An assessment of Fabretti’s aqueduct hunting as a whole is now in order. The contributions made in the *De aquis* are the direct result of the author’s approach to his subject, one significantly different from those of earlier topographers and scholars. Building on his expertise in reading inscriptions and on his extensive firsthand knowledge of the Roman Campagna, as well as on his interest in construction techniques and ancient engineering, subjects that had become increasingly the focus of antiquarians during the seventeenth century, Fabretti moves beyond the literary evidence of Frontinus’s *De aquaeductu* and other literary sources to make sense of physical remains on the ground, which had been either misread or neglected up to that time. Though his conclusions are sometimes faulty and his understanding of the ancient city was much less informed than our own, his approach and methodology are in many respects quite modern in their attempts to combine both archaeological and literary evidence.

In the *De aquis*, Fabretti tells us much about Rome’s aqueducts but also reveals something about himself. Although the individual dissertations of his treatise were certainly the fruit of many years of investigation and study and were written separately over a two-year period, his decision to publish them as a single treatise seems to have been motivated in large part by a desire to disseminate the results of his research to a wider audience and to correct errors of earlier scholars. This is especially the case with Pirro Lig-
orio, the well-known antiquarian of the sixteenth century, who is severely criticized throughout Fabretti’s dissertations (I.4f–g; II.4e; III.6–7). In some ways, of course, Ligorio, who had been dead for almost a century when the *De aquis* was published and who was already notorious in his own day for forgeries and falsifications, was an easy target; Fabretti’s censure of him is therefore no surprise, despite its sharpness. Another sixteenth-century topographer, Georg Fabricius, is also subjected to fierce criticism in the dissertations (I.4a, 4c; 4g; III.3, 5b), for inattention to detail and ignorance of the Roman Campagna.

Fabretti also directs criticism at his contemporaries. The Jesuit polymath Athanasius Kircher is praised for his erudition and devotion to learning (I.2; III.3) but is also sharply censured for errors in his topographical work on Latium (I.2; II.4b; III.4b–d, 6). Lucas Holste, whose publications on topography Fabretti acknowledges as significant and indeed authoritative (I.7; II.2, 4c), is also corrected and criticized (II.3, 4c; III.5b), at times in highly adverse personal terms (I.7). The Dutch scholar Jacob Gronovius is dismissed as totally ignorant about the topography of the *ager Tusculanus* (III.6), in criticism so sharp that it provoked the prolonged scholarly battle discussed in chapter 2 of the present book.1

Giovanni Pietro Bellori’s recently published work on Trajan’s Column also seems to have been a source of special dissatisfaction for Fabretti. Indeed, the discussion of the “Trophies of Marius” *castellum* presented in Fabretti’s first dissertation (I.4c), although pertinent to the problem of levels treated there, appears to have been prompted in large part to correct Bellori’s interpretation of the “Trophies.” In this dissertation, Fabretti severely censures not only Bellori himself but also Bellori’s mentor Francesco Angeloni (also criticized elsewhere in the treatise), as well as the numismatist Jacques Oisel, who had recently published support for Bellori’s argument that the “Trophies” were constructed as part of a Trajanic reworking of the Aqua Marcia.

Recent topographical guides to the city, those of Alessandro Donati and Famiano Nardini, are cited for both approval and correction. Donati is praised for his interpretation of the coin of L. Marcius Philippus (II.6)

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1. Gronovius himself was equally fierce in his published reply to Fabretti, making reference to his Roman critic as a “faber rusticus” [rustic artisan]. This prompted Fabretti’s uncomplimentary play on Gronovius’s name in the title of his counterreply, *Ad Grunnovium apologema*, in which he derived the word *Grunnovium* from the Latin onomatopoeic verb *grunnire*, used to describe the sounds of grunting animals. See Marotti, “Fabrettus,” 195–99; DBI, 43:740 (M. Ceresa).
and the Navalia (III.5a[1]) but is corrected on the Rivus Herculaneus (III.6); Nardini is criticized on a number of points. In addition, Robert Keuchen, who had published a recent edition of Frontinus, is severely censured, both for his “monstrum interpretationis” in misreading Frontinus’s notice about elevation (Ag. 18) as a reference to the size and height of aqueduct conduits and for his theft of this idea from Thomas Dempster, without attribution (III.4c).

By modern standards, Fabretti’s criticism of the work of his fellow scholars seems unusually harsh. Such polemics, however, appear to have been in keeping with the scholarly climate of his time. Topographical studies on the Roman *suburbium*, as well as the ancient city, were obviously a scholarly battleground in the seventeenth century, as they still are today. Fabretti’s censure may strike us as fierce, even from an individual passionately devoted to his subject, but it is not unusual in a man devoted to learning and to correcting the errors of fellow learners to advance the understanding of antiquity. We may note Fabretti’s own reference to the controversy over triremes between Marcus Meibom and Johann Scheffer, to which he alludes in the third dissertation (III.6), a scholarly battle that he certainly expected to have been familiar to his readers.

Certainly, the picture of Fabretti the man given by his contemporaries is that of a convivial and highly personable individual well established in Rome’s scholarly community and on warm personal terms with the many colleagues whom he cites as friends and whose work he praises frequently in the *De aquis*. Glimpses of his wit and humor appear throughout the work. It cannot be denied that Fabretti the scholar is often contentious, but his contemporaries within his learned circle and the larger *respublica litterarum* or scholarly community probably did not find his polemics objectionable, even if later scholars have reacted negatively to them.

It is only fair to apply to Fabretti’s work as a whole his own words introducing his discussion of the “Arco di Druso” in his first dissertation: “In

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2. These corrections include Nardini’s attribution of the brick-faced construct of the Arcus Caelimontani to late antiquity (I.4b), his assignment of the “Trophies of Marius” to the Aqua Marcia (I.4c), his reconstruction of a double *agger* (III.3), and his assignment of the Fontana delle Tartarughe Fountain to the Petronia Amnis (III.7)


4. See Poleni, 26 (on Fabretti’s criticism of Aldus Manutius II), 29 (on his criticism of Keuchen); Cassio, 1:122 (on his criticism of Bellori, Angeloni, and Oisel).
rebus id genus, ipsa vestutate incertis et obscuris, aliena oppugnare, quam sua probare facilius semper visum fuit" [In matters of this sort, uncertain and obscure because of their very antiquity, it has always seemed easier to attack other people’s positions than to prove one’s own] (I.4d). For all the criticism of predecessors and contemporaries that Fabretti’s three dissertations on the aqueducts present, they also comprise a scholarly publication that must be assessed on its own merits.

The dissertations are not without shortcomings and errors. Fabretti’s descriptions of ancient remains, while frequently quite detailed, are also often disappointingly casual (although they are hardly to be dismissed for simply that reason). Indeed, the De aquis frequently falls short by modern standards of topographical and archaeological research and says nothing about some important questions. Such shortcomings are in many ways to be expected, given the time of the work’s composition and the state of scholarly understanding of the ancient city in the late seventeenth century. However, a review of the individual dissertations will be instructive here.

**Dissertation I**

The first dissertation establishes conclusively the course of the Aqua Alexandrina and reviews the other aqueducts brought into ancient Rome (I.2–3), both the nine lines cited by Frontinus and the Aqua Traiana, which Fabretti proves was brought to the Janiculum as an independent conduit and was not to be identified with a Trajanic reworking of the Aqua Marcia (I.4g). This dissertation also demonstrates the different levels of the aqueducts entering the city at Spes Vetus (I.4a–b) and argues correctly that the “Trophies of Marius” castellum was supplied by one of the Claudian lines (I.4c). Fabretti also establishes the accurate site of the Porta Capena in the valley between the Caelian and Aventine (I.4d) and describes his exploration of the nearby Aqua Appia (I.4e).

But many related problems and issues are not discussed in this dissertation. We would like to learn far more, for example, about what significance water distribution in the suburbium had in determining the route of the Aqua Alexandrina into the city or whether the aqueduct served purposes in Rome in addition to its delivery to Alexander Severus’s thermae in the Campus Martius. Of course, the suburbium was not Fabretti’s main topic in
this dissertation, since he was engaged in a separate study of it that was not completed at the time of his death.

Fabretti’s treatment of monuments within the city itself is frequently disappointing. His discussion of the “Trophies of Marius” (I.4c) does not attempt to make architectural or hydraulic sense of the castellum itself but seems to have been included rather for the purpose of attacking the recent interpretation of the monument by Angeloni and Bellori. Even more unfortunate is Fabretti’s long digression on the “Arco di Druso” at the Porta S. Sebastiano (I.4f). In this discussion, Fabretti pays far too much attention to perceived similarities between the arch itself and monuments represented on Augustan coinage and far too little to conduit levels; his comparisons and arguments in this section rightly prompted the criticism of Jacob Gronovius in the years immediately following. In addition, Fabretti’s attempts to identify the Specus Octavianus in this dissertation (I.4d) are not persuasive: in no way can the specus be reasonably connected with the conduit carried by the “Arco di Druso.” However, to be fair, no topographer to date has persuasively made sense of Frontinus’s notice about the Specus Octavianus, because of the limited evidence available.

**DISSERTATION II**

The second dissertation, focused primarily on the topography of the upper Anio Valley, attempts to fix the sources of the Aquae Marcia, Claudia, and Augusta—all identified by Frontinus—with natural springs in the area. This was a highly ambitious undertaking that was, perhaps for precisely that reason, never systematically attempted by earlier scholars. As Panimolle has correctly observed, the task would be relatively easy if the upper Anio Valley did not abound with natural springs, but because the opposite is the case, the problem is one of making sense of the textual evidence in light of the many springs in the region. Fabretti’s task was all the more challenging because the area was poorly documented, aside from the recent topographical work of Lucas Holste, which Fabretti frequently criticizes throughout the dissertation.

Fabretti’s major focus of investigation here, his attempt to identify

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5. Panimolle, 71. Panimolle (63–69) also provides a summary of the many springs in the upper Anio Valley.
securely the sources of the Marcia and Claudia, is flawed because of fundamental errors in his reconstruction of the course of the ancient Via Valeria. Although Fabretti correctly posits the existence of an earlier original route for this Roman road, a course running northeast from the Osteria della Ferrata directly past Riofreddo to the Piana dei Cavalieri (II.4b), he was ignorant of the subsequent, much more important course of the ancient Via Valeria, which followed a route along the Anio River, then turned north to S. Giorgio. This route is now confirmed by the discovery in 1889 of the bivium or intersection of the Via Valeria and Via Sublacensis, along with three cippi of the Via Valeria itself. As is frequently the case in the history of archaeology, this important discovery of the late nineteenth century has reduced much of Fabretti’s argument in this dissertation to a curiosity.

The second is the longest and most expansive of the three dissertations. Fabretti begins it with a lengthy digression on the measurement of the Roman foot and mile, partly because his readers would have found the topic interesting in itself, but primarily to throw doubt on the distances recorded by Holste in his earlier topographical research on the region (II.3). Fabretti also includes within it a lengthy digression on a possible iconographical representation of the Aqua Claudia, with comparisons to reliefs of other female divinities, a discussion that has little to do with his main subject (II.4d). In his discussion of the source of the Marcia—now securely fixed through archaeological evidence at the location he posits for the Claudia—he also presents a lengthy refutation of Gerolamo Mercuriale for a misreading of Galen (II.4f). Throughout the dissertation, there are many references to inscriptions in which Fabretti displays his wide knowledge of epigraphical conventions and practice.

Two additional digressions complete the dissertation. The first is a detailed discussion of a distribution castellum on the ancient Via Latina, which Fabretti seeks to identify as the settling tank of the Aqua Marcia, along with an attempt to reconstruct its hydraulic operation (II.5a). Although he was able to observe and document this structure in far better condition than it is in today, Fabretti’s reading of its evidence is clearly in error. The second digression is a lengthy criticism of Benedetto Castelli’s seventeenth-century treatise on hydraulics, in which Fabretti is not entirely fair to Castelli (II.5c). A short discussion of the famous coin of L. Marcius Philippus depicting the arcade of the Aqua Marcia closes the treatise (II.6).
This dissertation must be judged as uneven at best. Fabretti is mistaken in his primary conclusions here, because (through no fault of his own) he did not know the most compelling archaeological evidence in fixing the courses of the Via Valeria and Via Sublacensis so that he might make sense of Frontinus’s references to them. His numerous digressions, while giving valuable insights into his methodology and approaches to literary and archaeological evidence and into his wide knowledge of inscriptions, do not contribute substantially to the overall discussion. His account of the settling tanks is confused and in error. In this discussion, as well as in his remarks about Frontinus’s measurement of aqueduct capacity and his earlier account of the “Trophies of Marius” in the first dissertation, he shows that his interest in the problems of hydraulic engineering must be considered superficial by modern standards.

We must conclude that Fabretti was unusually expansive in this dissertation because it was dedicated not to a scholarly colleague who might have expected closer focus on the topic but to his patron Carpegna, a prominent churchman and a famous antiquarian and collector, whom the author wished to impress through a broad display of knowledge. Certainly, he makes reference several times in the dissertation to antiquities in Carpegna’s own collection. However, the dissertation cannot be dismissed as a total failure: in it, Fabretti not only presents far more detailed cartography of the area of the upper Anio than had been previously available but also fixes an original course for the ancient Via Valeria, which he documents in detail (II.4b). He also provides an extremely valuable discussion of aqueduct cippi, presenting for the first time the persuasive argument that their regular intervals of 240 feet used for measuring the conduits from their distribution points in the city represent the lengths of Roman iugera (II.4e). In addition, his illustrations of two other structures he identifies as settling tanks—the first a large cistern that he assigns to the Aqua Claudia/Anio Novus, the second a settling tank of the Aqua Virgo in the Campus Martius (II.5b)—have been repeated by later scholars.

Dissertation III

In contrast to the first two dissertations, the third treats primarily literary evidence, specifically the problem of making sense, in light of Frontinus and the archaeological remains, of Procopius’s citation of fourteen aqu-
ducts and the listing of twenty-four water sources in the regionary catalogs. As Fabretti approaches it, the problem becomes archaeological as well as literary, since his discussion raises a question that had engaged the attention of many antiquarians of his day, that of the size of the ancient city—specifically, how far the city of ancient Rome must be thought to have extended into its *suburbium*.

In his interpretation of the evidence, Fabretti adopts a position similar to that of most modern topographers, that the Romans considered their city as an entity extending as far as the continuous buildings (III.5). He introduces this argument by a lengthy discussion of the eastern gates of the republican “Servian” Wall and the roads issuing from them (III.3). He next turns to Procopius’s notice citing fourteen aqueducts in the ancient city, arguing that Frontinus’s listing of nine conduits can be supplemented by five more, including three that he identifies as the Aqua Crabra, Aqua Septimiana, and Aqua Algentiana.

His arguments are less than persuasive. Fabretti attempts to identify the Aqua Crabra with the papal Marrana Mariana (III.4c), the Septimiana with a conduit now known to be a branch of the Aqua Claudia supplying the Villa of the Quintilii on the Via Appia (III.4d), and the Algentiana with remains of an unidentified conduit northeast of the modern Via Tuscolana (III.4e). From his manner of presentation of the individual points in order, it seems that the author himself recognizes each argument as more tentative than the last.

Fabretti then discusses the limits of ancient Rome, reviewing settlements located on the major roads emanating from the city (III.5a), with a lengthy digression on the Emporium and the structure now commonly referred to as the “Porticus Aemilia,” southwest of the Aventine; full discussion of the Vicus Alexandri on the Via Ostiensis (III.5a); and much more summary treatment of archaeological evidence he identifies as remains of settlements on the other roads (III.5b). His next topic is the famous topographical puzzle presented by Pliny’s description of the size of Rome (*HN* 3.66–67), based on distances from the Golden Milestone to the edge of the built-up area. Fabretti’s attempt to explicate this passage by a review of the settlements already discussed shows ingenuity more than cogency.

Finally, Fabretti turns to the water sources listed in the regionary catalogs (III.6), reviewing at length arguments he had made about the Aqua Traiana earlier in the first dissertation and expanding these arguments.
with two new points, on the use of the Traiana for powering mills on the Janiculum and its possible transport by bridge to the eastern bank of the Tiber. His argument on delivery of the Traiana across the Tiber is based primarily on the evidence of a spurious inscription but was confirmed in the mid–twentieth century by the discovery of lead pipes of the Aqua Traiana on the Oppian Hill. A short discussion of ancient drains and sewers in seventeenth-century Rome closes the dissertation (III.7).

Fabretti’s own words in his discussion of the Porta Capena and Specus Octavianus in the first dissertation should be applied to his major thesis in this dissertation as well: “Ea veritatis praerogativa est, ut illi omnia conci-nant” [This is the special claim of truth, that all things agree with it] (I.4d). Fabretti’s attempt to make sense of the evidence of Procopius and the problematic listings of the regionary catalogs in light of the archaeological evidence makes too many assumptions, begs too many questions, and must ultimately be judged ingenious but unconvincing. Of course, the regionary catalogs remain an enormously difficult source for Roman topography even today, and no one to date has made persuasive sense of their aqueduct listings.6

Yet Fabretti’s final dissertation, for all its shortcomings, is not without its contributions. In addition to his observations about the distribution of the Aqua Traiana, Fabretti provides more detailed cartography of much of the same area of the Roman Campagna treated in the first dissertation; a full presentation of the Emporium and structure commonly known as the “Porticus Aemilia,” which seems to be our earliest plan of the complex; additional insights into inscriptions, especially one documenting staggered distribution of aqueduct water; and valuable observations about ancient sewers and drains in seventeenth-century Rome.

**FABRETTI’S CONTRIBUTIONS**

Fabretti’s first dissertation must be judged the most successful of the three, the other two being much less so. His documentation of the Aqua Alexandrina and his systematic treatment of the other major aqueducts of ancient Rome are far more valuable to scholarship than his presentations in the

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6. For the problems in assessing the catalogs’ evidence on lacus, baths, and aqueducts, see Bruun, 73–74.
second and third dissertations. But even with all of their omissions and errors, all three of Fabretti’s dissertations comprise a gold mine of information on the aqueduct system of the ancient city.

Fabretti’s contributions to the study of Roman aqueducts include a detailed presentation of the remains of the Aqua Alexandrina (repeated almost without correction by all later topographers), along with a carefully drafted map of its course; extremely detailed plans of the conduits and arches of the aqueducts, as well as the ancient monuments described; vivid accounts of his personal explorations; and insights on the topography of the upper Anio Valley and the Roman *suburbium* based on autoptic observation and keen familiarity with the region, accompanied by three stunningly presented, well-designed, and highly detailed topographical maps, far surpassing those of contemporary cartographers in their accuracy and coverage. Fabretti’s frequent references to his maps throughout his text show that he clearly considered them integral to his overall work and to the arguments presented in it. Certainly they became the most accurate and detailed cartographic rendering of the territory represented and courses of the aqueducts outside the city until the publication of Ashby’s maps in the early twentieth century. For the orientation of Fabretti’s maps with the modern topography of the Roman Campagna and upper Anio Valley, see fig. 38.

Fabretti includes in his discussion of the settling tanks in the second dissertation an apt quotation from Horace, “Est aliquid prodire tenus, si non datur ultra” [It is no small thing to advance so far, even if it is not allowed to go further] (Epist. 1.1.32, quoted by Fabretti at II.5b). Certainly, when he published the *De aquis*, Fabretti did not intend the three dissertations to be his final word on Roman aqueducts. At the end of the second dissertation (II.6), he promises to treat elsewhere a list of problems he calls “doubtful” matters, including the capacities of individual aqueducts given in Frontinus’s *De aquaeductu* (along with the obvious mathematical errors in the statistics presented in that text) and the levels of the conduits. In the final dissertation, he declares that he will devote a separate treatise to the routes or courses of the aqueducts (III.4d). These investigations were never published during Fabretti’s lifetime, probably because he was determined to finish his massive epigraphical corpus before his death.

Whether Fabretti would have made major contributions to our understanding of Frontinus’s distribution statistics in the *De aquaeductu* is prob-
lematic. Although Fabretti displays an impressive familiarity with Frontinus’s text, as well as with the other literary sources he cites frequently, his real strengths as a scholar and topographer lie primarily in his firsthand knowledge of the ager Romanus and his passionate interest in inscriptions. It cannot be denied, however, that Fabretti’s familiarity with the Campagna more than qualified him to address the problems of the levels of the aqueducts and the routes of their conduits outside Rome. It was precisely this unfinished business to which Thomas Ashby and Esther Van Deman directed their focus in their magisterial studies of the aqueducts in the early twentieth century.

Within the overall framework of his publications and career, Fabretti can in some respects be considered a scholar typical of his day—producing commentaries on antiquities already collected and documented and drawing on the contributions of the last two centuries—rather than a pioneer introducing new critical methods or approaches to the study of ancient Rome. One scholar has recently given the following general assessment of his scholarly work: “Infatti non si osserva nei contributi fabrettiani un efficivo progresso rispetto alle concezioni concorrenti nel campo dell'antiquaria durante il Seicento e, in definitiva, anche se condotti con un padronanza della materia allora esemplare, essi sembrano chiudere un'epoca piuttosto che aprirne una nuova” [In fact, in Fabretti’s contributions, one does not observe real progress with respect to ideas prevalent in antiquarian study during the seventeenth century, and in conclusion, even if carried out with a mastery of the material exemplary for that time, his contributions seem to close an era rather than to begin a new one].

Such a verdict is unreasonably dismissive, however. It might well be valid in the case of Fabretti’s longer monumental works on Trajan’s Column and his corpus of inscriptions updating that of Gruter, but it cannot be applied with fairness to the De aquis. The three dissertations cannot claim to introduce a new methodology, but Fabretti’s research does break important new ground, marking a significant advance beyond all earlier study of the aqueduct system in the sixteenth and seventeenth centuries.

7. Mennella, Museo Lapidario, 17. Pfeiffer (143) offers a general assessment of classical scholarship in seventeenth-century Europe: “the characteristic scene in most Continental countries was that of self-satisfied polymaths filling enormous volumes with collected antiquities and reproducing in their editions the accumulated notes of the last two centuries.” Cf. Sandys, 2:370: “On the whole, it was a century of multifarious erudition rather than minute and accurate scholarship . . . ” Fabretti’s work on the aqueducts is an exception to this overall view.
and contributing far more than simply a rehash of ancient sources and earlier topographical findings. Having gone over the ground of the Roman Campagna and upper Anio Valley, Fabretti presents new material and observations, many of which have never been superseded, in an effort to contribute a coherent and convincing overview of the aqueduct system.

Perhaps even more interesting is the vivid picture that the *De aquis* provides of a serious scholar at work. We encounter our author meticulously weighing literary and epigraphical evidence against that of the physical remains (many of which he was documenting for the first time), in lively dialogue with his contemporaries and predecessors, vigorously correcting their errors when appropriate and making significant contributions of his own to the understanding of the ancient city in his time.

Most important, of course, are the long-term results of this pioneering work. Fabretti’s aqueduct hunting effectively demonstrated as early as the seventeenth century that Frontinus’s text, while an indispensable source for understanding the water system of the ancient city—indeed, still the starting point for any serious study of it—neither was for Fabretti nor can be for us the last word on the subject. Fabretti’s approach to the problem of making sense of the aqueduct system of the ancient city therefore not only became authoritative in his own day and in the years immediately following but also had a profound influence on all later investigations of the subject. Aqueduct hunting has continued throughout the last three centuries, distinguished by the contributions of such giants as Rodolfo Lanciani, Thomas Ashby, and Esther Van Deman, but Raffaello Fabretti started it all.