

Local and supra-local drivers in the transformation processes of material culture. Central-northern Italy between the 10th and 12th centuries

by Federico Cantini

This article examines the transformation processes of material culture in central-northern Italy between the 10th and 12th centuries, focusing on the interplay between local and supra-local drivers and their impact on landscapes, economies, and societies. Drawing primarily on archaeological evidence, integrated with written sources, the study reconstructs changes in both urban and rural contexts, with particular attention to the building sector as a key indicator of economic and social development. During the 10th century, construction in stone remained limited and largely confined to public, episcopal, and monastic initiatives, within predominantly regional economic systems. From the 11th century onward, and especially during the 12th century, a progressive 'petrification' of the landscape can be observed, marked by the spread of masonry houses and towers, long-lasting ecclesiastical and civic building campaigns, and the growing centrality of cities. These developments were supported by widespread demographic growth, intensified exploitation of rural resources, and, from the 12th century onward, the expansion of Mediterranean and northern European trade networks. Increasing investment capacity, social mobility, and political competition within emerging communal frameworks fostered the diffusion of shared architectural models, adapted to local conditions, resulting in a profound material and symbolic transformation of medieval society.

Questo articolo esamina i processi di trasformazione della cultura materiale nell'Italia centro-settentrionale tra i secoli X e XII, concentrandosi sull'interazione tra fattori locali e sovra-locali e sul loro impatto su paesaggi, economie e società. Basandosi principalmente su evidenze

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archeologiche, integrate con fonti scritte, lo studio ricostruisce i cambiamenti sia nei contesti urbani sia in quelli rurali, con particolare attenzione al settore edilizio come indicatore chiave dello sviluppo economico e sociale. Nel corso del X secolo, la costruzione in pietra rimase limitata e in gran parte confinata a iniziative pubbliche, episcopali e monastiche, all'interno di sistemi economici prevalentemente regionali. Dal secolo XI in poi, e soprattutto nel corso del secolo XII, si osserva una progressiva 'pietrificazione' del paesaggio, caratterizzata dalla diffusione di abitazioni e torri in muratura, da campagne edilizie ecclesiastiche e civiche di lunga durata e dalla crescente centralità delle città. Tali sviluppi furono sostenuti da una diffusa crescita demografica, da un'intensificazione dello sfruttamento delle risorse rurali e, a partire dal XII secolo, dall'espansione delle reti commerciali mediterranee e dell'Europa settentrionale. Il crescente potenziale di investimento, la mobilità sociale e la competizione politica all'interno dei nascenti quadri comunali favorirono la diffusione di modelli architettonici condivisi, adattati alle condizioni locali, determinando una profonda trasformazione materiale e simbolica della società medievale.

Middle Ages, 11th-12th centuries, central-northern Italy, material culture, medieval economy, building practices.

Medioevo, secoli XI-XII, Italia centro-settentrionale, cultura materiale, economia medievale, pratiche costruttive.

1. Introduction

Between the 10th and 12th centuries, profound transformations occurred in the landscapes, economies, and societies of central-northern Italy and beyond. What were the preconditions, drivers, and forms of implementation of these changes, as well as the rhythms that characterized their full manifestation?¹ These topics have been the focus of numerous contributions and conferences,² and they continue to attract scholarly attention today, as demonstrated by Chris Wickham's recent book *The Donkey and the Boat*, published in 2023.³

In the following text, I will address these themes, drawing primarily on archaeological data and evaluating the different impacts that local and supra-local factors had on the ongoing processes. This attempt will entail – whether as a limitation or perhaps as a virtue, depending on the reader's judgment – a general tendency to simplify the complex phenomena that unfolded during the period under consideration. Nevertheless, I believe it is sometimes useful to observe events from a distance to understand their development, even at the risk of occasional error.

¹ Carocci, "Portici, palazzi, torri;" Molinari, "Archeologia e mobilità."

² Cortonesi, e Palermo, *La prima espansione economica*; Molinari, "Mondi rurali d'Italia;" *La crescita economica*.

³ Wickham, *The Donkey and the Boat*.

2. The data

In presenting the data, I will proceed chronologically from the 10th to the 12th century, addressing urban spaces first and then rural ones. For central-northern Italy, extending from Lazio to the Alps, there are more studies of the countryside⁴ than of cities. For this reason, with regard to urban centers, I will focus on a few exemplary cases.

2.1. The 10th century

2.1.1. The cities

In the 10th century, the urban centers of central-northern Italy were characterized by a transforming, still-rural landscape dotted with the ruins of Roman monuments and filled with fields, vineyards, and gardens. A new road network was developing amidst these ruins, primarily connecting religious structures.⁵

In Rome, the new parceling of abandoned public spaces – intended for the construction of *case solariate* (masonry houses with an upper floor) – involved extensive land reclamation projects during the 10th century. This is clearly evidenced in Trajan's Forum, where “thousands of cubic meters of soil and crushed Roman pottery, alternated with layers of sand and clay”, were dumped (Fig. 1). This intervention is associated with the initiative of the aristocrat *Kaloleus*, a member of the entourage of the city's lord, Alberic, who resided nearby with his female relatives, close to the church of the Santi Apostoli.⁶

Quantitative evaluation of the presence of *case solariate* is possible, unfortunately, only through written sources for the city of Lucca. In the 10th century, out of 108 houses, both urban and suburban, only 13 (14.4%) are described as *solari* and 4 as *sale* (4.32%); one of these, equipped with baths (790), belonged to the father of Bishops Giovanni I and Iacopo.⁷ Evidently, such infrastructures were still exceptional. In Pisa, between the late 9th and early 11th centuries, stone buildings are also documented: in Piazza Dante, where they were covered with plaster; in the Sapienza area, interpreted as *case solariate* with an internal area of 30 square meters; and in Via Cavalca. These structures coexisted with dwellings and annexes made of perishable materials – sometimes on stone foundations – and often made use of *spolia* or stone materials collected from the surface.⁸

⁴ Augenti, e Galetti, *L'incastellamento: storia e archeologia*.

⁵ An exemplary case is Rome, see Santangeli Veneziani, *Roma altomedievale*.

⁶ Meneghini, e Santangeli Valenzani, *Roma nell'altomedioevo*, 186-8; Meneghini, “Roma medioevale e i Fori,” 22-4.

⁷ Cantini, “Specchiarsi nella pietra.”

⁸ Cantini, with previous bibliography.

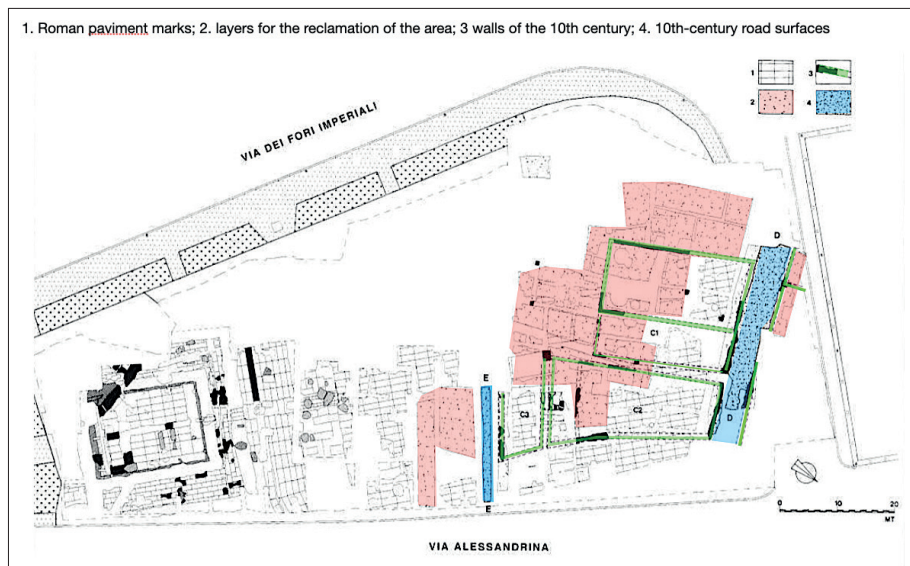


Fig. 1. Trajan's Forum in the 10th century. Modified image from Meneghini, Santangeli Valenzani, *Roma nell'altomedioevo*, 186, fig. 177.

Additionally, some towers began to appear (in Lucca as early as the 9th century).⁹ These towers were often associated with fortified episcopal palaces: we have records of them in Parma in 935, Savona in 988, and Modena in 1016.¹⁰ In the urban landscape, *episcopio* must have stood out as particularly complex structures: written and archaeological sources confirm that, from the late 9th and early 10th centuries onward, they included a tower (*turris*), a solar (*solarium*), a hall (*caminata*), one or more loggias (*laubie*), stables, warehouses, and chapels, as well as gardens.¹¹

Episcopal palaces were paralleled by those of public power, characterized by similar architectural features: halls, *caminata*, *solari*, *laubie*, and chapels.¹²

If we then look at investments in churches and monasteries, we see that the first half of the 10th century was a period of severe crisis, marked by abandoned structures lamented by both popes and prelates. In 903, Bishop Everard of Piacenza declared he was unable to restore the suburban church of San Savino, which had been burned by the Hungarians, because it was too large for his means. He therefore decided to build a new monastery within the city walls, on a more modest scale.¹³ The situation changed starting from the 970s-980s,

⁹ Augenti, "Identità urbane in Italia," 161.

¹⁰ Chavarria Arnau, "Case solarate e domus."

¹¹ Miller, *The Bishop's Palace*, 54-72.

¹² Cantini et al., "Nuovi dati sull'area della corte;" Cantini, "The Centres of Public Power."

¹³ Tosco, *L'architettura medievale in Italia*, 55.

during the Ottonian era, when episcopal patrons began rebuilding or restoring religious buildings. However, these reconstructions often followed non-innovative models with irregular masonry that was frequently covered with plaster and used split stones and *spolia* materials.¹⁴ In Pisa, north of the cathedral, remains of a church – likely the cathedral – have been found. It was rebuilt between the end of the 10th and the beginning of the 11th century and equipped with a frescoed crypt.¹⁵ In Milan, work was carried out on the tetraconch of San Lorenzo and the presbytery of Sant’Ambrogio. In Ravenna, in 965, Archbishop Peter IV constructed a funerary chamber for the veneration of relics, featuring a double ambulatory within the Ursian cathedral, while cylindrical bell towers began to appear, starting with the cathedral’s bell tower in the mid-tenth century. In Ivrea, Bishop Warmund promoted the restructuring of the cathedral at the end of the 10th century, adopting a design that included a western apse area with a double ambulatory framed by two towers. Similar twin towers are also found in the reconstruction of the Aosta cathedral, commissioned by Bishop Anselm at the end of the 10th century.¹⁶

The renewal of religious structures also occurred thanks to the involvement of public authorities, who invested particularly in monastic institutions. Examples include the Badia Fiorentina in Florence (970) and the monastery of San Nicola in Pisa (late 10th century), attributed to Margrave Hugh.¹⁷

This scenario inevitably brings to mind the words of the chronicler Rodulfus Glaber, who described Europe around the year 1000 as being covered with a *candidam aecclesiarum vestem*,¹⁸ an image that aptly reflects the significant investment in religious building projects beginning at the end of the 10th century.

The economy from which the resources for these reconstructions were drawn was not yet oriented toward the Mediterranean, from where rare products arrived primarily through the few cities that served as the maritime arm of public authority. In Pisa, from the second half of the 10th century and throughout the 11th century, small quantities of soapstone from the western Alps, painted ceramics from the Campania-Lazio area, glazed ceramics from Lazio, and painted amphorae from Palermo have been found. In addition, Sicilian polychrome glazed tableware appeared sporadically.¹⁹

Between the late 10th and early 11th centuries, some Tunisian and Sicilian ceramics (yellow-glazed, painted in green and brown) are attested in Genoa

¹⁴ Tosco, 103-4.

¹⁵ Cantini, “Archeologia di un’assenza.”

¹⁶ Tosco, *L’architettura medievale in Italia*, 105-11.

¹⁷ Cantini, “Valleys and power.”

¹⁸ Tosco, *L’architettura medievale in Italia*.

¹⁹ Meo, “Anfore, uomini e reti,” 225; Meo, “L’ordinario e l’eccezione,” 62. In the second half of the 10th century, Sicilian glazed wares with ‘alla pavoncella’ decorations appeared in Via Cavalca and Via della Sapienza. For a discussion on the possible mediation by Campania (Amalfi?) in the trade of Sicilian products to Pisa, see Meo, “Anfore, uomini e reti,” 228, with previous bibliography. On medieval amphorae in Pisa, see also Fatighenti, “I contenitori da trasporto.”

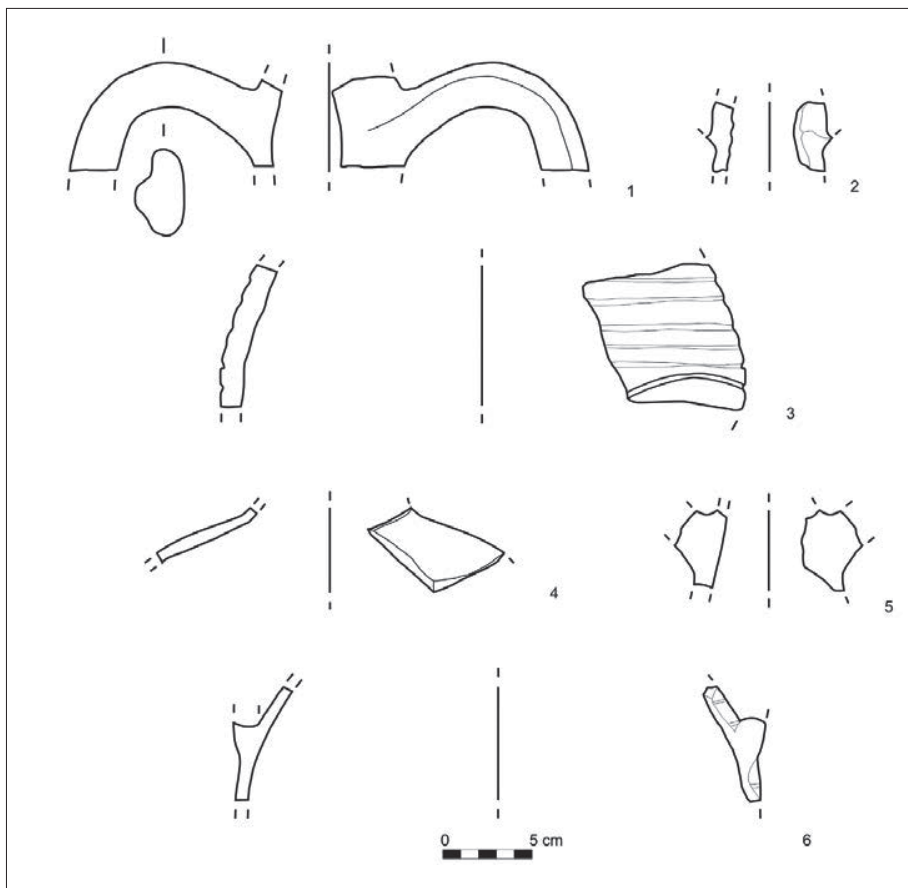


Fig. 2. Otranto-type amphorae [1-3] and gray paste amphorae [4-6] from the site of Nonantola. From Sabbionesi, "Anfore medievali dall'Abbazia," 30, tav. 1.

and Savona.²⁰ In the Venetian lagoon, from the 10th to the first half of the 11th century, only piriform Eastern amphorae (Brusic I-Mljet 1, also found in Ferrara), ovoidal ones (Brusic Va-Mljet 6.1, possibly Greek – from Corinth – or from southern Italy, also found in Ferrara), and South Adriatic amphorae (Otranto type, which would also become widely distributed along the eastern Adriatic coast) appear to have arrived, although their quantities have yet to be determined.²¹

²⁰ Benente, "Ceramica d'importazione islamica," 133-4; Benente, "La ceramica d'importazione dal Mediterraneo," 64; De Vingo, "La céramique d'importation," 283-6.

²¹ Gelichi, Sauro, et al. "Importare, produrre e consumare," 55-72, and Gelichi, "The Other Than Self," 433-7. In the 9th and 10th centuries, we only find glazed ceramics (forum ware and sparse glazed ware with handled jugs and cups), likely produced in north-eastern Italy. The only

On the Adriatic side, additional but sporadic findings have been recorded: Eastern amphorae from southern Italy and Sicilian examples have been found in contexts dating from the 10th to 11th centuries in the episcopal area of Comacchio.²² Otranto-type amphorae and containers characterized by gray paste come from contexts dated to the second half of the 9th and first half of the 10th century in Nonantola²³ (Fig. 2). Sicilian amphorae have also been found in Classe.²⁴

In the central-northern Tyrrhenian area, south of Pisa, the only known case is that of Rome, which has yielded a single specimen of Sicilian glazed pottery with *graticcio* decoration from the 10th century, discovered during the excavations of the *Forum* of Nerva.²⁵

More generally, central-northern Italy appears to have been predominantly characterized by regional and sub-regional economies, which distinguished the north-western area from the north-eastern, and both from the center of the peninsula.²⁶ Mediterranean products still seem to have been rare and concentrated in a few cities or large monasteries, with the Adriatic coast showing greater openness to Byzantine goods and the Tyrrhenian coast to Islamic products – both evidently still luxury items. The goods that achieved widespread and supra-regional distribution were, by contrast, primary commodities of local origin, such as salt, which circulated throughout the Po Valley in northern Italy, and in which Venice itself came to play an important role from the late 10th century onward.²⁷

2.1.2. *The countryside*

From the mid-tenth century onward, rural landscapes witnessed the construction of castles commissioned by public and episcopal authorities, as well as by great lords, monasteries, and members of the middle aristocracy. However, despite the growing number of sites, investments appear to have been modest: stone walls or foundations enclosed houses built primarily of perishable materials, sometimes set on stone bases.²⁸

With the exception of episcopal and lordly centers, churches in fortified hilltop sites were rare. Similarly uncommon were interactions between religious structures from the early high Middle Ages (6th-9th centuries) – often

exception is a fragment of Glazed White Ware II chafing dish (9th-11th century) from Constantinople, found during the excavation of the monastery of St. Hilary and Benedict in Gambarre, on the mainland (Gelichi et al., “Importare, produrre e consumare,” 68). On amphorae, see Negrelli, “Modelli di scambio,” 21.

²² Negrelli, 25.

²³ Negrelli, 25-6; Sabbionesi, “Anfore medievali dall’Abbazia.”

²⁴ Sacco, “Produzione e circolazione.”

²⁵ Molinari, “Le anfore medievali come proxy,” 299. Molinari, “Riflessioni sulle economie,” 164; Russo, “I romani e il gusto esotico,” 131-2, where the glazed pottery is dated to the 11th century.

²⁶ Wickham, *The Donkey and the Boat*, 526-8.

²⁷ Wickham, 508.

²⁸ Cantini “Specchiarsi nella pietra;” Cantini, Cirelli, “Mercati, economie e incastellamento.”

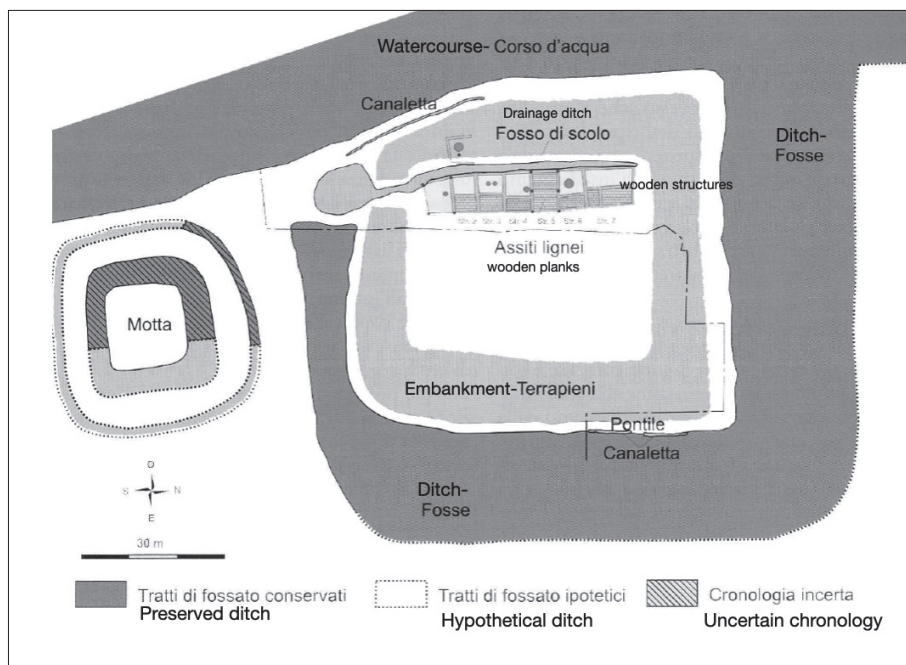


Fig. 3. Sant'Agata Bolognese between the 10th and 11th centuries. From Gelichi, Librenti, Marchesini, *Un villaggio nella pianura*, 406, fig. 4.

located on plains along roads – and fortified sites.²⁹ Generally, these fortified structures, at least in this early phase, do not appear to have fostered any particular centralization of settlement.³⁰ Furthermore, between the 10th and 11th centuries, they were mainly located beyond a buffer zone extending roughly 10 km from cities or 20–5 km in the case of Rome). The only exceptions were, once again, castles belonging to bishops, monasteries, or aristocratic groups associated with episcopal clienteles.³¹

Between the 9th and 10th centuries, even the plains experienced a phase of denser occupation, characterized predominantly by wooden construction – likely due to the difficulty of obtaining stone materials. In the Grosseto area, villages developed around churches, and Roman-age centers were reoccupied, a process that continued into the 12th century.³² In southern Tuscany, there are also examples of sites resembling mottes, such as Vetricella, which was associated with the royal court of Valli. This settlement, established between the seventh and 9th centuries, was delimited in the late 9th century by

²⁹ Mancassola, “Castelli e chiese.”

³⁰ Cantini, Cirelli, “Mercati, economie e incastellamento,” 163.

³¹ Cortese, “Una convivenza difficile.”

³² Cantini, Cirelli, “Mercati, economie e incastellamento,” 163.

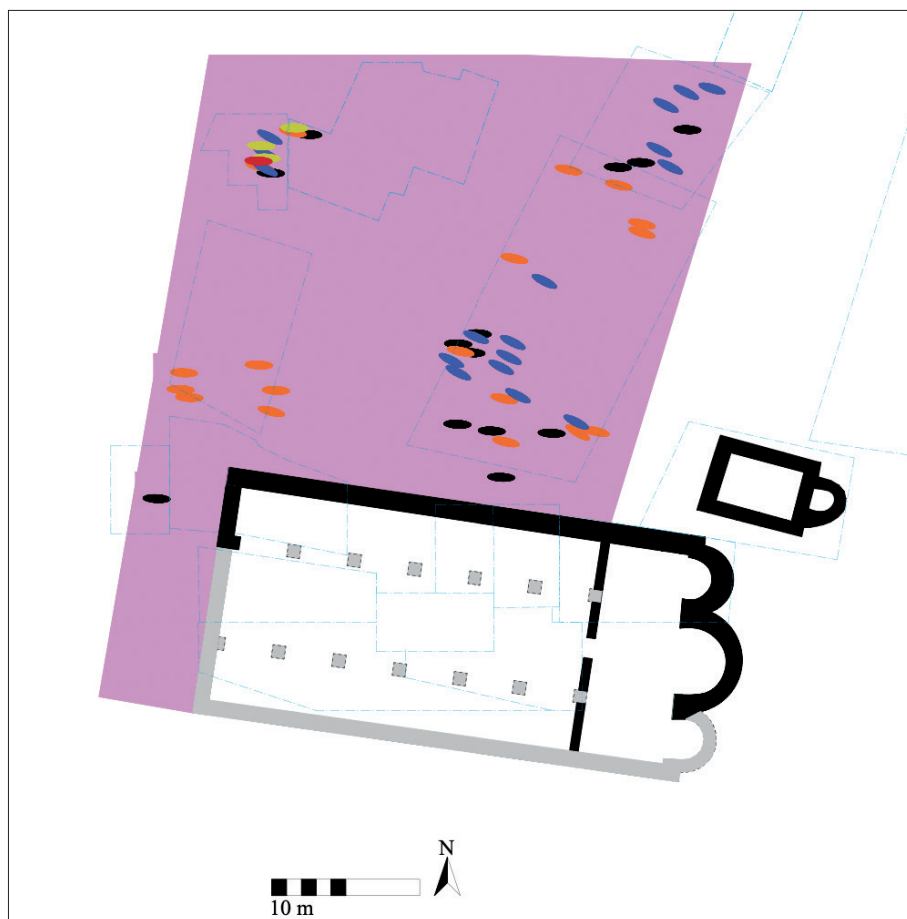


Fig. 4. The church of San Genesio in the 10th century. Plan by the author.

three concentric ditches, with a wooden tower at the center. During its period of greatest development – from the second half of the 10th to the first half of the 11th century – when its economy was based on iron processing, the innermost ditch was filled in and the tower rebuilt with a stone base. Additionally, a small cemetery developed near a wooden structure. These consolidation efforts occurred during a phase of settlement growth near the adjacent lagoon and *Portus Scabris*.³³ Similar examples are found at several sites in the Romagna plains, such as Sant'Agata Bolognese, where, between the 9th and 10th centuries, wooden structures stood within an area enclosed by two ditches. In the same site, between the 10th and 11th centuries, the internal space was

³³ Bianchi, and Hodges, *Vetricella*; Bianchi, *Archeologia dei beni pubblici*, 13-40.

more rationally organized, with rows of wooden buildings surrounded by new ditches and an external motte (Fig. 3). This settlement is likely to be identified with the *castrum* of Pontelongo.³⁴ Regularization of inhabited spaces by plots is also evident in other Po Valley villages (Piadena–Cremona; Nogara, Poviglio, and Bovolone in the Veronese plain), where residential construction continued to consist predominantly of perishable materials.³⁵

Returning to Tuscany, in villages situated along major road and river routes – which played a significant economic role in the early Middle Ages, hosting public courts and parish churches – we observe, from the 10th century onward, significant investments in the renovation of ecclesiastical structures. This is exemplified by the village and church of San Genesio, which was rebuilt and expanded into a triabsidal basilica with three naves (Fig. 4).³⁶ This renovation may have reflected the bishop's desire to establish his authority in an area previously controlled by the marquises, as well as the local community's demographic growth.

With regard to models of production and circulation of goods, the dominant system appears to have been based on the transfer of services, goods, and produce from peasant farms to *curtes* serving as management centers,³⁷ and from there to cities and large monasteries where the owners resided. This is supported by the near-total absence of coins, which are found primarily in centers associated with public authority.³⁸ Nevertheless, the increase in the number of sites suggests not only widespread demographic growth but also an increase in the resources produced during this phase. In coastal areas, though rarely, some Mediterranean products were present, as evidenced by the presence of Sicilian amphorae at Brina Castle near La Spezia, dating to between the 10th and 11th centuries. However, the broad chronology does not allow us to determine whether these goods can be attributed to the early 11th century.³⁹

2.2. The 11th century

2.2.1. Cities

The beginning of the 11th century marks a period of crisis for imperial power in Italy, symbolized by the death of the last sovereign of the Saxon dynasty, Henry II, Duke of Bavaria, and by the destruction of the royal palace of Pavia in 1024.⁴⁰ With the advent of the Salian dynasty, inaugurated by the

³⁴ Mancassola, "L'incastellamento in Emilia," 356–8.

³⁵ For a synthesis see Saggioro, "Villaggi e castelli," 111–2.

³⁶ Cantini, "Valleys and power," for a preview.

³⁷ Cantini, Cirelli, "Mercati, economie e incastellamento," 158.

³⁸ Cantini, Cirelli, 160.

³⁹ Meo, "Anfore, uomini e reti," 228.

⁴⁰ Tosco, *L'architettura medievale in Italia*, 111.

coronation of Conrad II (1024-1039), bishops – now endowed with increasingly extensive powers – together with wealthy aristocrats, invested further in the reconstruction or construction of urban and suburban churches and monasteries.

In northern Italy, inspiration was drawn from the models of Cluny, Aachen, and the cathedrals of the upper Rhine, while in central and eastern Italy, from the 1060s-1070s onward, influences from Roman and Byzantine architecture also became apparent. In Milan, the

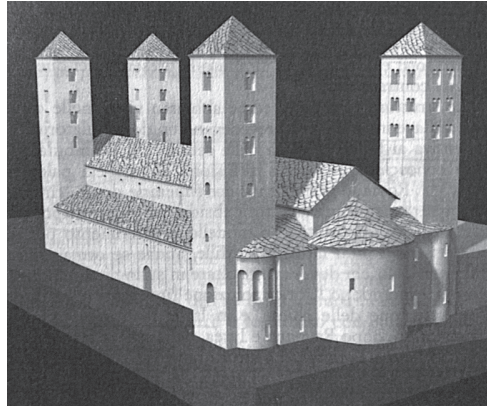


Fig. 5. Reconstruction of the Aosta cathedral in the 11th century. From Tosco, *L'architettura medievale*, 109, fig. 19.

Basilica of San Dionigi at Porta Orientale was founded in 1023, followed by the Church of Santa Trinità, initiated by a member of a family of imperial minters (1030). This church featured a trilobate termination and facade towers, a design also seen during the same period at Bobbio and in the cathedral of Aosta⁴¹ (Fig. 5). In Parma, the cathedral appears to have undergone a building phase dating to the first half of the 11th century (episcopate of Hugh, 1027-44/5). In 1031, Patriarch Poppo consecrated the reconstructed cathedral of Aquileia.⁴² In Brescia, the cathedral of San Pietro was reconstructed by Bishop Landolfo II (1002-30); a few years later, the church of Santa Maria was also renovated, featuring an innovative central plan structure with a western tower at the entrance.⁴³ Other episcopal initiatives are attested in the Marche and Umbria regions, where Bishop Hugh (1028-56) promoted the construction of a new cathedral near the sanctuary of the martyr Rufinus in Assisi.⁴⁴ In Florence, Pope Nicholas II consecrated the new cathedral in 1059⁴⁵. A few years later (1064), reconstruction began of the cathedral of Santa Maria in Pisa began, which was consecrated in 1118. The funding for this enterprise included spoils of war from the expedition against the Saracens of Palermo in 1064. The inscription on the facade commemorates the citizens of Pisa, Bishop Guido (1060-76), who hailed from Pavia, and, for the first time in Italy, an architect: Buscheto, who was buried in the cathedral.⁴⁶ Almost simultaneously, the third church of San Marco in Venice was built in brick, initiated by Doge

⁴¹ Tosco, 112-3.

⁴² Tosco, 126.

⁴³ Tosco, 136-7.

⁴⁴ Tosco, 129.

⁴⁵ Tosco, 220.

⁴⁶ Tosco, 140-1.

Domenico Contarini in 1063 and consecrated in 1094. This was no ordinary church but the palatine chapel of the city's supreme magistrate, designed after the Apostoleion of Constantinople – the mausoleum church of the Eastern emperors – in the domed version assumed with Justinian's reconstruction.⁴⁷

However, bishops did not only build or rebuild churches; they also promoted the construction of palaces, often distinguished by the presence of large towers. In Genoa, on the Castello hill, the episcopal castle's *palacium* (attested from 1116) included a square tower, 11 meters per side, with perimeter walls 80 cm thick. The tower's facing consisted of regularly shaped marly limestone blocks, laid in horizontal rows, datable to the late 10th or first half of the 11th century. The building featured two arched doorways on the western side and an entrance on the first floor, accessible via an external staircase.⁴⁸

The great and long-term cathedral construction sites, which attracted foreign craftsmen, likely served as places of apprenticeship for local artisans, who in turn applied their skills to the renovation of an increasingly complex civil architecture, particularly from an engineering perspective.

In Padua, for example, alongside the *solariate* houses, it is precisely in the phase immediately following the great religious building campaigns – beginning at the end of the 11th century – that towers and fortified residences began to be erected by aristocratic families.⁴⁹ These structures featured foundations built of large, squared Roman *spolia* blocks and upper sections in reused ancient bricks (new brick production would not begin until the 13th century).⁵⁰ Their bases typically measured from 5 to 6 meters per side, with heights reaching up to 40 meters. Such towers were often accompanied by a residential building, as in the case of Capodilista, while their location was dictated by the need to control strategic areas of the urban fabric.⁵¹

The widespread use of *spolia* materials for the towers also extended to Rome, where Roman bricks were predominantly employed.⁵²

In Tuscany as well, cities were the main centers where economic resources for stone construction were concentrated. Turret-shaped buildings (in Pisa, Lucca, and Florence) (Fig. 6) and single-story stone houses or *solaria* became

⁴⁷ Tosco, 149–50.

⁴⁸ Andrews, Pringle, “Lo scavo dell'area sud del convento.” The construction of towers within episcopal complexes can be traced back to at least the second half of the 8th century. Bishop Stephen II of Naples (766–94) built two towers, later adorned with frescoes by his successor Paul III (794–819). In Rome, Pope Adrian I (772–95) constructed a tower at the Lateran, embellishing it with frescoes and marble. The addition of a tower to the episcopal residence in Parma by Bishop Sigifridus is documented in 935, and in 990 a judicial audience was held in Piacenza in the main loggia (*laubia*, a term first attested in 865 in Milan) of the archbishop's tower. The architectural complexity of episcopal complexes is evident from the fact that they often included not only towers and *laubiae* but also halls (attested from the 8th century), *camerae*, *caminatae*, loggias, *solaria* (mentioned from the 8th century in Naples), and *balnea* (Milan, early 11th century) (Miller, *The Bishop's Palace*, 56–64).

⁴⁹ Brogiolo, “Aspetti sociali delle architetture.”

⁵⁰ Scillia, “Le tecniche murarie.”

⁵¹ Chavarria Arnau, “Case solarate e domus.”

⁵² Molinari, “La ‘pietrificazione’ del costruito.”

increasingly widespread. Although it is difficult to date them precisely today, the systematic opening and exploitation of quarries in the Monte Pisano area from the mid-eleventh century⁵³ may perhaps mark a *terminus post quem* for this new phase, while also indicating that reuse could no longer meet the growing demand for stone buildings. Moreover, from the second half to the end of the 11th century, squared stone masonry began to extend across the entire wall faces (as seen in Pisa, *La Sapienza*), where the squaring of the blocks also appears. This development marks an improvement in stone craftsmanship that was not yet universal, as it coexisted with less refined techniques and a continued use of perishable materials, particularly for service buildings. In Lucca, the number of *case solariate* – which increased from the second half of the century – could now also include towers (1059, 1099).⁵⁴

The proliferation of these structures accompanied the rise of certain families and family clans against whom bishops and city authorities began to take action toward the end of the century (see, for example, the Daiberto decree [1088-90] for Pisa;⁵⁵ similar interventions by city governments are documented in Genoa in 1143 and 1196, and in Florence before 1180).⁵⁶

The new urbanization of city spaces also involved the reoccupation of ancient Roman monuments. In Florence, during the second half of the 11th century, the remains of the ancient theater – until then largely abandoned – were once again utilized. New stripping activities of the ruins are documented, the ground plans were regularized through artificial leveling and terracing, and stone buildings were constructed in the orchestra area (Fig. 7).⁵⁷

The petrification of the urban landscape progressed at varying rates, influenced by factors such as the availability of raw materials. For example, the first stone and brick buildings in Venice date back to the 11th century, and their



Fig. 6. Lucca. base of an 11th-century tower, Palazzo Mazzarosa. From Redi, Romiti, *Dentro e fuori*, 24.

⁵³ Tumbiolo, "I materiali lapidei dell'edilizia."

⁵⁴ Cantini, "Specchiarsi nella pietra."

⁵⁵ Garzella, *Pisa com'era*, 103.

⁵⁶ Carocci, "Nobiltà e pietrificazione."

⁵⁷ Bruttini, "Enclavi urbane a Firenze," 10-3; Bruttini, *Archeologia urbana a Firenze*.

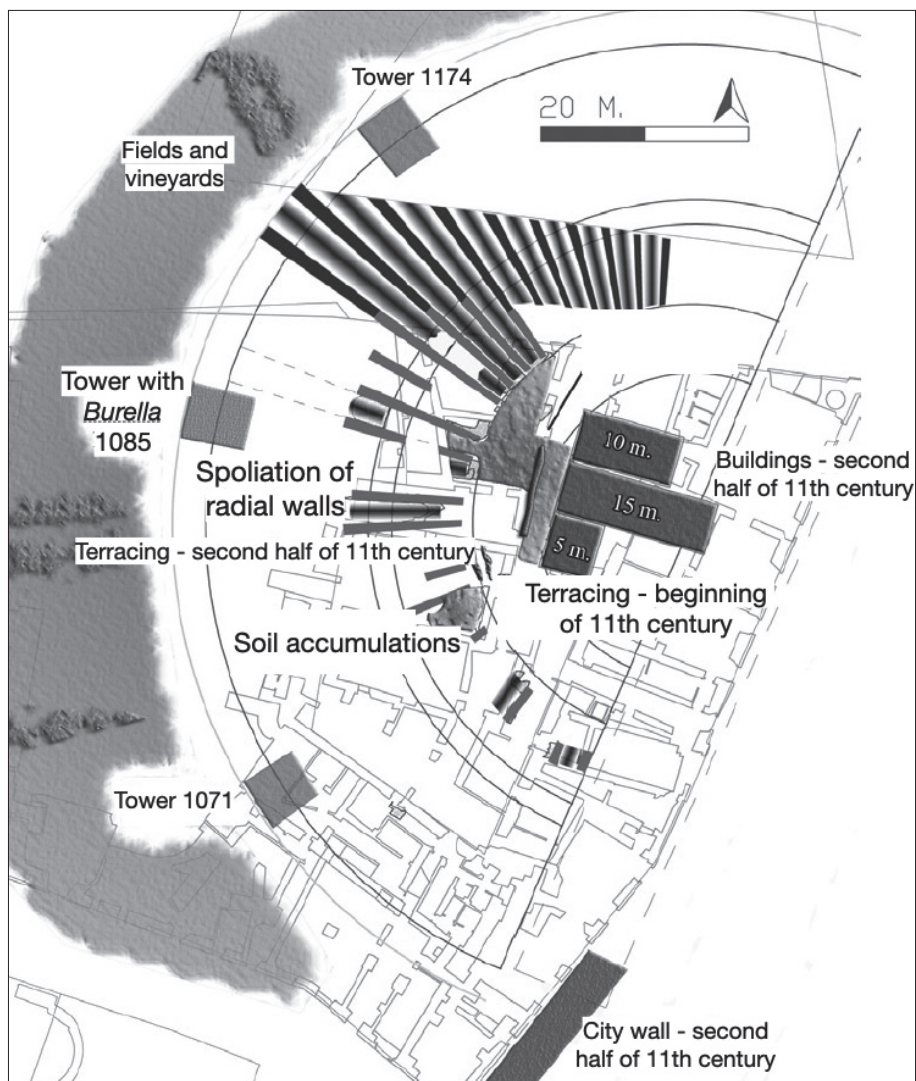


Fig. 7. Florence. Reconstruction of the settlement on the Roman theater between the second half of the 11th century and the third quarter of the 12th century, with buildings of the second half of the 11th century on the remains of the orchestra. From Bruttini, Jacopo. *Archeologia urbana*, 196, fig. 99.

number increased in the following century, although they still remained half the number of those in wood according to written sources.⁵⁸

But where did the wealth invested in the broader diffusion of masonry originate? The contribution of Mediterranean trade still appears marginal:

⁵⁸ Wickham, *The Donkey and the Boat*, 523.

for Venice, only 35 commercial documents from the 11th century are attested, although capital loans for maritime enterprises are already documented as early as the 1020s-30s, linking the city primarily to the Byzantine lands and Egypt (the areas from which alum began arriving around 1070). The role of coastal cities as intermediaries between the sea and the hinterland also seems limited, as evidenced by the fact that in northern Italy, Mediterranean pottery from the second half of the 11th century do not go beyond the Verona-Modena line. Similarly, the textiles traded by Venice, probably destined for the mainland, were likely linen products from nearby Padua.⁵⁹

The role of maritime cities was still primarily that of military powers, which nevertheless must have facilitated the arrival of Mediterranean goods. Pisa, more than any other, appears to have operated throughout the 11th century across a range of geographical contexts, including Calabria and Sicily, Algeria, Tunisia, and Spain⁶⁰. There were also Pisan families, such as the Casapieri, who likely maintained commercial ties with Majorca from the early 11th century. Urban excavation contexts, however, show that it was mainly from the second half of the century onward that Tunisian turquoise and white tin-glazed pottery, as well as Spanish wares (*verde y morado* majolica) and possibly early examples of *cuerda seca parcial* (dating from the mid-eleventh to the late 12th century), began to arrive in significant quantities – together with Sicilian pottery (*pavoncella* glazed wares) consistently associated with single-fired glazed pottery from Latium.⁶¹ The presence of *Turclis*, *Libicis quoque Parthis* in Pisa likely also contributed to the increases appearance of glazed pottery on urban tables, as noted by the Benedictine monk Donizone in his life of Matilda of Canossa, written between 1111 and 1116.⁶² However, there seems to have been a decrease in Sicilian amphorae, possibly connected to the crisis of Palermo.⁶³

Genoa, whose economic growth was already underway at the beginning of the 11th century – as evidenced by the existence of an urban expansion outside the walls in 1034⁶⁴ – often accompanied Pisa in the looting of Spanish (1015-6) and Tunisian cities (1087). However, it was only from the mid-eleventh century onward that Genoese merchants became active in Egypt.⁶⁵ The imported ceramics in Liguria during the 11th century reflect this. Examples include polychrome and monochrome glazed ceramics (San Paragorio di Noli, first half of the 11th century),⁶⁶ glazed ceramics painted in brown and green

⁵⁹ Wickham, 508, 510, 527.

⁶⁰ Wickham, 599.

⁶¹ Meo, "L'ordinario e l'eccezione," 63 (archaeological excavations of Piazza Dante, via Cavaleca, Piazza dei Cavalieri).

⁶² Donizone, *Vita di Matilde*, Lib. I, XX, vv. 1370-1373. On the relationship between ceramics and allochthonous communities, see also Molinari, "Riflessioni sulle economie," 169.

⁶³ Meo, "Anfore, uomini e reti," 229. Fatighenti, "I contenitori da trasporto," 36.

⁶⁴ Wickham, *The Donkey and the Boat*, 538.

⁶⁵ Wickham, 537.

⁶⁶ Frondoni, "I bacini di S. Paragorio."

from Sicily and Tunisia,⁶⁷ and green tin-glazed ceramics *a boli gialli* from Tunisia.⁶⁸ Between the mid-eleventh and the first half of the 12th centuries, we also have evidence of lusterware, probably from Egypt (Savona).⁶⁹ During the 11th century, light-colored slipware also arrived from the Aegean area.⁷⁰ In the Venetian lagoon, imported ceramics appear only from the mid-eleventh century onward. These include Egyptian products (fritware?, monochrome sgraffito wares, polychrome tin-glazed ceramics, and polychrome painted glazed wares),⁷¹ as well as rare polychrome glazed ceramics from Sicily and the Maghreb (generically dated to the 11th century).⁷² Within a broader, less precisely defined chronological range – between the 11th and 13th centuries – we also find Aegean amphorae with grooved walls, some likely used for wine (such as Malvasia from Attica).⁷³

2.2.2. *The countryside*

Even in the countryside, between the late 10th and early 11th centuries, a season of renewed religious construction began. Marquisal patronage appears to have been directed primarily toward monastic institutions. In the Aleramic march – in Piedmont and southern Liguria – we find the Abbey of San Quintino in Spigno (991), founded by Marquis Anselmo, and the Abbey of Santa Giustina in Sezzadio (Alessandria) (1030), which preserves in the mosaic pavement of its crypt a commemorative inscription for Marquis Otbert, identified as *reparator et ornator*. In Piedmont, the Arduinic marquises of Turin established a network of religious institutions in the Susa Valley, including the Abbey of San Giusto (1029). In Emilia, the Canossa family, under Marquis Tedaldo, founded the Abbey of San Benedetto al Polirone in 1007 on an island of the Po River near Mantua. In the Apennine area between eastern Liguria and Emilia, Marquis Otbert II (of the Obertenghi family) founded the monastery of San Giovanni in Vigolo Marchese at the beginning of the 11th century, within the diocese of Piacenza.⁷⁴ In Tuscany, during the same period, the monastery of San Salvatore al Monte Amiata was rebuilt, with two towers added to its façade, and consecrated in 1036 by the Patriarch of Aquileia and

⁶⁷ Benente, “Ceramica d’importazione islamica,” 134-7.

⁶⁸ Benente, 137-8.

⁶⁹ Benente, 146; Benente, “La ceramica d’importazione dal Mediterraneo;” De Vingo, “La céramique d’importation.”

⁷⁰ Gardini, “La ceramica bizantina in Liguria,” 56.

⁷¹ Gelichi, “Islamic Pottery in the Neighbourhood;” Gelichi et al., “Importare, produrre e consumare,” 94-5; Gelichi, “The Other Than Self,” 433-7. Globular amphorae continue to arrive from the East and Southern Italy (Gelichi, et al., “Importare, produrre e consumare,” 55-72).

⁷² Saccardo et al., “Ceramiche importate a Venezia,” 398.

⁷³ Gardini, “La ceramica bizantina in Liguria,” 52-4.

⁷⁴ Tosco, *L’architettura medievale in Italia*, 117-20.

eighteen bishops.⁷⁵ In the Venetian lagoon, Doge Pietro II initiated the reconstruction of the basilica of Torcello.⁷⁶

New investments also involved the renovation and enlargement of parish churches, as in the case of San Genesio (San Miniato, Pisa) (Fig. 8), which contains crypts intended for relics. The construction of these buildings required greater investment in the procurement of stone than that of castles: in northern Italy, the stone used for fortified settlements was typically sourced from areas up to 5 km away, whereas the material used for parish churches come from distances of up to 50 km.⁷⁷

Fortified structures, however, underwent renovations, though not according to standardized urban planning models. This perhaps reflects the different financial resources of their owners – whose composition appears socially broader than that of those active in the 10th century – and perhaps also the initiative of rural communities. The Tuscan evidence reveals an extremely varied range of interventions, from the construction of wooden palisade, following early medieval traditions, to true walls made of split stones bound with soil or lime (fig. 9). In some cases, particularly in structures belonging to prominent aristocratic families, squared ashlar were employed at the corners, as shown by the castle of Prato, attributable to the Alberti. Stone towers also became more widespread, though those requiring substantial investment continued to be associated with major noble families, as in the case of the Cadolingian tower in Fucecchio (before 1043), where reused materials still predominated in the masonry.⁷⁸ Moreover, between the second half of the 10th and the 11th centuries, some castles also came to include churches (for Tuscany, see the cases of Montemassi, Rocca San Silvestro, and Mirandulo).⁷⁹ A similar situation can be observed in other regions of central and northern Italy.⁸⁰

Construction for lower classes, on the other hand, shows little variation from the preceding period. This may reflect the fact that landowners had not yet demonstrated an interest in consolidating their power over rural areas through the improvement of their subjects' living conditions. Their primary objective instead appears to have been the intensification of resource extraction, allowing them to invest in cities, often by exploiting tolls levied along roads, bridges, and river ports, as attested on the Arno and Tiber.⁸¹

⁷⁵ Tosco, 133.

⁷⁶ Tosco, 126.

⁷⁷ Cantini, e Cirelli, "Mercati, economie e incastellamento," 149.

⁷⁸ Cantini, "Specchiarsi nella pietra."

⁷⁹ Mancassola, "Castelli e chiese," 129-30.

⁸⁰ Carocci, "Nobiltà e pietrificazione," 89-92; for central eastern Emilia, see Mancassola, "L'incastellamento in Emilia," 360-2.

⁸¹ Cantini, e Cirelli, "Mercati, economie e incastellamento," 167.



Fig. 8. The church of San Genesio in the 11th century. Plan by the author.

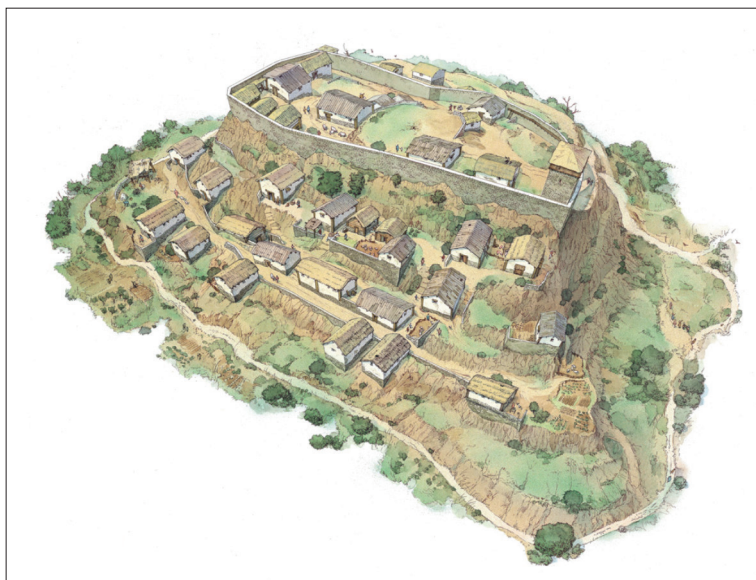


Fig. 9. The Montarrenti Castle in the late 10th and early 11th century, from Cantini, *Il castello di Montarrenti*, 234, tab. 51.

2.3. The 12th century

2.3.1. Cities

In the 12th century, the developments of the previous century fully took shape and spread across central and northern Italy. The emergence, between the late 11th and mid-twelfth centuries, of agnatic lineages with equal succession among all male children⁸² likely contributed – together with a widespread economic growth – to bringing many more actors into the arena of urban confrontation than in earlier centuries.

The construction of towers was now also promoted by the urban middle classes, as evidenced in Padua, where they were built along the main thoroughfares, near the bishop's residence, and in the area where future public buildings would rise. The lower three-four meters were constructed from large blocks of reused white limestone or trachyte, while the upper parts were made of ancient bricks.⁸³ This does not mean that the urban fabric had become entirely petrified: a large number of smaller structures made of wood and perishable materials still remained.⁸⁴

Large blocks of ancient marble were likewise used in the bases of towers in Brescia, which were also characterized by the use of ashlar.⁸⁵

In Genoa, from the beginning of the 12th century, instead, large squared and smoothed blocks (sometimes also ashlar ones) from nearby quarries were employed and laid in horizontal courses (*opus novum*).⁸⁶

In Pisa, from the late 11th or early 12th century, a new architectural model also emerged: the tower-house, with a rectangular plan, often featuring arcades on the ground floor and numerous openings. This type of residential building was subsequently adopted in other urban centers from the second half of the 12th century, using local stone material.⁸⁷

The vertical development of construction appears to have been the defining feature of both residential and military stone architecture in the 12th century, as is also evidenced in Mantua, where the distinction between *domus alta murata*, *domus alta murata sive turris*, and *turris sive casaturris* sometimes appears rather uncertain.⁸⁸

Even in Rome, it is from the late 11th century – and more clearly from the 12th century onward – that a broader diffusion of masonry construction can be observed as a prerogative of the city's nobility. These elites invested in architectural complexes that included “towers, warehouses, shops, service struc-

⁸² Carocci, “Nobiltà e pietrificazione,” 85-6.

⁸³ Carocci, 117.

⁸⁴ Chavarria Arnau, “Case solarate e domus.”

⁸⁵ Carocci, “Nobiltà e pietrificazione,” 117.

⁸⁶ Carocci, 118.

⁸⁷ Cantini, “Specchiarsi nella pietra.”

⁸⁸ Carocci, “Nobiltà e pietrificazione,” 122; Gardoni, *Fra torri e “magnae domus”*, 26.



Fig. 10. The *domus* of the Crescenzi in Rome.

tures such as ovens and baths; porticoes, small squares, residential houses for the various families forming the kin group; other houses rented to followers and intended to accommodate new families of the same kinship group”, alongside churches under family patronage and, from the late 12th century, *domus magnae e palatia*.⁸⁹ From the point of view of building materials, the towers continued to employ ancient brick – at least in the external facing – while tufa blocks were used for the internal walls.⁹⁰

Regarding the *domus magnae*, Rome offers exceptional evidence of a renewed use of celebratory epigraphy – inscriptions that honor not only the builder of the *domus* but also the build-

ing itself. The inscription on the Tor dei Conti, dating to the second half of the 12th century, refers to a previous structure, *quam fortis intus nimis composita foris*, and to a builder, one *Petrus, strenuus ille fidus miles fortissimus atque*, belonging to the Roman nobility, who, unfortunately, remains otherwise unknown. To the first half of the same century are attributed the four inscriptions displayed on the façades of the so-called house of the Crescenzi, a building owned by a certain *Nicolaus*, son of *Crescens* and *Theodora*, perhaps associated with a *domus magna* and constructed of bricks and numerous marble *spolia*. In this case, it is the building itself that speaks, defining itself as a *grandis honor* for the Roman people, as well as *optima tecta* and *domus sublimis*, which, with its *culmina, surgit in astra*⁹¹ (Fig. 10).

In Genoa, at the end of the 12th century, the powerful Embriaci family built a *domus magna*, adjoining it to two pre-existing towers in the Castello area, which had been dominated since the second half of the 11th century, by the *palatium castri*. The complex formed the nucleus of the *curia Embriacorum* (1186), which comprised a series of properties facing a square.⁹²

⁸⁹ Carocci, “Nobiltà e pietrificazione,” 104-5.

⁹⁰ Carocci, 118.

⁹¹ Carocci, “Epigrafi e attività edilizia.” I thank Sandro Carocci for giving me the opportunity to read the text while it was still in draft form.

⁹² Benente, “Indagini archeologiche.”

The proliferation of stone structures – predominantly tower-like – was sustained by the strong identity value these buildings assumed for families and, especially from the mid-century onward, for *consortia* of families.⁹³ In addition to sharing construction costs, these groups also made the towers instruments of solidarity and political promotion, in a context increasingly marked by competition for power within the new forms of urban self-government – no longer restrained by royal authority, as still occurred in France, Spain, and southern Italy, where, in fact, the phenomenon of urban towers never developed.⁹⁴

For many cities of central-northern Italy, we might adopt the image offered by a foreign traveler who, at the beginning of the 13th century, compared the number of towers in Rome to the ears of wheat in a field.⁹⁵ If Rome had at least 300 towers, Bologna had over 200, and Florence 186.⁹⁶

The investment in stone, however, also extended to non-tower residences, such as buildings with porticoes built in Rome between the late 12th and early 13th centuries.⁹⁷

The expansion of the urban real estate market is also evidenced by the rise of property prices – partly driven by currency devaluation – which reached their peak in the cities of northern Tuscany (Florence, Lucca, Pistoia, and Siena) during the second half of the 12th century. The only exception was Pisa, where this phenomenon occurred already in the first half of the same century. This price increase affected urban areas more than the countryside and coincided with a rise in the number of sales contracts.⁹⁸

From the mid-twelfth century onward, particular attention was paid to public infrastructure. Numerous projects for the construction or restoration of city walls date from this period: in Tuscany, we find the cases of Pisa (from 1155), Florence (in the 1170s), Pistoia (from the second half of the century), Lucca (between 1188 and 1198), and Arezzo (between 1194 and 1200).⁹⁹ In Rome, the commune even commemorated, with a public inscription, the restoration of the urban fortifications carried out in 1157 and, perhaps in 1191, that of the Pons Cestius.¹⁰⁰ In the same period in Tuscany, work also began on renewing roads and improving water drainage systems.¹⁰¹

⁹³ Cantini, “Specchiarsi nella pietra,” 83.

⁹⁴ Carocci, “Nobiltà e pietrificazione,” 109, 136-7, 140.

⁹⁵ Carocci, “Portici, palazzi, torri,” 18.

⁹⁶ Carocci, “Nobiltà e pietrificazione,” 112, 117.

⁹⁷ These structures followed different models: some featured marble entablatures connecting ancient columns of uniform size, topped with newly crafted Ionic capitals similar to those found in churches; others had brick arches linking columns of varying sizes, fitted with either ancient or newly crafted Ionic capitals – or, in some cases, with abaci; in other examples, brick arches connected sections of columns resting on tuff walls (see Carocci, “Portici, palazzi, torri,” 11-2).

⁹⁸ Faini, *Firenze nell'età romanica*, 112-6.

⁹⁹ Cantini, “Specchiarsi nella pietra,” 83 with previous bibliographical references.

¹⁰⁰ Carocci “Epigrafi e attività edilizia.”

¹⁰¹ Cantini, “Costruire lo sviluppo,” 139.

It seems, instead, that was mainly toward the end of the century – after the death of Henry VI (1197) and following a period in which the representatives of the commune held their assemblies inside or near certain religious buildings – that the construction of the first public buildings began.¹⁰²

The expansion of the building sector also led to the reactivation of brick production: in Pisa from the beginning of the 12th century, in Lucca from the 1170s, and in Pistoia from the 1180s.¹⁰³

On the ecclesiastical side, from the late 11th century onward, the constructive koine that had characterized the preceding centuries was broken. It gave way to a series of local traditions that would endure beyond the Middle Ages,¹⁰⁴ accompanying the rise and development of communal government structures. Sacred architectures, and especially episcopal ones (Pisa, Modena, Parma, Bergamo, Brescia, Genoa, Novara, and Milan), become the stage upon which the identity values of communal society were expressed. Indeed, Roman sarcophagi containing the remains of members of the urban elites were displayed right in front of, or along the perimeters of, the cathedral facades.¹⁰⁵ In Pisa, works on the episcopal church continued

under the master Guglielmo, active in the mid-twelfth century. The city also expanded its cultural and commercial horizons by participating in the Crusades; it was, in fact, the Archbishop of Pisa, Daibert, who was elected the first canonical Latin Patriarch of Jerusalem. It is no coincidence that the Baptistery of San Giovanni – whose construction began in 1152/53 and for which columns were quarried on the islands of Elba and Sardinia – was inspired by the Holy Sepulcher of Jerusalem. The construction of the episcopal complex, to which the bell tower was added in 1173, gave rise to a veritable architectural school that influenced not only urban buildings but also parish churches in the surrounding countryside (Cascina, Vicopisano, Calci).¹⁰⁶

In Rome, a new phase of investment in the restoration of ancient architectural heritage and in the construction of new churches¹⁰⁷ began during the pontificate of Paschal II (1099-1118). Notable examples include the reconstruction of the Basilica of San Clemente, in which the early Christian building was buried and a smaller church erected above it, consecrated in 1118, and the construction of Santa Maria in Trastevere, completed in 1148 with *spolia* from the Baths of Caracalla. The latter church closely follows the late antique basilica models, particularly that of Santa Maria Antiqua.¹⁰⁸

The construction or reconstruction of churches in Rome between the late 11th and the first half of the 12th century (San Clemente, Sant'Adriano, Santa

¹⁰² Tosco, "Potere civile e architettura," Augenti, "Identità urbane in Italia," 160.

¹⁰³ Cantini, "Specchiarsi nella pietra," 83.

¹⁰⁴ Tosco, *L'architettura medievale in Italia*, 157.

¹⁰⁵ Cantini, "Le fonti archeologiche."

¹⁰⁶ Tosco, *L'architettura medievale in Italia*, 208-11.

¹⁰⁷ Guidobaldi, "Un estesissimo intervento."

¹⁰⁸ Tosco, *L'architettura medievale in Italia*, 245-51.

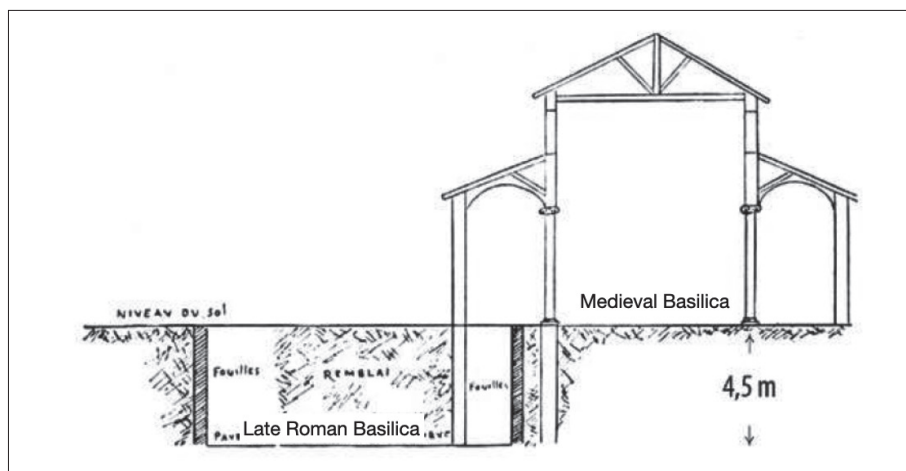


Fig. 11. Section of the Church of San Crisogono, showing the floor levels of the Early Christian and Medieval churches. From Guidobaldi, “Un estesissimo intervento,” 591, fig. 11.

Maria de Inferno, Santi Quirico e Giulitta, Santa Maria in Via Lata, San Marcello, San Nicola de Calcarario, San Crisogono (Fig. 11), and Santa Pudenziana) was accompanied, beginning with the pontificate of Paschal II, by extensive landfilling (ranging from 2 to 4 meters) in the low-lying and flat areas between the city’s hills. These large-scale interventions were likely necessary to reclaim marshy urban sectors and to make pathways – particularly those used for papal processions between the Lateran and the Vatican – once again traversable and suitable for construction. These routes were sometimes obstructed by the ruins of ancient monuments, which were occasionally demolished deliberately in order to recover marble elements for reuse or to be burned in lime kilns.¹⁰⁹

Significant artificial landfills, dating from the 11th to the first half of the 12th century, have also been documented in Florence’s Piazza della Signoria, over the remains of a Hadrianic-era thermal complex. These were intended to eliminate differences in floor levels and to create new horizons for construction.¹¹⁰

This new phase of investment was also sustained by the expansion of regional markets and the consolidation of Mediterranean ones.

Venice signed a treaty with Verona regulating the trade of cloth and hides in 1107,¹¹¹ while it had already been trading with the Levant since 1083 and ob-

¹⁰⁹ This period – marked by a significant intensification of urban interventions associated with the construction and reconstruction of sacred buildings – was also characterized by the emergence of specialized craftsmen, such as the so-called Cosmatesque masters, who would soon achieve great renown. These projects were primarily financed by the Roman Church, whose coffers were likely replenished through donations linked to papal privileges, tributes, pilgrimage revenues, and other forms of contribution (see Guidobaldi, “Un estesissimo intervento”).

¹¹⁰ De Marinis, et al., “Piazza della Signoria.”

¹¹¹ Wickham, *The Donkey and the Boat*, 525.

tained concessions in Jerusalem and Tripoli from 1110.¹¹² At the same time, in exchange for military support, the Crusaders granted Genoa trade privileges in Antioch, Lādhīqiya, Caesarea, and Acre, as well as exemptions from port duties between (1098-1109).¹¹³

In 1139, the Genoese began minting silver coins after obtaining half of the silver mines in the Kingdom of Arborea in 1138.¹¹⁴ That same year, they renovated the port,¹¹⁵ which was frequented by merchants from Spain, northern France, and the Netherlands. Between 1128 and 1149, the port received slaves from Barcelona; bales of wool or hemp from northern Europe; fabrics and weapons from northern Italy; iron from Pisa; cotton from Sicily, Alexandria, and Antioch; as well as spices, coral, tin, and copper, dyes and alum, grain, salt, flax, oil, and almonds. Duties levied on these goods significantly enriched Genoa's coffers.¹¹⁶

The city's Mediterranean orientation is also evident from the analysis of stratified waste pits discovered within a tower belonging to the *curia Embriacorum*: between the late 11th and early 12th centuries, these deposits contained Beirut glazed ware, Syrian fritware, Fustat Fatimid sgraffito, *cuerda seca total* from Spain or Morocco, and North African jugs (Fig. 12).¹¹⁷ Genoese and Ligurian finds reveal brown painted, green-glazed or green-tin-glazed Tunisian ware (12th century),¹¹⁸ white-slipped ware (12th-early 13th century) with clear yellowish, yellow-brown, or green glaze (12th century) from Attica,¹¹⁹ Byzantine sgraffito ware,¹²⁰ and monochrome green-glazed wares with *decoraciones estampilladas* from Spain and the Maghreb (12th century).¹²¹ In Genoa, 12th-century contexts also yield green monochrome glazed ware from Attica/Corinth and brown monochrome ware from Spain and Greece,¹²² while in Savona unglazed basins from Mallorca or Valencia have also been found.¹²³

Demographic growth compelled cities to secure primary goods essential for the population's sustenance. To this end, Genoa signed a treaty with the King of Sicily for grain imports in 1156, part of which had already been arriving from Corsica and Sardinia (from 1120-40).¹²⁴

Meanwhile, the Pisans – who had established consuls since the early 12th century – continued their military ventures, sacking Majorca in 1113-4, at-

¹¹² Wickham, 515.

¹¹³ Wickham, 549.

¹¹⁴ Wickham, 549-50.

¹¹⁵ Wickham, 538.

¹¹⁶ Wickham, 541.

¹¹⁷ Benente, "La cucina, la mensa e la dispensa," 116-8.

¹¹⁸ Benente, "Ceramica d'importazione islamica," 139-40.

¹¹⁹ Gardini, "La ceramica bizantina in Liguria," 57-8; Benente, "Ceramica d'importazione islamica," 148-9.

¹²⁰ Benente, "La ceramica d'importazione dal Mediterraneo."

¹²¹ Benente, "Ceramica d'importazione islamica," 138-9.

¹²² Gardini, "La ceramica bizantina in Liguria," 56.

¹²³ Benente, "Ceramica d'importazione islamica," 150.

¹²⁴ Wickham, *The Donkey and the Boat*, 536.



Fig. 12. Beirut glazed ware from the Embriaci Tower in Genoa, 12th century. From Benente, “Circolazione e produzione,” 23, fig. 3.

tacking Amalfi in 1134, clashing with Genoa over control of Corsica and Sardinia between 1118-23, and being noted as arms producers in 1140.¹²⁵ At the same time, they developed a commercial network across various Mediterranean regions, in which prominent families playing key roles. The Embriaci family, for instance, were involved in sending cloth from Piacenza to Constantinople and Alexandria in 1130; by 1140, Pisan colonies had been established in Constantinople, Alexandria, Messina, Egypt, and Béjaïa (Algeria).¹²⁶

Pisan expansion also extended into the Tuscan territory. Probably from the death of Matilda (1115), the city controlled Elba, and by the first half of the 12th century, the entire coastal strip up to Piombino,¹²⁷ where Mediterranean imported ceramics likely arrived through Pisa’s mediation.¹²⁸ The urban center was frequented by French and German merchants, as indicated by a treaty with Lucca in 1140: Lucca preferred to use the port of Genoa to import raw French fabrics, which it then dyed and refined into luxury goods.¹²⁹

¹²⁵ Wickham, 559, 566.

¹²⁶ Wickham, 563.

¹²⁷ Wickham, 560.

¹²⁸ Cantini, Grassi, “Produzione, circolazione e consumo.”

¹²⁹ Wickham, *The Donkey and the Boat*, 581.

This phase of economic development in north-central Italy was scarcely affected by the wars against Barbarossa in the third quarter of the century and by the imposition of imperial taxes.¹³⁰

In the second half of the 12th century, the phenomena described above multiplied: treaties between the cities of the peninsula¹³¹ and with Mediterranean¹³² centers became more frequent, and merchant mobility increased, often leading traders to settle in foreign cities.¹³³

The Venetians maintained their relations with Egypt (Alexandria, 1172), where they purchased pepper, alum (1170, 1180) and flax (1188), and exported timber, partly sourced from Verona (1173). They established colonies in Tyre and Acre (1173), where they sold iron (1162); imported wine from the Byzantine world (1173); and exported slaves and copper (1170).¹³⁴

From the mid-twelfth century onward, the importation of polychrome sgraffito Byzantine ware¹³⁵ and fritware from Egypt and/or Syria became increasingly significant, while Islamic ceramics from the western Mediterranean – such as Tunisian cobalt and manganese ware – remained rare until the late 12th century. From the Byzantine sphere also came Gunsenin III-type amphorae, produced on Euboea.¹³⁶

Meanwhile, a wide range of products were exported from Genoa's port: textiles (especially fustian) from Milan and Piacenza (1158, 1160), more rarely linen, hemp and wool; Sicilian or Spanish silk, resold in Egypt; and cloth from northern France (St-Requier), possibly from Paris, as well as from Lucca, where wool fabrics from Bologna and Verona¹³⁷ were already recorded in the 1140s. These textiles were resold by the Genoese in Salerno, Sicily, the Levant, Béjaïa, and Spain.¹³⁸ By the end of the 12th century, textiles contin-

¹³⁰ Wickham, 475-6, 498, 500.

¹³¹ Venice signs treaties with Cremona (1173), Ferrara (1177, 1191), Treviso (1198), and other cities until 1200; Genoa with Pisa (1149, 1175) and Lucca (1153) (Wickham, *The Donkey and the Boat*, 541-2).

¹³² Genoa entered into a series of trade agreements with Provence and Languedoc, Valencia (from which silk was imported), Byzantium, Sicily, and the Almohad Caliphate (1150). It subsequently concluded further agreements with Sicily (importing spices, dyes, pepper, large quantities of cotton, wheat, and salt), North Africa, Alexandria, the Levant, Byzantium, Southern France, Spain, Sardinia, mainland Italy, southern Liguria, and Lombardy (from 1154 to 1164) (Wickham, *The Donkey and the Boat*, 541-4, 547).

¹³³ In Genoa there were, as residents, people from France, Salerno, Milan, Piacenza and Lucca (Wickham, *The donkey and the Boat*, 545).

¹³⁴ Wickham, *The Donkey and the Boat*, 517-9, 527. For pottery of the 12th century, see Gelichi et al. "Importare, produrre e consumare," 58.

¹³⁵ These wares were produced in Corinth (*Corinthian Sgraffito Wares*), where a Venetian colony was established in the 12th century; by the end of the century, *Zeuxippus ware* ed *Aegenan Ware* (Saccardo et al., "Ceramiche importate a Venezia").

¹³⁶ Gelichi et al. "Importare, produrre e consumare," 95-96; Saccardo et al., "Ceramiche importate a Venezia." Molinari, "Le anfore medievali come proxy," 300.

¹³⁷ Wickham, *The donkey and the Boat*, 548, 585. In Tuscany wool production seems to have taken hold with the start of transhumance from the Garfagnana areas towards the coast (from 1150 onwards: Wickham, 491).

¹³⁸ Wickham, 548.

ued to arrive from northern France, together with fustian from Milan, Pavia, and Piacenza, destined for Sicily, from where raw cotton was imported and sent to Lombardy.¹³⁹ This overview shows how textiles – including Lucchese silk – played a major role in Genoa's economy, although German copper and Verona and Pisa iron were also traded.¹⁴⁰ Economic growth was accompanied by urban (the new borough established in 1150 was larger than the old *civitas*; urban sewers were recorded in 1162, and three markets in 1186) and by demographic growth (reaching some 20,000 people),¹⁴¹ as well as by the arrival of new Mediterranean ceramics that heralded the beginning of production in Savona (archaic sgraffito) which was widely exported.¹⁴² This picture is also confirmed by the analysis of late 12th to early 13th-century waste pits of the *curia Embriacorum*: finds include green-glazed and metallic lusterware from Al-Andalus, Byzantine Zeuxippus ware,¹⁴³ green monochrome slipped ware from the Aegean-Anatolian area, early Savona productions (archaic sgraffito, Ligurian protomajolica), and southern Italian (spiral ware, Apulian and Sicilian protomajolica), along with Tunisian ceramics (cobalt and manganese), soapstone from the Central Alps, a Black Sea amphora, an Islamic jar (from Spain or Morocco), and some Pisan archaic majolica dating to around the mid-thirteenth century.¹⁴⁴ The picture becomes even broader when considering excavation finds and Ligurian basins as a whole, which include: Egyptian and Al-Andalus lusterware;¹⁴⁵ glazed slip wares with green-splashed decoration from the Aegean-Anatolian area (mid-twelfth to early 13th century);¹⁴⁶ Byzantine slip-painted wares (12th-early 13th century);¹⁴⁷ Egyptian sgraffito glazed wares with siliceous fabric;¹⁴⁸ Syrian Raqqa ware (late 12th-13th century);¹⁴⁹ and Minai ware and moulded ware from Iran (12th-early 13th century).¹⁵⁰

Pisa followed a similar trajectory, signing new treaties with Egypt (1154) – to which it exported iron, weapons, timber, and pitch, and from which it imported alum – and with Saladin (1173). Some Pisan ships arrived at the port from Byzantium, Sicily, Egypt, Syria, and Africa (1150), while others departed for Alexandria via Venice (1174).¹⁵¹ In 1173, a Pisan merchant was in Saint-Gilles, near Arles, and in 1179, fabrics from northern France reached

¹³⁹ Wickham, 552-3.

¹⁴⁰ Wickham, 553-4.

¹⁴¹ Wickham, 539.

¹⁴² Wickham, 555-6.

¹⁴³ For the findings in Savona see Benente, "Ceramica d'importazione islamica," 149-50.

¹⁴⁴ Benente, "La cucina, la mensa e la dispensa," 118-33.

¹⁴⁵ Benente, "Ceramica d'importazione islamica," 146-7.

¹⁴⁶ Benente, 149.

¹⁴⁷ Gardini, "La ceramica bizantina in Liguria," 60.

¹⁴⁸ Benente, "Ceramica d'importazione islamica," 147-8.

¹⁴⁹ Benente, 148; De Vingo, "La céramique d'importation," 287, the Raqqa Ware found in the Palazzo Ducale in Genoa is dated to the first half of the 12th century.

¹⁵⁰ Wickham, *The donkey and the Boat*, 554-5; Benente, "La ceramica d'importazione dal Mediterraneo."

¹⁵¹ Wickham, *The donkey and the Boat*, 562.

the city.¹⁵² As in Genoa, Tunisian cobalt and manganese ceramics also flooded the Pisan market, surpassing Sicilian productions.¹⁵³ Andalusian white tin-glazed and *esgrafiada* ceramics, as well as green- and tin-glazed stamped ware, were likewise imported, while Egyptian lusterware began to be attested with some certainty alongside Spanish lusterware (now also with sgraffito) from the mid-twelfth century.¹⁵⁴ At the same time, Palermo painted amphorae,¹⁵⁵ Aegean amphorae,¹⁵⁶ Tunisian, and possibly Spanish transport containers, as well as Campanian red spiral-painted jugs – documented through excavations in the area of Sant’Eufrasia, Via Cavalca, and Piazza Dante – were also imported.¹⁵⁷ Kitchenware was partly imported from the Ligurian area as well.¹⁵⁸ The conquest of markets and regions rich in raw materials led to renewed clashes with Genoa over control of Corsica and Sardinia (1162-75).¹⁵⁹

During this phase of major expansion in Mediterranean trade, Rome too saw an increased presence of imported ceramics and goods: Sicilian amphorae (from Santa Cecilia in Trastevere) and table wares (Foro di Nerva); pottery from Euboea;¹⁶⁰ Campanian green-glazed and painted-glazed wares; and Tunisian glazed wares. Imported pottery was used both on the table of the wealthiest households and as architectural decoration on bell towers (Foro di Nerva, Santa Maria della Luce, Santa Croce di Gerusalemme, Santa Cecilia in Trastevere, Santi Giovanni e Polo, San Bartolomeo all’Isola).¹⁶¹

2.3.2. *The countryside*

The 12th century – particularly its second half – represents a phase of new, broader, and more widespread investment even in rural areas. Among the protagonists of this period were once again bishops and the great noble and comital families, who promoted the foundation of new villages (*terre nuove* and *borghi nuovi*) from the 1220s onward, while the cities undertook such ventures mainly toward the end of the century, as in the case of Verona, which founded Villafranca in 1185.¹⁶²

¹⁵² Wickham, 564.

¹⁵³ Wickham, 571-2.

¹⁵⁴ Meo, “L’ordinario e l’eccezione,” 64, 66; Meo, “Anfore, uomini e reti,” 232.

¹⁵⁵ On the issue of the possible residuality of Sicilian amphorae in the 12th century see Molinari, “Le anfore medievali come proxy.”

¹⁵⁶ Baldassarri, “La ceramica di produzione,” 38: five amphorae defined as Byzantine come from the excavation of Piazza Consoli del Mare, from a context dated between the mid/late 12th and early 13th century.

¹⁵⁷ Meo, “Anfore, uomini e reti,” 230-1.

¹⁵⁸ Baldassarri, “La ceramica di produzione,” 38.

¹⁵⁹ Wickham, *The donkey and the Boat*, 560.

¹⁶⁰ Molinari, “Le anfore medievali come proxy,” 299.

¹⁶¹ Russo, “I romani e il gusto esotico,” 131-2.

¹⁶² Brogiolo, “Aspetti sociali delle architetture.”

At the initiative of major aristocratic families – again beginning from the second half of the century – new urban settlements were established. Poggio Bonizio (Siena) immediately saw the involvement of specialized craftsmen engaged in constructing two- or three-story buildings, measuring 29 x 9 meters in plan, with well-squared travertine ashlar facades, double-arched entrances, and limestone slab roofs, equipped with masonry cisterns and silos. By the end of the 12th century, when it became a commune, the settlement had expanded to over seven hectares, with urbanization advancing through row houses built by merchants and entrepreneurs (Fig. 13).¹⁶³

Within castles, bishops and noble families began to construct the first palaces, following the model of urban residences, while towers multiply and churches were incorporated – often also serving as cemeteries.¹⁶⁴ City authorities also promoted the reconstruction of castle walls, as in Ripafratta (Pisa), where more refined techniques were applied, using squared stones on horizontal courses.

Case solariate and stone tower-houses (*case-torri*) spread between the 12th and 13th centuries, even in open settlements, both in the plains (San Genesio) (Fig. 14) and in the hills, such as those of the Reggiano Apennines. These were characterized by similar ground plans (12 x 8 meters) and by openings with monolithic lintels.¹⁶⁵

However, some initiatives must also be attributed, already from the beginning of the century, to the *milites castri* (see, for example, the case of Manzano).¹⁶⁶ These emerging social groups began to build towers in order to mark their social distance from the peasant classes, who still lived in wooden houses within rural castles. Especially from the second half of the 12th century onward, this dynamic often generated local conflicts between families, prompting bishops to respond by ordering the demolition of the tallest houses and their defensive structures, as also occurred in cities (see the case of the villages under the lordship of the bishop of Verona).¹⁶⁷

The consolidation of rural construction is also evident in areas lacking stone quarries, where until this moment wood and earth had been used for building houses. From the end of the century, the introduction of brick made this transformation possible (as seen at San Genesio).¹⁶⁸

Lordships now tended to use castles as a means to control the workforce employed in exploiting their territories' resources, whether agricultural or otherwise (metals, primarily iron and later coinage metals, stone, and so forth).¹⁶⁹ Especially from the second half of the century onward, fortified centers increas-

¹⁶³ Francovich, e Valenti, *Poggio Imperiale*.

¹⁶⁴ Cantini, e Cirelli, "Mercati, economie e incastellamento," 168.

¹⁶⁵ Zoni, "Edilizia civile in pietra."

¹⁶⁶ Carocci, "Nobiltà e pietrificazione," 87; Fiore, *Il mutamento signorile*, 72.

¹⁶⁷ Carocci, "Nobiltà e pietrificazione," 87-8.

¹⁶⁸ Cantini et al., "Il borgo di San Genesio." On the spread of brickmaking in Tuscany see Frati, "La tecnologia del laterizio."

¹⁶⁹ Cantini, Cirelli, "Mercati, economie e incastellamento," 169.



Fig. 13. Reconstruction of Poggio Bonizio in the second half of the 12th century. From *Poggio Imperiale a Poggibonsi*, 152.



Fig. 14. San Genesio in the third quarter of the 12th century. From Cantini et al., "Il borgo di San Genesio," 74, fig. 27.

ingly concentrated settlement at the expense of dispersed habitation, resulting in the expansion of villages with stone structures (Montecatini, Pistoia).¹⁷⁰ The improvement in the economic status of rural populations is also evidenced by the growing presence of currency – especially from the mid-twelfth century – within castles and villages across central-northern Italy.¹⁷¹

New investments also concern the parish churches, whose restructuring, expansion, or reconstruction strongly reflects the models of urban cathedrals.¹⁷²

3. *Possible explanations*

Between the 10th and 12th centuries, from a material standpoint, the most evident changes can be observed in the building sector, which was – and remains – an economically significant indicator of greater or lesser wealth within a society.

Building new structures requires labor: the more complex the building, the greater the level of specialization required of those managing and working on the site. The size of the structure also affects the number of men needed to retrieve, work, and deploy construction materials, as well as the time dedicated to the project.

However, there is also a need for entities that can invest capital and/or impose unpaid labor.

At least since the last quarter of the 10th century, the most active patrons of construction were secular public authorities (such as kings and marquises), bishops, and abbots, whose initiatives primarily favored urban spaces and religious structures rather than royal or marquis palaces, at least in quantitative terms. After all, the main source of wealth, namely land and its associated resources, was predominantly concentrated in fiscal and ecclesiastical holdings, administered through the manorial system. From the Ottonian period onward, this wealth, hitherto mainly accumulated or redistributed among their entourages, began to be invested primarily in the restructuring or reconstruction of churches, and in the maintenance or renovation of episcopal as well as royal and marquis palaces. The number of stone or reused-brick residential buildings belonging to the aristocracy and to middle- or lower-ranking social groups still appears limited, reflecting the reduced availability of resources among these subjects. Nonetheless, this was a period in which demand did not yet exceed the supply of *spolia* readily available from the Roman ruins that still dotted the landscape of many cities.

¹⁷⁰ Cantini, “Specchiarsi nella pietra,” 85.

¹⁷¹ Cantini, e Cirelli, “Mercati, economie e incastellamento,” 145.

¹⁷² For San Genesio see Cantini et al., “Il borgo di San Genesio.”

A similar, though less intense, pattern can be observed in the countryside, where the principal agents of substantial new building activity continued to be members of comital families, marquises, or bishops. However, the rural landscape had changed compared to the past: the number of inhabited sites had increased, occupying not only elevated areas – with perishable structures built on stone foundations – but also the plains, where villages with regular plots of wooden houses were spreading.

These data may point to demographic growth and a broader exploitation of the countryside – possibly also favored by a climatic optimum, which appears to have begun precisely around the mid-tenth century,¹⁷³ and by the absence of plagues¹⁷⁴ – which brought new wealth into the hands of landowners.

It must have been a season of widespread but low-intensity growth, which made possible – especially from the 1160s-1170s onward – a new phase of investment manifested in the renovation of urban churches (especially cathedrals) and rural ones (especially parish churches). These projects were carried out through building campaigns that often remained active for many years, becoming spaces for the transmission of knowledge and the redistribution of wealth. Additional economic stimulus came from enterprises – predominantly military – conducted by sea from cities equipped with fleets. Demographic growth, in turn, must have placed pressure on agriculture and livestock farming in rural areas. Cities lacking large expanses of flat land, such as Genoa, were forced to turn to Mediterranean areas to meet their internal needs.

The greater availability of resources, concentrated primarily in the hands of urban groups that owned land and resources – fostered increasingly widespread phenomena of social mobility, which in turn generated a growing demand for status symbols. Among these, archaeological evidence reveals a preference, especially from the second half of the 11th century onward, for stone houses and towers, probably imitating the royal, marquis, or episcopal palaces that had already begun to be fortified from the 10th century. Across the regions examined, adherence to the same construction model can be observed, though it was realized using local raw materials and building techniques. In areas where the monumental Roman legacy was less conspicuous, this intense demand for stone led, from the mid-eleventh century onward, to the reopening of quarries, often owned by major monasteries or noble families.

New investments required new resources to be spent. These appear still to have derived primarily from internal growth rather than from the expansion of maritime trade. While some Venetian, Genoese, and Pisan merchants were already active between Spain, Egypt, and Byzantine areas, it was warfare that, throughout the 11th century, most often brought Italian cities into contact with those of the Mediterranean – cities that were plundered to obtain rich booty.

¹⁷³ Nanni, “Per un quadro ambientale.”

¹⁷⁴ Franceschi, “La crescita economica,” 12.

From the late 11th century – and especially, with exponential growth, from the 12th century onward – the number of individuals investing in the renewal of urban and rural landscapes increased markedly. This renewal was characterized by the widespread use of stone and lime within an unprecedented institutional framework shaped by the crisis of public power and the emergence of the first communes, which fostered confrontation and even conflict between the social forces at play. Investment also extended to urban infrastructure, with city walls taking precedence from the mid-12th century onward, as well as the reoccupation of previously abandoned areas. Major works of land reclamation – such as the filling of low-lying zones or spaces occupied by ancient ruins – were already being undertaken by the late 11th century.

The role of trade also expanded, encompassing not only luxury goods and iron (often in the form of weapons), but now also foodstuffs and textiles, products that circulated in large quantities and became a key driver of economic growth. To facilitate this expansion, numerous agreements were concluded both among the major cities of the Italian peninsula and between these cities and the kingdoms of the Mediterranean, where participation in the Crusades ensured trading privileges and exemptions in the Levant. But the market had also opened toward Northern Europe, particularly France and the Low Countries.

The expansion of trade – archaeologically attested by the arrival of larger quantities of imported Mediterranean pottery – and, at the same time, the growth of the agricultural economy in central and northern Italy, were such that even the clash with Frederick Barbarossa and the new taxes imposed by the Empire appear to have had little impact. In fact, during the second half of the 12th century, economic expansion intensified further. The integration between international markets and local economies is evident in the substantial investments made in the countryside, where we see the monumental renewal of castles and churches, as well as the foundation of new settlements. These developments reflect, on the one hand, a desire to control the rural population, and on the other hand, a clear sign of demographic expansion extending into rural areas. In the larger villages – sometimes veritable small towns – a complex and stratified society had now emerged, replicating urban life on a smaller scale, including the adoption of similar stone residential models that developed in height and the progressive renewal and expansion of walls.

The opening of new mints,¹⁷⁵ – beginning in the late 1130s and especially from the mid-twelfth century onward – further contributed to this growth, making it possible to accumulate wealth in forms other than land and real estate, while also facilitating its use in the international market. The growth of commerce is also confirmed by data from surveys of the Aegean seabed,

¹⁷⁵ Rovelli, “Nuove zecche e circolazione.”

which reveal an increase in both the number and tonnage of medieval shipwrecks precisely in the 12th century.¹⁷⁶

In this phase, we can recognize the moment when, to borrow the words of the historian Reinhart Koselleck,¹⁷⁷ many began to envision a future different from the past: the dialectic – until then rather static – between experience and expectation was transformed by the availability of new technological, economic, and cultural tools, fostering a more widespread aspiration to improve one's condition, as evidenced by the growing visibility of social mobility.¹⁷⁸

¹⁷⁶ Molinari, "Le anfore medievali come proxy," 294.

¹⁷⁷ Koselleck, *Futuro Passato*.

¹⁷⁸ Carocci, *La mobilità sociale nel Medioevo*; Collavini, Petralia, *La mobilità sociale nel Medioevo*.

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