

# EAST CENTRAL EUROPE: BETWEEN THE BALTIC AND THE ADRIATIC

OSTMITTEUROPA: ZWISCHEN OSTSEE UND ADRIA

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The University of Debrecen  
Faculty of Humanities  
Institute of History



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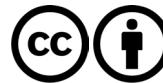
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# The Papal State and the Birth of the Modern Fortress: Innovation in Military Construction between the Late Middle Ages and the Early Modern Period\*

## ABSTRACT

Transformations from the fifteenth to the sixteenth centuries are particularly focused here on the emergence of the angular bastion trace. It argues that this “modern style” of fortification was not merely a response to advances in weaponry but a generative force that reshaped political communities, especially evident in the Papal State. Drawing on Paolo Prodi’s seminal work, the study highlights how these military innovations contributed to the Papal State becoming a prototype of the early modern state. The analysis traces the evolution of papal fortification policy from the mid-fourteenth century, examining initiatives under Cardinal Albornoz and subsequent popes, including significant projects like Rocca Pia and Matteo Nuti’s designs. The “Borgia moment” under Alexander VI is emphasized as a period of unprecedented quantitative and qualitative innovation, characterized by a centralized defensive network and cutting-edge architectural advancements, notably at Nettuno. The essay then details the continuity of this strategic vision under Julius II and Clement VII, despite periods of conflict, illustrating the ongoing integration of military infrastructure with broader state-building objectives. Finally, it notes that this intense period of design and construction preceded the formal codification of fortification treatises, underscoring a unique channel of knowledge transmission.

**Keywords:** bastioned fortifications, Papal State, military innovation, state building

## Introduction

The transition from the fifteenth to the sixteenth centuries marked a period of profound transformations, among which significant military changes stand out. Notably, around the turn of the sixteenth century, the angular bastion trace emerged, a new fortification model with far reaching implications. While the in-

\* This study was conducted as part of the Nationally Relevant Research Project funded by the Italian Ministry of University and Research (PRIN), code B53D23001780008, titled “*Alla moderna*” Fortresses for a Prototypical Early Modern State: The Bastion Forts of the Papal State, Principal Investigator Giampiero Brunelli.

creased destructive capacity of warfare – driven by advances in weaponry and tactics – is often emphasized, it has been less noted that the bastioned trace reveals a distinct kind of impact. The so-called demonstrates warfare's ability to fundamentally reshape political communities, influencing internal structures, social relations, and territorial organization. As political theorist Derek Scott Denman observed, in this specific case, “fortification is generative – it designs, builds, organizes, and reorganizes [so that] an examination of the methods of design and architectural<sup>1</sup> forms of fortification becomes indispensable to any account of power”.

This dynamic was particularly evident in the so-called *alla moderna* fortifications – that is, those built in the “modern style” – and it would be ideal if sixteenth-century observers had employed the term *modern* with the same meaning it holds for us today. Unfortunately for them, however, *modern* simply meant “current” or “recent”, without any sense of historical rupture or progress. What we now call *modern* carries implications that were entirely absent from their usage. And yet, it is difficult not to observe that, precisely as *alla moderna* fortifications were being constructed, the very form of political organization we now refer to as the *early modern State* was beginning to take shape.

In this context, it is appropriate to recall the work of a scholar who significantly contributed to our understanding of these transformations: Paolo Prodi (1932–2016). In one of the most influential twentieth-century works of history on the early modern period, *The Papal Prince*, Prodi clearly recognized that fortifications were among the key innovations that contributed to the transformation of the Papal States into a prototype of the modern State.<sup>2</sup>

This essay intends to investigate the possible connections between these different expressions of *modernity*, revealing how highly significant experiments were conducted in an ostensibly peripheral state entity: the Papal States. We will examine fortification initiatives in this territory that predate 1550 – a date that is not arbitrary, as it marks the period when the genre of fortification treatises began to take shape. As we shall see, the intensity of design development in this context even preceded the appearance of printed manuals on fortification, which, from the second half of the sixteenth century onwards, would evolve into a distinct genre of technical literature.

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<sup>1</sup> Denman, Derek S., “On fortification: Military architecture, geometric power, and defensive design”, = *Security Dialogue* 51:2–3, 2020. 231–247. 232–233.

<sup>2</sup> Prodi, Paolo, *The Papal Prince: One Body and Two Souls: The Papal Monarchy in Early Modern Europe*. Cambridge, 1988. 52–53.

## The Roots: Mid-Fourteenth to Late Fifteenth Century Trends

The process of reorganizing Church territories began while the popes still resided in Avignon. Starting in 1353, the cardinal legate and vicar general Gil Álvarez de Albornoz led a series of pacification campaigns in the cities and military operations against lords who were expanding their domains at the Church's expense. Papal authority had to be successively reasserted in the Patrimony of Saint Peter, the Duchy of Spoleto, the March of Ancona, the County of Romagna, and the District of Bologna. In the communes, vicars were appointed to govern in the name of the Apostolic See and of Albornoz himself. Then, between 1354 and 1375, at least thirty-two fortified structures were built or rebuilt in the Papal State at the initiative of the legate and vicar general himself.<sup>3</sup> His efforts were not limited to restoring pre-existing structures. Albornoz commanded a group of fortifications to which he attributed specific relevance, in places – Ancona, Perugia, Orvieto, among others – that were destined to become key points for the security of the surrounding provinces and the State itself (needs often highlighted in contemporary documents). In this regard, the concept of a “castellisation de l'autorité”<sup>4</sup> (encastellation of authority) has been put forward. More precisely, it is possible to state that this marked the inception of a coherent building program, aimed at the gradual creation of a hierarchical network of interconnected systems designed to structure the territory. A telling illustration of this process can be found in the very detailed maps presented by Armand Jamme, which clearly demonstrate these efforts.<sup>5</sup> Furthermore, the establishment of an office of inspector superintendent of fortresses in the Marche region – that is, an officer *super visitatione roccharum Marchiae* – also reveals that innovations in fortifications' governance emerged surprisingly early in the Papal States.

The network of fortresses established by Cardinal Albornoz did not entirely outlast his death. Indeed, one must consider the political context of the late Trecento in the Church's territories: revolts – particularly between 1375 and

<sup>3</sup> Lanconelli, Angela, “Egidio de Albornoz e le rocche pontificie”, In. Panero, Francesco – Pinto, Giuliano (eds.), *Castelli e fortezze nelle città italiane e nei centri minori italiani (secoli XIII–XV)*. Cherasco, 2009. 227–249.

<sup>4</sup> Jamme, Armand, “Forteresses, centres urbains et territoire dans l'État pontifical. Logique et méthodes de la domination à l'âge albornozien”, In. Crouzet-Pavan, Élisabeth (ed.), *Pouvoirs et édilité. Les grands chantiers dans l'Italie communale et seigneuriale*. Rome, 2003. 375–417. 412.

<sup>5</sup> Cf. Jamme, Forteresses, centres urbains, 2003. 415–417.

1376 – and a pervasive atmosphere of uncertainty undermined papal authority. Even after their permanent return from Avignon to Rome in 1377 – or more accurately, after 1417 – the popes exercised territorial power with caution, often negotiating the terms of their rule with local powers. As the case of Bologna demonstrates, such negotiations could result in agreements that acknowledged the autonomy of municipal institutions in matters of defense. Chapter IX of the 1447 Capitula, for example, entrusted control over fortifications – both within the city and in its surroundings – to the local government. Nonetheless, in a political climate that was anything but firmly consolidated,<sup>6</sup> Albornoz's earlier efforts proved valuable. Several fortresses began to be reused and revitalized as papal control over the territory gradually strengthened.<sup>7</sup> Then, in the aftermath of the mid-fifteenth-century crisis, this process gained renewed momentum.

Before analyzing this development further, it is essential to lay out a guiding premise. As is well known thanks to the celebrated study by Paolo Prodi already mentioned, Nicholas V's testament laid blame for papal misfortunes squarely on the lack of fortifications, particularly in Rome. The pope argued that both older and more recent attacks could have been avoided by means of strong fortifications, especially within Rome itself. This point must be emphasized: Pope Nicholas V's conception of sovereignty focused on concrete objectives – public order and the well-being of his subjects – not a general well-being, but one that ultimately aimed at eternal salvation. What is neither obvious nor surprising is that such a spiritual horizon was to be pursued through resolutely pragmatic means. Nicholas V envisioned two key tools for achieving these ends: a policy of expanding administrative intervention within papal territories and military strength (primarily fortifications). This emphasis on fortifications took shape both in the renewed attention given to the network of castellans – as if a newly emerging awareness of the territorial articulation of the Church's temporal dominion had finally begun to inform papal policy – and in the form of new constructions, some of which were impressive.

Turning to the first aspect, the budget of the Papal States compiled after 1447, which records the positions of castellans paid by the Apostolic Chamber, provides valuable insight into the geography of fortifications across Church territories. Initially covering 43 localities, the list grew to 73 under Pope Paul

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<sup>6</sup> Cf. for a helpful summary of the subject: Pellegrini, Marco, *Il papato nel Rinascimento*. Bologna, 2010.

<sup>7</sup> Cf. Lanconelli, Egidio de Albornoz, 2009. 249.

II Barbo (1417–1471), with the castellans' salaries already included in the accounts of the provincial treasuries. Castellans were key figures in the system of territorial governance that the papacy was establishing in the provinces. It is therefore no surprise that Rome appointed them in significant numbers and often for extended terms – up to three years, sometimes renewed for another three. For the purposes of this study, however, what matters most is the dense network of fortified settlements directly under the dominion of the Apostolic See. In the lists reproduced in Appendix 1, we find not only a large number of towers and small castles already known since the Middle Ages, but also some relevant initiatives. The *Arx Major* of Assisi underwent substantial improvements, continuing even the works envisioned by Count Giacomo Piccinino, who ruled the Umbrian city for five months between 1458 and 1459.<sup>8</sup> The fortress of Tivoli, known as Rocca Pia, also stands out. Commissioned by Pius II Piccolomini, it was built in just one year, starting in August 1461 – although the bulk of the masonry was completed in just over a month. It has been said that the fortress “stands with one foot in the Middle Ages and the other in the Renaissance”, as its design includes “innovations introduced for a less empirical and more rational use of artillery”.<sup>9</sup> Indeed, despite the tall cylindrical towers at each corner of its quadrangular layout, it incorporated more up-to-date design solutions.

Finally, one must mention the significant modernization efforts commenced in the northern part of the Papal States in these same years. The Umbrian architect Matteo Nuti (d. 1470) undertook significant fortification works in Fano, where he designed newly scarped walls and a polygonal proto-bastion crowned with corbels. Projecting outward from the main circuit of the city walls like a thicker-walled rondella, it served to reinforce the entire corner of the urban perimeter, creating a link between the city gate and the remnants of the ancient Roman fortifications. Although still far from the complex, articulated bastion systems that would emerge later in the fifteenth century, Nuti's intervention represented a noteworthy innovation in the defensive architecture of the time. Concurrently – and at least until 1465 – he was also active at the fortress of Cesena, working under the authority of Pope Paul II. There, he modernized existing square-plan structures and integrated them into a more cohesive defensive

<sup>8</sup> Monacchia, Paola, “Nuovi e vecchi documenti intorno alla rocca maggiore di Assisi”, In. Nico Ottaviani, Maria Grazia (ed.), *Rocche e fortificazioni nello Stato della Chiesa*. Napoli, 2004. 183–212. 194–195.

<sup>9</sup> Pierattini, Camillo, “Rocca Pia. Vicende storiche e funzione difensiva”, = *Atti e memorie della Società Tiburtina di storia e d'arte* 55, 1982, 133–190. 152–153. (My translation).

layout. This phase marked a decisive shift in his professional trajectory: appointed supervisor of the city's defenses following the re-establishment of papal rule, Nuti began experimenting with new configurations – alternating polygonal and circular bastions – and quickly emerged as a key figure in the broader papal initiative to update and consolidate its military infrastructure. In 1466, Nuti was appointed superintendent of works at Ronciglione, a strategically positioned town in northern Latium, in the present-day province of Viterbo. This role earned him the title of “magister arcium”,<sup>10</sup> recognizing his technical expertise and institutional importance. Indeed, Nuti’s designs – though still transitional in form – anticipate the technical and strategic turn that would define the fortification practices between fifteenth and sixteenth century.<sup>11</sup>

A similar trajectory is visible in the 1487 appointment of Baccio Pontelli – one of the foremost military engineers of his time – to oversee the fortresses of Osimo, Jesi, and Offida. All three towns lie within the Marche region, which by the late fifteenth century was emerging as a key laboratory for innovative experimentation in military architecture. Perhaps the clearest expression of this trend can be seen in the increasing use of relatively low polygonal towers, such as those constructed in Corinaldo. These structures were specifically designed to withstand artillery fire while offering elevated platforms capable of mounting and operating advanced artillery pieces – thus integrating offensive and defensive functions within a single, compact form<sup>12</sup>

## The “Borgia Moment”

The politics of fortress renovation under Alexander VI was a truly impressive undertaking in both quantity and quality, involving at least 56 localities. I call this the “Borgia moment” – a time when something extraordinarily new was emerging.

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<sup>10</sup> Volpe, Gianni, “Nuti, Matteo”, In. *Dizionario Biografico degli Italiani*. Vol. 79. Roma, 2013. 5–8.

<sup>11</sup> Domeniconi, Antonio, “Documenti relativi alla ricostruzione della rocca di Cesena dopo la fine della signoria malatestiana (1466–1480)”, = *Studi Romagnoli* 11, 1960, 287–333.; Repetto, Barbara, “L’architettura militare del periodo di transizione da Sisto IV ad Alessandro VI”, In. Chiabò, Myriam – Gargano, Maurizio (eds.), *Le rocche alessandrine e la Rocca di Civita Castellana. Atti del convegno (Viterbo 19–20 marzo 2001)*. Roma, 2003. 173–190. 185.

<sup>12</sup> Cf. Adams, Nicholas, “L’architettura militare in Italia nella prima metà del Cinquecento”, In. Bruschi, Arnaldo (ed.), *Storia dell’Architettura. Il primo Cinquecento*. Milano, 2002. 546–561. 548.

Let's start from Rome, focusing on Castel Sant'Angelo. From March 1495, work began to envelop the towers of Nicholas V with polygonal bastions formed by a thick, seven-sided outer wall. Before 1497, there is no firm evidence of Antonio da Sangallo the Elder's continuous presence at the Roman construction site, suggesting that he completed works already underway. Having settled in Rome by 1497, Sangallo designed a new outer wall between the bastions facing the Tiber, parallel to the older one, so that the front section of the Castello presented a double defensive curtain. The most imposing addition to the new defensive system, also attributed to Antonio, was a large cylindrical tower (no longer extant) placed between the bridge over the river and the Castello. It measured approximately 20 meters in diameter and perhaps 15 meters in height, was built of travertine blocks, featured a marble string course, a sloped lower section, and cannon openings – somewhat reminiscent of the tower of Nicholas V near Porta Sant'Anna in the Vatican, which is still standing on site.<sup>13</sup>

However, Castel Sant'Angelo represented just one element within a broader strategy. If we examine the map (Figure 1), it becomes evident that Alexander VI was actively engaged in constructing a coherent defensive network, anchored to the grid of ancient Roman roads leading to Rome. His aim was to establish a continuous belt of fortresses stretching from north to south, thereby reinforcing territorial control over lands subject to the Apostolic See. For this reason, the pope intervened in towns such as Civitavecchia on the Via Aurelia; Bagnoregio, Montefiascone, Viterbo, and Isola on the Via Cassia; Terni on the Via Flaminia; Tivoli and Vicovaro on the Via Tiburtina. In the North, significant works were undertaken in Cesena, a strategic location situated at the crossroads of the Via Emilia and the road leading to Bagno di Romagna, thereby connecting also to Sansepolcro in Tuscany. Similarly, Monticelli was fortified to maintain surveillance over the important route between Arezzo and Foligno, while interventions were also carried out the Umbrian town of Todi and Narni. Additional construction and reinforcement took place in Sassoferato, Fabriano, and Camerino, where a new fortress was erected. On the Adriatic side, alongside the imperative of securing the coastline, there was a pressing need to control the route extending from the port of Ascoli Piceno to Rieti and, from there, along the Via Salaria towards Rome.<sup>14</sup> One of papa Borgia's key

<sup>13</sup> Spagnesi, Piero, *Castel Sant'Angelo: la fortezza di Roma*, Roma. 1995. 9–28. 127–129.

<sup>14</sup> Cimbolli Spagnesi, Piero, "Dalla spiaggia di Nettuno: difese dello Stato ecclesiastico in Età moderna", In. Caperna, Maurizio (ed.), *Il forte di Nettuno: storia, costruzione e restauri*. Roma, 2006. 71–86. However, it should be noted that the works on the Rocca of Montefiascone begun in 1503 remained unfinished. Cf. Bruschi, Arnaldo – Zampa, Paola,

strategic priorities was the area extending from the Aniene Valley (a tributary of the Tiber) toward the southern approaches – an area that required uninterrupted surveillance and where he intended to install members of his family. In this context, Alexander VI, who also made significant investments in the fortification of Subiaco, the abbey stronghold of which he was titular, established two new feudal states by confiscating lands from the Caetani and Colonna families: the Duchy of Nepi and the Duchy of Sermoneta. The latter, in particular, served the strategic objective of securing and monitoring the southern frontier of the Papal States.

To support this defensive framework, the pope ensured the constant presence of castellans and garrisons in critical strongholds, creating a permanent military and administrative infrastructure.<sup>15</sup> This system demanded significant financial investment, estimated at between 16 000 and 20 000 gold ducats annually. A considerable share of these costs was delegated to provincial treasuries, which were expected to cover expenses at the local level. To secure a more predictable and efficient revenue stream, Alexander VI introduced the practice of *appalto* – contracting out the collection of provincial taxes to private financiers in exchange for fixed payments. Nonetheless, a substantial portion of the military budget – particularly for sites of strategic relevance – remained under the direct oversight of the Apostolic Chamber, the central financial authority of the Papal States.

It might seem, paradoxically, that the management of the system was more advanced than the structures themselves. In fact, a prevalent view in the historiography – articulated notably by the eminent scholar Francesco Paolo Fiore<sup>16</sup> – holds that papal fortification projects in the fifteenth century remained largely bound to medieval models. According to this interpretation, it was not the popes but their rivals – cardinals such as the powerful Giuliano Della Rovere, local dynasties, and powerful noble families such as the Malatesta, Orsini, and Montefeltro – who introduced and experimented with cutting-edge defensive

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Giamberti, “Antonio, detto Antonio da Sangallo il Vecchio”, In. *Dizionario Biografico degli Italiani*. Vol. 54. Roma, 2000. 273–287.

<sup>15</sup> Vaquero Piñeiro, Manuel, “Il sistema delle rocche pontificie durante il pontificato di Alessandro VI. Finanziamento e governo”, In. Nico Ottaviani, Maria Grazia (ed.), *Rocche e fortificazioni nello Stato della Chiesa*. Napoli, 2004.

<sup>16</sup> Fiore, Francesco Paolo, “La rocca di Senigallia e l’architettura militare al tempo di Alessandro VI”, In. Bonvini Mazzanti, Marinella – Piccinini Gilberto (eds.), *La quercia dai frutti d’oro: Giovanni Della Rovere (1457–1501) e le origini del potere roveresco*. Ancona, 2004. 135–155.

innovations. Moreover, Alexander VI's fortification initiatives after 1495 are often interpreted as primarily oriented toward the protection and aggrandizement of his family – an extension of his well-documented nepotistic policies – rather than toward the institutional needs of the Papal States. Nevertheless, these theses warrant reconsideration. The rigid distinction between public and private spheres that often informs interpretations of papal policies in the early sixteenth century appears untenable in light of contemporary perceptions, which did not sharply differentiate personal ambition from institutional governance in the exercise of papal power. This ambiguity is clearly reflected in the registers of the Apostolic Chamber, where expenditures for the fortresses of the Papal States are recorded alongside those made for sites held by members of the Borgia family, revealing a continuum of political investment that cut across various levels of familial and institutional authority. The case of Sermoneta clearly illustrates how the administrative apparatus – and, at its highest financial level, the Apostolic Chamber – was mobilized to oversee fortresses closely tied to the Borgia family, thereby advancing both institutional and dynastic objectives. Work at Sermoneta began in November 1499 and was funded by the Apostolic Chamber.<sup>17</sup> From November 1502 onward, a commissioner was also appointed to oversee the entire province of Maritima et Campagna (southern Lazio), in which Sermoneta was geographically included: Massimo Grato, *scutifer Papae*, with 20 gold ducats per month.<sup>18</sup>

Moreover, the charge of architectural traditionalism, advanced – as previously noted – by Francesco Paolo Fiore, fails to account for a series of significant developments. The launch of notably innovative fortification projects at strategic sites – including Castel Sant'Angelo, Rocca di Papa, Nepi, Civita Castellana, Subiaco, and Nettuno – reveals a deep commitment to military defense. Artillery procurement was now being centralized. As early as 1502, a substantial financial investment – supported by the Sienese banking network – was directed toward the purchase of artillery to be deployed in the state's strongholds. In 1503, the appointment of a general inspector of fortresses, Magister Antonius Romanus, further signaled a shift toward a centralized and systematic approach to fortification.<sup>19</sup> Therefore, these were not merely isolated projects but part of a broader movement characterized by an overarching vision:

<sup>17</sup> Cf. Müntz, Eugène, *Les arts à la cour des papes Innocent VIII, Alexandre VI, Pie III*. Paris, 1898. 225–227.

<sup>18</sup> Cf. AAV, Camera apostolica, Introitus et exitus, 532, f. 147v.

<sup>19</sup> Cf. Müntz, Les arts, 1898. 159, n. 3. Cf. also AAV, Diversa cameralia, 54, f. 202v: Mandato Ventura Benecessori ep. Massan. pro artiglieria. (This is the payment order, dated

the coordination of defensive works across territories under both papal and familial dominion – territories which were not managed as separate spheres but formed an indivisible whole in both strategic design and administrative practice. Supported by a cadre of expert engineers, the presence of the accomplished architect Antonio da Sangallo the Elder in Rome further suggests the emergence of a coherent and dynamic strategy of military modernization, although the precise timing of his arrival in the city remains uncertain.<sup>20</sup>

Very little certainty is also available about the greatest achievement of the ‘Borgia moment,’ namely the fortress built at Nettuno (Figure 2). This fortress has a geometric and symmetrical model, the simplest form of fortified enclosure that, much later, at least three decades later, Renaissance theorists would propose in their treatises because of the perfectly studied measures, both in terms of the footprint of the bulwarks, here fitted with round *orecchioni* (curved shoulders that connect the face of a bastion to its flanks, designed to absorb cannon fire more effectively by deflecting projectiles, provide better visibility and firing angles from within the bastion, and protect the curtain walls and adjacent flanks by limiting direct enemy fire). Francesco di Giorgio Martini, author of numerous manuscript drawings that circulated widely, had already foreshadowed such a plan, imagining it for a *villa*, not for a fortress (Figure 3).<sup>21</sup> There is no explicit evidence of contact between Francesco di Giorgio Martini and the Sangallo family regarding. Arnaldo Bruschi also speculated on an intervention by Bramante.<sup>22</sup> What is certain, the “Borgia moment” gave architectural history the first example of a regular quadrangular fortification equipped with a pointed (or heart-shaped) bastion at each vertex. It was to be the model for a whole, very long season of modern fortification, which spread to many parts of Europe and-through the colonies-even outside the Old Continent.<sup>23</sup>

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June 12, 1502, of one thousand gold scudi to Ventura Benassai, Bishop of Massa Marittima, for the purchase of artillery to be used in the fortresses and strongholds of the Papal States).

<sup>20</sup> Cf. Zampa, Paola, “Antonio da Sangallo il Vecchio. Da Firenze e Roma alla provincia toscana”, In. Bruschi, Arnaldo (ed.), *Storia dell’architettura italiana*. 2002. 240–253. 250, n. 5.

<sup>21</sup> Puccillo, Cesare, *La fortezza dei Borgia*. Nettuno, 1991, 64–65. That same plan has been attributed to Baldassarre Peruzzi. Cf. Marani, Pietro C., “A Reworking by Baldassare Peruzzi of Francesco di Giorgio’s Plan of a Villa”, = *Journal of the Society of Architectural Historians* 41, 1982, 181–188.

<sup>22</sup> Bruschi, Arnaldo, “L’architettura a Roma al tempo di Alessandro VI: Antonio da Sangallo il Vecchio, Bramante e l’Antico”, = *Bollettino d’arte* 70, 1985, 67–90.

<sup>23</sup> Cf. Fara, Amelio, *Il sistema e la città. Architettura fortificata dell’Europa moderna dai trattati alle realizzazioni, 1464–1794*. Genova, 1989.

## Continuity in a Time of Conflict

Even Julius II – the cardinal who had commissioned the fortress of Ostia and the fortification of Grottaferrata in direct opposition to Pope Borgia's policies – actively pursued the reorganization and restoration of the Papal States' fortresses. This wave of interventions encompassed key sites such as Ostia, Civita Castellana, Viterbo, Montefiascone, Forlì, and Imola. Among these, the new fortress at Civitavecchia represented the most ambitious and architecturally impressive project. Notably, Bologna itself – an exceptional case – was also fortified with a stronghold near Porta Galliera. Beyond individual works, however, what truly distinguished Pope Della Rovere's approach was his commitment to a unified defensive strategy for the state. To achieve this, he convened a specialized commission of military and engineering experts charged with developing a coherent plan to fortify the Papal States' most strategically critical territories.<sup>24</sup>

Let us dwell for a moment on Civitavecchia. The new fortress, whose foundation stone was laid on December 14, 1508, reflects a markedly different architectural conception, especially in the shaping of its bastions. Bramante likely drew inspiration from earlier fifteenth-century models, such as the fortress of Pesaro – designed by Luciano Laurana for Alessandro Sforza – which featured a large rectangular plan suited to flat terrain and was conceived to provide effective artillery-based defense. However, Bramante presented Julius II with a more ambitious and revised scheme: a geometrically composed structure of monumental character, fully clad in travertine, which elevated its symbolic and architectural significance. The overall layout, circular corner towers, and refined decorative elements evoke classical principles of symmetry and proportion, while the artillery emplacements – distributed across two levels between the curtain walls and towers – ensured a functional and layered defense. The circular bastions, in particular, were designed to offer maximum resistance through their form, minimizing the impact of direct artillery strikes and facilitating wide-ranging fields of fire.<sup>25</sup>

Between 1507 and 1508, near Porta Galliera in Bologna, Pope Julius II commissioned the construction of a fortress that intersected the city's existing walls – so that half of the structure faced inward, toward the city itself.

<sup>24</sup> Cf. Jähns, Max, *Geschichte der kriegswissenschaften, vornehmlich in Deutschland, Altertum, Mittelalter, XV. und XVI. Jahrhundert*. München–Leipzig, 1889. 774–775.

<sup>25</sup> Cf. Cantatore, Flavia, "Li torroni sono ver la offesa.' Evoluzione e ruolo delle fortificazioni nell'architettura del Rinascimento", = *RR. Roma nel Rinascimento* 36, 2019, 43–51. 46.

This was no accidental feature: the design, with its low, thick, sloped walls and integrated artillery positions, was a deliberate assertion of papal authority over a city that had long maintained a strong civic identity and a tradition of autonomy. Not far from the fortress, construction began in 1508 on a separate citadel: a large quadrangular complex intended to house the garrison and serve as an additional node of military control. Bologna, however, did not passively accept what it perceived as an imposition and a provocation. In 1511, following a French bombardment of the fortifications and the restoration of the Bentivoglio family to power with French support, the entire military complex was razed to the ground. It was never rebuilt. Yet the episode remains telling: the very fact that a pope sought to fortify Bologna – the second city of the Papal States after Rome – speaks to a shifting strategic outlook, in which direct military occupation and urban fortification were to become instruments at once defensive and disciplinary of papal governance.<sup>26</sup>

The years 1513–1525 marked a phase of heightened military conflict and strategic uncertainty, characterized by renewed cycles of Franco-Spanish confrontation and the increasingly fragile position of the Papal States within the broader Italian Wars. Under Pope Leo X, although fortification campaigns did not match the scale of earlier initiatives, several targeted interventions were nonetheless undertaken. Antonio da Sangallo the Younger and his brother, Giovan Battista, were involved in works at the Rocca of Montefiascone,<sup>27</sup> Civitavecchia remained a central focus of papal defensive planning. Between 1512 and 1520, Antonio da Sangallo the Younger continued to oversee fortification projects at this crucial port – the principal naval base of the papal fleet on the western coast – strengthening its role as a supply hub for troops engaged in maritime campaigns, particularly those directed against the Ottoman Turks structural improvements and a new gate were executed at Nepi, and Civitavecchia remained central to ongoing defensive planning: again, between 1512 and 1520, Antonio da Sangallo the Younger followed fortifications project for this main naval base of the papal fleet on the west coast of the Papal states, key supply point for troops needed for wars on the sea against the Turks.<sup>28</sup>

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<sup>26</sup> Cf. Benevolo, Giancarlo, *Il Castello di Porta Galliera. Fonti sulla fortezza papale di Bologna: 1330–1511*. Venezia, 2006.

<sup>27</sup> Cf. Antonucci, Micaela, “Leone X e Antonio da Sangallo il Giovane nella Roma medicea”, In. Bartolozzi Casti Gabriele (ed.), *La rocca di Montefiascone e il Museo dell’Architettura “Antonio da Sangallo il Giovane”*. Roma, 2010. 415–434.

<sup>28</sup> Adams, Nicholas, *L’architettura militare*, 2002. 556.

These measured operations reveal a continued, if selective, investment in military architecture. And yet, even as external pressures intensified, the papacy began to formulate a more integrated and systematic approach to territorial defense – an effort that gained momentum precisely in the years leading up to the 1527 Sack of Rome. Indeed, before the shock of the Habsburg army's invasion of the papal capital, it is worth recalling that another event had already profoundly shaken contemporary observers – and, above all, Pope Clement VII de' Medici. This was the Battle of Pavia, fought on 24 February 1525, during which something unthinkable occurred: the King of France was taken prisoner by the Emperor. In the aftermath of that defeat, Charles V's political and military dominance seemed unchallengeable, fuelling fears of outright domination – if not direct conquest – throughout the Italian peninsula. The northern cities of the Papal States – at the time including Parma and, above all, Piacenza, located only approximately 50 kilometers from Pavia – appeared particularly vulnerable to a potential attack. In response, in early 1526, Pope Clement VII appointed a team of experts, led by Antonio da Sangallo the Younger, to carry out a reconnaissance mission across Emilia, Romagna and the so-called "Lombardia". Their mandate was to inspect the existing fortifications and begin formulating plans for their modernization. The group included Michele Sanmicheli, Antonio Labacco, Pier Francesco Florenzuoli (known as Pierfrancesco da Viterbo), and Giuliano Leno. Their mission was concluded by the following April. The architects' work necessarily took the form of advisory reports aimed at updating existing fortifications – ancient castles that had become inadequate in the face of evolving military technologies. In addition, many of these last-named were situated within city centers – a location that had become very difficult to defend effectively. In addition, the quadrangular layout of fortresses in cities such as Forlì, Faenza, Imola, Cervia, and Ravenna was now widely deemed unsuitable. Given that the architects were required to intervene on existing structures, they were unable to correct these fundamental flaws, and could only propose partial solutions to mitigate the most pressing vulnerabilities. Among the recurring recommendations in the reports on Imola, Faenza, and Ravenna was the urgent need to restore the moats, which had likely become ineffective due to prolonged neglect. Where curtain walls required reinforcement, scarped walls – better suited to withstand artillery fire – were generally favored. In Forlì, the parapets were deemed inadequate, and it was further noted that some makeshift defensive structures, such as barrels filled with stones

and earth, posed a serious risk: if struck by artillery, they could cause more harm to the defenders than to the enemy.<sup>29</sup> Provisions were certainly made to address the most urgent defensive needs. Yet, as one might expect, the two to three years immediately following the 1527 Sack of Rome marked the most difficult period for the sixteenth-century Papal States. Pope Clement VII resumed his fortification policy only toward the end of his pontificate. In 1532, construction began on a new defensive system for Ancona – an important Adriatic port – once again entrusted to Antonio da Sangallo the Younger. The following year saw a significant reinforcement of the city's overall defenses. Extensive excavation works were rapidly carried out in the upper part of Ancona, and by the end of May 1533, the foundations had been laid for a vast new structure, with a front nearly 230 meters long and more than 140 meters wide, incorporating eight bastions.<sup>30</sup>

Almost simultaneously, Sangallo – whose involvement in papal fortification projects was particularly intense during these years – was also active in other cities. In Fano, he designed a highly innovative bastion to reinforce the city walls, while in Ascoli Piceno he conducted a site visit alongside Bartolomeo de' Rocchi.<sup>31</sup> Work to give a “modern-styled” fortress to the Picenian city would begin in 1540. By this date, Sangallo was busy on several fronts. He was responsible for the construction of the Mastio of the fortress of Civitavecchia (1535); a comprehensive yet ultimately unrealized plan for the fortification of Rome (1537), of which the Ardeatino bastion stands as a surviving element; the new defensive works at Nepi commissioned by Pier Luigi Farnese, Duke of Castro; the bastion known as the “Cassero” in Ancona; and, above all, the Rocca Paolina in Perugia. Constructed immediately after the failed rebellion and subsequent surrender of the city to the papal army in 1540, the fortress – once again designed by Antonio da Sangallo the Younger – was a highly articulated complex.

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<sup>29</sup> Cf. Zavatta, Giulio, 1526. *Antonio da Sangallo il Giovane in Romagna. Rilievi di fortificazioni e monumenti antichi romagnoli di Antonio da Sangallo il Giovane e della sua cerchia al Gabinetto Disegni e Stampe degli Uffizi*. Imola, 2008. 13–29.

<sup>30</sup> Cf. Rinaldi, Simona “L’architettura militare italiana della Cittadella di Ancona: tecniche costruttive e sistemi difensivi del XVI secolo”, In. Palazón, Julio Navarro – García Pulido, Luis José (eds.), *Defensive Architecture of the Mediterranean*. Vol. 11, Granada–València, 2020. 825–832.

<sup>31</sup> Cf. Bruschi, Andrea, “La Fortezza Pia di Ascoli Piceno sul Colle dell’Annunziata. Da presidio territoriale a struttura ‘alla moderna’”, In. *Storia urbana*. [forthcoming].

The Rocca Paolina (Figure 4) was an imposing architectural complex that transformed Perugia's urban fabric, rising across its hilly terrain on ground once occupied by religious and residential structures. At its heart stood a massive brick fortress on Landone Hill, built over the confiscated palaces of the Baglioni family and used as a papal residence – set deliberately apart from the city center. Below, in the Tiber valley, lay the San Cataldo Fort, shaped as a pair of demi-bastions (*tenaglie*, in Italian) to defend the lower ground. Connecting the two was a monumental 120-meter corridor, engineered to overcome the steep elevation. Together, these elements formed a unified and intimidating military presence that violently disrupted the existing cityscape, dominating the surrounding architecture both physically and symbolically.

The Rocca Paolina is modern not only because it was designed according to the angular bastioned system, with tenaglia-style outworks capable of targeting potential attackers. The entire political operation itself is one of remarkable modernity. As the most recent analyses have shown,<sup>32</sup> what unfolded in Perugia was a complex intervention: Pope Farnese not only ordered the fortress to be built over the properties of families who had openly challenged papal authority – such as the Baglioni – but also incorporated into it the city's most ancient remains, including the Etruscan Porta Marzia, long regarded as a symbol of local independence. The Rocca was not conceived as a purely military installation, it was also intended to serve as the residence of the papal legate – the highest authority in the city and the province of Umbria – and, on occasion, of the pope himself, who did in fact stay there. In many ways, the Farnese-era interventions at Castel Sant'Angelo in Rome followed a similar logic. The ancient Mausoleum of Hadrian was entirely reinterpreted as a papal fortress and, at the same time, made ready to serve as a papal residence – just as it had during the Sack of Rome in 1527, when the pope took refuge within its walls. Castel Sant'Angelo and the Rocca Paolina thus mirrored one another, both architecturally and symbolically.<sup>33</sup> Papal rule – through curtain walls and brick bastions designed with artillery lines of fire in mind – was thus asserted through a visible and enduring mark imposed upon the urban landscape.

<sup>32</sup> Ng, Morgan, *Form and Fortification. The Art of Military Architecture in Renaissance Italy*. New Haven 2025.

<sup>33</sup> Ng, Form and Fortification, 2025. 147.

## Conclusion

By this point, the entire Papal State had become the terrain upon which both the fortification policies promoted by the popes and the design visions of the most accomplished architects were being exercised. A unitary conception of the Papal States had taken shape. A map of the territory, datable to the period just before the mid-sixteenth century and attributed to Bartolomeo de' Rocchi – trained as an assistant to Antonio da Sangallo the Younger – already includes even minor centres such as Nettuno, where the fortress front and its *mastio* are clearly rendered (Figure 5), as well as the triangular plan of the fortress at Ostia, built by Baccio Pontelli for Cardinal Giuliano della Rovere (the future Julius II). What is most striking is that the phase examined in this essay – by no means concluded, as the seventeenth century would continue to witness significant developments *in alla moderna* bastion fortifications – preceded any systematic codification of such material in the form that would later become customary in the publishing world: the fortification treatise. Though such treatises began to be written in the 1530s – often remaining in manuscript form – they only began to circulate widely through booksellers' catalogues after 1550.

Evidently, even “modern” solutions circulated by way of “ancient” channels of knowledge transmission.

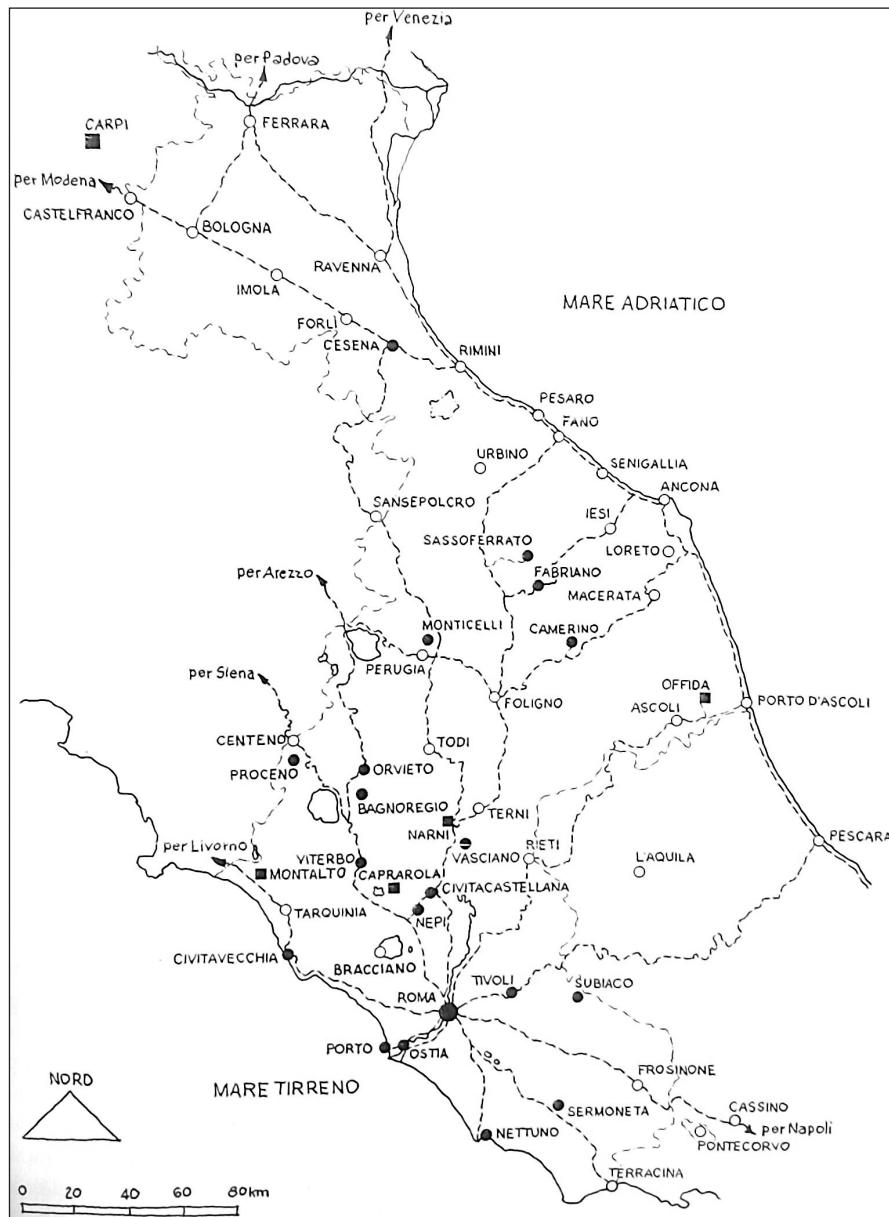


Figure 1: Fortresses and strongholds of the Papal States under Pope Alexander VI Borgia (1492–1503). Black squares indicate adaptations and new fortifications before Charles VIII's invasion (1494). Black circles mark new fortifications from the rest of the pontificate; white circles mark other sites. Original work by Piero Cimbolli Spagnesi.

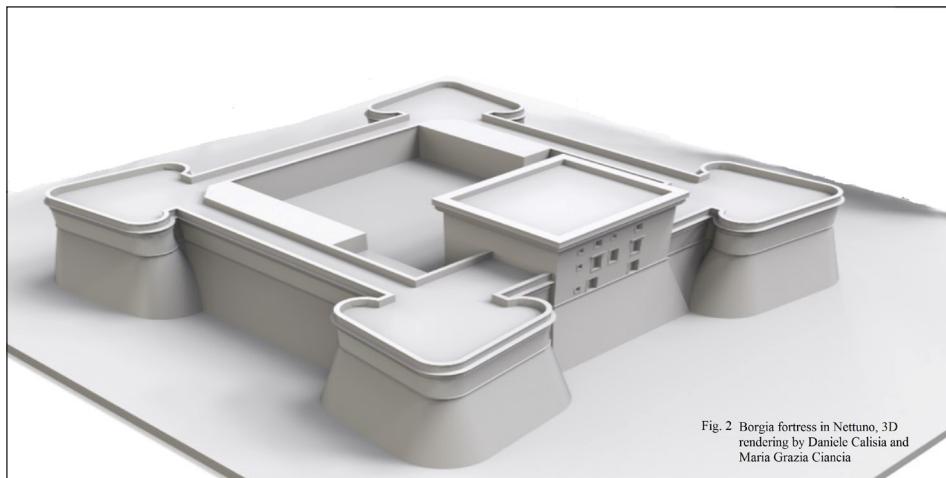


Fig. 2 Borgia fortress in Nettuno, 3D rendering by Daniele Calisia and Maria Grazia Ciancia

Figure 2: Borgia fortress in Nettuno, 3D rendering by Daniele Calisia and Maria Grazia Ciancia.

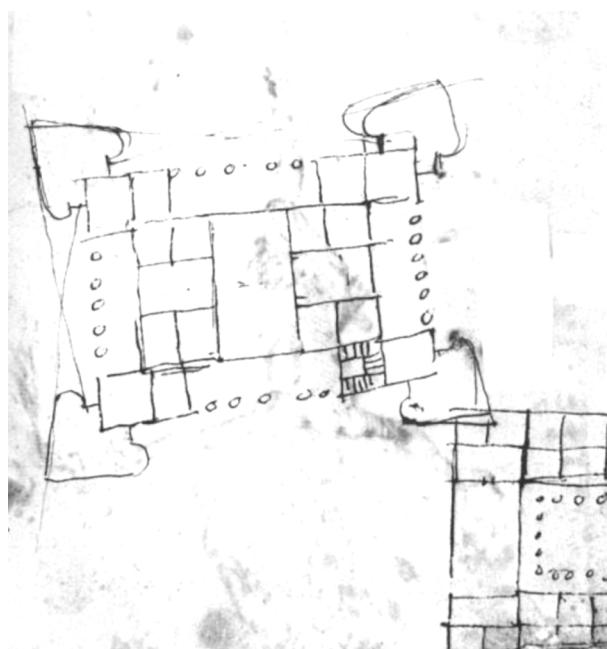


Figure 3: Palace with four bastions by Francesco di Giorgio Martini, second half of the XV century (Firenze, Uffizi. Gabinetto dei disegni e delle stampe, inv. 336 A).



Figure 4: Giuseppe Rossi, Rocca Paolina in Perugia (Galleria Nazionale dell'Umbria).



Figure 5: Bartolomeo de' Rocchi, collaborator of Antonio da Sangallo the Younger (fl. 1550), Strongholds of the Papal States (Firenze, Uffizi. Gabinetto dei disegni e delle stampe, inv. 4228 A).

## **EAST CENTRAL EUROPE: BETWEEN THE BALTIC AND THE ADRIATIC OSTMITTEUROPA: ZWISCHEN OSTSEE UND ADRIA**

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The East Central Europe: Between the Baltic and the Adriatic (ECE) is a peer-reviewed academic journal published by the Institute of History at the Faculty of Humanities, University of Debrecen. As its title suggests, the journal focuses on the history of Central Europe, covering the region between the Baltic and Adriatic Seas. This region was for centuries a crossroads and meeting point where diverse ethnic groups, religions, traditions, and political entities interacted in unique ways. In addition to studies directly examining the history of the region, the editors welcome methodologically and/or theoretically relevant contributions for the analysis of historical processes.

The journal seeks to create an interdisciplinary platform to facilitate dialogue and disseminate new research on the region, whose findings are often limited in international scholarship due to language barriers and the influence of national narratives. To support this goal, ECE is an open-access journal, published at least once annually, available in both print and online formats.

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Die Zeitschrift möchte eine interdisziplinäre Plattform schaffen, um den Dialog zu fördern und neue Forschungsergebnisse über die Region zu verbreiten, deren Ergebnisse aufgrund von Sprachbarrieren und der Prägung durch nationale Narrative international nur begrenzt bekannt sind. Zur Unterstützung dieses Ziels ist ECE eine Open-Access-Zeitschrift, die mindestens einmal jährlich erscheint und sowohl in gedruckter als auch in digitaler Form verfügbar ist.

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