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Mapping Past and Present: Leonardo Bufalini's Plan of Rome (1551)

JESSICA MAIER

ABSTRACT: Leonardo Bufalini's plan of Rome (1551) was the first printed map of the Eternal City and a landmark in the history of city plans. This article fills several lacunae in the scholarship on the map by reconsidering its intended function and audience and by situating it at the intersection of technical and antiquarian endeavour in sixteenth-century Rome. At issue are Bufalini's methods for making the map, along with the distinctive combination of practical and scholarly interests that motivated him. The anomalous status of Bufalini's plan in the realm of popular printed imagery of the city signals, moreover, that the Renaissance audience had a marked preference for pictorial city views over maps.

KEYWORDS: Leonardo Bufalini, Rome, city plans, ichnographic, sixteenth century, surveying, antiquarianism, city views, Antonio Blado, Vitruvius, *Forma urbis Romae*, Leonardo da Vinci, Leon Battista Alberti, Raphael, Bartolomeo Marliani, Sebastiano Serlio, Andrea Palladio, Giambattista Nolli.

In 1551, Leonardo Bufalini, an otherwise obscure military engineer and amateur scholar, published a map that ranks as the grandest, most important Renaissance image of the *caput mundi* (Fig. 1).¹ Bufalini's monumental plan, simply entitled *Roma*, was printed from wood blocks on 24 sheets and measures in total 200 × 190 centimetres, which made it by far the largest representation of Rome published to that date. It was, moreover, the first comprehensive map of Rome since antiquity, in which many elements of the detailed urban fabric, including buildings, streets, walls and topographical features, were reduced to a horizontal ground plan and shown to scale. For this reason the map is often seen as a triumph of objectivity in city imagery.

It often goes unrecognized, however, that Bufalini's representation also embodies a specifically (and subjectively) antiquarian vision of Rome. The map shows the city not as it was in the mid-sixteenth century, but as a timeless landscape in which the contemporary and classical intermingle seamlessly. Bufalini depicted as complete many ancient monuments that survived only as ruins, and he included others that had vanished entirely. His scale, moreover, was sliding rather than fixed, for he often exaggerated the proportions of these landmarks in relation to later structures. In this way Bufalini privileged Roman antiquity even while he concerned himself with mapping the latest urban changes. Rather than a straightforward record of the sixteenth-century

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Fig. 1. Leonardo Bufalini, *Roma* (Rome, Antonio Blado, 1551 [1560]). Woodcut. 24 sheets. Approximately 200 × 190 cm.
(Reproduced with permission from the British Library, Maps S.T.R.[1].)

city, therefore, the map speaks to the palpable weight of the past in Renaissance Rome.

Despite its status as a milestone in urban representation, Bufalini's map has not been the subject of sustained study since Francesco Ehrle's foundational monograph of 1911. In recent decades, scholars have frequently included the map in larger studies on the imagery and urbanism of Rome, but certain misconceptions persist regarding its intended function and audience.² No study, moreover, has adequately addressed its reception. In this article, I begin to redress this situation by considering the evidence, verbal and visual, that

Bufalini provided in his map, as well the larger cultural context of its publication.

The Dual Nature of Bufalini's Plan

In his map, Bufalini expressed the concerns of the antiquarian in the orthogonal graphic language of the architect. This unique fusion can be traced to two divergent factors: the professional background of the author and his aspiration to an elevated level of antiquarian learning. Bufalini had a high degree of expertise to bring to the task of mapping the modern form of the city, for he was a military

engineer who had worked on the project to modernize the fortifications of Rome during the papacy of Paul III.³ His activity in this capacity granted him special insight into the form of the city walls and the urban changes of Renaissance Rome. It is more surprising, considering his background, that Bufalini was interested in mapping more than just the sixteenth-century city. His map fits perfectly into the humanist category that Thomas Greene has termed 'imagery of exhumation', and Bufalini himself demonstrated a prototypical urge of the antiquarian for whom 'the instinct to recreate the original whole out of the fragment seems almost to have been automatic'.⁴

That his map should be understood in precisely these terms is affirmed by Bufalini's rhetoric. In a text panel at the lower-left margin of the map, he addressed his audience directly, speaking proudly of his accomplishment (and struggling to use Latin, the language of the learned elite). To the viewer, Bufalini wrote, he offered no less than Rome herself,

the most beautiful of all things, and [her] twin . . . united and resurrected. The city which today is inhabited, he has placed before your eyes: except that he has added also the old [city], once mistress of the whole world, brought back as if from the grave.⁵

With these words, Bufalini proclaimed his plan to be the ultimate humanist achievement, one that might profitably be compared to Nikolaos Sophianos's celebrated antiquarian map of Greece, first published by Bufalini's own printer, Antonio Blado, in 1540.⁶ Sophianos was one of a growing number of scholars who took an interest in cartography as an efficient means to codify and transmit knowledge regarding the ancient world. Sophianos and his colleagues collected data by checking ancient sources, notably Ptolemy and Strabo, against more recent information from portolan charts and travel literature. Their goals in charting antiquity were primarily historical and philological.

Bufalini shared similar aims for his map of Rome, since he too sought to reconstruct the ancient *caput mundi*, but he was unique in seeking to integrate it with the sixteenth-century city. This additional element required a different type of skill than what was needed for antiquarian maps, that of surveying. Further on in his address to the reader, Bufalini declared proudly his personal engagement in the technical aspects of mapmaking:

This [plan of the] city—whether you examine the new or the old—was realized not only with the geometer's square and compass, but also with the mariner's

compass, taking into account the location of the sun and the heavens.⁷

An understanding of the dual nature of Bufalini's map, therefore, must take into account the professional experience of the author and his intellectual ambitions as well as his larger cultural milieu, for High-Renaissance Rome was uniquely favourable to the coming together of these diverse spheres of interest.

Form, Function and Intended Audience

Bufalini prepared his plan for publication in the shop of the Roman *editore* Antonio Blado. It has been speculated that Bufalini himself not only surveyed the city but also designed the image and cut the wood blocks, a rare combination of roles in a period defined by increasing division of labour in print making.⁸ Bufalini emphasized the accuracy of his map both verbally, in his address to the reader, and visually, by inserting a scale at the upper left, measured in Roman feet, that extends horizontally across the map. Overlapping the scale is the tail of a diagonal arrow indicating the north-south axis, which was a fundamental reference point in Bufalini's surveying technique. The map is on a scale of roughly 1:2800 and is oriented with northeast at the top, such that the Vatican appears at lower left.

Within the ruled borders of the map, the outline of the city walls snakes an irregular circuit, demarcating the urban perimeter. Towards the lower left, the most densely populated areas of the city—the centre and Trastevere—are nestled in the curves of the Tiber. Bufalini shows these zones as a warren of streets and structures in ground plan. By contrast, roughly two-thirds of the intra-mural area appears to be little more than open pasture land, interrupted only by the sprawling footprints of several ancient bath complexes. The isolation of these structures from the inhabited areas was a consequence of the dramatic contraction of Rome's population since late antiquity. Less vulnerable to the effects of time were the city's famous hills, most of which are shown as a series of contiguous open forms, which appear to writhe and creep across the city as one highly irregular ridge, mirroring and exaggerating the sinuous curves of the river below.

As a woodcut, Bufalini's plan has relatively thick lines and lacks the fine detail possible in copperplate engraving. In some respects, the cutting of the wood blocks was rather crudely executed. Lines meant to be continuous on adjoining sheets, for example, often fail to meet up. In other ways,

however, Bufalini's technique is highly refined, and he devised an impressive range of graphic conventions to represent and differentiate architectural and topographical elements, as can be seen from Figures 5 to 10 below. Aqueducts appear as broken lines of thick, square dots, like rows of dominoes, while the Aurelian walls and fortifications are shown with a thick line that is hatched to appear grey from an average viewing distance. Streets are defined by parallel lines in the areas of the city that were not built up or that were outside the walls, while within the built-up areas, they are defined by their adjoining blocks.

Bufalini delineated the hills with minute cross and parallel hatching. A solid black line delimits the borders between the hills and valleys, but no such boundary exists along the crests, where the hatch marks simply end. In this way Bufalini managed to differentiate relative heights and to distinguish slopes from flat terrain. Moreover, the meticulous hatching that characterizes his treatment of the hills and other elements, such as the city walls, creates a tonal effect that was quite a challenge to achieve in the medium of woodcut.

The decorative aspects of Bufalini's plan are pushed to the edges, beyond the ruled lines that frame the geographical content. At the top, the title, *Roma*, appears in classical Roman capitals. Wind heads adorn the borders, and a pictorial panel at bottom centre contains Bufalini's self-portrait and an illustration of his surveying instruments (Fig. 2). Also around the edges of the map are coats-of-arms and symbols relating to the figures mentioned in the printing privilege found to the right of Bufalini's address to the reader: Pope Julius III, Charles V of Spain, Henri II of France and the Venetian Senate (the Republic symbolized, as

was customary, by a winged lion). The fact that Bufalini petitioned for multiple printing privileges from the most prestigious European powers is a clear sign of his ambition for this map: he expected it to reach an international audience and sought official protection for what is now termed 'intellectual property'.

Despite the evidence of the privileges, some scholars still maintain that the map was dominated by military concerns and thus geared exclusively toward specialists in Bufalini's own field.⁹ The presence of non-existent structures is sufficient to discount that long-held misconception. Bufalini, who produced his plan for an open market and did not have the financial backing of a patron or the assurance of compensation provided by a commission, must have anticipated that it would appeal on a broader, popular level. It would also be incorrect (and anachronistic) to assume that Bufalini's plan—the first street map of Rome—was meant to serve as a way-finding tool, since city maps were not commonly employed as travel aids until the following century.¹⁰

With its unwieldy size and merging of distinct eras, Bufalini's plan was not suited for any practical purpose such as plotting military strategy or navigating city streets. Instead, these traits are clear signals that Bufalini intended the map to attract a humanist audience. In the mid-sixteenth century, scholars avidly began collecting images of cities. To the intellectual elite, these works could function as didactic tools, symbols of prestige and learning, and travel substitutes. The most common format for them was the pictorial view, in which the city was depicted stretching into the distance before the onlooker's eyes, as if glimpsed panoramically from an elevated vantage point.

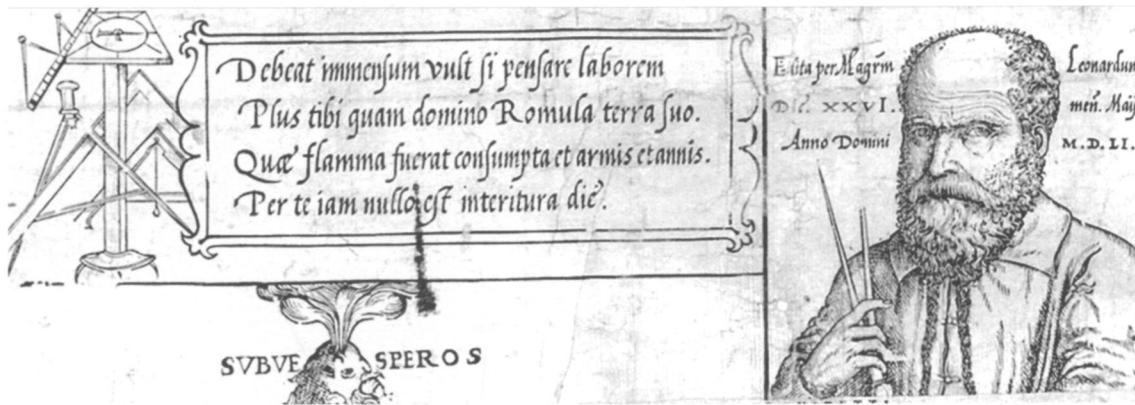


Fig. 2. Detail from Leonardo Bufalini, *Roma* (Rome, Antonio Blado, 1551 [1560]), showing the pictorial panel with the author's self-portrait at right and surveying instruments at left. (Reproduced with permission from the British Library, Maps S.T.R.[1].)

Bufalini's plan shared the celebratory function of these views, for like them it showed the city in an idealized form. Its mural scale further indicates that it was geared toward prominent display, like the most sumptuous of city views.¹¹ An educated viewer was meant to admire the map while meditating on the glories of the Eternal City, past and present. Yet Bufalini's plan was entirely novel in the mode of expression that it employed, for it did not simulate a visual experience but instead reduced Rome to a planimetric diagram.¹² That Bufalini chose to represent the entire city in ground plan was an original, challenging and bold move. It was also risky, for there was no guarantee that the map—a complete departure from the norm for popular city imagery—would capture the imagination of viewers.

Ichnographic Precedents and Sources

Bufalini's map pertains to a type categorized as 'ichnographic', from the term that the ancient Roman architect Vitruvius used to denote an orthogonal building plan.¹³ Ichnographic city plans like Bufalini's represented a radical extension of the architectural paradigm. Instead of representing a single building, Bufalini extended his ground plan to encompass multiple structures, as well as streets, city walls and topographical features. This format allowed for the display of all elements in their relative proportions, orientation and location within the larger urban context. By about 1500, such diagrams had become common working tools among architects and military engineers, but they remained largely unfamiliar to laymen.

While Bufalini's plan was an important innovation in the printed representation of Rome, it was not without precedent in its graphic form. Ichnographic city maps, in fact, had existed at least since the time of Vitruvius. The earliest known forerunner to Bufalini's *Roma* is the second-century AD marble plan known as the *Forma urbis*, a monumental map of Rome that survives only in shattered pieces.¹⁴ The close resemblance between the two maps is, however, a coincidence, for the first fragments of the marble plan were discovered a decade after Bufalini's death.

Bufalini also had Renaissance predecessors who sought an orthogonal system to represent the urban environment. Leon Battista Alberti's *Descriptio urbis Romae* (c.1445) consists of a brief introductory text outlining a surveying technique that the author had devised to make a map of Rome and tables detailing the data he had obtained

as a result of his fieldwork.¹⁵ Since none of the extant manuscripts of Alberti's treatise contains the map, it can be known only through his written explanation.¹⁶ Alberti described an image that showed the locations of buildings as points based on polar coordinates, a concept inspired by Ptolemy's Geography. Since the structures did not appear as floor plans, the map of the *Descriptio urbis Romae* was not, strictly speaking, ichnographic, but it was based on orthogonal principles. Alberti, like Bufalini a century later, conceived of an image that showed the city in a distinctly cartographical, rather than pictorial, manner.

No discussion of Bufalini's graphic precursors would be complete without a mention of Leonardo da Vinci's map of the northern Italian town of Imola (1502; Fig. 3).¹⁷ This map, unlike the one outlined by Alberti, was fully ichnographic. Where Alberti reduced buildings to points, Leonardo showed them in full ground plan—not only locating their positions in two-dimensional space, but also showing the manner in which they extended across it. The area of each building is represented to scale, and in its correct shape, proportion and orientation. The same is true for the river, city walls and streets. As such, Leonardo's plan of Imola is identical in graphic type to Bufalini's map of Rome.

It is doubtful, however, that Bufalini knew directly of either Renaissance precedent. Alberti's treatise was written in Latin, of which Bufalini had only a tenuous grasp, and circulated in manuscript form only. Leonardo's plan of Imola was drafted for Cesare Borgia in the context of the siege of that town in 1502 and was probably kept strictly confidential (as was usually the case with military maps). Leonardo's map, like all plans of its type from the early sixteenth century, was not intended for general dissemination or use outside the specialized circles of architects and engineers. Its close resemblance to Bufalini's plan does not establish a chain of influence, but signals that ichnographic representation was widespread among practitioners of these trades.

In Leonardo's time, such diagrams must have been largely incomprehensible to most people outside such technical fields, and there would not have existed a general audience for a map like Bufalini's. By mid-century, however, there is evidence of a growing popularization of ichnography. Maps based on the same principles as Bufalini's began to appear in printed treatises that were technical in nature but geared toward a relatively wide circulation. Two popular architectural books,



Fig. 3. Leonardo da Vinci, plan of Imola, 1502. Manuscript. 44 × 60 cm. (Reproduced with permission from the Royal Collection, Her Majesty Queen Elizabeth II, Windsor 12284.)

Sebastiano Serlio's *Terzo libro* (1540) and Antonio Labacco's *Libro appartenente a l'architettura* (1552), included simplified ichnographic maps, in both cases of the ancient port of Rome at Ostia.

Also at this time, there began to appear the first in a long series of fortification manuals that included copious plans of real and ideal cities.¹⁸ These books demonstrate that ichnography was gaining wider dissemination in the same years that Bufalini was preparing and publishing his map. Equally important, they demonstrate that a growing audience had acquired the basic interpretive skills to make sense of a plan like Bufalini's *Roma*. Bufalini, it seems, was not mistaken when he assumed that viewers had developed a level of visual literacy and an appreciation for ichnographic representation.

In addition to Bufalini's graphic precursors, there are specific sources that might have helped to inspire his plan of Rome. The most important is the map that was published in Bartolomeo Marliani's *Urbis Romae topographia* of 1544 (Fig. 4).¹⁹ Although Marliani focused on the ancient city

alone, his map has the same orientation as Bufalini's and similarly shows buildings, streets, the Tiber, the Aurelian walls, and even the hills to scale in strict ichnography. Indeed, the two maps are so close in conception that some scholars have speculated that Bufalini assisted Marliani with the earlier plan. At the very least, Bufalini must have been familiar with it, especially since the Italian translation of Marliani's *Topographia* was published by Antonio Blado in 1548, just when Bufalini was likely to have been working on his own map in Blado's shop.²⁰ Marliani's plan, however, did not approach the detail, precision, monumentality and commercial ambition evident in Bufalini's map; in all such respects, Bufalini's plan was a decisive innovation in the representation of cities in general, and of Rome in particular.

The *Urbis Romae topographia* signals another genre to which we should look for precedents and possible sources for Bufalini's plan. Marliani's book was one of an increasing number of illustrated works on ancient Rome that were published from the 1520s onwards. While Bufalini's plan was

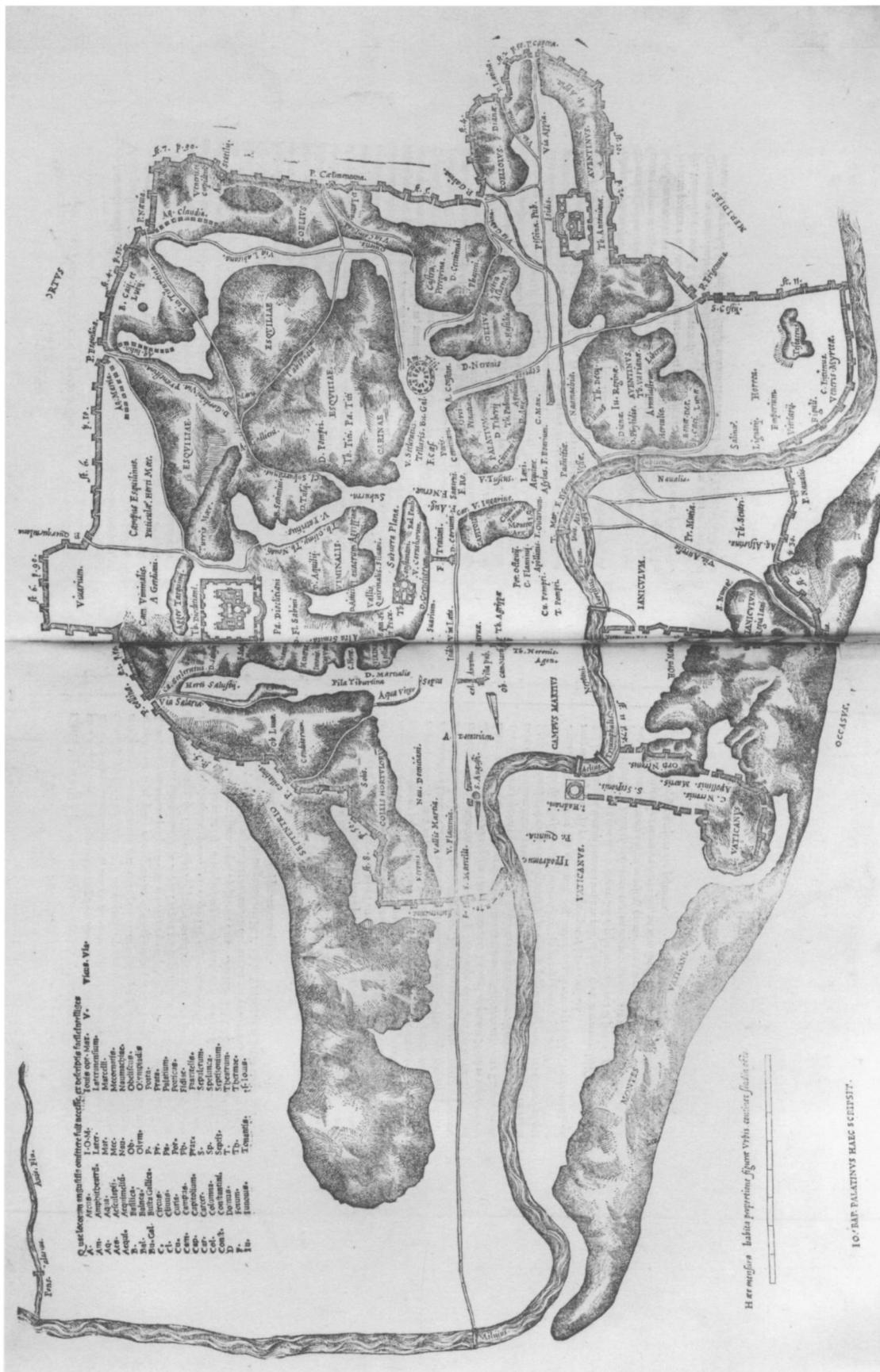


Fig. 4. Bartolomeo Marliani, map of Imperial Rome, from *Urbis Romae topographia* (Rome, In ædibus Valerij, dorici, & Aloisij fratris, 1544). 30 x 47 cm. (Reproduced with permission from Avery Architectural and Fine Arts Library, Columbia University in the City of New York, Avery Classics [Cage] AA1112 M34 F.)

not in book form, it stemmed from similar antiquarian goals. At least since Petrarch in the thirteenth century, scholars had expressed the desire to see Rome rise again to her former grandeur, but it was not until the Renaissance that they turned away from abstract, symbolic and predominantly textual responses to that longing and began to seek a graphic solution based on mathematical precepts and close study of physical remains. That Marliani considered it appropriate to include an ichnographic map in a book on Roman topography reflects the degree to which humanists were now appropriating this measured form of representation for use in their own studies.

The *Topographia*, with its antiquarian text and architectural illustrations, also points to a confluence of interest among scholars and architects who were pursuing a common goal, the graphic preservation of Roman antiquity. Serlio's *Terzo libro* and Labacco's *Libro appartenente a l'architettura*, for example, both focused on the architecture of ancient Rome, while Marliani's topography similarly made use of ichnography to recreate early incarnations of the city. The authors of such projects were following in the footsteps of one formative predecessor. In about 1519 the painter Raphael, in collaboration with the noted humanist Baldassare Castiglione, had written a letter to Pope Leo X outlining his plan to document the dwindling remains of ancient Rome by means of measured architectural drawings in order to preserve the monuments on paper if not in actuality.²¹ When Raphael died in April 1520, the project died with him, but many antiquarians and architects were inspired by the same goals. Bufalini was not, therefore, the first to consider ichnography to be an important tool in the graphic restoration of the ancient city, but he was the first to believe that a map alone—in absence of explanatory text and/or pictorial imagery—would be equal to the task.²²

Measuring the Contemporary City

Bufalini drew on his experience as a military engineer for the technical knowledge required to prepare his map. From contemporary commentators, we know that he was among the professionals working to improve the fortifications of Rome in the 1530s and 1540s.²³ Military engineering at this time was still a sub-field of architecture in terms of training, practice and general expertise, and the two fields were frequently practised by the same individual. With this in mind, it is possible to formulate some theories about the practical

skills that Bufalini brought to the task of mapping Rome.

Architects were adept at measuring buildings and surveying larger sites using an instrument known as a *bussola*, the key component of which was a magnetic compass mounted at the centre of a graduated disk marked with the cardinal wind directions, to which a pivoting radial arm was also affixed. The compass allowed the surveyor to establish a constant base line at magnetic north from which he could measure the bearings of points in the distance by sighting with the radial arm. Distances—the other key ingredients in making a map to scale—were measured in various ways, most often through simple pacing.²⁴

Alberti had described a primitive *bussola* in his *Descriptio urbis Romae*, and Raphael's Letter to Leo X includes the earliest recorded instructions for using the instrument to measure individual buildings. In 1546 Nicolò Tartaglia published the first of many printed treatises outlining its use in surveying.²⁵ The first Italian manuals to outline the technique of triangulation with the *bussola* were those of Giovanni Francesco Peverone in 1558 and Cosimo Bartoli in 1564.²⁶ Although these books were published after Bufalini's map, they were merely popularizing practices that had been widespread among professionals for some time and were surely familiar to Bufalini.²⁷

Although we cannot be certain which surveying method Bufalini used for his map—whether he used triangulation or simply measured his bearings by sighting from one central point or from multiple points on the urban perimeter—we do know that he used the *bussola*, for he illustrated the instrument on his map, near his self-portrait (see Fig. 2). It is likely that he used a combination of methods, for Rome was a sprawling, irregular city that bore little resemblance to the simplistic examples in treatises on surveying and fortification. The task that Bufalini had set for himself was monumental and time consuming. Contemporary reports differ, but the map required either seven or twenty years to complete.²⁸

Indeed, given the ambitiousness of Bufalini's undertaking and the limited surveying technology of his time, we must assume that he availed himself of the occasional shortcut to collect his data. In his address to readers Bufalini asserted that he had personally measured the city to achieve the greatest possible accuracy, but the extent to which his map reflects his personal engagement in surveying the city is by no means clear or unambiguous. Bufalini's tenure as one of many engineers

working on the project to improve the Roman fortifications would have equipped him with more than just a set of technical skills, for in that capacity he must have collaborated with others and used plans prepared by and with them. Many such maps must have been made in the course of the project, for fortification plans often existed in multiples to facilitate efficiency and coordination in an otherwise decentralized project, where responsibility had to be delegated on a number of levels.²⁹

In this connection, it is worth drawing attention to an anonymous manuscript map relating to the fortifications of Rome, which is the first folio of the Barberini Codex 4391(B) now at the Vatican Library.³⁰ This schematic map shows the Aurelian walls and the Tiber, and their outlines—proportions, orientations down to the smallest detail—correspond precisely to the same features on Bufalini's plan. Paolo Marconi has dated this map to the 1540s, which would make it contemporary with Bufalini's preparatory work on his own plan prior to publication.³¹

The relationship between the two maps, however, is not altogether clear. If we accept that the Barberini map antedated Bufalini's plan, conceivably it might have been either a preparatory drawing by Bufalini himself or a model that he copied. It seems most likely, however, that both maps were based on the same prototype. The manuscript plan is drawn in ink over incised lines, indicating that it was copied from an unknown original. Creases in the paper further suggest that the Barberini map was folded to make it portable, which was common for working plans used on-site (but not for preparatory drawings). Given the commonplace existence of multiples, it is unlikely that the Barberini map should be attributed to Bufalini, but he must have been familiar with some version of it. Probably both maps were based on a master plan, now lost—itself the result of a cumulative mapping effort by Bufalini and his fellow surveyors engaged on the fortifications project.

This intriguing problem, however unsolvable, allows us to see Bufalini's plan in a new light. Hitherto scholars have tended to imagine that Bufalini had embarked on a romantic and solitary quest to measure the city of Rome. Bufalini himself encouraged this view when he asserted that he had meticulously surveyed the city—"not only with the geometer's square and compass, but also with the mariner's compass".³² Yet it is clear that he was working with any number of uncredited and informal collaborators and, in keeping with the

times, was not averse to borrowing from others. This conclusion should in no way lessen Bufalini's achievement; indeed, given the limited surveying technology of his time, Bufalini's plan would have been entirely unfeasible had he not been so resourceful.

A Window on Renaissance Rome

Whatever means Bufalini employed to execute his survey, and however much he relied on his colleagues' work, his map is a highly informative window onto mid-sixteenth-century Rome, a city that was in a continuous process of transformation. Recent developments in urban planning can be clearly traced on Bufalini's plan. The aqueduct known as the Acqua Vergine, which had been partly repaired under Pope Nicholas V in the mid-fifteenth century, is shown wending its way into the city from the northeast, through the Porta Pinciana, to the Piazza di Trevi (Fig. 5). Also marked is Ponte Sisto, the bridge whose construction had been initiated by Sixtus IV in 1474. Nearby, the twin streets of Via Giulia and Via della Lungara, completed during the papacy of Julius II, are shown flanking opposite sides of the Tiber (Fig.

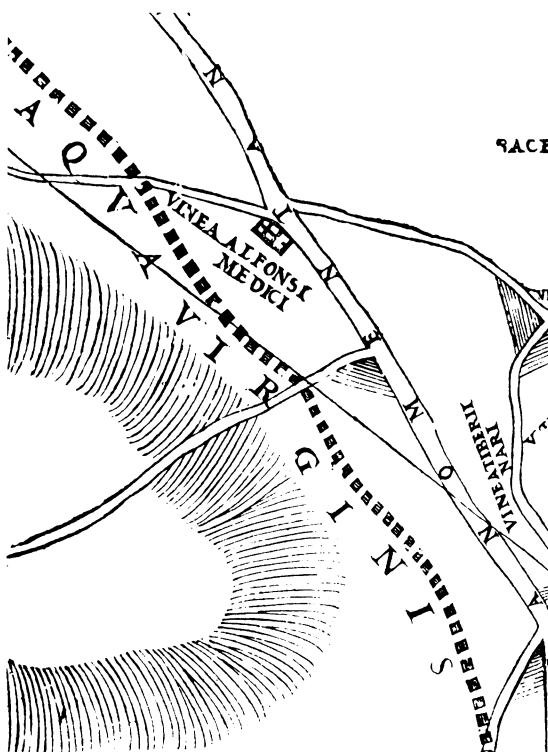


Fig. 5. Detail from Leonardo Bufalini, *Roma* (Rome, Antonio Blado, 1551 [1560]), showing a section of the Acqua Vergine aqueduct. (Reproduced with permission from the British Library, Maps S.T.R.[1].)



Fig. 6. Detail from Leonardo Bufalini, *Roma* (Rome, Antonio Blado, 1551 [1560]), showing the Ponte Sisto, Via Giulia and Via della Lungara. (Reproduced with permission from the British Library, Maps S.T.R.[1].)

6). Bufalini also prominently indicated the grand trident of streets that radiated from Piazza del Popolo, which had been laid out or improved by Leo X, Clement VII and Paul III (Fig. 7).³³

Bufalini has also provided a useful, if selective, record for the history of the architecture of his time. The major construction project in sixteenth-century Rome was the rebuilding of Saint Peter's basilica. Bufalini shows a church in transition,

mixing elements of a plan in progress with those of an ancient building in the midst of demolition (Fig. 8). At the ancient capital of the city on the other side of the river, the Campidoglio is shown as it was just prior to Michelangelo's interventions. The equestrian statue of Marcus Aurelius, which had been transported there from the Lateran in 1538 at the behest of Paul III, is shown in perspective, the sole pictorial element of the map (Fig. 9).

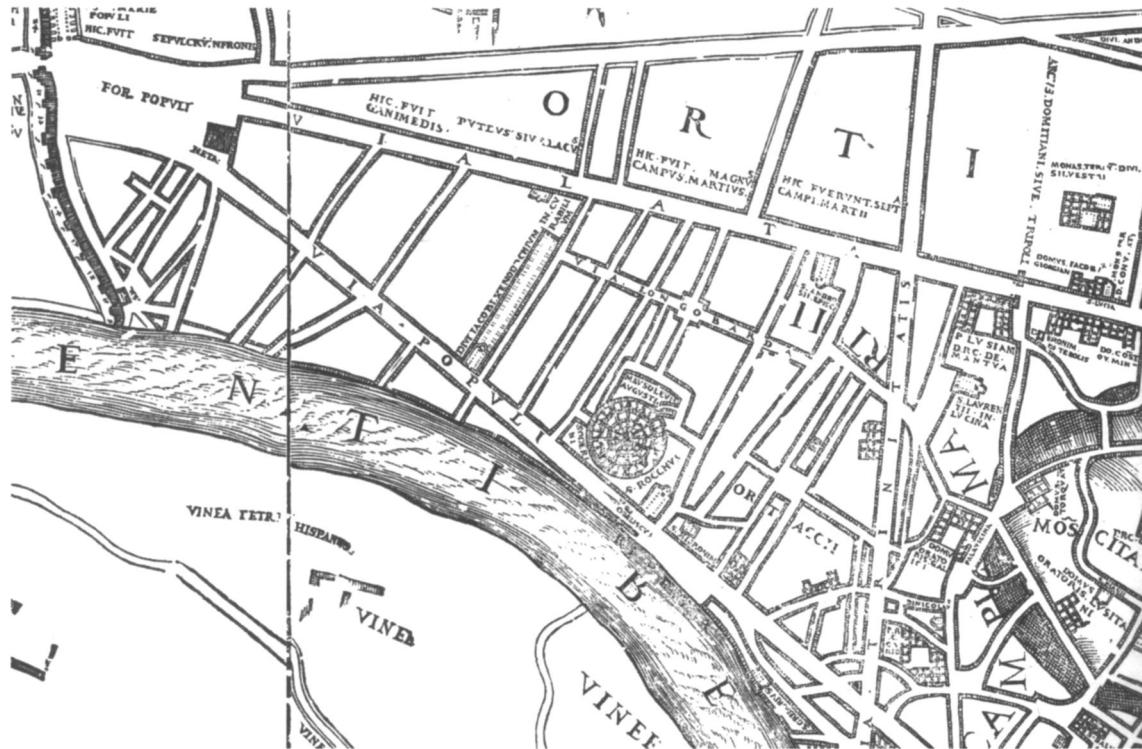


Fig. 7. Detail from Leonardo Bufalini, *Roma* (Rome, Antonio Blado, 1551 [1560]), showing the trident of streets radiating from Piazza del Popolo (Via di Ripetta, Via Lata—today Via del Corso—and Via del Babuino). (Reproduced with permission from the British Library, Maps S.T.R.[1].)



Fig. 8. Detail from Leonardo Bufalini, *Roma* (Rome, Antonio Blado, 1551 [1560]), showing St. Peter's basilica. (Reproduced with permission from the British Library, Maps S.T.R.[1].l.)

Bufalini reserved his greatest attention for the city's walls, meticulously noting the lengths of many individual stretches. His attention to this sort of detail surely reflects his participation in the campaign to modernize the Roman fortifications, as does his careful delineation of the new bastions that had resulted from the project on the Vatican and Aventine hills (Fig. 10). Also included, in notional ground plans, are a number of private *palazzi*, together with the gardens and villas of many of the elite families.

Yet, for all the buildings that Bufalini identifies, his exclusions are substantial. Bufalini was most interested in monumental buildings and those owned by prominent individuals. He gives no sign of the countless structures devoted to humbler aspects of daily life, such as commerce, entertainment and habitation, which existed in the densely populated city centre, and it is evident that in general he simply omitted structures he considered unimportant. Even in his relatively comprehensive treatment of the contemporary city, therefore, Bufalini made deliberate selections and was far from objective in his approach.

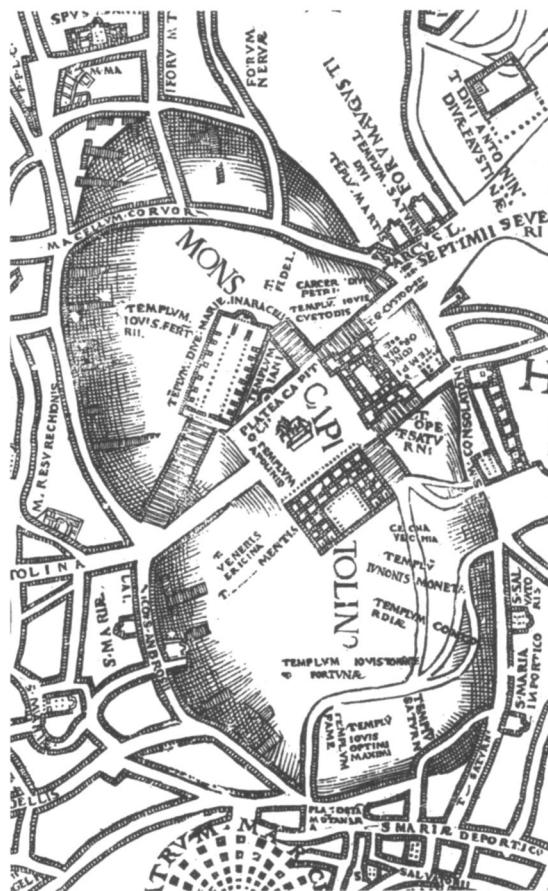


Fig. 9. Detail from Leonardo Bufalini, *Roma* (Rome, Antonio Blado, 1551 [1560]), showing the Campidoglio or Capitoline hill. (Reproduced with permission from the British Library, Maps S.T.R.[1].)

The Accuracy of Bufalini's Survey

In his address to readers and his illustration of surveying instruments, Bufalini employed verbal and visual means to declare that his map was based on meticulous measurement. The existence of the Barberini map suggests that he exaggerated his commitment to the personal gathering of data, and we are further entitled to question the extent to which the geographical content of the map substantiates Bufalini's claim to accuracy.

The results of Bufalini's survey can be evaluated by comparing his map with Giambattista Nolli's *Nuova Pianta di Roma* of 1748. Although Nolli's better-known plan was published two centuries later, it provides an ideal basis for comparison. Not only is it considered to equal modern maps of Rome with respect to mathematical accuracy, but it has the added advantage of corresponding more closely than they do to the form of the city as it was in the sixteenth century.³⁴

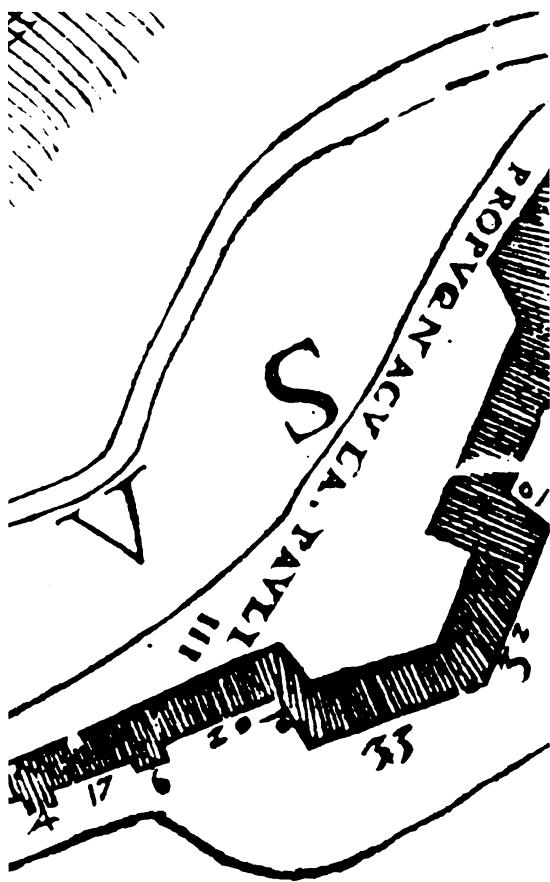


Fig. 10. Detail from Leonardo Bufalini, *Roma* (Rome, Antonio Blado, 1551 [1560]), showing the Ardeatine bastion on the Aventine hill. (Reproduced with permission from the British Library, Maps S.T.R.[1].)

To compare Bufalini's plan with Nolli's, I have isolated two types of features—the Aurelian walls and a selection of streets—and superimposed their positions on both maps.³⁵ (In order to compare the features effectively, it was necessary to shift Bufalini's plan so that it shares the northern orientation of Nolli's.) I first considered the city walls in isolation. The initial overlay of the walled perimeter suggested that general correspondence between the two maps was rather crude (Plate 1a). But by manipulating the position and orientation of Bufalini's plan while leaving Nolli's fixed as a point of reference, a different picture emerged. Individual parts of Bufalini's plan now corresponded well to Nolli's version. This is most evident in the walls of the Vatican Borgo at northeast, and in those of the eastern and southwestern quadrants of the city, which separately can be brought into close alignment with the same zones in Nolli's plan (Plate 1b-d).

In each operation, however, the overall accuracy is compromised; note that when distinct passages of wall are harmonized, other sections go further askew than they had been in the initial overlay. Bufalini's survey of the walls, therefore, has a high degree of localized accuracy but is less impressive in its larger picture. This phenomenon suggests that he built up his map by integrating data from a number of separate surveys into a larger pastiche, rather than by executing a single comprehensive survey in which each part was measured in relation to the others.

I then checked this conclusion with a second comparison, this time filling in the streets, which might stand for all interior features, along with the walls. The overlays supported my thesis that Bufalini surveyed the city as a series of disconnected units and not as a unity. An initial comparison showed again that Bufalini's results corresponded only roughly to Nolli's, and furthermore that the accuracy of the avenues seemed to have no relationship to that of the walls (Plate 2a). As was the case with the city walls alone, the streets in isolated zones aligned well with their location on Nolli's plan. Such is the case with the three avenues converging at Piazza del Popolo, which appear toward the top (Plate 2a), and those in and around the Vatican Borgo (Plate 2b). Yet these two separate sections cannot be brought into harmony with each other, and must have been measured in separate surveys and then imperfectly woven together at a later stage.

Yet the same overlay shows that the Borgo and the adjoining streets are a rare case on Bufalini's map in which a section of the city walls and the local street pattern line up well, suggesting that they were surveyed in one exercise or at least in reference to each other. This theory makes intuitive sense, for the Borgo was akin to a small city appended to the larger one of Rome proper, and Bufalini would have found the task of surveying it as a single unit more manageable than dealing with the labyrinthine whole of Rome. Elsewhere on the map, however, the alignment of the city walls does not fit the intra-mural details.

A further observation about Bufalini's methods does not require superimposing his map and Nolli's. The level of detail on Bufalini's map demonstrates that he, like Nolli later on, was quite thorough in his depiction of the street network, taking pains to include even the smallest byway. Bufalini did not approach Nolli's accuracy in such details, however, and much of his plotting is approximate at best. He seems to have measured

only the major thoroughfares before sketching in the positions of smaller streets and did not hesitate to adjust dimensions, shapes and alignments to fit the space available on his map. Bufalini might have anticipated by two centuries Nolli's commitment to giving a complete picture of the urban matrix, but he was not as punctilious as his successor in executing his survey.

The resulting distortion should be taken not as a sign of Bufalini's negligence in failing to measure every feature, but as another necessary concession to practical feasibility. Bufalini could hardly be expected to achieve in the sixteenth century the technical precision and thoroughness that new instrumentation made possible in the eighteenth. Still, it is evident that his claims to scrupulous personal measurement and mathematical exactitude do not fully reflect his working practice or the results he achieved. Bufalini considered accuracy to be an important selling point for his map, which further suggests that it was a quality valued by his audience.

Bufalini's Vision of Ancient Rome

Bufalini left visual and verbal indications of the methods he employed to measure the contemporary city, but he left no comparable clue to his technique for representing its ancient 'twin'. As already noted, modern and classical structures are interwoven on Bufalini's plan as though they existed side by side. To an extent, this reflects the real situation of sixteenth-century Rome. The Pantheon and Colosseum, for example, were relatively intact, and substantial parts of the Baths of Diocletian and of Caracalla remained standing. Many other structures that appear on the map, however, were in ruins or had perished by Bufalini's time.

Bufalini's general tendency was to complete the floor plans of buildings that survived only in part. Occasionally he recreated in their entirety monuments of which all traces had vanished. He did not, however, employ any coherent system of representation to distinguish between physical remains and his own conjectural reconstructions, or to specify whether the latter were based on written documents, informed speculation or his imagination. Nonetheless, it is possible to formulate theories about Bufalini's methods through an examination of his cultural context along with a close look at the map itself.

For the visible remains of ancient structures, it is possible that Bufalini applied his surveying

expertise, measuring each building individually. As mentioned, Raphael in his Letter to Leo X had described how to do precisely this using the *bussola*, a method that seems to have been common in Bufalini's profession. But it seems unlikely that he would have been keen to add such a labour-intensive task to that of surveying Rome. In this case, too, Bufalini must have been resourceful, turning to available sources.

Even if Bufalini did measure existing ruins scrupulously, he would have had to find an alternative approach to recreate buildings that had left few physical traces or had vanished. For these structures, Bufalini had to turn to antiquarian studies, a field in which he was something of a dilettante. The sixteenth century witnessed the beginnings of modern archaeology, and a growing body of printed antiquarian literature was available to him. In this period, antiquarians interested in Roman history and topography followed in the footsteps of writers from the previous century, notably Flavio Biondo and Poggio Bracciolini, who placed increasing importance on the analysis and evaluation of ancient texts and the correlation of the literary with the physical evidence.

To determine the locations of vanished monuments, Bufalini could have consulted topographically organized works like Andrea Fulvio's *Antiquitates urbis Romae* (1523), the Italian translation of which appeared in 1543. A similar work that Bufalini might have known is Lucio Fauno's *Delle antichità della citta di Roma* (1548). Bufalini's most likely source, however, is the reduced-format vernacular edition of Marliani's *Urbis Romae topographia*, which Antonio Blado published in 1548 under the title *L'antichità di Roma*. The relationship of Bufalini's plan to Marliani's map has already been discussed; the latter's text on the antiquities of Rome, conveniently available in Italian, would have been no less helpful. Marliani described the ancient sites zone by zone, from the Capitoline to the Quirinal, highlighting important structures and supplementing what he had drawn from textual sources with personal observation.³⁶

Such books identified the location of Rome's ancient structures but provided little guidance to their original appearance, and Bufalini would have had to look elsewhere for clues to recreate the floor plans of buildings that had disappeared or were partly destroyed. Bufalini surely knew Serlio's *Terzo libro* of 1540, which was copiously illustrated and widely available. Serlio reconstructed specific ancient Roman buildings, representing them in plan, section and elevation. In doing so, he

acknowledged a partial debt to his colleagues, particularly Baldassare Peruzzi, on whose drawings he relied for a number of illustrations. Serlio's admissions remind us that drawings of ruins circulated widely among architects, artists and other professionals, and that the investigation of antiquity was in large measure a collective pursuit.³⁷ Many of Bufalini's acquaintances from the fortifications project were active in this regard and might have provided him additional information about the ruins.

More specific observations can be made about Bufalini's methods by evaluating his treatment of specific structures against those of contemporary architects. Serlio provides a useful basis for comparison, for his reconstructions embody the prevailing wisdom of the time regarding the forms of the ruins. Equally useful are Andrea Palladio's drawings, which embody the height of analytical sophistication in the same period.³⁸ While there is little chance that Bufalini knew Palladio's drawings, the two men were in Rome studying the classical monuments in the same years and presumably had recourse to the same archaeological evidence. As such, Palladio's renderings are a good yardstick by which to measure Bufalini's attempts to restore the ruins to wholeness.

In his rendition of intact Roman structures, Bufalini differed little from the architects of his day. His version of the Colosseum, for example, is highly simplified, but it reflects the universal agreement that the building was elliptical, not circular, as had been mistakenly thought by previous generations (Fig. 11). Like Serlio and Palladio, Bufalini showed the early fourth-century Basilica of Maxentius and Constantine (then commonly misidentified as the Temple of Peace) as a central nave flanked by two aisles (Fig. 12).³⁹ Elsewhere, Bufalini made the same mistakes as many of his contemporaries. For example, his map shows the long-buried Circus Maximus with equal curves at both ends, when in fact one end had been flatter than the other (Fig. 13).⁴⁰

Bufalini also makes some mystifying omissions. He gives no indication, for instance, of the Theatre of Pompey, which was much discussed by antiquarians of the time. Both Marliani and Fauno mentioned it in their treatises, noting that remains of it were still visible. Even to this day some structural vestiges of the theatre exist, and its general outline is traceable in the street pattern near Campo de' Fiori.⁴¹ That Bufalini excluded this important monument is curious, but demonstrates that he followed no source slavishly (and that he

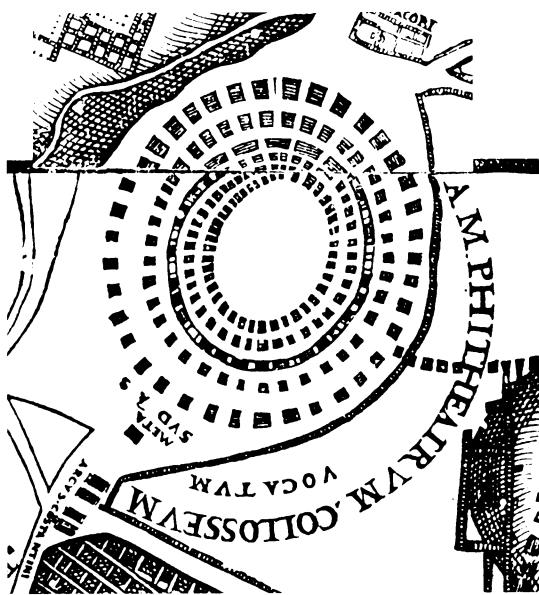


Fig. 11. Detail from Leonardo Bufalini, *Roma* (Rome, Antonio Blado, 1551 [1560]), showing the Colosseum. (Reproduced with permission from the British Library, Maps S.T.R.[1].)

was not always a perceptive observer of the city around him).

The most elaborate ancient monuments Bufalini portrayed on his plan are the Roman bath complexes. Here, he differs most from his contemporaries and seems to have gone furthest toward invention. His treatment of the Baths of

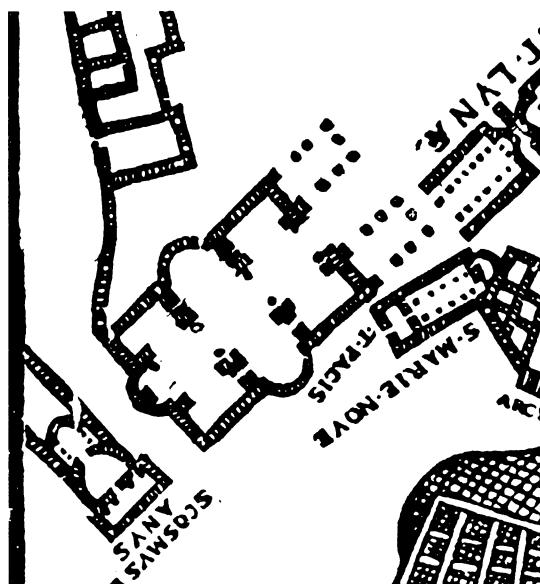


Fig. 12. Detail from Leonardo Bufalini, *Roma* (Rome, Antonio Blado, 1551 [1560]), showing the Basilica of Maxentius and Constantine. (Reproduced with permission from the British Library, Maps S.T.R.[1].)

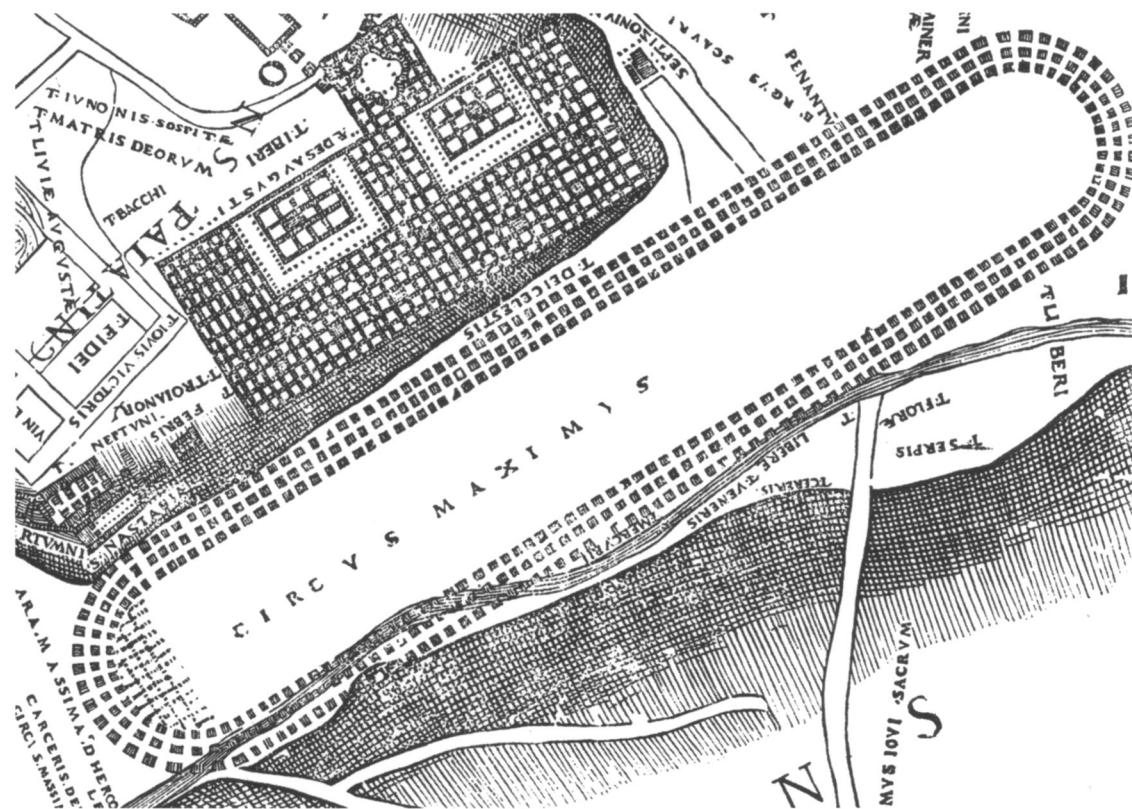


Fig. 13. Detail from Leonardo Bufalini, *Roma* (Rome, Antonio Blado, 1551 [1560]), showing the Circus Maximus. (Reproduced with permission from the British Library, Maps S.T.R.[1].)

Caracalla (*Thermae Antoninianae*; c.220 AD), for instance, betrays the intrusion of a personal aesthetic.⁴² Together with the Baths of Diocletian (c.305 AD), the Baths of Caracalla were the largest and best preserved of the ancient complexes in Renaissance Rome.⁴³ While Bufalini's plan of the Baths of Diocletian is, unsurprisingly, almost identical to both Serlio's and Palladio's, his treatment of the Baths of Caracalla differs significantly. Where Palladio shows, correctly, that the round *caldarium* near the middle of the plan partly protrudes from the series of *aulae* making up the core of the complex (Fig. 14), Bufalini makes it the centre of a series of square chambers by doubling the rooms around it, thereby imposing symmetry and better filling the space within the external walls (Fig. 15). He also lengthens the outer walls so that the external *exedrae* are centred, thus forcing upon the whole complex a regularity that it never had.

Bufalini's penchant for symmetry might be traced to a particularly influential passage of Vitruvius' *De architectura*. In his discussion of temples, Vitruvius had written:

The composition of a temple is based on symmetry, whose principles architects should take the greatest

care to master. Symmetry derives from proportion . . . [which is] the mutual calibration of each element of the work and of the whole, from which the proportional system is achieved.⁴⁴

Bufalini's treatment of the Baths of Caracalla suggests that he, like many architects, was deeply affected by the Vitruvian ideal, to the extent that he applied it to structures other than temples, and even allowed it to override evidence on the ground.

Raphael, in his Letter to Leo X, had revealed his own debt to Vitruvius when he advocated a method of reconstructing fragmentary structures by 'making those members that are completely ruined or that have vanished correspond to those that are still standing and can be seen'.⁴⁵ Raphael used the ideal of symmetry in an attempt to impose rigour on the graphic reconstruction of antiquity, for he counselled architects to take their reconstructive cues from existing physical evidence. Bufalini, by contrast, seems to have been inspired by the Vitruvian paradigm to embark on flights of the imagination.

We see this most clearly in his treatment of the Baths of Trajan (*c.*110 AD), which were poorly understood in the mid-sixteenth century. Little

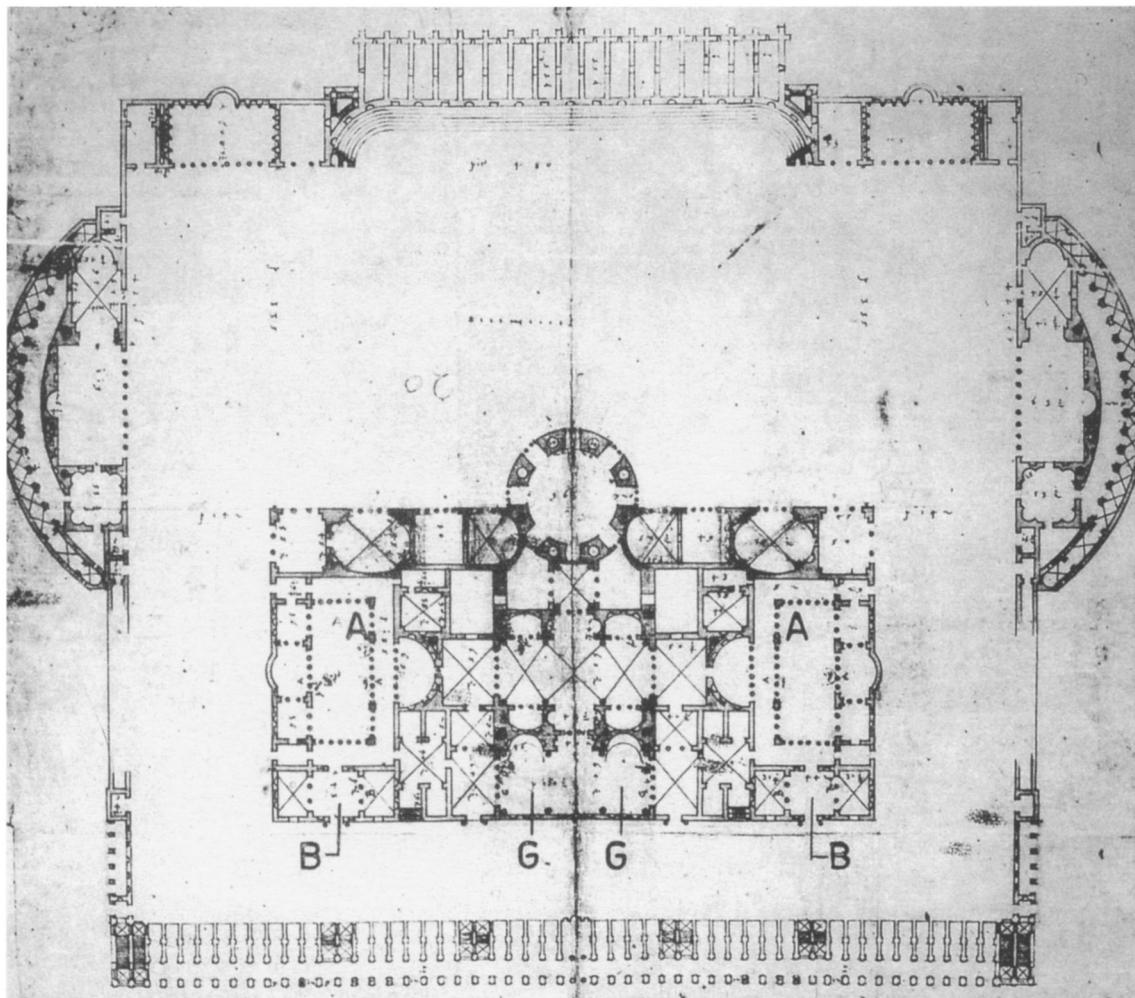


Fig. 14. Andrea Palladio, the Baths of Caracalla. Pen and ink. 39.6 × 46.7 cm. (Reproduced with permission from the RIBA Library Drawings Collection, Palladio SC211/VI/1.)

remained of this large complex, which was located on the Esquiline Hill. In Bufalini's time its few vestiges were usually wrongly associated with the smaller Baths of Titus (*c.*80 AD), which had been situated on an adjoining site near the Colosseum.⁴⁶ In Palladio's reconstruction of the Baths of Trajan, which is still considered authoritative, the structure bears a close resemblance to the Baths of Caracalla.⁴⁷ By contrast, Bufalini expanded the complex into a vast structure—in effect, a version of his Baths of Caracalla doubled in length (Fig. 16). Again, Bufalini has multiplied the chambers around a central core to invent an orderly and symmetrical internal quadrangle bearing no resemblance to the original form of the edifice or, in fact, to any known Roman bath complex. This structure, a product of Bufalini's imagination and his personal taste in architecture, is another clear signal that his map must not be

taken as a transparent window on sixteenth-century Rome. Rather, Bufalini's plan of Rome reflects simultaneously the contemporary and the ancient city as filtered through the vision of one sixteenth-century mapmaker.

Reception of Bufalini's Plan of Rome

As Bufalini's rhetoric hints, the status of ichnographic plans rested largely on their perceived accuracy. Apparently, however, he did not consider this quality sufficient to guarantee the success of a city map published outside the usual context of treatises on fortification and architecture. Bufalini seems to have presumed that by combining an emphasis on measurement with humanist erudition, he would ensure that his plan of Rome would appeal to a broader audience and ultimately win him not only accolades but also financial profit. On

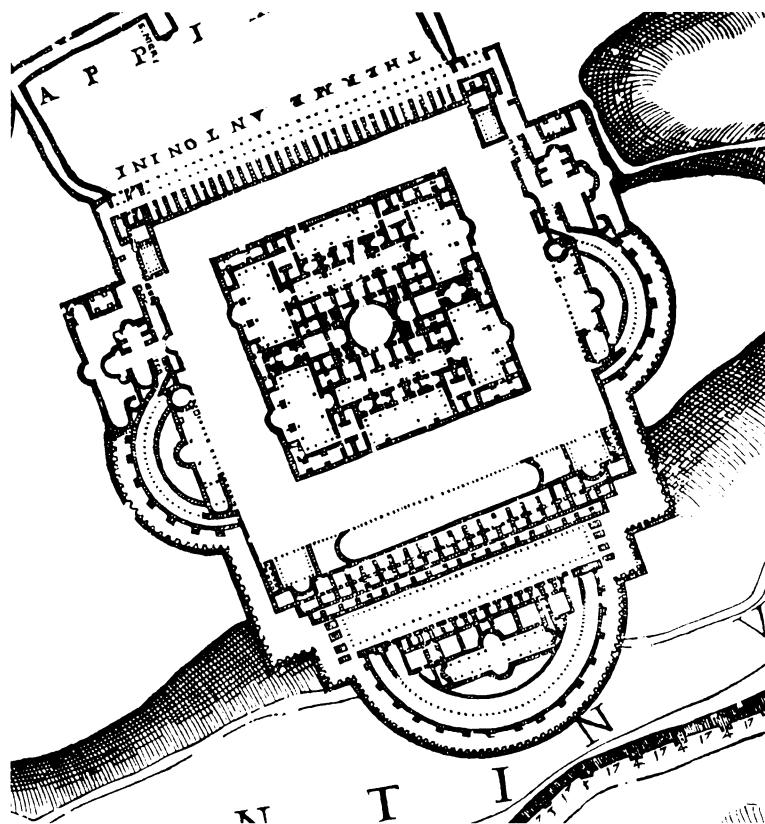


Fig. 15. Detail from Leonardo Bufalini, *Roma* (Rome, Antonio Blado, 1551 [1560]), showing the Baths of Caracalla.
(Reproduced with permission from the British Library, Maps S.T.R.[1].)

the surface, this assumption hardly seems unreasonable. Antiquarians were increasingly interested in technical matters and proficient with the graphic language of architecture. Bufalini's map embodied wisdom that was practical, military and historical. In a sense, it was a completion of Raphael's project to document ancient Rome, and a synthesis of several aspects of Marliani's topography into one composite image.

While several contemporary commentators did speak admiringly of Bufalini's plan of Rome after it appeared in 1551, there is no indication that the map was a commercial success.⁴⁸ In fact, most of the available evidence points to the contrary. Surviving documents reveal that at the time of his death—within a year of the map's publication—Bufalini was in debt, part of which his widow later repaid not in currency, but in maps, implying that finances were tight.⁴⁹ Two of the debts noted in Bufalini's will related to the printing of the map; clearly production costs had exceeded the resulting sales revenue.⁵⁰ An alternative explanation for these debts, however, is that Bufalini died too soon after the publication of his

map to peddle it effectively. Many mapmakers and publishers recouped their initial investment only after a span of years, during which they reissued and reprinted individual maps in step with demand.⁵¹

There are additional signs, however, that Bufalini's plan would never have been as successful as he hoped. The map was reissued just once, by the engineer Antonio Trevisi, in 1560.⁵² This can be contrasted usefully with the publication history of Pirro Ligorio's *Anteiquae urbis imago* of 1561, a multi-sheet engraved view of Rome similarly destined for a scholarly audience, which reverberated through at least fourteen subsequent editions and derivatives into the late eighteenth century.⁵³ Another revealing contrast is Sophianos's *Totius Graeciae Descriptio*, which, as George Tolias has noted, 'was copied and reproduced by some of the major map publishers of the time . . . and became a cartographical bestseller for the remainder of the [sixteenth] century'.⁵⁴ Tolias notes that the enthusiastic reception of Sophianos's map by scholars led to its extensive diffusion, and a similar response seems to have perpetuated the centuries-long

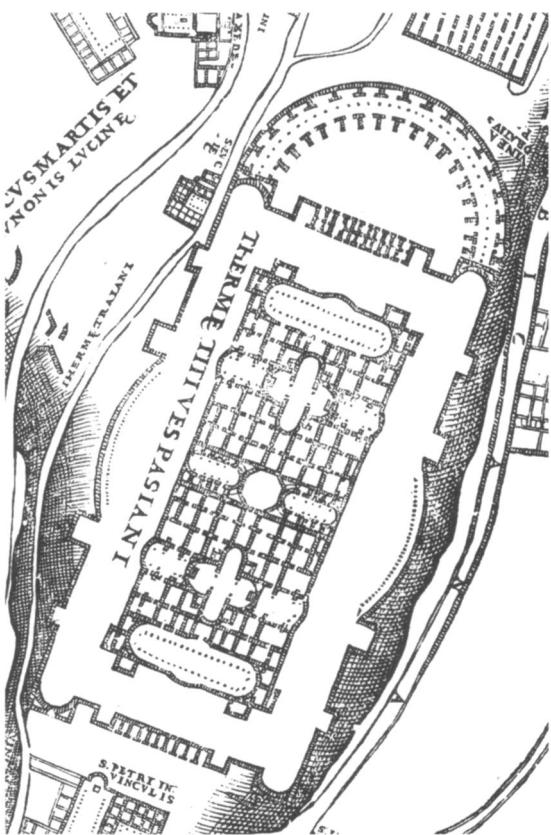


Fig. 16. Detail from Leonardo Bufalini, *Roma* (Rome, Antonio Blado, 1551 [1560]), showing the Baths of Trajan. (Reproduced with permission from the British Library, Maps S.T.R.[1].)

demand for Ligorio's view of Rome. But few later images betray the influence of Bufalini's plan, indicating again that it met with indifference at best.⁵⁵

Even were we left without such clues to the contemporary reception of Bufalini's map, we might doubt that it was popular among the intended scholarly audience. Bufalini's plan differed in key respects from contemporary illustrated works on ancient Rome. Like Raphael, Marliani and Serlio, Bufalini's aim was to restore the *caput mundi* on paper. Unlike the others, however, he published his ichnography with little clarifying text or supplementary illustrations. Moreover, he combined into one image elements taken from different eras without distinguishing them. In this respect he was not without precedent; fifty years before, Giuliano da Sangallo had drafted a measured plan of Pisa in which past and present were similarly mixed.⁵⁶ Among Bufalini's learned contemporaries, however, the trend in historical analysis was toward stricter chronological

differentiation. Despite Bufalini's relatively sophisticated measuring skills, his ahistorical approach might be said to more closely parallel the medieval *mirabilia* tradition than the increasing rigour of his scholarly contemporaries.

Still, it is important to note that Bufalini took on a particular challenge when he attempted to compress of all of Roman history into a single image. Sophianos, who faced a similar problem in his *Totius Graeciae Descriptio*, chose to provide a separate concordance table with modern place-names.⁵⁷ In subsequent decades cartographers who took Rome as their subject responded to the dilemma by making separate maps of the ancient and modern city.⁵⁸ Two centuries were to pass before Nolli solved the problem in his own map by developing graphic conventions to distinguish surviving ruins from vanished structures, and modern buildings from ancient ones.⁵⁹

Nolli was also much more conservative than Bufalini in his attitude toward reconstruction, avoiding it almost entirely. Indeed, Bufalini's practice of reconstructing ancient buildings for his map was increasingly disdained even in his own time. Generally, it was thought to be justified only when rooted in physical evidence or in an expert understanding of ancient building types, thus resulting in a plausible reconstruction. Bufalini had scholarly aspirations, but he lacked the classical training and skills to reconstruct buildings on his map with verisimilitude. Unlike Sophianos and Ligorio, Bufalini made no significant contribution to contemporary scholarly debates about the ancient city in his map—he did not present any new evidence, posit any viable theories or resolve any controversies. His major contribution was to the cartography of the contemporary city. Bufalini's plan, therefore, simultaneously trumpeted his skills as a surveyor and laid bare his inadequacies as an antiquarian scholar.

Such considerations help to illuminate some of the perceived shortcomings of Bufalini's plan of Rome, but they do little to explain the conspicuous absence of maps in the subsequent representations of the city. When Bufalini published his plan in 1551, city imagery was in the early stages of becoming a popular genre in print collecting. By the end of the sixteenth century, the numbers of printed representations of cities had increased exponentially. Pictorial views dominated this category of imagery, and ichnographic maps were almost nonexistent. This discrepancy reflects popular taste in city imagery, a factor that Bufalini seems to have misjudged. The strong preference for

pictorialism had not yet manifested itself clearly when Bufalini published his map, but it existed, and surely worked against the enthusiastic reception of his plan.

In the realm of popular city imagery, Renaissance viewers had an entrenched preference for naturalistic pictures over maps. Pictorial bird's-eye views, which show the city unfolding before the gaze of the spectator, were meant to evoke a visual experience, however artificial in an age when the highest view possible was from a tower or hill. Maps, which discarded ephemeral conditions of optical perception in order to represent true angles and proportions, might have seemed uncomfortably disorienting to the spectator. Every point was represented from directly above in strict orthogonal projection, resulting in an infinite number of simultaneous viewpoints. In a sense, then, the spectator's vantage point was everywhere—and nowhere. One scholar has recently asserted that ichnographic plans 'lack any viewer at all, because they are not representations of the world seen, but of the mathematical essence of the world'.⁶⁰ The reception of Bufalini's map shows that viewers strongly favoured images of the 'world seen' or, more precisely, of the city seen.

Bufalini's plan, like so many of the bird's-eye views that proved highly popular, showed the city in an idealized form, but observers might have failed to recognize this familiar rhetoric beneath its revolutionary graphic language. Perhaps the strongest sign that Bufalini's map did not resonate with viewers is that no comparable plan of Rome was published until Nolli's time, despite a growing demand for imagery of the city—a demand that was answered by an endless stream of pictorial views in countless forms and formats.⁶¹ City maps had their uses, but their technical graphic language simply left Renaissance viewers cold.

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NOTES AND REFERENCES

1. Bufalini's date of birth is not recorded. He died in 1552, when he was probably in his fifties. No example of Bufalini's plan from the edition of 1551 has come down to us. A second edition was printed in 1560, of which two complete examples are known, one at the Vatican Library (Stampati St. Geogr. I. 620. Riserva), and the other at the British Library (Maps S.T.R.[1.1]). The Vatican also has an incomplete example (Cod. Barb. Lat. 4432). The basic bibliography on the map includes the following sources: Giovanni Beltrani, *Leonardo Bufalini e la sua pianta topografica di Roma* (Florence, Tip. della Gazzetta d'Italia,

1880); Antonino Bertolotti, 'La pianta di Roma di Leonardo Bufalini', *Archivio storico, artistico, archeologico e letterario di Roma e della provincia* 4 (1880): 157–63; Francesco Ehrle, *Roma al tempo di Giulio III: la pianta di Roma di Leonardo Bufalini del 1551 riprodotta dall'esemplare esistente nella Biblioteca Vaticana* (Rome, Danesi, 1911). See also Enrico Rocchi, *Le piante iconografiche e prospettive di Roma del secolo XVI* (Rome and Turin, Roux e Viarengo, 1902), 32–42; Christian Huelsen, *Saggio di bibliografia ragionata delle piante iconografiche e prospettive di Roma dal 1551 al 1748* (Florence, Leo S. Olschki, 1933), 12–15, 38–39, no. 1; Amato Pietro Frutaz, *Le piante di Roma* (Rome, Istituto di studi romani, 1962), 1:168–69, 2: no. 109. I provide a thorough examination of the map in my dissertation, '*Imago Romae: Renaissance Visions of the Eternal City*' (doctoral dissertation, Columbia University, 2006), ch. 3.

2. The most notable contribution to the literature on Bufalini's plan to have emerged in recent decades is Italo Insolera, *Roma: immagini e realtà dal X al XX secolo* (Bari, Laterza, 1980), 112–22. Other recent additions to the bibliography are G. Araguzzini and M. Nocca, *Le piante di Roma dal Cinquecento all'Ottocento* (Rome, Dino Audino Editore, n.d. [c.1993]), 9–33; Barbara Tellini Santoni and Alberto Manodori, eds., *Roma, disegno e immagine della Città Eterna: le piante di Roma dal II secolo d.C. ai giorni nostri* (Rome, Edizioni de Luca, 1994), 18–19; Paul Schlapobersky and David Friedman, 'Leonardo Bufalini's orthogonal *Roma* (1551)', *Thresholds* 28 (2005): 10–16.

3. On the Roman fortification projects of the 1530s and 1540s, see especially Alberto Guglielmotti, *Storia della marina pontificia*, vol. 5, *Storia delle fortificazioni sulla spiaggia romana* (Rome, Tipografia vaticana, 1887), 305–85; Rocchi, *Le piante iconografiche e prospettive di Roma* (note 1).

4. Thomas M. Greene, 'Resurrecting Rome: the double task of the humanist imagination', in *Rome in the Renaissance: The City and the Myth: Papers of the Thirteenth Annual Conference of the Center for Medieval & Early Renaissance Studies*, ed. P. A. Ramsey (Binghamton, NY, Center for Medieval & Early Renaissance Studies, 1982), 41, 43.

5. 'Omnium rerum pulcherrimam se dare credit Romam scilicet et hanc geminam: neque enim satis tibi factum duxit, redivivam istam unam quae hodie colitur ante oculus posuisse: nisi veterem etiam, totius olim orbis dominam' (translation mine).

6. See George Tolias's impressive recent study for this journal, 'Nikolaos Sophianos's *Totius Graeciae Descriptio*: the resources, diffusion and function of a sixteenth-century antiquarian map of Greece', *Imago Mundi* 58:2 (2006): 150–82.

7. 'Hanc tu (sive novam, sive antiquam inspicias) non ad normam solum, et circum: sed ad pyxidem etiam nauticam; Coeli, et solis situs et intervallorum ratione habita; exactam scito' (translation mine).

8. See Ehrle, *Roma al tempo di Giulio III* (note 1), 17, 55–56. On Antonio Blado, see especially F. Barberi, 'Blado, Antonio', in *Dizionario biografico degli italiani*, 10 (Rome, Istituto della Encyclopedie italiana, 1968), 753–57 (with further references). See also Tolias, 'Nikolaos Sophianos's *Totius Graeciae Descriptio*' (note 6). On the various roles that individuals played in map and print production, see especially David Woodward, *Maps as Prints in the Italian Renaissance: Makers, Distributors & Consumers. The 1995 Panizzi Lectures* (London, The British Library, 1996).

9. Although Rocchi discounted this idea back in 1902 (*Le piante iconografiche e prospettive di Roma* (see note 1),

39), it is still a common misconception. See, for example, C. Palagiano, 'Bufalini, Leonardo', in *Dizionario biografico degli Italiani*, 14 (Rome, Istituto della Enclopedia italiana, 1972), 798–99; Santoni and Manodori, *Roma* (note 2), 18–19.

10. That maps came to be used as way-finding tools only after c.1600 is discussed by Woodward in *Maps as Prints in the Italian Renaissance* (see note 8), 2. See also Thomas Frangenberg, 'Chorographies of Florence: the use of city views and city plans in the sixteenth century', *Imago Mundi* 46 (1994): 48–49.

11. The most famous printed city views from the period prior to Bufalini's plan are Francesco Rosselli's *Fiorenza* (c.1482–1490) and Jacopo de' Barbari's *Venetie MD* (1500), both of which were comparable to Bufalini's map as multi-sheet prints intended for prominent display. On Rosselli's view, see David Friedman, "'Fiorenza': geography and representation in a 15th-century city view', *Zeitschrift für Kunstgeschichte* 64 (2001): 56–77. On Barbari's view, see Juergen Schulz, 'Jacopo de' Barbari's view of Venice: map making, city views, and moralized geography before the year 1500', *Art Bulletin* 60 (1978): 425–75.

12. Lucia Nuti has examined the meaning and function of the plan as a means for representing cities in *Ritratti di città: visione e memoria tra medioevo e settecento* (Venice, Marsilio, 1997), 117–31 ('Lo spazio misurato'). In that chapter, Nuti also addresses the archaeological context that catalyzed the development of the plan as a form of representation, a theme shared by this study.

13. For the original use of the term, see Vitruvius Pollio, *Ten Books on Architecture*, trans. Ingrid D. Rowland (Cambridge, Cambridge University Press, 1999), bk. 1, chap. 2, 24–25. On ichnographic city plans, see John A. Pinto, 'Origins and development of the ichnographic city plan', *Journal of the Society of Architectural Historians* 35 (1976): 33–50.

14. On the *Forma urbis*, see especially Emilio Rodríguez Almeida, *Forma urbis marmorea: aggiornamento generale 1980* (Rome, École française de Rome, 1981); David West Reynolds, 'Forma Urbis Romae: The Severan Marble Plan and the Urban Form of Ancient Rome' (doctoral dissertation, University of Michigan, 1996). The most important work in progress is Stanford University's project to digitize the *Forma urbis* fragments and reconstruct the map <<http://formaurbis.stanford.edu/index.html>> (accessed 15 July 2006).

15. On the *Descriptio urbis Romae*, see Luigi Vagnetti, 'La "Descriptio urbis romae", uno scritto poco noto di Leon Battista Alberti', *Quaderni (Università degli studi di Genova. Facoltà di architettura. Istituto di elementi di architettura e rilievo dei monumenti)* 1 (1968): 25–80; idem, 'Lo studio di Roma negli scritti albertiani', in *Convegno internazionale indetto nel V centenario di Leon Battista Alberti* (Rome, Accademia Nazionale dei Lincei, 1974), 73–110; Mario Carpo and Martine Furno, eds., *Descriptio urbis Romae: édition critique, traduction et commentaire par Martine Furno et Mario Carpo* (Geneva, Droz, 1999). The treatise has recently been translated into English for the first time by Peter Hicks, in 'Leonis Baptiste Alberti Descriptio Urbis Romae', ed. Jean-Yves Boriaud, *Albertiana* 6 (2003): 186–96.

16. There has been some question in recent scholarship if Alberti's map ever did exist, or at least if it was the ultimate aim of the treatise. See Mario Carpo, 'La *Descriptio Urbis Romae*: ecphrasis géographique et culture visuelle à l'aube de la révolution typographique', in *Descriptio urbis Romae*, ed. Carpo and Furno (note 15), 65–96, esp. 83–89.

17. On the Imola Plan, see Mario Baratta, 'La pianta di Imola di Leonardo da Vinci', *Bollettino della società geografica italiana* 8 (1911): 945–67; Carlo Pedretti, 'Leonardo architetto a Imola', *Architectura* 1 (1972): 92–105; Howard Burns, 'Leonardo da Vinci. La pianta della città di Imola', in *Raffaello architetto*, exhibition catalogue, ed. C. L. Frommel et al. (Milan, Electa, 1984), 444–46; Carlo Pedretti, ed., *Leonardo: il Codice Hammer e la Mappa di Imola presentata da Carlo Pedretti. Arte e scienza a Bologna in Emilia Romagna nel primo cinquecento*, exhibition catalogue (Florence, Giunti Barbèra, 1985).

18. Several of the more important fortification treatises are Pietro Cataneo, *I quattro primi libri di architettura* (Venice, 1554); Girolamo Maggi and Jacopo Fusto Castriotto, *Della fortificazione delle città libri III* (Venice, 1564); Francesco De Marchi, *Della architettura militare, libri tre* (Brescia, 1599).

19. On Marliani and the *Urbis Romae topographia*, see Antonino Bertolotti, 'Bartolomeo Marliano archeologo nel secolo XVI', *Atti e memorie delle RR. Deputazioni di storia patria per le provincie dell'Emilia*, n.s. 4:2 (1880): 107–38; Philip Jacks, *The Antiquarian and the Myth of Antiquity* (Cambridge, Cambridge University Press, 1993), 206–14. On Marliani's plan, see Frutaz, *Le piante di Roma* (note 1), 1:56–57, no. 12.

20. The Italian edition of Marliani's *Topographia* was entitled *L'antichità di Roma di M. Bartholomeo Marliano tradotti in lingua volgare per M. Hercule Barbarasa da Terni* (Rome, 1548).

21. There is a vast body of literature on the Letter, which exists in three versions, and much debate about issues of dating and authorship. For the most comprehensive recent sources see Francesco P. Di Teodoro, *Raffaello, Baldassar Castiglione e la Lettera a Leone X: '... con lo aiutto tuo mi sforerò vendicare dalla morte quel poco che resta ...'* (Bologna, Minerva Edizioni, 1994; revised and expanded 2003); John Shearman, *Raphael in Early Modern Sources, 1483–1602* (New Haven, Yale University Press, 2003), 1:500–45 (includes complete bibliography on the Letter, 544–45). The project that Raphael describes in his Letter is sometimes referred to by modern scholars as a map of the city, a theory which arose from the presence in the earliest of the three known versions of the Letter of a single confusing reference to a 'universal drawing of all of Rome' ('uno [disegno] universale di tutta Roma'; see Di Teodoro, *Raffaello*, 86–87). This phrase vanished in the two later versions, however, which mention only separate architectural drawings, and it seems safe to conclude that Raphael did not plan to make a map of the city. See Christof Thoenes, 'La "Lettera" a Leone X', in *Raffaello a Roma: il convegno del 1983*, ed. C. L. Frommel and Mathias Winner (Rome, Edizioni dell'elefante, 1986), 375. For a contrasting view, see Francesco P. Di Teodoro, 'Echi albertiani nella Lettera a Leone X di Raffaello e Baldassar Castiglione', *Quaderni di Palazzo Te* 7 (2000): 38–47.

22. For a discussion of the Bufalini plan in the context of drawings of antiquity by contemporary Roman architects, see Ann Huppert's forthcoming article, 'Mapping ancient Rome in Bufalini's plan and in sixteenth-century drawings', in *Giambattista Nolli, Rome and Mapping: Before and After the Pianta Grande*, ed. Ian Versteegen (Rome, Gangemi, c.2007).

23. The military engineer Francesco De Marchi praised Bufalini and referred to him as a participant in the fortification project in his treatise *Della architettura militare* (see note 18), bk. 3, chap. 34. Several official records of payment from the fortification project indicate Bufalini's participation in the construction of a bastion at the

Vatican. See Rodolfo Amedeo Lanciani, *Storia degli scavi di Roma e notizie intorno le collezioni romane di antichità* (Rome, Loescher & Co., 1902–1912), 2:104–5.

24. On Renaissance surveying methods, see Mario Docci and Diego Maestri, *Storia del rilevamento architettonico e urbano* (Rome and Bari, Laterza, 1993); Lucia Nuti, 'Prospettiva e strumenti di misura nella costruzione dei ritratti di città', in *Nel segno di Masaccio. L'invenzione della prospettiva*, ed. F. Camerota (Florence, Giunti, 2001), 271–73. The literature on this topic in English is limited. See Edmond R. Kiely, *Surveying Instruments, Their History and Classroom Use* (New York, Teachers College, Columbia University, 1947); Schulz, 'Jacopo de' Barbari's view of Venice' (note 11), 31–36.

25. Nicolò Tartaglia, *Quesiti et inventioni diversi* (Venice, 1546), bk. 5. On surveying manuals of the Renaissance, see Daniela Stroffolino, *La città misurata: tecniche e strumenti di rilevamento nei trattati a stampa del Cinquecento* (Rome, Salerno, 1999).

26. Peverone's treatise was titled *Due brevi e facili trattati, il primo d'Arithmetica: l'altro di Geometria: ne i quali si contengono alcune cose nuove piacevoli e utili, si à gentilhuomini come artegiani* (Lyon, 1558); Bartoli's was *Del modo di misurare le distanze, le superficie, i corpi, le piante, le provincie, le prospettive, & tutte le altre cose terrene, che possono occorrere a gli huomini, secondo le vere regole d'Euclide, & de gli altri più lodati scrittori* (Venice, 1564).

27. Triangulation had been practised for decades when the first Italian treatises appeared. The first published manual on the subject was Gemma Frisius's *Libellus de locorum describendorum ratione* (Antwerp, 1533). Moreover, a drawing done by Antonio da Sangallo the Younger in the 1520s attests to his use of the technique (Uffizi Architettura 772; see Christoph L. Frommel and Nicholas Adams, eds., *The Architectural Drawings of Antonio da Sangallo the Younger and His Circle* (New York, Architectural History Foundation; Cambridge, MA, MIT Press, 1994), 1:128–30). Sangallo was in charge of the Roman fortifications for much of Bufalini's tenure there, and surely such methods were common in that professional context.

28. In an unfinished manuscript dating from about 1558, the scholar Onofrio Panvinio wrote that Bufalini had spent twenty years working on the map (Cod. Vat. Lat. 6683, cited in Ehrle, *Roma al tempo di Giulio III* (see note 1), 20). Another estimate comes from Antonio Trevisi. When he issued the second edition of the map in 1560, he appended an address to architects asserting that it had taken Bufalini seven years to prepare.

29. This organizational system was honed by Antonio da Sangallo the Younger and his workshop. See Simon Pepper and Nicholas Adams, 'The fortification drawings', in Frommel and Adams, *The Architectural Drawings of Antonio da Sangallo the Younger* (note 27), 1:61–74.

30. The full shelf mark of the manuscript is Cod. Barb. Lat. 4391(B). The map in question is folio 1.

31. See Paolo Marconi, 'Contributo alla storia delle fortificazioni di Roma nel Cinquecento e nel Seicento', *Quaderni dell'Istituto di storia dell'architettura*, ser. 8, no. 78 (1966): 109–30. Marconi examined the sequence of maps in the codex (both 4391[A] and [B], which were not yet separated), but he does not seem to have recognized the relationship between folio 1 and Bufalini's map.

32. For the original text, see above, note 5.

33. For background on the urban planning of Renaissance Rome, see Insolera, *Roma* (note 2); James Ackerman, 'The planning of Renaissance Rome 1450–1580', in Ramsey, *Rome in the Renaissance* (note 4), 3–17; C. L. Frommel, 'Papal policy: the planning of Rome

during the Renaissance', in *Art and History: Images and Their Meaning*, ed. R. I. Rotberg and T. K. Rabb (Cambridge, England, Cambridge University Press, 1988), 39–65.

34. On Nolli's plan, see Allan Ceen, 'Portrait of a city', in *Rome 1748: The Pianta Grande di Roma of Giambattista Nolli* (Highmount, NY, J. H. Aronson, 1984); Mario Bevilacqua, *Roma nel secolo dei lumi: architettura erudizione scienza nella pianta di G. B. Nolli 'celebre geometra'* (Naples, Electa Napoli, 1998). In collaboration with Allan Ceen and others, the University of Oregon has recently developed an interactive Web site on the plan: <<http://nolli.uoregon.edu/>> (accessed 15 July 2006).

35. The methods espoused here take partial inspiration from those of two scholars who have previously worked on the question of accuracy in Bufalini's plan, Paul Schlapobersky and Allan Ceen. Schlapobersky, with David Friedman, published his findings in 'Leonardo Bufalini's orthogonal *Roma*' (see note 2); another article by Paul Schlapobersky is forthcoming in Verstegen, *Giambattista Nolli, Rome and Mapping* (see note 22). Ceen's unpublished distortion grid uses Nolli's plan of 1748 as a basis for comparison.

36. Ehrle, *Roma al tempo di Giulio III* (see note 1), 25–30, was the first to explore Bufalini's possible antiquarian sources.

37. On this phenomenon, see especially Hubertus Günther, *Das Studium der antiken Architektur in den Zeichnungen der Hochrenaissance* (Tübingen, E. Wasmuth Verlag, 1988).

38. The authoritative catalogue of Palladio's drawings after ancient structures is Giangiorgio Zorzi, *I disegni delle antichità di Andrea Palladio* (Venice, Neri Pozza Editore, 1959). Palladio's drawings were among the most accurate of his time and are still used as a basis for many reconstructions. As Cammy Brothers has pointed out, however, Palladio's renderings are not always objective records of the Renaissance appearance of ancient structures. See her 'Architecture, history, archaeology: drawing ancient Rome in the Letter to Leo X & in sixteenth-century practice', in *Coming About: A Festschrift for John Shearman*, ed. Lars R. Jones and Louisa C. Matthew (Cambridge, MA, Harvard University Art Museums, 2001), 138.

39. On the Basilica of Maxentius and Constantine, see Samuel Ball Platner and Nicholas Ashby, *A Topographical Dictionary of Ancient Rome* (London, Humphrey Milford, 1929), 76–78; Lawrence Richardson, Jr., *A New Topographical Dictionary of Ancient Rome* (Baltimore, Johns Hopkins University Press, 1992), 51–52; Eva Margareta Steinby, ed., *Lexicon topographicum urbis Romae* (Rome, Quasar, 1993–2000), 1:230–33.

40. On the Circus Maximus, see Platner and Ashby, *A Topographical Dictionary of Ancient Rome* (note 39), 11; Richardson, *A New Topographical Dictionary of Ancient Rome* (note 39), 84–87; Steinby, *Lexicon topographicum urbis Romae* (note 39), 1:272–77.

41. On the Theatre of Pompey, see Platner and Ashby, *A Topographical Dictionary of Ancient Rome* (note 39), 515–17; Richardson, *A New Topographical Dictionary of Ancient Rome* (note 39), 383–85; Steinby, *Lexicon topographicum urbis Romae* (note 39), 5:35–38.

42. On the Baths of Caracalla, see Platner and Ashby, *A Topographical Dictionary of Ancient Rome* (note 39), 520–24; Richardson, *A New Topographical Dictionary of Ancient Rome* (note 39), 387–89; Steinby, *Lexicon topographicum urbis Romae* (note 39), 5:42–48.

43. On the Baths of Diocletian, see Platner and Ashby, *A Topographical Dictionary of Ancient Rome* (note 39), 527–30; Richardson, *A New Topographical Dictionary of Ancient Rome* (note 39), 391–93; Steinby, *Lexicon topographicum urbis Romae* (note 39), 5:53–58.

44. Vitruvius, *Ten Books on Architecture* (see note 13), bk. 3, chap. 1, 47.

45. ‘Facendo quelli membri che sono in tutto ruinati, né si veggono punto, corrispondenti a quelli che restano in piedi e che si veggono’. Raphael, Letter to Leo X (Munich MS), in Shearman, *Raphael in Early Modern Sources* (see note 21), 1:520–21 (translation mine).

46. On the Baths of Trajan, see Platner and Ashby, *A Topographical Dictionary of Ancient Rome* (note 39), 534–36; Richardson, *A New Topographical Dictionary of Ancient Rome* (note 39), 397–98; Steinby, *Lexicon topographicum urbis Romae* (note 39), 5:67–69. On the Baths of Titus, see Platner and Ashby, *A Topographical Dictionary of Ancient Rome* (note 39), 533–4; Richardson, *A New Topographical Dictionary of Ancient Rome* (note 39), 396–97; Steinby, *Lexicon topographicum urbis Romae* (note 39), 5:66–67.

47. For a reproduction of Palladio’s plan of the Baths of Trajan, see Zorzi, *I disegni delle antichità* (note 38), Fig. 106.

48. The engineer Francesco De Marchi wrote admiringly of ‘master Leonardo of Udine, a skilled architect, the one who measured all of Rome inside and out, and had it printed with all the hills, theatres, temples, streets and other things indicated’ (‘maestro Leonardo da Udine valente architetto, il quale misurò tutta Roma dentro e fuori, e la pose in istampa con tutti li monti e Theatri, & Tempii, strade e altre cose segnalate’) (De Marchi, *Della architettura militare* (see note 18), bk. 2, chap. 32). The scholar Onofrio Panvinio similarly wrote of ‘a certain Leonardo Bufalini from Friuli’, who ‘measured the entire city with the incredible labour and steadfast study of twenty years, and printed his ichnography as a woodcut’ (‘Leonardus quidam Bufalinus, Foroulianensis, faber lignarius, incredibili labore et pertinaci XX annorum studio totam urbem commensuravit et ligneis typis eius ichnographiam expressit’) (Cod. Vat. Lat. 6683, 202, cited in Ehrle, *Roma al tempo di Giulio III* (see note 1), 20). (Translations mine.)

49. These documents are Bufalini’s will, dated 18 July 1552; a formal acknowledgment of a debt of 25 scudi that Bufalini owed to one ‘Josepho q. Leonardi Pasqualuti’; and a record of the payment of that debt by Bufalini’s widow ‘in plans or maps of Rome’ (‘in plantis rome seu cartis’) on 2 December 1552. The will was first published by Bertolotti in 1880 (‘La pianta di Roma di Leonardo Bufalini’ (see note 1), 158–60) and then by Ehrle in 1911 (*Roma al tempo di Giulio III*, (see note 1), 55–56). For the other two documents, see Bertolotti, ‘La pianta di Roma di Leonardo Bufalini’, 160–63 (Ehrle was unable to locate them for his monograph, although he did not express any doubt about their existence).

50. ‘Item reliquit etc. domino Camillo Dellarte Bianchi, in Campo Flore, pro residuo carte ab eo habite diebus preteris pro imprimi faciendo plantam Rome scutos tres auri. Item reliquit etc. domino Antonio Blado impressori

pro residuo sue mercedis scutos tres auri, salvo veriori calculo fiendo’. Cited in Ehrle, *Roma al tempo di Giulio III* (see note 1), 55.

51. Such was the case with Sophianos’s map of Greece. See Tolias, ‘Nikolaos Sophianos’s *Totius Graeciae Descriptio*’ (note 6).

52. Trevisi, who specialized in hydrographic engineering, reissued Bufalini’s plan not because he thought it would be intrinsically profitable but to attract patronage for his scheme to prevent the flooding of the Tiber. See Paolo Agostino Vetrugno, *Antonio Trevisi: architetto pugliese del Rinascimento* (Fasano, Schena Editore, 1985).

53. For all later versions of Ligorio’s engraving, see Huelsen, *Saggio di bibliografia ragionata* (note 1), 52–57, nos. 31–46.

54. Tolias, ‘Nikolaos Sophianos’s *Totius Graeciae Descriptio*’ (see note 6): 166.

55. The few descendants of Bufalini’s plan are Alò Giovannoli’s much reduced and cruder version of the map, updated to show the urban changes of Sixtus V (1616, 52 × 39 cm); Paolo De Angelis’s *Basilicae S. Mariae Maioris de urbe a Liborio papa I. usque ad Paulum V... descriptio et delineatio* (Rome, 1621), which includes a single-sheet engraved copy of one small section of Bufalini’s map showing the Esquiline; and a reduced-format version that Nolli published in 1748 along with his own plan. With the possible exception of Nolli’s version, these echoes of Bufalini’s plan were both fewer in number and considerably more obscure than the derivatives of Ligorio’s view, which included, for example, a double-page illustration in Georg Braun and Franz Hogenberg’s widely disseminated *Civitates orbis terrarum* (Cologne, 1572–1617).

56. On Giuliano da Sangallo’s plan of Pisa, see Emilio Tolaini, *Forma Pisarum: problemi e ricerche per una storia urbanistica della città di Pisa* (Pisa, Nistri-Lischi Editori, 1967), 72–95; Nuti, *Ritratti di città* (note 12), 124–25; Stroffolino, *La città misurata* (note 25), 132–33.

57. Tolias, ‘Nikolaos Sophianos’s *Totius Graeciae Descriptio*’ (see note 6).

58. Examples of this phenomenon include distinct versions of modern and ancient Rome issued by Stefano Du Perac (1573, 1574, 1577), Mario Cartaro (1576, 1579), and Ambrogio Brambilla (1582, 1590, c.1590).

59. For an analysis of Nolli’s graphic conventions, see Ceen, ‘Portrait of a city’ (note 34).

60. Lucia Nuti, ‘The perspective plan in the sixteenth century: the invention of a new representational language’, *Art Bulletin* 76 (1994): 126, n. 71. Nuti has also addressed the lukewarm reception of maps on a popular level in *Ritratti di città* (see note 12), 130–31.

61. A selected list includes views by Pirro Ligorio (1552, 1553, 1561); Ugo Pinard (1555); Nicolas Beatrizet (1557); Sebastiano del Re (1557); Giovanni Antonio Dosio (1561); Giulio Ballino (1569); Braun and Hogenberg (1572); Stefano Du Perac (1573, 1574, 1577); Mario Cartaro (1575, 1576, 1579); Ambrogio Brambilla (1590, 1590); Antonio Tempesta (1593). For a more complete list, see Frutaz, *Le piante di Roma* (note 1).

Cartographier le passé et le présent: Le plan de Rome de Leonardo Bufalini (1551)

Le plan de Rome de Leonardo Bufalini (1551) est le premier plan imprimé de la Ville Éternelle et une production marquante dans l’histoire des plans de ville. Cet article complète plusieurs lacunes dans l’étude du plan en reconSIDérant sa fonction initiale et le public visé et en le situant au croisement du

développement des techniques et de l'intérêt pour l'Antiquité dans la Rome du XVI^e siècle. Nous abordons ici les méthodes de Bufalini pour réaliser le plan ainsi que l'association très caractéristique d'intérêts pratiques et scientifiques qui l'inspira. Le statut atypique du plan de Bufalini dans le domaine de l'imagerie populaire imprimée de la cité souligne, en outre, que le public de la Renaissance préférait nettement les vues pittoresques de villes aux cartes.

Vergangenheit und Gegenwart kartiert: Leonardo Bufalinis Plan von Rom (1551)

Leonardo Bufalinis Plan von Rom (1551) war die erste gedruckte Karte der Ewigen Stadt und stellt eine Landmarke in der Geschichte der Stadtkartographie dar. Dieser Beitrag schließt mehrere Lücken in der Erforschung dieser Karte, indem er die beabsichtigte Funktion, den Nutzerkreis und die Stellung der Karte im Schnittpunkt von technischen Entwicklungen und an der Geschichte orientierten Strömungen im Rom des 16. Jahrhunderts neu bearbeitet. Im Kern der Untersuchung stehen Bufalinis Methoden der Kartenherstellung und ihr Zusammenhang mit der ihn bestimmenden spezifischen Kombination aus praktischen und wissenschaftlichen Interessen. Die herausgehobene Stellung von Bufalinis Plan gegenüber dem Gesamtbestand populärerer Druckgrafik zur Stadt zeigt, dass die Renaissanceöffentlichkeit eine deutliche Präferenz für bildliche Ansichten gegenüber Karten hatte.

Cartografía del pasado y el presente: El mapa de Roma de Leonardo Bufalini (1551)

El mapa de Roma de Leonardo Bufalini (1551) fue el primer mapa impreso de la Ciudad Eterna y un punto de referencia en la historia de los mapas de ciudades. Este artículo llena varias lagunas sobre él, al reconsiderar la función que tenía el mapa y su público, y al situarlo en la intersección del esfuerzo técnico e histórico del siglo XVI en Roma. También trata de los métodos de Bufalini para hacer el mapa, junto con la combinación de los distintos intereses, prácticos y académicos que lo motivaron. El anómalo estatus del mapa de Bufalini en el terreno de las imágenes populares impresas de la ciudad, señala además que el público del Renacimiento tenía una marcada preferencia por las vistas pictóricas de ciudades por encima de los mapas.

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Full length articles will be eligible for the Prize, but not shorter articles, since only full length articles are automatically subject to the (anonymous) external refereeing process before acceptance for publication. Directors of *Imago Mundi* Ltd. (who will take it in turns to serve on the panel of judges) will not be eligible. The *Imago Mundi* Prize is generously sponsored by Kenneth Nebenzahl.

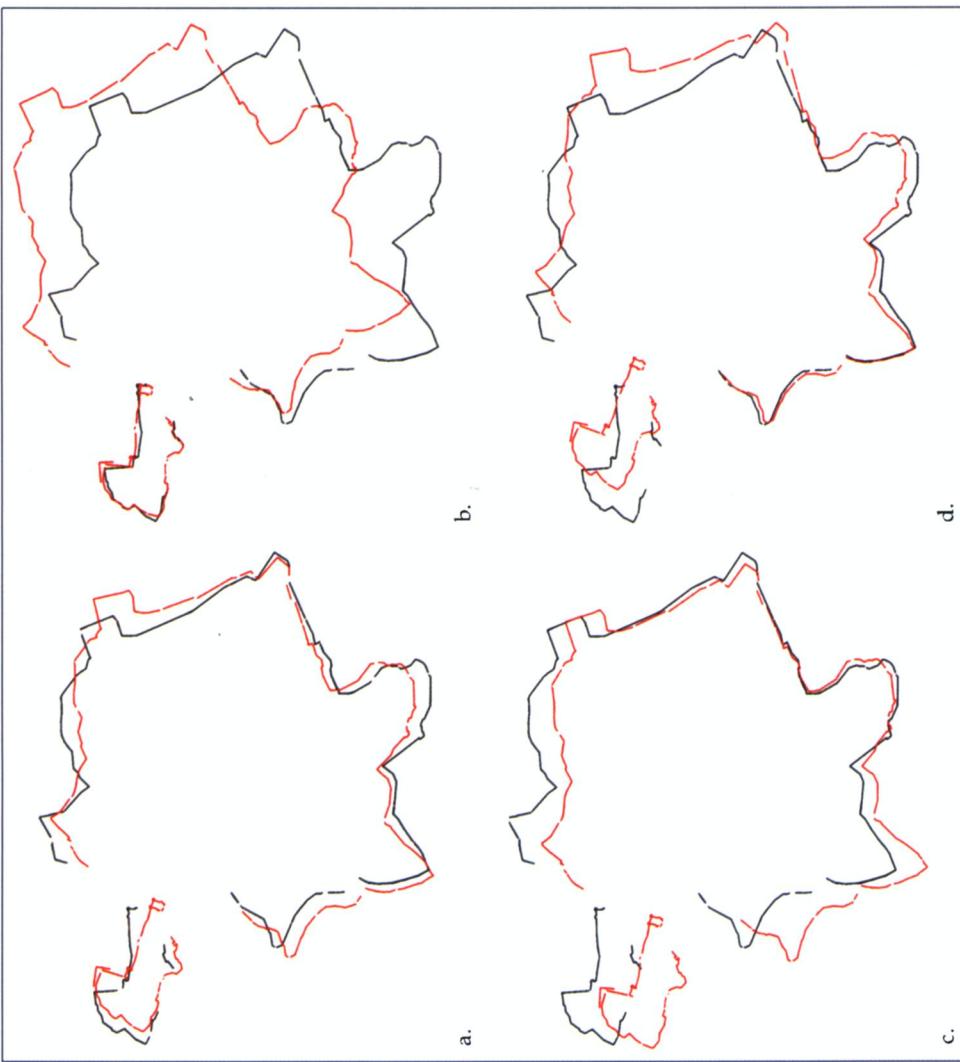


Plate 1. Overlays of the Aurelian walls in the plans of Bufalini (red) and Nolli (black): (a) Best overall correspondence; (b) Bufalini's plan shifted for best correspondence with the Vatican Borgo; (c) Bufalini's plan shifted for best correspondence in the south-west. (Author's drawing.) See p. 12.

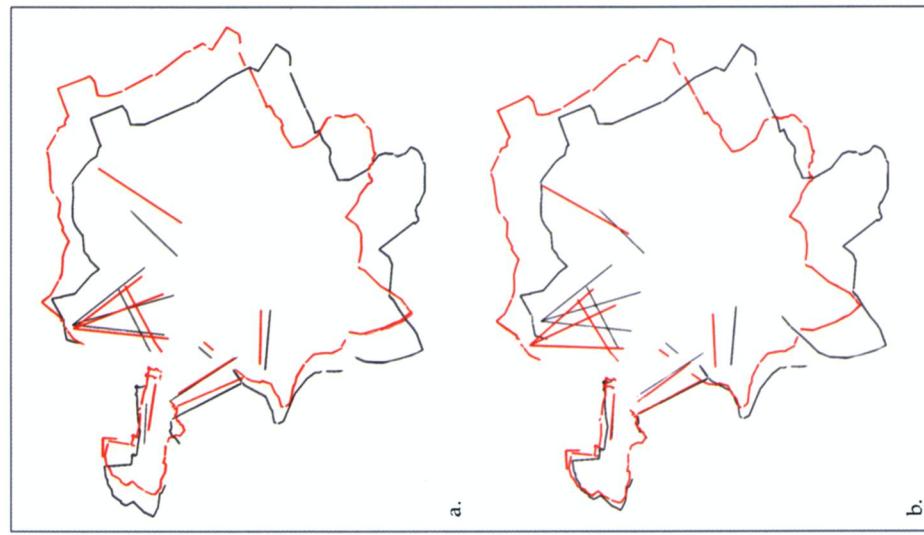


Plate 2. Overlays of the streets and the Aurelian walls in the plans of Bufalini (red) and Nolli (black): (a) Bufalini's plan shifted for best correspondence of the streets; (b) Bufalini's plan shifted for the best alignment of Via Alessandrina, Via Lungara, and Via Giulia. (Author's drawing.) See p. 12.