

## Conclusions

In the context of the ERC project *Petrifying Wealth. The Southern European Shift to Masonry as Collective Investment in Identity, c. 1050–1300*, this book stands at the margins.<sup>1</sup> The collective research project was primarily social, political, and cultural in nature. By contrast this volume focuses on the economic aspect of building with masonry via an analysis of buildings and other structures whose purpose was to facilitate production and trading activities; more generally it explores the link between construction and the economy. Since it examines types of buildings that have received less attention elsewhere in the project, it is probing rather than systematic in nature.

The book nevertheless arrives at some interesting results, which are worth summarizing at the very outset. The articles contained in this volume examine the centuries of preparation for and the flowering of the medieval economic growth from a novel perspective, taking as their focus buildings that were used for production and trade. Every article published here lends support to the increasingly widespread interpretation that brings the date of this economic growth in southern Europe forward to the second half or even the final decades of the twelfth century. This is true of both the level of production and technology, particularly as regards the enlargement of markets and the supply of goods. At the same time, it is precisely the history of building that reminds us how this great change was made possible by the participation of a wide range of protagonists who played an active part in the growth of production and the expansion of demand to new social groups. The difference with the previous situation becomes all the more clear if one thinks of the significant role played by emperors, kings, and their officials in the economic exploitation of public goods up until the middle of eleventh century, and more generally if one considers the elitist and episodic nature

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1 The publication of this research was financed by the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme (grant agreement 695515), project *Petrifying Wealth: The Southern European Shift to Masonry as Collective Investment in Identity, c. 1050–1300*.

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of the earliest major building initiatives, which were restricted to a modest number of ecclesiastical projects, or to sites under the control of public officials.

If this is the overall interpretation to be drawn from the volume as a whole, it is necessary to dwell on a number of aspects of the research, and to consider how it was conducted. I shall therefore organize my reflections around two points: firstly, I shall briefly attempt to clarify and, in some respects, to shed new light on the role played by economics in a research project that does after all include the term 'wealth' in its title, at the same time questioning the actual connection between petrification and productive changes; secondly, I shall reflect, much more broadly, on the key players involved in the investment in functional buildings and in structures linked to specific production or exchange processes, and on the chronology of these investments.

## Petrification and Wealth

Titles can sometimes be misleading. *Petrifying Wealth* is not an economic history project, and the subtitle, which qualifies the phenomenon as *Collective Investment in Identity*, makes it clear that economics, or *Wealth*, is not the central theme. The process under investigation was far more complex than a simple economic phenomenon. The economy most certainly had its part to play, and I shall shortly return to this point, but the project's principal focus was on the material and technical aspects of building in stone; its ideological and religious significance; the role played by individual, family, and group social identities; the symbols and ostentation involved; and the significance of political-military affirmation. Petrification was more a social and cultural transformation process than an economic phenomenon. However, this process was also intricately linked with the economy, because it manifested itself at the material level and required a huge amount of resources. Gradually at first, and then at an ever-accelerating pace, a building frenzy took place; some of the resulting constructions were of finer quality than others, but all these buildings were more complex and costly than their predecessors.<sup>2</sup> This was building for the future, and the structures were designed to last. In cities in Italy and elsewhere, soil levels ceased to rise, and the past was no longer buried.<sup>3</sup> A process through which lifestyles changed was set in motion, paving the way for living practices and landscapes which would survive for many centuries, indeed right up until recent times.

It would be wrong to assert that economic dynamics were the catalyst and principal driver behind the petrification process. In most cases, the emergence of durable construction does not appear to be related to the

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2 Analyses of the technical and construction changes of the phenomenon are collected in Giovannini and Molinari, eds, *Il paesaggio pietrificato*.

3 Molinari, 'La "pietrificazione" del costruito', p. 277, which elaborates on a suggestion by Carandini, 'L'ultima civiltà sepolta'.

rise in incomes as a result of economic growth. A good illustration of this phenomenon is the Italian private tower, the building that more than any other today symbolizes eleventh–thirteenth century urban construction, and whose existence is largely confined to the Italian peninsula, being virtually unknown in the Iberian peninsula and highly unusual in the French Midi.<sup>4</sup> At first glance, it would be tempting to attribute the proliferation of this type of tower to an economic take-off that occurred in Italian cities earlier than in other regions. The appearance of these towers at an earlier date in Genoa, Pisa, Gaeta, and other port cities would also seem to confirm this reading. Such an assumption would however be erroneous. By the end of the eleventh century, private towers had sprung up in a whole host of locations, including cities where an economic take-off was still only a distant prospect, and even in small towns with far fewer economic resources and different economic trends. In fact, the reasons behind the spread of this type of building were related to politics and identity, rather than the economy. The towers were first and foremost the product of the new political context that arose in the last decades of the eleventh century due to the collapse of public, supra-city power structures; this led to the emergence of forms of urban self-government that relied on fierce and often violent competition between noble families. In this new reality, the tower established itself as an indispensable means for all relatively important city families to assert themselves symbolically, politically, and militarily. The economic resources at the disposal of such families might remain unchanged, but they were now directed towards building activity and tower construction to a much greater extent than in the past. In those cases such as the large port cities where we can infer an actual increase in available funds, we must bear in mind that, while economic growth certainly stimulated the creation of new buildings, it was not the principal factor behind this construction activity.

Things changed in part during the twelfth century, when the effects of an expanding economic dynamic became more evident. The epoch-making watershed represented by the proliferation of buildings of all kinds would not have gained momentum or been consolidated over time without a growing economy to provide new resources. The importance of this is evident in the petrification process, especially if we consider the mass phenomenon it eventually became, and the success it achieved in the secular world. The reason why towers and other buildings linked to the aristocracy multiplied at such an extraordinary rate during the twelfth and thirteenth centuries was because the city as a whole, along with the nobility, had access to new resources. But once again, these building choices were primarily determined by elements of a broadly cultural and social character, rather than any of an economic nature. Even when the economy was booming, the link with the petrification process was neither obvious nor direct. Outside Italy, far fewer

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4 In what follows, I refer to Carocci, 'Nobility, Conflicts, and Buildings'.

towers and fortified palaces were built, even in cities that had begun to experience robust economic growth. The case of Islamic Sicily, which could boast both wealth and a highly complex economy but where large-scale lime mortar-bound constructions were absent, is a good example of how lasting construction was determined by the forms of ostentation and the ways of expressing identity chosen by those involved, and not by the mechanical reflection of any economic vitality.<sup>5</sup>

There was however a specific economic facet to the petrification of wealth. This took the form of structures whose purpose was to improve production and trade, and it is precisely this aspect which is dealt with by this volume. More generally, petrification is a powerful indicator of the processes of growth and increased spending capacity of institutions, households, and collectives; it also greatly influenced the economy both directly and indirectly. The construction of urban property endowed families with something that up until that point had been less significant in terms of value and as a source of income. This unprecedented utilization of architecture had a disproportionate effect on the entire economy of the construction sector, ultimately leading to its expansion and transformation into something new. Skilled craftsmen who, due to the scarcity of complex building initiatives had hitherto been obliged to move from city to city, or between large rural building projects, now no longer needed to travel around; more importantly, they grew in number and became ever more specialized. Limestone was extracted from newly-opened quarries, and brickmaking resumed. The need for a constant supply of building materials resulted in the emergence of new trades and transport infrastructure. This increase in building activity and in the number of specialized workers brought down unit costs, generalizing and making accessible to many the complex production cycles that were indispensable to durable construction, and that were previously reserved for ecclesiastical and public buildings. Subsequently the processes of the commercialization and monetization of the economy further stimulated the construction sector. In many respects, construction is an area in which cultural change — that is, the new meanings that the various social actors attributed to construction and which, more than anything else, led to the massive increase in building demand — galvanized and in some respects determined economic change.<sup>6</sup>

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<sup>5</sup> Molinari, 'La "pietrificazione" del costruito', p. 280.

<sup>6</sup> A guide to these changes, and to the earlier bibliography that dealt with them, can be found in the publications that appeared within the *Petrifying Wealth* project itself, and especially: Giovannini and Molinari, eds, *Il paesaggio pietrificato; La petrificación de la riqueza*; Maira Vidal and Rodríguez, eds, *El coste de la construcción; Construir para perdurar*.

## Workers and Lords

The aspect of petrification on which this book provides the greatest wealth of information is the wide range of participants who in one way or another were instrumental in the promotion of building projects aimed at creating useful structures for economic activity. In the following pages, I shall attempt to offer a brief overview of these, while also paying heed to the chronologies of their initiatives.

The first point to be emphasized concerns the complex nature of identifying the investments in building for production made by those principally responsible for production itself, i.e. the workers. The absence of evidence for investments in building for production on the part of this particular group in either written and material sources comes in many respects as no surprise, precisely because the labour force made very little contribution to building for the economy, financially or otherwise. Their participation would appear to have been out of the question for both urban and rural wage earners, whose spending power was either very modest or non-existent; the same was apparently true for artisans. From the end of the twelfth century onwards, a change appears to have taken place, indicated by the increased number of references to mixed buildings containing both residential and working spaces (Fiore). However, it is difficult to establish exactly who was behind this change, and to determine the nature of its productive results. The data illustrated in this book concerns *case-bottega* (house-workshops) with ecclesiastical and aristocratic landowners. Even if other *case-bottega* resulted from direct investments by the artisans themselves, the question remains as to the actual productive effects of these properties. It seems inappropriate to characterize them as investments for production: any craftsman who, after a great deal of effort, succeeded in building himself a house-workshop must have been motivated not by the desire to increase labour productivity, but rather by the benefits associated with an investment in housing, such as saving rent, improving their quality of life, acquiring a store of value and a possible source of income through partial rental.

A similar ambivalence exists regarding the building investments undertaken by peasants who were either owners or very long-term tenants of the land they cultivated. Especially after the middle of the twelfth century and even more so in the thirteenth century, peasants' homes began to be constructed with durable materials, although this chronology has yet to be properly ascertained in many regions.<sup>7</sup> As was the case with the *casali* of the Roman Campagna, the *cassine* and *poderi* of Lombardy and Tuscany, and the Catalan *mas*, these were often buildings that the peasants made use of but had not built with their own hands (Fariás Zurita, Tabarrini). Moreover, even where the dwellings

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7 Research on the archaeology of architecture struggles to arrive at concordant dates: see e.g. Zoni, *Edilizia residenziale*, and Cagnana, 'Recensione.'

had been built by the peasants themselves, it is difficult to determine, as with the artisans' house-workshops, to what extent we can consider these buildings as investments intended for production. Certainly they contained stables, warehouses, storerooms, and other spaces related to agricultural work; after all, a productive investment was also the very possibility of less cramped, safer and perhaps healthier housing. There is however no doubt that, while the contribution of peasant landowners or tenants to economic growth was fundamental, it followed other trajectories, being expressed in minute investments and only exceptionally in building. Peasant investments were made first and foremost through the clearing of new tracts of land, the purchase of better tools and livestock, the planting of crops for the market, and numerous minor agrarian improvements (planting of trees and vines, terracing, or small water drainage systems).

Mills are one of the few instances of peasant investment in production buildings, although the example of Catalonia shows that new constructions were promoted by the lords, and that only on rare occasions did the subjects of the lords chose to build the new facilities come from the peasant world (Morelló Baget). In fact, in the era examined in this volume, the most significant examples in the rural world of direct and massive investments in building for production are those undertaken by communities. This can be seen to some extent in the participation of rural communities in the canalization works embarked on by sovereigns and lords in the kingdom of Aragon, and by urban communes and lords in the Po Valley. Their role was, however, of a subordinate nature, as major canalization initiatives required technical knowledge and investment which would have been beyond the reach of rural communities (Pagnoni, Torró). Conversely, in the case of iron metallurgy in the Alpine area, it was precisely rural communities who took the lead in what constituted a revolution in both technology and productivity. These communities promoted the resumption of mining activities on a larger scale between the eleventh and twelfth century; again, from the late twelfth century onwards, the increase in production generated by the introduction of bloomeries equipped with water-powered hammers can be attributed to the communities' initiative. The same is true of the fundamental technological and production innovations in the thirteenth century linked to 'the spread of a new kind of iron bloomeries equipped with hydraulic bellows, which led to the achievement of higher productive levels' (Cortese).

If we shift our attention from the peasants to the rural aristocracies, we naturally find many more instances of investment in structures destined for economic activity than in those situations where labourers were the chief participants. Rural lords figure among the promoters of many productive initiatives: the canalization work undertaken in northern Italy and the kingdom of Aragon (Pagnoni, Torró); the process of restructuring and diffusion of the *mas*, the farms of Old Catalonia (Fariás Zurita); the construction of the bridges of Tuscany at an early stage, prior to the middle of the twelfth century, when bridges were one of the manifestations of the new seigniorial powers

(Tomei); the proliferation of mills (Morelló Baget); the processing of coinable metals (Cortese); and episodically on many other occasions.

These examples should not however obscure the fundamental fact that the lords, in the fullest sense of the term, i.e. with territorial and jurisdictional powers, were not as engaged in the creation of structures for production and trade as one might expect of figures of such economic and political standing. Where metallurgical activities were concerned, the lords in Italy participated only in the processing of coinable metals, remaining completely uninvolved in the much larger and more important aspects of iron-working (Cortese); in Catalonia, they stimulated the multiplication of flour mills and fulling mills without contributing to the expenses, and their interest was of a fiscal rather than an entrepreneurial nature (Morelló Baget); and in central-northern Italy they were completely absent from the construction of *casali*, *poderi*, *cassine*, and other agrarian enterprises oriented towards speculative, market-related agriculture (Tabarrini). In the period under consideration, it is rare to find entrepreneurial lords like those who between the fourteenth and sixteenth centuries invested directly in proto-industry; examples of these were the lords of Valencia who, in the early fourteenth century, brought skilled craftsmen from Andalusia and built glass mills to produce highly prized glazed ceramics;<sup>8</sup> or the later feudal lords-entrepreneurs of the kingdom of Naples, who invested their income in the construction of fulling and paper mills, tanneries, and cloth factories.<sup>9</sup> The seigniorial lack of interest in the promotion of artisan activities was in reality part of a more general attitude of substantial alienation from involvement in production, even in a sector as fundamental as agriculture: with very few exceptions, the territorial lords in southern Europe appropriated the products of the land, but had very little to do with the production processes.<sup>10</sup>

Despite these limitations, we must be careful not to underestimate the economic importance of the new type of lordship that became widespread after the mid-eleventh century, and the very extent of the investments in construction carried out by these noblemen. Their investment in buildings was significant, but this was directed specifically towards castles, which strictly speaking are not buildings that were used for production. The lords greatly increased the number of castles and, most importantly, transformed their material appearance.<sup>11</sup> Masonry replaced palisades and earthworks, and there was considerable growth in the size and complexity of the structures. Mighty walls were created to enclose the summit area, and there was extensive construction of palaces, towers, cisterns, and churches. Building a castle

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8 Furió and Almenar Fernández, 'Land, Ceramics and Seigniorial Rents'.

9 Cirillo, *Il vello d'oro*.

10 On this aspect of the lordships of southern Europe, I refer to Carocci, *Lordships of Southern Italy*, pp. 476–89.

11 The bibliography on medieval castles is immense. A good recent overview, however, is Augenti and Galetti, eds, *L'incastellamento: storia e archeologia*.



was clearly not a productive initiative; its purpose was instead political and military, with connotations of ostentation, legitimation, and emulation. The historiography however emphasizes the great economic importance of castles and castle-villages in a number of ways. Some interpretations view castles as a means of directing and consolidating demographic and agrarian growth, and of appropriating its benefits.<sup>12</sup> Others regard castles and particularly castle-villages as an important aspect of the expansion of small-scale and inter-regional exchange networks, all the more so in the mid- and late twelfth century, when the increase in the size and population of some castle-villages transformed them into proto-urban centres. These acted as social, commercial, and productive referents for the surrounding areas, and as hubs of an increasingly articulated network of economic relations, which made them an essential element of that 'integrated complexity' observed by Tomei when speaking of the spread of bridges.<sup>13</sup> More generally, a recently updated interpretation portrays territorial lordship as a major agent of European economic life. The rise of seigniorial powers would have led to an increase in pressure on peasants, and this was to be the main cause of the upsurge in agricultural production that formed the basis of the great period of medieval growth.<sup>14</sup> Although not constructed for production purposes, there can be no doubt that, as a fundamental aspect of these new lordships, building a castle had major economic repercussions.

## Lay and Ecclesiastical Landowners

In the case of productive building promoted by city landowners, the survey looks exclusively at north-central Italy, an area where urban landowners appear to have been the most active investors in buildings designed for production and trade. For these investors, the already mentioned probing as opposed to the systematic character of the survey of building for the economy within the overall organization of the *Petrifying Wealth* project is particularly evident.

The list of different productive structures is extensive. It includes several that I have already mentioned, such as the farm buildings established from the late twelfth century onwards in the countryside around Milan, Rome, and several other cities; urban artisan workshops of various kinds, for which no specific report has yet been produced, but for which excellent evidence has been produced through recent archaeological research;<sup>15</sup> and last but not least,

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12 This line of interpretation ranges from Toubert, *Les structures du Latium*, to the recent Feller, 'Abruzzes'.

13 e.g. the recent work by Collavini, 'La crescita pieno medievale'.

14 Duby, *Guerriers et paysans*; and more recently Wickham, *The Donkey and the Boat*.

15 From this point of view, the city which has undergone the most thorough investigation is Pisa, where a vast area ('Ex Laboratori Gentili') was also excavated; here, from the end of the twelfth century, workshops were set up for the production of glass, iron, and copper alloy artefacts; by the mid-thirteenth century these had reached a degree of specialization and



shipbuilding. Shipbuilding activity, in truth, testifies to the instability of the connections that in certain cases existed between building and production activities. Prior to the emergence of public dockyards in the thirteenth century, the albeit fundamental shipbuilding industry, promoted independently by private individuals and institutions, relied on human rather than material infrastructure. Shipbuilding was dependent on the availability of a highly skilled workforce, while permanent construction facilities were few and far between; most construction sites were equipped only with small temporary wooden structures, destined to disappear without trace once the work was completed (Simbula).

In all these cases, the origin of the capital invested in construction and the minds that appear to guide that investment all suggest economic dynamism. From the end of the twelfth century, the capital used to build the farm holdings in the countryside around Rome and Milan often had its origins in finance and commerce. Even the decision to build a new type of farm with closer ties to the markets bears witness to the fact that entrepreneurial and speculative minds were becoming involved in agriculture in a way that had not been the case in previous centuries (Tabarrini).

It is pointless to seek to identify the nature of the capital invested by city landowners in what was undoubtedly the largest construction investment by citizens: urban housing. Indeed, this investment was on such a large scale and so socially widespread that it is impossible to identify which type of capital was prevalent. Income from work, land, and seigniorial rents, profits from trade and finance, and benefits drawn from war and political activity all contributed to construction. Residential buildings have not been a primary focus of this study because clearly their purpose was not to directly promote production and trade activities. They were however undoubtedly the most valuable artefacts to be built in cities, both individually and as part of a whole, and should be taken into account because 'the continuous process of building and rebuilding residential properties played an important role in the urban economy as a whole: like a beat in the background, it set the rhythm for the growth process' (Fiore). The rise of property prices above inflation and the cost of agricultural land meant that houses represented a profitable investment which increased the value of capital. Moreover, as was the case with peri-urban farms, after the middle and especially at the end of the twelfth century we witness the advance of more dynamic economic attitudes, made manifest by profit-seeking modes of management. On the other hand, it should be emphasized that the economic value of this investment in residential buildings was accompanied by a much more pronounced social and political significance than was the case for other building investments made by individual families. Houses could certainly protect and increase capital and provide good incomes,

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massification 'almost to an industrial level' of production itself (Carrera, 'Le lavorazioni dei metalli', p. 62, and more generally Cantini and Rizzitelli, eds, *Una città operosa*).

but for the city nobility — the social group that invested most in urban real estate — these structures were primarily a means of asserting kinship within the urban fabric and political life.<sup>16</sup>

All the essays collected in this volume demonstrate that the investment in productive structures undertaken by ecclesiastical landowners of all kinds, be they bishops, churches, monasteries, or religious orders, appears to have been less significant than that of lay landowners. There are, however, both exceptions and chronological differences. The exceptions concern specific religious orders. From the first decades of the twelfth century, the Cistercians engaged in the creation and management of granges and vast areas for cultivation (Tabarrini); in the mid-thirteenth century, the Aragonese Templars promoted and coordinated canalization projects (Torró). But they are, as I said, exceptions in an overall context of limited ecclesiastical activity.

Chronology is however key. In the first part of the period examined in this volume, the role of ecclesiastical investments was apparently less marginal. Areas where there is evidence of ecclesiastical intervention, albeit on a modest scale, include a number of canalization works at the end of the eleventh century (Pagnoni), the construction of bridges in Tuscany in the twelfth century (Tomei), the building of a number of *cassine* and *casali* in the countryside around Milan and Rome beginning in the final decades of the twelfth century (Tabarrini), and the coeval realization of several conspicuous patrimonies of houses for rent (Fiore). Then there is the vast sphere of the participation of bishops, and to a lesser extent monasteries and churches, in the new investment in castle and castle-villages that began in the late eleventh century and continued into the twelfth century with initiatives that were sometimes of great importance. Even in the case of castles and castle-villages, however, there are instances of a complete absence of ecclesiastical interest in building investment. Churches and monasteries even went so far as to place the burden of petrification directly on the shoulders of their subordinates: one such case is to be found at the beginning of the twelfth century at Poiano and Marzana, where the canons of Verona delegated the transition to masonry to the rural communities in exchange for reductions in the seignorial burden.<sup>17</sup> From the late twelfth century onwards, however, the clergy appears to have played a much-reduced role in investing in productive structures. In the second half of the twelfth century, churches and monasteries engaged only indirectly in canalization projects, conferring benefits on the local communities on which the initiative fell; in Tuscany, no new bridges were built under episcopal auspices after 1202; the creation of *cassine*, *casali*, and also *poderi* by ecclesiastical institutions continued to be attested in the thirteenth century, but these constituted only a fraction of the overall number of initiatives.

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16 On the subject, most recently Carocci, 'Nobility, Conflicts, and Buildings.'

17 Settia, *Castelli medievali*, pp. 102–12.

A study of buildings functional to production and trade thus clearly establishes a fundamental characteristic of the late twelfth- and thirteenth-century economic take-off: albeit with regional differences, this economic boom was a largely secular phenomenon. There were many lay figures of all descriptions involved, but far fewer were from ecclesiastical institutions. In economic life as a whole, bishops, monasteries, and churches were destined to play a far less significant role than they had done in the preceding centuries: those of the early Middle Ages, sometimes described as an era of ‘Temple Society’;<sup>18</sup> the Carolingian and post-Carolingian period; and again the whole of the eleventh century and part of the following.

## Institutions of Government

Last but not least, one of the key players in building for production to appear in the chapters contained in this volume are the institutions of government. These were the aforementioned territorial lords, the cities, and of course the large-scale political entities: the empire, kingdoms, and principalities.

By and large, the role of the latter appears to have been relatively limited until the late twelfth century; its influence however grew significantly in the thirteenth century and expanded further in the following centuries. In this volume, this dynamic is illustrated by the canalization of Aragon (Torró), and by the example of ports and dockyards: as far as these were concerned it was only in the late thirteenth century that western Christendom succeeded in matching the achievements of the Islamic world (Simbula). At the conference which marked the starting point for this book, attention was also paid to investment in roads and bridges.<sup>19</sup> The whole picture seems to suggest a prevalence of expenditure on structures associated with trade but in reality we know that rulers sometimes also invested in the organization of production. The most striking cases are perhaps the *masserie*, *aratie*, and *marestalle* created by Frederick II in southern Italy: these were arable and livestock farms whose purpose was to produce food and other goods for the court, public institutions, and the market; and at which the sovereign also promoted formidable building initiatives, in the shape of warehouses, production facilities, houses, and prestigious residences.<sup>20</sup>

However, it is best to avoid narratives based on a linear chronological evolution, marked by the transition from weak to strong sovereigns. The *masserie* of Frederick II themselves underwent a sharp decline in grandeur as early as the second half of the thirteenth century. In this volume, the impossi-

18 Wood, *The Christian Economy in the Early Medieval West*.

19 In a contribution by Almudena Blasco Vallés (see Blasco Vallés, ‘Wealth in Stone’).

20 On the southern *masserie* in the thirteenth century and related studies, see Violante, ‘La conduzione delle terre demaniali’; for the analysis of a specific case, Favia, *Ordonia XII*, pp. 161–85, provides guidance on recent archaeological research on the subject.

bility of an evolutionary reading is well illustrated by the curious case of the disappearance of granaries from the central-northern Italian countryside in the twelfth century, as expounded by G. Bianchi on the basis of the results of a collective research project in which she played a prominent role.<sup>21</sup> The story of the granaries reveals profound changes when compared to the previous situation, and a marked decline in public investment in production structures. Between 960 and the first decades of the eleventh century, the proliferation of granaries was linked to the tremendous investment made by the emperors of the Ottonian dynasty and public officials within the estates of the imperial treasury. Large-scale investments were made in the fiscal estates of the Italic kingdom linked to the exploitation of specific resources, such as iron and salt; the first castles were built and the natural and anthropic landscape was transformed. As a consequence, a marked process of economic growth was set in motion on the extensive properties of the imperial treasury, although the low level of trade and relations with the outside world seems to have limited its general effects. After the middle of the eleventh century, a combination of the collapse of public structures, the privatization of fiscal estates, and the genesis of territorial lordship put an end to the economic prominence of these estates and the productive investments of which they were the object.<sup>22</sup> In this new context, granaries, which had been one of the material and symbolic markers of the public programme of the economic revival of public goods, were replaced by other storage systems.

Lastly we turn to the communes, the form of urban self-government that developed in Italy in the twelfth century. It is evident that, in many cities, investment in functional buildings and structures linked to specific production or exchange processes reached substantial levels. However, this phenomenon is only briefly touched on by the contributions in this volume. Of the cases examined, the earliest and most striking examples are the harbour front works undertaken in Genoa and Pisa in the fourth and fifth decades of the twelfth century respectively. This is the earliest evidence available to us of initiatives that in the thirteenth century would spread to every port, in response to the new infrastructural requirements that resulted from the increase in traffic and the size of ships, and which were often accompanied by the building of a dockyard (*Simbula*). Pagnoni illustrates the ambitious projects carried out by communes in northern Italy with the aim of developing a network of canals that was functional for transport and the supply of hydraulic energy to mills and factories, and therefore crucial for the development of urban economies. By contrast, there has been no opportunity to provide examples of urbanization initiatives promoted by the communes, especially from the middle of the thirteenth century, for political, health, and aesthetic reasons, but also in order to better adapt the urban space to production and trade: the

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2.1 Bianchi, *Archeologia dei beni pubblici*.

2.2 Collavini, 'Mutazione signorile e beni fiscali'.

paving of streets and the establishment of a sewer network; the creation of squares and market areas; or the construction of aqueducts and fountains.<sup>23</sup> In the countryside, city governments were active not only in the construction of canals, but also in the improvement of communication routes. The main contribution of the communes to building investment in the countryside aimed at increasing production and trade seems, however, to have been institutional: by providing fiscal, judicial, and military protection for citizens' possessions, the commune represented a favourable legal and administrative framework for investments carried out independently by urban landowners.<sup>24</sup>

When a grand narrative looms large in studies, caution must be exercised, as we are at risk of being conditioned by entrenched cultural paradigms. In this case, the grand narrative is that of the Italian city and its driving role in the economic growth and commercial and financial supremacy of the Peninsula. Two notes of caution must therefore be sounded. On the one hand, the partial nature of the survey carried out runs the risk of over-stating the importance of Italian cities because comparative data with other European cities is not provided, with the exception of ports and shipbuilding (Simbula). On the other hand, it should be noted that even the essays collected here have downplayed the role of the city in a number of areas. One example of this is the clear absence of urban influence in the quantitative and technological growth of the iron mining industry in the north (Cortese). This observation is however also valid with regard to the formation of the dense network of overland routes which were so vital for economic growth, and which are attributed to 'a convergence of initiatives from above and below'; a wide range of participants lay behind this undertaking, and it can therefore no longer be read as 'a reflection of communal order and prosperity' (Tomei). The same institutional protection that the city government offered to investments in the territory must be considered within a negative political context of great fragmentation and inter-city conflict, which increased transaction costs and limited the geographical scope of investments.<sup>25</sup> This ultimately confirms the doubts and cautions raised by more recent research on the dynamism and economic centrality of cities: I do not refer to the thirteenth century, but instead to the phases leading up to the cities' take-off, phases that ended in the mid-twelfth century in the cases of the earliest development, such as Milan and some port cities, and a generation or two later in other cities.

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To conclude: the essays published in this volume remind us of the need to proceed with caution in areas open to debate such as the nature and rhythms of the economic growth in southern Europe. However, they also provide

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23 For an overview, see Bocchi, *Per antiche strade*.

24 This is the interpretation of Cammarosano, 'Città e campagna', p. 329.

25 Wickham, 'I cambiamenti economici'.

numerous stimuli to help us better understand a process of massification of a type of consumption that took a hitherto insignificant phenomenon like masonry construction to such levels that it became a radically new and fundamentally important production and product sector. In this context, investments in material structures for production and trade became widespread. We can observe the wide range of participants in this phenomenon in different ways and chronologies, and perceive how, even from this angle, for much of the twelfth century the city does not seem to have taken on the leading role attributed to it in the past. We also see the non-chronologically linear nature of certain evolutions but, at the same time, we note the clear gap in economic dynamism that separates the earliest phase, prior to the mid- and especially more often the late twelfth century, from the subsequent period. We observe a decline in the activism of ecclesiastical institutions and an increase in that of the secular world. Finally, we have confirmation of the lordship's impulse to place itself outside and downstream of the production process, while stimulating it in depth by its mere existence.

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