Urban Walls: Examination and Possible Restoration. Two Case Studies

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The castles of the Nera River Valley. A brief history

In the Lombard age, the ancient Roman colonies and *vici* in Umbria were transformed first into *curtes* and later into fortified castles. In 570 the Lombards divided the region into the *Tuscia Romanorum* and the *Tuscia Longobardorum*, also known as the 'Duchy of Spoleto'. Later they moved northward, in the direction of the central Apennines, establishing a mountain gastald that, headquartered in the town of Ponte, included most of the territory of Spoleto.[1] The need to control these population centers led to the occupation of sites held to be of strategic importance: border castles, fortified towns, valleys, and mountain passes. The '*farae*', armed conglomerations characterized by an extremely primitive structure, came into being. In essence, these were camps protected by boarded fences outfitted with lookout towers of wood that served to control the territory.

Between the 7th and the 8th centuries, the domination of the Holy Roman Empire gave way to the rule of the Papal State and the beginning of a period of relative peace in the region. But in 1228, with the appointment of Rainald of Urslingen as Duke of Spoleto, relations between the Papacy and the Empire once again turned hostile, with the Empire deciding to invade the Nera River valley to place those territories back under imperial rule. Numerous castles in the upper valley were conquered and forced to pledge fealty to Frederick II, while others, fearful of falling under the sway of the Empire, decided it was in their best interests to submit to the rule of Spoleto.[2] The early sixteenth century was also characterized by the expansionist aims of the Duchy of Spoleto, under the control, at the time, of the Borgia family. But this policy of territorial expansion came to a sudden stop in 1503, with the death of Pope Alexander VI, with all the cities and towns of Umbria driving out the governors who had been appointed by the Pope and once again laying claim to their independence.

The persistent instability that had always characterized the territories of this region ultimately led Pope Pius V, in the second half of the century, to establish the Mountain Prefecture.[3] This structure for the local control of the territory proved so effective that, for all intents and purposes, it was maintained up until the 1799 occupation by the army of the French Republic.

Typical features of fortified architecture along the Nera River Valley

At the end of the 6th century, a formidable defensive system consisting of castles, towers and strongholds protected by walls arose in the valley of the Nera River, an area bordering on territories in Umbria that had formerly been under Byzantine influence.

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1   See Valeria Montanari, "The Landscape of the Valnerina: peculiarites and protection", in *ReUso* (València: Editorial Universitat Politècnica de València, 2015), 1589-1596, with bibliography.

2   Stefano D'Avino, *Sancta dicta sunt et debent quotidie manuteneri. Architetture difensive in Valnerina* (Pescara: Carsa 2009), 9.

3   Caterina Comino, "La Prefettura della Montagna come esempio di distrettuazione periferica", *Archivi per la storia* 13 (2000), 231-241.

In the 8th century, with state power on the decline, a unique approach to ruling took hold inside the Lombard state.[4] This development contributed significantly to far-reaching changes in population centers in the Umbria countryside where, between the 8th and the 9th centuries, many fortified structures were built alongside the existing inhabited areas, referred to in the historical sources as *curtes* or *villae*. Still, not all the 'villas' became fortified villages. Many of these small urban agglomerations, formed by a limited number of families that had banded together, represented a type of inhabited unit which never disappeared entirely, but remained the primary alternative in the area to the castle form of settlement.

Over time, the defensive structures attracted neighboring population development, until a thorough interdependence had emerged between the surrounding territory and the castle. It was this period of history which witnessed the first examples of a development that, over roughly the next century, was to lead to the foundation of fortified villages, a trend referred to in current historiography under the term 'encastellation'. Designed less to meet any pressing tactical need, the fortifications of this period were meant to serve primarily as posts for observation and signaling. For that matter, the primarily defensive nature of the structures established by the Lombards in the territory of the Duchy is revealed by their location on dominant heights or along potential routes for penetration into the territory.

During the 10th century, spurred on by the efforts of the nascent feudal fiefs to gain independence, there was a noteworthy increase in the construction of fortifications. Most of the towers scattered throughout the valleys of the Nera, Corno, and Vigi rivers can be traced back to this period. Built according to essentially square ground plans, their sides measured roughly four meters each. A cistern on the ground floor collected rain water, while the only way to reach the upper floor was via an external stairway. A defensive barrier was built around the tower, at times made from nothing more than wooden posts.

The heyday of encastellation, which lasted in this geographic area for more than a century, came in the first half of the 11th century, when the network of castles effectively covered the entire zone then completely under the control of the respective urban municipalities. It was only with the partial diminution of the need for defensive measures, between the 11th and 12th centuries, that a certain 'decastellation' occurred (meaning a gradual abandonment of the primitive defensive structures). During the second half of the 12th century, the structure of the castles began to change, with the function of some of them changing from that of a temporary shelter to a construction equipped with storage facilities for the safekeeping of agricultural produce in the event of conflicts ('storage-castles').

Nonetheless, it was in the period between the 13th and 15th centuries that the models and architectural forms of the fortifications still to be found in the Nera River valley took hold, essentially consisting of five categories of structures: lookout towers; 'mountainside castles'; 'rocca' strongholds; town walls; and walled lands.

The towers used as lookout stations, manned by only a few individuals, presented noteworthy similarities, in terms of their construction techniques, to the features of the fortification system of the 10th century, though with considerably larger dimensions. As a rule, there were three floors. In some cases, the first floor, built without an entryway, also lay partially underground. It was entered from a higher level, using a retractable ladder that could easily be recovered from inside. Wooden ladders attached to stone corbels connected the different levels.[5]

The 'mountainside' castles featured floor plans that reflected the layout of the slopes on which they were erected, with the pitch of the slope also contributing to the castle's defensive function. The walled perimeter would be triangular in form or, more rarely, shaped like a trapezoid, with towers built at the corners according to square floor plans and outfitted with stone corbels alternating with machicolations from where materials on attackers arriving from below were dropped. The

4   Riccardo Luisi, *Scudi di pietra. I castelli e l'arte della guerra tra Medioevo e Rinascimento* (Bari: Laterza, 1996), 9.

5   D'Avino, *Sancta dicta sunt et debent quotidie manuteneri*, 21-31.

uppermost tower housed the soldiers, also serving as a tower for observation and signaling to other towers in the area, and would have a number of floors connected by retractable ladders.

'Rocca' strongholds constituted a category of their own as, starting from the middle of the 15th century, the establishment of a defensive system called for "a design subject to rigorous scientific rules", as well as "practices of military architecture consolidated over the centuries".[6] The building of such defensive structures was meant to be a 'response' to the extraordinary innovation in military operations brought about the introduction of the first heavy guns: pieces of artillery capable of significantly reducing, if not eliminating, the defensive capabilities of the castle structures relied on for protection up to that point in time.

To adjust their defensive structures to the new offensive weapons, the architects of the sixteenth century reduced the heights of towers that, had they been hit, could have fallen onto the town walls, thus heavily damaging the place. Advances in techniques of fortification also resulted in thicker walls. Towers changed their shape, with the flush profiles preferred up to that point being replaced by curved surfaces with 'escarpments', or a tilted external profile suited to shunting aside enemy artillery fire.

The more elaborate structures were equipped with a sequence of defensive elements, such as a perimeter wall, a fore-wall, and a moat. Fortified complexes were often built according to square layouts, with towers jutting out at the corners. Other towers, many in number and placed relatively close to each other, reinforced the perimeter barrier. The main tower, known as the '*Mastio*', normally housed the garrison. Inside, apart from a chapel, there was no construction meant to last over time, as even the barracks for the troops were made of materials destined to wear out, explaining why archaeological finds of military installations from the late Middle Ages and the Renaissance are so rare.

What set 'Rocca' strongholds apart from castles was their strictly military use. While castles more often than not also served as the local lord's residence, the 'Rocca' housed only the garrison of soldiers responsible for controlling the territory. During the same time, towns and cities were equipped with imposing perimeter walls capable of providing a certain amount of security against a possible siege. Some were built from scratch, while, in other cases, the existing defensive structures were restored, augmenting their height and equipping them with towers. In most instances, the walls were built concurrently with the feudal residence, precisely in order to better safeguard the entire complex, with the layout of the wall normally following the topography.

'Walled lands', on the other hand, were lesser urban settlements that, for the most part, had arisen in the 13th century around an older castle, which transformed, over the centuries, from feudal agglomerations into villages. In certain cases, these populated centers offered protection to a larger agricultural area as, in the event of danger, the inhabitants of the zone could find shelter within the precincts for themselves and their food supplies and livestock.[7]

The walls of Cascia: origin and transformations

The historical sources show that, as early as the 12th century, the town of Cascia was governed for the Ghibelline Duchy of Spoleto by Corrado d'Uslingen (appointed to this position by Emperor Frederick Barbarossa), and was equipped with an extensive perimeter wall.[8]

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6   Micaela Viglino Davico, "Le fortezze: tipologie agli albori dell'Età moderna e modi di trasformazione dal XVI al XIX secolo", in *Cultura castellana*, edited by Micaela Viglino Davico (Torino: Istituto italiano dei Castelli, 1995), 67; see also Stefano D'Avino, *La Rocca di Paolo II a Cascia. Archeologia, Storia e Restauro* (Pescara: Carsa, 2009), 18.

7   Alberto Melelli, Fabio Fatichenti, "Castelli, rocche e fortificazioni in Umbria", in *Rocche e fortificazioni nello Stato della Chiesa*, edited by Maria Grazia Nico Ottaviani (Napoli: Edizioni scientifiche italiane 2004), 35-86; Olga Marcacci Marinelli, "I castelli dell'Umbria", in *Storia e arte in Umbria nell'età comunale*, (Gubbio: Centro studi umbro, 1971), II, 421-430.

8   Marco Franceschini, *Memorie storiche di Cascia: fabbricata dopo le rovine di Cursula, antico municipio romano raccolte nell'anno del signore 1819* (Cascia: Tipogr. Ciccotti, 1913); Valeria Montanari, "Cascia.

Yet the construction of the first bastion defending the town can be traced back to the 6th century, the time of the invasion of the Lombard troops of Faroald. In all likelihood, rather than a full-fledged perimeter wall, modest constructions were erected to complete the natural defenses that, to the east (in the direction of Monteleone and Vallo di Nera, and Spoleto as well), already prevented assaults of enemy armies.

The many sieges suffered during the barbarian invasions caused noteworthy damage to the walled structures, to the point when, in 741, Pope Zachariah undertook an extensive renovation project to "repair the damage and defects while adding whatever further fortifications experience has recognized as being necessary or of use".[9]

The first work done to increase the defensive capacity of the wall dates back to about 1478, when Pope Sixtus IV, concerned as his predecessor had been with maintaining peace at the borders of the realm, ordered that 'a walled perimeter be built around the castle'. The project entailed a significant reinforcement of the existing defensive structures, providing the town with the defensive wall as it was laid out roughly a century later, but based on essentially the same plan, by Cipriano Piccolpasso.[10]

Seven gates provided entry along the perimeter wall: the *in capite Cassia* gate (or Ocosce gate); the Onelli gate; the East gate (or 'Gate of San Francesco'); the Leonine gate (or 'Gate of Santa Maria'); the Santa Margherita gate; the Opaco gate (or 'Gate of the Pago'); the 'Ferrari gate'. This last gate, as well as the one leading to Onelli, had disappeared by the beginning of the twentieth century, while other gates were subject to restoration work over the centuries, at times quite extensive, like in the case of the 'Ferrari Gate', which was restored in 1491. In still other instances, the work was less apparent, as when 'patches' of the portions of the wall adjoining the Santa Margherita gate were repaired in 1552.

A further element defending the town were the 'high-towers' built to control entry through the gates. The sources show that they were also subject to restoration. Such is the case of a tower built along the eastern side of the perimeter wall, between the 'Castel gate' and the Opaco (or "Pago") gate that, being in a state of 'near collapse', was extensively restructured under the initiative of the Augustine nuns of Santa Rita, whose vegetable gardens bordered the defensive structure (1575).[11]

In fact, a series of different projects were undertaken over a number of centuries, demonstrating the exceptional attention paid by the town of Cascia to the preservation of its perimeter wall, a concern confirmed, for that matter, by a decree issued in 1587 to ensure that "the walls erected to defend the town must be in good condition and maintained constantly".[12] The same precautions were renewed in 1642, when, fearful of being drawn into the clashes that raged throughout Italy in those years, the town council ordered that the boundaries and the defensive structures of the town be 'reviewed'. Despite the care taken, the seismic quakes that continually struck the area inflicted immense damage on the structures, as in the case of the earthquake of 1599, which destroyed the entire portion of the wall between the 'Rocca' fortress and the Santa Margherita gate. On each occasion, attempts were made to replace what had been lost, as shown by the plaque placed above the Eastern gate, commemorating the restoration carried out under Pope Clement X in the year following the 1703 earthquake. This same period is identified as that of work done to lower the height of the tower found in the proximity of the San Francesco gate, in order to ensure its stability, which had been compromised by an earthquake some years earlier. (Fig. 01)

Le mura, la rocca", in *Sancta dicta sunt et debent quotidie manuteneri. Architetture difensive in Valnerin,* edited by Stefano D'Avino (Pescara: Carsa 2009), 194-200.

9   Montanari, "Cascia. Le mura, la rocca", 194.

10 Cipriano Piccolpasso, *Le piante et i ritratti delle Città e Terre dell'Umbria sottoposte al Governo di Perugia* [1579], edited by Giovanni Cecchini (Roma: Istituto Nazionale di Archeologia e Storia dell'Arte, 1963), plan of Cascia: 79v-80r; view of Cascia: 81v-82r.

11 Montanari, "Cascia. Le mura, la rocca", 194.

12 Ibid.

Fig. 01: Plan of Cascia, early 19th century.
Fig. 02: View of Cascia, early 20th century.

At present, only very limited portions of the original fifteenth-century fortifications are still visible. Much was either lost for good on account of the seismic events of the last two centuries or reused as part of the architecture of subsequent residential constructions. (Fig. 02) Of the seven gates of the town wall, only the Eastern gate and the Leonine gate are visible today, along with the 'Rutiloni gate' (opened in the perimeter wall of the Pauline 'Rocca' in 1571, on the initiative of the town's governor).[13]

Fortress of Paul II

The fortress (*rocca*) was an integral part of the town of Cascia's defense system. Cascia, a town historically hostile to the Church, had always shown itself inclined to support the Ghibelline party and the policy of the Empire.

Numerous events (including a disastrous earthquake that struck the area in 1328) anticipated the invasion of Cascia and its territory by the Church's troops, which took place in 1340; this event was followed by continuous struggles between the Guelph and Ghibelline factions, which in 1377 resulted in Pope Gregory XII sending to Cascia a considerable number of troops commanded by Francesco, Cardinal-priest of Santa Sabina, hastening to calm the conflicts. But in 1381, Cascia's population rose against the Church's temporal power again, staging street protests and carrying out "*sacking and devastation of churches and of fortified places*".[14] The violent riots that shook the town during the first half of the fifteenth century persuaded Pope Paul II (Pietro Barbo, 1464-1471) to build a fortress there, possibly with the dual purpose of settling a considerable number of militia in Cascia in order to discourage any future sedition, and of establishing there a safe outpost towards the Kingdom of Naples.

Although today only some ruins of the structure remain, its ancient perimeter can still be made out; it was built around 1465 by Francesco da Pietrasanta and Antonio da Settignano.[15] However, evident remains of a previous compound identified during a recent excavation campaign show that the chosen area, the hill overlooking the inhabited area, was earlier home to a fortified system: the fragments of a tower, in fact, refer to a late-Mediaeval encastellation phase, when "*there was a formwork… beneath the Convent of St. Augustine*", done on behalf of Frederick II by Berthold of Urslingen. It was likely a signaling post, substantially square in layout, approximately six meters per side (equivalent to about 30 feet); at the entrance gate, several meters from the ground, access was gained by means of a wooden ladder that could be pulled back inside as needed.

The tower had a masonry wall, perhaps crenelated, which must have stood no more than three or four metres in height, corresponding to the average length of a portable ladder; this wall, which ran to the west mostly parallel to the fortress's current structure and then turned northeast until meeting it, may be clearly identified today in the masonry apparatus flanking the fifteenth-century cistern. In all likelihood, the wall was also supposed to contain a chapel, the owner's modest residence, and the storehouses and vegetable gardens which, in the event of conflict, were to guarantee a minimum of sustenance for the besieged.

The fifteenth-century fortress showed an irregular trapezoidal configuration delimited by strongly embanked cylindrical corner turrets (two of which are still visible), of a height equal to that of the walls, 30 metres in diameter at the base; their main function was essentially of ensuring the defence of the closest towers and of the wall section between them. A stringcourse (with the function of deviating the blows striking the tower at the height of the escarpment) ran around the entire perimeter; at the summit was a protruding apparatus along which ran the *chemin de ronde*, placed on corbels; from these, through machicolations and sheltered by the crenellations, it was

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13 Ibid.

14 Ibid., 195

15 Renato Cordella, "Francesco da Pietrasanta e Antonio da Settignano architetti della Rocca di Cascia", *Spoletium. Rivista di arte storia cultura*, 38 (1993-1997), 60; Marcella Maselli Campagna, "Antonio Marchesi, architetto della rocca di Cascia. Nota biografica", in *La Rocca di Paolo II a Cascia. Archeologia, Storia e Restauro*, edited by Stefano D'Avino (Pescara: Carsa, 2009), 63-74.

possible to strike the enemy, who in this way remained subject to constant fire from above. On the southwest bastion was the coat of arms of the pope who ordered the works.

To the west, a deep moat protected the wall; the main entry, from the "*in capite cassiae*" gate, was through a "flanked" corridor to the south, between the two bastions, from which it could be defended by grazing fire. On the towers and along the perimeter wall, we can see the round-hole harquebus posts with an empty notch above for aiming.

The wall apparatus consists of rubble masonry (about 6 Renaissance feet, or 1.78 meters, in width), with cortical elements in *opus incertum*; this is done with blocks of rough-hewn limestone placed on the outer sides, on the pseudo-horizontal planes, upon beds of coarse mortar composed of lime, sand, chippings, and a smattering of broken bricks; inside, the rough-hewn stone elements were arranged first in a pyramid pattern, with the necessary flooring only in a later phase, following an original construction method characteristic of certain structures to be found only in this geographical area.[16]

On the extrados of the barrel vault of the fifteenth-century cistern, archaeological research has unearthed a highly evolved system for storing rainwater. Preserved almost intact, it captured the water (also using a complex of drains at the top of the walls) that was conveyed through passages in clay pipes into the cistern, where it flowed from two gargoyles.

Aimed at increasing the fortress's defensive capacities was the construction of a dungeon, built in 1491 by heightening a sturdy pre-existing structure whose remains may be identified to the southwest; also dating to the same construction phase are the wall structures visible to the southwest of the fortification, recognizable as bulwarks to defend the main opening to the fortress.

In 1505, an insurrection led by Bernardino Antonelli resulted in an assault on the fortress, repelled by its defenders. But the fortress's fate was sealed; about a decade later, in 1514, following its occupation by the Ghibelline escapees, Leo X (Giovanni de' Medici, 1513-1521), the citizens of Cascia having been declared rebellious, ordered restoring lawfulness to the municipality's territories: a military expedition commanded by Pietro Ridolfi from Spoleto was sent to siege the castle which, according to the sources, was "*demolished and destroyed … from the foundations up*",[17] in 1517.

Despite this, the area was not definitively abandoned, as may be seen in the discovery of wall fragments attributable to an urbanization phase that took place at least a century and a half later; moreover, the remains of the fifteenth-century defensive wall (in which, in 1571, on the order of Cascia's governor Sebastiano Rutiloni, a gate was opened so as to facilitate the pilgrims' access to the nearby church of Santa Maria delle Libere) were incorporated into the perimeter of the town walls.

The current state of conservation of the fortress, whose complex stratification was highlighted by recent excavation campaigns,[18] reflects without a doubt the suffering inflicted upon the structure over the centuries by seismic movements. The intervention that was done for its preservation intended to reconnect and to give continuity of time and space to the whole, without in any way compromising the particular maintenance of the site as a ruin. To that effect, the intervention strategy was to entrust to synthetic, distinctly contemporary signs the task of suggesting possibilities for putting the fragments back together.

Norcia's town walls: origin and transformations

The valley of Santa Scolastica is delimited to the east by the south-western slope of the Umbrian-Marches Apennines, whose highest peaks belong to the Monti Sibillini chain, and is traversed by the Sordo and Torbidone rivers, while, from the opposite side, it opens to the Valnerina.

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16 Valeria Montanari, "Questioni relative alla reintegrazione della cinta muraria della Rocca di Paolo II a Cascia (Perugia)", in *Lo stato dell'Arte 6* (Firenze: Nardini, 2008), 709.

17 D'Avino, *La Rocca di Paolo II a Cascia. Archeologia, Storia e Restauro*, 20.

18 Gianluca Soricelli, "Indagini archeologiche", in *La Rocca di Paolo II a Cascia. Archeologia, Storia e Restauro*, edited by Stefano D'Avino (Pescara: Carsa: 2009), 75-92.

Originating from the drying-out of a Pliocene lake, the area has been inhabited since the Neolithic Period;[19] the favorable mountain position contributed to the development in this area of animal raising, pastoralism, and trade – activities already being carried out in the urban settlement of *Nursia* between the ninth and first centuries BC.

The first inhabited nucleus developed in the upper part of the current town of Norcia in the northeast part, bearing the toponym *Capo la Terra*. The original urban structure must have had a low building density, which may be seen to this day in that urban sector.[20] An initial phase likely to have dated since the mid-third century BC (after the Roman conquest of the region by Manius Curius Dentatus in 290 BC) was followed during the next century by a restructuring of the urban settlement coinciding with the territory's agrarian reform implemented during the 2nd century BC by the Gracchi. Recent studies have cast light on the correspondence between the alignments of the Roman centuriation traced in the plain of Santa Scolastica, and those legible between the *cardo* and the *decumanus* in the town's ancient nucleus;[21] the remains of the first walls, upon which the Mediaeval circuit was placed along the north-eastern perimeter, possibly belong to this phase.

The Lombard occupation of the territory dates back to the seventh century, when Norcia became one of the most important towns in the Duchy of Spoleto. In the second half of the fifteenth century, Norcia came under the office of the gubernatorial legate of Perugia, and consequently, at the beginning of the next century, a Papal Commissioner was installed in the town to replace the *Podestà* (mayor). Around the middle of the subsequent century, the fortified palazzo called *La Castellina*[22] was built upon the remains of the old Palazzo del Podestà and of the parish house of Santa Maria Argentea, in the south-western part, thus significantly improving the urban arrangement. The architectural plan is quadrangular, with highly tilted corner bastions, and develops around a courtyard defined by a portico with a loggia above on all the four sides.

The eighteenth century was marked by a series of interventions carried out following the two disastrous earthquakes of 1703 and 1730 that had their epicenter in the Norcia area. These were mainly precise interventions on buildings, such as the reconstruction of collapsed parts, or the building of containment buttresses on the exterior façades. These works still characterize the town of Norcia, but without causing any significant changes in the urban arrangement which maintained considerably its late-Mediaeval appearance.[23]

Following the damage caused by the earthquake that struck Norcia in 1859, but also in order to regulate the "modernization" works after the Unification of Italy, a *Construction regulation to be observed for buildings in the municipality of Norcia* was issued, "to be adopted both in the construction of new buildings and in the renovation of old ones".[24] Interventions of urban relevance included the opening of Corso Sertorio, from Porta Romana to Piazza di San Benedetto (and the building of new façades on the road frontages) to replace the ancient axis of Via dei Priori; the construction of the new theatre and the enlargement of its piazza; and the interventions on Palazzo dei Priori and the building of the new stairway on the piazza.[25]

19 Umberto Calzoni, "Un fondo di capanna scoperto presso Norcia", *Bullettino di Paletnologia Italiana*, n.s., 3, 58 (1939), 37-50

20 Simone Sisiani, Paolo Camerieri, "Nursia: topografia del centro urbano", in *Nursia e l'ager Nursinus: un distretto sabino dalla praefectura al municipium*, edited by Simone Siani (Roma: Quasar, 2013), 103-112.

21 Paolo Camerieri, "La centuriazione dell'ager Nursinus", in *Nursia e l'ager Nursinus: un distretto sabino dalla praefectura al municipium*, edited by Simone Siani (Roma: Quasar, 2013), 25-34.

22 Maurizio Ricci, "La Castellina di Norcia", in *Jacopo Barozzi da Vignola*, edited by Richard J. Tuttle et al. (Milano: Electa, 2002), 161-162.

23 Valeria Montanari, "The fortified town of Norcia. Study for the conservation of architectural heritage", in *Defensive Architecture of the Mediterranean XV to XVII centuries*, edited by Giorgio Verdiani (Firenze: Didapress, Università degli Studi di Firenze, 2016), vol. IV, 17.

24 Stefano D'Avino, Valeria Montanari, "Note sull'uso del calcestruzzo nel restauro delle strutture monumentali in area sismica", *Tema. Tempo, materia, architettura*, 4 (1994), 30-37.

25 Alessandro Bianchi, Carlo Rossetti, "Norcia nella cartografia dei secoli XVI e XIX", in *Norcia "Nuova". Trasformazioni urbanistiche dopo il terremoto del 1859* (Norcia: Millefiorini, 2001), 87-90.

Fig. 03: Norcia, view of the town before the recent earthquake.

The urban structure

Norcia is entirely girded by a wall interrupted by 8 gates. The town fortification walls are interrupted by towers with a quadrangular plan, with parallel vertical walls; of the more than 20 original towers 17 have remained, some of them being incorporated into buildings constructed in later eras.[26] Inside the walls, the urban structure has a rather regular grid in the eastern part, which is marked by parallel axes, while to the southwest it is articulated around Piazza di San Benedetto, a quadrangular space surrounded by the most important buildings.[27] (Fig. 03)

The trace of the town walls, which can be followed in its entirety on the outer front, rests in its eastern portion upon pre-existing Roman-era defensive structures, slightly set back from them. The circuit shows a considerable variation in elevation, ranging from 640 to 600 meters above sea level; the highest elevation is found to the east at Porta Palatina, which shows evident transformations and renovations owing to interventions carried out following the seismic events occurring in the eighteenth century. The lowest section, on the other hand, may be found at the Porta del Colle gate to the southwest. This is the only portion of the entire circuit that presents the "*porta scea*" type, with side (not radial) entrance to the town by means of a protected angle corridor to the right of a tower.[28] Porta Maccarone and Porta San Giovanni are positioned in the eastern and highest part of the town, on the axis of the *cardo maximus*;[29] both present architectural elements dating to the thirteenth and fourteenth centuries.

Porta Romana, the entry way to the town from the provincial road originating from Spoleto, was rebuilt in 1869, at the time of the opening of Corso Sertorio, the straight road that, impacting the pre-existing urban fabric, extends to Piazza di S. Benedetto.[30] On the opposite side of the wall

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26 D'Avino, *Sancta dicta sunt et debent quotidie manutener,* 164-172.

27 Montanari, "The fortified town of Norcia. Study for the conservation of architectural heritage", 13-20.

28 Cordella, *Norcia e territorio*, 88.

29 Sisiani, Camerieri, "Nursia: topografia del centro urbano", 103-112.

30 Alessandro Bianchi, "Corso Sertorio e Porta Spoletana (Romana)", in *Norcia "Nuova". Trasformazioni urbanistiche dopo il terremoto del 1859* (Norcia: Millefiorini, 2009), 29-43.

Fig. 04: Norcia, the wall near 'Porta delle Ceresce', after the recent earthquake.

from Porta Romana is Porta Massari (or Ascolana), formerly the chief entrance to the town, prior to the eighteenth-century interventions: the fourteenth-century structure, remnants of which may be seen on the inner façade, was considerably transformed during the nineteenth century. Beneath the gate, a Roman-era crypto-porticus was discovered, along with other structures showing alignments compatible with the centuriation of the Santa Scolastica plain, which is articulated on the road leaving the Gate and heading southwest.[31]

On the western side of the wall is Porta delle Ceresce (or Molara), built in the fourteenth century and then reclosed in 1560 (Fig. 04), when an underground passage was opened to link the wall with the "La Castellina." To the northwest is Porta di Santa Lucia, named after a nearby convent of the Poor Clares during the eighteenth century; the gate has undergone a number of renovations, and it owes its current appearance to nineteenth-century interventions. The road leading from Porta di Santa Lucia to Piazza di San Benedetto joins a road section onto which look a number of religious buildings, their long sides parallel with the road: the Misericordia church, the San Francesco church with its convent, Piazza di San Benedetto and the San Lorenzo church. On this route, the urban structure of the town's lower part appears to be articulated; recent studies attribute it to a later phase as to the construction of the first town nucleus.[32]

The western section of the town walls, which winds from the polygonal bastion of Santa Lucia to the "Sportella" (that is, the postern at the southern tip of the circuit), is the part that over time underwent the greatest number of renovation and adaptation works.[33] Before the construction of the ring road girding the wall, built on an artificial embankment, the terrain on this side sloped down naturally towards the mills placed on the canals, the fields constantly watered by a system of water meadows. This special cultivation technique, by which fields are irrigated during the winter as well in such a way as to keep the farmed land from freezing, was introduced into the Santa Scolastica plain between the fifth and sixth centuries by the Benedictine monks. It is therefore possible that the different consistency of the soil from the eastern area of the town led to a higher vulnerability to seismic agents (Fig. 05), with the consequent need for periodic renovations of portions of wall; however, a part of

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31 Paolo Camerieri, "La centuriazione dell'ager Nursinus", in *Nursia e l'ager Nursinus: un distretto sabino dalla praefectura al municipium,* edited by Simone Sisiani (Roma: Quasar, 2013), 25-34.

32 Sisiani, Camerieri, "Nursia: topografia del centro urbano", 103-112.

33 Cordella, *Norcia e territorio*, 88.

Fig. 05: Norcia, western section of the town walls after the recent earthquake.

the interventions, such as the building of the bastions and the adaptation to a more modern defensive system, appears to be ascribable rather to the political and administrative role that the lower part of the town took at the beginning, in the fourteenth century.[34]

Current perception, substance, and intervention possibilities

Today, the fortified architectures in Valnerina are for the most part ruined; this does not reduce their figurative value, which is rather one of the elements characterizing the landscape, where fragments of architecture not only bear historical values (as a tangible representation of the historic transformation of the territory wrought by man), but also express aesthetic values inextricably connected with the natural setting.[35]

It clearly appears, at any rate, that architecture in its stage as ruin represents a new characteristic unit, a new whole, originating, as Simmel claims, "from the art that still lives within it and from what was already in nature that lives within it".[36] For Cesare Brandi, the ruin of an artwork is connected "to another artwork, from which it receives and upon which it imposes a special spatial qualification, or associates to itself a given landscape area"; the status of this second artwork, he maintains, is entitled to prevail if the environment "has now attained historically and aesthetically an arrangement significant for either history or art that must not be destroyed".[37]

The intervention, then, will have to respect the new substance of the monument/ruin, and the new relationships with the environmental setting that are derived from it; the exercise of the design will at the same time have to be aimed at resolving those needs that favor "aesthetic enjoyment and those demanded by the conservation of the subject to which it is entrusted," thereby complying with the indications of "preventive restoration" in which the indirect intervention – the only one admitted by Brandi on ruins, interacts "in preparing the conditions

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34 Montanari, "The fortified town of Norcia. Study for the conservation of architectural heritage", 13-20.

35 Montanari, "The Landscape of the Valnerina: peculiarities and protection", 1595.

36 Valeria Montanari, "Conservazione e reinterpretazione nel restauro dei ruderi", in *La Rocca di Paolo II a Cascia. Archeologia, Storia e Restauro*, edited by Stefano D'Avino (Pescara: Carsa, 2009), 51.

37 Cesare Brandi, *Teoria del restauro*, (Roma: Edizioni di Storia e Letteratura, 1963), 68-69. The translation is by the author.

Fig. 06: Norcia, the wall near 'Porta San Giovanni', after the recent earthquake.

most fortunate for conservation, visibility, the work's transmission to the future; but also to safeguard the figurative needs that the work's spatiality produces with regard to its setting".[38]

The measures to safeguard and preserve the environmental setting and architectural specimens must therefore be carried out within the context of a new "integral conception of the landscape", in which the confluence of historic, cultural, natural, and morphological values contribute towards recognizing the "aesthetic identity of places".[39] The reading of the landscape, "which is both nature and history, and is a highly precious document of cultural evolution" understood as a "phenomenon of perception" of a portion of the territory,[40] will activate a process of understanding and assessment that will guide the protection and future mutations of the territory, thus safeguarding – as they are handed down to the future – all those testimonies that are inseparable from recognized values.

The town wall of Norcia has been substantially conserved, although there are clear additions introduced by numerous interventions carried out in the wake of the disastrous earthquakes involving the area at various times over the course of history. (Fig. 06)

The restoration will thus have to be done not only by carefully filling in the gaps, but also by restoring the overall volumetric structure; the fortified town that emerges in the context of the plain of Santa Scolastica constitutes a complex architectural image, consisting of signs inseparable among one another; this palimpsest of age-old stratifications, in which the changing needs of defense and of controlling the territory may be interpreted, meaningfully characterizes the landscape to this day.[41]

On the other hand, the great losses lamented in Cascia's town wall, now a part of their history, have resulted in a gap that, even more than being a 'material' one, signals a gap in memory; in fact, a process of reintegration (or, to put it better, of 're-editing') is not likely to appear, because it would be without sufficient historical and critical grounding. (Fig. 07)

The changed urban and contextual arrangements rather suggest ideal references giving preference to appreciating the complex transformations that, over the centuries, characterized the town.

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38 Ibid., 154.

39 Paolo D'Angelo, *Ripensare il paesaggio*. http://www.filarqpais.fl.ul.pt/index_ficheiros/DAngelo_2012.pdf, 21; see also: Paolo D'Angelo, *Filosofia del paesaggio* (Macerata: Quodlibet, 2014).

40 D'Angelo, *Ripensare il paesaggio*, 1-22.

41 Montanari, "The Landscape of the Valnerina: peculiarites and protection", 1596.

Fig. 07: Cascia, town's view.

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Fig. 02: Private collection.

Fig. 03: maps.google.com.

Fig. 04 – 06: Photo S. D'Avino, 2017.

Fig. 07: D'Avino, Stefano. *La Rocca di Paolo II a Cascia. Archeologia, Storia e Restauro.* Pescara: Carsa, 2009.