

Establishing Norms for a New Architecture: The Project of the *Accademia della Virtù*, Its Goals and Results

In 1547, when Claudio Tolomei published his famous letter to Agostino de'Landi (Tolomei, 1547, fol. 81r°–85r°) written five years earlier, there was no general system of norms for architecture providing guidance to architects or patrons. Obviously, ancient Roman architecture had been established as some kind of an archetype, but only as a vague one: While architects like Brunelleschi, Bramante and their followers had used ancient models and tried to base a coherent architecture on Roman ruins, it was still impossible to judge what could be called correct or even beautiful architecture. Serlio's books were trying to provide such a guidance, but even their success could not establish a norm that would not have been criticised or contested by practitioners as well as theoreticians. In his letter, Tolomei describes the aim to revive the « noble study », « svegliare nuovamente questo nobile studio » (Tolomei, 1547, fol. 81r°) of architecture. He proposed a program to achieve a reliable, usable and up-to-date set of norms, formulated in a multivolume handbook for architects and their patrons. Modern research has read this program not only as nothing more than a fantastic list of ideas for a megalomaniac research project, but also doubted that it generated any results — except for Philandrier's *Annotationes* to Vitruvius (Philandrier, 1544).

In this paper, a different interpretation of the letter and the hypothesis are proposed: I argue that the program led to a lot of manuscript sources and some important printed books. They were produced by members of an international and interdisciplinary circle active in Rome between ca. 1535 and 1555, usually identified as the *Accademia della Virtù*. It should be added that this identification is a later conjecture because the *Accademia* is not mentioned explicitly in Tolomei's letter. But the many personal interrelations between Tolomei's circle and the *Accademia* may allow us to assume that it is correct. It should be kept in mind that this *Accademia* was not an established institution — as this designation may suggest to modern readers — but rather an informal circle with a large, fluctuating group of members.

First of all, Tolomei does not speak of a research project comprising several topics to investigate but of books to be printed: Every item in his unnumbered list is explicitly called a « libro » that was to be printed. The list is remarkably well ordered and shows a methodological approach that can be called strictly scientific in a very modern sense. This methodology may have its roots in the then already established model of philology, because

many of the Accademia's members were philologists.

The list contains 23 items, i.e. not, as can be read in almost every modern publication, just 20 or even less. If one wants to establish a definitive and normative multivolume handbook regarding all aspects of Roman architecture and rules to derive from them for a normative system, the result would be very similar to Tolomei's list:

1. a Latin commentary on difficult passages in Vitruvius' *De architectura libri decem* comparing them with other sources
2. a discerning list of all known editions and manuscripts of Vitruvius' 10 books with philological comments
3. a new edition of Vitruvius correcting the errors of former prints and reconstructing all lost illustrations, adding new ones where necessary. (Here Tolomei is not very clear and may indicate two separate volumes which would allow the parallel usage of text and images. Therefore, the list may be read as containing 24 instead of 23 items.)
4. a Latin *vocabolario* of all Latin terms used by Vitruvius
5. a Latin *vocabolario* of all Greek terms used by Vitruvius
6. a critical commentary on Vitruvius' Latin in comparison to other classical authors
7. a new edition of Vitruvius' *De architectura* in a better, i.e. correct, Latin
8. a new translation of Vitruvius' *De architectura* into modern, i.e. Tuscan, Italian
9. a Tuscan vocabulary of all architectural terms used by Vitruvius
10. a Tuscan vocabulary of all tools and architectural parts mentioned by Vitruvius
11. an overview of the architectural rules given by Vitruvius, comparing them with built examples
12. an annotated chronology of ancient Rome's urban development since the *Roma quadrata* with maps
13. an annotated representation of all ancient buildings in and, at times, outside of Rome with plan, elevation, section and other details where necessary
14. an annotated representation of all reliefs as sources for Roman mythology, politics and history; they should be helpful to identify buildings and their history
15. an annotated representation of all statues for the same purpose
16. an annotated representation of all friezes, reliefs, architraves etc. item
17. a representation of surviving architectural elements such as cornices, doors, bases, capitals etc. that could not be identified as parts of known buildings

18. a representation of all vases and similar, rather ornamental objects used in architecture
19. an annotated representation of all ancient tools and instruments
20. an annotated collection of all inscriptions
21. a descriptive, comprehensive list of all known or surviving paintings
22. an annotated representation of all medals and coins
23. a reconstruction of ancient hydraulic and building machines according to Vitruvius etc.

All annotations would consist of a historical or mythological and an architectural or descriptive section.

It should be noted that only half of the books in the list (nos. 1–11 and, in parts, 23) are dealing with to Vitruvius, therefore, program and Accademia should not be called « Vitruvian » because this would suggest limited aims and cause misconceptions.

As if this list was not impressive enough — and many books would even have to consist of multiple volumes! —, Tolomei claims at the end of his letter that he and his circle « without doubt » would be able to finish this work in less than three years: « Così partendosi tra tanti dotti huomini queste fatiche, non è dubbio che'n manco di tre anni si condurràn tutte a fine. » (Tolomei, 1547, fol. 84v^o). If we don't want to read this as a straight and impertinent lie by Tolomei to Landi — whom he wanted to win as a patron for the project — and to his readers, we may conclude that at least parts of the preparatory work for these publications were underway or even finished by 1542 or, at least, by 1547. Because of the systematic and encyclopedic approach as well as the vast amount of targeted objects, it should be worth searching for remnants of the Accademia's efforts. At least Philandrier's *Annotationes* were already published by 1547 — and this could be the reason why a similar book is mentioned as the first item, even though Tolomei does not explicitly refer to it: to include a reference to a book published in 1544 in a letter dated 1542 would be a falsification...

In 1552, Jean de Tournes in Lyon published Philandrier's *Annotationes* together with Vitruvius' text (Philandrier, 1552): the subtitle of this book claims it contained « omnibus omnium editionibus longè emendatiores, collatis veteribus exemplis », i.e. an improved text created by comparing and emendating all old 'examples'. One may guess that this refers to printed editions as well as manuscript sources and, therefore, could correspond to Tolomei's book 3. As far as I know, it has never been tried to identify the sources used for this

publication and — by comparing them with the printed text — to find out if it fulfils its claim.

In 1986, art historian Richard Harprath and archaeologist Henning Wrede published a catalogue of the Codex Coburgensis (Harprath and Wrede, 1986), a Renaissance collection of very precise anonymous drawings after tombstones and sarcophagi arranged carefully in an order representing the interrelations of ancient Roman mythological topics. Together with the parallel Codex Pighianus in Berlin this codex, preserved at the Veste Coburg in Germany, represents — as Harprath and Wrede wrote — the first systematic book in the history of archaeology. Because Stephanus Winandus Pighius, owner of the Berlin codex, was secretary to a leading member of the Accademia, cardinal Marcello Cervini, later pope Marcellus II, it may be assumed that both codices could be counted as the preparatory material for book 14. Particularly noteworthy is the fact that the drawings are careful representations of the originals in their exact conditions: No corrections or completions were added to damaged figurative elements or inscriptions.

The same methodological approach can be found in a group of six manuscript volumes with Latin inscriptions in the Biblioteca Apostolica Vaticana (Vat.lat. 6034, 6036–6040), collected by Jean Matal between 1546 and 1550: Here we find every inscription in its surviving form, often even copying the shape of the letters, annotated with clearly separated solutions for missing parts or errors and with an identification of the printed or manuscript sources, the location of the original and the names of the persons who had contributed the inscription or checked its current state. Among Matal's collaborators named with their respective roles, are: Martin de Smet, Antoine Morillon (presumably responsible for the Codex Coburgensis), Pighius, Guillaume Budè (son of the French humanist), Aldo Manuzio the Younger, Philandrier, Pirro Ligorio, and, only once, even Andrea Palladio. When Theodor Mommsen realised the exceptional quality of Matal's codices, he decided to use them as the foundation for the *Corpus Inscriptionum Latinarum* in 1853.

In addition, the Vaticana owns printed volumes of collected inscriptions with manual corrections by Matal and others, and lots of similar material written by different hands from the inheritance of Manuzio and Onofrio Panvinio. It should be mentioned, that Panvinio himself attributed his introduction to antiquarian studies to Matal. The list of Matal's collaborators and their personal relations allows us to assume that his codices were made as preparations for book 20 in Tolomei's list.

Matal, together with Antonio Agustín and Jakob Fugger, Jacopo Strada's first patron, had studied law with Andrea Alciato. After almost having finished an edition of the *Codex Pisanus* in Florence, he followed his friend Agustín to Rome where the latter became a member of the papal Rota and acquired fame as a collector of ancient medals and coins. After his return to Spain, Agustín published the famous *Diálogos de medallas, inscripciones y otras antigüedades* (Agustín, 1587): In its Italian translation (Agustín, 1592) it was one of the most important books on numismatics for more than a century.

Jacopo Strada had drawn about 1,000 items from Agustín's collection and used them in his own publications. Having travelled in his function as antiquarian for Fugger and, later, prince Albrecht of Bavaria and the Emperor, and as trader of antiquities between Italy, Germany, Austria and France for many years, Strada settled in Rome from 1553 to 1555 where he was invited to participate at the meetings of an Accademia of learned men at the court of cardinal Alessandro Farnese. Strada created an immense collection of drawings, antiquities and books, but only recently Dirk Jansen dedicated a first monograph (Jansen, 2015) to this fascinating antiquarian and archaeologist. Because of personal interrelations we may assume that this Accademia in Rome was more or less identical with the Accademia della Virtù. Strada used his access to Agustín's and others' numismatic collections for his *Epitome* (Strada, 1553) and — among many other projects — started a collection of over 9,000 drawings of ancient coins and medals. Today, these drawings are preserved at Gotha, Germany, Vienna and London. About 3,000 pages with Strada's annotations to these drawings also survived — and both collections will now be studied in detail for the first time in a project started by Jansen and Volker Heenes in December 2015. — From Agustín's and Strada's publications and especially from the collection of Strada's drawings, we may conclude that they could represent parts of or derive from the preparations for book 22 in Tolomei's list.

While Strada's numismatic drawings and prints do not follow the strict methodological approach to ancient sources observable in the aforementioned collections of drawings and inscriptions, another large group of his drawings rather fulfil these criteria: Volume 2 (of 3) of the *Codex miniatus* 21 at the Österreichische Nationalbibliothek, Vienna, contains 174 drawings of ancient statues with their damages, i.e. may be related to Tolomei's book 15: Because they are drawn on Italian or even Roman paper, they seem to have been made before 1555 when Strada left Rome. In addition, volume 3 of *Cod.min.* 21 contains, among others,

drawings of 104 portrait busts of emperors and their families in a standardised representation.

Ottavio Strada, Jacopo's grandson, published a book with 50 hydraulic machines in 1617 which he republished extended to 100 items in 1623 (Strada 1617 and 1623). He claim that his grandfather intended to publish the original drawings but died before he could finish this project. In fact, there is one volume with such drawings by Strada surviving, but it is in a private collection and, therefore, could not be studied yet. But like Strada's others codices it may contain the preparations, or copies thereof, for Tolomei's book 23.

The Accademia's methodological approach can also be found in the so-called Codex Destailleur D (= Hdz 4151) at the Berlin Kunstbibliothek. It was named by Hermann Egger (Egger, 1903) after its last and also first known owner, the French architect Hippolyte Destailleur (1822–1893). With its 120 sheets and about 1,000 single drawings, this is only the largest surviving part of an even larger group of architectural drawings representing ancient and — some of the most important contemporary — Roman architecture from before 1550. Even though these drawings are characterised by an incredible amount of very precise measurements, showing the buildings or their ruins with unrivalled completeness and more details than any other drawings made until the 20th century, they have been largely ignored by archaeologist as well as architectural historians so far. The main reasons may be that the — mostly French — draughtsmen remained anonymous and that the drawings have not been used as models for prints. The systematic approach to document every available element is simply astonishing: Even pipes for water and heating systems, structures of cellars and roofs, service staircases and hardly accessible rooms were measured, as well as many more details that often were destroyed or have been ignored later. Thus, these drawings have to be regarded as invaluable sources for ancient Roman architecture and what was or could have been known about it in the Renaissance. The entire group presumably consists of more than 660 sheets in 12 collections with more than 3,200 single drawings! This may be the largest surviving documentation of the most comprehensive archaeological archaeological survey before the 20th century, if not ever.

Until now only one draughtsman of the codex could be identified as a certain « Guielmo franciosio » mentioned in the documents of the Archivio storico in the Fabbrica di San Pietro in Vaticano around 1545 together with other French craftsmen working one day less than their Italian colleagues (Kulawik 2002, vol. 1, pp. 262–266). My interpretation of this fact is that

Guilmo and his group, during these days they took off from the Fabrica, made these drawings for someone else, because it seems implausible that a group of craftsmen, none of them trained architects or draughtsmen, developed the plan for this project and carried it out over several years. In addition, many annotations in French and Italian clearly address other people who could have ordered the drawings. Therefore, we may assume that the addressed people were a group of Italian and French learned men with some considerable interest in and knowledge of ancient Roman architecture to be able to commission such a survey project. The only adequate group active in Rome between ca. 1535 and 1547, when the drawings were executed, was the Accademia della Virtù.

In fact, Giorgio Vasari informs us that the Accademia even had such a survey made: In his biography of Jacopo Barozzi da Vignola inserted into the Vita of Taddeo Zuccari, Vasari claims that the Accademia « used Vignola to measure all the antiquities in Rome »:

« Ma dopo, essendo allhora in Roma un'Accademia di nobilissimi gentil'huomini, e signori, che attendevano alla letione di Vitruvio: fra quali era M. Marcello Cervini, che fu poi Papa, [...], si diede il Vignuola per servitio loro a misurare interamente tutte l'anticaglie di Roma, [...] » (Vasari, 1568, vol. III,2, p. 700)

Vignola's biographer Egnatio Danti used almost exactly the same words in his edition of Vignola's *Due regole della prospettiva pratica* (Danti, 1583):

« In quel mentre essendo stata istituita da molti nobili spiriti un'Accademia d'Architettura, della quale erano principali il Sig. Marcello Cervini, che poi fu Papa, [...]; lasciò [i.e. Vignola – B.K.] di nuovo la Pittura, & ogn'altra cosa, & rivolgendosi in tutto quella nobile esercitatione, misurò, & ritrasse per servitio di quei Signori tutte l'antichità di Roma: d'onde si partì poi l'anno 1537. » (Danti, 1583, without page numbers; pages 1 and 2 of the Vita)

Because Vasari and Danti had personal relations with Vignola, they could be seen as trustworthy sources. And it seems to be noteworthy that Tolomei also used the words « tutte l'antichità di Roma » in his description of book 13.

Unfortunately, there are no drawings by Vignola himself that can be identified as belonging to his work done for the Accademia. But he seems to confirm Vasari's and Danti's claims

indirectly in his *Regola delli cinque ordini* (Vignola, ca. 1562): In his short comments to some of the orders, Vignola mentions that he took different ancient examples as models, compared them with each other and created his solution based on this comparison (Vignola, ca. 1562, tavv. III, XIII, XIII, XXVI, XVIII).

But maybe we should not even expect to find original drawings by Vignola for this project: If we consider how architectural surveys were and still are and have to be made, it seems plausible that a rather experienced draughtsman with a considerable architectural background did not measure and draw everything himself, but, instead, led a group of assistants doing the work under his supervision. In this case we would have to expect uniformly and precisely measured drawings showing all parts relevant to understanding the construction and function of a building, but made by different hands with some corrections or preparations. And this is exactly what can be observed in the drawings from the Codex Destailleur D group: Particularly remarkable are their preparatory drawings in chalk or graphite. They show a rather experienced and trained hand, while the measured drawings in ink on top of them were made by inexperienced hands, i.e. those of the French craftsmen. Therefore, I think this group of drawings could be the result of the work done by Vignola and others for the Accademia in preparation for Tolomei's book 13.

If Vignola was an employee, if not a member of the Accademia, it may be possible to think of his *Regola delli cinque ordini* (Vignola, ca. 1562) as a book similar to Tolomei's book 11 on the orders. When measuring Roman antiquities he had to realise — like Desgodetz did more than a century later — that none of the rules given by Vitruvius for the orders could be found among the still existing ancient monuments. And having seen that his preparatory work for the Accademia did not result in any publication until 1555, he may have decided to publish his book, dedicated to cardinal Farnese, as a summary providing applicable rules for the design of apparently classical orders made fit into a coherent system, one *regola*.

But it is also possible to see Jean Bullant's *Reigle generale d'architecture* (Bullant, 1564) as a book corresponding to Tolomei's book 11: Bullant gives annotated representations of the orders according to Vitruvius and compares them with prominent ancient examples that can be found in and around Rome. He claims to have measured the buildings in Rome himself. Though his woodcuts look very close to some of the drawings in the Codex Destailleur D group, the measurements given are not the same as those in the drawings. Also, it does not

seem as if he recalculated or transformed all the measurements, because their internal proportions are not congruent. But we do not know much about Bullant's biography, especially not about his time in Rome and his personal relations. So the questions if and when he may have been in contact with the Accademia and if his book and prints could be related to it, has to remain unanswered so far.

There is another large group of drawings showing some resemblances to the Codex Destailleur D group: the architectural drawings by Andrea Palladio and his workshop. Their similarities were already observed by Heinz Spielmann (Spielmann, 1966), but — as far as I know — never examined in depth later. After comparison with Palladio's drawings in London, a direct connection of these drawings to the Destailleur group can be excluded, except for one sheet by one of the French draughtsmen that once belonged to the collection when it was acquired by Lord Burlington. There is no reason to doubt that it had been part of Palladio's collection from its beginnings. The reason for the differences between the Palladio drawings and those from the Codex Destailleur D group may lie in Palladio's redrawing of almost all of his drawings in the 1560s, presumably in preparation for his *Quattro Libri dell'Architettura* (Palladio, 1570) and the books about the baths and triumphal arches he planned to publish. Therefore, very few of his early drawings survived: But these show some remarkable similarities to the Codex Destailleur D group such as the combined presentation of the same buildings on one sheet or the spiral constructions that differ only by millimeters when laid upon each other. At least, Palladio's sources and his activities in Rome still deserve further investigation, especially considering that the knowledge about ancient architecture he acquired there — like in Vignola's case — definitely informed his later work and was, therefore, crucial for its normative influence over centuries.

Only between 1543 and 1546, when his patron Giangiorgio Trissino had taken Palladio to Rome, he spent enough time there to measure the ancient monuments. Palladio was just a young stonemason becoming an architect, so one can safely assume that he did not have the financial resources to pay a group of assistants for the surveys: But even small monuments like triumphal arches could not be measured by one person alone. We know that Trissino also was in contact with Tolomei and participated in the sessions of the Accademia. So, it seems possible that Palladio participated in the surveys done for the Accademia and also, that his idea to print a comprehensive book starting with the best examples from antiquity and providing a foundation for modern architecture, like the *Quattro Libri*, may be the result of

Palladio's contact with the Accademia. Maybe the allegoric figure at the top of Palladio's title pages, the « Regina Virtus » holding a book, could be understood as a reference?

Palladio's possible and Trissino's known contacts to the Accademia may lead to the presumption that Barbaro's annotated Italian and Latin editions of Vitruvius — for which Palladio provided illustrations and architectural advice — closely resemble items 3 and 8 from Tolomei's list (Barbaro, 1556 and 1567). It may be another coincidence that Barbaro published these volumes only after 1555, the year of Cervini's death, when the Accademia seems to have resolved.

In this context, one may also assume that the Latin and Tuscan *vocabolarii* mentioned by Tolomei as support to the philological work must have existed, at least as manuscripts: It seems impossible that no such vocabularies were created before, and in use when, the work on Philandrier's *Annotationes* or Barbaro's commentaries was done. It is obvious that Barbaro's simple indices pointing to the pages where the words appear in Vitruvius' text can not resemble the annotated *vocabolarii* Tolomei suggested: These rather must have looked like thesauruses with translations and explanations as well as hints to other helpful contexts where the words could be found in ancient texts, e.g., something like an extended version Perotti's *Cornucopia* (Perottus, 1489) but restricted to architecture.

Searching for printed books closely resembling items from Tolomei's list, one may also think of the second edition of Marliano's *Topographia* (Marliano, 1544), an extended version of the first editions from 1534. Here, Marliano thanks 3 members of the Accademia for their assistance and, for the first time, includes simple maps illustrating Rome's early urban development, usually regarded as the first of their kind. Interestingly, the impressum reads: « Romae in aedibus Valerij, dorici, et Aloisij fratris, Academiae Romanae impreßorum ». This cannot refer to the older Roman Academy founded by Leto, because it ended with the Sacco di Roma in 1527. Therefore, the Accademia della Virtù seems the only plausible reference here. Marliano's book may not fulfil the Accademia's intentions completely, but it may be counted as an extensible first step for book 12.

Conclusion: There are many indications to assume that Tolomei's publishing project was not just a fanciful and overextending antiquarian dream that could have never been executed, surely not in « less than three years ». Instead, the large amount of printed and manuscript

sources that can be related to the Accademia should make it reasonable to think of them as parts of the large interdisciplinary project executed by an international team sharing the enormous workload. By now (it seems to me) that this material could be related to books 1, 2, 3, 8, 11, 12, 13, 14, 15, 16, 17, 2, 22 and 23 from Tolomei's list — i.e., the surviving material may represent 14 of the 23 books planned. And the presumably handwritten but lost working *vocabolarii* listed as books 4, 5, 9 and 10 may be added.

Parts of this material — the drawings of buildings, coins, statues and the inscriptions — seem to represent the largest surviving coherent corpora documenting ancient Roman remains going back to a single effort, while the books by Barbaro, Vignola and Palladio can not be overvalued in their norm-setting influence on Western architecture and aesthetics. That should make the Accademia's project even more worth investigating — a work that, again, could be done only by an international and interdisciplinary group of specialists.

The main reason why these materials never have been seen together may lie in the very disciplinary fragmentation of the humanities that — one may say — was invented by the Accademia. And it should be remembered, that the purpose of its project was not to fulfil the curiosity of some ambitious antiquarians, but to establish the best system of norms for a new architecture. If this interpretation of Tolomei's letter, the sources mentioned and their interrelations should be correct, this goal, finally, somehow seems to have been achieved even if not in the intended form of 23 printed volumes.

Bibliography

AGUSTÌN Antonio, 1587, *Diálogos de medallas, inscripciones y otras antigüedades*, Tarragona

AGUSTÌN Antonio, 1592, *Dialoghi di Don Antonio Agostini [...] intorno alle medaglie, inscrittioni et altre antichità*, Roma, Donangeli

BARBARO Daniele, 1556, *I dieci libri dell'architettura di M. Vitruvio*, Venezia, Marcolini

BARBARO Daniele, 1567, *M. Vitruvii Pollionis de Architectura libri decem*, Venezia, apud F. F. Senensem & I. Crugher

BULLANT Jean, 1564, *Reigle Generale d'Architecture des cinq manieres*, Paris, Marnef & Cavellat

DANTI Egnatio, 1583, *Le due regole della prospettiva pratica di M. Iacomo Barozzi da Vignola*, Roma, Zannetti

EGGER Hermann, 1903, *Kritisches Verzeichnis der Sammlung architektonischer Handzeichnungen der K. K. Hof-Bibliothek*, Wien, K.u.K. Hof- und Staatsdruckerei

HARPRATH Richard, WREDE Henning, 1986, *Der Codex Coburgensis: Das erste systematische Archäologiebuch*, Coburg, Kunstsammlungen

JANSEN Dirk Jacob, 2015, *Urbanissime Strada*, Universiteit Leiden, Dissertation

KULAWIK Bernd, 2002, *Die Zeichnungen im Codex Destailleur D der Kunstbibliothek Berlin*, TU Berlin, Dissertation

MARLIANI Bartolomeo, 1544, *Urbis Romae Topographia*, Roma, in aedibus Valerij, dorici, et Aloisij fratris

PALLADIO Andrea, 1570, *I quattro libri dell'architettura*, Venezia, Franceschi

PEROTTUS Nikolaus, 1489, *Cornucopiae linguae latinae*, Venezia, Paganinis

PHILANDRIER Guillaume, 1544, *In decem libros M. Vitruvii Pollionis de Architectura Annotationes*, Roma, in aedibus Varlerij, Dorici, et Aloisij fratris

PHILANDRIER Guillaume, 1552, *M. Vitruvii Pollionis de Architectura libri decem*, Lyon, Tournes

SPIELMANN Heinz, 1966, *Andrea Palladio und die Antike*, München, Deutscher Kunstverlag

STRADA Jacopo, 1553, *Epitome thesauri antiquitatum*, Lyon, Strada, 1553

STRADA Ottavio, 1617, *Kunstlicher Abriß allerhand Wasser-, Wind- Roß- und Handt Mühlen*, Frankfurt

STRADA Ottavio, 1623, *Kuenstlicher Abriß allerhand Wasserkünsten, auch Wind- Roß- Hand- unnd Wasser-Mühlen*, Köln, Grevenbruch

TOLOMEI Claudio, 1547, *Delle lettere di M. Claudio Tolomei libri sette*, Venezia, de Ferrari

VASARI Giorgio, 1568, *Le Vite de' più eccellenti pittori scultori ed architetti*, Firenze, Giunti

VIGNOLA Jacopo Barozzi da, ca. 1562, *Regola delli cinque ordini d'architettura*, Roma