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## Abstract

The Renaissance ideal city is an enduring construct that elides two quite separate, though sometimes overlapping, branches of scholarly and architectural experimentation during the fifteenth and sixteenth centuries; on the one-hand there are numerous theoretical writings which proposed idealised urban visions and designs that mirrored the socio-political systems which they were intended to house, while on the other there are built projects that in varying degrees put into practice similar principles to those set out in those texts. These ideal cities tended to express through ideals of order and symmetry the centralised authority of princely rulers, and by the later sixteenth century combined military functions as fortified new towns. The symmetry that defined ideal city designs of the early Renaissance, like the fortified cities of the following centuries, articulated in visual terms a totalising vision of centralised authority, although their formal qualities had a lasting appeal which has informed urban design solutions into the twentieth century.

## Keywords:

Government, historical geography, law, legislation, and regulations, material culture, military geography, political theory, urbanization, visual arts

## Main Text

The Renaissance ideal city is an enduring construct that elides two quite separate, though sometimes overlapping, branches of scholarly and architectural experimentation during the fifteenth and sixteenth centuries; on the one-hand there are numerous theoretical writings which proposed idealised urban visions and designs that mirrored the socio-political systems which they were intended to house, while on the other there are built projects that in varying degrees put into practice similar principles to those set out in those texts. While it is easy to assume that theory informed practice, this was not always the case, and many of the best-known examples of centralised urban design were never truly intended as projects that would actually be built. Conversely, it is all-too-easy to assume that executed urban renewal projects of the fifteenth centuries were directly influenced by the theoretical principles set out in largely manuscript texts, although this can rarely be proved. By the sixteenth-century however, as idealised city designs began to circulate in print form, the connection can more readily be documented.

A well-known aspect of the Renaissance humanists' scholarly reassessment of classical sources was the revival of the treatise or manual. Following ideals set out for urban society in Plato's *Republic* and Aristotle's *Politics*, mediated through medieval philosophers such as Thomas Aquinas, various authors explored the relation between the socio-political constitution of urban societies, and the physical form they might take. Ambrogio Lorenzetti's formulation of the 'Allegory of Good Government' painted on the walls of Siena's Palazzo Pubblico (1338-40), which includes a remarkably detailed idealised view of the city at peace, was a visual expression of political theories circulating in medieval handbooks of classical thought such as the encyclopaedic *Tesoretto* (thirteenth century) of Brunetto Latini (c. 1220-94). A century later, also in Siena, the humanist Francesco Patrizi (1413-92) wrote *De institutione reipublicae* (*On Republics*, dedicated to Pope Sixtus IV, 1471), a treatise on republican government that unusually also sought to delineate the ideal physical layout of the well-governed city. It is this tradition of theoretical and philosophical writing, which defined primarily the social, institutional and political conditions of urban living, that resulted in some of the most famous examples of political philosophy structured around the description of idealised cities of the Renaissance period. In the famous treatise by Thomas More (1478-1535) *Utopia* (1516), fifty-four cities of equal size occupied the island kingdom, while the city envisaged in the *City of the Sun* (1602), Tommaso Campanella (1568-1639), was much larger and was laid out as seven concentric rings that represented distinct branches of knowledge; both utopian visions eschewed private property, and were governed by absolute rulers.

Quite a distinct strand of Renaissance scholarship addressed the more practical architectural design of cities, responding at least in part to the writings of the ancient Roman author Vitruvius, whose *De architectura* inspired the treatises of Leon Battista Alberti (1404-72), Antonio Averlino (known as Filarete, c.1400-1469) and Francesco di Giorgio Martini (1439-1501), among others. Filarete's treatise on architecture, written for the Duke of Milan Francesco Sforza around 1460-4, includes an unprecedented centralised plan for the new town he dedicated to his patron, Sforzinda. A fortified design on a significant scale, Sforzinda adopted a radial layout focusing on a central piazza, around which were distributed the cathedral and ducal palace; main streets radiated outwards to the gates, along which residential and industrial enclaves were distributed according to a socially stratified system. In spite of the compelling visual appeal of its star-shaped walls and rigorously symmetrical design, Sforzinda was little more than a device for the architect to present his patron with a range of building types that would make up the city, and with the exception of the Ospedale Maggiore hospital building in Milan, the designs remained unbuilt. Much the same can be said for the many centralised designs for fortified towns and cities that Francesco di Giorgio Martini proposed in treatises produced while in the employ of Duke Federico da Montefeltro of Urbino (1480s). Federico's court was something of a centre for architectural experimentation, which found expression not only in built architecture, but also in the decorative designs of the perspective views of symmetrically ordered urban set pieces depicted in the intarsia wooden panelling installed throughout the ducal palace and the duke's study. It was indeed within this patronage environment that perhaps the most outstanding visual formulation of the 'ideal city' was created as a set of three panel paintings representing sparsely populated, centrally-planned urban piazzas (now in Urbino, Baltimore and Berlin). To date no firm attribution stands for these paintings, nor has a clear function been identified for them; undoubtedly however they survive as perhaps the most eloquent representation of the classically-inspired principles of urban design that underpinned the work of the architectural theorists.

As with Sforzinda, Francesco di Giorgio's designs adopted symmetry as a means of articulating the centralised authority of the ruler, both in garrison towns centred on a fortified residence, and more civilian peace-time settings centred on the ruler's residence. In his manuscript treatises, Francesco di Giorgio experimented with centrally planned city designs based on simple geometrical forms (square, pentagon, polygons and circle). Inside the walls he proposed both radial and spiral street layouts, and provided much greater detail than Filarete regarding the typology of residential arrangements graded according to a strictly defined urban hierarchy, ranging from the ruler, through noble élites, merchants, artisans and workers. It was this same stratified hierarchy articulated at urban scale through zoning regulations that would later be adopted in the printed treatises on architecture produced by Sebastiano Serlio (1475-1554; Book 6, published 1566). Instead, the more evidently military legacy of Francesco di Giorgio's work was continued in the drawings of numerous Renaissance architects, including his followers Baldassarre Peruzzi (1481-1536) and later Pietro Cataneo (c. 1501-1569), who published multiple variants of the rigorously symmetrical fortified town plans in his treatise of 1554. Similar solutions appeared in a translation of Vitruvius by the venetian humanist Daniele Barbaro (1514-1570), which was famously illustrated by Andrea Palladio (1508-1580; 1567, p. 52).

Town planning following principles of order and symmetry was not, of course, an innovation of the Renaissance. Throughout the thirteenth and fourteenth centuries new town foundations were widespread in Europe (known as *bastides* in France, Wales and the Low Countries, and *terre murate* in Italy). These walled towns tended to be built from scratch and were laid out on a grid around a central square, which was used for markets and social gatherings; their layout owed much to the Roman precedent of the *castrum*. In central Italy the new towns founded by the republic of Florence, such as San Giovanni Valdarno (founded 1296, on a design attributed to Arnolfo di Cambio), adopted a standardised form with a central church and government building facing onto the central square, and arcaded streets laid out on a grid. This central ordering of space around sites of religious and secular authority, with a strong commercial vocation expressed through a central market square and arcaded streets lined with workshops, exported the governing city's ruling principles, while also establishing regional control through local government institutions and fortifications.

An ambition to represent authority through urban-scale interventions often underpins projects that can be understood as early examples of the 'ideal city'. Of these, perhaps the best early example is the small city (for it was elevated to a bishopric) of Pienza in South Tuscany, created by Pope Pius II Piccolomini (1405-64) from 1459. In essence, the remodelling of Pienza improved its fortifications and created a symmetrical piazza at its centre, around which were grouped the new cathedral, the bishop's palace, a magnificent papal residence, and a new city hall. While the rest of Pienza lacks the rigorous symmetrical ordering of Filarete's coeval designs, it is nonetheless indisputable that its architecture performed the social engineering implicit in many contemporary theoretical writings about cities, as it articulated in stark clarity the distribution of power, relegating commerce to a secondary market square, and relocating expropriated local residents to purpose-built row housing on the edge of the small city. Around forty years later, at Ferrara, a significantly more ambitious project was overseen by Duke Ercole I d'Este (1431-1505), where the original city was almost doubled in size by the addition of the Terra Nova, now known as the Addizione Erculea (Herculean Addition). First and foremost a fortification project that added bastioned walls to the city's

more vulnerable northern approach, the new design placed the ducal residence (the pre-existing Castello di San Giorgio) right at the heart of the city, while the newly urbanised area was largely built up by courtiers whose dependence on the duke's employment was expressed by participating in the project. Ferrara stands as the most impressive example of urban renewal that may have been inspired the sorts of ideal city plan outlined by architectural theorists of the period.

With the development of firearms and canons introduced for siege warfare around 1500, the renovation of fortifications using canted bastions and geometrically designed ravelins rapidly became an essential feature for cities throughout Europe, placing the military technologies disseminated by architects such as Pietro Cataneo in high demand. These plans of course shared a common genealogy with the ideal city plans of the fifteenth century, but were instead deployed to practical ends. By the mid-sixteenth century the pentagonal or polygonal bastioned fortress or citadel had become the gold standard for military urbanism, and variants of these plans were deployed across Europe to both protect and secure urban centres, and as a means of establishing a military presence along strategic border territories. The diminutive town of Sabbioneta in northern Italy was designed and constructed for Vespasiano Gonzaga (1531-91) and is possibly the first laid out almost from scratch as a pentagonal new town that combined the court residence with a garrison (1558) and a slipped grid street layout intended to improve its defences. Pentagonal new towns of this sort provided the opportunity for vanity projects for princes, while offering state of the art defences for new foundations, such as in the case of the fortified port of Livorno founded by Duke Francesco I de' Medici (1576, built from 1590) to a design by Bernardo Buontalenti (1531-1608). Similar conditions led to the foundation by Jan Zamoyski (1542-1605) of the new town of Zamosc (Poland, 1580), again designed by an Italian, Bernardo Morando (c. 1540-1600). Instead, the first example of an executed polygonal plan was the Venetian garrison town of Palmanova, which served primarily defensive functions along the republic's eastern border (from 1593). Similar military citadels and new fortified districts with geometrically rigorous designs were added to countless cities, from Turin to Antwerp, Valletta to Nancy. Ultimately however, the bastioned pentagon developed primarily as a military technology, where gridded layouts and rigorous ordering of key buildings was an expression of martial values and centralised authority rather than any idealised vision of society.

The translation of architectural experimentation of the theorists of the fifteenth century into the military urbanism of the sixteenth century only underlines a reality that was present from the outset. The symmetry that defined ideal city designs of the early Renaissance, like the fortified cities of the following centuries, articulated in visual terms a totalising vision of centralised authority which could not accommodate the heterogeneity of urban life. Nevertheless, the formal qualities of these rigorously symmetrical designs had a lasting appeal which has informed urban design solutions of the twentieth century, while the enigmatically empty painted representations of ideal cities influenced various artists of the modern movement.


**Suggested Readings**

**Further reading**

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Fabrizio Nevola is Chair and Professor of Art History and Visual Culture at the University of Exeter, specialising in urban and architectural history of Early Modern Italy. He has published widely on Renaissance streets and urban design, including the award-winning *Siena: Constructing the Renaissance City* (Yale UP 2007). More recently he has also developed a strand of research that uses locative technologies to create a GPS-triggered audio-walk that explores the social history of Renaissance Florence: *Hidden Florence* (published 2014 for Android and iOS).