the understanding of one historical period. In sum, these different essays show that the copy's relation to a possible original can hardly be explained as derivative, that remakes, replicas, reinventions, restorations, and facsimiles are part of the lives of architectural objects rather than secondary representations, and that neither chronology nor authenticity is particularly helpful when trying to understand objects and architecture in flux.

NEGOTIATING TIME IN PRINT

Victor Plahte Tschudi

A copyright on architecture was for the first time made explicit on a series of engravings representing Antonio da Sangallo the Younger's project for a new St. Peter's in Rome, printed between 1546 and 1548. This copyright was devised to protect a building that at the time remained unbuilt and that in Sangallo's particular form always would be. So what these prints in fact showed was a wooden model of the project executed by Antonio Labacco and engraved by Mario Labacco. The engravings of the model of the church were then printed by the Roman publisher Antonio Salamanca, who had his name incised on the plates.¹ In its unbuilt state the basilica was vulnerable for theft, so to speak, by profit-hungry publishers who roamed the virtual realm of prints for fresh designs. Copyrights in the Renaissance and Baroque put up a fence around these fragile constructs, more of the mind than of the world. But that does not mean that intruders did not find their way in.

1 On the Labacco-Salamanca prints of St. Peter's, see Christopher L. C. E. Witcombe, Copyright in the Renaissance: Prints and the Privilegio in Sixteenth-Century Venice and Rome, Leiden and Boston, 2004, pp. 257-63; and Witcombe, Print Publishing in Sixteenth-Century Rome: Growth and Expansion. Rivalry and Murder, Turnhout, 2008. pp. 92-105. The plates were reprinted in 1549 with alterations and the addition of a plate showing the plan of the basilica project.

The St. Peter's series shows how copyright on a building comes into play when the status of the building itself becomes uncertain. It also leads to more specific questions about what the copyright covers and who actually possessed it-the architect, the model maker, the engraver, or the publisher. One of them surely was foresighted enough to secure revenue of the sales of the prints, but the "cum gratia et privilegio" incised on each of the three plates does not clarify who the rights holder was. Was it Sangallo who designed the church, Antonio Labacco who crafted the model, Mario Labacco who retraced it on copper, or Salamanca who covered the cost of printing and distribution? Arguably each one had a stake in the image, and, remarkably, the sequence of stakeholders continues into the modern age: taking a leap forward in time, the reproductions illustrating this article have been obtained from the Vatican Library, one of the largest and most famous depositories of prints and drawings in the world. But they have been obtained in exchange for a considerable fee that covers the right to publish them. A twenty-two paragraph contract issued by the Vatican's "Ufficio Copyright" lists the terms for my permission to reproduce a material already reproduced several times over. The power of copyright has vastly increased as libraries, museums, and archives profit no longer merely from fines paid for the violation of rights, which was the norm in the

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2 The text of the privilege is printed in the 1588 and 1594 editions of Santi Solinari, *Le cose maravigliose*, both printed by Franzini in Venice.

3 See frontispiece to Le cose maravigliose dell'alma città di Roma, ed. Santi Solinari, Rome, 1600. Renaissance and Baroque, but from any publication at all. In other words, modern-day rights holders trade neither in copper nor in impressions, but in the notion of reproduction per se, which of course continuously renews itself as it keeps pace with, or in fact embodies, the stages of technological progression.

Arguably, the idea of graphic reproduction as such is somewhat capitalistic, or at least monetary (and interestingly the mass production of prints coincides with the rise of the Italian banking system), with single impressions acting as bonds, or stocks, representing a reserve not so much of ingenious visual motif as of expensive copper; for it is important to remember that copyright in the Renaissance represented and protected the material value of an artwork and did not reflect a post-romantic conception of artistic originality. Reproduction is a system that *itself* is reproduced, lifting its motifs into continuously updated means of communication that go from engraving to photography to digital software, and so on. In such sequences, history works not through time but as a layering of material, as a perpetual development and replacement of licensed media, from the printing block to Microsoft, with each new invention laying claim to virgin copyright territory. Polemically put, the question is if anyone rightfully may profit from a Renaissance motif of which a JPEG or TIFF merely is the latest petal in an ongoing unfolding of formats.

BUILDING IN TIME

Copyrights in the sixteenth century accompanied not the actual drawing, painting, or building, but their mass-produced replicas. In other words, holding the right to the image of a building was not the same thing as holding the rights to the building itself, although in rare instances that too seems to have been the case, and I shall give an example: benefitting from that initial euphoria of engraving's almost endless possibilities, a few publishers in the Roman Renaissance managed to obtain exclusive right to print specific monuments. One of them was Girolamo Franzini, who stood on especially good terms with Pope Sixtus V and received from the pontiff a rare twenty-year copyright for a series of illustrated guidebooks first published in 1587 and then in several editions.² The remarkable fact is that as long as this copyright was active no other illustrated guidebooks to Rome appeared, and when Franzini on top of this called himself "bookseller on obelisks and pyramids"-monuments that Pope Sixtus took a special interest in-it suggests an unusually wide-ranging jurisdiction of a publisher's rights.³

The effect of copyright is surprisingly understudied given its impact on archaeology and architecture in the late Renaissance and

Negotiating Time in Print

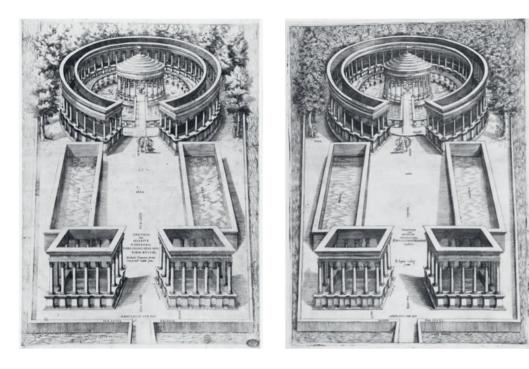
Baroque. One reason for this is the lack of testimonies that can tell us if copyrights actually were being enforced in the period. It is true that transcripts of two court cases on matters of prints and infringement have survived from the seventeenth century, but unfortunately we do not know the outcome of either of them.⁴ However, looking at the material itself, an alternative route of investigation opens up.

Copyrights deal in *time*. Just as the situation is today, a limit was set on the number of years a material could be held under protective law. On the Italian peninsula, authorities like the pope and the Venetian Senate granted protection for a duration of ten, twenty, or even twenty-five years. Anyone attempting to make or sell unwarranted copies during the specified period risked financial penalties, with the pope from time to time dramatically threatening potential perpetrators with excommunication, that enviable apostolic weapon.

Given the time clause attached to attractive designs, it follows that the number of years until a copy emerged is highly significant. In other words, the interval separating an original from its copy may be used to measure copyright's effectiveness. And the reactions to these restrictions were twofold: keen rivals either waited for the privilegio to expire, or they did not, instead challenging the idea of what constituted a copy. This last response is especially intriguing as such premature copies would appear to prove copyright's ineffectiveness, whereas an examination of actual examples reveal subtle deviations from the original designed precisely to escape accusations of plagiarism. The coolheaded aim to steal from others just about the right amount makes the mediation of antique models suddenly very technical and the Renaissance ideal of *imitatio* almost shockingly concrete. If the quality of a design is judged by how well it manipulates an original, the history of printed architecture, and of architecture itself, moves on a dramatically narrowed path and by more calculated steps.

Copyrights on prints were designed therefore to protect not only monuments about to be built, but also those that no longer existed. In other words, the ephemeral reality of the non-built, and also of the once-built, forms the heartland of the *privilegio*'s jurisdiction. In fact, since the 1530s a burgeoning print industry had reconstructed and reproduced every inch of the ancient capital in folios, maps, books, and emblems. Monuments were engraved, printed, copied, then reprinted and recopied, in an ever-expanding fan of images that soon spread as far as the ancient empire had, and even beyond, advanced by legions of publishers, editors, printers, and engravers. New ancient Rome was a paper city repartitioned and ruled not by princes but by printmakers, who clung to copyrights to protect their folio properties. Competitors who wanted replicas of popular designs could, as Franceschini accused Nicolas van Aelst of selling his prints in a case discussed in Michael Bury, "Infringing Privileges and Copying in Rome, c. 1600," Print Quarterly 22, no. 2 (June 2005), pp. 133-38. In another case in 1625. Giacomo Lauro sued a colleague for having stolen one of his plates. See extract of the transcript in Francesco Ehrle. Roma prima di Sisto V. La pianta di Roma Du Pérac-Lafréry del 1577, Rome, 1908, pp. 18-19 n19: and Francesca Consagra, "The De Rossi Family Print Publishing Shop: A Study in the History of the Print Industry in Seventeenth-Century Rome," PhD diss., Johns Hopkins University, 1992. pp. 157-65.

4 In 1599. Giulio



1 Giulio de' Musi, *Varro's Aviary*, 1558, published by Michele Tramezzino,engraving, 49.7 x 37.1 cm.

2 Anonymous, *Varro's Aviary*, published by Bolognino Zaltieri, engraving, 49.5 x 37 cm. mentioned, wait for the copyright to expire, or more daringly adjust the replica sufficiently for it to count no longer as a copy. This text shall present an example of each one of those two tactics, first an example of a copy that cleverly evades copyright restrictions and another of one that respects them. In the final round, copyright resulted in a chain of delays and distortions that not only altered the image of antiquity but also influenced the planning and execution of some of the period's most spectacular architectural projects.

PRINT PIRATING

A few years after Salamanca published Sangallo's ideal basilica, the Venetian publisher Michele Tramezzino published seven reconstructions of Roman monuments based on drawings by the antiquarian Pirro Ligorio: in 1553 appeared the *Circus Flaminius*, the *Circus Maximus*, and the *Praetorian Camp*. In 1554 came the *Port at Ostia*, and in 1558 the *Baths of Diocletian*, the *Theatre of Marcellus*, and finally the *Aviary of Marcus Varro* (fig. 1). All seven prints are icons in sixteenthcentury print production, combining sweeping erudition with precision of detail, influencing the idea of ancient Rome for generations. Naturally, they were tempting prey for rival publishers. As a precaution, therefore, Tramezzino secured a ten-year copyright from the pope and a twenty-year copyright from the Venetian Senate for all seven prints. In effect he put a clause on these particular Roman landmarks. So how is it possible that copies emerged already in the 1560s when the Venetian copyright was still active? Bolognino Zaltieri was a printer and publisher with an output issued in Venice, although he at times employed engravers from elsewhere, such as Paolo Forlani from Verona.⁵ While Tramezzino still possessed the sole right to publish Ligorio's images-explicitly stated on the prints-Zaltieri produced replicas of all seven. Mercilessly he excluded all inscriptions that referred to Tramezzino's address, his privilegio, and the original publication dates, replacing the lot with "Bolognini Zalterij formis." The infringement of still effective privileges is glaringly obvious, so does that prove they had no effect? Not necessarily. Although they are blatant copies, Zaltieri altered them just about sufficiently to avoid accusations of plagiarism, primarily by showing all seven in displays that mirror the originals. Left becomes right, and vice versa. Even a site as symmetrical and frontally viewed as Varro's Aviary, Zaltieri (or rather his anonymous engraver) took care to reverse (fig. 2): the inscriptions, the human figures, the flying banner on top of the tholos, are reorientated 180 degrees in what is otherwise a very meticulous and high-quality replica. The phenomenon of reversed prints has no simple explanation and depends on methods of transfer.⁶ However, in the sixteenth century one could easily avoid it-or, as I shall argue, take it into calculation. The point is that the subject in reverse fundamentally alters the *design* of the print, not merely its content. The reframing of the subject in this way retained the archaeological and architectural reality of the image by simply shifting the viewpoint. Technically they were replicas, but not legally-and that was the whole point. Of course, the effort to bypass copyright restrictions hardly accounts for the phenomenon of reversal, but reversal offered a convenient recipe for how to avoid sanctions. Zaltieri's strikingly consistent distortions were certainly made on purpose and probably explain how he was able to reproduce Tramezzino's plates-even in the same city as his rival-while the privilege protection was still active.

Zaltieri's exact and laborious re-engraving of Ligorio's reconstructions points to loopholes in the copyright protection. Tramezzino's warning originally accompanying these reconstructions had been vaguely formulated: the text simply forbade "reprints" and allowed no copies "neither larger, nor smaller."⁷ Zaltieri exploited the gaps in the naively broad definition, and thereby also punctured the conventional meaning of a copy. He successfully used the phenomenon of reversal to challenge the very idea of what constituted an *invenzione*—a depiction's basic setup—and in that way bypassed copyright restrictions. 5 Most prints issued with Zaltieri as publisher appeared in the mid-1560s (see three topographical views dated 1566 in the Istituto Nazionale per la Grafica, Rome, inv. nos. FC 05727, FC 69735, FC 69742), The Ligorio reconstructions might even have been produced as early as 1558, the year printed on Zaltieri's copy of the Baths of Diocletian, See Christian Huelsen, "Das Speculum Romanae Magnificentiae des Antonio Lafreri." in Collectanea Variae Doctrinae Leoni S. Olschki, Munich, 1921, pp. 121-70, esp. p. 150.

6 On the problem of reversal, see Michael Bury, *The Print in Italy, 1550– 1620,* London, 2001, p. 15.

7 The wording of the privilege (granted on December 14, 1552) followed Tramezzino's petition quoted in Howard Burns, "Pirro Ligorio's Reconstruction of Ancient Rome: The Anteiquae Urbis Imago of 1561," in Pirro Ligorio: Artist and Antiquarian, ed. Robert W. Gaston, Milan, 1988, p. 50 n37. Victor Plahte Tschudi

8 See Victor Plahte Tschudi, "Ancient Rome in the Age of Copyright: The Privilegio and Printed Reconstructions," Acta ad Archaeologiam et Artium Historiam Pertinentia 25 (2012), pp. 177–94. There were also other ways to manipulate protected designs. Prohibited maneuvers are in fact named in the increasingly precise wording of the copyright texts, and they can also be identified in actual graphic material.8 Monuments were enlarged, reduced, renamed, redoubled, reorientated, and translocated in a progressively more chaotic representation of the past; it was certainly not fresh archaeological finds that prompted Giacomo Lauro to change the look of the Aviary in his 1615 re-engraving of Ligorio's original, but rather the format of the book in which the engraving was published: Lauro added an extra column to the two porticos in front to make it fit the elongated layout of his Antiquae Urbis Splendor. Rome in its restored form is an edited form, not an excavated one. Over time designs reappeared in escalating degrees of corruption. In the illustrated guidebook Ritratto di Roma antica, first published by Andrea Fei in 1627, the Aviary is shown vertically, but now it is no longer an "aviary." It has become the Gardens of Lucullus, a different site altogether, which in ancient times graced the slopes of the Pincian Hill. One might say that in sequences like this Ligorio's splendidly engraved monuments themselves underwent a process of decay, ending up just as distorted and deteriorated as the ruins of the sites they reconstructed. Imperial Rome collapsed a second time around.

In general, the shrewd moves to evade copyright restrictions subtly but gradually altered the city's form, size, and location, displacing antiquity itself. It was not until Piranesi's deliberately virtuoso reimaginations of Rome in the eighteenth century that the art of reconstructions managed to disentangle itself from the destructive spiral of an increasingly formulaic *Roma antica*.

THE PORT OF TURIN

Time has come to turn from the impatient circumvention of copyright to the other response, namely the patient wait for it to expire. Publishing copies just after, rather than before, the ten- or twenty-year quarantine had been lifted was of course the more respectful option and the one that printmakers mostly went for. But copies, or nearcopies, dutifully waiting for their turn to see the light of day created problems too, not so much for those within the print trade as for the general advancement of knowledge. In a broad perspective, then, the next example is about how the authority of antiquity collapsed in the course of the sixteenth century; but it is the way in which this collapse played out in precise stages that is instructive, which it did in architecture. More precisely, the constantly interrupted history of architectural and archaeological mediation that ensued from protective clauses, whether respected or not, sooner or later had an impact on the era's eager re-adaptions of ancient models in actual projects. One such breathtaking intervention by the printed on the built connects to another of the seven iconic prints based on Ligorio.

Carlo Emanuele I, duke of Savoy, was an ardent print collector and governed Turin and the plains of Piedmont, a part of the Italian peninsula that was completely flat. These plains offered an ideal ground for the dukedom to recast itself as the successor to the Roman Empire, and to recreate by the river Po a new ancient Rome. Sometime before 1621 the duke acquired Pirro Ligorio's huge manuscript entitled *Antichità Romane*, which contained many of the original drawings for the prints that Tramezzino later engraved. In this manuscript Ligorio had set out to describe (and occasionally depict) in alphabetical order every single known object from Roman antiquity, a gargantuan project resulting in the largest manuscript of its kind counting eighteen volumes, which is still kept in Turin.⁹ So, although his real-world ambitions might have failed, Duke Carlo Emanuele became at least the emperor of a Rome in paper.

Printed reconstructions of Rome were eagerly discussed at the Savoy court, and the duke sponsored new and updated compendia of Roman architecture. "Your book helped resolve a dispute on certain antiquities," wrote Honorato Claretti, official to the duke, to Giacomo Lauro after receiving the latter's series of fanciful reconstructions eventually sponsored by and dedicated to Carlo Emanuele.¹⁰ The duke not only discussed these reconstructions, he also built them, which was not as eccentric as it might seem. In an increasingly secular Europe references to Imperial Rome were efficient displays of power and legitimacy. From Naples to Stockholm, and from Vienna to Versailles, a continent of rivaling states formed a patchwork of neo-Romes ruled by aspiring caesars. The Savoy was no exception. Their ambitious plans to build printed re-constructions not only erase the distinction between construction and re-construction, between past and future, but reveal, too, the realpolitik behind the prints' imaginative solutions tailored to the needs and means of the sovereigns who sponsored them. The spectacular palace projects began in and around Turin no doubt drew inspiration from the kind of Roman past that these prints subtly presented as a potential future. Carlo Emanuele's new castle by the river Po, the Castello del Valentino, paid an obvious tribute to the archetypal palace of Rome's first emperor Augustus in the form it had been reconstructed and published by Giacomo Lauro in 1615. As model for a second palace project, the Castello di Mirafiori, the duke selected an image of an arena used for staging mock naval battles in ancient Rome reconstructed by the friar Onofrio Panvinio and first engraved in 1566. Importantly, these projects suggest that the

offering parts of Ligorio's Antichità Romane are in Paris (Bibliothèque nationale, MS. ital. 1129), Naples (Biblioteca Nazionale, XIII. B. 1-10), and Oxford (Bodleian Library, MS. Canon, ital. 138). The manuscript in the state archive in Turin is the most complete. and consists of a central part of twenty-three libri, or eighteen volumes, plus volumes with additional material (AST, MS. a. III.3-a.III.15; a.II.1-a.II.17) For sorting out Ligorio's manuscripts, see Erna Mandowsky and Charles Mitchell, Pirro Ligorio's Roman Antiquities: The Drawings in MS. XIII. B. 7 in the National Library in Naples. London. 1963. pp. 37-39, 130-40. See also Anna Schreurs, Antikenbild und Kunstanschauungen des Pirro Ligorio (1513-1583), Cologne, 2000, pp. 22-26, 325-33.

9 The main collections

10 Giacomo Lauro, "Album Amicorum" (MS. British School at Rome), fol. 106. Letter transcribed by Lauro and dated December 17, 1612.





3 Giulio de' Musi, *Port at Ostia,* 1554, engraving, 38.9 x 69 cm.

4 Étienne Dupérac, *Port at Ostia,* 1575, engraving, 40.5 x 71 cm. extravagant forms and dimensions that so easily associate with Baroque flamboyance instead are the result of a very literal retracing of antique models in print.

But the grandest *all'antica* project of all was reserved for a design originally conceived by Ligorio. The manuscript that Carlo Emanuele had obtained contained the celebrated antiquarian's vision of the port at Ostia, the vanished harbor to Rome built by the emperors Claudius and Trajan. The drawing was then engraved by Giulio de' Musi and published in 1554 with, as mentioned, a

twenty-year Venetian copyright (fig.3). The copyright apparently worked as intended, for it took a full twenty years before Antonio Lafréry had Étienne Dupérac engrave a new version of the port, but the version was far from a straight replica (fig.4). Dupérac alters the composition by adding a channel that connects the river with the port and by widening the outer basin to form a semicircle. These alterations were neither whims nor sly evasions but archaeologically correct updates, and yet the copyright forced all potential imitators to wait for its expiry even though they possessed superior knowledge. Archaeology itself is taken hostage by the protective clause of the print industry.

In one of history's ingenious turns, the distortion of Ligorio's original vision "displaced" the real monument that was based on it. Of course it makes no sense to call a building "erroneous," and yet, in a period fostered on the supremacy of classical Rome, an antiquity bifurcating into alternatives must have been unsettling. Prints like the reconstructed Ostian harbor reduced the idea of the past to a visual explicitness that one either followed or rejected. With different solutions existing side by side, *choices* were made and some reconstructions became outdated—they themselves became antiques. In fact, the dukes of Savoy's last great palace got entwined in this history of rivaling versions, and seen from the perspective of printed models, it was a project that can be said to have been sidetracked.

The hunting lodge of Stupinigi is one of Italy's major attractions and a UNESCO World Heritage Site, started in 1729 after designs by Filippo Juvarra. At eye level this vast complex presents itself in a bewildering system of side wings and courtyards. But as the perspective is raised, it becomes clear that Carlo Emanuele's successor, Vittorio Amedeo II, must have found in the old family library Ligorio's drawing of Ostia or at least consulted its elaborate printed version. Step by step the architect re-erects the ancient port on the plains of Piedmont (fig. 5). In a remarkable overlap of forms the palace project retraces the seven-sided polygonal inner space in the 1554 Ligorio port before, in a next move, duplicating the double-sided curve that in the reconstruction connects the outer and inner port. But then Juvarra and his team of architects came to a crucial junction, for which of the two printed solutions in existence were they to follow? That the question can be raised at all proves the project's extraordinary faithfulness to engraved models. But at this point the palace builders betray Ligorio's reconstruction and opt instead for Dupérac's semicircular outer port. With the eighteenth century rigorously implementing empirical methods in almost every field, elaborately developed visions had to give way to archaeological veracity even in

the entirely playful and inconsequential grounds of Stupinigi. In this way the extravagant pleasure palace and its parkland sealed in solid stone a sixteenth-century archaeological controversy enacted in print.

The Savoy rulers had witnessed Roman sites transferred from drawing to print, from prints to reprints, before they authorized and oversaw the extraordinary materialization of a paper folly into a maze of solid wings and pavilions. That a harbor stood so high on their wish list shows a fascination with water and aquatic themes in architecture apparent already with Carlo Emanuele's choice of Panvinio's arena with warring galleys as a model. It also points to the essential shortcoming of Turin as a new Rome, namely its inland position, and thereby also the sovereign's yearning for a naval setting, even if entirely staged. With the plains of Po on all sides and a wall of Alpine peaks to the north, the seaside seemed far off. To that geographic limitation Ligorio's harbor design represented a way out: the actual ancient port of Ostia lies southwest of Rome just as the complex of Stupinigi does in relation to Turin. A port in the guise of palace was therefore an ingenious concetto that tied the retreat to a drawing in the Savoy's library and also Turin to a vast land art program that inscribed the duchy in the pattern of lost Imperial Rome.

5 Aerial view of the palace of Stupinigi near Turin, began by Filippo Juvarra in 1729.





But the story is not quite over. In 1773, when Maria Teresa of Savoy married Charles Philippe, the brother of Louis XVI, at the by-then-completed hunting lodge-cum-harbor, the Roman publisher Carlo Losi issued a last state of the original Ligorio plate—with one small alteration (fig. 6). A waterway now cuts through Ligorio's architecture to connect the river and the port in an obvious effort to update the vision in accordance with a correct solution that had taken a long time to appear because of this precise plate's effective copyright restrictions.¹¹ From the viewpoint of print history, the port that Juvarra built was not the original but the copy, just as the copy by the 1770s had become the new original on which the initial revelation was remodeled. Port and palace, prints and solids, interweave in a continuously interrupted history of copyright and corrections.

For better or worse, the so-called *privilegio* left reconstructed Rome in a deadlock lasting to the mid-eighteenth century and the revival of the genre by Piranesi and others. Until then, and for nearly a hundred and fifty years, copyright on print caused unnatural delays in the publication of new material, and/or compelled artists and engravers to impose a forced novelty on their solutions. But for the same reason, copyrights also furnished architects with highly original models of a reinterpreted past. Printmakers' inventive take on archaeology corresponds to how the period's architecture shifted from the classical canon of restraint and proportion toward solutions associated with the Baroque. A tiny little mechanism inherent to the print industry unwittingly may have sparked off a new aesthetics. 6 Anonymous, *Port at Ostia,* 1773, engraving, 39.3 x 68.4 cm.

11 The state with the added channel and a heavily reworked landscape was first issued in 1691 by Matteo Gregorio de Rossi, but the alterations could of course have been made earlier. On de Rossi, see Consagra, "The De Rossi Family," pp. 16–17.