Special issue: European shipbuilding and ship repairs outside of Europe

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European shipbuilding and ship repairs outside Europe: Problems, questions and some hypotheses

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Abstract

This special issue explains how and why European maritime powers resorted to ship repair and shipbuilding overseas, and how these activities, in multiple ways, justify a re-evaluation of the global impact of shipbuilding worldwide and the influence it had in defining overseas empires. The explanation and further considerations in the core articles examining the Dutch experience of shipbuilding and ship repairs overseas, in both the Atlantic and Indian Oceans, are based on original research, in which the Dutch experience is positioned in relation to what is known for the French, the English/British, the Portuguese and the Spanish empires. Rather, however, than aiming at a comparative approach to this subject, the goal of these articles is to produce a baseline of information that may lie at the core of future research in specific areas of the world, across different empires, or between regions in the same empire.

Keywords

empire building, European shipbuilding overseas, European ship repair overseas, maritime power

In 1512, the *Santa Catarina do Monte Sinai* took to the water in Cochin (Kerala), India, sailing under the flag of the Portuguese *Estado da Índia* and in the Portuguese *Carreira da Índia* as an Indiaman. After eight years in the service of the *Carreira*, the *Santa Catarina do Monte Sinai* sailed to Europe. Once there, she became the admiral ship in the fleet that transported D. Beatrice, Princess of Portugal, to Italy, where she was to marry Charles III, Duke of Savoy. After spending four years fighting Spanish and English

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privateers and interlopers, the *Santa Catarina* returned to Asia as the admiral ship in Vasco da Gama's fleet of 1524 upon the latter's appointment as Viceroy of India. Once back in the Indian Ocean, she took part in multiple naval operations, including the siege of Mombasa in 1528.[1]

What is curious about the *Santa Catarina* is that, until the 1530s, she was not only the largest ship ever constructed (800 tons and 286 standing cannons), but was also built in Cochin, a Portuguese fort and town on the shores of the Indian Ocean. Another peculiar fact was that the *Santa Catarina* sailed in both the Indian and Atlantic Oceans, as well as the Mediterranean and the North Sea, while also serving in peace and war time, and on diplomatic, political and military missions in Europe, Africa and Asia. But despite her rich and exciting history, the *Santa Catarina* was no exception, because many European countries used their overseas settlements for shipbuilding and ship repairs during the Early Modern period. The lack of interest demonstrated by current historiography in this phenomenon is particularly strange,[2] given that the flexible and accurate use of fleets was paramount to commercial and military efficiency in the development of colonial empires. This special issue explains how and why European maritime powers resorted to ship repair and shipbuilding overseas, and how these activities, in multiple ways, justify a re-evaluation of the global impact of shipbuilding worldwide and the influence it had in defining overseas empires. The explanation and further considerations in the core articles examining the Dutch experience of shipbuilding and ship repairs overseas, in both the Atlantic and Indian Oceans, are based on original research, in which the Dutch experience is positioned in relation to what is known for the French, the English/British, the Portuguese and the Spanish empires. Rather, however, than aiming at a comparative approach to the subject, the goal of these articles is to produce a baseline of information that may lie at the core of future research in specific areas of the world, across different empires, or between regions in the same empire.

European shipbuilding and ship repair overseas were particularly important for the development and maintenance of the European presence overseas. However, they had further, deeper and longer-term implications for Europeans and non-Europeans alike. Shipbuilding and ship repair overseas generated high demand for local natural resources (timber, tar, pitch, and iron for nails), for manufactured goods (sails, furniture), and for both specialized and general labour. And shipyards, dockyards, harbours and wharfs were spaces where European, African, American and Asian knowledge and expertise were used, exchanged and adapted to suit diverse demands and circumstances.

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1. Descriptions of the *Santa Catarina do Monte Sinai* appear in different sixteenth- and seventeenth-century chronicles, especially Gaspar Correira, *Lendas da Índia* (Lisbon, c. 1550, edited in 1860), vol. 2, part 1, 815; part 2, 854–7; João de Barros, *Décadas da Índia* (Lisbon, 1563), book 9, chapter 1, 340; Diogo Couto, *Décadas (quarta da Ásia)* (Lisbon, 1602), book VI, chapter 1, 96; Francisco de Andrade, *Crónica de D. João III* (Lisbon, 1613), part 1, chapter 67, 76. More recently, she is also mentioned extensively in Ignácio da Costa Quintella, *Annaes da Marinha Portugueza* (Lisbon, 1839), vol. 1, 377, 383. Sanjay Subrahmanyam, *The Career and Legend of Vasco da Gama* (Cambridge, 1997), 311, 346.
2. Patrícia Carvalho, *Os estaleiros na Índia Portuguesa (1595–1630)* (unpublished MA Thesis, Nova University of Lisbon, 2008). K. S. Mathew, *Ship-building and Navigation in the Indian Ocean Region, AD 1400–1800* (New Delhi, 1996). For the Dutch case, see *Tijdschrift voor Zeegeschiedenis*, 36, No. 2 (2017).

European shipbuilding overseas is a general term that encompasses a range of different activities surrounding the building and maintenance of European fleets. The quickest and probably cheapest of these activities were short-term ship repairs. These were usually accidental and not planned and could take place on different legs of a trans-continental journey. The need for such repairs varied between problems arising when sailing on the high seas and problems occurring when surviving storms and general bad weather, or crossing specific waters, such as those around Cape Horn and the Cape of Good Hope. Long-term repairs, meanwhile, were carried out mostly in the ports of arrival, and usually in territories under European sovereignty or within a European sphere of influence. These repairs were usually part of the regular maintenance required before fleets returned to Europe after completing outward voyages at their destinations. As well as ship repairs, Europeans also built ships and, at times, entire fleets outside Europe. In the latter case, European empires established wharfs in their spheres of sovereignty overseas, where they maintained a permanent labour force and continual access to flows of natural and manufactured resources to support and bolster the European countries' capacity for naval readiness worldwide.

Ship repair and shipbuilding were performed at a variety of locations, each of which was organized differently. While short-term repairs were often possible in a bay or close to an anchoring station, long-term repairs and regular shipbuilding took place in wharfs, dockyards, shipyards and harbours that were heavily regulated by European powers. There were three different ways these workplaces were regulated. They could have been attributed, in a letter of privilege, to local inhabitants of a specific town or fortress, as often happened in the case of the Portuguese and Spanish empires.[3] Alternatively, wharfs and shipyards might be owned and organized by corporate bodies such as the joint stock companies, with a special emphasis on the Dutch East India Company (VOC) and the English East India Company (EIC).[4] The third way in which spaces were used across the world for repairing and building ships for the expanding European powers was through private enterprise. These private initiatives were particularly important in areas where Europeans held only a degree of influence and where working spaces were consequently organized and controlled by non-European subjects and institutions.[5]

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3. Leonor Freire Costa, *Naus e Galeões na Ribeira de Lisboa: A Construção Naval no Século XVI para a Rota do Cabo* (Lisbon, 1997). Amélia Polónia and Liliana Oliveira, 'Shipbuilding in Portuguese Overseas Settlements (1500–1700)', in this issue. Ivan Valdez-Bubnov, 'Crown, Trade, Church and Indigenous Societies: The Functioning of the Spanish Shipbuilding Industry in the Philippines (1571–1816)', in this issue.

4. Edmond Smith, 'Corporate Naval Supply in England's Commercial Empire, 1600–1760', in this issue. Martijn Heijink, '"Yet This Comes in Useful for Building Ships": Shipbuilding and Repairs in New Netherland', in this issue. Karwan Fatah-Black, 'Shipbuilding and Repairs in Eighteenth-Century Suriname', in this issue. Matthias van Rossum, 'Building Maritime Empire: Shipbuilding and Networks of Coercion under the Verenigde Oost-Indische Compagnie (VOC) in South and Southeast Asia', in this issue.

5. Filipa Ribeiro da Silva, 'Dutch, English, and African Shipbuilding Craftsmanship in Precolonial West Africa: An Entangled History of Construction, Maintenance and Repair', in this issue.

Ship repair and shipbuilding in Africa, America or Asia demanded a steady flow of natural and manufactured resources to supply the multiple wharfs, harbours, shipyards and dockyards that could be acquired in four different circuits. The European fleets had to ensure they took enough resources on board to perform minor, short-term repairs. In such instances, resources such as timber, masts, sails, ropes, nails, tar and pitch were acquired in the intra-European commercial networks. Alternatively, and certainly in isolated ports of call, local resources were indispensable, while in ports that were better integrated into regional networks of trade, supplies arrived from the hinterland of the ports and their regional surroundings. In major hubs of colonial shipbuilding, intra- and trans-continental exchanges were vital for meeting the high demand for resources that neither local nor regional networks were able to fulfil. In this sense, European naval build-ups overseas benefited from closely integrated ports that relied on close proximity to the hinterland, outstanding connections to regional markets and a regular, secure and predictable association with markets rooted in the continent and beyond.

Natural and manufactured resources were acquired both from nearby and further afield, as was labour. While general knowledge about labour organization in wharfs that serviced or built European fleets overseas is sketchy, the few case studies available demonstrate the existence of free and various types of unfree labour working side by side. Free Europeans and local specialized labourers worked alongside slaves, forced labourers and men bound to European powers by servitude. This mix of labour regimes within the same work spaces raises questions as to the existence of vertical and horizontal relationships in the shipyard and their entangling with interactions across cultural, religious and ethnic boundaries. This diversity in the workforce was also reflected in the geopolitical recruitment, with men arriving from the nearby towns and countryside and from regional and even trans-continental spaces, either attracted by high wages and the potential for upward social mobility, or simply because they were coerced.[6] Meanwhile, the labour regimes and recruitment areas were as broad and multifaceted as the means of hiring many of these men. Many were directly contracted by the owners of the wharfs or by companies and private initiatives alike, or by those privileged to exploit the wharfs. Many were also sub-contracted because the labour force in certain environments was segmented into cultural groups, where privilege and payment were directly related to the place in society that Europeans imagined these specific groups to occupy. Christians, for example, often ranked higher in the labour hierarchies than non-Christians. Lastly, requisition and mandatory service was the official contractual framework used by the institutions for individuals forced to work in the shipyards. Since upward social mobility and relationships on the work floor remain relatively unstudied in this context, it could be argued that vertical and horizontal relationships among the labour force could have resulted, on the one hand, in situations where collective bargaining and protest may have been a way for workers to mediate their position in the labour market; on the other hand, however, labour was also heavily divided into a hierarchical disposition of ethnic,

6.   Matthias van Rossum, *Werkers van de Wereld. Globalisering, Arbeid en Interculturele Ontmoetingen Tussen Aziatische en Europese Zeelieden in Dienst van de VOC, 1600–1800* (Hilversum, 2014). Kerry Ward, *Forced Migration in the Dutch East India Company* (Cambridge, 2009).

religious and cultural groups, and this could have led to in-group solidarities forged by culture rather than by sharing the hardships suffered by a fellow worker.

The breadth of the natural and manufactured resources needing to be acquired to support European overseas ship repair and shipbuilding, along with a diverse workforce functioning within a segmented labour environment, resulted in an exchange of knowledge and expertise that can hardly be claimed as solely European heritage. Returning to the case of the *Santa Catarina*, the ship was admittedly built to suit European demands, needs and tastes. In that sense, we could claim that all ships built overseas were the result of European knowledge as they served European goals and needs. However, building a European ship overseas without any non-European involvement would have been challenging. Although European knowledge and geo-political needs may have dictated the number, design and build of the ships, specific challenges meant that local techniques, inputs and solutions were also needed. In practice, it was a mostly non-European specialized labour force that developed the projects and delivered the final ships. In this relationship between European knowledge and local inputs and techniques, therefore, the *Santa Catarina* and many more like her should be regarded as the result of blended know-how.

Overseas shipbuilding in the Early Modern period carried major implications for European powers. Firstly, it enabled European colonial powers to transmute their military power into localities around the world. This transmutation implied closer and tighter control of military resources over long distances and, at the same time, the need to maintain a flexible and imposing naval formation outside and independently of Europe. Conversely, European states were able to rely on ships built overseas for European fleets to carry out important military and political missions in Europe, as exemplified by the case of the *Santa Catarina do Monte Sinai*.[7] The ability to build and maintain fleets in the Atlantic, Indian and Pacific Oceans resulted in a literal decentralization of empire-building, with ships becoming symbols of naval and political ascendency and the power of Europeans, while also providing income and wealth to those involved in their production, thus creating a broad social group dependent on European colonial success, but who were not themselves European.[8] This decentralization was not only a matter of naval and social binding between European and non-European spaces of political influence and

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7.   Erik Odegard, 'The Sixth Admiralty: The Dutch East India Company and the Military Revolution at Sea, c. 1639–1667', *International Journal of Maritime History*, 26, No. 4 (2014), 669–84.

8.   Matthias van Rossum, 'Building Maritime Empire: Shipbuilding and Networks of Coercion under the Verenigde Oost-Indische Compagnie (VOC) in South and Southeast Asia', in this issue. Cátia Antunes, *Cutting Corners: When Borders, Culture and Empire Do Not Matter* (Inaugural Lecture, Leiden University, 2017). Leonard Blussé, 'On the Waterfront: Life and Labour Around the Batavia Roadstead', in Haneda Masashi, ed., *Asian Port Cities, 1600–1800: Local and Foreign Cultural Interactions* (Singapore, 2009), 119–38. Luiz Felipe de Alencastro, 'The Economic Network of Portugal's Atlantic World', Francisco Bethencourt and Diogo Ramada Curto, eds., *Portuguese Oceanic Expansion, 1400–1800* (Cambridge, 2007), 109–37. Hans Bonke, 'Het eiland Onrust. Van Scheepswerf van de VOC tot Bedreigd Historisch-archeologisch Monument', in M. H. Bartels, E. H. P. Cordfunke and H. Sarfatij, eds., *Hollanders Uit en Thuis* (Hilversum, 2002), 45–60.

power, but also of the economic decentralization of empire. As shipbuilding expanded and intensified throughout the different empires, revenues were added to European treasuries overseas. As well as reducing the need for European powers to fund their overseas fleets entirely from domestic taxation, overseas revenues became anchored in one of the economically most important sectors of Early Modern Europe, as claimed by Richard Unger and Jan Lucassen. And being transplanted into a colonial setting meant they evolved into an ever more important element of trade, in what I argue was probably the first proto-industrial production within European spaces and spheres of influence outside Europe.[9]

While some empires were particularly ferocious in forbidding or harshly controlling the development of local shipbuilding overseas, others saw the need for, and the competitive advantage in, the regulation of wharfs as a means to control production and the workforce and to protect their uses of maritime and shipping technology against competitors. This need for control should not be taken lightly as the availability of wharfs and shipyards throughout European colonial possessions contributed substantially to a growing self-determination, through economic emancipation, among these many localities and vis-à-vis the administrative centres of empire both locally and in the European metropolises. This growing self-determination arose from the increased self-reliance that localities could experience in relation to production, trading and shipping, given that the means of transportation for these sectorial outputs were guaranteed by the continued supply of ships. Self-determination, on the one hand, and self-reliance, on the other hand, contributed significantly to the increasing bargaining power attained by colonial localities vis-à-vis regional and metropolitan societies.[10]

These reflections have significant historiographical implications. Firstly, maritime historians need to re-assess the meaning and implications of European war and commercial fleets operating in European and extra-European waters, as shipbuilding overseas may be extremely relevant to our re-evaluation of the size and economic inputs and outputs of such fleets. Secondly, historians of empire need to re-think the meaning attributed to the idea of empire-building when the case of shipbuilding clearly points towards a 'localization' and 'regionalization' of empire, rather than towards the globalization of empire as such. Thirdly, and concomitantly to the latter, historians should feel challenged to re-evaluate the methodologies of how gains and losses of empire are accounted for, and where these gains and losses need to be positioned with regard to 'national' or cross-imperial exchanges.[11] Lastly, colonial spaces need to be reconstructed according to their level of self-organization and specific economic independence in order for us to understand the diverse regimes of social bonding between Europeans and non-Europeans in colonial settings.[12]

9.   Jan Lucassen and Richard Unger, 'Shipping, Productivity and Economic Growth', in Richard Unger, ed., *Shipping and Economic Growth, 1350–1850* (Leiden, 2011), 1–44.

10. Luis F. de Alencastre, 'Economy of the Portuguese Atlantic World', 125.

11. Jorge M. Pedreira, 'Costs and Financial Trends in the Portuguese Empire, 1415–1822', in Francisco Bethencourt and Diogo Ramada Curto, eds., *Portuguese Oceanic Expansion, 1400–1800* (Cambridge, 2007), 49–87.

12. Cátia Antunes and Amélia Polónia, eds., *Beyond Empires: Global, Self-Organizing, Cross-Imperial Networks, 1500–1800* (Leiden, 2016).

New historiographical insights will force Early Modern historians to revise our understanding of the bargaining power that different spaces within empires attained, both between colonial and metropolitan societies, and between colonial spaces proper. This revision implies a redefining of concepts of trans-colonialism and trans-imperialism in the defining and categorizing of colonial spaces. Ultimately, historians are invited to remodel methodological and theoretical proposals such as those of 'glocalization', 'micro-history' and 'global history'. The articles in this special issue have taken the first steps towards this new revisionist agenda.

Our collective reflection starts with this special issue in the hope that more scholars will take up the challenge. We start with five articles that provide a portrait of Dutch shipbuilding and repairs overseas, offering a broad geographical and chronological scope. For Asia, Matthias van Rossum provides an overview of the VOC's shipbuilding activities in South and Southeast Asia and explains how these activities stood at the initial development and deployment of networks of coercion as a means to provide labour for such endeavours.[13] Following on from Van Rossum's general overview, Erik Odegard focuses specifically on the VOC shipyard of Cochin (Kerala, India) that carried its function from the Portuguese empire (discussed in the article by Amélia Polónia and Liliana Oliveira) to that of the Dutch.[14]

The Dutch experience in Asia is complemented by the Dutch experience in settlement colonies in the Americas and in tenuously held forts in West Africa. Martijn Heijink disentangles the complex needs for Dutch shipbuilding in the colony of New Netherlands (New York) and how those needs echoed throughout the North Atlantic.[15] Similar echoes and challenges were faced by Dutch crews and fleets arriving on the west coast of Africa, where the lack of a permanent colony made it difficult for them to survive without African and European cooperation on the spot, as described by Filipa Ribeiro da Silva.[16] The difficulties the Dutch encountered in building and maintaining their fleets overseas in the seventeenth century persisted well into the eighteenth century. Indeed, and as portrayed by Karwan Fatah-Black,[17] the case of Suriname stands witness to the challenges faced by the colonial and metropolitan societies in seeking to resolve the problems attributable to the need to maintain and build ships to serve the trade in enslaved Africans and the export of cash crops to Europe.

Although the case studies presented in these articles specifically cover the Dutch empire, both spatially and chronologically, an attempt supported by the *Tijdschrift voor*

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13. Matthias van Rossum, 'Building Maritime Empire: Shipbuilding and Networks of Coercion under the Verenigde Oost-Indische Compagnie (VOC) in South and Southeast Asia', in this issue.
14. Erik Odegard, 'Construction at Cochin: Building Ships at the VOC-Yard in Cochin', in this issue.
15. Martijn Heijink, '"Yet This Comes in Useful For Building Ships": Shipbuilding and Repairs in New Netherland', in this issue.
16. Filipa Ribeiro da Silva, 'Dutch, English, and African Shipbuilding Craftsmanship in Precolonial West Africa: An Entangled History of Construction, Maintenance and Repair', in this issue.
17. Karwan Fatah-Black, 'Shipbuilding and Repairs in Eighteenth-Century Suriname', in this issue.

Zeegeschiedenis, the journal for Dutch maritime history,[18] other empires, too, experienced similar phenomena, while some of the Dutch shipbuilding sites, especially in Asia, had been taken over from the Portuguese. These included Cochin, as mentioned by Amélia Polónia and Liliana Oliveira in their overview of Portuguese overseas shipbuilding and repairs in the sixteenth and seventeenth centuries in the Atlantic and Indian Oceans, in which they explain how these wharfs became synonymous with colonial expansion and consolidation.[19]

General considerations in the article by Polónia and Oliveira can be found in the intricacies of the Spanish experience in the Philippines. The shipyards there played a long-standing role in Spanish colonisation in both Asia and the Americas, through the Pacific. By integrating the Pacific case, for roughly 250 years, Ivan Valdez-Bubnov showcases the commonalities of regulation between Iberian empires, while at the same time also clearly demonstrating the specificities of the Philippines in the overall context of the Spanish overseas enterprise.[20] Interestingly, remarks concerning the impact of Spanish shipbuilding activities in indigenous Philippine societies resonate with the considerations expressed by Van Rossum specifically with regard to the Dutch experience in south and southeast Asia.

Edmond Smith focuses his research on the institutional organization of naval supplies to the English/British commercial empire during the seventeenth century and the first half of the eighteenth century. His arguments echo various considerations in Fatah-Black's examination of the institutional framework that sought to regulate shipbuilding and ship repair in Suriname during the long eighteenth century. In this sense, the English/British experience would not seem to represent an extraordinary case compared to the experience of other European powers at the time.[21]

David Plouviez follows a number of Smith's leads in considering the corporate organization of naval supplies to the French empire, albeit focusing particularly on the maintenance, repair and construction of ships during the eighteenth century. His article clearly demonstrates the impact of overseas shipbuilding on the development of the French empire, on the one hand, and on the resilience of the French maritime colonial enterprise, on the other hand, without disregarding the often serious consequences that these impacts had for local societies and individuals.[22]

This special issue closes with some reflections written by Richard Unger, whom I would like to thank for his enthusiasm in lending his immense knowledge to consider and contribute to what we hope will become a fruitful stream of research within maritime, colonial and imperial history in the years to come. Without Richard's generosity,

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18. Shorter versions in Dutch of the articles regarding the Dutch case studies have been published as a joint issue by the *Tijdschrift voor Zeegeschiedenis*, 36, No. 2 (2017).
19. Amélia Polónia and Liliana Oliveira, 'Shipbuilding in Portuguese Overseas Settlements (1500–1700)', in this issue.
20. Ivan Valdez-Bubnov, 'Crown, Trade, Church and Indigenous Societies: The Functioning of the Spanish Shipbuilding Industry in the Philippines (1571–1816)', in this issue.
21. Edmond Smith, 'Corporate Naval Supply in England's Commercial Empire, 1600–1760', in this issue.
22. David Plouviez, 'The Maintenance, Repair and Construction of Ships in the French Empire During the Eighteenth Century', in this issue.

the authors' professionalism and faithful cooperation, and the support provided by the *Tijdschrift voor Zeegeschiedenis*, the analytical and theoretical potential of the theme of European shipbuilding and ship repair outside Europe would simply have remained a pet project.

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Author biography

Cátia Antunes gained her PhD in 2004 from Leiden University, where she is now Professor of History of Global Economic Networks. Her research has been generously supported by the European Research Council, the Netherlands Organization for Scientific Research (NWO) and the European Union's FP7 Program.