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THE PERSPECTIVE OF MODERN ROME

An architectural theoretical indicator in the prints by Giovanni Battista Falda

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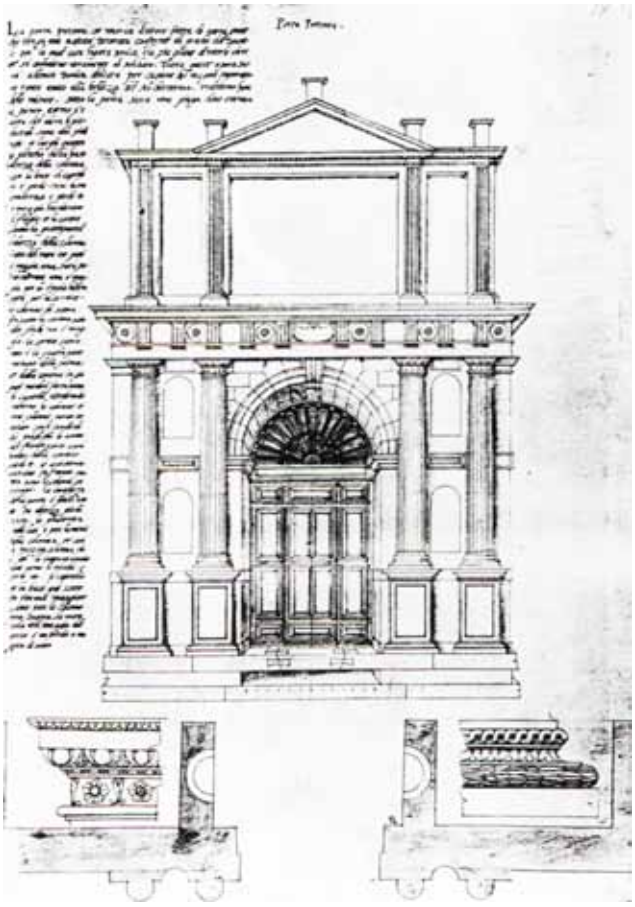
When it comes to perspective in the seventeenth century city views of Rome by printmaker Giovanni Battista Falda, there's more than meets the eye. Martijn van Beek states that, in contrast to the general view, the urban vistas should not be seen as literal projections of the city but are constituted by several, social, political and cultural, layers.

The artist Giovanni Battista Falda (1643-1678) has left us a substantial legacy of views of buildings, squares, fountains and gardens of seventeenth century Rome and its environments.[1] Even centuries after his lifetime, his prints of city views have appeared in historical studies that aimed to provide a reliable impression of the contemporary architectural appearance of the *Caput Mundi*. Exemplary are Heinrich Wölfflin's (1864-1945) *Renaissance und Barock* (1888) and *The Rome of Alexander VII: 1655-1667* (1985), written by art historian Richard Krautheimer (1897-1994). In the case of Krautheimer the prints were extra relevant, because most city views by Falda were composed during the pontificate of Pope Alexander VII. Krautheimer and others have treated and presented the prints as objective sources for the appearance of the city in the seventeenth century. By doing so, these scholars were somewhat naïve. In fact, these prints are not suitable to be considered as for instance photographic documents, as we know them since the nineteenth century. Instead they should rather be regarded as cultural constructions with many different layers which constitute their appearance. The aim of this essay is to show how these cultural, social and political layers influenced the appearance of the prints that were made by Falda. Because of the important role architecture played in both the choice of subject and the education and working environment of this artist, it is legitimate to question in particular the architectural historical importance of the layers that form the base of Falda's city views of Rome. In which way do his prints contain ideas that are relevant signs of contemporary architectural theory?

Italian architectural theory during the baroque age

In general, the character of the architecture and architectural theory of the seventeenth century in Italy has firm classical roots which reappeared lavishly from the Renaissance on. The classical architectural treatise *De Architectura libri decem* by the Roman military man Vitruvius (ca. 85-20 BC) was of fundamental importance for the Renaissance humanists in both form and content. It was an outstanding example for the presentation of architectural theory. By presenting a theorized view on architecture, many architectural theorists have spread their opinion about the characteristics of good architecture. Vitruvius' work was chosen by them as a starting point for either elaboration or criticism.

Because the popularity of Vitruvius' text was linked to the specific preference for classical sources during the renaissance, a few decades ago scholars have drawn the conclusion that Vitruvian architectural treatises in the subsequent Baroque era, which blossomed in the seventeenth century and is characterised by a clear break with renaissance ideals, do not exist. According to them it is not even possible to find architectural theoretical texts from that age at all. These firm assumptions have become highly problematical. Not only is the search for Vitruvian examples in an age in which classicist borders were deliberately crossed illogical, it also ignores the importance of the increasing role of images in texts on architecture.[2] In the course of time the humanist Vitruvian treatises show an increase in the number of images that accompany the text. This lowering of the level of readable text caused Vaughan Hart to address these newly composed architectural historical



1. Sebastiano Serlio, *Porta Pretorea* from book VIII of the *Regole generali d'architettura*, Venice 1537. The text of the treatise appears in the margin of the image.

documents as 'published codes'.[3] Their message becomes less easy legible in words, but the more in images (fig. 1).

During the Renaissance and the following centuries, *De Architectura libri decem* has proven to be a rewarding source for all kinds of architectural theorists, especially those with a classicist preference, to follow, extend and criticise. The most important goals of these followers of Vitruvius were 'die Propagierung neuer Ideen, die Kodifizierung anerkannter Praxis, [und] die verzweifelte Abwehr auf verlorenem Posten'.[4] Nevertheless the treatises within the Vitruvian tradition show a preference for the aspect of *Kodifizierung* – the search for a general rule for classicist architecture. The clearest example in this case is Giacomo Barozzi da Vignola's *Regola delle cinque ordini d'architettura*, published in Rome in 1562. As the title already reveals, Vignola was searching for one general system of proportioning for five different architectural orders. This tendency is exemplary for the contemporary theoretical urge for concord.

Art historian Hanno-Walter Kruft (1938-1993) has described that the expectations which were raised by the form and content of the humanist treatises were projected to the baroque era. He subsequently concludes: 'Es soll nicht behauptet werden, daß in Italien im 17. Jahrhundert kein architekturtheoretisches Schrifttum entstanden sei, doch darf man sagen, daß eine theoretische Formulierung des Barock nicht gegeben wurde.'[5] It is true that several texts on architecture from this era are known. This raises the questions how the character of these architectural texts that did become published can be described and if Italian architectural theory in the seventeenth century really did not exist at all.

It is important to realise that because of the booming technique of printing the general character of this kind of publications became more public. The rise of easily comprehensible, attractive perspectival prints as a replacement of technical drawings of sections of buildings - which were only understandable for those who executed architectural design themselves - was a symptom of this trend. The new generation of architectural publications gained a role as mere propaganda of new forms to a wider audience than before. The images became the primary content of the publication and text served more and more as a textual illustration of the image.[6] Or, as art historian Georg Germann wrote: 'Als Propagandamittel der barocken Formen dienten nicht Texte, sondern Bilder: Stiche von Projekten, von Festarchitekturen, von Bühnenbildern, von Idealbauten.'[7] For example the international dispersal of Italian prints of Italian gardens was influential for the development of English garden designs.[8]

The Italian architectural texts which did appear in the seventeenth century did not discuss general architectural rules but were mostly applied to specific design problems. Exemplary in this case are the texts on architectural errors by Teofilo Gallaccini, on perspective by Andrea Pozzo and the one by Francesco Borromini on his Casa dei Filippini in Rome. It is often stated that the seventeenth century publication with the highest Vitruvian character was Guarino Guarini's treatise

2. Giovanni Battista Falda, *Square and porticoes of Saint Peter's Basilica*, from *Il Nuovo Teatro* (...), Rome 1665. The depiction of the unexecuted ***terzo braccio*** suggests Falda's knowledge of Bernini's design. The façades of the basilica and the Apostolic Palace appear parallel in the image, which they are not.

Architettura Civile. However, research has proven that this treatise is a rather sloppy posthumous construction in which Guarini's own role is object of serious discussion.[9] It is nonetheless interesting to mention that specially made, eye-catching prints of Guarini's extraordinary designs were already published very soon after his death and apart from the text. This indicates the increasing popularity of architectural images.

The seventeenth century texts on architecture show one recurring topic. The Jesuit father Andrea Pozzo was one of the protagonists who acknowledged the important role of perspective within architecture: 'La Prospettiva degli Edificii, di cui trattiamo, non può haver bellezza, e proporzione, so non le prende dall'Architettura.'[10] However, Vitruvius himself had already recognized a discrepancy between the perspective of drawn projections of architecture and the perspective of the physical observation of the built environment. This latter perspectival view by the spectator was referred to by him as *eurythmia*.[11] With this emphasis on perspectival distortion in mind, it is interesting to take a look at seventeenth century prints of city views.

Falda's views of modern Rome

One of the most famous oeuvres of prints of urban vistas is made by Giovanni Battista Falda. The Roman publisher De Rossi recruited him at the age of fourteen in the workshop of sculptor and architect Gianlorenzo Bernini. De Rossi offered the young Falda training in the art of etching by architects such as Francesco Borromini and Pietro da Cortona. They taught him the technique of depicting urban structures in a new and suitable perspective.[12] Because Falda was so close to the circle of architects, his prints also depict ephemeral and unexecuted designs. Falda's work was published by several generations of the De Rossi family, who were famous for their publication of prints. At the height of their success, the family owned six shops along the streets between the church of Santa Maria della Pace and the Piazza Navona in Rome.[13]

In 1657 Giovanni Giacomo de Rossi gained the papal printing privilege for the publication of

3. Giovanni Battista Falda, *Square and church of Santa Maria della Pace*, from *Il Nuovo Teatro* (...), Rome 1665.

portraits of cardinals who were recently appointed by Pope Alexander VII.[14] This did not only entail a legal protection against illegal copies, it also included papal protection and a high level of esteem. It was because of the economic success of this publication that the family initiated a project for a publication that would appeal to an even greater audience. A series of urban views of modern Rome was initiated and published in 1665 under the title *Il Nuovo Teatro delle fabriche et edificij in prospettiva di Roma moderna sotto il felice pontificato di N.S. Papa Alessandro VII*. It consisted of 33 prints by Falda. With the economic success of the portraits of the new cardinals in mind, De Rossi made sure that the prints would obviously answer to Alexander VII's wish to disseminate his religious, political and dynastic aspirations.[15]

The word *teatro* in the title of Falda's publication is an indicator of the general baroque attention for methods of seeing. Much has been written about the reason for the use of this specific metaphor for architectural ensembles, but De Rossi himself has provided us with an interesting and clear explanation. He describes the views in the prints as 'sights worth seeing'.[16] This description demonstrates that he doesn't merely pay attention to the depicted architecture, but also to the way of depiction. The use of this very term points at a conscious planning of visual conduct.

The prints depict architecture that was executed or at least planned during Alexander's pontificate. Numbers that appear in the prints refer to descriptions of the buildings and name their architects. It is therefore legitimate to conclude that the prints have a strong architectural emphasis. The location of the family shops guaranteed the economic success of the publication, because these shops were adjacent to the Via Papalis, the pilgrim route to the Vatican.[17] Falda's prints of views of modern Rome, also sold separately, were excellent souvenirs for pilgrims and tourists. The success of the publication was already proven before the last print was published. In 1664 the family requested the Vatican for the papal privilege for all their prints for the next twenty years. The pope granted the family this privilege, albeit for ten years.[18] This meant that the De Rossi family did not only became a monopolist in the Roman print industry

of their time, but that they also functioned as the semi-official print-shop of the Papal court.

Because of this papal patronage, the prints by Falda are rightly to be considered as elements of Alexander VII's political program. Their role as realistic depictions of seventeenth century Rome came in second place.[19] The way of depiction that is visible in the prints is certainly not comparable to a photographic representation which we are used to in our times. Instead, Falda's prints show the architecture advantageously. The physical point of view is often inaccessible and because of the juxtaposition of several vanishing points in one print, the image can appear odd (fig. 2). Thus, the representations that appear in the prints are coloured by the designing architect, the economic agenda of the publisher, Falda's talent and Alexander's political program. In short, they represent several cultural layers. And these all come together in one important aspect of the city views: the perspective.

Architectural theory and the role of perspective

In architectural prints the multifocal subjectivity of a person who looks at architecture *in situ* is replaced by the single projection of the etcher. If the designer of these prints is an architect, or someone close to him, or educated by architects, the prints become extra meaningful as elements that represent the context of the architectural design process. They show how architects chose to or were able to present their designs in a certain spatial projection. The way of representation is limited by the artistic development, both personal as well as general. As such, Robin Evans has argued that architectural designs and prints are indicators of architectural theory *per se*.[20]

To illustrate this, it is useful to take a closer look at one representative image from *Il Nuovo Teatro*: the image of the church and square of Santa Maria della Pace (fig. 3). Because of the presence of a chapel devoted to the Chigi family inside the church, it was an important monument for the dynasty of the Chigi and its prominent member Pope Alexander VII. It was significantly chosen as the first large renovation project commissioned by Alexander VII in 1655-56, shortly after his election. In order to promote the church and the Chigi dynasty, but particularly to improve the traffic of carriages to the church, the façade, the square and its surrounding buildings were renovated according to one single master plan.[21]

Visitors of Rome, especially those who are familiar with the technique of photography, are easily able to observe several curious aspects of this print. A similar photograph of the depicted side of the square could never be made. This is because the viewing point from which the photo would have to be made would be in the middle of a building. *In situ* it also proves impossible to have a look this wide. The road to the church is narrow and the cupola of the church would not be visible. The church façade is depicted in a strange twist to the narthex and the image suggests parallelism of the surfaces of the façade of the large building with shops, the side of the narthex, the side of the square and the façade of the church of San Biagio.[22] It is not difficult to recognize De Rossi's assignment to Falda to portray the architecture at its best. The depicted church makes a great impression through its communication with the square and the street in front of it.

But in fact, this deformation of the perspective of the viewer *in situ* would not have been necessary to emphasize the great impression that the church makes. The most characteristic part of the façade, the semicircular entrance, does not even appear distinctive or clear. It would probably have been better to depict it from another viewing point. Further analysis shows that Falda has combined several vanishing points in one image. Nevertheless, his fragmentation of perspective appears harmonious, like some sort of perspectival *concordia discors*.[23] The suggested spatial depth is the consequence of the assembly of multiple architectural objects, not of a telescopic foreshortened grid, as the architect Filippo Brunelleschi (1377-1446) had developed it circa 1425, looking at the Florentine baptistery from the side of the façade of the Duomo.[24] The result of this method of rendering linear perspective to a flat surface resembles the 'Other Method' by Piero della Francesca. But in the latter, perspective is not constructed by means of vanishing points. It is constructed through the projection of local relations between dots that are placed imaginary on the surfaces which the painter wants to depict. A clear demonstration of this method is Paolo Uccello's *Battle of San Romano* (c. 1438-1440) (fig. 4). Perspective is applied to the

4. Paolo Uccello, *The Battle of San Romano*, c 1438-1440, egg tempera with walnut oil and linseed oil on poplar, 182 x 320 cm, The National Gallery, London.

various elements in the painting correctly. But the result of their assembly seems odd to people who are used to photographs, and is reminiscent of the visual effect of Falda's prints.[25]

It is important to conclude that perspective can be constructed in several ways. There is no such thing as one perspective. The perspectival appearance of the world in front of our eyes is different from the ultra linear perspective with which Brunelleschi constructed his view of the Florentine baptistery. The latter is merely an imitation of the first according to several presumed rules. In fact there are more than one of this kind of imitation, and subsequently there are several collections of presumed rules. For instance, Falda's method to construct perspective is based on another set of rules than Brunelleschi's.

The development of these rules is interesting, because they consist of political and philosophical layers. Perspective, in Robin Evans' words, is a convention.[26] The perspectival image shows a remodelling of the visual observation. Therefore it is problematic to speak of it as a reflection of 'the truth'. In fact it is a projection which conflicts with visual observations and rational laws. For instance in linear perspective, parallel lines converge into one point. But according to the main mathematical source for architectural treatises, the *Elements* by the Greek mathematician Euclid (300 BC), parallel lines never converge into one point. The rules with which in a certain age perspective is constructed are cultural reflections. Consequently perspective as such is an indicator of the culture in which it has emerged.

In my opinion, this is the way in which perspectival prints of architectural urban ensembles, just like architectural designs, are bearers of architectural theory. They will never function fully equivalent to the way in which text can provide argumentation for architectural form, but that presupposition is Vitruvian and out of place in the seventeenth century. A changing perspectival depiction is an indicator for a change of ideas and theories.

Geometry as cultural construction

Yet to understand that thesis to the fullest, it is necessary to put the perspective under investigation in a bigger framework. If we follow Robin Evans' theory of three important historical geometries, Falda's 'perspective' is a point between Euclidian geometry and projective geometry. This latter geometry was developed by the French mathematician Gérard Desargues (1591-1661). In his image, Falda disconnects the buildings and the urban environment from the rigid of linear Euclidian geometry. His perspective has a more pictorial character, just like Uccello's painting. As a result the architecture appears more vital. The buildings are not presented as mere set pieces, but as actors in the theatre of baroque Rome. Falda's pictorial method of suggesting depth is not compatible with a rigid geometrical system to represent space.

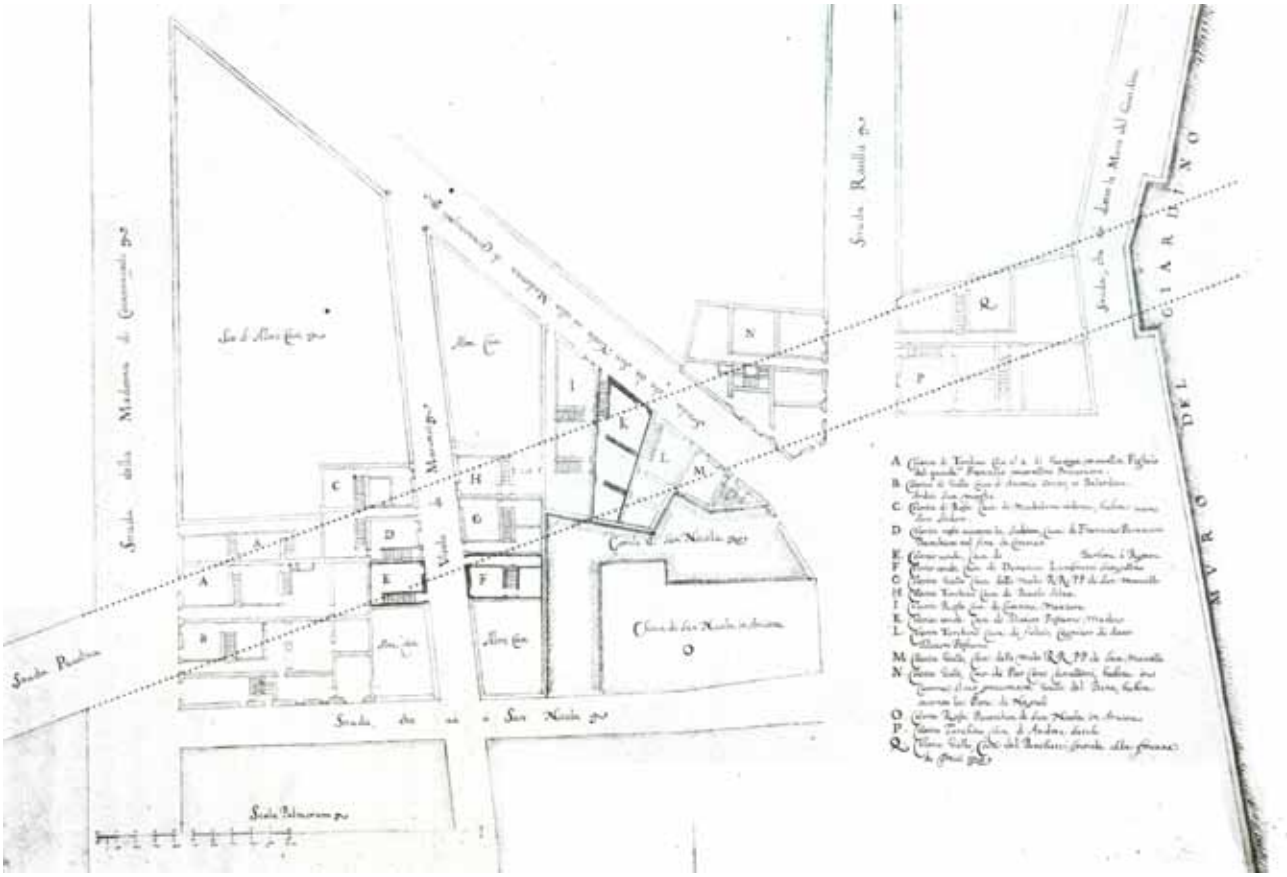
Because Falda's perspective was taught to him by architects such as Borromini and Da Cortona, his images confirm an architectural legitimacy to deviate from the Euclidian perspectival convention. The essence of Falda's perspective, which was stressed by De Rossi in the explicit title that was chosen for the publication, is the freedom to use several vanishing points in one frame. It shows that Euclidian rationality could be legitimately neglected in the domain of seventeenth century art. This hints at a new cultural idea of space. That space was eventually mathematically defined by Desargues, by expanding Euclidian geometry with the notion of infinity as a mathematically legitimately utilizable principle. As a consequence of this new geometry, it became easier to calculate the properties of strangely curved surfaces, which became popular elements of seventeenth century architecture. Due to the development of this technique, it would become much easier to construct perspectival images of bent surfaces, such as undulating walls. The designing practice of the architect Guarino Guarini shows early traces of this technique in the field of architecture.

How then is Falda's perspective a cultural expression? Every artist applies his own perspective. Perspective is an illusion that introduces a certain hierarchy. It controls vision. As such, perspective is a bearer of ideology, whether political or social.[27] This is also the case for Falda. As discussed, his perspective is formed by political, economic and artistic circumstances. But there is also the situation of a specific spatial geometry. In the case of Falda the geometry is exemplary for the seventeenth century development to provide space a new geometrical frame, namely projective geometry.[28] This development was stimulated by cultural impulses. Because of these cultural impulses, the geometrical construction in which Falda's perspective is presented is representative of the contemporary human perception of the world.[29] Architectural images are always represented through geometrical projection, which evolves in the course of time. That is why perspective is a legitimate element of architectural theory. The perspective in Falda's construction of space is a symptom of his architectural theoretical position. It does however presuppose a close look at the history of mathematical geometry.

Is it overdone to pay this much attention to the perspective in Falda's prints? Not really, because in seventeenth century Rome, perspective was a frequently applied instrument in town planning. Long, straight vistas are characteristic of baroque urban development. Unfortunately the most important designed Roman prospects of this period – the axes to the basilica of Saint Peter's, the church of Sant'Andrea della Valle and the Quirinal gardens – were not executed in the seventeenth century (fig. 5). This well thought-out design of urban space was referred to by Serlio with the term *scaenographia*.[30] Yet, what Vaughan Hart described as 'the power of perspective to represent space' was not only applicable for town planning, but also for two-dimensional projections of architecture and urban space.[31]

Conclusion

The question whether Italian seventeenth century architectural theory can exist in images can be answered positively. Falda's views of Rome are a relevant point in case because they depict an architectural presentation of perspective. Once we recognize this perspective as a cultural convention that represents a world view that is subject to development, these images can be identified as indicators of architectural theory. They connect form to idea and vice versa. In short, Falda's projective cast is a propagation of contemporary architectural theoretical ideas. It shows for example how Euclidian geometry could be neglected legitimately and



5. Unexecuted design for a breakthrough from the Via Due Macelli (Strada Paolina) to the Quirinal gardens, Rome 1657. From: R. Krautheimer, *The Rome of Alexander VII: 1655-1667*, Princeton 1985, p. 94.

also how the new construction of space could entail political values. Moreover, notwithstanding its eventual exactness, projective geometry provided scientists from various disciplines opportunities to widen their outlook, both literally and figuratively. It is a symptom of the great impulse that science in general received in the seventeenth century. For example the development of projective geometry strongly influenced the meaning of philosophical concepts such as 'similarity' and 'continuity'. Such cultural layers constitute the perspective in Falda's prints. Seventeenth century images can not elucidate architectural forms as Vitruvian texts had done before, but that expectation is not appropriate. The theoretical content of Falda's images lies in the fact that the construction of their perspective points at cultural features which influenced the design process considerably.

1 This essay is based on my unpublished Dutch BA thesis *Approach and be enlightened. The prints of G.B. Falda in relation to Italian seventeenth century architectural theory* (2008).
2 G. Germann, *Einführung in die Geschichte der Architekturtheorie*, Darmstadt 1993, p. 179.
3 V. Hart, P. Hicks (eds.), *Paper palaces. The rise of the Renaissance architectural treatise*, New Haven 1998, pp. 1-2.
4 'The propagation of new ideas, the codification of accepted practice, the desperate defence of lost aspects.' Germann, op.cit. (note 2), p. 6.
5 'It is not to say that in Italy in the seventeenth century no architectural theoretical literature has emerged – yet it must be said that a theoretical description of the baroque was not provided.' H.W. Kruft, *Geschichte der Architekturtheorie. Von der Antike bis zur Gegenwart*, Munich 1986, pp. 113-114.
6 V. Biermann et al., *Architectural theory from the Renaissance to the present. 89 essays on 117 treatises*, Cologne 2003, p. 7.
7 'Not texts, but images were used as a propaganda tool for the baroque forms: prints of projects, ephemeral architecture, stage sets and ideal structures.' Germann, op.cit. (note 2), p. 179.
8 D. K. McGuire, 'Giovanni Battista Falda and the decorative plan in three Italian gardens', *The Connoisseur* 159 (1965), p. 59.
9 *Architettura Civile* was published in 1737, 54 years after Guarini's death. W. Müller, 'Guarini e la stereotomia', in: *Guarino Guarini e l'internazionalità del Barocco. Atti del convegno internazionale promosso dall'Accademia delle Scienze di Torino*, 30 settembre-5 ottobre 1968, Turin 1970, vol. 1, p. 535 states that the fourth chapter of *Architettura Civile* is not even written by Guarini.
10 'The perspective of the buildings we discuss can not have beauty nor proportion if we would not take that from Architecture.' Kruft, op.cit. (note 5), p. 121.
11 Germann, op.cit. (note 2), p. 21.
12 F. Consagra, *The De Rossi Family Print Publishing Shop. A Study in the History of the Print Industry in Seventeenth Century Rome*, dissertation The Johns Hopkins University Baltimore 1992, p. 416.
13 Idem, p. iii.
14 Idem, p. 388.
15 P. A. Wilson, 'The Image of Chigi Rome: G.B. Falda's Il nuovo teatro', *Architectura. Zeitschrift für Geschichte der Baukunst* 26 (1996), p. 37.
16 Consagra, op.cit. (note 12), p. 427.
17 Idem, pp. 139-140.
18 Idem, p. 425.
19 Wilson, op.cit. (note 15), p. 34.
20 R. Evans, *The projective cast. Architecture and its three geometries*, London 1995, pp. 351-370.
21 R. Krautheimer, *The Rome of Alexander VII: 1655-1667*, Princeton 1985, p. 48.
22 It is hard to say whether the church of San Biagio della Fossa on the left would have been visible from the street. It was pulled down in 1812 during the French annexation of Rome.
23 Evans, op.cit. (note 20), p. 102.
24 Idem, p. 158.
25 The 'Other Method' (*altro modo*) is described by Piero della Francesca in his treatise *De prospectiva pingendi* (c. 1480). The method is clearly introduced in Evans, op.cit. (note 20), pp. 123-177.
26 Evans, op.cit. (note 20), pp. 123-130.
27 N. Stieber, 'Space, time, and architectural history', in: Arnold, Dana, Elvan Altan Ergut and Belgin Turan Özkaya (eds.), *Rethinking architectural historiography*, London 2006, p. 177.
28 Evans, op.cit. (note 20), p. 351.
29 Idem, p. 354.
30 Hart, Hicks (eds.), op.cit. (note 3), p. 173.
31 Idem, p. 185.