

# Nuts & Bolts

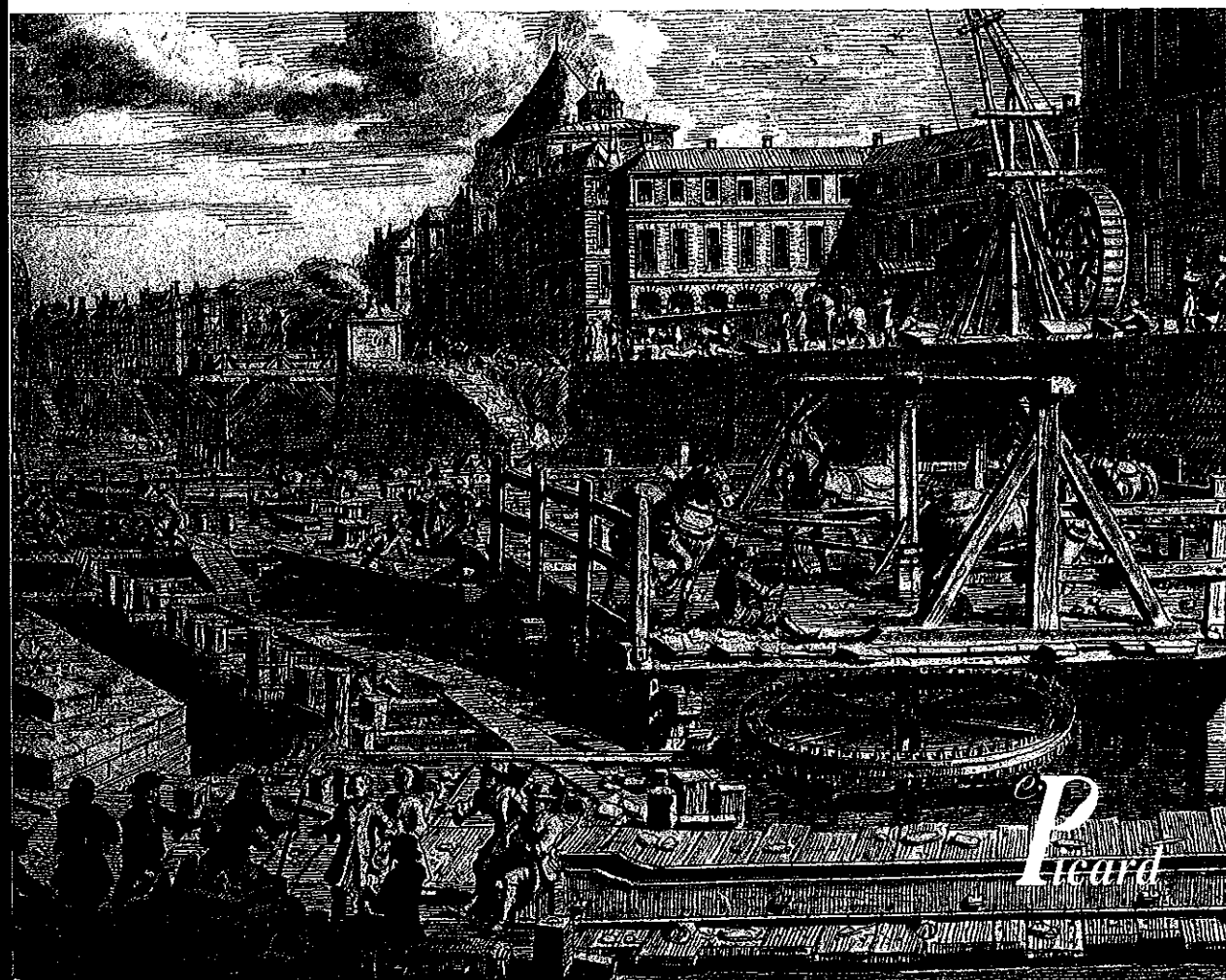
of Culture, Technology  
and Society

# Construction

# History

Vol. 2

Edited by: Robert Carvais,  
André Guillerme, Valérie Nègre,  
Joël Sakarovitch



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NUTS & BOLTS  
OF CONSTRUCTION HISTORY

CULTURE, TECHNOLOGY AND SOCIETY

Volume 2

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## Construction Financing in Late Medieval Portuguese Towns [14th-16th Centuries]

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The study of construction in medieval towns has received increasing attention in Portugal and has become an innovative and multidisciplinary area, albeit suffering from a still significant deficit of study. As an example, take the in-depth studies on the construction of the *Mosteiro da Basalha* (Gomes 1990, 11-145), among others sporadic studies (Ferreira and Duarte 2005; Melo 2009, vol. 1, 259, 299-300; Melo 2009, vol. 2, 251-288). The subject of financing, however, has been somewhat neglected. In point of fact, some developments have been made in the field of Construction History in Portugal over the past few years, much like in the rest of Europe where, in addition to a significant increase in the number of studies, there is also a wide variety of perspectives and approaches. Take, for instance, the studies conducted by Philippe Braunstein and by Philippe Bernardi on the organisation of work in construction activity (Braunstein 2003, 371-455; Bernardi 2011). We could likewise point out a number of international conferences devoted to the history of construction, such as the one in Prato held in 2004 (Cavaciocchi 2005), or that held in Najera in 2009 (Bolumburu 2010), and more recently the colloquia hosted by the University of Minho, in Braga, on *The Builders [Os Construtores]* in 2010 (Melo and Ribeiro 2011b) and on *Construction Materials [Materiais de Construção]* in 2011 (Melo and Ribeiro 2012a).

Construction activity in towns has involved a significant set of agents that, throughout the centuries, have given shape to the different urban medieval landscapes, with their ideas and work but also

with their power, particularly political and economic (Melo and Ribeiro 2011a). However, getting to know the reality of the different modes of financing is a complex and highly detailed process, crossing multiple sources of information. The data obtained are frequently fragmented and indirect. In general, the sources available throughout Europe provide a larger and more consistent data set on expenditures, rather than on revenues. Nevertheless, a thorough and goal-oriented questionnaire has enabled us to answer some of the questions concerning the financing of construction, in medieval towns. A recurrent finding seems to be the simultaneous existence of multiple modes of financing one given construction, which Mesqui called "parcellisation des financements" (Bernardi 2011, 80). The relative weight of such modes of financing could be variable, according to the changing needs of the construction work and the economic climate. As such, the main source of financing could derive, for example, from the entrepreneurs' own regular revenues, or from extraordinary revenues (Bernardi 2011, 71-84). It should further be noted that urban constructions could often be extended for several decades, or even centuries, thus encountering different promoters, phases and construction rhythms and, naturally, different financing modes.

This paper aims to render a contribution towards the study of urban construction financing, through the analysis of different examples of Portuguese medieval towns (Fig. 1). We relied upon Portuguese written sources such as documents from royal, ecclesiastical and municipal archives, namely royal chancellery register



books, inventory of rights or property, tenancy contracts, judicial acts, actae of the city's governing body [*vereações*], among others. Contrary to some constructions on European medieval cities, construction accounting books in Portugal are very rare and fragmented. Furthermore, they are not yet studied. We will thus begin by identifying the main modes of financing urban constructions. Subsequently, each one of them will be characterised in more detail. Lastly, we will analyse the simultaneous and dynamic nature of the different financing possibilities, which we will attempt to illustrate on the basis of concrete examples.

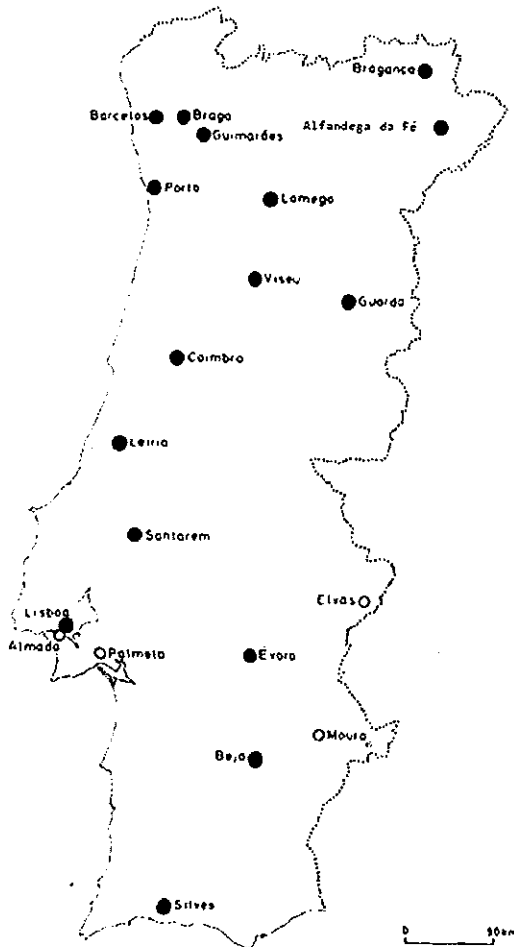


Fig. 1: Medieval Portugal.

### Urban construction financing modes

The sources that we consulted tell us that there were many possible ways of financing urban constructions, with special relevance to the following:

- Promoter's *own revenue* that include various types of income such as rents, royalties and taxes, among others, that are partially channelled to a specific construction at a given time;
- *Extraordinary taxes* specifically directed to one construction;
- *Loans*, which can be compulsory loans or market loans;
- *Workforce requisition* for public works, the *anúduvas*;
- *Right to use raw materials*, either new or used;
- *Reduction or partial exemption of rent* as a way to reduce the building expenses of the tenant;
- *Privileges and exemptions* granted to the construction men or to the construction site;
- *Donations* made by private individuals or institutions.

It should, once again, be stressed that these various modes of financing usually could occur in the same construction simultaneously, or at different moments and with varying relative weight. Each of the types enumerated above will now be characterised.

#### *Own revenue*

The own revenue of the construction work promoter is, naturally, a recurrent mode of financing. In this type of financing, we include both the wealth in reserve, by private individuals or institutions, as well as the various sources of income such as rents, royalties and taxes, among others, that are channelled to a specific construction site at a given time. Whenever the promoter is the king, one of the most frequent modalities is to allocate a portion of general taxes to finance a particular construction. Such is the case of the *sisa*, which has been applied in Portugal at least since the 14th century. Initially it was a municipal exceptional tax. Afterwards it became an extraordinary royal tax, with King Fernando, in the late 14th century. And, finally, it was transformed into a general and permanent tax, since 1384, with King João I. It was an indirect tax, levied on all transactions

and from which nobody was exempted (Marques 1987, 305-306). The proceeds often were applied on certain urban constructions, such as town walls and castles, but also on several buildings, streets or others. For instance in the city of Braga, (Fig. 2) in 1359, the king created a *sisá* that was partially used to finance the construction of the town's wall (Marques 1986, 23-25). In this case, the population affected belonged mainly to the rural area. For the city of Porto there are also similar examples, such as the *sisá dos vinhos* [*sisá* applied to the trade of wines], which during the reign of King João I was partially channelled to finance the opening of a new street, called *Rua Nova* (Amaral and Duarte 1985, 16-17). Or fines applied to clergy, in 1301, or to *almotacés* [municipal officers who controlled prices and trade conditions] in 1421, in Braga, that the archbishop decided should revert to finance the city wall construction (Marques 1983, 46, 48). Or the ecclesiastical tithes [*dízimas*] dues to the Pope and the King in the archdiocese of Braga, which were also given to finance the town castle construction in 1380 (Marques 1983, 68-71).

In exceptional cases of large-scale construction works, with major funding requirements, as it was the case of the *Mosteiro da Batalha* [a royal monastery close to Leiria], the king decided to direct a significant portion of the income of the *Almoxarifado de Leiria* to that construction. The *Almoxarifados* were fiscal administration divisions, which existed since the mid-14th century. The *almoxarifes* were in charge of collecting all of the

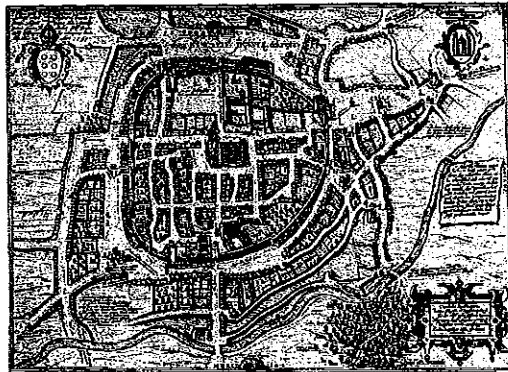


Fig. 2: Braunio's Map of Braga (1594).

royal revenue of the respective region, gathering the king's patrimonial assets together with taxes and royalties (Marques 1987, 304). Other example is the case of the royal *Mosteiro dos Jerónimos* [Lisbon], where it seems that the main form of royal financing derived from a portion of taxes applied on the trade from India, namely the *vin-tena da especiaria* (Santos 1924, 403).

Lastly, the *pedidos* constituted extraordinary taxes set by monarchs, that generally had to be previously approved by the parliament [*cortes*]. They were directed to a specific purpose, such as war expenses, or those of royal family weddings, as well as royal travels, debt payment, and the need to mint coins, among others (Gonçalves 1964, 136). However it was often the case that a part of the proceeds could be destined to constructions of public interest. This situation usually occurred when there was a surplus with regard to the royal needs, or in case of a concrete request made by a municipality or an institution to the king. The various known examples of such *pedidos* include one that took place, in 1367, when King Fernando granted, to the municipality of Beja, the proceeds locally collected in a prior *pedido*, in order to repair the town's towers and the wall barbican, which was originally meant for a different purpose. Likewise, in 1382, the same monarch decided to divert the *pedido's* revenues of the municipality of Alfândega da Fé, to repair the city's wall, according to a municipal request. In fact, in general, whenever the king channelled a part of the money from a *pedido* in favour of a given locality, it was to invest in public works. Similarly, whenever there was a significant remainder from the proceeds of the *pedidos*, the monarch could decide to use part of that money on public interest constructions. Such was the case, among others, when in 1406 King João I ordered to repair walls throughout the Kingdom, wherever needed; and in 1490, King João II decided the same way regarding prisons (Gonçalves 1964, 137-142).

In summary, the king financed some construction works by channelling some regional or local portions of preexisting taxes, regular or extraordinary. As well, in the construction works commissioned by the municipalities, a part of the financing derived from its own revenue. It included the rents of differentiated goods such as

houses, unbuilt plots [*chão*], areas devoted to trade and crafts, rural assets, but also royalties, fines and penalties, among others.

In the case of Porto, the current expenditure on public works is included in the annual accounts of the municipality, with recourse to its ordinary revenue. We are referring to the maintenance works of public buildings, namely the town hall and the prison, as well as the walls and in particular their doors, which were frequent objects of repair work (Gonçalves 1987, 82-83, 85; Melo and Ribeiro 2012b). Particularly relevant among these works were also the repair and maintenance of fountains and cobblestone streets, which often required conservation efforts (Gonçalves 1987, 86). As such, in the annual accounts of the municipality one can find purchases of varied building materials, such as beams, slats, nails, sand tiles, lime, or even the payment of wages to carpenters and masons, among others (Gonçalves 1987, 139-141, 149).

In the case of constructions commissioned by lords, particularly bishops, the most common modes of financing seem to be those originating from their own revenue, especially the rents from urban and rural assets, royalties and taxes, and in particular the tithe [*dízima*], as well as donations in general (Maurício 2000). Among many other examples, is the donation of the church and parish of S. João do Souto, with all its properties, to the Archbishop of Braga and its Cathedral, in 1161 (Marques 1983, 74).

#### *Extraordinary taxes specifically directed to a specific construction*

The creation of specific taxes to finance a particular construction was equally frequent. Such was the case of the *fontas*, of local or regional scope. The *fonta* was an extraordinary tax, usually local or even regional, created by municipalities with the permission of the king, which was often destined to finance construction works. It was imposed by the municipalities on the *terro* [dependent territories of a municipality, outside its center], but sometimes also on wider spaces, if thus authorised by the king. This type of tax was defined on the basis of one's income, except for the privileged ones. Among various examples, we can point out the *fonta* created in 1414, by the municipality of Guimarães, to build the new

Town Hall. Similarly, for the opening of a new street [*Rua Nova*] in Porto, the monarch imposed the payment of *fontas* in 1438, collected between 1438 and 1440, and whose documentation has been preserved (Amaral and Duarte 1985, 16-18, 26-27). This construction was a royal initiative, but executed by the municipality, and it lasted nearly a century. The existence of other *fontas*, undocumented, seems quite possible (Amaral and Duarte 1985, 25). As this construction was commissioned by the king, one can presume that the obtainment of extraordinary resources would certainly be facilitated.

Finally, it should be stressed that while *pedidos* corresponds to an extraordinary tax created by the monarch, the *fontas*, in its turn, could be established by the municipality, although upon the king's permission (Gonçalves 1964, 26).

#### *Loans: compulsory and market loans*

Compulsory loans or credit must also be counted among the different modes of construction financing. For all practical purposes, compulsory loans are considered to be a tax with the only difference that, at least theoretically, they implied the return of the money, even if it was interest free. It is known that in times of need these loans were a frequent solution, particularly used by kings and municipalities in Portugal, as abroad (Gonçalves 1964, 155-178). Both types of credit could have been used, among other things, to finance urban constructions (Vroom 2010, 383-390; Bernardi 2011, 79-80), but for Portugal there is a lack of studies on this subject, though it would probably exist, as well.

#### *Workforce requisition for public works, the "anúduvas"*

Another mode of financing lies in the right of authorities to make workforce requisitions assigned for public construction, such as walls, castles and streets, among others. This right was named *anúduva* in medieval Portuguese. This demand was imposed on a certain type of individual and it consisted of the obligation to work a given number of days per year, under a paid or unpaid regime. It could be replaced with a monetary payment, by royal or lordly imposition. Generally, as far as urban building is concerned,

this obligation usually fell upon the rural population of the *termo* (Sousa 1994, 169-171; Melo and Ribeiro 2011a, 115-116).

The *anúduva* was a recurrent obligation, which we can find in most Portuguese medieval towns, such as Braga and Porto, among others. For the latter, this imposition was found in building the town wall, as well as in the opening of new streets [*Rua Nova*], and in the construction of cobblestone streets. For the building of Porto's walls, the *anúduva* had been enforced by the king since 1356. In 1367, this obligation was imposed upon several territories [*Julgados*] to the north and south of the Douro River, some of which were outside the municipal limits. It consisted on the obligation to work on the wall eight days a year, in two different modalities, with or without oxes, which in some territories was replaced with a payment of 30 sou [*soldos*] for those who had oxes, and ten for those who did not (Sousa 1994, 137-138; Melo and Ribeiro 2011a, 115-116). In the town of Braga, in 1359, for the construction of the wall, the king imposed the *anúduva* on certain manors [*coutos*], commercially underdeveloped; and applied the *sisas* on other manors, with greater trade intensity. *Anúduvas* were also used on the construction of the archiepiscopal palace of Braga in the 15th century, among many other examples (Marques 1983, 57-62, 74-81; Marques 1986, 23-25; Melo and Ribeiro 2011a, 115-116; Melo and Ribeiro 2012b).

The *anúduvas* always correspond to unskilled workforce, often used in the transportation of materials, particularly stone, as was the case of the walls in the mentioned towns, but also in the opening of streets or the reconstruction of cobblestone roads (Melo and Ribeiro 2011a, 115-116, 121; Melo and Ribeiro 2012b).

*Right to use raw materials, either new or used*  
Another form of financing consisted in the assignment of the right to use raw materials, particularly stone, wood and nails, either new or used, at no cost, or provided as means of payment. The authorisation to use certain building materials was a way of relieving the builders of such burdens. In that sense, the right to use those materials could be regarded as a type of payment in kind. In this particular context it is worth mentioning the exer-

cise of seizure rights, by royal, lordly or municipal powers, of new or reused building materials, at no cost whatsoever. An example of this is the case of tenancy contracts where the tenant is forced to build houses at his own expenses but, being authorised to use the stone therein existing, which often came from previous degraded constructions. This situation is documented with relative frequency in several locations, such as Porto and Braga, among others. For instance, in 1405 the new tenants of half a house torn down in a street [*Rua da Lada*] in Porto, had to rebuild it using all of the wood, stone and nails that existed there (Melo 2009, 2: 277). Another example is found when the cathedral Chapter of Braga made a tenancy contract in 1477, with Brás Afonso, for some houses to rebuild in the *Rua da Cruz da Carrapata*, in which the tenant had to repair them at his own expense. But the Chapter was obliged to provide part of the necessary materials, probably new, such as 200 tiles and the stone necessary for that building (Melo and Ribeiro 2012b).

Another type of situation concerns the right to seize and requisition stone destined to the construction works on the walls of Porto and Braga, with royal privilege and authorisation, in the first town, and with archiepiscopal permission, in the second one. In Porto, among other examples, in 1373 the municipality came into possession of wood, tiles and nails of two houses in the *Cimo de Vila* street, and these materials were used in repair works of the town wall (Melo 2009, 2: 260-264; Melo and Ribeiro 2012b). In Braga, in 1403, the municipality came into possession of two thousand stones from a ruined tower, destined to the construction of the town wall, upon royal authorisation (Marques 1983, 48 and 71-74; Marques 1986, 33-34). Another similar example can be found in the construction of the archiepiscopal palace of Braga, which also received stone, new or reused, gathered in the outskirts of that town (Melo and Ribeiro 2012b).

#### *Reduction or partial exemption of rent*

The reduction or partial exemption of rent, at the early stage of emphyteusis contracts, was a way to reduce the building expenses of the tenant, whenever the construction of the houses was at his own charge. Therefore, one can consider it as an addi-

tional mode of financing. Among many examples of this practice, the leases of unbuilt plots [*chaos*] and ruined houses [*pardieiros*], as in Porto's *Rua Nova* (Amaral and Duarte 1985, 16-17; Gonçalves 1987, 25-33), or in the *Rua dos Biscainhos* street, in Braga (Melo and Ribeiro 2012b).

#### *Privileges and exemptions*

Another financing possibility was the privileges and exemptions granted to the craftsmen that worked in certain constructions promoted by royal, lordly or municipal powers. In these cases, in addition to the monetary remunerations, those workers received such concessions, which included reductions or partial exemptions for certain services or taxes, as long as they worked on such constructions. It was a means of attracting and settling men involved in the respective building activity. One example is the opening of the *Rua Nova*, in Porto, where since the beginning of its construction in 1395, the king granted privileges to the masons and carpenters that worked there. Those coming from outside the *termo* of the city, were granted the privilege to answer exclusively to the judges of the town; while those that lived within the *termo* were granted exemption from certain services, such as escorting prisoners, or guarding money transportation (Amaral and Duarte 1985, 10). Identical circumstances could also be found in other royal constructions, such as the *Mosteiro da Batalha* (Gomes 1990, 63-74, 117-119).

#### *Donations made by private individuals or institutions*

Finally, we can consider donations, made by private individuals or institutions, as a means of financing urban constructions. This reality is particularly associated with religious constructions, that attracted gifts from kings, lords, clergymen and the population in general both post-mortem, through wills, or "among living," a widely spread practice throughout medieval Europe in general (Vroom 2010, 155-209; Bernardi 2011, 80). In Portugal, among other known examples, figures the first king, Afonso Henriques, who in his will of 1179 left donations to the construction of several cathedrals, such as the ones of Braga and Porto, each one received 500 *mora-bitinos*, (Botelho 2006, 18), or the donation of

1,000 cut stones for the cloister of the last of these churches, by the *concelho* [municipality] in 1385 (Real 2001, 14).

#### **Simultaneous and dynamic character of the different financing modes**

For most building activity, the types of financing were multiple, and simultaneous. Its relative importance was variable and depended on several factors, such as who commissions and pays for the construction, its typology and the various building stages, and time length, among others. For instance, the *Rua Nova* in Porto, of royal initiative and municipal execution, profited from different types of financing for nearly a century, namely taxes that were specifically created for it, such as the *fontas*; some royal taxes that were exceptionally channelled to that end, such as the *sisas dos vinhos*; or the frequent practice of initial reduction of rents, as a way to promote construction by the tenants. It also benefitted from the *anúduvas*, for transportation of materials, and from the concession of privileges and exemptions granted to some of the workers. Similarly, during the construction of the wall and castle of Braga, which extended for more than a century, there is also a record of multiple modes of financing. They included the Archbishop's and Chapter's own revenue, during the episcopal lordship period, as well as the seizure of raw material, particularly new or used stone existing in the *termo* or in the town, and also the imposition of *anúduvas* and *sisas*, during the royal and episcopal lordship periods.

Another common example in Portuguese medieval towns was the building of houses executed by the tenant, at his own expense. In such cases, it was common for the tenant to be granted, by the owner of the plot, the right to utilise new or used raw material existing on the building site, and could also simultaneously receive the exemption or reduction of rent in the first years. This situation was particularly frequent on new streets, and it could co-exist with other modes of financing, such as the building made by the owner, who would lease them once they were finished.

Among the above mentioned modes of financing, some are particularly associated with a

certain type of promoter. The king, who could make use of all, naturally had the widest range of possibilities at his disposal, some of which were exclusive. The *pedidos* and a variety of taxes, such as the customs tithes [*dizimas*], stand out among his own revenue. When the promoter was a lord, either a layman or a clergyman, there also existed the possibility to resort to various financing modes, with a different relative importance, according to the diverse typologies of the buildings, namely military, religious or civil such as the palaces. Ecclesiastical institutions, namely bishops and cathedrals also had specific revenues, such as the tithes, or various forms of donations, which could be accorded to constructions. In the constructions promoted by the municipality, we can also find various financing modes, some of which were exclusive to the municipalities, such as proceeds from taxes and municipal rights, while others required royal or lordly authorisation, such as the *fintas* and *anúduvas*. Small or medium-scale construction financing in municipalities, such as town wall repair, paving or maintenance of streets, bridges and fountains could be accomplished with recourse to regular income of the municipality, or by the creation of specific *fintas*.

For larger scale building, such as construction or major repair works on walls, opening of new streets, or major urban transformations it was common to establish specific *fintas*, but also to allocate certain royal, lordly, ecclesiastical or municipal pre-existing taxes, to finance a

particular construction. Both possibilities were conceded for a limited period of time and could require royal authorisation. Recourse to compulsory workforce, the *anúduva*, and the rights involving the use and reuse of materials, or its market value can also be considered as different modes of financing urban constructions. The modes of financing the different production costs, namely the materials, the transportation and labour, could also be paid by the various forms of funding to which we have referred. The materials, new or used, could be bought, but could also be donated or the object of royal or manorial appropriation. Transport and work could equally be paid in various forms, or the simply imposed, forming a bond for some men living in certain jurisdictions.

The study of construction financing in late medieval Portugal towns could be more developed with the recourse to statistical and quantitative analysis of existing data, through the use of computer science technologies. In spite of the scarcity of documental information, studies upon this perspective are still rare. We aim to contribute soon to the development of this line of research.

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