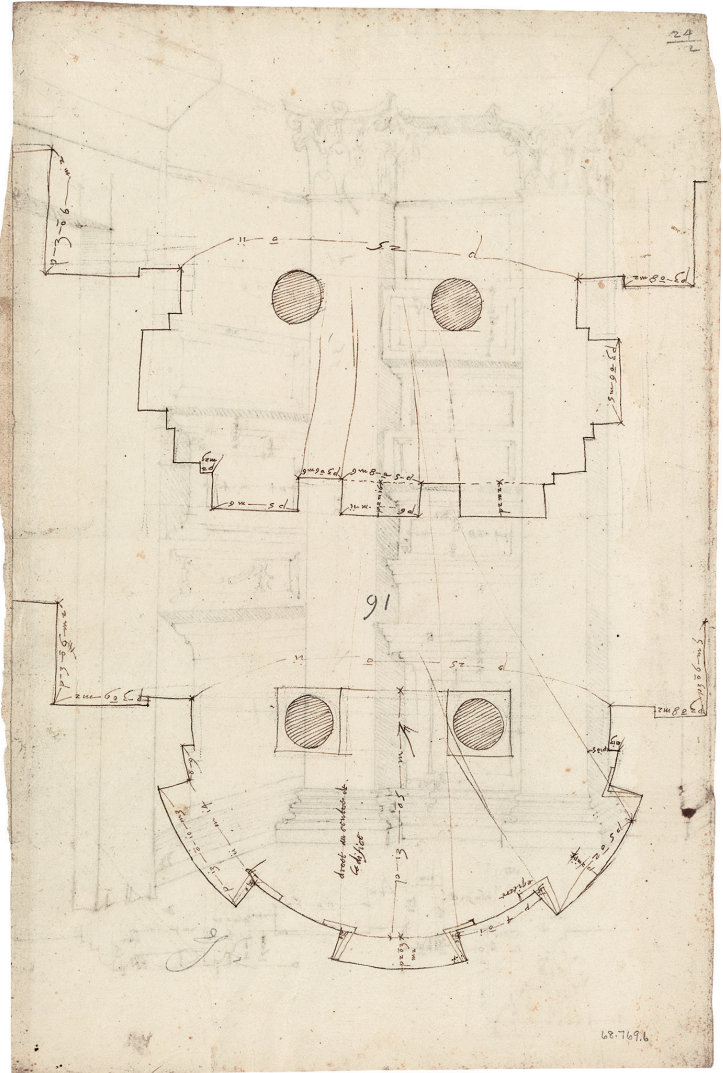
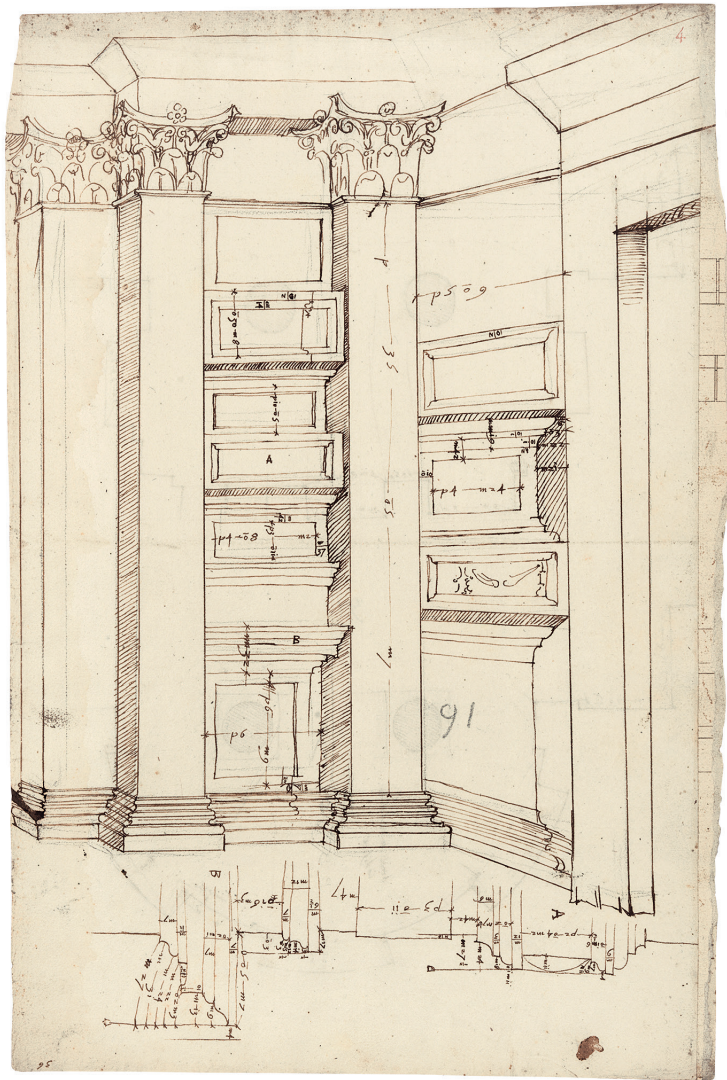
Serlio (1475–1554) and Palladio.³² The 1565 door renovation included work on the bolts, so it seems likely that before this project, many of them were either missing or in such disrepair that architects simply ignored them; in fact, Francesco Cerasoli believed that the bolts were newly made during the 1565 renovation.³³ The absence of bolts in the Goldschmidt series can therefore be interpreted as additional evidence that the drawings date to the 1560s.

CONSIDERING THE DRAFTSMAN

Who could have surveyed the Pantheon in the 1560s and created these drawings? The Goldschmidt draftsman was French, as evinced by the language of the inscriptions and the unit of measurement, the *pied royal*.³⁴ Because the list of French architects known to have visited Rome in the

1560s is short, the roster of possible candidates can be narrowed considerably. Primarily because of the nationality of the draftsman, the Pantheon series has been attributed both to Philibert de l'Orme (1514–1570) and to the anonymous draftsman of the Codex Destailleur D in Berlin—a group of mid-sixteenth-century drawings that also have French inscriptions—while other drawings in the Goldschmidt and Scholz Scrapbooks have been attributed to the circle of Etienne Dupérac (1520–1607). Although there is some evidence to support each of these attributions, all are subject to doubt.

The attribution of the Pantheon series to Philibert de l'Orme, proposed by Geymüller in 1883, has proved to be the most persistent. Geymüller published details of a sheet from the series, noting that the Pantheon group was then in the possession of Edmond Lechevallier-Chevignard (1825–1902).³⁵ He based his attribution on the evidence



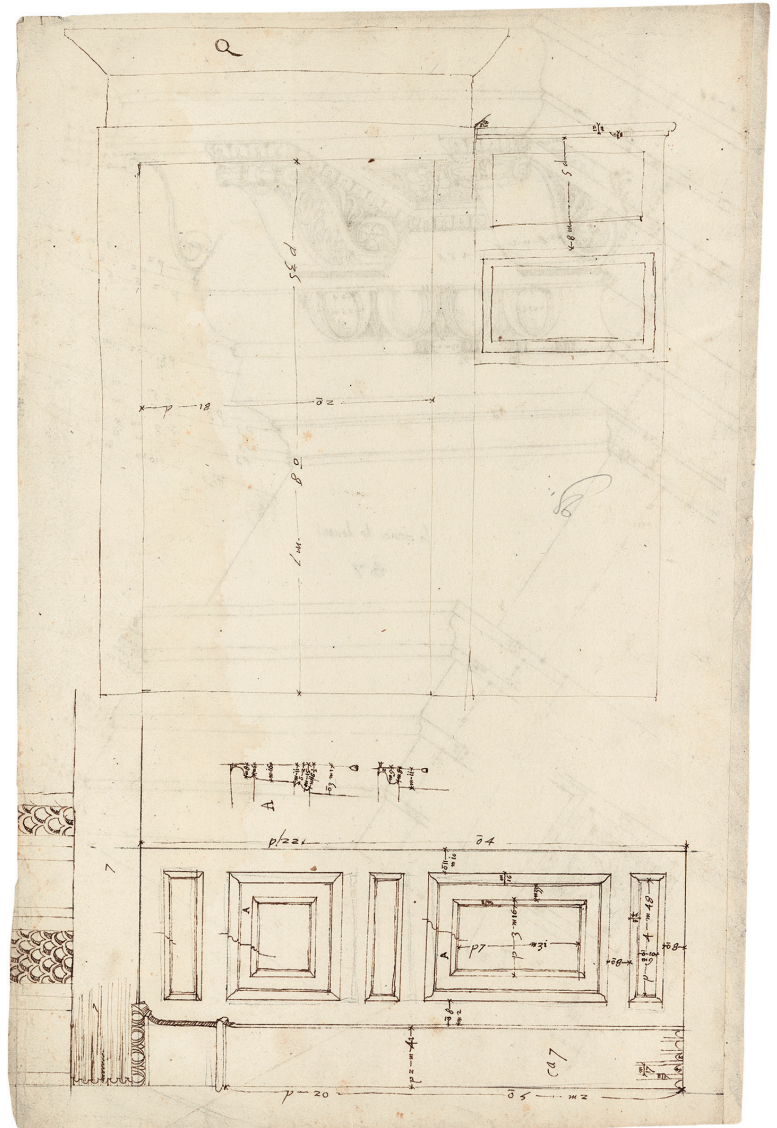
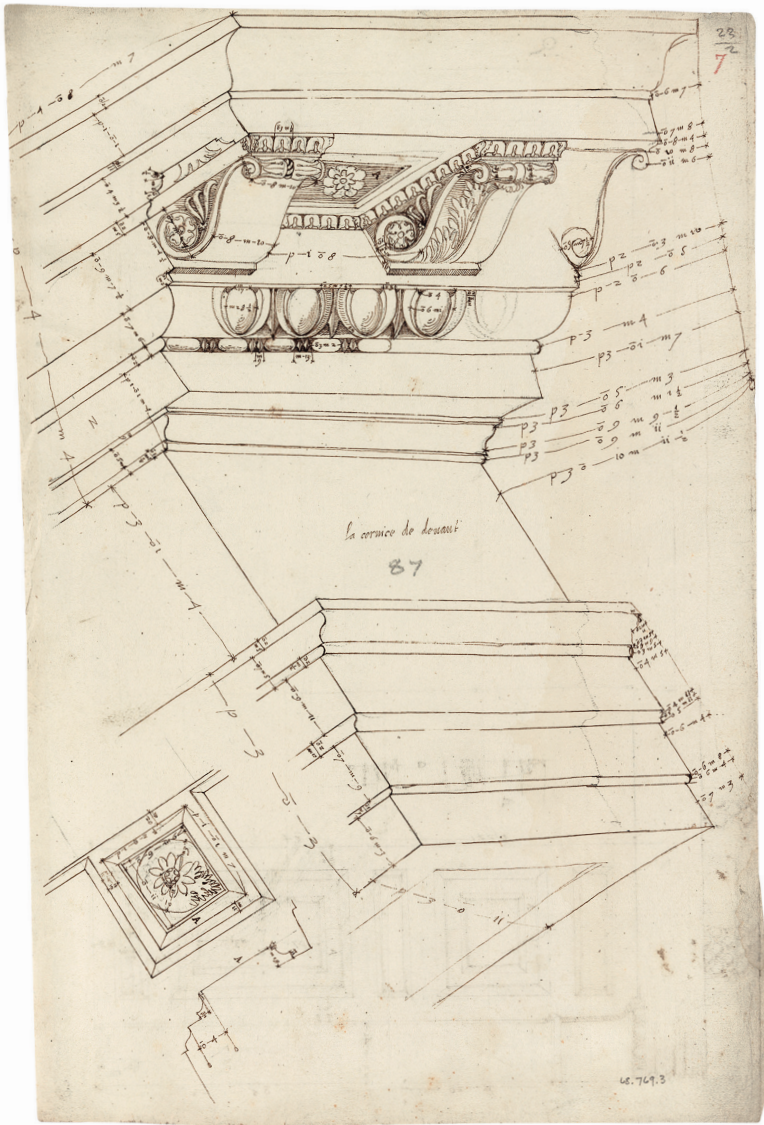
6 (cat. 6). Anonymous French draftsman, mid-16th century. Recto (left): view of the Pantheon exterior vestibule with detail. Verso (right): plans of the Pantheon interior rectangular and semicircular alcoves. The Metropolitan Museum of Art, Purchase, Rogers Fund, Joseph Pulitzer Bequest, and Mark J. Millard Gift, 1968 (68.769.6)

that de l'Orme had visited Rome in the 1530s and the 1560s and had described measuring the Pantheon in his *Premier tome de l'architecture*, published in 1567.³⁶ In 1902, when Lechevallier-Chevignard's effects were sold at the Hôtel Drouot, the auction catalogue listed a volume of seventy-three drawings of Roman monuments as the work of de l'Orme, with a special note citing the studies of the Pantheon.³⁷ Georges-Paul Chedanne (1861–1940), an architect who had studied at the Ecole des Beaux-Arts, purchased the drawings at this sale,³⁸ and they continued to be associated with de l'Orme through subsequent changes of ownership until they reached the Metropolitan.³⁹

The attribution to de l'Orme warrants consideration not only for the reasons that Geymüller named but also because the group clearly was made by someone with an architectural focus—a draftsman with an evident interest in structure and materials who made an effort to measure as many

elements as possible. In contrast to more atmospheric sketches such as those made by Van Heemskerck in the 1540s, for example, the Goldschmidt drawings present technical aspects of the Pantheon.⁴⁰ Although de l'Orme is the most likely choice among the French architects who visited Rome in the 1560s, the drawings themselves do not support this attribution strongly. In his monograph on the architect, Jean-Marie Pérouse de Montclos dismissed the possibility that de l'Orme could have made the Goldschmidt series because the architect's handwriting does not match that of the inscriptions on the drawings.⁴¹

Although the Pantheon series itself was never attributed to Etienne Dupérac, drawings from the Scholz Scrapbook of Saint Peter's Basilica in Rome have been assigned to his circle by Rudolph Wittkower and by Henry Millon and Craig Hugh Smyth.⁴² Dupérac made two prints of Michelangelo's design for the basilica, and the Scholz drawings have been

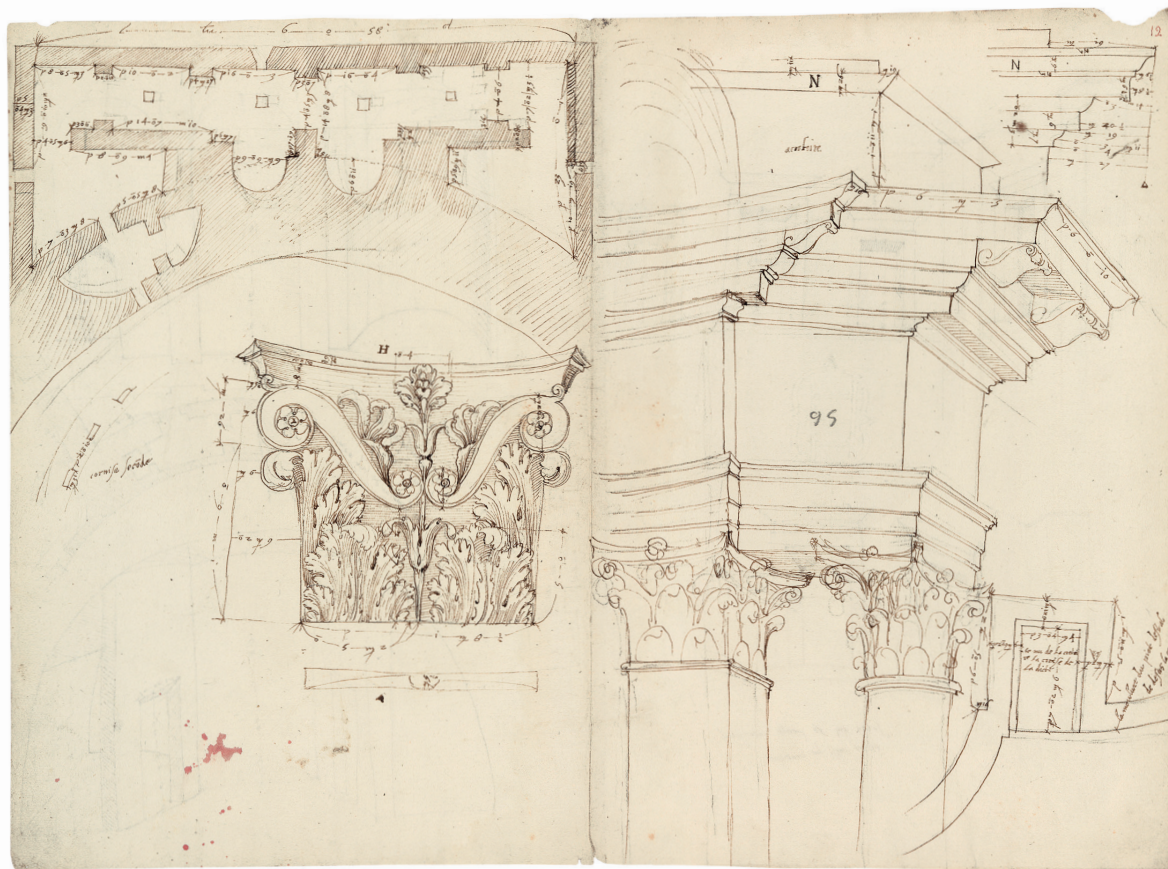


7 (cat. 2). Anonymous French draftsman, mid-16th century. Recto (left): perspective elevation of the Pantheon portico entablature with details of the coffering. Verso (right): elevation, schematic elevation, and detail of the Pantheon door. The Metropolitan Museum of Art, Purchase, Rogers Fund, Joseph Pulitzer Bequest, and Mark J. Millard Gift, 1968 (68.769.3)

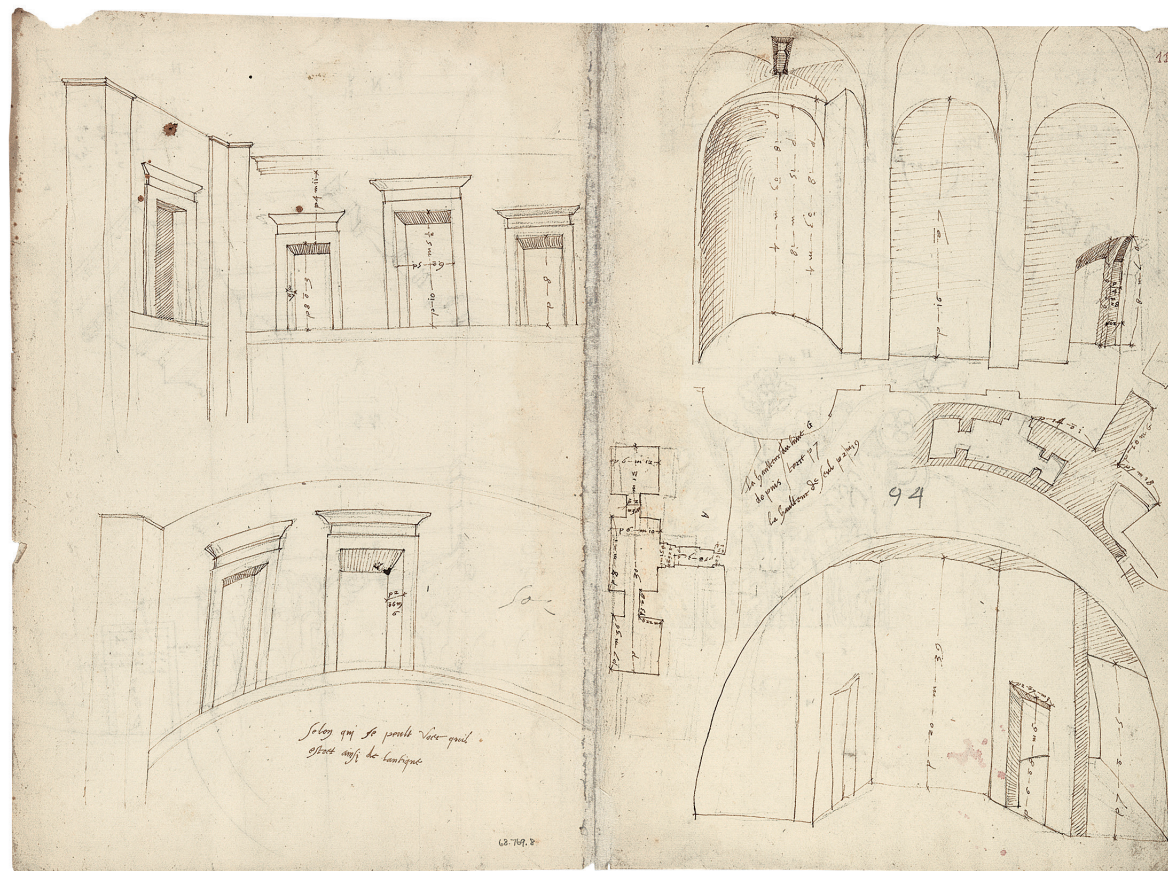
interpreted as preparatory material for those prints; d'Orgeix hinted that Hand A, the draftsman responsible for the greatest number of drawings in the Goldschmidt and Scholz Scrapbooks, may have been Dupérac himself.⁴³ Problems nevertheless remain in attributing the Goldschmidt Pantheon series to Dupérac's circle.

First, the question of whether this circle produced any of the drawings in the Goldschmidt and Scholz Scrapbooks—including the Saint Peter's drawings—is not yet settled. Although the various Scholz drawings relating to Michelangelo's architecture do seem to derive from a publication project, there is no definitive evidence to suggest that Dupérac was the project's leader.⁴⁴ Dupérac's prints of Michelangelo's architecture do not resemble the Scholz drawings either in scale or in scope: his prints present sections, elevations, and views of entire buildings at once, while the drawings focus

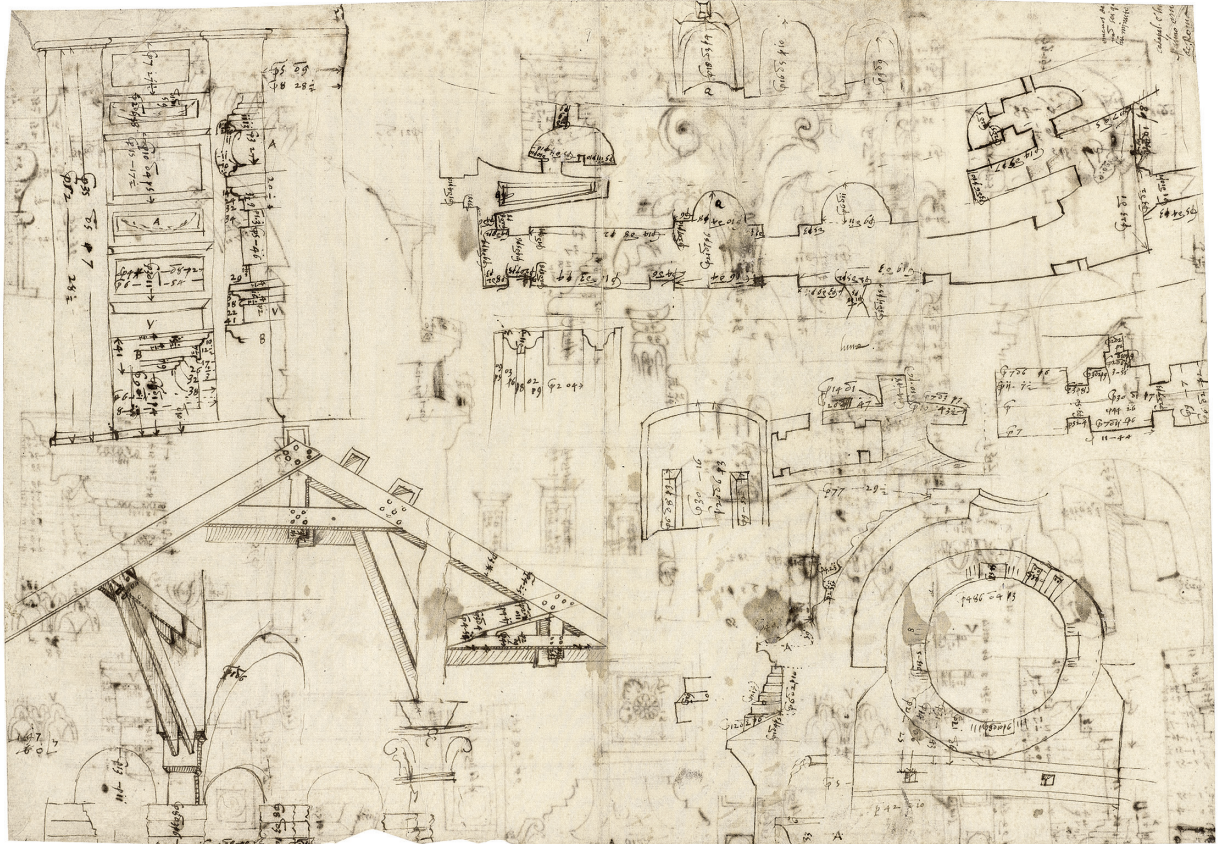
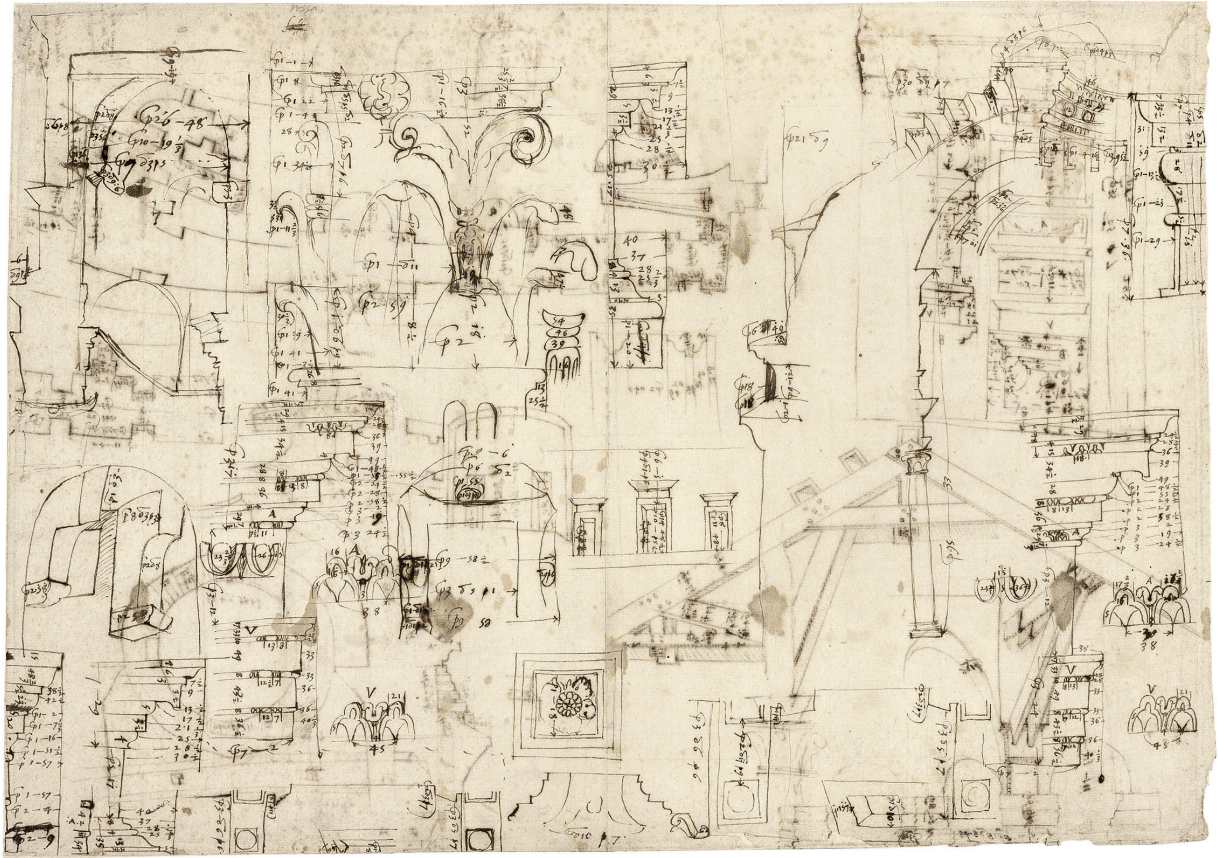
on single elements, generally eschewing full plans and sections in favor of details. Second, there were other French printmakers working in Rome in the 1560s who might have been responsible for such an effort. Previous efforts to attribute the Scholz Scrapbook drawings have generally focused on such printmakers, as Anna Bedon noted in her analysis of the Scholz drawings of Michelangelo's designs for the Campidoglio.⁴⁵ Besides Dupérac, the Francophone milieu in Rome included the print publisher and dealer Antonio Lafrery (1512–1577)—also known as Antoine Lafrère—who employed both Nicolas Béatrizet (1515–ca. 1566?), an engraver from Lorraine, and Jacob Bos (ca. 1520–?; active in Rome, ca. 1549–80), an engraver from the Low Countries. Since both Béatrizet and Bos made prints after Michelangelo's work, it is tempting to ascribe at least the Scholz Scrapbook drawings of his architectural projects to one of them.



8 (cat. 9). Anonymous French draftsman, mid-16th century. Recto (left): plan of the Pantheon intermediate block attic; elevation of an attic pilaster capital; partial perspective view and partial plan of the central niche with details. Verso (below): partial views of the Pantheon interior rectangular and semi-circular alcoves; partial views and plans of the intermediate block interior attic. The Metropolitan Museum of Art, Purchase, Rogers Fund, Joseph Pulitzer Bequest, and Mark J. Millard Gift, 1968 (68.769.8)



9. Anonymous Portuguese draftsman of the Cassiano dal Pozzo Paper Museum. Studies of the Pantheon, in *Architectura civile*, fol. 23r and v. Pen and brown ink, 12 $\frac{3}{8}$ x 17 $\frac{3}{8}$ in. (31.5 x 44.8 cm). Royal Library, Windsor Castle (RL 10376). Photograph: Royal Collection Trust/© Her Majesty Queen Elizabeth II 2013



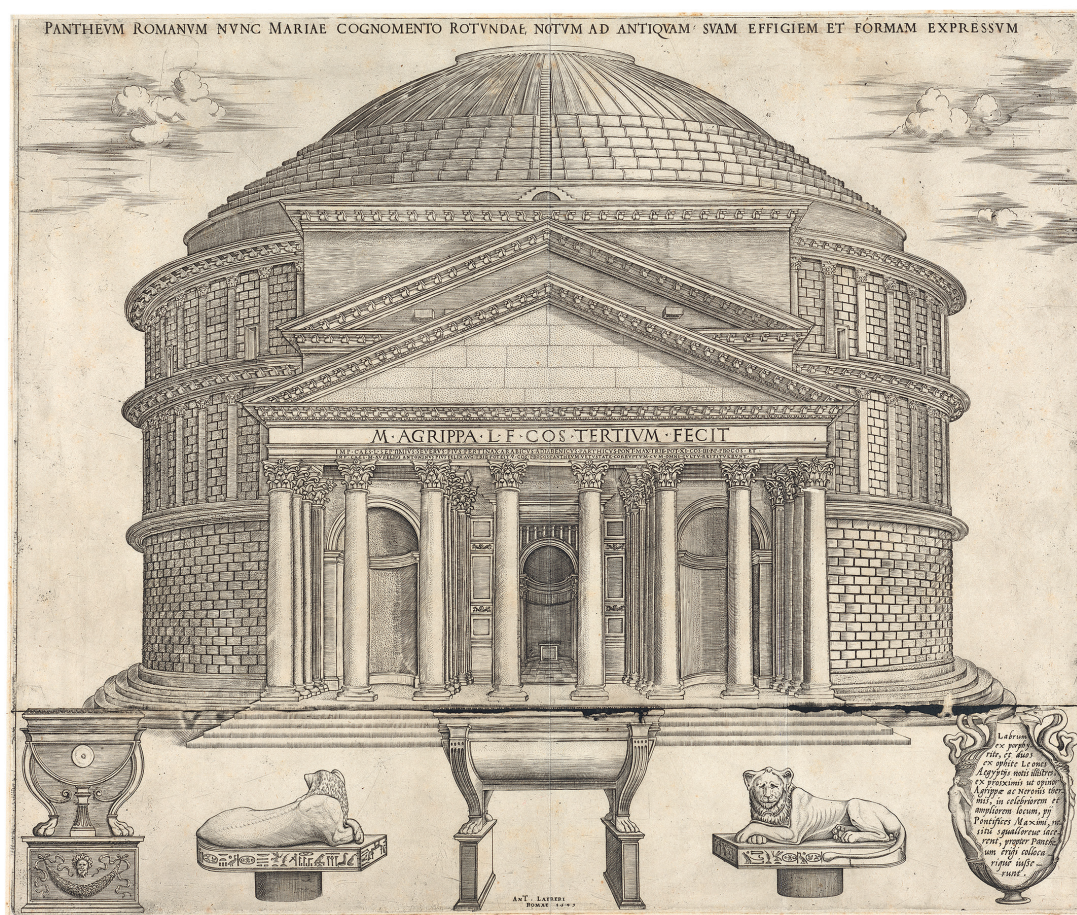
For the Goldschmidt Pantheon series, however, it is difficult to defend an attribution to Dupérac, Béatrizet, Bos, or any other printmaker. For one thing, the Pantheon drawings differ widely from the almost completely orthographic, scalar Scholz drawings of Michelangelo's architecture. For another, the Goldschmidt Pantheon series was made by someone who understood—or sought to understand—how the structure was put together, including its technical, spatial, and material aspects. The drawings present the Pantheon as a building, not as an image. The engraver who rendered the view of the Pantheon cella with pilasters on the exterior—as it appears in Béatrizet's print (Figure 10)—is unlikely to have conducted the Goldschmidt draftsman's detailed investigations of the same wall's inner structural arches and cavities.

Bernd Kulawik's suggestion that the Goldschmidt Pantheon drawings constitute a missing part of the Codex Destailleur D in Berlin is a more logical theory.⁴⁶ Codex Destailleur D is a collection of sixteenth-century drawings that includes studies of both antiquities and modern subjects, most notably a series of studies of a wood model of Saint Peter's by Antonio da Sangallo (1484–1546).⁴⁷ Kulawik argued that the Destailleur D drawings were made in the 1540s as part of a concerted effort to record the entire ancient city on paper. He noted that the drawings of ancient architecture in the codex include studies of almost every significant

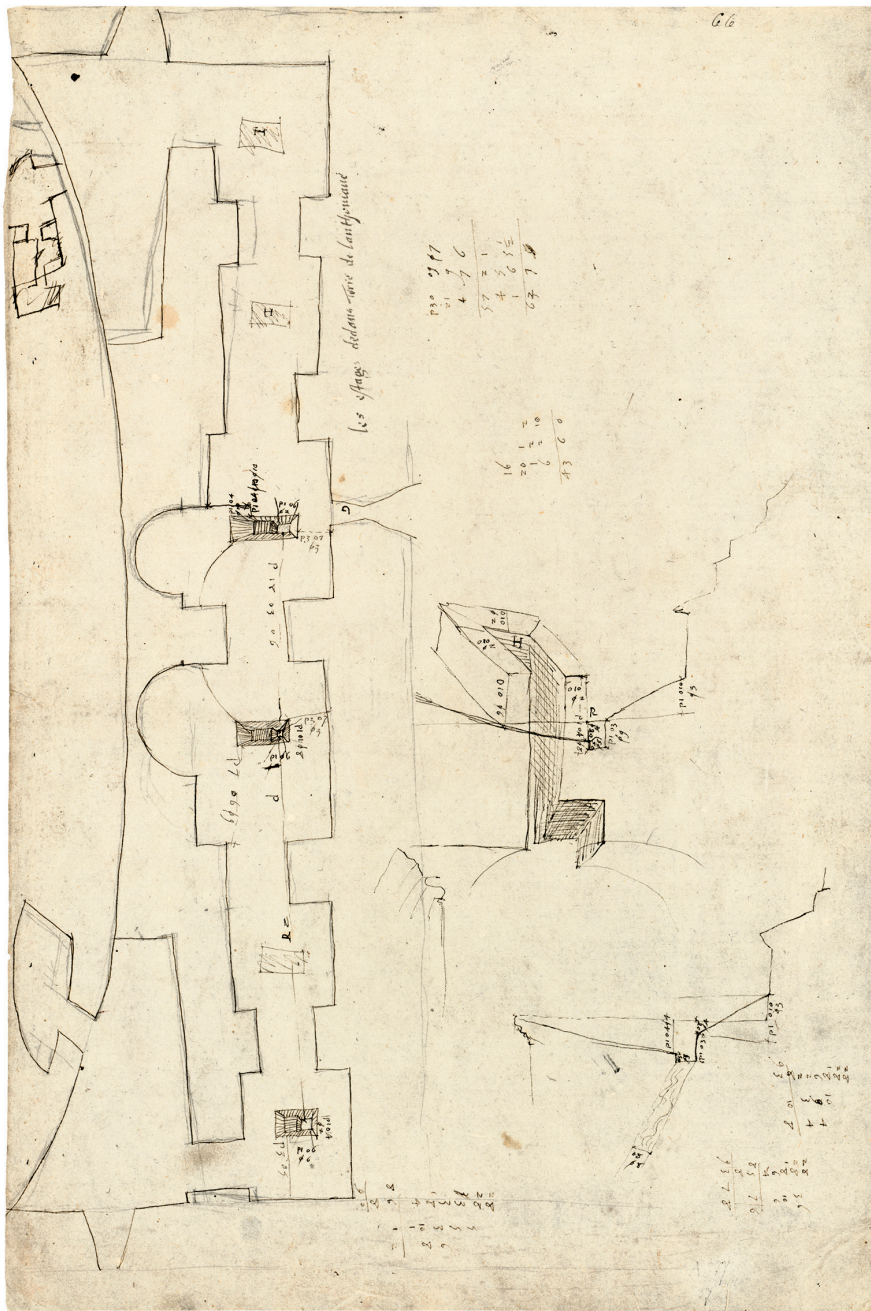
monument in Rome except the Pantheon—a strange omission, considering the building's importance—and he posited that the drawings of the Pantheon in the Goldschmidt Scrapbook could be those missing drawings.

There is evidence both for and against Kulawik's suggestion. The presence of French inscriptions in Codex Destailleur D would support the hypothesis, as would the general character of its drawings, which, like many of the Goldschmidt images of the Pantheon, are sketchy, personal studies. Folio 38v in Codex Destailleur D, in particular—a plan of the interior spaces of the intermediate block with two sections of the connection between the intermediate block and the dome, taken at the roof level (Figure 11)—closely resembles the Goldschmidt plan of the same subject (see Figure 8r). The Destailleur D plan is messier, and the proportions are slightly different, as one might expect from a sketch, but all the essential details are there, including the openings through the walls of the building. Other highly specific details of the building, such as the openings in the ceiling of the intermediate block and the drainage system below the dome (see Figure 8r and v), appear in both versions.

Kulawik's own association of the codex with the survey project sponsored by the Accademia della Virtù, however, argues against a connection with the Goldschmidt Pantheon series. In the early 1540s, this group of humanists met at the



10. Nicolas Béatrizet (1515–ca. 1566?), published by Nicolaus van Aelst (1526–1613). *Pantheum Romanum nunc Mariae cognomento Rotundae notum ad antiquam suam effigiem et formam expressum*, after 1549. Engraving, 18 $\frac{1}{8}$ x 18 $\frac{1}{4}$ in. (46.2 x 46.5 cm). The Metropolitan Museum of Art, Harry Brisbane Dick Fund, 1941 (41.72 [1.18]). Photograph: Katherine Dahab, The Photograph Studio, MMA



11. Anonymous 16th-century French draftsman. Plan of the upper level of the Pantheon intermediate block and details of the connection between the intermediate block and the dome. Pen and brown ink, 17 1/8 x 11 3/8 in. (43.5 x 28.8 cm). Codex Destailleur D, fol. 38v. Staatliche Museen zu Berlin, Kunstbibliothek (Hdz. 4151). Photograph: Staatliche Museen zu Berlin, Kunstbibliothek

house of Claudio Tolomei (1492–1555) to discuss the work of Vitruvius.⁴⁸ In a letter of 1542, Tolomei outlined a proposal to publish the results of these discussions in a series of twenty volumes, the tenth of which would contain reconstructions of ancient Roman buildings.⁴⁹ Since this series never appeared, it is difficult to associate any drawings with the project, and in any case, the drawings of the Goldschmidt series date to the 1560s, too late for such a connection.

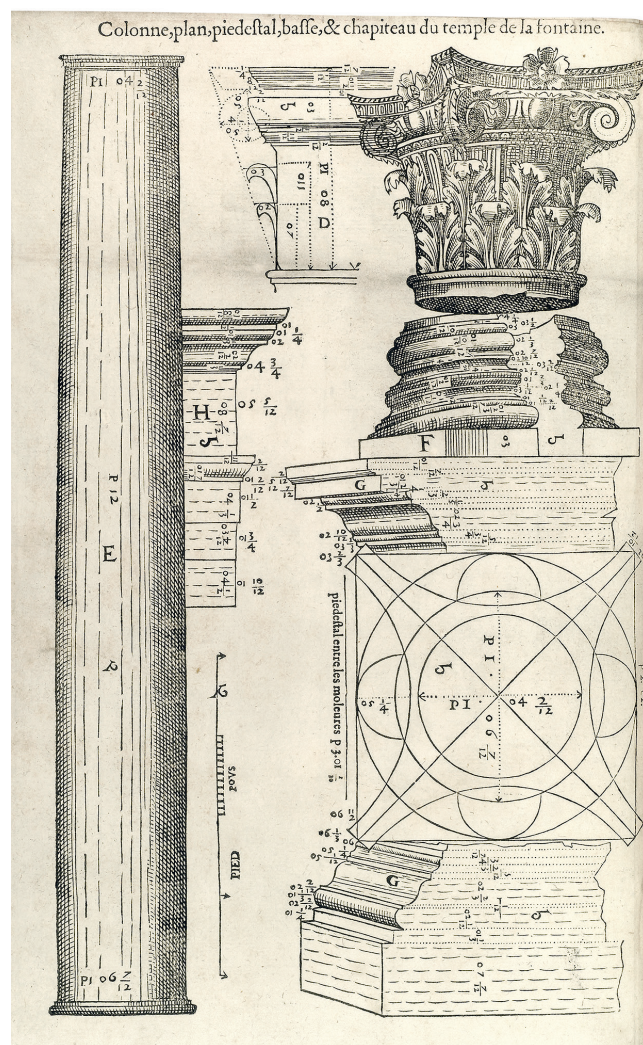
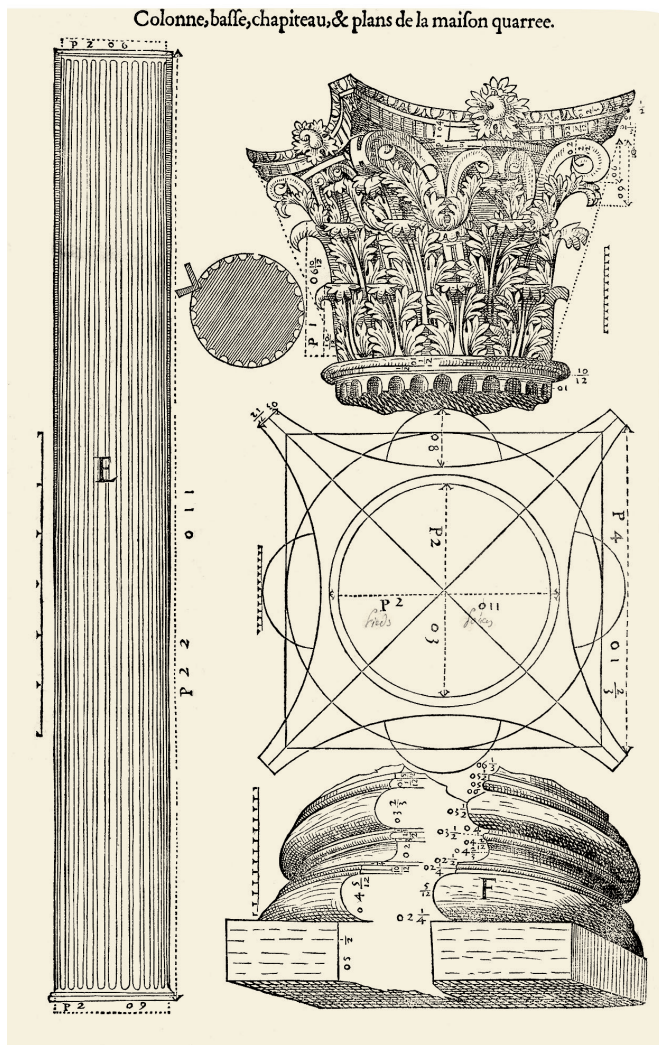
One architect whose name has been connected to other drawings in the Goldschmidt and Scholz Scrapbooks—though not to the Pantheon series—is Giovanni Antonio Dosio (1533–1611). Charles de Tolnay, in one of the earliest articles on the Scholz Scrapbook, in 1967, noted that

seventeen of its drawings of Michelangelo's architectural projects in Florence are copies after Dosio's drawings now in the Uffizi, Florence.⁵⁰ These are mainly drawings of the San Lorenzo complex, but they also include an elevation of the portal of the monastery of Sant'Apollonia, which Carlo Bertocci and Charles Davis identified as another copy after Dosio. Bertocci and Davis characterized the Scholz Scrapbook as "a body of drawings often based on prior graphic representations" and noted that many of those earlier models are by Dosio.⁵¹

Given that the Scholz Scrapbook contains so many copies after Dosio, the Goldschmidt Pantheon series may well derive from his drawings. Dosio measured the Pantheon when studying the building for his own never-published architectural treatise. The resulting drawings cover many of the same areas of the building and elements that appear in the Goldschmidt series, including highly specific details such as the curvature in the cella floor, the marble panels in the entrance vestibule, and the openings in the ceiling of the intermediate block's upper chambers. Moreover, Dosio's Pantheon drawings were copied at least once: another set is in the Albertina, Vienna.⁵² Despite the overall similarities in subject, however, there are no identifiable copies after Dosio in the Goldschmidt series, and the perspective views and details in the group do not resemble Dosio's completely orthogonal treatise drawings.

A final candidate to consider as the author of the Goldschmidt series is Jean Poldo d'Albenas (1512–1563), a Frenchman whose name has not been proposed before. Because the case for Poldo d'Albenas must be made entirely on the basis of biographical details and printed images—there are no extant drawings to compare—the attribution must remain only an intriguing hypothesis. In 1559 and 1560, Poldo d'Albenas published the *Discours historial de l'antique et illustre cité de Nismes*, in which he displayed an architectural erudition far beyond that evinced in other contemporary topographical studies.⁵³ After measuring the ancient Roman architectural remains of Nîmes himself, he included among his plates depictions of the Maison Carrée, the Temple de la Fontaine, the Pont du Gard, and the amphitheater. The plates of the first two buildings in particular had an impressive afterlife; no less an architect than Palladio used them as the basis for his own representations of the Maison Carrée and the Temple de la Fontaine in the *Quattro libri* of 1570.⁵⁴ As Frédérique Lemerle has noted, these representations of ancient buildings are exceptional for both their precision and their attention to the details of the architectural orders, qualities that distinguish them from earlier French architectural books.⁵⁵ These traits are part of the reason Poldo d'Albenas's illustrations of ancient Nîmes are so reminiscent of the Goldschmidt Pantheon series.

The similarity is immediately apparent when two plates in the *Discours historial* (Figure 12) are compared to two of



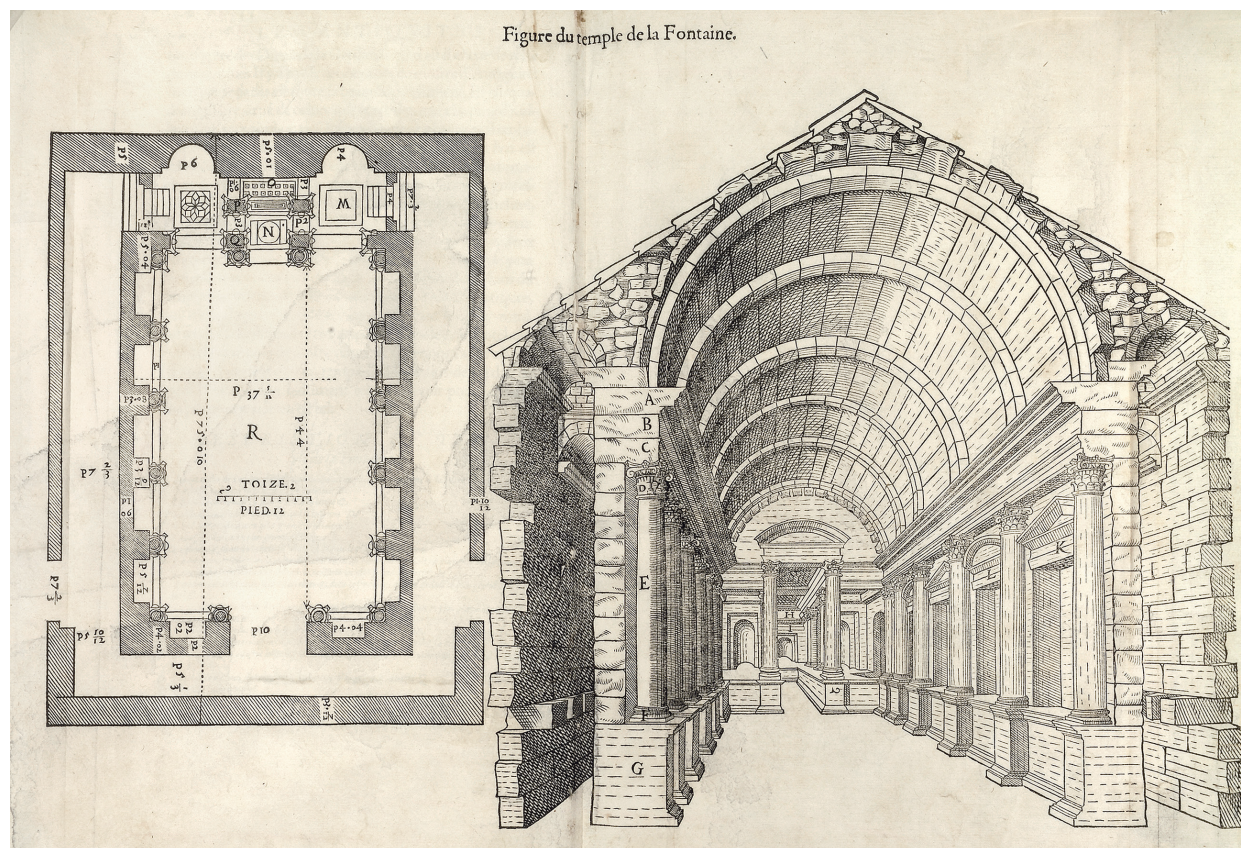
12. Jean Poldo d'Albenas (French, 1512–1563). *Colonne, basse, chapiteau, & plans de la maison quarrée* and *Colonne, plan, piedestal, basse, & chapiteau du temple de la fontaine*, in Poldo d'Albenas 1559–60. Woodcut, each 12⁷/₁₆ x 8¹/₁₆ in. (31.6 x 20.5 cm). Photographs: Marquand Library of Art and Archaeology, Princeton University

the Goldschmidt drawings. In these illustrations of elements from the Maison Carrée and the Temple de la Fontaine, each component of the architectural order is isolated on the page, so that the column shaft is shown separately from its capital and base. The same is done in the Goldschmidt drawings of elements from the portico, which are disassembled and rearranged in a similar way (see Figures 5r, 16r). In both the Poldo d'Albenas plates and the Goldschmidt drawings, the capitals are shown from an oblique angle, a view that emphasizes both their three-dimensionality and the modeling of the corners. This perspectival rendering of capitals is uncommon in mid-sixteenth-century architectural renderings, where orthogonal elevations that emphasize the ornamental surface predominate.⁵⁶

The use of perspective to represent interiors is also characteristic of both the *Discours historial* plates and the Goldschmidt drawings. Poldo d'Albenas's view into the Temple de la Fontaine (Figure 13), for example, offers a look inside the structure seen slightly from the side; the same skewed stance is used to show a side alcove, the interior

vestibule, and the portico in the Goldschmidt series (see Figures 14v, 16v, 1r). Although not exactly idiosyncratic, this mode of representation is nonetheless unconventional. The plates of the *Discours historial* occasionally appear clumsy, as Pierre Gros has observed, but they still contain an impressive amount of information.⁵⁷ As in the Goldschmidt drawings, the architectural elements are covered in dimensions, with a measurement given for nearly every component of the order (see also Figures 7r, 14r). In both sets of images, key letters are used to identify elements that are represented more than once.

In addition to the visual similarities, some external evidence indicates that Poldo d'Albenas could have been responsible for both the *Discours historial* plates and the Goldschmidt Pantheon drawings. Beyond his own forays with a measuring tape, the writer was also a reader—Vitruvius and Alberti appear among his citations—and he might have amplified his textual studies of ancient architecture with his own investigations.⁵⁸ He mentioned the Pantheon as a comparative example in his discussion of the Temple de la



13. Jean Poldo d'Albenas. *Figure du temple de la fontaine*, in Poldo d'Albenas 1559–60. Woodcut, 12⁷/₁₆ x 14 in. (31.6 x 35.6 cm). Photograph: Marquand Library of Art and Archaeology, Princeton University

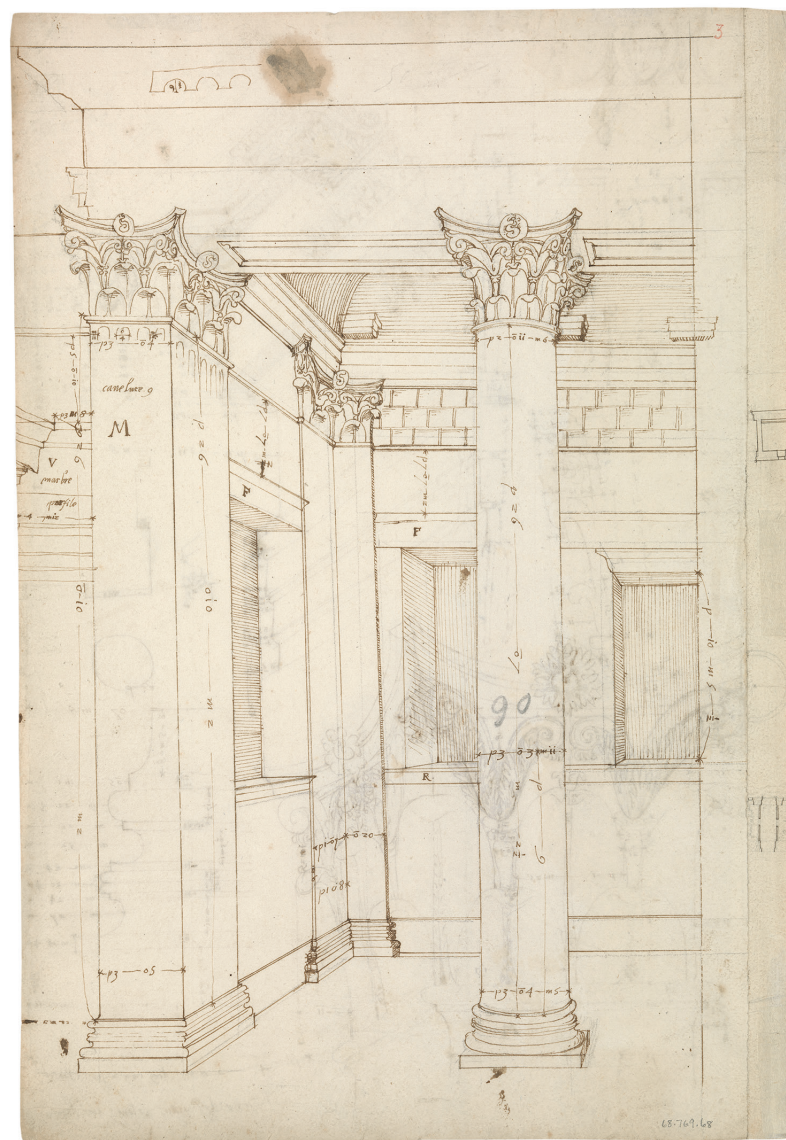
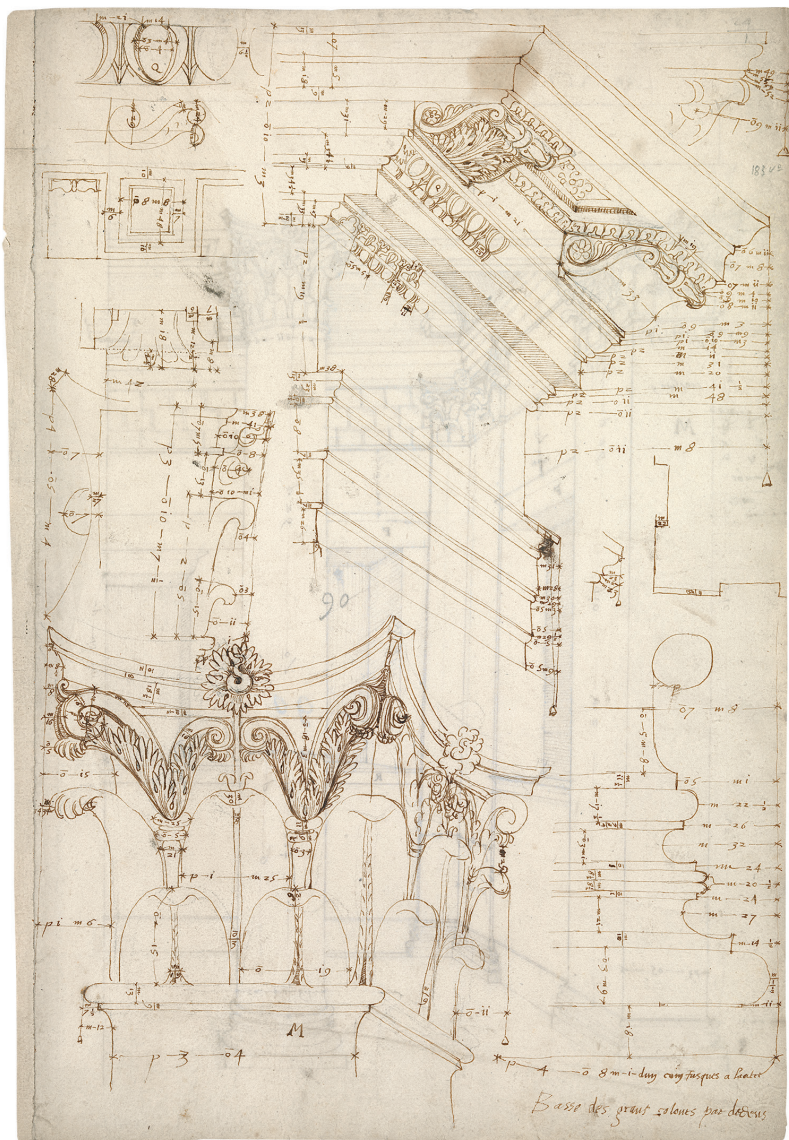
Fontaine, and it is possible that his curiosity took him to Rome.⁵⁹ Moreover, the proposed date for the Goldschmidt series, the 1560s, would place it just after the publication of the *Discours historial*. As discussed earlier, the draftsman of the Goldschmidt series appears to have worked with, or at least shared drawings with, other draftsmen, as evinced by the anonymous Portuguese sheet at Windsor. It is entirely plausible that Poldo d'Albenas visited Rome and teamed up with others to explore the city and measure its buildings, just as he had collaborated in Nîmes with Jacques Pineton, the author of the opening ode of the *Discours historial*.

RAPHAEL'S DOOR AND THE GOLDSCHMIDT DRAWINGS

The question of who made the Goldschmidt Pantheon series remains unresolved, and it ultimately leads to new questions about whose drawings served as the anonymous draftsman's models. One drawing in the series (Figure 16v) suggests that the Goldschmidt draftsman may have studied Raphael's drawings of the Pantheon, which are among the best-known drawings of ancient architecture from the Renaissance.

These works by Raphael are of particular importance, given that the master also penned one of the canonical documents about architectural drawing. In a letter written to Pope Leo X (r. 1513–21) in the second decade of the sixteenth century, Raphael proposed a graphic survey of ancient Roman buildings and addressed issues ranging from appropriate architectural subjects to measuring techniques to projection methods. No drawings in Raphael's hand can be associated with this proposed survey project, however, and the number of drawings of ancient architecture attributed to him is surprisingly small.⁶⁰ These include three drawings of the Pantheon: a view of the cella interior and a view of the main entrance exterior, now in the Uffizi (Figure 15r–v), and a sheet of studies of the interior, now at the Royal Institute of British Architects, London.⁶¹ Although these Pantheon drawings were produced before Raphael proposed the Roman survey, they do provide some evidence of how he approached the problem of architectural documentation, and they form a visual counterpart, and counterpoint, to the ideas that he laid out in writing.

In the Goldschmidt series, the view of the interior vestibule of the Pantheon (Figure 16v) appears to have been based on Raphael's similar drawing of the exterior vestibule



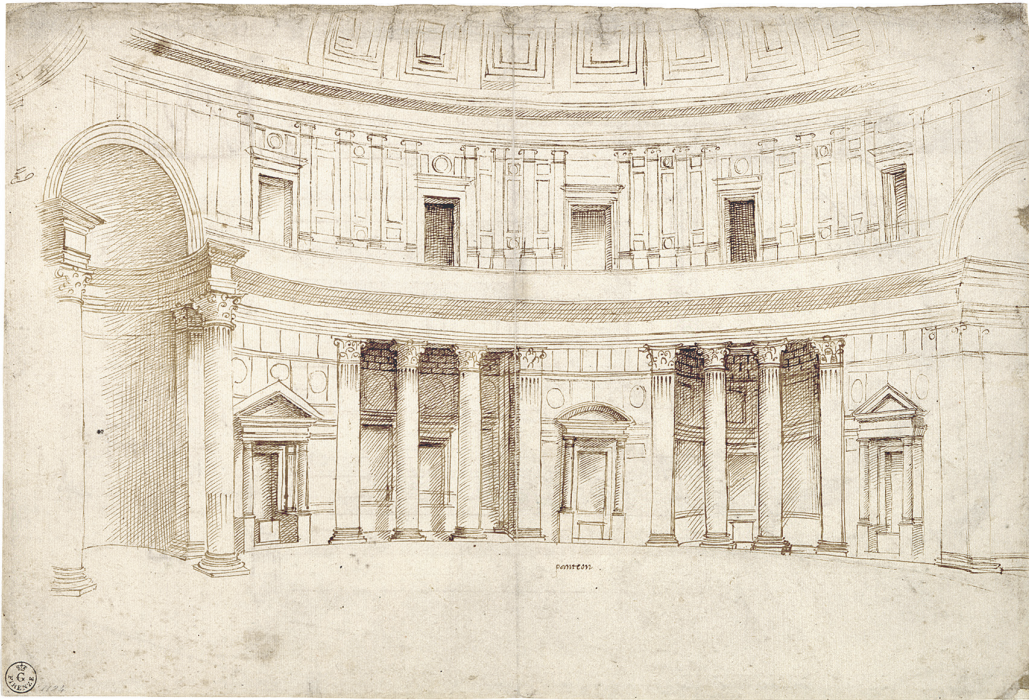
(Figure 15v), which shows the opposite side of the same door. Raphael's drawing, as well as his perspective view of the cella interior, were apparently as famous in their own time as they are today, and they were copied frequently by Renaissance architects.⁶² Four other versions exist of the view of the cella, all most likely derived from Raphael's, and five other copies, made directly from Raphael's drawing or from other versions of it, exist of the entrance vestibule view.⁶³ Together, these eleven views of the Pantheon vestibule and cella have intrigued scholars, not only because determining the relationships among the drawings poses a particularly vexing problem of connoisseurship, but also because the group sheds light on the circulation and representational techniques of architectural drawing books.⁶⁴

A similarity between a Goldschmidt sheet and Raphael's view of the vestibule was first suggested by one of the Goldschmidt group's previous owners, Lechevallier-Chevignard. In his notes, Lechevallier-Chevignard commented that one

of the drawings bore comparison with Raphael's view of the Pantheon's main entrance, which had recently been published in the *Gazette des beaux-arts*.⁶⁵ Curiously, the Goldschmidt drawing that Lechevallier-Chevignard compared to Raphael's view of the Pantheon door is not, as one might expect, the drawing of the interior vestibule (Figure 16v). Rather, the drawing he cited is a view into a rectangular alcove inside the cella (Figure 14v). Like the drawing of the interior vestibule, it is a carefully crafted perspective view, and this must be the reason why Lechevallier-Chevignard compared it to Raphael's drawing.⁶⁶

Parallels between the Goldschmidt view of the interior vestibule (Figure 16v) and Raphael's of the exterior vestibule (Figure 15v) go beyond the purely stylistic to include technical similarities. First, they share a common vantage point. As John Shearman noted, Raphael positioned himself as far from the door as was possible at the time; a wall that then stood at the outermost, or northernmost, row of portico

14 (cat. 4). Anonymous French draftsman, mid-16th century. Recto (left): perspective elevations of a Pantheon interior pilaster capital and entablature with profile of the base and details. Verso (right): view of a Pantheon interior rectangular alcove. The Metropolitan Museum of Art, Purchase, Rogers Fund, Joseph Pulitzer Bequest, and Mark J. Millard Gift, 1968 (68.769.68). Photographs: Katherine Dahab, The Photograph Studio, MMA

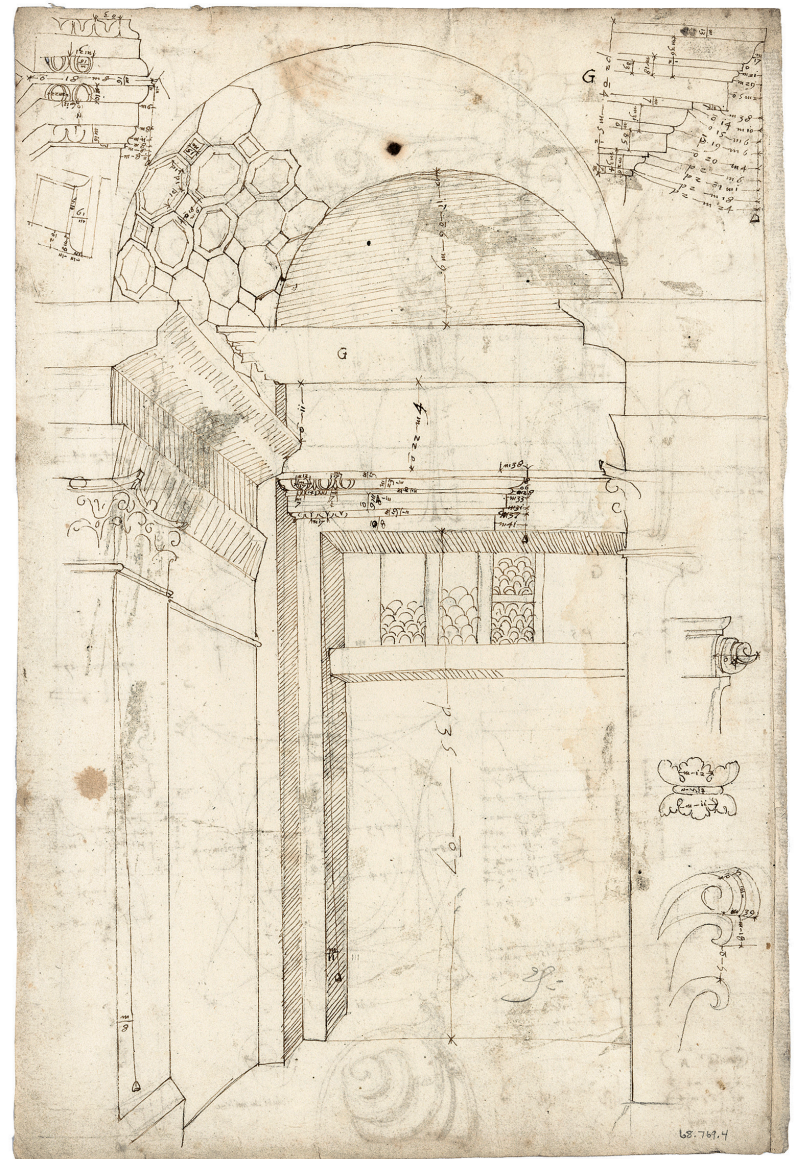
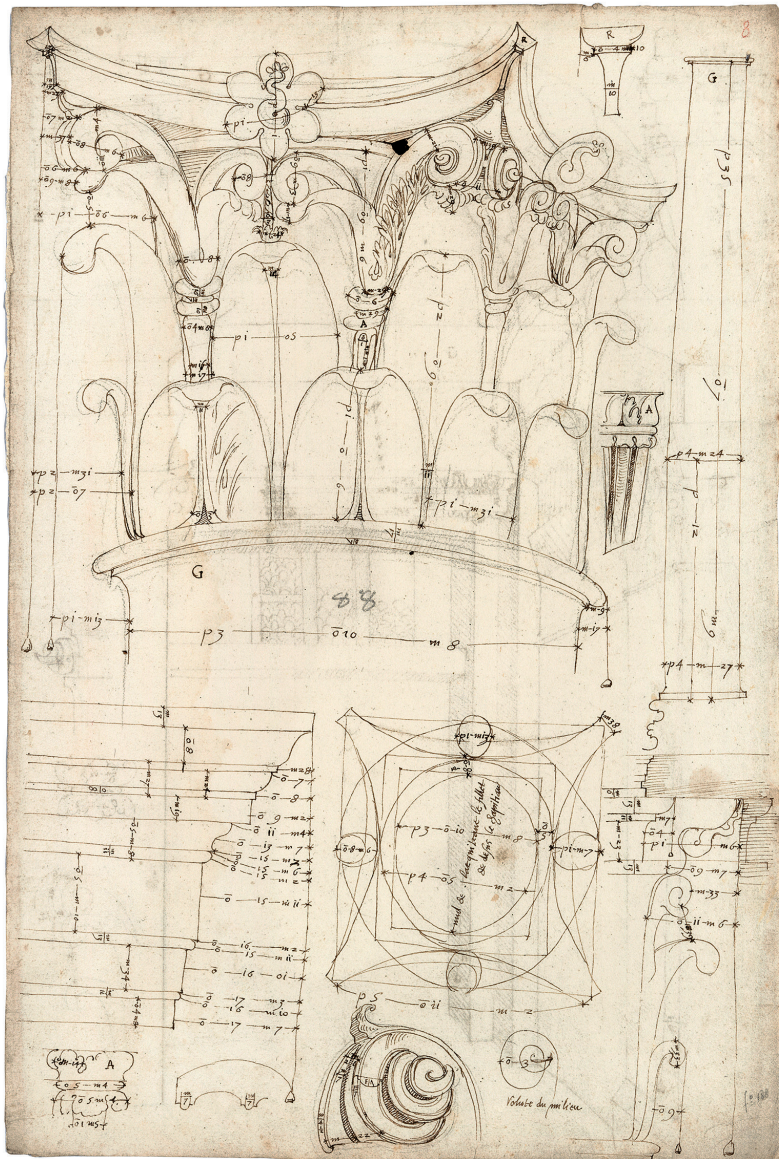


15. Raphael (Raffaello Sanzio or Santi; Italian, 1483–1520), first decade of the 16th century. Recto (left): view of the Pantheon cella. Verso (below): view of the Pantheon entrance from the portico. Pen and brown ink, $10\frac{15}{16} \times 15\frac{7}{8}$ in. (27.8 x 40.4 cm). Gabinetto Disegni e Stampe degli Uffizi, Florence (164Ar–v). Photographs: (Recto) Scala/Ministero per i Beni e le Attività Culturali/Art Resource, NY; (Verso) All Rights Reserved Ministry of Cultural Heritage and Activities



columns effectively determined the maximum scope of his vertical range.⁶⁷ This wall can be seen in several sixteenth-century drawings of the Pantheon, including Van Heemskerck's view of the portico (Figure 2).⁶⁸ The Goldschmidt draftsman, on the other hand, would have encountered no such barrier. Standing on the other side of the door, he could have drawn the vestibule from any point on the cella floor and consequently could have included much more of the cella wall in his drawing. Instead, he drew the door from the same distance that Raphael did, and in so doing he limited his own view to the doorway, the vestibule, and a slight indication of the structure on either side. The horizontal range of Raphael's exterior view was set by another architectural feature of the portico: the row of columns immediately to the right of the entrance, which would have obscured his sight line had he moved any farther to the west. From his vantage point inside the cella, however, the Goldschmidt draftsman would have had an unobstructed sight line, yet he chose to stand in the same spot relative to the door.

The construction method of the Goldschmidt drawing is another indication that the choice of vantage point was intentional. It has been said that Raphael's view appears to be a fair-copy drawing made at a desk rather than in the field because it was drawn with a stylus, compass, and rule.⁶⁹ Raphael needed these tools to work through the difficulties of representing a complex space—the vestibule area is both narrow and high—in a deeply foreshortened view. In the final drawing, aptly described by Lynda Fairbairn as “an almost bifocal perspective,” the mechanical nature of the drafting process is evident not only in the stylus marks



and ruled lines but also in the cleverness of the visual effects, such as the way that the steep recession allows one to see both the underside of the coffered vault and the tops of the column bases in the same view.⁷⁰

The Goldschmidt draftsman, by comparison, worked freehand, but he nevertheless managed to produce the same effect in his depiction of the west wall and barrel vault of the interior vestibule. The representation of these two elements in particular suggests that the draftsman used Raphael's drawing (or a version of it) as a model for his own perspective view. The cornice and baselines of the west wall recede, as they do in Raphael's drawing, to a vanishing point near the middle of the page, slightly to the right of the center. As is also the case in Raphael's drawing, radii from this point provide the alignment for the coffers along the curve of the barrel vault. It is not completely implausible that the Goldschmidt draftsman could have set up this

scheme correctly without the aid of a compass or rule, but the awkwardness of another perspective view—an elevation of the pilasters and paneling to the right of the main door (Figure 6r)—throws doubt on his ability to do so. Instead, it seems more likely that in order to work out the general shape of the barrel vault for the interior view, the draftsman modeled the two arcs that delineate it in Raphael's drawing and then dropped two vertical lines from the bottom points of the outer arc to determine the edges of the vestibule walls.

Two clues support this reconstruction of the Goldschmidt draftsman's process. First, the left endpoint of the inside arc of the barrel vault aligns with the outer frame of the doorway rather than with the edge of the vestibule wall. This error suggests that the draftsman did not understand that the barrel vault and the vestibule wall form a continuous plane, a fact that he could not have ignored had he constructed the

16 (cat. 5). Anonymous French draftsman, mid-16th century. Recto (left): perspective elevation of the Pantheon portico column capital with column details. Verso (right): interior view of the Pantheon door with details. The Metropolitan Museum of Art, Purchase, Rogers Fund, Joseph Pulitzer Bequest, and Mark J. Millard Gift, 1968 (68.769.4)

perspective himself. Second, the Goldschmidt draftsman laid out his drawing on the page so that the apex of the barrel vault falls just shy of the top of the sheet and the base of the vestibule pilaster extends to the bottom edge. Unlike most of the other drawings in the Pantheon series, this view fills the paper and is roughly centered on the half sheet, implying a degree of forethought not evident on the sheets that have three, four, or five details oriented in different directions. The thoughtful layout indicates that the draftsman had a vision of the finished drawing in mind before he began to draw.

Working in Rome, the Goldschmidt draftsman could have known Raphael's drawing either from the original or else from one of its copies. Not only were Raphael's views of the vestibule and the cella redrawn many times in the sixteenth century, but his elevation of an interior cornice was also copied in the Fossombrone Sketchbook.⁷¹ If the Goldschmidt draftsman did know one of these versions of the exterior vestibule drawing, then the corollary question is whether he might also have known another Raphael drawing, now lost, of the interior vestibule.

Other scholars have conjectured that Raphael executed additional drawings of the Pantheon besides the three that are extant. In his analysis of Raphael's view of the cella (see Figure 15r), Shearman claimed that a later draftsman added the right side of the interior wall, including the door, using a now-lost pendant view by Raphael.⁷² Shearman thereby used the stitched-together appearance of one Raphael drawing to posit the former existence of another. Arnold Nesselrath, on the other hand, surmised that an orthogonal elevation of the Pantheon interior that appears on the same sheet as two known copies after Raphael showing the cella and vestibule interiors (Universitätsbibliothek Salzburg H193/2, H193/1) was a copy of a lost Raphael original.⁷³

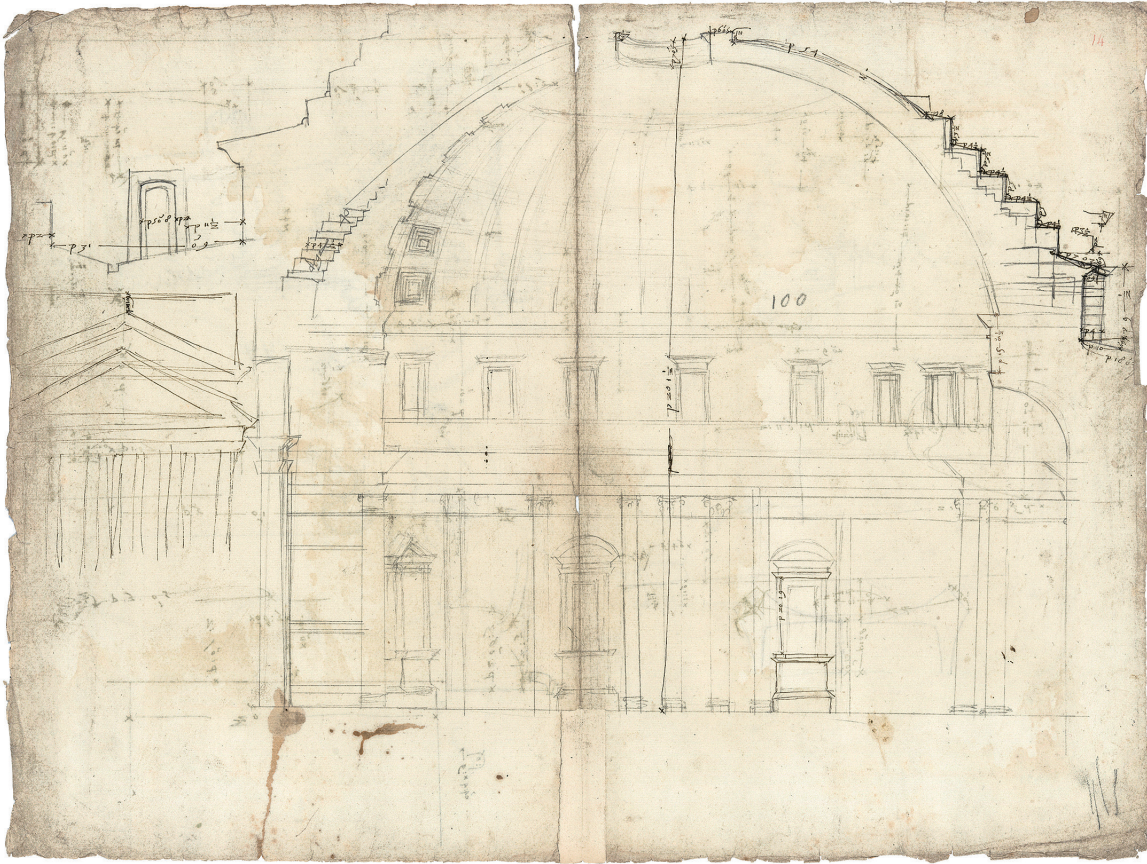
The interior vestibule drawing is not the only perspective view in the Goldschmidt series that is closer in its general character to Raphael's Pantheon studies than to other proposed models (such as Dosio's treatise drawings of the 1570s). As Lechevallier-Chevignard noted, views such as the one into a rectangular niche (see Figure 14v) are out of step with contemporary practice in the third quarter of the sixteenth century but of a piece with drawings made a half century earlier. Because of their technical ambition and their spatial qualities, moreover, it is tempting to read all the Goldschmidt views, including those of the interior vestibule, the bronze beams of the portico, the walls near the main entrance, and the rectangular niche, this way—as echoes of lost Raphael drawings. Though Walter Benjamin would have it that copies destroy the aura of an original work, in this case the copies themselves are the aura.

COLLABORATION AND ARCHITECTURAL DRAWING

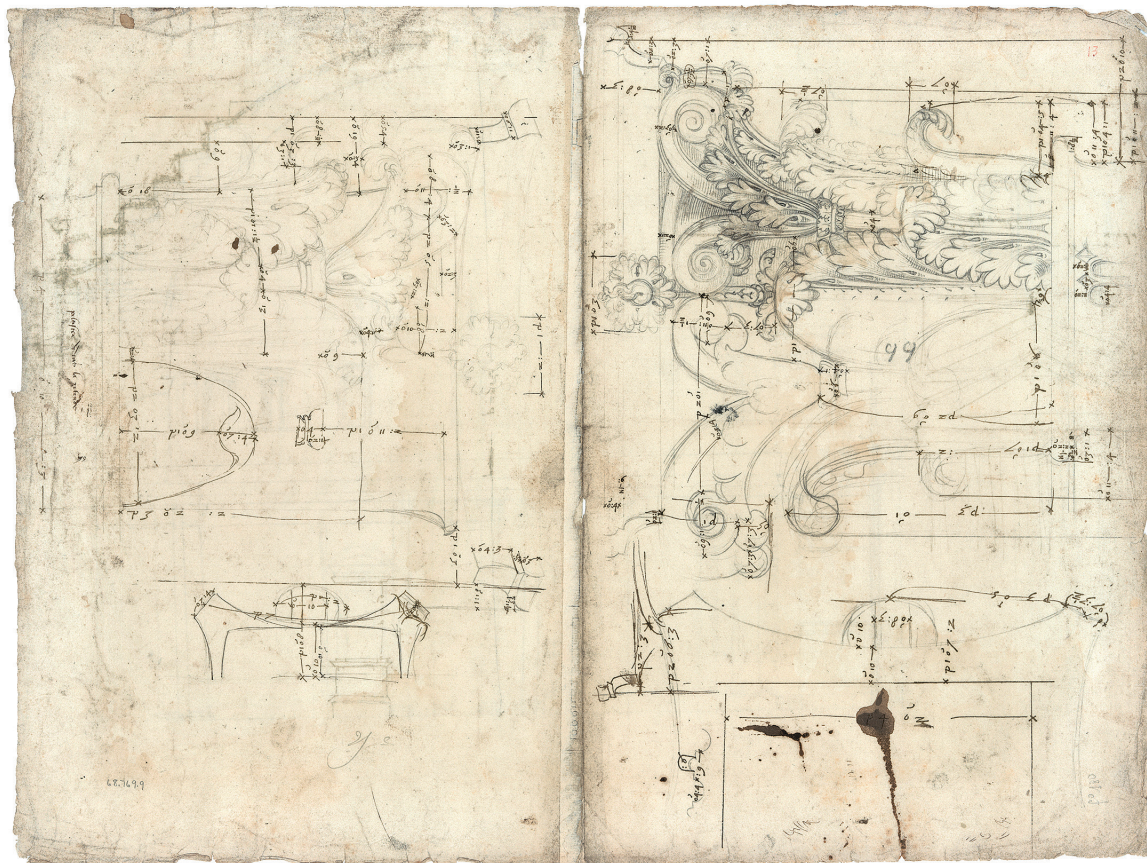
Shearman described the need for a technique that allows us to trace relationships among drawings that are more complicated than simply that of an original and its copies. The Goldschmidt Pantheon series exemplifies such complexities.⁷⁴ The connection between Raphael's drawing of the Pantheon cella and that in the *Codex Escorialensis*—the subject of Shearman's case study—is not unlike the relationship between the Goldschmidt series and the Windsor sheet. In both instances, the related drawings obviously derive from a common source, but the copying process may not have been straightforward. This is because the process of copying a drawing can involve not only recycling information from other drawings but also interpolating new information—whether from the site or from the imagination, whether accurate or erroneous. Thus the ancestors and the descendants within a family of drawings are not necessarily clear. The Goldschmidt view of the Pantheon vestibule, for example, might be appropriately described as a niece or nephew of Raphael's view: the views are separated by a generation and they share some DNA, but the line between them is not direct.

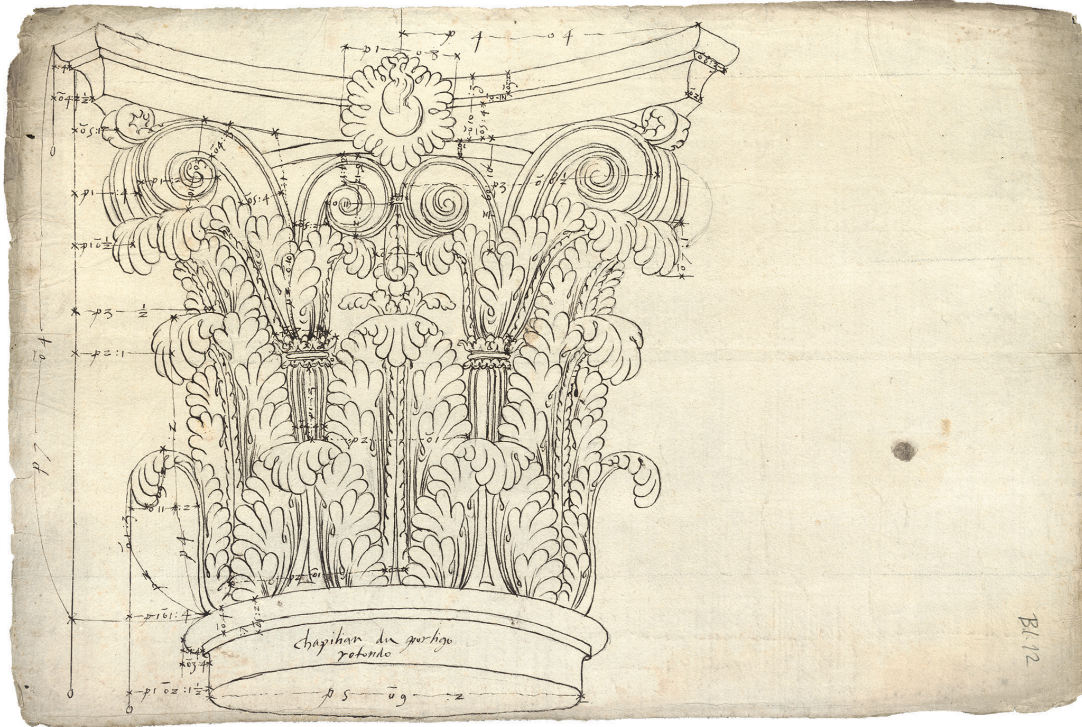
In addition to the sheet at Windsor Castle, the Goldschmidt series has other close cousins. The tenth sheet in the series (Figure 17)—set aside in our discussion until this point—was made by a different draftsman, and it relates to drawings now in the Bayerische Staatsbibliothek, Munich, and in the Cronstedt Collection of the Nationalmuseum, Stockholm. That this sheet was not made by the same draftsman as the other nine is readily apparent from a comparison of handwriting and style. On the recto of the tenth sheet is an orthogonal section through the Pantheon with sketched details of the facade and roof, and on the verso are orthogonal elevations and plans of capitals. The capital drawings, in particular, are close to others in *Codex 209e* in the Bayerische Staatsbibliothek (Figure 18), which contains sixteenth-century drawings and prints from various sources; in both cases, the drawings are orthogonal, unlike most of the Goldschmidt drawings. In turn, both the tenth Goldschmidt sheet and the related drawings in *Codex 209e* relate to another series of drawings in the Cronstedt Collection (Figure 19).⁷⁵

Within the several thousand sheets of the Cronstedt Collection is a group of about seventy drawings of ancient and modern Roman architecture that date to the second half of the sixteenth century. That group includes drawings of the Pantheon and of the Arch of Septimius Severus that relate closely to drawings in *Codex 209e*—so closely, in fact, that it is difficult to tell if one set was copied from the other, or if both sets are copies of a common source. Although the



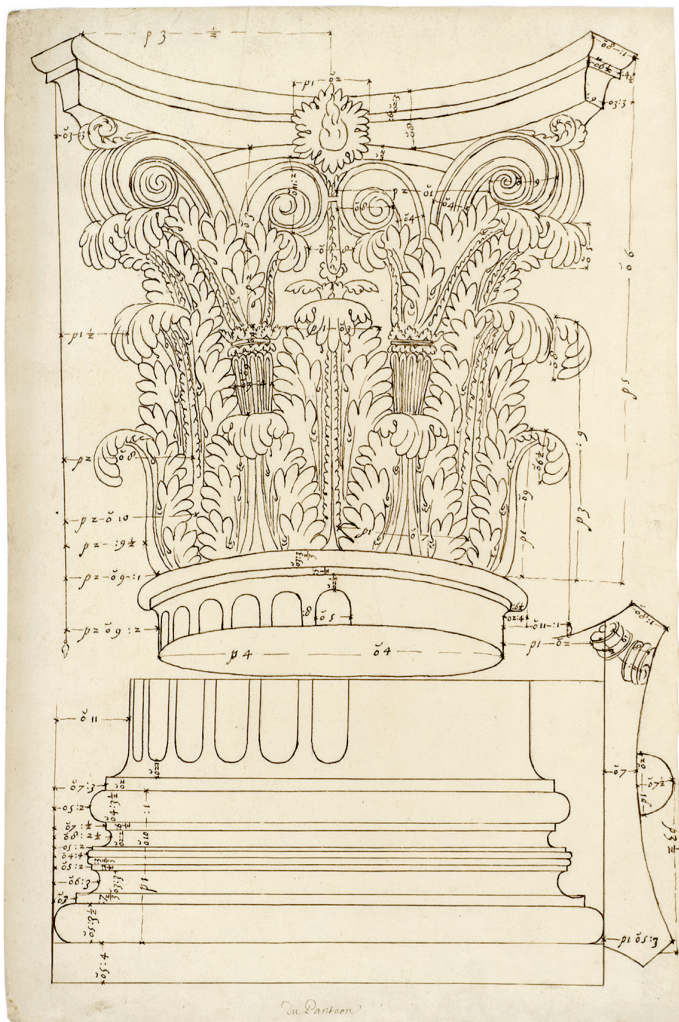
17 (cat. 10). Anonymous French draftsman, mid-16th century. Recto (left): longitudinal section through the Pantheon with elevation sketch of the portico and detail. Verso (below): elevations and partial plans of the Pantheon pilaster capitals. The Metropolitan Museum of Art, Purchase, Rogers Fund, Joseph Pulitzer Bequest, and Mark J. Millard Gift, 1968 (68.769.9)





18. Anonymous 16th-century draftsman. Elevation of a column in the Pantheon portico, in Codex 209e, fol. 12r. Pen and brown ink, 16¹⁵/₁₆ x 11³/₈ in. (43 x 29 cm). Bayerische Staatsbibliothek, Munich

19. Anonymous 16th-century draftsman. Elevation of a capital with an elevation and partial plan of the base of a column in the Pantheon cella. Pen and brown ink, 16⁷/₁₆ x 23¹/₁₆ in. (41.8 x 58.6 cm). Nationalmuseum, Stockholm, Cronstedt Collection (1416). Photograph: Nationalmuseum, Stockholm



Pantheon drawings in the Cronstedt Collection are unlike the other nine sheets in the Goldschmidt series, the two groups are nonetheless related: they once belonged to the same collection, which was formed sometime after the 1560s and remained unified until at least the mid-seventeenth century, as documented by a seventeenth-century French manuscript that contains copies made from drawings in both groups.

To summarize this web of copies: the Goldschmidt Pantheon series includes nine sheets that form a distinct group that links to the Windsor Castle sheet in one direction, as well as a tenth sheet by a different hand that links in another direction. That tenth sheet links to Codex 209e in Munich, which has a series of drawings of the Pantheon that includes similar drawings of capitals. The Codex 209e series then links to the Cronstedt Collection Pantheon drawings through a set of nearly identical copies. Finally, the Cronstedt series links back to the Goldschmidt Scrapbook, because both were once in the same collection and copied by the same draftsman. Although many of the links in this chain may lead back to Dosio's workshop, which is known to have produced multiple sets of drawings, the existence of the web itself indicates that the copying of architectural drawings was a widespread practice and that draftsmen routinely shared information. Differences among the copies in the chain reveals that this collaborative practice served various functions, as did the drawings themselves.

What makes the Goldschmidt Pantheon series such a rich historical document is the draftsman's interest in the

21. Anonymous 17th-century French draftsman. View of the roof structure of the Pantheon portico, ca. 1637–44. Pen and black ink with gray wash and graphite, 12⁷/₈ x 17⁷/₁₆ in. (32.7 x 44.3 cm). Worcester College Library, Oxford (MS B 2. 3, fol. 11v). Photograph: courtesy of the Provost and Fellows of Worcester College, Oxford



since the drawing is simply an enlarged version of one in the Goldschmidt series (see Figure 3r).

Of all the Goldschmidt Pantheon drawings, the view of the bronze beams that formerly supported the portico roof is by far the most frequently cited. It has drawn attention partly because the beams themselves are a famous subject—their destruction inspired the pasquinade *Quod non fecerunt barbari, fecerunt Barberini* (What the barbarians did not do, the Barberini did)—and also because contemporary renderings of them are rare. At the time that the draftsman of the Oxford manuscript made his copy, the bronze had already been removed, and he was the first to use the Goldschmidt view to graphically reconstruct the lost beams (Figure 21). The fact that the draftsman referred to the episode of the beams' removal in a note on folios 6v–7r suggests that he used the earlier drawings as a way of knowing the ancient structure and recovering information that had otherwise been lost to time. In contrast to the Goldschmidt draftsman, who focused on how the building functioned in the present, the French draftsman was interested in the drawing as a historical record.

Ironically, it is the individuality of the Goldschmidt Pantheon drawings that gives them their place in a long chain of copies, because their keen spatial sense and acute observation of detail made them attractive to draftsmen who

sought to understand the antique structure. Raphael's proposal, in the second decade of the sixteenth century, of a project to use drawings, in a sense, as an excavation tool was meant to recover and record information about antique architecture before this information was lost. The afterlife of the Goldschmidt series shows that a century after Raphael's letter, these survey drawings were themselves excavated and served this very purpose.

GEORGES CHEDANNE AND THE GOLDSCHMIDT PANTHEON SERIES

In contrast to the veracity of the Goldschmidt series, related drawings made by draftsmen who were removed from the subject in space or time often did not keep pace with changes in the architecture. The practice of copying could not replicate the experience of standing in front of a monument and drawing it in person: not only did the draftsman learn valuable information on-site, but the process of drawing could expose relationships that were otherwise invisible.

A striking episode in the history of the Goldschmidt Pantheon drawings continues this theme of discovery through the drawing process. In the late nineteenth century, the Goldschmidt Scrapbook came into the possession of Georges Chedanne, winner of the Prix de Rome of 1887.



22. Georges Chedanne (French, 1861–1940). Cutaway view of the Pantheon, 1892. Pencil, brown ink and wash, and white highlights on fine canvas mounted on cardstock, 39³/₁₆ x 51 in. (99.5 x 129.5 cm). Ecole Nationale Supérieure des Beaux-Arts, Paris (Env 82-05). Photograph: © RMN Grand Palais/Art Resource, NY

The drawings could not have had a more appropriate owner. For the subject of his fourth envoi, or portfolio of presentation drawings to be sent back to the French government, Chedanne chose the Pantheon, and in 1892 he was able to mount the scaffolding that had been erected at the ancient building by the Ministry of Public Instruction.⁷⁸ The research that he was able to undertake from this vantage point calls to mind how the Goldschmidt draftsman may have used the occasion of an earlier renovation project to make drawings of the entrance. In addition to uncovering brick stamps that changed the accepted date of the building from Agrippa's (63?–12 B.C.) era to Hadrian's (r. A.D. 117–38), Chedanne produced a set of intricate and detailed drawings that overturned previous hypotheses about the Pantheon's structure.⁷⁹

Prior to Chedanne, as William Loerke has made clear, architects and archaeologists had struggled to produce a convincing explanation either for the structure that supports the dome or for the function of the Corinthian order that encircles the second story of the interior cella.⁸⁰ Chedanne's drawings explained both. The system of conoid vaults and radial arches that he uncovered behind the second-story wall not only carries the weight of the dome but also determines the size and rhythm of the pilaster order that had confounded visitors to the Pantheon for centuries. Chedanne's intricate and detailed graphic excavation—which includes

a cutaway view through the Pantheon cella that exposes this relationship between structure and ornament—showed what so many before had failed to see: that “the size, scale, and position of its elements (pedestal, windows, pilasters, entablature) were largely controlled by the arcuate system in this level” (Figure 22).⁸¹

Francesco di Giorgio Martini, Antonio da Sangallo, Michelangelo Buonarroti, Giorgio Vasari, Gianlorenzo Bernini, Antoine Desgodetz, and Eugène Emmanuele Viollet-le-Duc did not see this relationship, but the Goldschmidt draftsman did. Two drawings from the Pantheon series prove that he understood the connection between the interior arches and the surface order. The section through a rectangular alcove (Figure 4v) shows the relationship between the footing of the radial arches and the base underneath the pilaster order, and one can see in the drawing how the location of the arch footing determines the placement and height of the second-story openings. In the two elevations on the sheet of attic studies (Figure 3v), these radial arches are visible through the openings in the wall, so one can see how the spacing of the arches determines the width of the openings. The section and elevations demonstrate how the interior structure governs the exterior ornament: it is as though the Goldschmidt draftsman tried to see through the wall with these drawings. This understanding of the relationship

between structure and ornament at the Pantheon escaped many who preceded him and many who followed—but not Chedanne, who also knew it because he drew it.

The survey drawing has an afterlife of its own, separate from the life of the structure it depicts. Tilmann Buddensieg has interpreted early modern drawings of the Pantheon as a case study in reception theory, reading architectural drawings to consider how architects understood the ancient building before their eyes.⁸² He examined work by architects who purposely did not draw what they saw but, rather, criticized or analyzed it in some way in their drawings; Francesco di Giorgio Martini's correcting of the vertical rhythms of the ornamentation is an example.⁸³ In Buddensieg's project, the less antiquarian the drawing, the more it reveals. The Goldschmidt drawings, on the other hand, invite an antiquarian approach at first, because their draftsman did draw what he saw—and he saw so much. From the sixteenth century to the present, the Goldschmidt Pantheon series has been mined for the information it contains, as both copyists and scholars have considered the drawings as evidence about the ancient building. In the end, this antiquarian approach has produced a second case study in reception theory of the Pantheon, one that explores how the drawing, rather than the building, was understood.

NOTES

1. D'Orgeix 2001, p. 177.
2. D'Orgeix's 2001 article is based in part on an unpublished catalogue of the Goldschmidt Scrapbooks written by Howard Burns in the 1960s. Titled "Research for Architectural Drawings," this catalogue is now kept in the Department of Drawings and Prints at the Metropolitan Museum (see Burns [1968]). Burns and d'Orgeix link the Goldschmidt and Scholz Scrapbooks to each other on the basis of watermarks, sequential graphite and red chalk numbering systems, and similar handwriting that they share.
3. D'Orgeix (2001, p. 169) suggests that this occurred in the late seventeenth or early eighteenth century. The Goldschmidt Scrapbook now has 68 drawings and the Scholz Scrapbook has 135, but the original collection was certainly much larger than this, because the sequential numbering system on the sheets is missing many numbers.
4. Both the scrapbooks—now unbound—were named after the dealers who sold them to the Metropolitan. Lucien Goldschmidt (1912–1992) sold the drawings of ancient architecture to the Museum in 1968, and an announcement of the purchase was published in *MMA* 1975, p. 201. The Museum's online catalogue (www.metmuseum.org/collections) lists the provenance of these drawings before 1968 as "Bloudelet," from whom Goldschmidt presumably acquired them. This must have occurred in France, because in 1966 two of the drawings were given to the French government in exchange for permission to export the rest; these two drawings, of measured capitals, are now in the Cabinet des Estampes of the Bibliothèque Nationale, Paris, where they are listed as anonymous donations. Their provenance is confirmed by the graphite numbers in the center of the sheets (71 and 75), which are similar to the numbers on the Goldschmidt Scrapbook

- drawings. See d'Orgeix 2001, pp. 174–75, figs. 11, 13, 14. The drawings of modern architecture were acquired from János Scholz (1904–1993) in 1948 and 1949; see Tolnay 1967. For a more detailed discussion of how the Scholz drawings came to the Metropolitan, see Taylor 2004, pp. 2–5.
5. Burns [1968], pp. 20–32, assigned the entire Goldschmidt Pantheon series to Hand F, except one folio (Figure 17), which he gave to Hand A, one of the primary draftsmen responsible for most of the other drawings in the Scrapbooks. D'Orgeix (2001, p. 198) then reassigned the drawings on two other folios (Figures 3, 8v) from Hand F to Hand M. Yet Burns's assessment seems correct: these two sheets are so similar to the others in the series that there is no reason that they should be attributed to another draftsman.
 6. Hülsen and Egger 1913–16, vol. 2, fig. 3.
 7. D'Orgeix 2001, p. 177.
 8. Burns discussed other observations of this detail. In a section drawing through the Pantheon now in Ferrara, Baldassare Peruzzi described the curvature in an inscription but did not draw it (Burns 1966, p. 250n18). Burns also cited a drawing of the curvature in the *Codex Coner*, folio 33v, as well as a written description of it in Bernardo Gamucci, *Libri quattro dell'antichità della città di Roma* (1565, p. 162). In addition to the examples cited by Burns, a drawing in the Albertina made by the anonymous Italian "G"—a copyist of Giovanni Antonio Dosio or possibly Dosio himself—includes a diagram of the curvature similar to the one in the Goldschmidt folio (Campbell 2004a, pp. 405, 410, comp. fig. 139ii). For the drawing by the anonymous Italian "G," see also Valori 1985, pp. 163–64, 185–87.
 9. Wilson Jones 2009, pp. 75–77.
 10. *Ibid.*, p. 77, for a recent survey of the stairs.
 11. Geymüller 1883, pp. 28–29, figs. 5, 6, 8.
 12. For another representation of the lost bronze bars of the oculus, see Desgodetz 1682, pl. XIX. The removal of the bronze is discussed in de Fine Licht 1968, pp. 144–45.
 13. Nesselrath 2008, p. 62, fig. 23. For the removal of the bronze trusses, see Rice 2006 and 2008.
 14. De Fine Licht 1968, p. 41.
 15. For the Pantheon vestibule marbles, see Nesselrath 2003.
 16. The alterations to the door framing were made during the renovations that took place under Pope Benedict XIV; see de Fine Licht 1968, p. 271n9. For another representation of the older framing, see Desgodetz 1682, pl. XIII.
 17. D'Orgeix 2001, p. 178; Burns also mentioned this coffering ([1968] pp. 20, 24).
 18. Burns ([1968], p. 31) discussed this element.
 19. The one exception to this focus on the present-day Pantheon is Figure 8v. Next to a drawing of three niches in the rear wall of a semicircular cella alcove, there is the inscription *selon qui se peult voir quil estoit ainsi de lantique* (based on this, one can see that it was such in antiquity).
 20. Palladio 1570, bk. 4, chap. 20, p. 78.
 21. For the Peruzzi drawing, see Burns 1966, p. 245. For Renaissance criticism of the Pantheon including the cella decoration, see Buddensieg 1964, 1971, and 1976; Marder 1989, 2000, and 2009; and Nesselrath 2008.
 22. The watermark on the Goldschmidt sheets has a ladder inside a shield; for a discussion of its dating, see Taylor 2004, p. 15. Woodward (1996, p. 153, no. 257) has written that he found a similar watermark on a print signed by Enea Vico and published by Antonio Salamanca about 1540. However, the ladder in the watermark that he illustrates is slightly narrower than the one of the Goldschmidt sheets. The Zonghi index of the Fabriano paper

- watermarks includes three that are similar to the Goldschmidt watermark: number 1561, which is dated to 1548, and numbers 1562 and 1563, which are both dated to 1565 (Zonghi and Zonghi 1953, pl. 112). Briquet (1923, p. 345) compared his number 5930 with Zonghi's number 1561, but he identified this watermark as "Lucques" (Lucca), 1560.
23. MMA 49.92.72.
 24. Ackerman 1964, pp. 118–19.
 25. See Campbell 2004a, pp. 405–16, nos. 139, 140, where the author refers to the Goldschmidt drawing as "a lost sketch of the roof trusses ascribed to Philibert de l'Orme" (p. 405). Based on a tip from Geoffrey Taylor, Campbell later clarified the connection between the two drawings, established the location of the Goldschmidt drawing at the Metropolitan, and dismissed its attribution to de l'Orme (Campbell 2004b, pp. 39–42). Burns was also aware of the Windsor Castle drawing and its relationship to the Goldschmidt series; see Burns [1968], p. 20.
 26. Campbell 2004a, p. 312.
 27. *Ibid.*, p. 313.
 28. *Ibid.*
 29. *Ibid.*, p. 405.
 30. For the renovation of the Pantheon doors under Pius IV, see Ugonio 1588, p. 312; Lanciani 1881, p. 286; Lanciani 1907, p. 238; Cerasoli 1909, p. 284; Coffin 1964, p. 193n10; and Burns 1966, p. 265n47.
 31. Desgodetz 1682, pl. XIII. A mid-seventeenth-century French manuscript in the collection of the Institut de France includes an elevation and partial section of one of the Pantheon door leaves, as well as detailed studies of the bolts (MS 1029, "Recueil de desseins de statues, bas-reliefs et autres ornemens de sculpture antiques, et des portes et autres ouvrages de menuiserie du Palais du Vatican, enrichis d'ornemens . . ." fol. 15). For this manuscript, which is sometimes attributed to the circle of Charles Errard, see Lemonnier 1916. For another detailed study of the Pantheon door rosettes, see Piranesi 1780–90, pl. XX, "Dimostrazione della Porta del Panteon."
 32. There are no drawings of the door leaves among the studies of the Pantheon in the Uffizi by Giovanni Antonio Dosio or among the similar series of studies by an anonymous draftsman in the Albertina; see Borsi et al. 1976, pp. 109–15, and Valori 1985, pp. 177–96. For the treatises, see Serlio 1540 and Palladio 1570, for example.
 33. Cerasoli 1909, p. 284; see also Gruben and Gruben 1997.
 34. See Burns [1968], pp. 7, 20.
 35. Geymüller 1883, pp. 28–29.
 36. De l'Orme 1567, pp. 180–90. For the timing of de l'Orme's visits to Rome, see Pérouse de Montclos 1987 and 2000.
 37. The sale took place at the Hôtel Drouot, Paris, from April 30 to May 2, 1902; lot 50, which contained the volume attributed to de l'Orme, was sold on May 1. A copy of the catalogue, entitled *Dessins anciens et modernes; Tableaux; Objects d'art et d'ameublement*, is available at the Frick Art Reference Library, New York. See d'Orgeix 2001, pp. 169, 194n5.
 38. Nizet 1902, p. 268. In his article, Nizet maintained the attribution of the drawings to de l'Orme, as did Richard Phené Spiers in a review of Thomas Ashby's publication (1904) of the Codex Coner (Spiers 1905, p. 232). Ashby himself later revived the de l'Orme attribution (Ashby 1913, p. 202).
 39. For thirty years after Chedanne's death, the drawings remained in relative obscurity, and during that time, scholars who knew of them from previous publications presumed they were missing. In 1958 Anthony Blunt wrote (p. 15), "the most important group of these drawings [attributed to de l'Orme], formerly in the Lechevallier-Chevignard and Chedanne Collections, has disappeared within the last few years." Ten years later, in his monograph on the Pantheon, Kjeld de Fine Licht reproduced one of the Goldschmidt drawings as attributed to de l'Orme, but he gave no indication of the drawing's current location (de Fine Licht 1968, p. 52, fig. 53, p. 277n4). In his monograph on Philibert de l'Orme, Jean-Marie Pérouse de Montclos (2000, pp. 358–59) cited the photocopies of drawings from the Lechevallier-Chevignard collection that are kept with the two drawings at the Bibliothèque Nationale, seemingly unaware that the originals were by then at the Metropolitan Museum.
 40. For Van Heemskerck's Pantheon drawings, see Hülsen and Egger 1913–16, vol. 1, fol. 10r; vol. 2, fols. 2r, 39r.
 41. Pérouse de Montclos 2000, pp. 358–59; see also Pérouse de Montclos 1987, pp. 289–90.
 42. Wittkower 1978, pp. 78–86; Millon and Smyth 1988, pp. 103–18; Millon and Magnago Lampugnani 1994, pp. 570, 654, 658–65.
 43. D'Orgeix 2001, p. 193.
 44. Indeed there is strong evidence against it, particularly the fact that Dupérac's handwriting cannot be identified on any of the drawings; see Lurin 2006, pp. 352–55.
 45. Bedon 2008, pp. 191, 202n96.
 46. Kulawik 2002, pp. 104–5; Kulawik 2006, pp. 410–12. The connection between the codex in Berlin and the drawings in New York has been proposed before. James Ackerman (1962, pp. 243) hypothesized a Destailleur provenance for the Scholz Scrapbook and thus a tangential connection between the Goldschmidt Scrapbook (the location of which was then unknown) and the Berlin codex. According to Christof Thoenes (in Millon and Magnago Lampugnani 1994, p. 646, no. 372), Christoph Luitpold Frommel suggested that the draftsman of the Codex Destailleur D, who he considered might have been Jacob Bos, also made drawings in the Scholz Scrapbook.
 47. Millon and Magnago Lampugnani 1994, pp. 646–48.
 48. For the activities of the Accademia della Virtù, see Campbell 2004b, pp. 25–26, and Pagliara 1986, pp. 67–74.
 49. Tolomei 1547, fols. 81–85, reprinted in Barocchi 1977, pp. 3037–46.
 50. Tolnay 1967, pp. 64–68; see Borsi et al. 1976, pp. 158–72, 181–91, 301–17, 386–88, for the Dosio drawings from which the Scholz drawings are copied.
 51. Bertocci and Davis 1977, p. 94.
 52. In addition to the drawings in Vienna, an album relating to Dosio's unpublished architectural treatise has recently been discovered in the Württembergische Landesbibliothek, Stuttgart; see Fitzner 2012.
 53. Lemerle 2002, p. 163. On Poldo d'Albenas and his milieu, see Sauzet 2008.
 54. Gros 1983, pp. 181–82; Spielmann 1966, p. 48; Forssman 1973, pp. 22–23.
 55. Lemerle 2005, pp. 61–63.
 56. *Ibid.*, p. 64.
 57. Gros 1983, p. 181.
 58. Lemerle 2002, p. 168; see Poldo d'Albenas 1559–60, pp. 85 (Alberti), 126 (Vitruvius).
 59. Poldo d'Albenas 1559–60, p. 81.
 60. However, various drawing books from the second and third decades of the sixteenth century that have drawings of ancient monuments have been associated with the project; see Buddensieg 2006, p. 19.
 61. Nesselrath 1986b, p. 358. The studies of the Pantheon interior at the RIBA have the inventory number XIII/1r and v; for these, see Burns, Fairbairn, and Boucher 1975, p. 263n489.

62. For a concise introduction to Raphael's drawings of the Pantheon and the drawings related to them, see John Shearman in Ray, Tafuri, and Frommel 1984, p. 418, no. 3.2.4; and Shearman 1977, pp. 107–46, 189–96.
63. The cella drawings are Codex Escorialensis, fol. 30r; Uffizi 1950A; Uffizi 4333A; and Universitätsbibliothek Salzburg H193/2. The vestibule drawings are Codex Escorialensis, fol. 30r; Uffizi 1949A; Uffizi 1948A; Margaret Chinnery Album (Sir John Soane Museum), fol. 6r; and Universitätsbibliothek Salzburg H193/1.
64. See, especially, Nesselrath 1986b. Scaglia 1995 offers an opposing view of these drawings.
65. Lechevallier-Chevignard's notes on the Goldschmidt group are kept in a curatorial file in the Metropolitan Museum Department of Drawings and Prints. The article he cited is Geymüller 1870.
66. When the Goldschmidt Scrapbook came into Lechevallier-Chevignard's possession, the drawings had been numbered sequentially in graphite, as described in the catalogue (see Appendix), and several numbers are now missing from that sequence. Numbers 96, 97, and 98 were missing from the Pantheon series, which raises the question, did one of these missing drawings show the exterior vestibule?
67. Shearman 1977, p. 141.
68. For another view of this wall, cited by Shearman, see Codex Escorialensis, fol. 43v (Egger 1905–6).
69. Shearman 1977, pp. 117–20; Fairbairn 1998, p. 224.
70. See Fairbairn 1998, p. 224. Fairbairn, *pace* Lotz, suggests that this drawing may have been copied so many times because it was used to teach perspective drawing; on this point, see Lotz 1977, pp. 24–26, and Egger 1905–6, p. 37.
71. Nesselrath 1986b, pp. 358–59; on the Fossombrone Sketchbook more generally, see Nesselrath 1993.
72. Shearman 1977, p. 116.
73. Nesselrath 1986b, p. 360.
74. Shearman 1977, p. 116.
75. On the Cronstedt Collection, see Langenskiöld and Moselius 1942; Moselius 1942–43; Langenskiöld 1946 and 1950; and Strandberg 1962.
76. Yerkes 2011.
77. The Colosseum drawings were based on the representations of this building that appear in Sebastiano Serlio's third book on antiquities (1540).
78. Loerke 1982, p. 41.
79. For a list of Chedanne's drawings, most of which have since been lost except the six that are now at the Ecole des Beaux-Arts, see Spiers 1895, pp. 175–82.
80. Loerke 1982, pp. 41–42; Loerke 1990, pp. 22–28.
81. Loerke 1990, p. 30.
82. Buddensieg 1971 and 1976.
83. Buddensieg 1971, pp. 263–65.

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APPENDIX: CATALOGUE OF THE DRAWINGS OF THE PANTHEON IN THE GOLDSCHMIDT SCRAPBOOK

The Metropolitan Museum of Art, Purchase, Rogers Fund, Joseph Pulitzer Bequest, and Mark J. Millard Gift, 1968 (68.769.1–9, 68)

All the drawings in the Goldschmidt Scrapbook are reproduced by individual accession number in the online collection database of The Metropolitan Museum of Art at www.metmuseum.org/collections. Because the drawings are no longer bound, recto and verso assignments for the sheets vary across publications. This catalogue uses the assignments given by Emilie d'Orgeix, whose publication is the only one that includes all the drawings. Of the ten sheets in the Pantheon series catalogued here, recto and verso assignments of three—68.769.1, 68.769.2, and 68.769.3 (cats. 1, 3, 2; Figures 1, 5, 7)—as listed by d'Orgeix are the reverse of the designations given in the Metropolitan's database. The database assignment is used here for one of them (68.769.1; cat. 1), but for the other two, halves of the same sheet, the d'Orgeix recto-verso assignment is maintained because of continuity of the drawing and each folio's relationship to its other half. The rest of the seven assignments listed by d'Orgeix match those in the database.

Each of the drawings in the Pantheon series has been numbered three times over the past three centuries. The drawings in the Goldschmidt Scrapbook, of which this series is a part, were once in the same collection as the drawings in the Scholz Scrapbook, also at the Metropolitan Museum. Sometime before the drawings passed into separate hands in the late seventeenth or early eighteenth century—divided according to subject, either ancient architecture (Goldschmidt) or modern (Scholz)—each of them was assigned a number, written in graphite near the center of the sheet. In the nineteenth century, the drawings of ancient subjects came into the possession of Edmond Lechevallier-Chevignard, by which time some in the original group were already missing. The drawings in the Pantheon series, for example, have sequential graphite numbers from 84 to 100, but there are no sheets numbered 96, 97, or 98. These sheets must have gone missing before Lechevallier-Chevignard acquired the group because during the time they were in his possession either he or Henry de Geymüller renumbered the Pantheon drawings in an unbroken series from 1 to 14, written in red in a corner of each sheet.

The Metropolitan Museum numbered only ten sheets of the Pantheon series, not because any were missing but, rather, to distinguish full sheets from half sheets. The drawings were originally made on full sheets that were later folded in half and bound. When they were subsequently unbound, some of the sheets were divided in half and others remained intact. Whereas Lechevallier-Chevignard numbered each half of all seven full sheets, the Metropolitan gave individual numbers to six half sheets and four full sheets. Of the six half sheets with their own Metropolitan accession numbers, 68.769.2 and 68.769.3 (cats. 3, 2; Figures 5, 7) clearly formed a full sheet (in this case depicting the Pantheon door), as did 68.769.5 and 68.769.6 (cats. 7, 6; Figures 4, 6), as evidenced by the alignment of the tear marks on their edges, and 68.769.68 and 68.769.4 (cats. 4, 5; Figures 14, 16).

CONCORDANCE OF NUMBERING SYSTEMS

Cat. no.	MMA acc. no.	Red (corner)	Graphite (center)
1	68.769.1	5–6	84–85
2	68.769.3	7	87
3	68.769.2	1	86
4	68.769.68	3	90
5	68.769.4	8	88
6	68.769.6	4	91
7	68.769.5	2	89
8	68.769.7	9–10	92–93
9	68.769.8	11–12	94–95
10	68.769.9	13–14	99–100

1

Recto: plan of the Pantheon portico and intermediate block. Verso: elevations of the Pantheon portico roof structure and bronze truss; details of the portico column base and the portico architrave soffit

Full sheet with center crease and guard strip remnant on verso
Pen and dark brown ink with black chalk, 23 1/4 x 17 5/16 in. (59 x 44 cm)

Watermark: A

Inscriptions: *lespeseur del setail* (recto, center right, in niche); *sallie p[our] la voue* (verso, top center, over second pier from left); various dimensions

Nizet 1902, figs. 4, 5; Anonymous 1905; Durm 1905, p. 567; Spiers 1905, p. 232; de Fine Licht 1968, fig. 53; MMA 1975, p. 201; d’Orgeix 2001, fig. 16; Campbell 2004b, fig. 11; Taylor 2004, pp. 112–13; Nesselrath 2008, fig. 23

68.769.1 (red 5–6; graphite 84–85)

Figure 1

On the recto, the plan of the portico was drawn freehand, and as a result its general proportions are inaccurate. Nevertheless, the plan includes detailed dimensions for nearly every element of the portico except the four easternmost columns (at the top of the sheet) and the eastern exterior building wall. Damaged by fire, this area of the portico was blocked off by a masonry wall until Pope Urban VIII had it dismantled during the renovation program of the 1620s. By then the eastern end of the porch had fallen into such a dilapidated state that the last row of columns was missing completely, which explains why the Goldschmidt drawing does not include its measurements. At the bottom of the Goldschmidt plan, the inscription *lespeseur del setail [sic]*, though difficult to make out, refers to the small measurement (*o5*) of the distance between the wall at the back of the niche and the line just inside it. Thus the inscription probably describes the thickness, or *l’épaisseur*, of a stone veneer or base—a *détail*—that is no longer visible. Other sixteenth-century plans of the portico, such as the one on folios 33v–34r of the Mellon Codex at the Morgan Library, New York, indicate the niche wall with a similar double line.

The top of the verso drawing shows the structure supporting the Pantheon portico roof as this structure appeared before 1625, when its bronze trusses were removed by order of Pope Urban VIII. The

perspective is that of someone standing in the center of the portico, close to the door and facing east, so that only one row of column capitals is visible. As Howard Burns observed, the inscription *sallie p[our] la voue*, which could mean “covered by the vault” or perhaps “extending from the vault,” over the second pier from the left may refer to the barrel vault that many sixteenth-century architects believed once covered this space (Burns [1968], p. 21). In his book on antiquities published in 1540, Sebastiano Serlio (p. 10) wrote that this barrel vault had probably been made of bronze, or perhaps silver, and he included an illustration of it even though the vault was not present in his own time.

As in the Royal Library drawing at Windsor Castle discussed by Ian Campbell (Figure 9; 2004a, pp. 405–16), the detail of the bronze truss at the bottom of the verso represents this element incorrectly, because it has the lower diagonal web resting directly on the architrave instead of on the stone piers that are stacked above each column. That both the Windsor Castle and the Goldschmidt drawings contain the same obvious error adds to the considerable evidence that they are copies of the same source. Kjeld de Fine Licht reproduced the entire verso of the Windsor Castle drawing as well as a detail of the truss, which he mistook to be a separate drawing (1968, pp. 52–53). In this error de Fine Licht was following Rodolfo Lanciani (1897, p. 483), who had reproduced the same detail, misidentifying it as a drawing in the Uffizi that he attributed to Giovanni Antonio Dosio. In addition to the truss detail, the bottom of the Goldschmidt verso drawing also includes a profile of a portico column base and a plan of an architrave soffit, identified by the key letter *H*, which is keyed to the drawing of the roof structure above.

2

Recto: perspective elevation of the Pantheon portico entablature with details of the coffering. Verso: elevation, schematic elevation, and detail of the Pantheon door

Half sheet cut or torn on left side of verso with guard strip remnant on right side

Pen and dark brown ink with black chalk, 16 5/8 x 11 13/16 in. (42.3 x 30 cm)

Watermark: none

Inscriptions: *la cornice de devant* (recto, center); various dimensions

Taylor 2004, p. 117

68.769.3 (red 7; graphite 87)

Figure 7

On the recto, the perspective elevation of the portico entablature has the key mark *N*, which refers to another drawing of this element on catalogue number 3v (Figure 5v). The key mark *A* identifies the rosette coffer. On the verso, the key mark *Q* establishes the location of the entablature over the main door, drawn in profile on catalogue number 3v. The elevation of this door at the bottom of the sheet joins with the fragment on catalogue number 3r to form a single drawing. It shows the door without the bolts that now adorn its surface and with one of the side pilasters that were later replaced. In the drawing, the fluted pilaster appears without a base, as it does in Raphael’s view (Figure 15v) but not Van Heemskerck’s (Figure 2), in which the base was probably added by the artist (Gruben and Gruben 1997, pp. 11, 26).

Because the elevation on the verso is incomplete, the number of sections in the metal grate above the doorframe is ambiguous. The three panels above the left door leaf align at the center of the door

opening, so if the grate were symmetrical it would have had six panels, as it does now. Both Raphael and Antoine Desgodetz (1682, p. 19) show the sixteenth- and seventeenth-century version of the grate with seven panels, however, so logically that is how one would expect it to appear in the Goldschmidt drawing (Gruben and Gruben 1997, pp. 26, 36). In catalogue number 5v (Figure 16v), the spacing of the panels is shown haphazardly, suggesting that the draftsman may not have faithfully recorded their number or arrangement in either drawing.

3

Recto: elevation, profile, plan, and details of the Pantheon portico pilaster; plan and detail of the Pantheon door.
Verso: elevation and details of the Pantheon portico pediment

Half sheet cut or torn on left side of verso with guard strip remnant on right side of recto

Pen and dark brown ink with black chalk, 16⁵/₈ x 11¹³/₁₆ in. (42.3 x 30 cm)

Watermark: A

Inscriptions: *du pilastre quare* (recto, center left, over pilaster plan); *pianta de la porta di bronze* (recto, bottom center); *dedans la frize Il fini au droit de la seconde colone* (verso, top right, below portico inscription); *la cornice de devant* (verso, center right); *la corronnice du portique de devant* (verso, bottom left); various dimensions

Taylor 2004, pp. 114–16

68.769.2 (red 1; graphite 86)

Figure 5

This drawing and catalogue number 2 (Figures 5, 7) are two halves of the same sheet. This is confirmed by the partial elevation of the grate over the Pantheon main door at the bottom right corner of catalogue number 3r, a fragment that joins with the rest of the door elevation on catalogue number 2v. The other drawings on catalogue number 3r include an elevation, profile, and plan of a pilaster from the portico, labeled *du pilastre quare*; three details from this pilaster; and a plan of one of the bronze door leaves, labeled *pianta de la porta di bronze*. This plan shows both the door's recessed exterior surface as well as its flat interior surface, features that were noted by Giovanni Battista Montano (1534–1621) in his own studies of the Pantheon door (Gruben and Gruben 1997, p. 15; Fairbairn 1998, pp. 618–19). The door elevation includes another carefully observed detail, the crossbar visible in the fourth panel of the metal grate that sits over the doorframe, allowing light to penetrate to the interior. Few draftsmen besides Maarten van Heemskerck recorded this element (see Figure 2), which is shown again on catalogue number 5v (Figure 16v). The verso of the Windsor Castle sheet has similar drawings of the pilaster (Figure 9).

On the verso, the inscription from the Pantheon pediment—*M^ΔAGRIPPA^ΔL^Δ F^Δ CO/S^Δ TERTIVM^Δ FECIT^Δ*—is drawn at the top of the sheet near the words *dedans la frize Il fini au droit de la seconde colone*, which explain that the pediment inscription, located on the entablature frieze, ends to the right of the second column; the two *Ts* in “Tertivm” have dimensions. The letter *S*, drawn a second time at an enlarged scale, also has dimensions, as well as two plumb bobs. These are the only known drawings that show the ancient bronze lettering of the pediment in such detail; the letters on the building today are modern replacements. Below the drawings of the letters, an elevation of the portico pediment includes details and dimensions for one of the protruding stones that Palladio included in his own facade elevation

(1570, bk. 4, chap. 20, pp. 76–77), accompanied by an explanatory note indicating that he had no idea why these stones were there. At the center of the page, the inscription *la cornice de devant* (the front cornice) identifies the perspective elevation of the pediment cornice. In the bottom left corner of the verso, a profile of the entablature above the main door is oriented sideways, as are three of its ornamental details and the inscription *la corronnice du portique de devant* (the front cornice of the portal). The key mark *Q* identifies this element on the schematic elevation of the door on catalogue number 2v (Figure 7v). The Windsor Castle sheet's recto has two similar drawings of this entablature profile and its ornamental details, with dimensions in Portuguese feet.

4

Recto: perspective elevations of a Pantheon interior pilaster capital and entablature with profile of the base and details. Verso: view of a Pantheon interior rectangular alcove

Half sheet cut or torn on left side of recto with guard strip remnant on right side of verso

Pen and dark brown ink with black chalk, 16¹/₄ x 11⁷/₁₆ in. (41.3 x 29 cm)

Watermark: A

Inscriptions: *p–4–ō8m–i–dun coin jusques a lautre* (recto, bottom right); *Basse des grand colones par dedans* (recto, bottom right); *marbe* (verso, center left); *porfilo* (verso, center left); *canelure 9* (verso, center left, on the pilaster); various dimensions

Waters and Brothers 2011, p. 62, no. 5.3

68.769.68 (red 3; graphite 90)

Figure 14

The recto of this sheet has twelve drawings of elements from the lower order of the interior of the Pantheon rotunda. The two largest and most detailed drawings are the perspective elevation of the entablature at the top right and the perspective elevation of a pilaster capital at the bottom left; around them are sketches of smaller elements, all with dimensions. At the left, these include, from top to bottom, a detail of an ovolo molding with the key mark *Q*, a detail of a modillion, a plan of the cornice, a profile of a coffer with a rosette, and a partial plan and a profile of a pilaster capital. At the right, from top to bottom, are a detail of a modillion, a plan of a pilaster at an alcove corner with the adjacent column, a detail of a molding, and a profile of a base.

On the verso, the view of an alcove incorporates several finely rendered details of the interior, such as the small raised molding band that continues the line of the pilaster collarino around the alcove and cella, the three rows of stone facing on the alcove's rear wall, and the stones that project out from that wall below the vault. The key mark *F* identifies the architrave over the openings in the side and rear walls of the alcove on the view of the alcove seen on catalogue number 7v (Figure 4v). The key mark *M* refers to the bronze pilaster at the left of the alcove, detailed on the recto. The key marks *R* and *V* refer to elements in this drawing—the pilaster at the left of the alcove and the molding or tabernacle to its left, respectively—for which there are no detail drawings elsewhere in the Goldschmidt series. Thus these key marks probably refer to drawings that originally belonged to the series but are now lost. At the top left corner of the sheet is a sketched plan detail of the pilaster fluting, with a dimension for one of the grooves.

Recto: perspective elevation of the Pantheon portico column capital with column details. Verso: interior view of the Pantheon door with details

Half sheet cut or torn on left side of recto

Pen and dark brown ink with black chalk, 16¹⁵/₁₆ x 12⁵/₈ in. (43 x 32 cm)

Watermark: none

Inscriptions: *nud de larquitrave le fillet de desus le chapiteau* (recto, center, on plan of capital); *volute du milieu* (recto, bottom center near volute); various dimensions

D'Orgeix 2001, figs. 17, 18

68.769.4 (red 8; graphite 88)

Figure 16

On the recto are eleven drawings of elements from the Pantheon portico. Most prominent among these, at the top of the sheet, is the elevation of a Corinthian column, which has three key marks identifying the additional details of the column on the right: *A* for the stalk, *R* for the corner of the abacus, and *G* for the column shaft and base. On the bottom half of the sheet are a profile of the portico interior architrave, another detail of the stalk (also marked with an *A*), a plan and elevation of a side volute, a perspective sketch of a central volute, a plan of a column, and a profile of the capital. Many of these portico details appear on the Windsor Castle sheet (Figure 9).

The verso of this sheet has a perspective view of the interior of the Pantheon's main entrance. Burns ([1968], p. 24) and d'Orgeix (2001, p. 178) noted the exceedingly rare detail of the octagonal coffering covering the barrel vault over the door, which is not present in the building today. The view also records the leaflike lattice pattern of the metal grate over the door—a detail that was represented only schematically by Desgodetz (1682, p. 40), for example—and the awkward juncture where the cella cornice collides with the entrance wall entablature. At the edges of the sheet are six details of elements depicted in the view. Starting at the top left and working clockwise around the sheet, these are a plan of a square coffer from the barrel vault over the entrance, a profile of two adjoining octagonal coffers from the same vault, a profile of the cornice over the door (key mark *G*), a profile of the volute from the entrance pilaster capital, a detail of the crest of the stalk of the same capital, and a detail of the same crest with two leaves.

6

Recto: view of the Pantheon exterior vestibule with detail. Verso: plans of the Pantheon interior rectangular and semicircular alcoves

Half sheet with guard strip remnant on right side of recto

Pen and dark brown ink with black chalk, 16¹⁵/₁₆ x 12⁵/₈ in. (43 x 32 cm)

Watermark: none

Inscriptions: *droit au centre de ledifice* (verso, bottom center); *eqitere* (?) (verso, bottom right); various dimensions

68.769.6 (red 4; graphite 91)

Figure 6

On the recto, a perspective view of the panels and pilasters to the left of the Pantheon main door is remarkably similar to a drawing in the

Codex Coner in Sir John Soane's Museum, London, that shows the pilasters from exactly the same angle (fol. 51r; see Ashby 1904, p. 37, no. 62). Unlike the draftsman of the Codex Coner drawing, Bernardo della Volpaia (1475–ca. 1521), the Goldschmidt draftsman did not comment on the material of the stone panels between the pilasters, but he did exaggerate their depths in order to emphasize small changes in their surfaces. Although his proportions of the panels are off, this draftsman used shading to create a drawing that is more robustly modeled than any other depiction of this element, including those by Peruzzi and the Dosio copyist in the Albertina (Nesselrath 2003, pp. 25–27; Valori 1985, p. 181). His drawing corroborates that the panels were framed by strips of stone veneer, perhaps in contrasting colors, as seen in both the Codex Coner view and an elevation by Antonio da Sangallo (Frommel and Adams 2000, pp. 212–13). At the bottom of the drawing, a profile of these panels records their dimensions, with the lowest cornice identified by the key mark *B*, and the second relief panel from the top by the key mark *A*. The profile is similar to a sketch in the upper left corner of the Windsor Castle sheet verso (Figure 9), where it appears next to an elevation of the panels and the adjacent pilasters. On the right side of the Goldschmidt drawing, the panels and reliefs near the entrance are shown misaligned with their counterparts on the adjacent wall, an error probably caused by the draftsman's difficulty in handling the perspective.

The drawing on the verso has the inscription *droit au centre de ledifice* (to the right of the center of the building) on the plan of a semicircular alcove, which also appears on catalogue number 7r (Figure 4r). Another inscription on the plan of the semicircular alcove—*eqitere* (?)—is illegible, but it apparently refers to a pilaster on the rear wall of the alcove.

7

Recto: partial plan of the Pantheon with diagram of the floor curvature and detail of the alcove corner. Verso: view, partial section, and detail of the Pantheon interior rectangular alcove

Half sheet cut or torn on left side of recto with guard strip remnant on left side of verso (the verso drawings are upside down relative to the recto drawings); horizontal crease at center

Pen and dark brown ink with black chalk, 16¹⁵/₁₆ x 12⁵/₈ in. (43 x 32 cm)
Watermark: A

Inscriptions: *de plinte en plinte a lingne droite* (recto, top right, next to rectangular alcove); *toutte la haulteur depuis les tables de bronze jusques sus le pave de ledifice nōbre p-175-ō-ii-m 10* (recto, center); *p-130-ō7-m6 pour tout le diameter prins au plinte de la basse* (recto, center); *la moitie /p80/ō9/m9/* (recto, center); *memoire salir* (recto, bottom right); *prins au nu du pietdestal* (recto, bottom right); *niche* (verso, bottom left); various dimensions

Taylor 2004, pp. 118–19

68.769.5 (red 2; graphite 89)

Figure 4

On the recto, the plan of the western half of the Pantheon rotunda does not include the internal wall cavities between the alternating semicircular and rectangular niches. The key mark *V* in the top rectangular alcove refers to the perspective view of the alcove's ceiling arches on the verso of this sheet. In the top right corner of the recto, two plans detail the alcove's inner and outer corners. At the center of the plan, a diagram records the curvature of the rotunda floor between the bases

of opposite columns. Next to the diagram is a series of numbers, faintly written, presumably made by the draftsman to add up dimensions.

On the verso, the perspective view into the rectangular alcove to the west of the central apse has the key mark *F* to identify the location of the rear wall architrave on catalogue number 4v (Figure 14v). The view of the alcove arches at the upper right is similar to that on the Windsor Castle sheet (Figure 9r); both drawings probably derive from the same source. The drawings share three identical dimensions given in the same units, but each has additional dimensions not given on the other.

8

Recto: detail views of the Pantheon dome, oculus, niches, door, and interior of the intermediate block.

Verso: elevations of the Pantheon rotunda interior attic with partial section of the alcove ceiling and details

Full sheet with center crease and guard strip remnant on verso
Pen and dark brown ink with black chalk, 22¹⁵/₁₆ x 16³/₄ in. (58.3 x 42.6 cm)

Watermark: A

Inscriptions: *nôbre des petit escaliers •40•* (recto, top right, on dome steps); *trois [?] petit escaliers pō su [?] grand* (recto, top right, on dome steps); *escaliers 8* (recto, top center, on intermediate block steps); *arque de la niche* (recto, center right); *la porte* (recto, bottom right); *deulx [?] piece de fer •A• et vingt de •B• sōnt en tout 30•* (recto, center); *escaliers •8•* (recto, bottom left, on dome plan); *la porte de lescale* (recto, dome plan); *porte po[ur] mōter desus la couverture [?]* (recto, dome plan); *de circōference p/486-ō4-m3* (recto, dome plan); *canal* (recto, dome plan); *canal des eaues* (recto, dome plan); *serpentine* (verso, top); *serpentine, serp., etc.* (verso, bottom); *marmo, mar, etc.* (verso, bottom); *profi, porf, etc.* (verso, bottom); various dimensions

Geymüller 1883, figs. 5–7; Cozza 1983, figs. 1, 2; d’Orgeix 2001, fig. 19; Taylor 2004, p. 120

68.769.7 (red 9–10; graphite 92–93)

Figure 3

The recto has nine drawings of the interior and exterior of the Pantheon rotunda. Six of these drawings give details of the roof and the oculus. At the top right a perspective view of the rooftop stairs indicates the number of steps with three inscriptions: *nôbre des petit escaliers •40•* (number of small steps •40•), written above the dome steps; *trois [?] petit escaliers pō su [?] grand* (three small steps . . . [?]), written on top of the dome steps; and *escaliers 8* (8 steps), written near the steps on the intermediate block. The drawing also has three key marks. The letter *M*, written on the lead sheets covering the dome roof, has no known referent drawing. The letter *A*, written on the lip of the base of the dome, refers to the perspective elevation next to it on the left. Both these drawings illustrate the drainage system of the cella roof, where marble tiles with holes drilled into them allow water to drip off the edge (Cozza 1983, p. 110). The letter *P*, written on the lip of the dome base, refers to the plan of the dome and intermediate block at the bottom left of the sheet. Like the perspective view, this plan focuses on access routes to the roof and water drainage from it. The inscription *escaliers •8•*, written twice around the perimeter, refers to the staircases at the base of the dome, while the access doors from the intermediate block are identified with the inscriptions *la porte de lescale* (the door to the stairs) and *porte po[ur] mōter desus la couverture* (door for entering

under the cover). The plan also has a reference to the circumference of the dome, *de circōference p/486-ō4-m3*, and two inscriptions—*canal* and *canal des eaues*—on the drainage channel in the roof of the intermediate block. This channel can be seen in the schematic section on catalogue number 10r (Figure 17r).

The two drawings in the bottom right corner of the recto show the arches above the central apse (above, with the inscription *arque de la niche*) and the main entrance (below). In the middle of the sheet are three drawings that give details of the oculus. At the left edge of the drawing, the section through the oculus has a note concerning the vertical supports that once held a frieze, now missing: *deulx [?] piece de fer •A• et vingt de •B• sōnt en tout 30•* (ten pieces of iron A and twenty of B are 30 in all). To the right of that section, there is a small drawing of a cornice in profile. To its right, in the center of the sheet, another section through the oculus includes the metal sheets that cover the exterior rim, the cornice on the vertical face, and two of the vertical supports. Finally, above these two details, a perspective view into one of the interior rooms of the attic indicates the opening in the ceiling (see also cat. 9v [Figure 8v]).

On the verso, two partial elevations of the rotunda attic have perspective views into the openings above the alcoves. The elevation at the bottom has several inscriptions, such as *serpentine* and *marmo* (marble), indicating the materials of the wall surface, as well as the key letters *R* and *C*. The letter *R* identifies the section through the upper level of the alcove in the bottom left corner of the sheet, and *C* identifies the profile of the attic-level base in the bottom right corner. At the bottom center of the sheet is a detail of two stone panels from the attic wall.

On the top half of the sheet, drawn with the paper turned 180 degrees, the other elevation of the attic has the key letters *A*, *B*, and *E*. These refer, respectively, to the profiles of the entablature below the coffers (top left corner of the sheet, with a small molding detail), the entablature over one of the attic openings (top center), and the pilaster base (top right). The Windsor Castle sheet (Figure 9r and v) has similar versions of most of these drawings, including the views of the rotunda dome, a plan of the rotunda roof, and details of the oculus from the recto, as well as the section through the upper chamber of the alcove and the details of the attic on the verso.

9

Recto: plan of the Pantheon intermediate block attic; elevation of an attic pilaster capital; partial perspective view and partial plan of the central niche with details.
Verso: partial views of the Pantheon interior rectangular and semicircular alcoves; partial views and plans of the intermediate block interior attic

Full sheet with center crease and guard strip remnant on verso
Pen and dark brown ink with black chalk, 17¹/₁₆ x 22¹³/₁₆ in. (43.4 x 58 cm)

Watermark: A

Inscriptions: *cornise secōde* (recto, center left); *acrotoire* (recto, top right); *le nu de la crotoire la cornise de la dicte* (recto, bottom right); *la moulure du piet destal de desus la cornise* (recto, bottom right); *selon qui se peult voir quil estoit ainsi de lantique* (verso, bottom left); *la haulteur du [?] G de puis terre p7 la haulteur de seul p2/m9* (verso, center right); various dimensions

68.769.8 (red 11–12; graphite 94–95)

Figure 8

The recto has six drawings of the interior of the Pantheon. At the top left corner, a plan of the intermediate block includes the openings in the ceiling of the rooms, a detail that is rarely included in drawings of this area of the building. Below the intermediate block plan is an elevation of a pilaster capital in the rotunda attic, accompanied by its plan and identified with the key mark *H*. The attic pilasters were removed from the building during the eighteenth-century renovations of the interior, though several examples of them survive in museums. The left side of the recto of this sheet also has a small drawing, with the inscription *cornise secōde* (second cornice?), whose subject cannot be identified.

A perspective elevation of the central apse is on the right side of the recto. This drawing shows the top of the right side of the chapel, including the entablature and the capitals of the pilaster and column. The acroterion above the entablature, identified by the inscription *acrotoire*, has the key mark *N* to identify the profile of its cornice immediately to the right. The acroterion today lacks this cornice. In the bottom right corner, a plan of the section of the apse chapel that is shown above bears two inscriptions: *le nu de la crotoire la cornise de la dicte*, referring to the base of the acroterion over the cornice shown in the drawing, and *la moulure du piet destal de desus la cornise* (the molding of the pedestal on top of the cornice).

On the left side of the verso are two perspective elevations of the rotunda alcoves. The inscription next to the partial view of the semi-circular alcove at the bottom of the sheet reads: *selon qui se peult voir quil estoit ainsi de lantique* (based on this, one can see that it was such in antiquity). At the top of the sheet, the partial view of a rectangular alcove includes its rear wall and left side wall. The depiction of the three openings in the rear wall is similar to that on the recto of the Windsor Castle sheet (see Figure 9).

At the top of the right side of the verso, a perspective view shows the interior of the three adjoining rooms inside the attic of the intermediate block, with an outline of its plan. This drawing is a more detailed version of a sketch on the verso of the Windsor Castle sheet. At the center of the verso here are two plans of the rotunda wall at the attic level—specifically the area above the western rectangular alcove next to the intermediate block. The plan on the right depicts this space schematically; the plan on the left is more carefully drawn and dimensioned. The Windsor Castle sheet verso has versions of both of these plans. The view at the bottom of the Goldschmidt verso shows this space in perspective.

10

Recto: longitudinal section through the Pantheon with elevation sketch of the portico and detail. Verso: elevations and partial plans of the Pantheon pilaster capitals

Full sheet with center crease and guard strip remnant on verso
Pen and dark brown ink with black chalk, 16^{15/16} x 22^{13/16} in. (43 x 58 cm)

Watermark: A

Inscriptions: *pilastre dedans la rotonde* (verso, center of left edge); various dimensions

D'Orgeix 2001, fig. 20

68.769.9 (red 13–14; graphite 99–100)

Figure 17

The last sheet in the Pantheon series differs from the rest. Although the paper has the same watermark as the other sheets in the series, the handwriting, ink, and representational techniques of the drawings suggest that they were made by a unique hand; they also lack key marks referring to other drawings. Despite having been made by a different draftsman, however, the drawings on this sheet share more than a watermark and provenance with the others: the drawings of capitals on the verso relate directly to drawings in the Cronstedt Collection, Stockholm (see Figure 19), and in Codex 209e at the Bayerische Staatsbibliothek, Munich (see Figure 18), that have been linked to the Goldschmidt Pantheon series. Indeed, the Stockholm and Munich groups derive from the same source as the Goldschmidt series because in several instances exact copies of the same drawing can be found within each group.

On the recto, a lateral section through the Pantheon rotunda is in an unfinished, sketchy state. Several of the lines are ruled, and the drawing is primarily orthogonal; in this respect the drawing differs from the other drawings in the Goldschmidt Pantheon series, which are almost entirely perspectival. Details of the dome are traced in ink with dimensions given in *palmi*, in a spikier hand and a darker color than the writing in the rest of the series. On the left side of the sheet, a sketched elevation of the Pantheon facade shows the relationship between the two pediments. In the top corner a schematic section through the roof of the intermediate block at the base of the dome includes the drainage canal and the door to the stairs, two details that are also recorded in catalogue number 8r (Figure 3r).

On the verso, the left side of the sheet has an orthogonal elevation and a plan of the pilaster capital of the lower order of the rotunda interior, identified by the inscription *pilastre dedans la rotonde*. This drawing is primarily a light underdrawing with dimensions and a few lines added in ink. The right side of the sheet has an orthogonal elevation of the column capital from the same order. Although also an underdrawing, this capital includes more detail than the other one. While these two capital elevations are closely related to the drawings of the Pantheon that are in the Cronstedt Collection and Codex 209e, they do not appear among the drawings in those groups, although their style of execution is unmistakably similar.