Chapter 8 Trade and Traders of North European Timber and Other Naval Provisions in Sixteenth-Century Seville



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Abstract This chapter analyses how the market of imported naval provisions functioned in Seville at the end of the sixteenth century. The primary source for this paper is a dataset of notarial deeds formalized by thirty north European merchants who specialized in the trade of extra-peninsular timber in the last third of the century. With an analysis of these operations, this chapter aims to offer wood scientists and nautical archaeologists an overview of the Baltic and Scandinavian naval products that were available in sixteenth-century Seville, and how they were traded.

8.1 Introduction

No local chronicle registered the death of Esteban Jansen in 1596, and no historian has ever paid attention to his presence in Seville, the economic capital of Spain at the time (Otte 2008). Born in Danzig, today's Gdansk, he migrated to Seville in 1575. There, he married the daughter of an influential Flemish merchant, Enrique Apart, who introduced him in the trade of Baltic and Scandinavian timber. In his testament, Esteban Jansen claimed that the monarchy owed him 25,000 ducats for masts and other timber that he had supplied to the royal navy and were still unpaid. He was soon forgotten after his death, but his testament shows that, in life, he had become the greatest trader of imported timber in Andalusia, the southernmost region of the Iberian Peninsula and the main gateway between Europe and the Americas in the early modern period.

Although Esteban Jansen's importance was unparalleled, he was not the only one importing and trading north European timber in the region. We know of at least thirty merchants who specialized in the trade of extra-peninsular timber in Seville in

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¹Archivo Histórico Provincial de Sevilla (AHPSe), SP, 9289, 714r.

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the last third of the sixteenth century. They all shared similar experiences. Like Esteban Jansen, they immigrated from northern Europe, mostly from the Low Countries, and became involved in the trade of Baltic and Scandinavian timber after marrying the daughter of other compatriots who were already established in Seville. With their commercial activity, they ensured the supply of timber and other naval provisions for the preparation of ships sailing to the Americas. Eventually, these resources also became strategic for the monarchy to prepare the armadas and to build new Atlantic warships in Cantabrian shipyards, on the northern coast of the Iberian Peninsula. Paradoxically, their migration to Seville coincided with the beginning of the Eighty Years' War. The Calvinist uprisings occurring in the Low Countries in 1567 soon evolved into a civil war, which led to the independence of the northern provinces in 1581 (Van der Lem 2018). This was the beginning of a long-lasting war between two overseas empires, the Hispanic Monarchy and the Dutch Republic (Israel 1997).

The dependence on foreigners – and especially on potential enemies of the Spanish king, such as the Dutch – to cope with the struggles of maritime war has fed a narrative of failure of the Spanish navy. According to this, Spain was unfit to deal with the increasing military competition at sea, provoking a shipbuilding crisis and a consequent naval decline. This made Spain lag behind emerging Atlantic competitors from the end of the sixteenth century, the Dutch Republic and England (e.g. Thompson 1976). It is true that, by the end of the sixteenth century, a crisis of shipbuilding production started in the Cantabrian region, where most of the Spanish production of oceanic vessels was concentrated (Aragón Ruano 2008). Yet, like Regina Grafe (2011, p. 81), I wonder "[i]f Spain was so deficient in the naval arts, how did it hold together the largest western empire ever for three centuries?"

In "The Strange Tale of the Decline of Spanish Shipping", the German scholar relativizes such crisis. She offers an alternative explanation to the progressive deterioration of the Spanish naval reputation based on changes in demand. No genuine problems in the provisioning, manning or technology affected the Spanish navy more than other European powers of the time. Most challenges to the Spanish navy were common to all of them, like the need to import masts from Scandinavia and other Baltic regions. According to Grafe, together with an endemic lack of market integration, a transformation in naval activities in northern Spain due to changes in commercial routes, made Cantabrian shipyards unable - and somehow unwilling to respond to the monarchy's increasing demand of large vessels, which were better prepared for oceanic navigation and war. The decline of shipbuilding production should not be directly associated with a decline in Spain's naval capacity. As I explained in my doctoral dissertation (Jiménez Montes 2020a), the creation of a market of imported timber represented an efficient solution for Andalusia to deal with the needs of a private market – the ships sailing to the Americas – and of the royal service – the construction of new warships and the preparation of the armadas.

This chapter analyses how the market of imported naval provisions functioned in Seville at the end of the sixteenth century. The primary source for this paper is a dataset of notarial deeds that these foreigners formalized during the period of 1570–1600, in which the trade of naval provisions are documented. In a similar way

to today's notaries, pre-modern notaries were officials with royal authority to publicly formalize an agreement, attesting that a document explained such agreement in a true way and was correctly signed by the parties involved in it (Extremera Extremera 2001). Although not all agreements were necessarily registered before a notary, we can have direct or indirect access to many commercial operations through notarial deeds. With an analysis of these operations, this chapter aims to offer wood scientists and nautical archaeologists an overview of the Baltic and Scandinavian naval products that were available in the sixteenth-century Seville, and how they were traded.

This chapter is divided into three parts. The first one addresses the role of Andalusia as a logistical node within the Spanish maritime empire. The second presents the group of north European merchants that, based in Seville, dominated the trade of imported timber in southern Spain. The final section analyses the composition of the market of timber and other naval provisions in the region, establishing a categorization of products and how they were supplied to the privately-owned ships preparing to sail to the Americas, the royal navy, and other industrial activities that flourished in the city during the century.

8.2 Andalusia: A Poor shipbuilding Industry, A Main Logistical Node

Thompson (1991, p. 88) explained that, in the last three decades of the century, Spain experienced a process that he called "Atlanticisation of war", which implied a change in "the framework of association between Castile and Spain and between Spain and the Mediterranean kingdoms". After the Holy League's victory over the Ottoman Empire in 1571, a status quo emerged on the Mediterranean front between the Turks and the Spaniards (Braudel 1949). At the same time, Atlantic affairs became more prominent for Philip II. The incorporation of Portugal in 1580, the frequent military conflicts with England, and the war in the Low Countries had a profound impact on the organization of Spain's navy (Gómez-Centurión Jiménez 1988; Thompson 1991).

The *Atlanticisation* of war implied the *Atlanticisation* of the royal navy. Historians agree that Philip II was the first king with a conscious plan for improving the royal navy (Stradling 2004; Casado Soto 2006), and a consistent policy on naval matters (Martínez González 2015; Wing 2015). During his reign, Philip II implemented ambitious plans to increase the number of Atlantic warships, especially high board galleons fitted for oceanic wars and longer journeys than Mediterranean galleys (Casado Soto 2006). The monarchy directly administered and financed the construction of new warships, and also offered tax exemptions and generous loans to private shipbuilders, under the condition that the new ships could be eventually seized by the monarchy for military campaigns (Thompson 1976; Casado Soto 2006).

Most of the new warships were constructed in Cantabrian shipyards(Casado Soto 1988, 2006). The Cantabrian coast was not uniform but a rather diverse area, where local communities with different jurisdictions had a long tradition in the trade with the Low Countries and seasonal whaling, especially along the Basque coast. These local communities had a long expertise in the construction of ocean-going vessels, and access to quality forestry resources, especially oak. The region lacked quality pine trees for the masts, which had to be imported from northern Europe (Casado Soto 2006). Andalusia did not participate in the monarchy's shipbuilding projects due to the low quality of timber in southern Spain. The monarchy even forbade the participation of Andalusian-built ships in the *Carrera de Indias* for this reason (Rodríguez Lorenzo 2017). Only in the eighteenth century was a royal shipyard created in Andalusia. The *Arsenal de la Carraca* in Cádiz, which had originally been a repair yard, developed into a royal shipbuilding center in the eighteenth century, when the pines from the Sierra de Segura and Cazorla became accessible and exploitable (Crespo Solana 1995).

While lacking a competitive shipbuilding industry, there was an important industry in Andalusia for the maintenance and repair of the ships sailing to the Americas. Andalusia played a fundamental role in the logistical organization of the *Carrera de Indias*, as the navigation and trade between Spain and the Americas came to be known (García-Baquero González 1992). In 1503, the Spanish queen Isabella I of Castile established the House of Trade of the Indies in Seville to supervise the organization of the *Carrera de Indias* (Acosta et al. 2004), and the city became the only Castilian port allowed to trade with the Americas. However, most of the shipping activities of the *Carrera de Indias* did not occur in Seville, but on the western Andalusian coast, between the ports of Sanlúcar de Barrameda and Cádiz (Pérez-Mallaína 1997).

In the decade of 1560s, Isabella's great grandson, Philip II, implemented an ambitious set of regulations for the *Carrera de Indias*, which strengthened the region's position as a main node of the Spanish maritime empire. These regulations required ships of the *Carrera de Indias* to travel in convoy, according to a determined sailing calendar, controlled the size and arming of the ships, and established a military fleet to escort them (Phillips 1986). Two annual fleets departed from Andalusia every year: one in April heading to Nueva España and another in August heading to Tierra Firme. Returning ships met in La Habana, from where they undertook their journey back. The American convoy system prevailed with minor changes during the whole Habsburg period (Díaz Blanco 2014).

In this period, Andalusia began to assume new logistical operations for the royal navy, in the context of the *Atlanticisation* of the navy. The region, in-between Mediterranean and Atlantic waters, became a principal theatre of that transformation. As tensions between Spain and the Ottoman empire decreased, the fleet of royal galleys began to hibernate in Andalusia instead of Sicily. Moreover, in 1580, the king established a commissariat in Seville for victualling the royal navy and, in 1586, in the context of preparation of the Gran Armada against England, the king appointed in Seville a general purveyor of the royal navy; another general purveyor was established in Lisbon (Thompson 1991). The new appointments reveal that,

despite the deficiencies of Andalusia's shipbuilding, the region offered the monarchy access to the supply of strategic resources for the royal navy, thanks to the emergence of a competitive market of imported naval provisions.

8.3 Timber Traders in Seville

In my doctoral dissertation(Jiménez Montes 2020a), I concluded that the support of Seville's oligarchy to north European merchants was a main factor in the emergence and consolidation of a market of imported naval provisions. Although this support collided with Philip II's policy of commercial war against the Dutch Republic, which translated into three embargoes upon the trade with northern Europe (1574–1579, 1585–1590, and 1595–1596), the population of north European migrants experienced a sharp growth in Seville in the second half of the century (Stols 1971). The number of north European merchants who, based in Seville, specialized in the trade of imported timber grew too.

The trade of imported timber, which became a flourishing activity in the period, soon fell into the hands of only a few families. Notarial deeds reveal that there were at least 30 individuals residing in Seville permanently who dealt with Baltic and Scandinavian naval resources in the period from 1570 to 1598. They all identified as Flemish or German merchants (mercaderes flamencos or mercaderes alemanes), even though some had migrated from the Dutch Republic, Baltic towns like Danzig or were second-generation migrants who had been born in Andalusia. Most of them started in the timber trade working as interns of older compatriots and, eventually, started a commercial firm of their own after they married. They were not the richest merchants in the city, but were affluent enough to participate in long-distance trade, invest in real-estate and, in some cases, trade with the Americas. The descendants of some of these families would eventually join Seville's commercial elite (Jiménez Montes 2016a). Although the market was organized in individual firms, their intertwined kinship network created a proper environment for the cohesion of the group, which avoided external and internal competition and favoured the establishment of commercial collaborations.

Another reason for this cohesion was their residence in the same area, the *Reales Atarazanas*, which became the main location for the trade of imported naval provisions in Andalusia. This was a large building complex, which was formed by 17 large naves and situated between the city's economic heart (around the Cathedral) and the bank of the Guadalquivir River (Pérez-Mallaína 2010). North European merchants built their houses and warehouses inside the naves, where they could store large tree-pieces. A probate inventory of one of these merchants, Manas Enriquez, provides a glimpse of the capacity of one of these houses.² When Manas Enriquez died, his executors reported the following timber stored in his house: 104

²AHPSe, SP, 9271, 197r-v.

dozen pine planks, 78 small pine trees, 55 large yards, 600 small yards, 49 half oak trees, and 4737 barrel staves. Moreover, he had five piles of planks amounting 400 dozen "in the street" and 31 pine beams "by the door".

Unfortunately, the pieces of timber are not described in detail, and there is no information about their size or price. Hence, it is not possible to estimate the volume of the stock or its market price. Yet several conclusions, which can apply to the rest of Flemish and German merchants, can be drawn from a further look at Manas Enríquez's probate inventory. One is that he barely diversified his commercial activity. Manas Enriquez owned a salt pond on the coast, in Puerto Real. This is not surprising, as salt was the second most traded commodity in the routes between northern and southern Europe and was highly demanded in northern markets (Mollat 1968). Besides the listed timber, the salt pond and his personal belongings, the inventory does not report any other tradable commodity at his house. We know from the inventory that several men owed him 400 ducats from commodities that he had sent to the Americas. We know nothing about the reasons for these debts, but we can assume that they had originated in the trade of Flemish textiles, which were the other main commodity that north European merchants used to import from the Low Countries (Jiménez Montes 2016b). A second conclusion is that they had a varied stock of timber – from large pieces to planks, from oak to pine – and that part of this stock was left outside the building of the Atarazanas. This practice of leaving large pieces on the sand bank in front of the Atarazanas is beautifully portrayed in many of the city's views, especially in the one of the 1570s attributed to Alfonso Sánchez Coello.

Finally, it is important to consider that not all trade of timber occurred in Seville, and not all of these merchants' stock was stored in the city. Many transactions took place eight leagues away from Seville, in the port of Las Horcadas. According to Pérez-Mallaína (1997), ships larger than 500 tons very rarely completed their journey up to Seville and normally anchored in Las Horcadas, where merchants—or they employees—received the timber freights from north European ships and sold them to Spanish ship captains (Jiménez Montes 2020b). Moreover, many vessels did not even enter the Guadalquivir river and stayed at the mouth, in Sanlucar de Barrameda, or in nearby ports, like Cádiz. Flemish and German merchants based in Seville extended their network of contacts to those ports along the Andalusian coast, and many had warehouses there.³

8.4 The Market of Timber and Naval Provisions

Notarial sources provide a rich overview of the degree of specialization achieved by the market of timber and naval provisions in Seville. Two sets of notarial deeds are particularly revealing: promises of payment and bills of receipts. In the first, a

³e.g. AHPSe, SP, 9266, 600v.

debtor promised a timber merchant to fulfil a payment for the sale of naval provisions before a certain date. These deeds were usually formalized by ship masters and owners of the *Carrera de Indias*, who bought naval provisions for the preparation of their vessels before sailing. In the second, the timber merchant recognized to receive a payment from a royal official for a service to the monarchy; in this case, timber for the provision of the royal navy. Not all transactions were publicly registered in the notaries, as no local or royal law required merchants to formalize their commercial operations before a notary. If the two parties of a transaction knew each other well, they would just reach a verbal agreement and account the operation in their own ledgers; these private accounts could then be used in court if needed. (Trivellato 2009). Sadly for historians of the sixteenth-century Seville, almost none of these private ledgers have survived. Luckily, other notarial deeds can give information in an indirect way, such as testaments or powers of attorney. Through powers of attorney, for instance, a merchant could commission a proxy collection of a debt, which had originated from a sale of timber.

If a transaction was notarized in a direct or indirect way, it is very likely that the involved parties were interested in stating the conditions of the products at the time of the operation. Because of this, notarial deeds usually contain a description of the traded naval provisions. The degree of detail varied depending on the type of notarial deed; they tend to be more exhaustive in promises of payment, which involved a payment in credit and risk clauses. Moreover, there was not a standardized method of description, which hinders a complete analysis on the state of the market, especially regarding prices or the volume of trade. However, by looking at the different attributes that were used to describe naval provisions, we can grasp the wide offer of products available at the warehouses of the *Atarazanas* and identify some of the key factors that drove their demand.

Table 8.1 shows the diversity of commodities that were sold in the *Atarazanas* with a translation (second column), according to notarial deeds. The third column indicates the unit used to sell each type of product and the fourth column contains the attributes that were used in notarial deeds to describe them. The fifth column categorizes the type of attribute according to the nature of the description: function within the ship, provenance, size, species, type of sawing, and quality. In the table, the types of products are divided into four groups (first column). The first consists of large- and complete-tree pieces, like masts and yards, onto which the sails would be set. The second is sawn timber, which represented smaller pieces that had been processed to be used for construction like planks, and specific devices built in timber, like mast-steps. A third group is formed by the rigging, which included a variety of cordage products. Lastly, there are products for caulking the vessels' hull and waterproofing timber.

In many notarial deeds, especially promises of payment and bills of receipt, the quantity of the traded product was specified carefully, indicating the number of products and, to a lesser extent, their measure. Trees and other large timbers were often sold per piece, but smaller timbers were usually sold in groups. Planks, for instance, were sold by the dozen (sing. *Docena*, pl. *docenas*), although certain types of higher quality timber, like oak planks and Prussian planks, could be sold per

piece. Cheaper sawn timbers, like barrel staves (*duelas* or *tripitrapes*), were sold in groups of 1045 pieces, also known as *millar* (sing.) or *millares* (pl.). Finally, rigging products were sold in different sizes and forms, like *cables* (cables), *guindalesas* (hawsers) or *jarcia* (cordage) but measured in *quintales* (quintals), which was a Castilian weight measure equivalent to 46 kilogrammes. Caulking products were sold in *quintales*, too, although pitch was often measured in *barriles* (barrel), which was a Castilian liquid measure equivalent to about 35 litres.

Timber pieces (sawn or complete) could be measured in palms, like masts.⁴ We know, for instance, that the size of *tripitrapes* could range from four to five and seven palms.⁵ Notarial deeds are not very exhaustive when it comes to the size of the product. Most just vaguely describe the size of the product adding an adjective, like *grande* (big) or *pequeño* (small).⁶ Sometimes, a diminutive (*vigueta*) sufficed to indicate a small size.⁷ It is very difficult to determine the implications of size variations other than the obvious fact that shorter pieces must have been cheaper than larger ones.

There were also references to quality, which surely affected the price of the commodity. The name *suerte* (kind) was used to detail the quality degree of the product, like in *suerte mayor* (high quality)⁸ or *primera suerte* (first kind).⁹ The type of sawing was indicated when relevant, like in *tablas aserradizas* (planks with a serrated edge), which reveals the high degree of specialization achieved by the market.¹⁰ Another indication of such specialization is the sale of devices made in timber, like oars. In 1591, a ship repairer (*carenero*) called Juan Antonio Remolar bought 324 "large oars" from the house of Esteban Jansen, for a price of 8,5 *reales* for each oar.¹¹

Many attributes served to describe the function of the product within the ship. This was especially the case for large pieces of trees, which were normally defined by their future position in the ship as mizzen mast¹² or bowsprit.¹³ Some references to the function of a piece of timber make it difficult to tell the difference between two products; for instance, between trees for yards ("*árboles para verga*"¹⁴) and yards ("*vergas*"¹⁵). Very likely there was no difference, evidencing the ambiguity of notarial sources.

⁴e.g. AHPSe, SP, 9284, 119r.

⁵AHPSe, SP, 9247, 428v.

⁶e.g. AHPSe, SP, 9247, 428v; 9224, 749r.

⁷e.g. AHPSe, SP, 9299, 335r.

⁸e.g. AHPSe, SP, 9306, 519r.

⁹AHPSe, SP, 9306, 516r.

¹⁰AHPSe, SP, 9222, 109v.

¹¹ AHPSe, SP, 9266, 850v

¹²AHPSe, 9250P, 716v.

¹³ AHPSe, SP, 9268, 1026r.

¹⁴AHPSe, SP, 9275,927r.

¹⁵ AHPSe, SP, 7784, 404r.

The species of the timber certainly influenced the quality of the product, and therefore, its price. The way notarial deeds describe the provenance of products is one of the most interesting aspects of the market. The labelling of the product according to provenance must have worked like today's designation of origin, adding value on commodities by associating them with a specific place. Many references indicate that products came from Flanders (*Flandes*), like *tablas de pino de Flandes* (pine planks from Flanders¹⁶). Flanders was used here as a name to refer to the place from where the planks were imported rather than to describe the provenance of the pine. Obviously, the pines sold in Andalusia were not originally from the Low Countries, as the region had to import pines as well (Jou 1992). It is possible that sources make a reference to the Low Countries because it was there where raw trees were processed and sawn in a distinctive plank-shape, which was appreciated in southern Europe.

Such a regional trademark, in any case, speaks of the importance of the Low Countries as an intermediary node in the trade between northern and southern Europe (De Vries and Van der Woude 1997). Other geographical references, especially to *Alemania* (Germany) or *Prusia* (Prussia), appear in a lesser extent. In this case, the provenance of timber may be the Baltic axis between Danzig and Konigsberg (Jou 1992). In any case, references to product origins highlights the obstacles of addressing the provenance of timber when relying on written primary sources only.

Exceptionally, these merchants sold regional timbers, like *pinsapos* (Spanish fir). Pinsapo was mostly used for planks, ¹⁷ but there is also evidence that they could be used for masts. ¹⁸ However, the use of *pinsapos* for masts is extremely unusual if compared to the use of north European pine; it must have occurred in times where the stock of imported trees was scarce. We also document sporadic references to timber from Reus, in northern Spain, ¹⁹ and various mentions to tar from the Canary Islands²⁰ or Biscay. ²¹

At this point, it should not come as a surprise that the majority of the naval provisions sold by these merchants was imported. It should not come as a surprise either that pine masts were one of the most demanded provisions. As mentioned earlier, the Iberian Peninsula was rich in oak, especially in the northern area, and Mediterranean pine, both of which were widely used in Iberian shipbuilding. Yet shipbuilders preferred north European pines for the masts, as these trees had better quality than their Iberian counterparts, according to contemporary intellectuals (De Artíñano y de Galdácano 1920). Scandinavian pine (*pino*) was used for the repair of the ships of the *Carrera de Indias*, as masts and yards suffered during the oceanic

¹⁶ e.g. AHPSe, SP, 9275, 927r.

¹⁷AHPSe, SP, 9273, 983r.

¹⁸ AHPSe, SP, 9266, 600v.

¹⁹ AHPSe, SP, 9290, 730r.

²⁰AHPSe, SP, 9223, 47r.

²¹AHPSe, SP, 9298, 776r.

journeys and had to be replaced before sailing again to the Americas. For instance, the ship owner Juan Martínez de Echaverria promised to pay 1500 *reales* for two trees, one for the main mast and the other for the foremast, 420 reales for tar and 725 *reales* for 7,5 dozen pine planks "to fix" (*aderazar*) his vessel which was in Sanlúcar de Barrameda waiting to sail to San Juan de Ulúa, New Spain.²²

We know of at least 113 promises of payment in which ship owners or masters of the *Carrera de Indias* bought provisions. This number must be significantly lower than the actual number of times in which masts were supplied to fix ships of the *Carrera de Indias*; because ship owners and timber merchants knew each other well, there was little incentive to formalize a transaction before a notary. Due to the lack of notarized transactions, the information on prices stated on promises of payment and other notarial deeds is not consistent enough to draw conclusions over price variations; in my dissertation (Jiménez Montes 2020a), I could only show an overview of prices.

Nonetheless, the case of Juan Martínez de Echaverría evidences some interesting aspects about the supply of naval provisions to the ships of the *Carrera de Indias*. One is that, while the ship was being repaired on the coast in the port of Sanlúcar de Barrameda, ship owners bought imported timber in Seville. Moreover, masts were not the only products that ship owners bought from the *Atarazanas*. They obtained a diverse range of provisions to repair and prepare their ships, such as tar and planks. Rigging was also very much in demanded by ship owners of the *Carrera de Indias*. As rigging suffered heavily during oceanic journeys, it had to be replaced frequently. This provision, as seen in Table 8.1, was imported from the Low Countries, too, and a popular way to refer to it was *jarcia de Flandes* (rigging from Flanders²³).

Indeed, the market of the *Atarazanas* offered a wide range of imported provisions, even though some species must have been available in Andalusia or the Iberian Peninsula, like oak. The higher quality of the imported commodities may explain this. A good example of the reputation of imported timber is that, in 1578, Gerónimo Andrea, Esteban Jansen, and Felipe Sarens sent there 200 *bornes* (oak trees) for the construction of the organs of San Lorenzo del Escorial, the palace that Philip II built in Madrid.²⁴ Quality may not be the only reason for the popularity of imported timber. According to Rodríguez-Trobajo and Domínguez-Delmás (2015, p. 154), imported timber was cheaper than regional material. In their study on the construction of an altarpiece in Lucena, a village in Cordoba, they concluded that regional oak was far more expensive than the Swedish oak used in the same work. The price of the first was 7 ducats per piece while the second was 1 ducat per piece.

This is a good example of how, while the market emerged to keep ships of the *Carrera de Indias* in shape between voyages, it evolved into a diverse market that supplied different sources of demand, including local industries. One particular local group that benefited from this market was the guild of coopers. In the notary,

²²AHPSe, SP, 9274, 120r.

²³e.g. AHPSe, SP, 9272, 589r.

²⁴AHPSe, SP, 9219, 365r.

 Table 8.1
 Typology of naval provisions available in sixteenth-century Seville

	Product/Translation	Unit	Attribute	Type of attribute
Complete- and large-tree pieces	Entena / type of yard	Piece	Entenuela	Size
	Árboles / trees	Piece	para entenas	Function
			para bauprés	Function
			para vergas	Function
			para mastilejos	Function
			para trinquete	Function
	Berlinga / type of yard	Piece		
	Borne / Oak tree	Piece	Bornete	Size
			Medios bornes	Size
			de Madera de Flandes	Provenance
			de marca mayor	Quality
	Mástil / mast	Piece	de pino	Specie
			de pinsapo	Specie
			para trinquete	Function
			para verga	Function
			Mastilejos	Size
			pequeños	Size
			medianos	Size
			grandes	Size
			grandes de Prusia	Size
	Palo / spar	Piece	de pino Para mesana	Specie + function
			de roble	Specie
			para mastelillos	Function
			para mástil	Function
			para trinquete	Function
			para verga	Function
	Pino / pine	Piece	Pinete	Size
			de Flandes	Provenance
	Verga / yard	Piece		
Sawn timber & timber devices	Barraganete / deck coaming	Piece		
	Duela / stave	Millar (1000 pieces)	de Alemania	Provenance
			de Flandes	Provenance
			de Irlanda	Provenance
			de pique Para	Quality +
			hacer pipas	function
	Espigón /?	Piece		
	Pontón /?	Piece		

(continued)

Table 8.1 (continued)

	Product/Translation	Unit	Attribute	Type of attribute
	Posavergas / yard-holders	Piece		
	Remo / oar	Piece		
	Tripitrape / pipe stave	Millar (1045 pieces)	de marca mayor	Quality
			para pipas	Function
			de a cuatro palmos	Size
			de a cinco palmos	Size
			de a siete palmos	Size
			grande	Size
			pequeño	Size
	Tabla / plank Viga / beam	Dozen/	de pino aserradizas	Specie + sawing
		piece	de pino de Flandes	Specie + provenance
			de pino de Reus	Specie + provenance
			de pinsapo de suerte mayor	Specie + quality
			de pinsapo de primera suerte	Specie + quality
			de pinsapo de segunda suerte	Specie + quality
			de pinsapo de tercera suerte	Specie + quality
			de prusa fina	Provenance + specie
			de roble planchadas	Specie + sawing
			gordas	Size
			grandes	Size
			Medias tablas	Size
			Tablones	Size
		Piece	de Flandes	Provenance
			de pino	Specie
			de roble	Specie
			Viguetas	Size

(continued)

Table 8.1 (continued)

	Product/Translation	Unit	Attribute	Type of attribute
Rigging	Cable / cable	Quintal	alquitranado de Flandes	Quality + provenance
			de cáñamo	Specie
	Calabrote / small	Quintal	alquitranado	Quality
	cable		usado	Quality
	Cáñamo / hemp	Quintal	alquitranado	Quality
			alquitranado de Alemania	Quality + provenance
			de Flandes	Provenance
	Guindalesa / hawser			
	Jarcia / cordage	Quintal	alquitranada de Alemania	Quality + provenance
			alquitranada de	Quality +
			Flandes	provenance
			basta	Quality
			en piezas	Quality
			de Alemania	Provenance
			de Hilo de Flandes	Quality + provenance
			en cables	Quality
			en guindalesa	Quality
			menuda	Quality
			para cáñamo	Function
Coating	Alquitrán / pitch	Barril		
	Brea / tar	Quintal	de Flandes	Provenance
			de Vizcaya	Provenance
			negra de Canarias	Quality + provenance

Source: AHPSe, SP, 7764-7786 and 9214-9308. (Castro et al. 2018)

we find 114 promises of payment in which coopers declared their debt to a merchant of the *Atarazanas* for the supply of staves; either *tripitrapes* (probably of lower quality) or *duelas*. Coopers usually bought in bulk, at least in the notarized transactions, buying by the hundred²⁵ or by the thousand.²⁶ The merchants of the *Atarazanas* also provided rigging to cable makers,²⁷ tar and pitch to ship caulkers,²⁸ and timber

²⁵e.g. AHPSe, SP, 9292, 194r.

²⁶e.g. AHPSe, SP, 9297, 609v.

²⁷e.g. AHPSe, SP, 9243, 404v.

²⁸e.g. AHPSe, SP, 9280, 1067r.

to carpenters,²⁹ builders,³⁰ and sculptors.³¹ Their timber even became important for the social life of the city. We know that, in 1591, the Dutch merchant Guillermo Corinse rented to the city council ten dozen planks for the construction of a bull fighting ring during a local festivity.³²

The development of such a competitive market soon attracted the attention of the royal officials. They resorted to the warehouses of the *Atarazanas* to supply the galleys operating in Andalusia (e.g. "the Armada Real de Guarda de las Yndias"33), the preparation of diverse military campaigns (e.g. the one in the Azores in 1583³⁴) or the construction of new royal warships in the north of Spain.³⁵ The fact that Cantabrian shipyards were supplied with timber re-exported from southern Spain, instead of timber directly imported from northern Europe, evidences the development of Seville's market of naval provisions. This market, which emerged to supply the growing demand of the *Carrera de Indias*, evolved into an essential node for the supply of the royal navy. The commercial activity of the north European merchants operating in the *Atarazanas* made this evolution possible.

8.5 Conclusions

With the Atlanticisation of war experienced by Spain in the last third of the sixteenth century, Seville strengthened its position as a main logistical centre of the Spanish maritime empire. This chapter has demonstrated that a key factor for this was the creation of a market of naval provisions, which could respond to the increasing demand from the Carrera de Indias and from the royal navy. This market emerged in the 1570s, with the arrival of north European merchants who established themselves in the building complex of the Atarazanas and specialized in the importation and supply of naval provisions. Some of the products available at the Atarazanas were strategic to the city and the monarchy, such as quality masts, because they were scarce in the Iberian Peninsula and had to be imported from Scandinavian and Baltic forests. Other provisions, like planks or rigging, could be found in the Peninsula but were imported because of their higher quality and more competitive price. With time, these foreign merchants offered a wide diversity of naval provisions, which can be categorized into four main groups: large- and complete-tree pieces, sawn timbers and specific timber devices, rigging, and caulking products.

²⁹e.g. AHPSe, SP, 9235, 14v.

³⁰e.g. AHPSe, SP, 9215, 908r.

³¹ e.g. AHPSe, SP, 7782, 63r.

³²AHPSe, SP, 9526, 694v.

³³AHPSe,9226P,401r.

³⁴ AHPSe, 9273P, 262r.

³⁵ e.g. AHPSe, SP, 9269, 823r-823v.

Thanks to the descriptions appearing in notarial deeds, this chapter has addressed the specialization achieved by these foreign merchants. The attributes used in notarial deeds to describe products – such as size, quality, species, type of sawing, function within the ship, and provenance – are a valuable source for wood scientists and naval archaeologists to understand the complexity of the market. These provide a valuable complementary insight into archaeological remains on the type of timber used in Spanish ships. However, notarial deeds must be used with caution, as information is normally vague and, more often than not, inaccurate. A good example of this is the way deeds made a reference to the provenance of commodities. Many imported provisions are labelled as products from Flanders, even though most provisions imported into Spain in the sixteenth century came from Norway and the Baltic area between Danzig and Konigsberg.

Nonetheless, those geographical labels do indicate one important reality: the key role that the Low Countries, as well as Dutch, Flemish, and German agents, played in the trade between the Baltic and the Iberian Peninsula. By attracting the arrival and activity of north European merchants, Seville ensured access to strategic resources, which were essential for the *Carrera de Indias* and were ultimately used for the supply of the royal navy. With the creation of the market of imported naval provisions, in short, the city decisively contributed to the *Atlanticisation* of the Spanish navy.

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