A maritime coffee chain and the making of a colonial coffeescape

From coffee cultivation on Java to consumption in the Netherlands between 1700 and 1950

Thomas van den Brink

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For Hans Renes

(1954-2023)

Abstract

This thesis examines the 250-year spatial development of the maritime coffee chain connecting Java and the Netherlands between 1700 and 1950. By integrating the Global Commodity Chain framework with the Petroleumscape concept, the study demonstrates how state institutions, private businesses, shipping companies, social associations, and intermediaries together formed a colonial "coffeescape," consisting of a logistical, governance, and imaginative layer.

Based on extensive archival research and detailed contemporary maps and images, architectural and spatial analyses, the thesis demonstrates how the expansion of coffee cultivation on Java profoundly transformed its landscape. The advancing frontier was initially strongly anchored in forced labour after which it was succeeded by free market forces. However, both systems led to an enormous environmental degradation. The thesis further shows how this process was connected to developments in port cities like Amsterdam and Rotterdam and their hinterland which underwent substantial infrastructural, organisational, and imaginative changes as they processed ever-increasing volumes of Java coffee.

The spatial perspective applied in this research shows that decision makers shaped the Coffeescape far beyond their own locations, revealing the wider consequences of their choices. Reflecting on sustainability, the thesis argues that understanding past systems of extraction and chain coordination is essential for evaluating the global environmental impacts of future decisions and the role of port cities. This coffeescape's history demonstrates the enduring consequences of commodity-driven development. The research therefore concludes that sustainable futures require engaging with the perspectives and decisions of organisations shaping these global maritime commodity chain today rather than by abstract models.

Foreword

The interaction between global and local processes and its impact on concrete cultural landscapes has been a professional fascination for me for over fifteen years. The idea for this thesis originated during a holiday in Switzerland in 2013, when I envisioned combining my BA research on the spatial impact of cereal chains in the Netherlands over time with my MA study of Molkwerum, a maritime village that nearly disappeared after exclusion from long-distance trade networks. This theme became more concrete in 2017 with my independent PhD project on the nineteenth-century global coffee chain between the Dutch East Indies and the Netherlands, supervised by Prof. Dr. Ulbe Bosma and Prof. Dr. Hans Renes. In 2020 I joined the PortCityFutures collaboration at TU Delft, gratefully developing this research into a contribution to historical geography and global sustainability.

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Contents

List of Tables 16
List of Figures 17
Summary 25
Samenvatting 27
Introduction 29

1 **Theoretical Framework** 33

2 **Methodology and Sources** 39

3 **Colonial Organisations shaping the Global maritime coffee-scape on Java** 43

3.1 **Introduction** 43

3.2 **The Logistical Layer: from Coffee Cultivation to Overseas Export** 46
3.2.1 The Impact of the Coffee Frontier on the Landscape of Batavia's Hinterland 47
3.2.2 From Priangan Coffee Fields to Batavia 60
3.2.3 Priangan Coffee Warehouses 63
3.2.4 Constructing Roads to Connect Coffee Fields to Batavia 66
3.2.5 Water Transport: Rivers and Canals 69
3.2.6 Constructing Railways to Improve Overseas Export of Agricultural Products 72
3.2.7 Batavia: Port and City 74
3.2.8 Priangan's South Coast Becomes Part of the Global Maritime coffeescape 90

3.3 **The Governance Layer: Locations from Where the Coffee Chain Was Coordinated** 95
3.3.1 The Regional and Local Places of the Colonial Coffee Control System 96
3.3.2 Colonial Governance in Batavia and Priangan 100
3.3.3 A Colonial Commercial Clique Governing Java's Maritime Coffee Chain 103

3.4 **The Imaginative Layer: Organisations Claiming Their Involvement in Coffee?** 108
3.4.1 The Maritime Self-Conception of the Dutch East India Company 108
3.4.2 Applying Maritime Symbols in Trademarks by the Dutch Trading Society 109

3.5 **Conclusion** 112

4 **Shaping the Dutch Part of the Maritime Coffeescape** 113

4.1 **The Logistical Layer of the Dutch Global Maritime Coffeescape** 113
4.1.1 Pursuing and Delivering Coffee via the North Sea 114
4.1.2 Transhipping and Storing Coffee in Amsterdam and Rotterdam 117
4.1.3 Storing Coffee in Amsterdam and Rotterdam Between 1824 and 1950 123
4.1.4 The Effects of Increased Competition on Locations of Veem Warehouses 130
4.1.5 Selling Coffee in Amsterdam and Rotterdam: Coffeeshops and Coffeehouses 137
4.1.6 The Distribution of Coffee in the Hinterlands of Dutch Port Cities 144
4.1.7 Coffee Purchases of Hinterland Coffee Roasters 147
4.1.8 Van Nelle: Large Dutch Coffee Roaster Transforming the Logistical Layer 157

4.2 **The Governance Layer of the Dutch Side of the Global Maritime Coffeescape** 161
4.2.1 The Dutch East India Company Governing the Coffee Chain 161
4.2.2 The Dutch Trading Society Governing the Coffee Chain 165
4.2.3 A Shipping Company Office Location Guided by Maritime Symbolism 167
4.2.4 The Role and Offices of Coffee Intermediaries and Trade Associations 168
4.2.5 The Governance Interventions of Veemen 173
4.2.6 Private Cultivation Estate Offices as Part of the Dutch Governance Layer 174
4.2.7 Dutch State Buildings belonging to the coffeescape's Governance Layer 179

4.3 **The Imaginative Layer: Organisations Claiming Their Involvement in Coffee?** 181
4.3.1 Few Businesses Claims of Involvement in the Coffee Chain in Urban Space 181
4.3.2 Businesses Claiming Control over Maritime Commodity Chains in Adverting Images 183
4.3.3 Expressing Integration in Global Maritime Coffee Chains via Offices 190
4.3.4 Overseas Toponyms and Names of Coffee Buildings in the Netherlands 195

4.4 **Conclusion** 196

5 Conclusion 197

5.1 The development of the Javanese part of the coffeescape 197
5.2 The Dutch part of the maritime coffeescape 201
5.3 Towards Sustainable Futures for Port Cities 207

Bibliography 209
Sources 217
Appendices 223
Curriculum vitae 231

List of Tables

3.1 Typology of coffee cultivation plots that the Dutch East India Company and the Dutch colonial state created through their instructions, exhibiting the most distinctive social-spatial combinations characteristic of the different phases according to social historian Jan Breman. The capital letters in the table headings correspond with the capitals mentioned in the images' captions. 52

3.2 Quantitative data of different coffee cultivation plots in Priangan. 58

List of Figures

1.1 The original scheme of the Petroleumscape. 34

3.1 Overview of the two areas in Priangan where the coffee frontier will be discussed in detail. 47

3.2 Detail of the earliest map of the Priangan (1817), depicting individual coffee fields within the wider landscape on a regional scale. Visible is the area around the Gede volcano. The red lines demarcate the coffee fields. The coffee fields are clearly arranged around the volcano's south-eastern flanks and consist of large, separate fields. It is also noteworthy that these fields were situated far from the villages. 48

3.3 An overview of six details from the residency map depicting the coffee field types that Breman identified as characteristic of the different coffee cultivation phases in the eighteenth and nineteenth century. The capital letters correspond to the heading in Table 3.1 in which the observations of Breman are summarized. The co-existence of these categories on the same map indicates that the source should not merely be seen as a snapshot of the situation as it existed during the specific period in which it was created. Instead, it reveals that in certain areas, coffee plot types from regimes introduced before 1800 survived. (N.B. the different details do not have the same scale). 51

3.4 Photograph of a private coffee enterprise in Mid Java, before 1880. It illustrates the remoteness of such estates in terms of low population density and difficult accessibility due to the mountainous and forested terrain. These estates nonetheless were specifically founded by (Dutch) entrepreneurs with the intent to ship commodities to the Netherlands. 51

3.5 Detail of the residency map of the south slope of the Tangkuban Perahu volcano, whose ridge largely coincides with the boundary between the coloured and blank parts at the top of the image. The coffee frontier is clearly visible. It consists of the fields outlined in red and located between the forests (dark green) higher up the mountain and the Alang Alang (yellow) in the direction of the valley (at the bottom of the map). 54

3.6 Map depicting all individual coffee plots of the forced Cultivation System (in red) and the private enterprises (in blue) overlaid with a dataset representing the altitude of the natural landscape. It reveals how these elements together, but in distinct phases, formed the Priangan coffee frontier between roughly 1800 and 1900. The most important insight gained from this is the trend towards higher altitudes and the south coast. 56

3.7 This GIS-based map shows the main infrastructures used and/or established for the transport of coffee beans from Priangan to the port city of Batavia and overseas to the Netherlands. The five green circles refer to the courts of the Regents, the location where the coffee was initially delivered. The dedicated coffee warehouses are also depicted for two years. This category is divided into land and shipping warehouses. For infrastructures a distinction is made in the Grote Postweg (Great Postal Road) (red), the main roads (yellow), railways (orange) and waterways. In the latter category, a distinction is made between canals (light blue), rivers up stream (dashed turquoise) and downstream (dark blue). The cultivation fields are also depicted to show the proximity of the infrastructure to specific fields and the entire coffee frontier. When one compares the number and spatial distribution of collection points between the early and late nineteenth century, the enormous expansion

becomes evident. Given the enormous spatial expansion of the commodity frontier the necessity to construct the many warehouses for intermediate collection of the coffee beans is obvious. The various sources on which this map is based are included in the GIS-database. 61

3.8 The coffee warehouse next to the Ci Tarum near the settlement of Tjikao. The pirogues waiting for cargo belonged to the Bataviaasch Prauwenveer (BPV), the organisation that managed the shipment of the coffee to Batavia. 64

3.9 Image of a pedati, 1830. 68

3.10 Photo of seven pirogues in Batavia around 1872. This was the type of vessel that was used on a large scale for the river and coastal transport of coffee beans from Priangan to Batavia in the eighteenth and nineteenth centuries. Those in the photo belonged to the Bataviaasch Prauwenveer. This entity carried out the coffee transport along this route in the second half of the nineteenth century. 70

3.11 Nineteenth-century floor plan reconstruction of the Castle in Batavia as it most likely has looked before the nineteenth century. No. 9 (in the blue square) refers to the Water Gate, and no. 26 refers to the two warehouses next to it where the coffee was stored. The blue arrow indicates the direction to the sea. 76

3.12 Map of Batavia from 1780. The second oldest coffee warehouse complex (within the red oval) was located at the foremost point where the Great River turned into a canal (blue arrow) in the direction of the Java Sea. As such, it was the last onshore location before the coffee was transported to the Netherlands. The warehouses located on the east side of the city are within the green oval. North is at the bottom. 77

3.13 Photograph of one of the warehouses of the Dutch East India Company, constructed in 1718 as part of the second storage complex in the western part of the city. Since the construction took place during the time when coffee cultivation was on the rise, and because it was on a much larger scale than those in the Castle, it is almost inevitable that coffee was stored there and that the buildings may even have been specially built for this purpose. 78

3.14 Overview map of coffee warehouses located in the port city of Batavia. Indicated are the periods in which they functioned and the certainty regarding their use for storing coffee. As the sea is to the north, most warehouses were concentrated in the seaside part of the city. An exception is the two warehouses adjacent to the railway establishment in the eastern part of the city. It is known that before 1918, coffee arriving by rail was stored in such warehouses instead of in the modern port. However, it proved impossible during this study to determine whether this applied to these specific buildings. Hence, the classification 'possible'. 80

3.15 Plan detail of Batavia from 1897, showing the various routes by which coffee from the hinterland—especially Priangan—reached the sea. The red square indicates the dedicated coffee warehouse located at the intersection of the city's old port and the railway arriving directly from the hinterland (shown by the green arrow in an outward direction). The yellow arcs indicate the slope of the former railway connection. The dark blue arrow indicates the overseas transport route of the coffee via the old harbour canal. The black arrow on the right side indicates the route to the new harbour of Tandjong Priok in the northeast of the city. 81

3.16 Photograph from around 1872 of the Kali Besar, the canalised section in Batavia of the Ci Liwung before it flowed into the sea. The sails of the pirogues are clearly visible. 83

3.17 Etch showing the rede of Batavia. In between, smaller rowing boats and some pirogues can be identified. In the background, Batavia is visible. 84

3.18 Detail of a map showing several variants of port plans that were under consideration during the public debates about the port improvements for Batavia. Both the plans of the railway company (indicated with red "A"

and blue "C"), as well as the one proposed by the trading houses located in Batavia (green "B"), aimed to monopolise trade by securing exclusive control over (parts of) the commodity chain. 87

3.19 Detail from a plan of Tandjong Priok from 1929. Indicated are the buildings most likely used for the storage of coffee. The yellow rectangle indicates the quay where the seven main warehouses stood since the harbour's opening, not belonging to a specific shipping company. In green: the government's warehouses/entrepôts. In black: veem warehouses (Java Veem, Indisch Veem, Batavia Veem). In dark blue: buildings of the steamship company Rotterdamsche Lloyd. In light blue: buildings of the Steamship Company "Nederland". In purple: buildings of the Steamship Company "Oceaan". 89

3.20 Detail of a map showing the port of Tjilatjap in 1910. The design reveals the importance of government coffee. The 'L' indicates the relatively large area occupied by the seven government warehouses completely dedicated to coffee and close to the railway. 92

3.21 This map detail indicates the main locations of the colonial and domestic organisations involved in the governance of the export side of the Global maritime coffeescape. The red rectangle indicates the port city of Batavia, where the headquarters of the Dutch East India Company and the Dutch Trading Society were located, as well as the capital of the Dutch East Indies. The orange diamond shows two former competing ports that were eliminated or subdued by the Dutch East India Company before the coffee cultivation started, namely Banten and Ceribon. The purple triangle marks the location of the palace of the Governor-General in Buitenzorg from the eighteenth century onwards. The blue circle represents the headquarters of the Resident, with its shifts over time depicted by the blue arrows. The purple rectangles stand for the final five main courts of the Priangan Regents. Lastly, the green line indicates the definitive border of the Priangan as established by the Dutch Colonial State at the beginning of the nineteenth century. 97

3.22 Two details of the residency map, with the abbreviation P.G. in the centre of the image which stands for pasangrahan. These examples show that these buildings were situated close to the large-scale coffee gardens – depicted in orange – of the Cultivation System. It is also clear that they were located in areas where there was not always a coffee warehouse. 99

3.23 Photograph of the head office of the Factorij of the Dutch Trading Society in Batavia, located on the Kali Besar from 1832 to 1932. Given the enormous impact of the officials in this building in governing the global maritime coffee chain and that nothing indicates that coffee was ever stored there, it is a central element of the coffeescape's governance layer. 101

3.24 Photograph of the new head office of the Factorij of the Dutch Trading Society which was opened in 1933. The enormous dimensions of the building compared to the previous one are evident. This can be interpreted as a result of the significant increase in wealth, influence and status of the society, which can be partly attributed to its role in the overseas transport of coffee. It is directly opposite of the main railway station of Batavia connecting the inner city to the modern port of Tandjong Priok. 102

3.25 Coloured painting of the palace of the Governor-General of the Dutch East Indies in Buitenzorg. Although the move towards this new town seems to be unrelated to the developments of the coffeescape, the decisions made there became extremely important for the latter's evolution. 102

3.26 Map of Batavia with data collected around 1930. It shows the locations of the offices of commercial organisations involved in the Global maritime coffee chain. The Kali Besar in the old city immediately

stands out as a main concentration area. The seventeen businesses that had some involvement in governing the Global maritime coffee chain identified in this research were located there. 104

3.27 Head Office for the Dutch East Indies of the Internationale Crediet en Handels-Vereeniging "Rotterdam" (i.e. 'Internatio') on the eastern side of the Kali Besar in 1916. 105

3.28 Emblem of the Dutch East India Company from 1651. The numerous references to the sea illustrate how this organisation identified itself with a maritime world in a very broad sense. 108

3.29 The two logos that the Dutch Trading Society had officially registered in 1876 as trademarks. 110

3.30 Photograph of the stained-glass window in the office building of the Chartered Bank of India, China and Australia, built in 1920. Depicted from left to right are tobacco, rice, sugar, tea, and rubber. It is telling that the coffee that was so important to Batavia's history was missing. 111

4.1 The water routes available to ships between the North Sea and the port cities Amsterdam and Rotterdam during the researched period. 116

4.2 The buildings of the Dutch East India Company used for the storage of coffee in Amsterdam and Rotterdam. 118

4.3 This map of Rotterdam shows the locations of Hoboken and Ruys (later the Rotterdamsche Lloyd) during the nineteenth century. The difference in the number of times they relocated is striking. 120

4.4 This map from 1925 shows the subsequent relocations of the main shipping companies involved in the maritime transport of coffee to Rotterdam. The Rotterdamsche Lloyd relocated from the Willemskade to the left bank of the Meuse River, next to the Koningshaven, and then returned to the right bank between the St. Jobshaven and the Schiehaven, where it acquired large terrains. In 1925, it also had a significant establishment along the Ijsselhaven dedicated to cargo. The Holland America Line was included for its importance in importing coffee from South America (to be discussed later). 121

4.5 This map of Amsterdam from 1918 depicts the modern, large-scale port facilities in the northeast of the city and the locations of shipping companies that imported coffee. In this city too, companies like the Koninklijke Hollandsche Lloyd obtained their coffee from South America in this period. 122

4.6 Photograph from 1936 of traditional warehouses at the Brouwersgracht in Amsterdam, reused for the storage of coffee delivered under the auspices of the Dutch Trading Society during the nineteenth century. 124

4.7 Map of warehouses in Amsterdam used for storing coffee during the Dutch East India Company between 1700 and 1799 (in pink) and the Dutch Trading Society between 1858 and 1910 (in black). For the latter period, 90 warehouses were identified, of which 22 were only in use in the first year. The other buildings were utilised in both years. The map further depicts the most likely routes over water used to ship the coffee between the sea and the warehouses. The blue line indicates the straightforward routes that the ships of the Dutch East India Company took, while their red counterparts indicate the various routes possibly used to transport the coffee to the warehouses of the Dutch Trading Society until 1910. 125

4.8 This map illustrates the locations of warehouses used for coffee storage in Rotterdam by the Dutch East India Company and the Dutch Trading Society. It also depicts the routes that ships most likely took to transport the coffee to and from these warehouses. The fifteen identified warehouses from the period of the Dutch Trading Society were all situated in the main harbour district close to the River Meuse. 127

4.9 A painting by Isaac Israëls from 1886 depicting koffiepiksters ('coffee peelers'). This activity clearly belongs to the Global maritime coffee chain, as it was a vital link that existed only because of the large-scale overseas coffee deliveries. Simultaneously, its impact on the global maritime coffeescape was limited, as it took place in attics of buildings that were not necessarily deliberately constructed for this purpose. 128

4.10 Photograph from ca. 1921 of the large-scale dedicated warehouse of N.V. Blaauwhoedenveem-Vriesseveem at the Oostelijke Handelskade in Amsterdam, specifically built for the storage of (colonial) commodities delivered from overseas including coffee. In 1917, the two competitors had merged. 132

4.11 Photograph of the St. Job's warehouse of N.V. Blaauwhoedenveem in Rotterdam. In the foreground, the transhipment of bales (possibly containing coffee) onto an inland ship in the St. Jobshaven is visible. 132

4.12 aMap of Amsterdam showing the locations to which the veemen moved from the inner city and where they built their large-scale warehouses in their pursuit of proximity to deep water, shipping companies, and modern port facilities: A) the Nieuwe Vaart, B) the Handelskade, C) the Houthaven. 134

4.13 Map of Rotterdam showing the locations to which the veemen moved from Amsterdam and where they built their large-scale warehouses with the same intentions. For the unlabelled buildings, it could not be established with certainty whether they were used for coffee. Circled in red: A) The old city, B) The Wilhelminakade and the establishments around the Rhine harbour basin, C) the St. Jobs harbour. 135

4.14 Map of the spread of coffee shops and coffee houses in Amsterdam in 1742. Shopkeepers: 83; coffee house owners: 12. The first category was clearly concentrated in the inner city. A looser distribution is also visible in the wealthier area known as the Golden Bent: the canals of the seventeenth century on the eastern side of the Amstel. However, the absence of these coffee establishments in the port areas is noteworthy. 138

4.15 Map of the spread of coffee shops and coffeehouses in Rotterdam based on the same tax register from 1742. In total, forty shopkeepers and three coffeehouses were located here. 139

4.16 A map of Amsterdam with the locations of the 14 coffee roasters that were located in the city in 1910. 142

4.17 Map of Rotterdam with the location of the 23 coffee roasters that were located in the city in 1910. 143

4.18 Map of the Netherlands featuring the distribution of four different coffee businesses in the Dutch hinterland of Amsterdam and Rotterdam in 1910, along with their counts, but excluding those located in Amsterdam and Rotterdam. Additionally, six organisations were excluded as they were identified as 'in coffee,' which was too vague to categorize. 145

4.19 The locations where coffee roaster Beukenhorst in Winterswijk did its purchases between 1850 and 1910, in bales per year. Only in the years 1869-1870 coffee was bought in Zutphen directly. 148

4.20 Map with reconstructed routes likely used to transport coffee from Amsterdam and Rotterdam to Winterswijk over time. The green dot near Winterswijk on the right side represents the coffee roaster A. Beukenhorst & Zn. The two dark blue dots to the west indicate the two seaport cities from which the coffee originated. The light blue dots represent the intermediate river cities and the small town of Millingen. In terms of both the number of coffee bales and the period in which they were used for transport, the waterways predominated. These were depicted in various shades of blue. The black lines represent the railways. Finally, in purple the only significant and direct road connection from Zutphen to Winterswijk is depicted. 151

4.21 The locations where the coffee roaster Douwe Egberts, based in Joure and in Utrecht since 1919, purchased its coffee between 1877-1878, 1910, and 1950. Measured in bales per year. In comparison with the previous organisation, it is noteworthy that this entity for these reference years bought all its coffee directly from the two main Dutch port cities. 153

4.22 This reconstruction map shows the routes and modes by which the coffee was most likely delivered from Amsterdam and Rotterdam to the Douwe Egberts factories. Firstly, to Joure, and from 1919 onwards also to Utrecht. This coffee roaster purchased coffee directly in the main seaport cities and not through any intermediate river cities. 154

4.23 This map shows the warehouses owned by Van Nelle in the port of Rotterdam in 1910. Only one of them was located directly next to the original factory near the Leuvehaven (indicated by the blue circle). The others were situated at different harbours: near the Zalmhaven and Rijnhaven (indicated by the green frames). One warehouse, located at the Wilhelminakade on the south bank of the Meuse River, served as a tea packing factory. For the other seven warehouses, it could not be determined from business sources whether coffee was stored there, but this is likely. 159

4.24 Images of the first three offices of the Dutch Trading Society. A: Between 1824 and 1831, the office was located in a wing of the Royal Palace in The Hague, the building on the right side of the image. B: The second office was in Amsterdam, located at the Herengracht near the Brouwersgracht between 1831 and 1858. C: The third office was also situated at Herengracht, on the corner of the Spiegelstraat, between 1858 and 1926. Except for the enormous building constructed in 1926, none of these buildings were specifically built as the head office of the Dutch Trading Society. The activities of this key organisation were coordinated from here and this had a substantial influence on the spatial development of the Global maritime coffeescape in the Dutch Colonial Empire during the nineteenth century. 162

4.25 This map combines the elements of the governance layer of the Amsterdam part of the coffeescape as described in the previous section. It depicts the locations of the head office of the Dutch East India Company in relation to the organisation's warehouses and the port city's principal institutions: the city hall and the stock exchange. The yellow star denotes the Brakke Grond, the main building for auctioning coffee for both the Dutch East India Company and the Dutch Trading Society. It also indicates the three relocations of the latter head office between 1824 and 1926, first from The Hague to Amsterdam and subsequently within Amsterdam. It is noteworthy that almost all these offices were relatively distant from the port areas where the coffee arrived and was stored, except for the first. Considering that, from the end of the nineteenth century, coffee was stored in large-scale warehouses in the modern harbour built in the IJ suggests that the governance and social-political network considerations of the organisations in selecting the locations took precedence over logistical factories. 163

4.26 Map of Amsterdam in 1910 showing the locations of offices of private cultivation enterprises on Java that also cultivated coffee (53) and coffee traders and brokers (33). It is striking that none of the businesses in these categories were found in the port districts where the coffee arrived, and only two were located near where the commodity was stored. Instead, they were predominantly located in the old inner city and some in the high-class neighbourhoods newly built in the southwest. Another aspect that stands out is the spatial overlap with the brokers and cultural enterprises. Both facts are important for understanding these organisations' aim to be integrated into the maritime social-economic clique. 176

4.27 Map of Rotterdam in 1910 with the office locations of the private cultivation enterprises on Java that also cultivated coffee (27) and coffee traders and brokers (8). When this is compared to the situation in Amsterdam in the same year, two things stand out. First, the number of organisations in these categories was much lower. Second, the majority of these were located in the port area. 177

4.28 The locations of 22 offices of private coffee cultivation enterprises on Java in The Hague in 1910. The blue oval indicates the government district and the building in which the Dutch Ministry of Colonies was housed. 178

4.29 The first building of the Dutch Ministry of Colonies in The Hague next to the Parliament building. 180

4.30 The only two façade stones in the Amsterdam collection related to coffee. The first shows a coffee bale, probably made in 1727. The second image depicts, according to the caption 'In Drie Boonstrvycken', in English: 'In three bean bushes.' It is likely that coffee beans are intended, as suggested by the similarity of the depicted beans. This artefact dates from the second half of the seventeenth century. 182

4.31 This very detailed advertising image of Douwe Egberts, depicting the entire Global Maritime Commodity Chain consists of all the processing steps required for coffee, tea, and tobacco, from their cultivation in the tropics to their final consumption in the Netherlands. It is striking that the maritime dimension of this scene, which includes the overseas supply routes as shown on the world map and the transhipment in the ports, is the most general and anonymous. This is particularly evident when comparing the presence and level of detail of human figures with the other scenes. It suggests that the organisation aimed to claim total control over the Global Maritime Commodity Chains on which it depended yet placed less emphasis on the port city components. The image was displayed on multiple panels and distributed to grocery stores that sold Douwe Egberts products for indoor advertising. 185

4.32 An advertisement from the end of the nineteenth century of the Rotterdam coffee roaster Van Nelle featuring the organisation's factory and a female figure symbolising the Spes, the Roman goddess for Hope. In this example, there are no references to the integration of the factory in a Global Maritime Commodity Chain. Also, the large anchor above all stands as a symbol of hope. 186

4.33 This second advertising image by Van Nelle from 1896 promotes tobacco. The similarity with the previous image lies in the representation of the Roman goddess Spes and the anchor as references to hope. However, it differs significantly, as in this case Van Nelle's integration into the Global Maritime Tabacco Chain is suggested by the depiction of the sea, ships, tropical coasts, the tobacco plant, and the various instruments that symbolise (maritime) trade. As such we should understand it as an imagined integration in Global Maritime Commodity chains. 187

4.34 This letterhead image used by the Utrecht coffee roaster "Java," dating from around 1900 depicts a tropical bay scene evoked by the presence of palm trees and non-Dutch figures and a ship. Although it is not completely certain whether the image was intended to symbolise Java, as nothing reminds us of the island specifically, the connection is suggested by the name of the roaster. By evoking this overseas connection of the Global maritime coffee chain, the image evokes the business' integration therein. 188

4.35 Letterhead image of a coffee merchant dating from 1874 referring to coffee's maritime trade: a ship, an anchor, and the packaging materials used for transport. 189

4.36 Photograph of the four sculptures refereeing to seventeenth-century seamen and sailors placed at the facade of the Scheepvaarthuis. They are flanked by commodities consisting of coffee, tea, herbs, and spices – goods that were transported by the shipping companies that had their offices in this building. 191

4.37 Photograph of one of the wood carvings on the wall located in the general boardroom of the Scheepvaarthuis. The scene depicts a coffee cultivation landscape in the Dutch East Indies with human figures that harvest the beans. 191

4.38 Photograph of one of the tapestries in the main boardroom of the Scheepvaarthuis. This artefact, combined with the metal relief below and the wallpaper, illustrates the rich decoration that captures the maritime theme throughout the many details in the building. 192

4.39 Photograph of the roof façade of the head office of the Dutch Trading Society between 1858 and 1926. At the very top, one can recognise the anchor belonging to this organisation's trademark. 193

4.40 Photograph of the two sculptures in the head office of the Dutch Trading Society from 1926. 194

Summary

This study explores the spatial development of the maritime coffee chain connecting Java and the Netherlands between 1700 and 1950. It examines how colonial institutions, trading companies, shipping firms, and private enterprises collectively shaped a colonial “coffeescape” in which coffee cultivation, transport, trade, governance, and consumption became interconnected across multiple scales. Through this approach, the research demonstrates the spatial impact of commodity frontiers, infrastructures, and colonial governance across both sides of this global maritime coffee chain.

Using archival sources, historical maps, GIS analysis, and visual and architectural material, the research reconstructs the expansion of coffee cultivation in the Priangan highlands in Batavia’s hinterland. Under the Dutch East India Company and later the Dutch colonial state and the Dutch Trading Society, coffee cultivation steadily expanded into volcanic upland regions through systems of forced labour such as the Preangerstelsel and the Cultuurstelsel. After the Agrarian Law of 1870, private enterprises became increasingly important within the coffee economy. Environmental destruction remained structural under both systems. Forests were cleared, exhausted coffee fields resulted in “walking gardens”, which intensified erosion and produced extensive alang alang grasslands.

The research further demonstrates how roads, rivers, railways, warehouses, and port infrastructures connected Java to Batavia and onward to Amsterdam and Rotterdam and their shared hinterland. These networks enabled not only the transport of coffee, but also the colonial coordination of production, taxation, storage, and trade across great distances. Regents, residents, trading offices, warehouses, and company headquarters formed a dispersed governance structure through which the coffee chain was managed and controlled. In the Netherlands, growing imports of Java coffee reshaped port cities through the expansion of storage facilities, roasting industries, shipping lines, and commercial offices. Coffee businesses also expressed their place within global trade networks through architecture, branding, advertisements, and maritime symbolism.

By reconstructing the spatial impact of the coffee chain over 250 years, the research shows how commodity-driven systems shaped the colonial coffeescape across oceans.

Samenvatting

Deze studie onderzoekt de ruimtelijke ontwikkeling van de maritieme koffieketen tussen Java en Nederland in de periode 1700–1950. Centraal staat hoe koloniale instellingen, handelsmaatschappijen, rederijen en particuliere ondernemingen gezamenlijk een koloniale “coffeescape” vormgaven waarin koffieteelt, transport, handel, bestuur en consumptie met elkaar verbonden raakten. Vanuit deze benadering laat het onderzoek zien hoe commodity frontiers, infrastructuren en koloniale bestuursstructuren deze mondiale maritieme koffieketen vormgaven.

Op basis van archiefonderzoek, historische kaarten, GIS-analyses en visueel en architectonisch materiaal reconstrueert het onderzoek de uitbreiding van de koffieteelt in de hooglanden van Priangan in het achterland van Batavia. Onder de VOC en later de Nederlandse koloniale staat samen met de Nederlandsche Handel-Maatschappij breidde de koffiecultivatie zich geleidelijk uit in vulkanische berggebieden via dwangarbeidsystemen zoals het Preangerstelsel en het Cultuurstelsel. Na de Agrarische Wet van 1870 kregen particuliere ondernemingen een grotere rol binnen de koffie-economie. Ecologische destructie bleef onder beide systemen structureel. Bossen verdwenen, uitgeputte koffievelden resulteerden in “wandelende tuinen”, die erosie versterkten en alang alang-landschappen voortbrachten.

Daarnaast laat het onderzoek zien hoe wegen, rivieren, spoorlijnen, pakhuizen en haveninfrastructuren Java verbonden met Batavia en vervolgens met Amsterdam, Rotterdam en hun achterland. Deze netwerken maakten niet alleen het transport van koffie mogelijk, maar ook de koloniale coördinatie van productie, belastinginning, opslag en handel over grote afstanden. Regenten, residenten, handelshuizen, pakhuizen en hoofdkantoren vormden samen een bestuurlijke structuur waarmee de koffieketen werd georganiseerd en gecontroleerd. In Nederland veranderden de groeiende omvang van de koffieimport vanuit Java-koffie de havensteden door opslagfaciliteiten, koffiebranderijen, scheepvaartlijnen en handelskantoren. Vooral koffiebranders brachten hun positie binnen mondiale handelsnetwerken tot uitdrukking via architectuur, merkvorming, reclame en maritieme symboliek.

Door de ruimtelijke impact van de koffieketen over 250 jaar te reconstrueren, laat het onderzoek zien hoe commoditygedreven systemen de koloniale coffeescape over oceanen heen vormgaven.

Introduction

The Leiden-Delft-Erasmus PortCityFutures research group aims to contribute to better futures for port city societies worldwide. It does so by examining the relationships between culture, society, and space from a broad inter- and transdisciplinary perspective. Over the past six years, this program resulted in research on diverse themes and challenges that influence the future. Among other topics, the group has studied changing natural systems, pleasurescapes, energy transitions, the health effects of port activities, socially inclusive spatial port planning, the social-legal position of seafarers in the port of Rotterdam, and changes in the nature of work due to new (digital) technologies.[1]

Within the PortCityFutures context, this thesis intents to contribute to the theme of future global sustainability. In particular the increase in commodities produced for the world market that led to the enormous scale and pace of global ecological destruction.[2] It does so by examining port cities as part of global maritime commodity chains that, over centuries, have integrated landscapes of extraction with those of consumption worldwide.

Applying a long-term spatial perspective enables to identify the roots, dynamics and role of decisions taken by state bureaucracies, organisations and businesses in these developments and the ecological repercussions they often had far beyond their immediate surroundings. Gaining historical knowledge about these aspects provides perspective on current and future decisions and offers a way to: '…understand our present dilemmas historically.'[3] This is both urgent and relevant for current and future decisionmakers as it can provide historically informed context to any conceptualisation and assessment of the future.

To be of value to those that shape the future, it is necessary that this thesis focuses on all decision makers that were entangled in such global commodity chains. The reason for this is that although their roles, actions and impact differed, their decisions cannot be considered in isolation, since they were co-depended via the chain.

1 Mission statement PortCityFutures (https://www.portcityfutures.nl/mission), 9-4-2024.

2 Sven Beckert, Ulbe T. Bosma, Mindi Schneider and Eric Vanhaute, "Commodity frontiers and global histories, The tasks ahead", *Journal of Global History*, 16, no. 3 (2021), 466.

3 Ibidem, 467.

However, these global connections traditionally have been analysed from global frameworks that take the industrialised, urban core of the West as starting point. This is, for example, the case for Emmanual Wallerstein's World System Theory that applies a geographical hierarchy consisting of areas core-semi-core-periphery depending on their subordination to the core.

Recently, however, it is argued that the developments in the periphery zones of this system, especially those shaping the commodity frontier, were as formative for the development of the global economy through commodity chains as the core was. Moreover, of key importance is the fact that through the global expansion of the world system in the past six centuries, both in space and scale, the extraction of commodities repeatably ran up against limits. These constrains could be of a spatial, ecological and/or human nature. There is evidence that each time, these were overcome by adaptations initiated by the decision makers involved in the commodity chains. the extraction of a commodity entered a new phase often characterised by ever more production.[4]

It is by engaging in this scientific debate that this thesis aims to reflect on the long-term involvement of port cities in global sustainability challenges that goes far beyond their direct environment. It does so by conducting a thorough analysis of the entire global maritime coffee chain that connected the Netherlands and the island of Java in the Dutch East Indies between 1700 and 1950. It's appropriateness as a case study is based on the fact that this was one of the most important global chains for coffee for over 150 years. Moreover, as the chain encouraged a strong increase in the commodity's demand thereafter, the Dutch state, businesses and persons shaped the chain for profit in ways that it had far-reaching spatial impact along the entire chain, but with especially severe environmental effects regarding its frontier.

The central research question guiding this thesis therefore is:

— **How did the Dutch state, businesses and social organisations establish and shape the coffee chain on Java between 1700 and 1950, what was its spatial impact on the landscape as a frontier, how were these developments related to spatial dynamics in the rest of the coffee chain in the Netherlands, and how does this inform us about the environmental consequences of global economic integration of landscapes by commodity chains?**

4 Idem.

Sub questions:

Chapter 3: Java

A How did the coffee frontier on Java develop as a result of the decisions taken by Dutch colonial organisations?

A Which logistical interventions did Dutch colonial organisations undertake on Java to get the coffee from the frontier to the sea?

B How was the Javanese part of the coffee chain governed?

C How was the Javanese part of the coffee chain imagined by these Dutch colonial organisations?

Chapter 4: The Netherlands

A Which logistical interventions were undertaken in the Netherlands to get the coffee from the sea to the consumer?

B How was the Dutch side of the coffee chain governed?

C How was the coffee chain imagined in the Netherlands?

D What can we learn from this history about the future environmental impact of Global Maritime Commodity Chains facilitated by port cities?

1 Theoretical Framework

To avoid any mono-causal explanations it is necessary to apply an interdisciplinary approach. Therefore, I propose to connect the Global Maritime Commodity Chain concept with that of the Global Maritime Commodityscape. A Global Maritime Commodity Chain is understood as: 'A network of organisations and production processes resulting in a finished commodity.'[5] In this thesis we will therefore talk about the Coffee Chain and the Global maritime coffeescape.

The coffeescape concept applied in this thesis builds on the Petroleumscape, a term coined in 2016 by urban planning and architectural historian Carola Hein. It encompasses the combined spatial, organisational, representational, and everyday practices associated with the flows of petroleum through space.[6] In this way Hein follows the observation of anthropologist Arjun Appadurai that '… the global cultural economy is a complex, overlapping, disjunctive order that can no longer be understood in terms of existing centre-periphery models.'[7] Therefore, Hein suggests that the suffix '-scape' enables us to understand the complexity of petroleum's spatial impact over time.

5 Oxford reference (https://www.oxfordreference.com/display/10.1093/oi/authority.20110803095855188), 24-4-2024.

6 C.M. Hein, "Analysing the palimpsestic petroleumscape of Rotterdam", *Global Urban History*, 2016, online exhibition (https://globalurbanhistory.com/2016/09/28/analyzing-the-palimpsestic-petroleumscape-of-rotterdam/?shareadraft=57ea1be60f827).

7 C.M. Hein, "Oil spaces, the global petroleumscape in the Rotterdam/The Hague area", *Journal of Urban History*, 44, no. 5 (2018), 889. Hein also applies the palimpsest concept. However, it is considered less suitable for this thesis, because the palimpsest' primary value lies in its emphasis on how erased elements remain present and meaningful within a cultural landscape in general. In contrast, this thesis is primarily concerned with the evolution and functioning of Global Maritime Commodity Chains. The thesis does not explore the traces that fell into disuse and/or whether these were understood as heritage.

The Petroleumscape is also thought of as the outcome of a long-term process.[8] Hein's analysis convincingly demonstrated that comprehending the impact of a commodity on space requires reconstructing the commodity's introduction phase as well as the main changes that occurred thereafter. Moreover, Hein's Petroleumscape is innovative as it reveals not only the material flow through space of petroleum itself but also encompasses the organisational and cultural dimensions.[9]

Figure 1.1 demonstrates how the Petroleumscape, as a conceptual scheme, comprises two central axes. At the top of the diagram, the spatial footprint of the commodity is depicted, while at the bottom, its cultural representation is presented. These two main dimensions consist of different elements. The first dimension consists of the spatial-physical impact, while the second relates to cultural artefacts. Hein argues that these dimensions of the petroleumscape mutually reinforce one another.[10] The ultimate consequence of this is that oil has become omnipresent in our daily lives. This is particularly evident in how it operates through power structures, the material world, financial flows, and culture.[11]

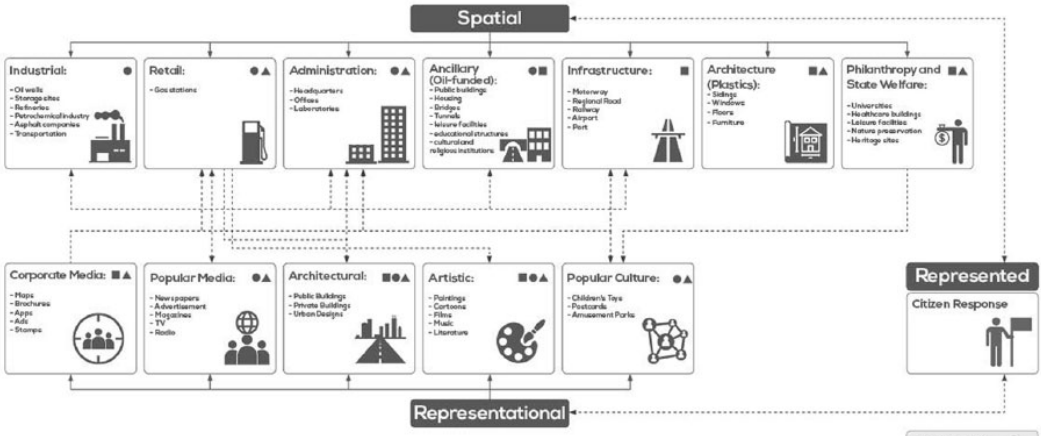

FIG. 1.1 The original scheme of the Petroleumscape.

Source: C.M. Hein, "Oil Spaces, The global petroleumscape in the Rotterdam/the Hague area", Journal of Urban History, 44, no. 5 (2018), 891.

8 Hein, "Oil spaces".

9 Ibidem, 894.

10 Ibidem, 888.

11 Ibidem, 922-924.

TOC

As the scheme contrasts the physical, social, and cultural dimensions of the Petroleumscape with each other, it provides valuable new insights, particularly concerning the specific spatial impact of its components. Notably, the locations of the main offices of petroleum businesses, from where the oil flows were coordinated, cannot be understood solely through the logic of the material commodity flows themselves. As the latter must be understood in light of concerns for economic efficiency, headquarters are often situated near relevant governmental bodies and in prestigious urban locations. This suggests that they are predominantly the result of social and cultural processes, as well as decisions guided by the pursuit of power and prestige.[12] Likewise, cultural expressions, such as architectural design elements, may be deemed redundant from a strictly economic perspective, while serving another purpose in envisioning and celebrating petroleum.

Furthermore, Hein emphasises that the Petroleumscape is the result of multiple organisations collaborating to overcome the challenges arising from spatial commodity flows.[13] These consist of corporate and public organisations, as well as citizens, who have different roles and resources at their disposal. While corporations purchase land, construct infrastructure, and promote consumption, governments are involved in spatial planning, policy-making, and regulation.[14] Together, they created the global Petroleumscape step by step along the commodity chain, from the extraction of the commodity to its consumption.[15]

Understanding the impact of petroleum on space, the built environment, and culture as a landscape is compelling, as it demonstrates how each step of production results in specific spatial patterns with differing temporalities, attributes, and logics. This implies that, in order to comprehend the complex biography of this global commodity landscape coherently, it is essential to trace the flows of petroleum, its organisational structure, and the cultural expressions that connect distant places—both visible and invisible—in relation to this single commodity.[16] It should therefore be understood as the outcome of '… multiple, shifting, and uneven ways in which many actors collaborate…'[17]

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12 Ibidem, 896.

13 Ibidem, 889.

14 Ibidem, 887.

15 Ibidem, 890.

16 Ibidem, 888.

17 Ibidem, 891.

The coffeescape in this thesis will firstly be expanded by connecting it to the global maritime coffee chain so that it becomes more valuable for analysing the environmental impact as part of wider coffee chain dynamics. This primarily entails extending the coffeescape so that it includes the coffee cultivation zone, conceptualised as a commodity frontier. This is defined as '… a zone beyond which further expansion is possible…'.[18] As a resource in a specific area became depleted, or the ecological and/or social resistance for its extraction grew passing a threshold, commodity production activities moved to other locations.[19]

The coffeescape is further adjusted by sharpening the distinction between the nature of its different dimensions and the categorization of its features therein. Inspired by the physical, organisational, and cultural dimensions of the original Petroleumscape, this is achieved by assuming three main social spheres as proposed by Max Weber, according to whom each '…has its own (…) internal and autonomous workings…'.[20]

The value of these spheres for our analysis is that they can be understood as being imagined and experienced by people associated with organisations who are convinced of their existence and are sustained by dedicated organisations and institutions.[21] It implies that an organisation's decisions and the (spatial) impact thereof depend on the nature of the specific sphere in which they were taken.

The three main spheres applied in this thesis consist of the physical, the social, and the cultural. First, the **physical-material sphere** is concerned with **logistics** and **production**. Logistics is understood as 'the business of transporting and delivering goods'.[22] Production concerns 'the process of making or growing goods to be sold.'[23]

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18 Jason W. Moore, "Sugar and the expansion of the Early Modern world-economy, Commodity frontiers, ecological transformation, and industrialization", *Review*, 23, no. 3 (2000), 412.

19 Idem.

20 Sylvia Terpe, "Working with Max Weber's 'spheres of life', An actor-centred approach", *Journal of Classical Sociology*, 20, no. 1 (2020), 22, (Weber, 1978a), 28.

21 Ibidem, 24-27.

22 Oxford Learner's Dictionaries: Logistics (https://www.oxfordlearnersdictionaries.com/definition/english/logistics?q=logistics), 21-7-2023. Also inspired by: Hopkins Distribution Company, History of logistics (https://hdcusa.com/news/history-of-logistics-distribution-and-supply-chain-management/), 21-7-2023.

23 Cambridge Dictionary: Production (https://dictionary.cambridge.org/dictionary/english/production), 21-7-2023.

Actions in this sphere consist of interventions by various organisations in the physical landscape with the purpose of producing, storing, transporting, and processing a commodity, either leading to general or commodity-specific infrastructures and buildings. What is deemed necessary is primarily informed by the physical attributes of the landscape and the commodity.

Secondly, the **social sphere** revolves primarily around **governance**. This is understood as: 'the act or process of governing or overseeing the control and direction of something.'[24] Hence, it also includes the state bureaucracies that have influenced the development of commodity chains by laws and regulations.[25] The need to distinguish this sphere from the previous one arises from the fact that neither the establishment nor the subsequent organisation of a Global Maritime Commodity Chain can be reduced to logistical or processing decisions. After all, many organisations were involved in these chains without necessarily processing large quantities of commodities themselves.

Thirdly, the **cultural sphere** in this thesis focuses on the sphere of the **imagination**: 'the act or power of forming a mental image of something not present to the senses or never before wholly perceived in reality.'[26] We are specifically interested in how imagining the Global maritime coffee chain through images and architectural design were applied for branding, and promoting.[27] Regardless of whether it is true in a logistical or governance sense.

Lastly, it is essential to emphasise that the economy, in theory, is another distinct societal sphere, but it is not regarded as such here. This is because the ultimate reason for organisations to be involved in Global Maritime Commodity Chains is profit.[28] It is therefore inseparable from the logic that steers their development and thus influencing all types of behaviour in the three spheres discussed above.

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24 Merriam Webster Dictionary: Governance (https://www.merriam-webster.com/dictionary/governance), 21-7-2023. Note that I use a broader and more universal understanding than the narrow definition, as it has evolved since the 2000's. Wikipedia: Global supply chain governance (https://en.wikipedia.org/wiki/Global_supply_chain_governance), 21-7-2023.

25 The political obviously can be considered an independent societal sphere. However, in order to exclude broader ideological discussions from the analysis, it has been decided to discuss the political as part of the governance sphere in case it presents itself in the data.

26 Merriam Webster Dictionary: Imagination (https://www.merriam-webster.com/dictionary/imagination), 21-7-2023.

27 These expressions are better seen as claims rather than celebrations, since an imagined claim may overlap with external reality but does not depend on it.

28 Hein, "Oil spaces".

TOC

2 Methodology and Sources

The methodological starting point in this research is not the built environment consisting of different layers, as was the case in the original Petroleumscape. Instead, these buildings are understood as belonging to one of the three societal spheres. They manifest themselves spatially as features of respective layers of the Commodityscape. An important consideration for this different approach is that it enables the inclusion of spatial elements that did not result in any physical interventions, such as the spatial demarcation of import duties or advertising images.

Another advantage of this new approach is that an intuition that runs through the original Petroleumscape article can be examined easily. Namely, understanding all social spheres as spatial layers simplifies the identification of locations where the different layers converge or not.[29] Moreover, the distinction of layers particularly helps to reveal where organisations were situated, and to which places their actions in each sphere were directed.

The method applied for analysing the historic development of the coffeescape is the mapping of the concrete actions of organisations, their spatial impact and the changes that occur therein over time. Hence, data collection was initially aimed at determining the exact locations and dates of organisations and their landscape interventions. The richest sources to reveal these consisted of old maps. The types of cartographic sources used for this purpose included topographical and thematic maps, as well as city plans and floor plans of buildings.

Other important sources were records containing geographical data. These consist of telephone and address books, (geographical) databases, industrial statistics, population registers, and tax registers. These were not reconstructed on a year-to-year basis; instead, specific years were chosen. Care was taken to ensure that they did not fall within exceptional years, as this would significantly distort the reconstruction. For example, years of war were avoided as much as possible.

29 Ibidem, 897.

A third source category consists of a broad collection of images used by Dutch colonial state organisations and private compagnies. These indicate an organisation's self-conception and the way in which they present themselves to the public by referring either to specific parts of the coffeescape or the entire Coffee Chain. On the one hand, this category includes promotional images such as advertisements, trademarks, and other forms like drawings, paintings, and engravings. On the other hand, it encompasses architectural design in the form of applied symbols, stained glass windows, overall design, and the choices of materials and location.

The analysis applied a specific method tailored to the nature of the dissimilar sources. To explain logistical choices, it was essential to take the physical landscape conditions into account. By contrast, spatial changes in governance must be understood from the larger social context. The Commodityscape features resulting from the governing actions were mapped insofar as they deviated from the logistical layer already reconstructed.

The (partially) fictitious nature of images allows to assess whether organisations claimed a role within global coffeescape. However, determining this remains a delicate matter. Even though these artefacts basically 'resist' being localised because of their nature; for example, images derive their power from their partly fictional depiction of places, they were always made somewhere.

Furthermore, archives and archival online portals were subsequently searched by using the word Dutch word for coffee and the names of organisations identified in the previous step. This continued until repetition occurred in the main organisations involved, source material, locations, and artefacts. This indicated that a fairly complete picture had emerged.[30]

The challenge in this intensive procedure was to understand the coherence between all the individual facts as part of a dynamic complex Global maritime coffeescape. Although the one connected the Dutch East Indies and the Netherlands for more than 250 years, and other Coffee Chains doing the same elsewhere, the sources and artefacts were handed down in a very fragmented manner.

30 Importantly, the price differences of coffee at different locations and times are not mapped. Instead, they are assumed as they are a precondition for the emergence of commodity chains. The more complex sources are discussed in detail in separated appendices organised per chapter.

This thesis deliberately prioritises the reconstruction of the coffeescape based on primary sources in combination with a limited corpus of key publications instead of engaging extensively with the wider literature. This choice follows from the methodological need to first establish a clear empirical and spatial foundation based on an internally consistent body of evidence. Especially in the case of maps and spatial reconstructions, broader interpretations based on multiple publications can easily introduce additional, assumptions, contradictory interpretations or errors that risk obscuring the underlying empirical structure. Given the longue durée, the complexity of the coffee chain, and the time-intensive translation of written historical sources into spatial analysis, this study therefore adopts a limited ambition. Namely, the establishment of a proof of concept. The broader historiographical and theoretical problematisation can be developed more systematically in subsequent research.

3 Colonial Organisations shaping the Global maritime coffee-scape on Java

3.1 Introduction

Between 1700 and 1950, Dutch colonial organisations shaped the export side of the Global maritime coffee chain that connected the island of Java in the Dutch East Indies with the Netherlands. Several of them located in Batavia increasingly took control over Priangan, the port city's vast and mountainous hinterland. Their aim was to export vast volumes of coffee to the Netherlands. To achieve this, they increasingly forced the local population to cultivate and deliver the commodity to Batavia, today Jakarta.

The colonial organisation that established this Global maritime coffee chain was the Dutch East India Company.[31] It was founded by and in the Republic of the Seven United Provinces in 1602 for the trade in spices. The organisation initially attempted to tap into the flourishing intra-Asian trade. However, since this attempt, and subsequent efforts to insert itself in the already existing inland trade networks in Java failed, the organisation became interested in the cultivation of crops that could be shipped to the Netherlands. In this shift, coffee would become the most important.[32]

When the Dutch East India Company introduced the coffee tree to Java in the period before 1700, early cultivation attempts failed in the immediate landscape surrounding Batavia.[33] Large-scale cultivation proved only feasible when it was carried out in the more mountainous and remote areas in a southeastern direction.[34] The reason for this is that coffee needs a more modest climate than the tropical conditions in the lower parts of Java. Moreover, the fertile volcanic soils in the inland were exceptionally well suited for coffee.[35] The first regular delivery to, and sale, in the Netherlands by the Dutch East India Company took place in 1713.[36]

As coffee exports to the Netherlands became increasingly lucrative, the Dutch East India Company secured a monopoly on both its cultivation and its transport to and auction, in the Netherlands.[37] As a consequence, the Dutch East India Company became more engaged, albeit indirectly, in the cultivation of the crop in the deeper interior of Java.

The succeeding colonial organisation that became essential for the evolution of the Global maritime coffeescape on Java was the Nederlandsche Handel-Maatschappij (Dutch Trading Society). It was founded in 1824 by King Willem I of the Netherlands.

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31 The reconstruction is primarily based on Jan Breman's comprehensive socio-economic study: *Koloniaal profijt van onvrije arbeid, het Preanger stelsel van gedwongen koffieteelt op Java,* (Amsterdam, 2010). The study explains in detail how colonial organisations, including organisations and influential state officials, established and controlled inland coffee production and its negative impact on the local inhabitants and the natural environment. It provides a very comprehensive overview of how decisions, along with the underlying assumptions and aims, led to specific interventions with far-reaching consequences.

32 Cees Fasseur, "Kultuurstelsel en koloniale baten, de Nederlandse exploitatie van Java 1840-1860", dissertation, (Leiden, 1975).

33 Breman, *Koloniaal profijt*, 70.

34 Ibidem, 74.

35 Demel Teketay, "History, botany and ecological requirements of coffee", *Walia*, 20 (1998), 19-24.

36 The first substantial harvest has been taken as a starting point. Breman, *Koloniaal profijt,* 74-75.

37 Ibidem, 68.

This was partially motivated by the fact that in this colony the Dutch experienced severe competition in maritime trade from foreigners, especially English and American shipowners.[38] Simultaneously in the background was Batavia's decline as a global port city due to the foundation of Singapore and the maritime trade that it had attracted at the expense of Batavia.[39] The Dutch Trading Society eventually opened its main branch, the so-called Factorij, in the latter port city.[40]

Of paramount importance for the way this Global maritime coffee chain functioned were the exclusive rights of the Dutch Trading Society to transport the Javanese coffee to the Netherlands on consignment and to publicly auction it there.[41] These auctions turned out to be extremely lucrative. In the 1850s, the profit thus made constituted almost a third of the annual Dutch National Treasury.[42] Moreover, around 1870, Javanese coffee was worth fifty million guilders in State income.[43] Overall, 80% of the profit within the Cultivation System (Cultuurstelsel) was attributed to these sales.[44] This was partly due to the fact that, between 1840 and 1870, the Dutch Trading Society's coffee auctions in the Netherlands were leading in the global coffee trade.[45]

Especially between 1830 and 1870, the coffee produced by the newly introduced Cultivation System increased enormously.[46] In the latter year this system was abolished with the implementation of the Agricultural Act. It officially ended the state monopoly and 'allowed' the Dutch colonial government to lease land not owned by local inhabitants to private (European) investors. Regardless of whether land without property rights existed or not, it resulted in the establishment of commercial and large-scale agricultural enterprises.[47]

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38 Willem Maurits Frederik Mansvelt, *Geschiedenis van de Nederlandsche Handelmaatschappij, Uitgegeven ter gelegenheid van het honderdjarig bestaan*, 2nd edition, (Haarlem, 1924), 4-5. Jan Folkerts, *De koloniale illusie*, *Herman Warner Muntinghe (1773-1827), architect van de koloniale staat* (Amsterdam, 2023) 59.

39 Willem Maurits Frederik Mansvelt, *De economische samenwerking tusschen Nederland en Nederlandsch-Indië*, (Batavia, 1938), 11. Folkerts, *De koloniale illusie,* 259.

40 After various failed attempts to do business with the young states in South America. Mansvelt, *Geschiedenis van de Nederlandsche Handelmaatschappij.*

41 Breman, *Koloniaal profijt,* 223.

42 Ibidem, 246 and 364.

43 Ibidem, 315-320 and 364.

44 Fasseur, "Kultuurstelsel en koloniale baten", 201.

45 Mansvelt, *Geschiedenis van de Nederlandsche Handelmaatschappij*, 43.

46 Ibidem, 13.

47 Breman, *Koloniaal profijt,* 208.

In Priangan, the period of the Cultivation System was characterized by the fact that it co-existed with a continuation of the forced Cultivation System. In fact, the latter was only finally abolished in 1917, long after the Agricultural Act of 1870.[48] The coffee culture in the area was therefore characterised by the coexistence of successive Cultivation Systems.

3.2 The Logistical Layer: from Coffee Cultivation to Overseas Export

The objective of this section is to reconstruct the logistical layer of the coffeescape from the coffee fields in Priangan to the commodity's final transhipment for overseas export to the Netherlands. The constitutive elements that make up the logistical layer are cultivation fields, inland transport infrastructures (pathways, roads, rivers, railways), regional and central warehouses, and finally port facilities. The main elements are combined in a GIS-based map to comprehend the relationships that give the logistical layer its spatial coherence. Additionally, we zoom in on specific areas in the Priangan to clarify the start of the coffee cultivation. See Figure 3.1.

Significant spatial changes can be observed for the period under investigation. First, the individual coffee fields were understood as part of the coffee commodity frontier. Secondly, the evolution of the infrastructures can be interpreted as solutions to overcome severe transport problems due to the ever-increasing volumes of coffee. Thirdly, the focus is on how Batavia, its ports, and the coffee chain influenced the city's layout. This involves both the establishment of storage and transhipment facilities, as well as more general port improvement plans. Lastly, with the (coffee) frontier reaching the island's south coast, various organisations devised plans and took actions to facilitate overseas exports from there.

48 Jacob Wouter de Klein, "*Het Preangerstelsel (1677-1871) en zijn nawerking*", (Delft, 1931), 128, 140. *Bijblad op het Staatsblad van Nederlandsch-Indië*, 1876, 01-01-1876, no. 2738.

FIG. 3.1 Overview of the two areas in Priangan where the coffee frontier will be discussed in detail.

Edited by the author.

3.2.1 The Impact of the Coffee Frontier on the Landscape of Batavia's Hinterland

In the eighteenth century, coffee cultivation in Priangan became established more permanently. Although the frontier initially moved slowly, due to the crop's success in the highlands, it had already reached the south-west coast of Priangan by 1835. The frontier thereafter advanced in a southern and eastern direction and uphill against the many volcanoes and mountain ridges.

Thanks to the oldest map of the Priangan depicting coffee gardens, dating from 1817, it is possible to see what the coffee frontier spatially resembled roughly twenty years after the dissolution of the Dutch East India Company (Figure 3.2).[49]

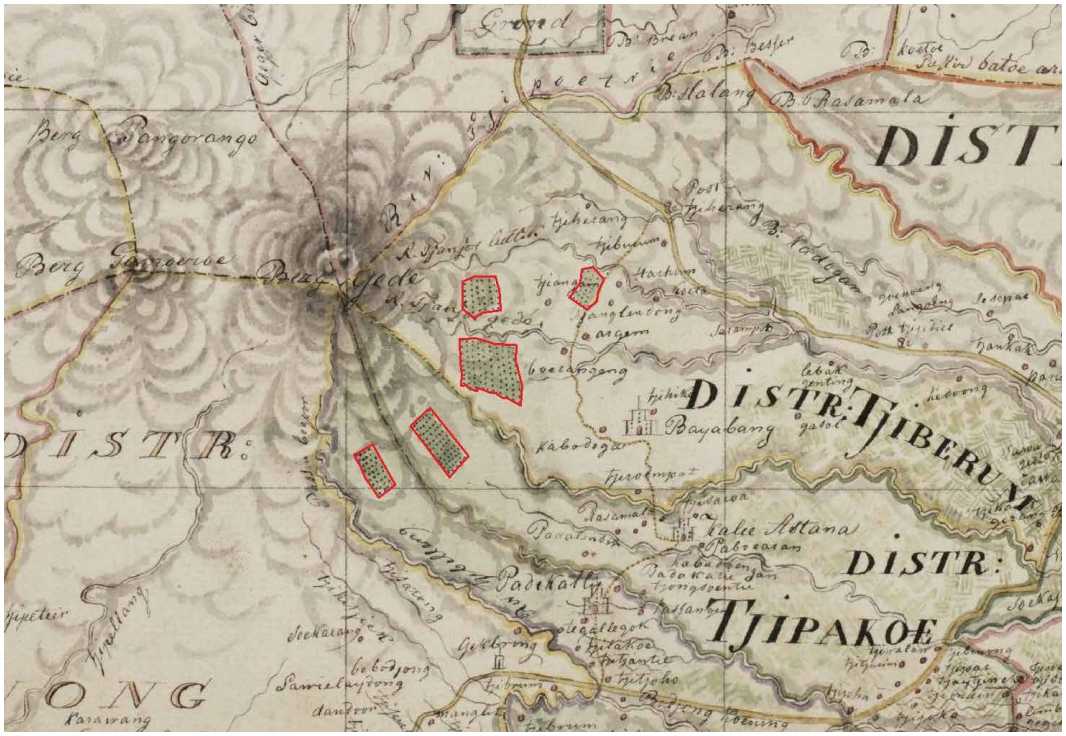


FIG. 3.2 Detail of the earliest map of the Priangan (1817), depicting individual coffee fields within the wider landscape on a regional scale. Visible is the area around the Gede volcano. The red lines demarcate the coffee fields. The coffee fields are clearly arranged around the volcano's south-eastern flanks and consist of large, separate fields. It is also noteworthy that these fields were situated far from the villages.

Source: 'Kaart der Preanger Regentschappen en Crawang', copy by J.T. Bik after the map by Mr Beetjes, 1817, Dutch National Archive, 4.MIKO Inventaris van kaarten en tekeningen behorende tot het archief van het Ministerie van Koloniën en rechtsopvolgers, (1702) 1814-1963, inv. no. 966, sheets 1-20. Edited by the author.[50]

49 Some scholars might find the term gardens euphemistic, suggesting avoiding it to emphasize the harsh labour conditions. This thesis, however, aims to get as closely as possible to the perspective of the involved organisations in the researched period. It was therefore decided to keep as close as possible to the terms applied in the historic context.

50 See appendix I for a detailed discussion of the (problematic) features of this source and its usability for this thesis.

The fields were already situated in places that would become characteristic of the frontier, namely next to villages in the lower areas and draped around (volcano) slopes. The map also illustrates how coffee was cultivated in multiple large-scale gardens.[51]

Breman identified five successive periods, each marked by a specific labour regime and coffee field with a typical shape, size, and location in the landscape. All coffee field types identified by Breman are present on one cartographic source, namely the 'Topographische kaart van de residentie Preanger regentschappen', surveyed between 1871-1886 and published in 1894. Hereafter referred to as the residency map.[52]

That examples of all coffee field types as distinguished by Breman are present becomes evident by comparing five details (Figures 3.3) showing examples that most accurately fit the description included in Table 3.1. The development of these plots aligns with the colonial government's increasing control over the labour of the local population, especially during the Cultivation System between 1830 and 1870.[53]

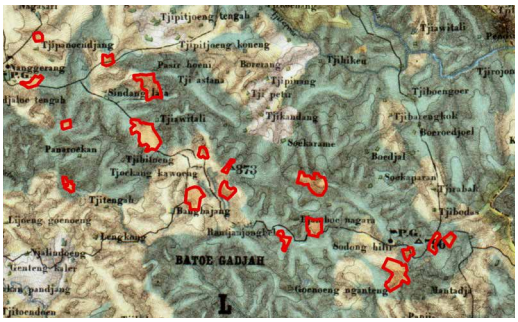
The general desire of the Dutch colonial Governors in Batavia to increasingly export more coffee overseas led from time to time to new instructions leading to successive types of coffee fields. However, since the initial instructions remained quite indirect, like the mandatory deliveries by the local population to the Dutch East India Company, it was on only with the increasing direct control of the labour by the Dutch colonial sate during the Cultivation System – that the individual fields could reach enormous sizes.

51 Breman, *Koloniaal Profijt*, 79. There seems to have been no clear reason for making the map, as it was a personal initiative. Petrus Johannes Blok and Philipp Christiaan Molhuysen, *Nieuw Nederlandsch biografisch woordenboek*, vol. 8 (1930)

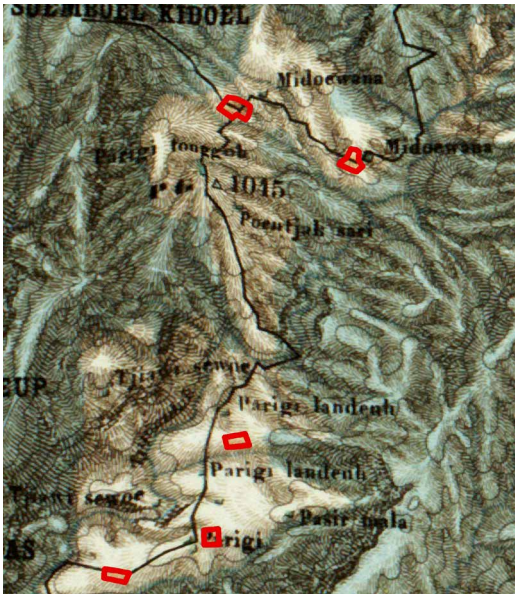
52 However, the extent to which the coffee fields meet the description does not appear to be the same throughout the area. The smaller plots, in particular, are difficult to classify. Classifying all coffee fields in the entire Priangan requires a separate investigation due to the large number of fields, making it impossible to determine to which they belonged based solely on the map. See appendix I for a detailed discussion of the (problematic) features of this source and its usability for this thesis.

53 Besides, multiple field types co-existed as the different sub-phases (especially those of the Priangan system and Cultivation System) were not discreetly separatable. Breman, *Koloniaal profijt*, 177.

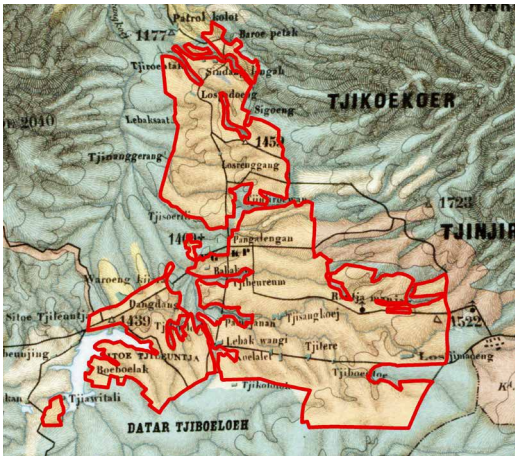
3.3A Small plots adjacent or close to villages.



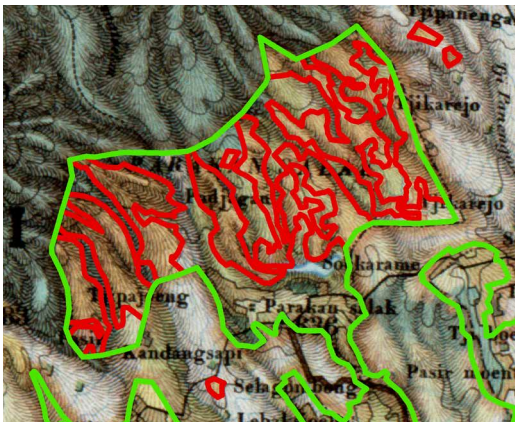
3.3B Small plots in forest areas near villages.



3.3C Plots next to the pathways in remote areas.



3.3D Isolated large-scale contiguous gardens on high altitudes and in sparsely populated area (Cultivation System).



3.3Ea Private coffee enterprise enclosing (existing?) coffee plots.

3.3Eb Private coffee enterprises, but, thus far, without coffee plots.

TOC

FIG. 3.3 An overview of six details from the residency map depicting the coffee field types that Breman identified as characteristic of the different coffee cultivation phases in the eighteenth and nineteenth century. The capital letters correspond to the heading in Table 3.1 in which the observations of Breman are summarized. The co-existence of these categories on the same map indicates that the source should not merely be seen as a snapshot of the situation as it existed during the specific period in which it was created. Instead, it reveals that in certain areas, coffee plot types from regimes introduced before 1800 survived. (N.B. the different details do not have the same scale).

Source: 'Topographische kaart van de residentie Preanger regentschappen opgenomen ingevolge gouvernements besluit van den 28n. september 1871 No. 28, in de jaren 1871-1886', Topograaphische Inrichting, The Hague, (published 1894), 1:100,000, Leiden University Library, Digital Collections, inv. no. KK 114-01-01/03-05, (sheets 1–16). Edited by the author.

FIG. 3.4 Photograph of a private coffee enterprise in Mid Java, before 1880. It illustrates the remoteness of such estates in terms of low population density and difficult accessibility due to the mountainous and forested terrain. These estates nonetheless were specifically founded by (Dutch) entrepreneurs with the intent to ship commodities to the Netherlands.

Source: 'Koffieonderneming Ngrantjak tussen Ambarawa en Magelang', Woodbury & Page (Batavia), Leiden University Library, Digital Collections, KITLV Southeast Asian & Caribbean Images, no. 3309.

TABLE 3.1 Typology of coffee cultivation plots that the Dutch East India Company and the Dutch colonial state created through their instructions, exhibiting the most distinctive social-spatial combinations characteristic of the different phases according to social historian Jan Breman. The capital letters in the table headings correspond with the capitals mentioned in the images' captions.

Period	'Initial form'	A	B	C	D	Ea / Eb
		±1711-<1750*	±1750-±1800	±1800	1830-1870**	1870-1890*** (-1940)
Type	–	Hedge/Village	Forest	'Roads'	Mountain	Commercial enterprises
Base	Only land owned by the *Regent*: part of the *Dalem*, the royal household	Family farming	Family farming	Initiated by overseers to make their inspection work easier	Cultivation System (Cultuurstelsel)	New enclosures, but sometimes around old coffee fields
Scale	Small	Small	Small	Small	Very large–scale	Large–scale
Location	–	Within the villages, on, and around farms	Around the villages	Along roads. Far removed from villages.**** Long, small gardens, along mountains, valleys, cliffs, and on poor soils	Far removed from villages	Far removed from villages
Regional	–	–	Not far away from Batavia (Buitenzorg–Crawang), but concentration and expansion in *Priangan*	*Soenda* Highlands	Expansion of numerous new production areas in Middle and East Java	Highlands
Remarks	–	–	Low altitudes	–	High altitudes: 1000–1500 meters above sea level Meant for local entrepreneurs.*****	Private capital, in lease. These were also funded by organisations, such as the Dutch Trading Society, Javasche Bank, and the Nederlandsch–Indische Handelsbank. Often combined with other crops like tea, rubber, and kina, increasingly replacing coffee
Acreage / number of trees	–	–	–	Huge expansion in *Priangan*: 7,5 million trees (1801–1802)	1831–1840: number of planted trees on Java reached its peak: in total 330 million trees.******	–

*In theory, it is possible that more coffee fields existed that were too small to be depicted at the scale of the residency map at 1:100.000. However, since the smallest plot found was only 2.8 square metres, it is not very likely that any smaller cases existed. *Breman, Koloniaal profijt, 75. **Breman, Koloniaal profijt, 174. ***Only from 1890 onwards would this type begin to have a significant impact on the physical landscape of the Priangan. Breman, Koloniaal profijt, 341. ****Breman, Koloniaal profijt, 99. *****This set up was never a complete success. Breman, Koloniaal profijt, 318. ******Some reservations are justified here because a proportion of this number probably existed only on paper. Breman, Koloniaal profijt, 234.*

Lastly, the establishment of private enterprises made possible by the Agricultural Act of 1870 also led to the overseas introduction of a new type of colonial organisation. For the first time, these enterprises were directly established by Dutch individuals, whose staff also resided locally. These estates were located on mountain ridges and sparsely populated high plateaus, including the more remote areas of Priangan and Java. (Figure 3.4). Despite their remoteness, these estates were specifically founded by colonial enterprises with the intention of shipping the commodities cultivated there to the Netherlands.

###The Environmental Destruction of the Coffee Frontier

The constant integration of cultivation fields into the Global maritime coffee chain also let to the destruction of the natural environment. This was especially the result of a process that in the first half of the nineteenth century in the context of coffee cultivation in Priangan became euphemistically known as 'walking gardens'.[54] It came down to the need to constantly establish new gardens, as the earlier ones yielded no harvest or were already exhausted after 5 to 7 years because they had been poorly constructed.[55]

The impact of this phenomenon on the Priangan landscape becomes especially apparent when the residency map is analysed in detail. If we do so for an area characteristic of the coffee frontier during the Cultivation System, it turns out that many of the large fields were clearly located between dark green shadings in the north and yellow shadings in the south (Figure 3.5). According to the map's legend, the first represents forest, while the second represents *Alang Alang*.[56]

54 Breman, *Koloniaal profijt*, 239.

55 Ibidem, 262.

56 Ibidem, 244. Fiona van Schendel, *Djolotigo, Ontginning en exploitatie van een particuliere koffie-onderneming op Java, 1875-1898* (Amsterdam, 2000) 65, reference 199. Not further explored in this thesis but, confirmed by Prof. dr. Tinde van Andel (Naturalis Biodiversity Centre, Wageningen University and Research, Leiden University), via e-mail correspondence.

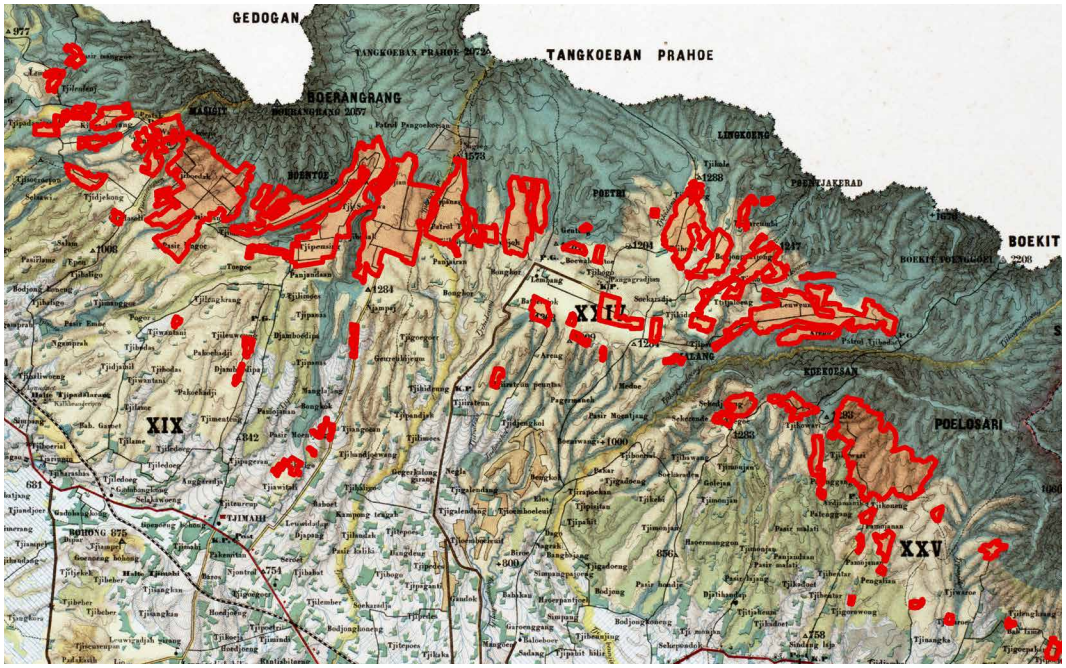


FIG. 3.5 Detail of the residency map of the south slope of the Tangkuban Perahu volcano, whose ridge largely coincides with the boundary between the coloured and blank parts at the top of the image. The coffee frontier is clearly visible. It consists of the fields outlined in red and located between the forests (dark green) higher up the mountain and the Alang Alang (yellow) in the direction of the valley (at the bottom of the map).

Source: 'Topographische kaart van de residentie Preanger regentschappen'. Edited by the author.

Other landscape patterns visible on this map detail also suggest that the *Alang Alang* areas should indeed be considered to represent former coffee fields. First, various narrow strips of forest located in gullies in the direction of the valley and surrounded by the grass can be identified. If we assume that these were part of a continuous forest zone – as is the case for the more intact areas elsewhere in Priangan – then these strips help to indicate the maximum extent of where the forest naturally grew. This implies that these strips must have been left undisturbed when coffee fields were established on the basis that the gullies were considered unsuitable for that purpose. This means that agricultural activities replaced the entire forested area shown in the colour representing *Alang Alang*, after which this grass grew wild once those activities ceased. Of course, only this does not yet tell us whether these areas concern coffee fields or general agricultural practices.

TOC

That coffee cultivation is the most likely explanation is supported by the fact that numerous smaller coffee plots are visible within these large *Alang Alang* areas. This suggests that we should understand these as traces of large-scale continuous coffee gardens that farmers left behind as the fields increasingly moved up the mountains. This is even more evident considering that the increasing demand for coffee made the construction of large gardens more viable than smaller ones.

Another reason why the *Alang Alang* landscape was the result of coffee cultivation is that not all layouts of the gardens can be explained by the underlying morphology, at least not based on the scale of this map. This suggests that their (very) ragged boundaries were not shaped by 'rational' human choices, but by natural processes, such as trees that randomly died due to poor planting practices.[57] These phenomena occurred across Priangan. The presence of multiple warehouses in an extensive *Alang Alang* landscape in a southwest district of the residency with only few small coffee fields reinforces the idea that coffee was indeed previously cultivated there on a much larger scale. We therefore must conclude that the impact of these 'walking gardens' on the area's landscape was significant.

The Coffee Frontier Increasingly Impacts the Entire Priangan

To assess the environmental impact of the coffeescape because of the decisions made by colonial organisations, the subsequent step is to reconstruct how the coffee frontier developed on a regional scale relative to Batavia. Therefore, all fields in Priangan visible on the residency map were entered into a geographical database to reveal their spatial coherence as a frontier. Given the importance of altitude for the coffee plants to grow, the various field types were combined with a contemporary altitude dataset.

The results, as shown in Figure 3.6, confirm that the coffee cultivation was initiated from the northern valley of Priangan, which was the most densely populated and relatively close to Batavia. The smaller fields typical of the earlier stages were located there. The larger estates of the Cultivation System, on the contrary, expanded up the volcanoes and were situated on the higher plateaus. Significantly, the map clearly reveals that this occurred in almost all directions, especially where there were mountains. Besides, the map reveals that the group of commercial enterprises form an independent frontier adjacent to those belonging to the large-scale mountain coffee districts of the Cultivation System. Moreover, this newest frontier was moving primarily in a southerly direction of the island.

57 Unless, of course, it follows from morphological phenomena that were too small to be depicted on a map of this scale. Unfortunately, there was no source on which this could be verified.

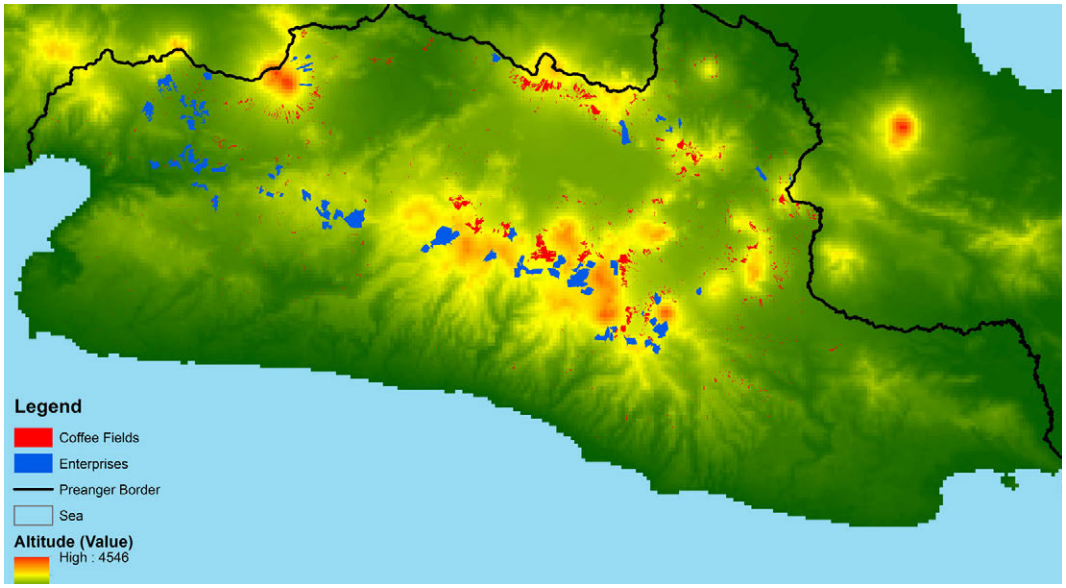


FIG. 3.6 Map depicting all individual coffee plots of the forced Cultivation System (in red) and the private enterprises (in blue) overlaid with a dataset representing the altitude of the natural landscape. It reveals how these elements together, but in distinct phases, formed the Priangan coffee frontier between roughly 1800 and 1900. The most important insight gained from this is the trend towards higher altitudes and the south coast.

Source: https://diva-gis.org/data.html (dataset: altitude), September 2020. Edited by the author.

These differences can be explained by the fact that there was little space left for these new large-scale private enterprises on the northern slopes, as these were already largely occupied by forced coffee fields and *Alang Alang* landscapes. In contrast, the southern slopes and plateau were scarcely populated territories and deemed 'empty.' This was a direct outcome of the conditions set out in the Agricultural Act, namely that the Dutch colonial government could only allocate land to private (European) entrepreneurs on which no village rights existed.[58] This was evidently more likely to be further away from the villages.

Finally, south of the commercial enterprises, there was another zone with numerous smaller coffee fields that belonged to the forced Cultivation System. Their presence there suggests that this area was already part of the coffee frontier before 1870. It is not surprising that this area consisted of small and fragmented fields, given the inhospitable nature of the area and the large distances to Batavia. This must have kept the extent of the cultivation ultimately to a minimum, as it would have resulted in very long transport distances.

58 *De koloniale Agrarische Wet, toegelicht uit de officiële stukken en de discussiën in de beide kamers der Staten-Generaal, met aanteekeningen,* (Rotterdam, 1870).

To conclude, the reconstruction shows how the coffee frontier increasingly moved away from Batavia in accordance with the physical and cultural characteristics of the landscape. The main direction of movement was towards the island's southern coast. This occurred in successive phases: the forced Cultivation System had already reached the southern coast while the private companies closely followed in the same direction.

The Increasing Scale of the Coffee Cultivation Plots

Over the course of two centuries, the expansion of coffee cultivation profoundly reshaped the Javanese landscape. The sheer number of individual plots, the vast acreage brought under cultivation, and the immense quantity of coffee trees planted illustrate the magnitude of this transformation. To capture these quantitative dimensions, a series of basic calculations has been undertaken. The results are presented in Table 3.2.

The first thing that stands out is the large increase in the number of plots, from approximately 110 in 1817 to 1,451 for the period 1871–1886. Though significant, the exact increase in the number of plots is difficult to quantify with complete certainty. First, it is uncertain whether the number of coffee gardens depicted on the 1817 map is complete. It is very conceivable that plots that were very small and/or located in remote areas are missing.

Another difficulty in determining the exact increase relates to the residency map. As indicated, the number 1451 represents plot types from subsequent phases, while also being the result of the fragmentation of large-scale coffee estates. This makes it difficult to ascertain whether they should all be considered separate fields and whether they were all in use during the fifteen years in which the map was created.

Nonetheless, if it is assumed that (almost) all fields for 1817 were included and the period 1817-1886 is taken as a whole, the data demonstrate that the number of coffee gardens after 1817 increased sharply. Regardless of whether this was due to the break-up of larger fields, the founding of new ones, or both, it must have led to a complexity that did not make the coffee cultivation any easier.

The second thing that stands out is the large acreages of commercial enterprises compared to those of all forced cultivation plots of the period before 1870 and depicted on the map combined. This is most evident when the average acreage of the commercial fields, at 287 hectares, is compared to an average of 16 hectares for all the types of the earlier period combined. The average of the latter was much lower, even though this collection included a gigantic field of 1,087 hectares as part of the Cultivation System. It is again an indication of the enormous fragmentation of most plots.

TABLE 3.2 Quantitative data of different coffee cultivation plots in Priangan.

	MAP 1817	1855	MAP 1871-1886	
		Highest Yield	Forced labour fields	Enterprise plots
Yield	68.578 picul 4.251.836 kg	272.300 picul 16.882.600 kg	**1870:** 126.698 picul 7.855.276 kg **1886:** 135.654 picul 8.410.548 kg	Unknown
Number	±110		1451	Coffee: 37 (total: 109)
Total acreage (ha)	Unknown		22.700	10.613
Number in 1811:	42 million* 70	Est. no. trees*	Approx. 38,9 million (= 307 trees/picul)***	Max. 18,2 million
Average acreage (ha)	Unknown		16	287

*The calculated acreages presented here are estimations for several reasons. First, they are based on flat surfaces. Consequently, the micro-relief of the landscape within the fields' boundaries has been ignored. Second, not the entire surface would have been suitable for cultivation due to streams, among other factors. Third, due to accuracy issues with the residency map, there may be some geometrical distortions in the calculations. The number of piculs for the years 1817, 1855 and 1870 are based on Breman, Koloniaal profijt, 250. The number of piculs for the year 1886 is based on Koloniaal Verslag, 1887, 163 (171), digital access via Leiden University.[59] The conversions from piculs to kilograms are based on the 'VOC glossary' Huygens Institute of Dutch History.[60] *Breman, Koloniaal Profijt, 125. **The estimation of number of trees for the year 1811 is based on Pierson of an average of 1200 coffee bushes for each bouw (= 0,7 ha) in 1868. N.G. Pierson, 1868, Het kultuurstelsel; zes voorlezingen. Amsterdam. F.J. Ormeling, sr., Bodemerosie op West-Java', Geografisch Tijdschrift 65 (1953), 159. ***This is a realistic number in the sense that it falls within the scope of known ratios, namely: 140-464 trees per picul as documented for the period 1853-1864. Breman, Koloniaal Profijt, 275.*

The total acreage of private enterprises also surpassed that of forced labour fields, but not in relation to those where coffee was cultivated. In general terms, this reveals the enormous leap in scale that the liberal period initiated after the implementation of the Agricultural Act in 1870. Of the 109 private enterprises located in Priangan at the time, 37 were used for cultivating coffee or were established for that purpose.[61] If we limit ourselves to these enterprises, the total acreage still amounts to 10.613 hectares. This is roughly half of the 22.700 hectares of all plots established before the Agricultural Act and depicted on the map combined.

59 *Koloniaal Verslag*, 1887, 163 (171), digital access via Leiden University, (https://kitlv-docs.library.leiden.edu/open/Metamorfoze/Kol.%20Verslag/koloniaal%20verslag.html).

60 'VOC glossary' Huygens Institute of Dutch History, https://resources.huygens.knaw.nl/vocglossarium/index_html_en.

61 This was based on the abbreviation K.O. (i.e., 'Koffie Onderneming', meaning Coffee Enterprise) next, or within the enterprise boundaries, or because coffee fields were depicted within the estate's boundaries.

This new type of colonial organisation was clearly aiming to cultivation coffee on a completely different scale-level.[62]

The third element to consider concerns the number of coffee trees. If Pierson's 1868 estimation of an average of 1,200 coffee bushes for each bouw (= 0.7 hectares) is correct and applicable for the entire period of the coffee cultivation, this would mean that the smallest plot on the residency map of 0.28 hectares would have had 480 coffee trees. The largest plot of mountain coffee, measuring 1,087 hectares, would then be capable of supporting almost 1.9 million coffee trees.[63] Altogether, this would imply that the total number of coffee trees planted during the coercive system, as represented by the plots depicted on this map, would amount to roughly 39 million.

Based on Breman's study, these numbers are certainly not unrealistic. The highest number of fruit-bearing coffee trees at one moment in time in Priangan documented was reached in 1856 and consisted of 70 million trees. Moreover, the period thereafter was characterised by a major decline in the number of trees. This means that if the estimated number of trees based on the residency map is correct, then we are dealing with roughly the same amount of coffee trees around 1884 as around 1810.[64]

Breman also shows that, in a relatively short period of twelve years (1853-1864), an enormous total of more than 771 million coffee trees were planted in Priangan.[65] However, only a small part of these would ultimately survive. This implies that the number of trees as represented by the fields on the residency map amounted to a measly 5% of what was planted in this twelve-year period.[66]

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62 The actual acreage used for coffee cultivation on the commercial enterprises was likely lower, as the crop in those cases was often combined with the cultivation of other products such as rubber or tea. *Topographische kaart der Residentie Priangan Regentschappen*. Published 1894, 1:100.000, Leiden University Library, no. 04892.

63 Ferdinand Jan Ormeling, sr., "Bodemerosie op West-Java", *Geografisch Tijdschrift*, 65 (1953), 159. Reference to: Nikolaas Gerard Pierson, *Het kultuurstelsel, Zes voorlezingen*, (Amsterdam, 1868).

64 Breman, *Koloniaal Profijt*, 124.

65 Ibidem, 275.

66 This of course still depends on what exactly was planted between 1854-1870. However, this could not be determined. Moreover, if the 39 million is subtracted from the total, the percentage would be even higher.

In addition, the large difference renders it completely unrealistic that these trees were planted repeatedly at the same spot. Hence, this only leaves open the possibility of the shifting nature of the gardens and underlines the likeliness that the *Alang Alang* areas should be understood as the remnants of extensive, exhausted coffee fields. After all, 95% of the acreage of former coffee fields was lost and therefore not distinguishable as such on the residency map. Even if we are sceptical about this extremely high number for the twelve-year period, this observation remains valid. For if we look at the highest ever recorded number of trees that bore berries at one moment in time, we still miss more than half, namely forty million trees that are not shown on the map and which must therefore be sought in the areas indicated as *Alang Alang*.

These numbers confirm the analysis in the scientific literature of the very modest long-term success of the enormous efforts undertaken by the colonial administration during the Cultivation System to increase the cultivation of coffee in Priangan. Together with a messy administration, it exposes how ad hoc, opportunistic and unorganised the coordination of the cultivation sometimes was. Even though the increase in coffee yields had become the top priority for the Dutch colonial government.[67]

3.2.2 From Priangan Coffee Fields to Batavia

The next challenge for the Dutch East India Company and the Colonial State was to transport the harvested beans from the numerous fields scattered across an enormous hinterland to a single port city. This section, therefore, seeks to explain how they addressed this issue. This helps us to understand the spatial changes in the logistic layer of the Global maritime coffeescape through the lens of interventions by organisations. Consequently, all inland infrastructure created and used for the transport of beans, consisting of the main roads, inland warehouses, rivers, and railways, has been compiled in Figure 3.7. The sea routes have also been added to the map.

67 Breman, *Koloniaal Profijt*, 177, 248-249 and 302.

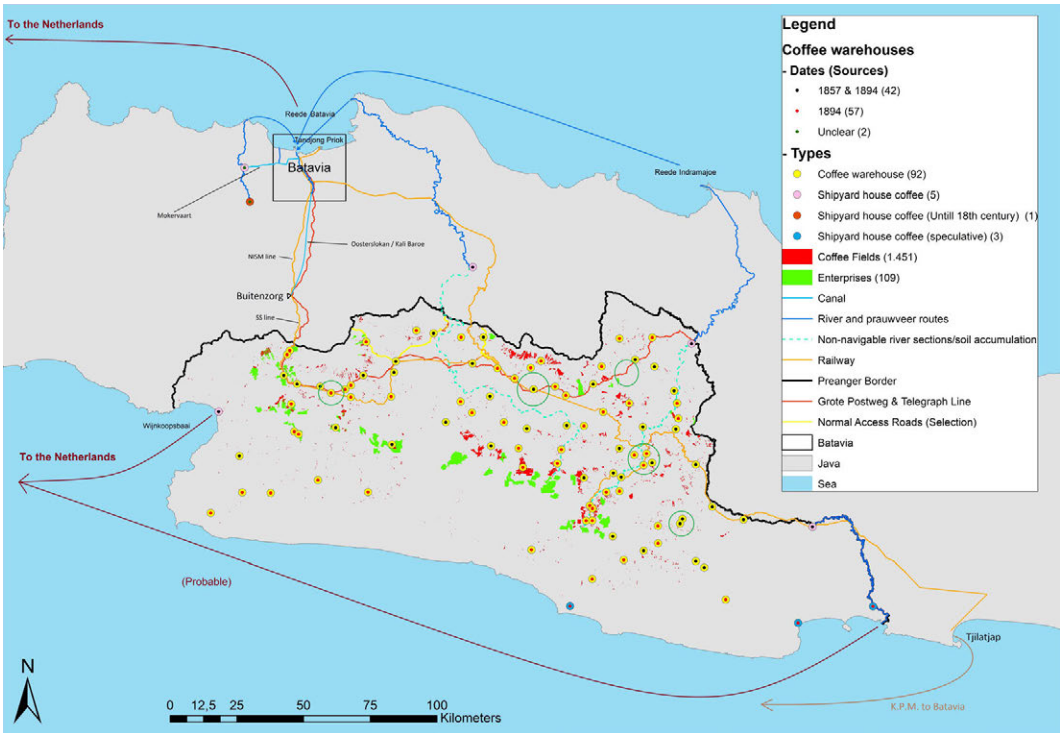

FIG. 3.7 This GIS-based map shows the main infrastructures used and/or established for the transport of coffee beans from Priangan to the port city of Batavia and overseas to the Netherlands. The five green circles refer to the courts of the Regents, the location where the coffee was initially delivered. The dedicated coffee warehouses are also depicted for two years. This category is divided into land and shipping warehouses. For infrastructures a distinction is made in the Grote Postweg (Great Postal Road) (red), the main roads (yellow), railways (orange) and waterways. In the latter category, a distinction is made between canals (light blue), rivers up stream (dashed turquoise) and downstream (dark blue). The cultivation fields are also depicted to show the proximity of the infrastructure to specific fields and the entire coffee frontier. When one compares the number and spatial distribution of collection points between the early and late nineteenth century, the enormous expansion becomes evident. Given the enormous spatial expansion of the commodity frontier the necessity to construct the many warehouses for intermediate collection of the coffee beans is obvious. The various sources on which this map is based are included in the GIS-database.

Made by the author.

To start, the inland transport of coffee beans had been a concern for the colonial organisations since the beginning of the commodity's more permanent cultivation in the eighteenth century. At that time, the Dutch East India Company was committed to keeping the supply lines as short as possible.[68] However, as it became progressively clear in the eighteenth century that the bushes grew better in the more remote mountainous areas, the distances from Batavia increased progressively and the transport became increasingly cumbersome.[69]

The problem was further exacerbated by the large increase in coffee supplies to Batavia before 1800, with the largest annual delivery reaching almost 5.4 million kilograms.[70] In addition, Priangan was very inaccessible during this period, as there were virtually no direct roads.[71] The poor condition of the infrastructure in large parts of the hinterland continued well into the nineteenth century despite the fact that the colonial government started a systematic and large-scale effort in improving the roads and bridges from the beginning of that century.[72]

The presence of land infrastructure did not necessarily mean that it functioned well, was caused by the fact that the pedatis carrying the beans were very destructive for the roads.[73] This would have far-reaching consequences for the local population, who were obliged to deliver the coffee all the way to Batavia. Initially, this was done by human labourers carrying coffee bags themselves, but eventually, draft animals and carts became the norm. The colonial organisations steered these practices by taking advantage of the regional hierarchy of distribution of power and privileges.[74]

68 Breman, *Koloniaal Profijt*, 79.

69 Breman, *Koloniaal profijt,* 179.

70 In the year 1793, 86.686 piculs were delivered in Batavia. Breman, *Koloniaal profijt,* 83.

71 Ibidem, 30.

72 Ibidem, 184 and 241.

73 Ibidem, 127 and 179-180.

74 Ibidem, 157.

3.2.3 Priangan Coffee Warehouses

Until the second half of the nineteenth century, the harvested coffee beans first had to be brought to one of the five central Kotas, the main courts of the Regents. The Regent was a hierarchical category created by the Dutch East India Company for a diverse group of local rulers in the Priangan. From the eighteenth century onwards, they were the highest type of local ruler. However, due to the repeated interference by the Dutch East India Company, only five of them would ultimately remain as the head of a specific territory and population.[75] It was from five Kotas, that their population had to be brought to Batavia.[76]

The instructions of both the Dutch East India Company and the Dutch Colonial State to construct inland warehouses across Priangan, consisted of a direct intervention in the logistical layer of the coffeescape. Consequently, these buildings reveal the manner in which these organisations attempted to improve the ease with which coffee was delivered to Batavia. Hence, the following reconstruction focuses on warehouse types, their locations and spatial distribution, and their numbers.

The warehouse locations were reconstructed for this research based on their presence on two historic maps, one dating from 1857 and the residency from 1894.[77] This collection was supplemented by data provided by Breman, particularly regarding the shipping warehouses that were not depicted on any of these maps. This warehouse type was first established by the Dutch East India Company at locations where the coffee was transhipped from roads to rivers for further transport by praauwveren (pirogues) to Batavia.[78] Two of these were constructed before the middle of the eighteenth century along two northern-flowing rivers.[79] Their locations mark the places where these became navigable, namely at the northern slopes of the mountainous northern border of Priangan (Figure 3.8).

75 Ibidem, 24 and 27.

76 Referred to by the colonial administration as *hoofdnegorijen*. Breman, *Koloniaal profijt,* 179.

77 *Topographische kaart der Residentie Priangan Regentschappen*, published 1894, Topographische Inrichting Den Haag, 1:100.000, Leiden University Library, Digital Collections, no. 04892. W.S. Versteeg, *Kaart van de Residentie Preanger Regentschappen*, Leiden University Library, Digital Collections, no. KIT 645494-2.

78 Breman, *Koloniaal profijt,* 72 and 80.

79 Ibidem, 79.

FIG. 3.8 The coffee warehouse next to the Ci Tarum near the settlement of Tjikao. The pirogues waiting for cargo belonged to the Bataviaasch Prauwenveer (BPV), the organisation that managed the shipment of the coffee to Batavia.

Source: 'Koffiepakhuis te Tjikao in de in de Preanger Regentschappen met bootjes van het Bataviaasch Praauwen Veer (BPV)', Woodbury & Page (Batavia), Leiden University Library, Digital Collections, KITLV Southeast Asian & Caribbean Images, no. 3029.

In addition, there have been several transhipment warehouses close to Batavia. However, this research could not determine how important they were or how long they remained in use. One study suggests that they did not play a significant role for long due to the poor navigability of the rivers surrounding Batavia.[80] Moreover, the short distances to be bridged over water to Batavia, compared to the very long distances from Priangan to reach them, suggest that the role of these smaller rivers near Batavia in the overall improvement of the coffee chain's logistics was, in either case, quite limited.

80 Ormeling, "Het transport van de koffie tijdens het Cultuurstelsel", 199-206.

Next to the two warehouses of the Dutch East India Company, the colonial government instructed the construction of intermediate warehouses in Priangan at the beginning of the nineteenth century. It is likely that these are among the 42 that are shown on the 1857 map.[81] They probably fulfilled a general role as a collection point for all coffee fields belonging to the forced cultivation regime. At the very least, they do not seem to occur close to specific types of fields.[82]

In 1870, the colonial government again decreed the establishment of warehouses. The reason for this was twofold. Firstly, the amount of coffee to be transported to Batavia had increased enormously. In previous years, it had always been high, but it peaked in 1855 with almost 17 million kilograms.[83] Second, the existing collection points proved to be too far away from the new coffee fields of the increasingly distant commodity frontier. They could hardly be reached by the local inhabitants during their corvée shifts.[84] Especially the immense coffee gardens high in the mountains had far-reaching negative consequences. Because of this decision, the transport time of beans from there to a central collection point increased from 3 days to as much as 40-50 days.[85]

Since the residency map includes 92 coffee warehouses, it means that after this decision, their number has more than doubled compared to 1857.[86] Important to our research is that the new cases represented both a spatial expansion to new areas and a densification of areas already populated by warehouses.[87] This suggests that they were built in the slipstream of the coffee frontier and were intended to improve the efficiency of transport to Batavia.

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81 Their existence is known from written sources. However, based on that it is difficult to determine what their exact numbers and locations were. Breman, *Koloniaal profijt,* 72.

82 This follows from the combination of the warehouse dataset with that of all fields within the forced Cultivation System.

83 Breman, *Koloniaal profijt,* 255.

84 Ibidem, 179.

85 If one also takes into consideration the large quantities that had to be transported, it is not difficult to acknowledge the enormous transport burden on the local population. Ormeling, "Het transport van de koffie tijdens het Cultuurstelsel", 201. Breman, *Koloniaal profijt,* 316.

86 This interpretation is based on the fact that there were 82 warehouses for 62 districts and that, as far as could be established, no additional regional warehouses were constructed after the introduction of the district type.

87 Moreover, the presence of multiple warehouses in an extensive *Alang Alang* landscape in other districts of Priangan reinforces the idea that coffee was indeed previously cultivated there.

3.2.4 Constructing Roads to Connect Coffee Fields to Batavia

In the nineteenth century, the colonial government commissioned the construction of warehouses at junctions of land infrastructure, often of different types, such as footpaths and roads suitable for carts. The idea behind this must have been that they could be reached by different means. In addition, they were scattered all over the Priangan at intermediate locations between the coffee fields and the road-network that connected them to Batavia.

To understand how this marked a break with the situation before 1800, we begin briefly with the delivery practices under the Dutch East India Company. Although this entity made the delivery of coffee mandatory, it did nothing to improve the road infrastructure in Batavia's hinterland. This attitude might be explained by indifference regarding how the deliveries took place. It was left to the local inhabitants to manage these services for their lords.

Initially, humans transported the beans in bags on their heads or shoulders along footpaths and small roads.[88] Of course, this was the most limited option in terms of the distances involved and the volumes in which the transport could take place.[89] This became progressively problematic given the increasing volumes. Improvements were only possible by using pack animals, in this case, buffalo owned by the local population. However, their use required better roads and an extensive network across Priangan before it could offer any real relief.[90] Hence, from the early nineteenth century, in addition to stimulating the use of pack animals and carts for the transport of beans, the colonial state began to order the construction of new roads.Initially, humans transported the beans in bags on their heads or shoulders along footpaths and small roads.[91]

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88 Breman, *Koloniaal Profijt*, 79.

89 Ibidem, 262.

90 Ibidem, 30.

91 Breman, *Koloniaal Profijt*, 79.

92 Ibidem, 262.

93 Ibidem, 30.

Hence, from the early nineteenth century, in addition to stimulating the use of pack animals and carts for the transport of beans, the colonial state began to order the construction of new roads.

The most important road on Java became the Grote Postweg (Great Postal Road). This road was initiated by Governor-General Herman Willem Daendels (1808-1811) as his first over-all plan to improve the infrastructure of all of Java. The road connected the west and east coasts of the island and was completed in 1811. Depicted in red on Figure 3.7. However, this road did not bring any improvement for the transport of coffee, as initially the commodity's transport over it was prohibited.[94] In addition, the road only crossed a small northern part of Priangan and in some locations lay at great distances from the coffee frontier in the south.

As a consequence of not being able to use the Grote Postweg, Breman notes that alternative, unplanned, roads emerged to deliver the coffee to Batavia using buffaloes. Unfortunately, it could not be determined from his observations where these roads exactly lay. Although Breman indicates that they were next to each other and close to the Grote Postweg, it remains unclear in which area(s) and over what distances this was the case.[95]

It could mean that the two alternative routes over the mountain ridge in the northwest of Priangan to reach Batavia were of great importance for the transport of coffee, indicated in yellow on Figure 3.7. This hypothesis is in accordance with the known congestion caused by buffalo caravans consisting of hundreds of animals, which resulted in many fatalities among the animals and were extremely damaging to the roads.[96] This happened particularly during the harvest periods, when the deliveries to Batavia could take weeks.[97]

From the early nineteenth century onwards, pack animals increasingly became replaced by so-called pedatis (Figure 3.9). This shift theoretically made transport easier and more efficient. However, in this case too, the roads had to be of sufficient quality, as these caravans involved hundreds of pedatis and their draught animals.[98]

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94 Ibidem, 127 and 179.

95 Ibidem, 128.

96 Ibidem, 179.

97 Ibidem, 197.

98 Ibidem, 180 and 240.

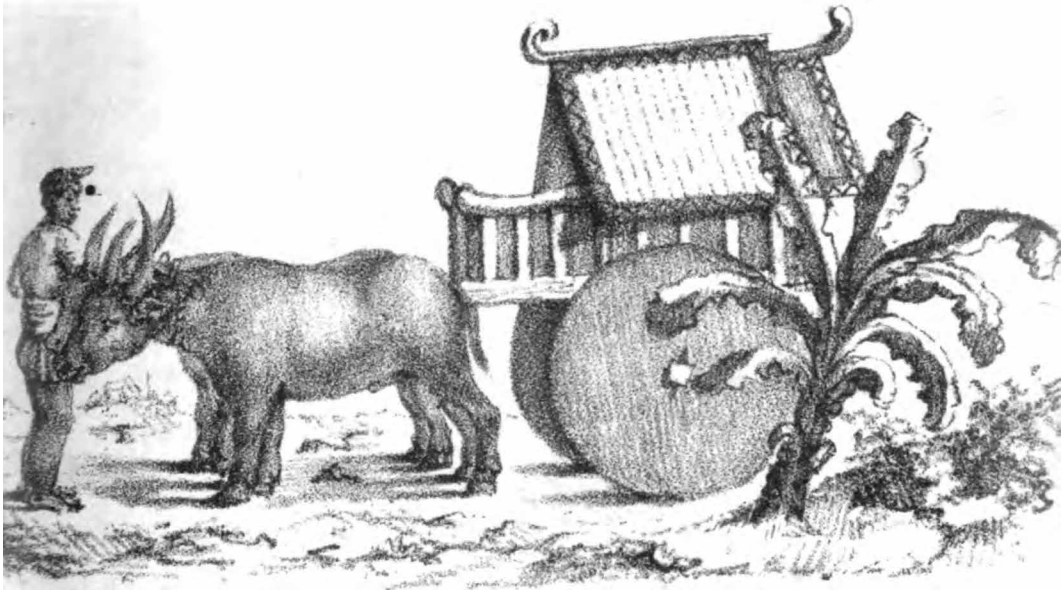

FIG. 3.9 Image of a pedati, 1830.

Source: Andries de Wilde, Berigten betreffende de landschappen, genoemd de Preanger Regentschappen, op Java gelegen, 1830.

It is in this context that the colonial state ordered the construction of so-called 'batteriroads'. These were specifically intended for the transport of goods by carts and laid out along routes that connected the main settlements to the warehouses.[99] The network of this road type expanded significantly as they were being constructed all over Priangan.[100]

Tellingly, in 1830 the colonial state opened the Grote Postweg, a road that connected both the island's interior and coastal areas, to facilitate the transport of colonial goods to Batavia and other port cities.[101] It is inevitable that this also involved coffee. This is supported by the fact that on the residency map, fifteen coffee warehouses were located directly next to it. Moreover, as part of the introduction of the Cultivation System, many secondary north-south oriented roads were constructed in connection with the Grote Postweg.[102]

99 Ibidem, 197.

100 Ibidem, 240

101 Cor Passchier, *Bouwen in Indonesië 1600-1960*, (Volendam, 2016), 61.

102 Idem.

What started as a somewhat indifferent attitude of the Dutch East India Company towards infrastructural interventions on land developed into the large-scale construction of roads by the Dutch colonial state from the nineteenth century onwards. This change resulted in an extensive road network suitable for pedatis and that connected the coffee fields to the spatially distributed regional warehouses. The fact that eventually the Grote Postweg also became integrated into this logistical system is significant for the importance that the state attached to the successful transport of the enormous quantities of coffee to Batavia.

3.2.5 Water Transport: Rivers and Canals

The Dutch East India Company embraced water transport early on as an easier alternative compared to the aforementioned difficulties of land transport.[103] Of special importance for the delivery of coffee to Batavia where the Citarum and Manuk rivers. They originated in different parts of Priangan and flowed into the Java Sea north of the island. However, these rivers were only complementary to the road system, as they were only navigable from the borders of the Priangan downstream.

In the nineteenth century, the easternmost river of Priangan also became used for coffee shipments to the island's southern coast.[104] Yet, it could not be established how structural, important, and long-term this was. It also remains unclear what the next destination for the coffee was, whether it was sent to Batavia or directly to the Netherlands. Still, the integration of this extra river in the coffee export system in pace with the spatial development of the frontier indicates that rivers were used for exporting coffee from specific parts of Priangan.

For a complete analysis, it is also important to consider the disadvantages associated with river transport. Firstly, in the eighteenth century, the northern regions through which the rivers flowed were quite unsafe due to looting gangs. A similar problem existed in the deltas of the most favourable rivers, as these were frequently raided by pirates in the early period.[105] For these reasons, the Dutch East India Company had ordered the transport of coffee via rivers that were less favourable in terms the time it took to transport the coffee to Batavia.[106]

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103 Which, in reverse, might also partly explain why the Dutch East India Company made few attempts to improve the land infrastructure.

104 According to Breman the one at Bandjar was established in 1845. Breman, *Koloniaal Profijt*, 240.

105 Breman, *Koloniaal profijt*, 22, 39, 187. Ormeling, "Het transport van de koffie tijdens het Cultuurstelsel", 201 and 203.

106 Ibidem, 202.

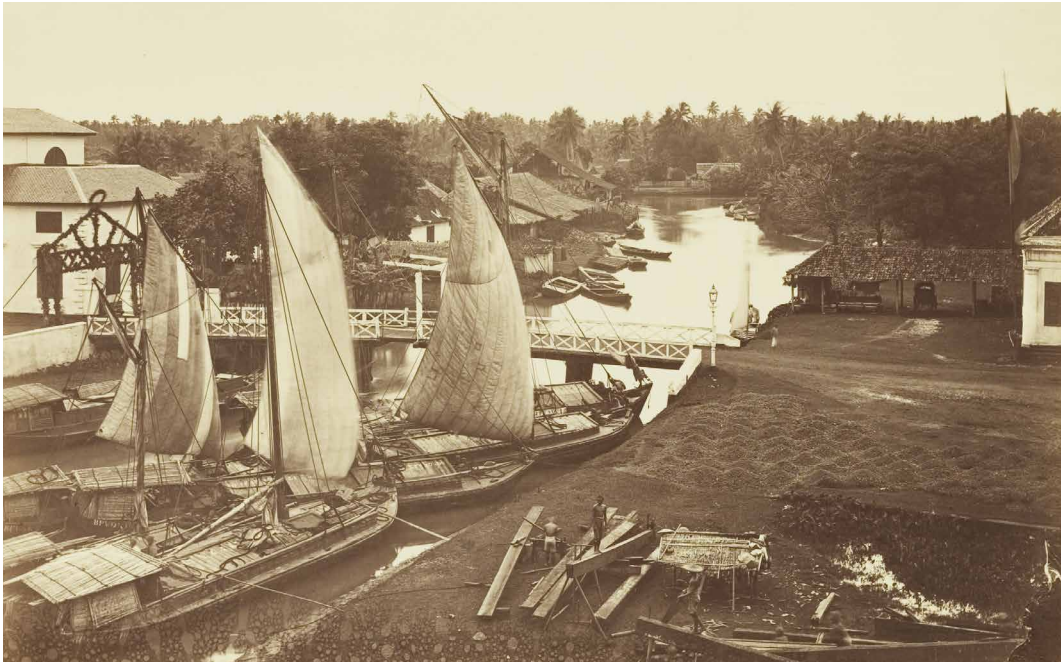

FIG. 3.10 Photo of seven pirogues in Batavia around 1872. This was the type of vessel that was used on a large scale for the river and coastal transport of coffee beans from Priangan to Batavia in the eighteenth and nineteenth centuries. Those in the photo belonged to the Bataviaasch Prauwenveer. This entity carried out the coffee transport along this route in the second half of the nineteenth century.

Source: 'Prauwen van het Bataviaasch Praauwen Veer (BPV) bij de Djembatan Berak (Schijtbrug) te Batavia', Woodbury & Page (Batavia), Leiden University Library, Digital Collections, KITLV Southeast Asian & Caribbean Images, no. 3211.

To add to the problems, from the eighteenth century onwards, the rivers began to silt up. This was caused by soil erosion, a process that intensified due to the deforestation of the highlands associated with the construction of ever-larger coffee gardens.[107] See Figure 3.7 for the upper segments of the main rivers used for transportation and how these flowed through the areas with all the coffee fields (dashed in light turquoise). Despite these difficulties, river transport was used from the eighteenth until the end of the nineteenth century, probably because it was, at least from the colonial perspective, the most efficient option to get the beans to Batavia.

107 Importantly, this concerns both coffee gardens located in the mountainous area through which these rivers flowed in the Priangan, as well as in the area to the north of it. However, the synthesised infrastructure map does not depict any coffee fields outside the nineteenth-century boundaries of the Priangan. Ormeling, "Het transport van de koffie tijdens het Cultuurstelsel", 202. A process which is also described by Moore, "Commodity Frontiers", 423.

Yet the deteriorating navigability of the rivers was such that it prompted various organisations in Batavia to improve the inland water infrastructure. Although several of these plans were never executed or failed, the attempts are worth mentioning because they reveal the concerns and ambitions of the colonial organisations who initiated them.[108] We limit ourselves to some examples of this type of intervention in the physical landscape.

A first example entailed the idea of connecting the south-north oriented rivers by means of intermediate canals to avoid the dangerous sea route. Another example of a canal is the one that Governor General Van Imhoff designed in the eighteenth century between Batavia and Buitenzorg in the south. From there, he intended to extend the canal towards Priangan. Indeed, it was used for the transport of coffee from Buitenzorg via Meester Cornelis to Batavia. However, it eventually could not be used anymore due to siltation.[109]

In the early nineteenth century, a plan was formulated to direct the coffee via one of the rivers west of Batavia instead of the routes east of the city. In this case, the coffee would arrive at a settlement where a shipping warehouse would be erected. The idea was to transfer the coffee there onto smaller ships to deliver it to Batavia via the Mookervaart, a canal that had already been constructed in the seventeenth century. However, this also proved to be a cumbersome project, as this canal too silted up.[110]

What these examples have in common is that they demonstrate how the colonial organisations aimed to improve the connection between Priangan and Batavia. Even though many of these attempts remained plans or failed, and some, like the Mookervaart, were constructed long before the cultivation of coffee, it is difficult to imagine that these organisations were not considering ways to enhance the flow of coffee through space while undertaking these initiatives.

Finally, the actual coffee transport was carried out by prauwveren (pirogues), a mode of transport that was entirely controlled by Dutch colonial organisations. It was originally established by the Dutch East India Company as part of its monopoly. Subsequently, the colonial government maintained complete control over it

108 Ormeling, “Het transport van de koffie tijdens het Cultuurstelsel”, 205.

109 This canal was also intended for irrigation purposes for the agricultural land around Buitenzorg. Arend Jan van der Aa, *Biographisch woordenboek der Nederlanden*, vol. 9, (Haarlem, 1860), 14. Ormeling, “Het transport van de koffie tijdens het Cultuurstelsel”, 206.

110 Ormeling, “Het transport van de koffie tijdens het Cultuurstelsel”, 206.

until 1854.[111] In that year, river transport became privatised. As early as 1855, the Bataviaasch Prauwenveer (BPV) was established by several Batavian trading houses in response. In the remainder of the nineteenth century, BPV was the most important carrier of coffee from Priangan to Batavia.[112]

Eventually, river transport remained the most important mode of coffee deliveries up to and including the nineteenth century.[113] Therefore, we must conclude that the colonial organisations used the rivers because of the ease of water transport and the opportunities that the rivers offered to transport coffee out of Priangan from different directions to the coast. In their desire to transport the large quantities of coffee from Priangan to Batavia, the existing rivers and the canals attempted by the colonial state were – despite their own hazards – a crucial addition to the cumbersome practises of long-distance transport over land.

3.2.6 Constructing Railways to Improve Overseas Export of Agricultural Products

Even though the road and water infrastructures left much to be desired, railway lines were developed relatively late in the Dutch East Indies.[114] This applies to both plan-making, the first dating from 1858, and their construction.[115] Two companies constructed the railway that would eventually connect Batavia with Priangan. In 1873, the Nederlands-Indische Spoorweg Maatschappij (NISM) opened the first track between Batavia and Buitenzorg. However, a state commission already planned this section in 1860. Hence, it was not an initiative of the NISM. In addition, this track was not initiated for transporting coffee, nor any other goods from Java's interior to Batavia.

111 Arjan Veering, "Knopen in het maritieme netwerk, vorming van het havenstelsel', in: Wim Ravesteijn and Jan Kop (ed), *Bouwen in de Archipel, burgerlijke openbare werken in Nederlands-Indië en Indonesië 1800-2000*, (Zutphen, 2004), 134.

112 Breman, *Koloniaal profijt*, 269. Veering, "Knopen in het maritieme netwerk", 134. The Bataviaasch Tjuniaveer was established in 1864. *Almanak van Nederlandsch-Indië voor het jaar 1867*, vol. 40, (1867), 494.

113 Breman, *Koloniaal profijt*, 68.

114 That is, compared to their construction in the Netherlands. Guus Veenendaal, De *spoorwegen in Nederlands-Indië 1864-1942, op smalspoor door tropische Nederland 1864-1942*, (Zwolle, 2020), 21.

115 Evert Cornelis Godée Molsbergen, *Gedenkboek Reynst & Vinju*, *1836-1936*, (Batavia, 1936), 29.

Instead, the track was constructed as a response to the poor state of the Grote Postweg and rising traffic between the two administrative centres.[116] The section from Buitenzorg through the entire Priangan to connect with the rest of Java was built by the Dutch Indies State Railways (Staatsspoorwegen, SS). This company took over the construction as the NISM faced ongoing financial difficulties.[117]

The transport of agricultural commodities from the hinterland to the capital's port only became a consideration when the colonial state extended the line through Priangan. The takeover of its construction by the SS from the NISM was explicitly motivated by the hope of the state to open up more regions for large-scale agriculture.[118] Products were clearly intended for overseas transport.

The extension from Buitenzorg to the east was carried out in several stages, and it was only in 1894 that the eastern border of Priangan was reached.[119] However, the main town in Priangan, Bandung, was already connected in 1884. Tellingly, in that year, 9.5 million kilograms of coffee from the forced system were transhipped from there to Buitenzorg. In the latter town it was probably further transported to Batavia by the NISM, who still operated this section.[120]

This amounted to a large portion of the total coffee volume of 12.3 million kilograms originating from the entire Priangan region at the time and delivered to Buitenzorg in the same year.[121] This indicates that private enterprises also gratefully utilised this new means of transport for sending their yields to the sea. The fact that the distances from each enterprise to the nearest railway station were stated in various editions of the *Handboek voor cultuur- en handels-ondernemingen in Nederlandsch-Indië (1888-1940)* will also have been related to this.[122] It helped people to reach the estates and goods to leave.

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116 Veenendaal, "De locomotief van de moderniteit, Aanleg van het net van spoor- en tramwegen", in: Wim Ravesteijn and Jan Kop (ed), *Bouwen in de Archipel, Burgerlijke openbare werken in Nederlands-Indië en Indonesië 1800-2000*, (Zutphen, 2004), 65. Veenendaal, *Spoorwegen in Nederlands-Indië*, 29 and 63.

117 Passchier, *Bouwen in Indonesië*, 63. Veenendaal, *Spoorwegen in Nederlands-Indië*, 24 and 53. Ref. *Korte geschiedenis der Nederlandsch-Indische spoor- en tramwegen*, 1928, 84.

118 Passchier, *Bouwen in Indonesië*, 64. Veenendaal, *Spoorwegen in Nederlands-Indië*, 53.

119 Veenendaal, *Spoorwegen in Nederlands-Indië*, 260.

120 Unfortunately, the table does not reveal whether this number is in piculs or kilograms. However, with regard to the yields in the previous period as recorded by Breman, kilograms is the most likely unit.

121 Buitenzorg was then still the endpoint of the state's railway and the starting point of the NISM line to Batavia. Consequently, the coffee had to be transhipped. Another implication is that the statistics of the state's railway do not reveal the further journey of the coffee. Furthermore, it is probable that not all coffee was exported, as it is likely that it was also consumed on Java itself, even if it was only a small part. *Jaarverslag van de Staatsspoorwegen in Nederlandsch-Indië*, Attachment no. 43, 1884. Dutch National Railway Museum Utrecht.

122 *Handboek voor cultuur- en handels-ondernemingen in Nederlandsch-Indië*, (Amsterdam, 1888-1940).

In the years after the railway's construction, coffee was loaded onto trains at various stations across the Priangan.[123] On top of that, in Bandung, before 1921, a large central coffee establishment was built next to the railway station for the collection of coffee from the forced cultivation fields.[124] Although this proofs that the harvested beans reached the railway, on a Priangan scale, the line was still located relatively far removed from many of the coffee fields, especially the larger-scale agricultural enterprises in the south.

Still, successive colonial officials of the Priangan residency in the early twentieth century argued that improvements were necessary and observed a need for supply roads to the main railway line to strengthen connections with agricultural enterprises. Moreover, they noted that constructing these did not necessarily proceed quickly enough.[125] With the railways connecting Priangan with Buitenzorg and Batavia, the enormous challenges of coffee transport that had troubled the colonial organisations in the eighteenth and nineteenth centuries were finally resolved.

3.2.7 Batavia: Port and City

The foregoing sections were entirely devoted to the development of the logistical layer of the coffeescape in Priangan as the hinterland of Batavia. The focus hereafter is on the buildings, (port) infrastructures, and transhipment facilities in that city which enabled colonial state organisations and businesses to send coffee across the ocean by ship. We start with analysing various factors why Batavia became the logical port city to send the coffee to in the first place.

In the period central to this study, Batavia faced no serious competition of existing or emerging ports on the northern coast of the island for the export of coffee.[126] This was partly caused by the natural landscape and the social context. Regarding the

123 These figures are based on the official statistics of the State Railways of the Dutch East Indies. *Jaarverslag van de Staatsspoorwegen in Nederlandsch-Indië*, Attachment no. 43, 1884. Dutch National Railway Museum Utrecht.

124 Kaart van de Gemeente Bandoeng, 1921, 1:5000, Leiden Library University, no. KIT541196. The establishment seems to have been constructed despite Resident Gustaaf Oosthout advise against it. He saw no future in the cultivation of coffee in the Priangan. However, the construction was in line with the opinion of the official who oversaw the crops in the residency. Dutch National Archive, 2.10.39 Inventaris van de Memories van Overgave, 1852-1962 (1963), inv. no. 22 (1907), 13.

125 Dutch National Archive, 2.10.39, Inventaris van de Memories van Overgave, inv. nos. 23 (1911) and 24 (1912).

126 Although there was certainly some smuggle in the earliest period.

first, the pirogues could navigate both the downstream parts of the northern rivers and the Java Sea. Consequently, there was no need for intermediate transhipment places along that coast.[127] This, combined with the limited economic and legal freedom of the local inhabitants prevented the development of any commercial activities in the delta's of these rivers. Foreign investors were also unable to establish new ports for legal reasons and the failure for a local market to develop. Furthermore, the city of Banten, west of Batavia, was simply too far away to be considered by colonial state organisations and businesses as an export port for Priangan coffee.

The Dutch East India Company also played a crucial role in the logistical layer becoming entirely focused on Batavia by subjugating the port city Cirebon in the north east of the Priangan. This is important as it is likely that the first deliveries of coffee to the Netherlands were directly sent from Ceribon. However, the Dutch East India Company destroyed the coffee fields in its hinterland to maintain a high price.[128] As part of that campaign, the connections with this port city and its 'Cheribonse Preangerlanden' hinterland were severed.[129] Consequently, Batavia simply remained the only option for structural overseas coffee export thereafter.[130]

After arriving in Batavia the coffee beans were stored by colonial state organisations and businesses in warehouses to synchronise the deliveries of harvests with the available shipping space. In the first phase, between 1700 and 1800, coffee was collected and stored in warehouses built and owned by the Dutch East India Company. The first buildings used by the Dutch East India Company for this purpose were the warehouses located directly to the sea, and which became incorporated into a defensive structure in 1619, the so-called Kasteel (Castle).[131] (Figure 3.11). This is consistent with the very large deliveries of coffee by water using the pirogues. Of course, this location is also ideal for the subsequent transport overseas.

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127 This was not advisable for this type of ship under all circumstances. Ormeling, "Het transport van de koffie tijdens het Cultuurstelsel", 201 and 205.

128 Atlas of Mutual Heritage: Cirebon (https://www.atlasofmutualheritage.nl/page/4256/cirebon), 15-8-2023. The export since 1713 initially took place from Ceribon but was subsequently moved to Batavia where it flourished. It is plausible that the export of coffee from Priangan the via Ceribon ended because of the destruction of coffee trees by local farmers during a short period of British rule. Breman, *Koloniaal profijt*, 380.

129 Ibidem, 70.

130 Yet, for an exact reconstruction of the extent of coffee cultivation in the hinterland of Ceribon, a precise spatial reconstruction would be required. However, no suitable sources for this were found during this research. Breman, *Koloniaal profijt*, 48.

131 The reconstruction was based on the archives of the office of the Dutch East India Company in Batavia. Day registers, Overgekomen brieven en papieren (OBP) section of the VOC archives, (https://www.nationaalarchief.nl/en/research/index/nt00348?activeTab=nt&sortering=ove_vestiging&volgorde=asc), database version 11-10-2020, no. 1777.

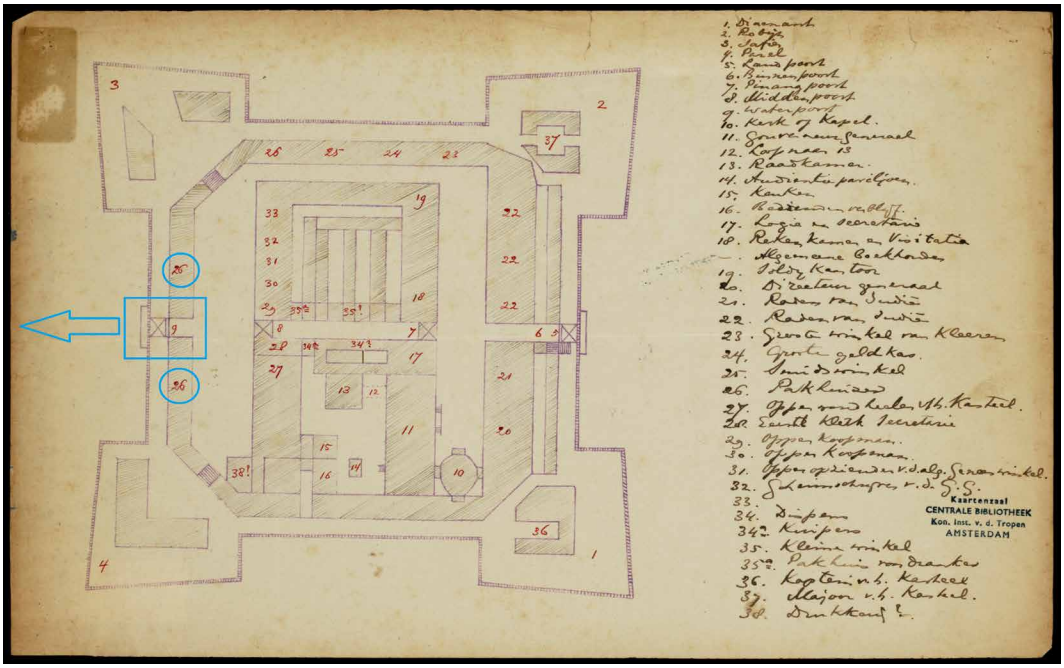

FIG. 3.11 Nineteenth-century floor plan reconstruction of the Castle in Batavia as it most likely has looked before the nineteenth century. No. 9 (in the blue square) refers to the Water Gate, and no. 26 refers to the two warehouses next to it where the coffee was stored. The blue arrow indicates the direction to the sea.

Source: '[Plattegrond van kasteel te Batavia]', Leiden University Library, Digital Collections, Dutch Colonial Maps KIT, [1800], no. KK 164-03-10.

A second location where coffee was stored during the period of the Dutch East India Company was a cluster of warehouses called the Vereenigde Oost-Indische Company Pakhuizen Westzijde (i.e., Dutch East India Company warehouses west side). These were built in 1718, around the time when coffee cultivation in the hinterland began to expand. The buildings were located opposite the Castle and were separated from it by the Grote Rivier (Great River), which flowed into the Java Sea at this location.[132]

132 Warehouses of the Dutch East India Company were also located on the eastern side of the city. However, it could not be proven that these were used for coffee. If that were the case, they could be considered less favourably located in relation to the sea. Because they were further away and had less advantageous infrastructural connections.

TOC

It is relevant that the canal surrounding the western warehouse complex is located in the district closest to the sea and that the adjacent waterway possibly belonged to one of the widest in the city.[133] Therefore, these warehouses were arguably even more suitably located for the storage of coffee than those in the Castle.

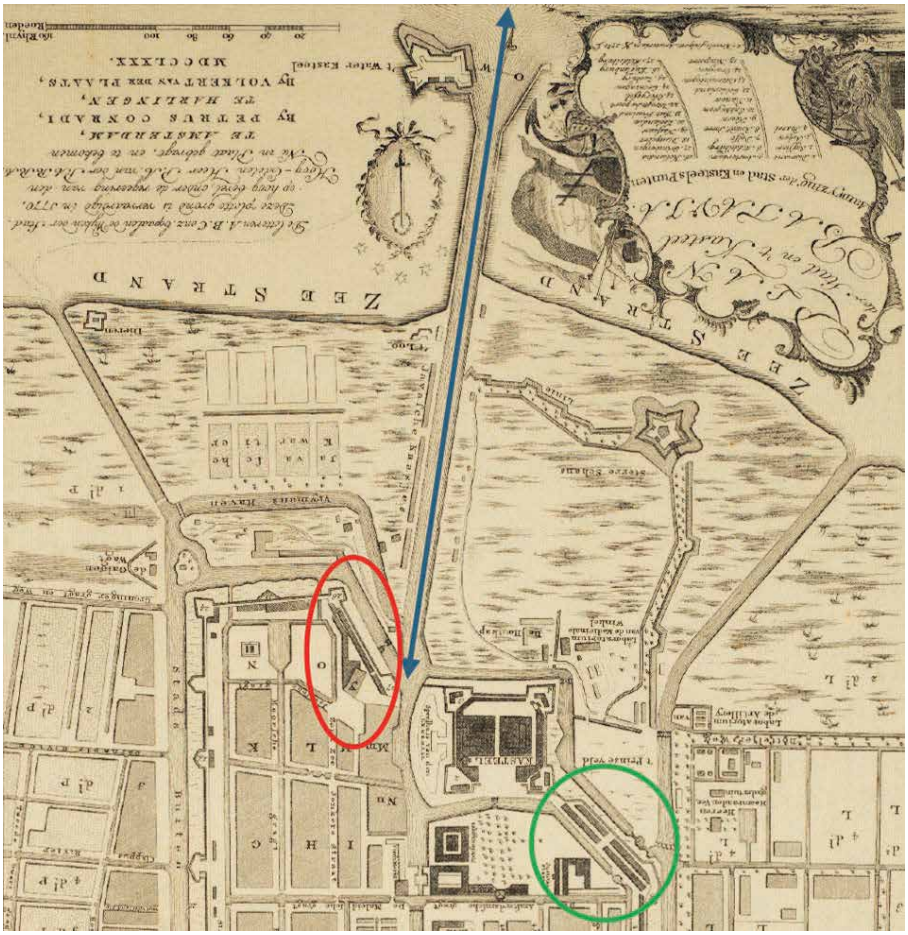

FIG. 3.12 Map of Batavia from 1780. The second oldest coffee warehouse complex (within the red oval) was located at the foremost point where the Great River turned into a canal (blue arrow) in the direction of the Java Sea. As such, it was the last onshore location before the coffee was transported to the Netherlands. The warehouses located on the east side of the city are within the green oval. North is at the bottom.

Source: 'Plan der Stadt en 't kasteel Batavia', Abraham van Krevelt, 1780, Leiden University Library, Digital Collections, Dutch Colonial Maps KIT, no. KK 161-01-05. Edited by the author.

133 To determine this, a GIS analysis is required. However, considering the enormous changes in the urban fabric of Batavia between 1780 and today, this was not feasible within the current research.

FIG. 3.13 Photograph of one of the warehouses of the Dutch East India Company, constructed in 1718 as part of the second storage complex in the western part of the city. Since the construction took place during the time when coffee cultivation was on the rise, and because it was on a much larger scale than those in the Castle, it is almost inevitable that coffee was stored there and that the buildings may even have been specially built for this purpose.

Source: 'Pakhuizen te Batavia', ca. 1920, Leiden University Library, Digital Collections, KITLV Southeast Asian & Caribbean Images, no. A675.

This was because it meant that the coffee could easily be delivered there from overseas by pirogues and picked up for transhipment to the seagoing vessels. Hence, the choice to build the new warehouses at this location can be seen as an indication of the organisations' desire to ensure that the transhipment of coffee over water to and from these buildings would run as smoothly as possible.

All Dutch East India Company's warehouses were thus located close to the sea. Although this makes sense for the coffee that was brought in from overseas, it does raise the question of how the coffee transported over land reached these warehouses. It has not been possible to answer this question in a satisfactory manner, particularly because the role of the Ciliwung (Grand River) in the supply of coffee could not be determined for the final section before reaching the sea. However, the impression is that it was not very suitable for long-distance transport due to its shallowness and other obstacles.

The aim of the Dutch East India Company to ease the overseas transport of coffee by pirogue shipping is likely to have been decisive for choosing the warehouse locations. This is also in line with the storage of coffee before 1800 on the island of Onrust (unrest), located in the north-western corner of the Bay of Batavia.[134] This island played an important role in the shipping operations of the Dutch East India Company, especially as a place for ship provisions and maintenance. It is likely that the warehouses there were utilised when there was insufficient capacity in Batavia. However, it is also possible that the storage of coffee at this location occurred on a more permanent basis. More structural storage may have been prompted by the fact that seagoing ships docked there anyway. This would prevent the pirogues from being used twice, namely for delivery to the warehouses and from there to seagoing vessels.

In the nineteenth century, when the Dutch colonial state and the Dutch Trading Society became the main coordinators of the Javanese coffee chain, we observe continuity and change in the locations where coffee was stored by these colonial organisations in Batavia. The former warehouses of the Dutch East India Company remained in use throughout the nineteenth century. In addition, new warehouses were constructed on the site of the Castle that was demolished by Governor General Herman Willem Daendels in 1809. The fact that most of these warehouses were also built probably by the Dutch Trading Society on the seaside of the city gives the impression that, fundamentally, little changed in the coffee transhipment and storage practices in this period: coffee was transported by order of the Dutch Trading Society by pirogues. It remains unclear how exactly the large quantities of coffee sent to Batavia overland by the Dutch East Indian Company and the Dutch Trading Society using human transport and/or pedati entered the city.

134 The reconstruction was based on the archives of the office of the Dutch East India Company in Batavia. Overgekomen brieven en papieren (OBP) section of the VOC archives, (https://www.nationaalarchief.nl/en/research/index/nt00348?activeTab=nt&sortering=ove_vestiging&volgorde=asc), database version 11-10-2020, no. 1777.

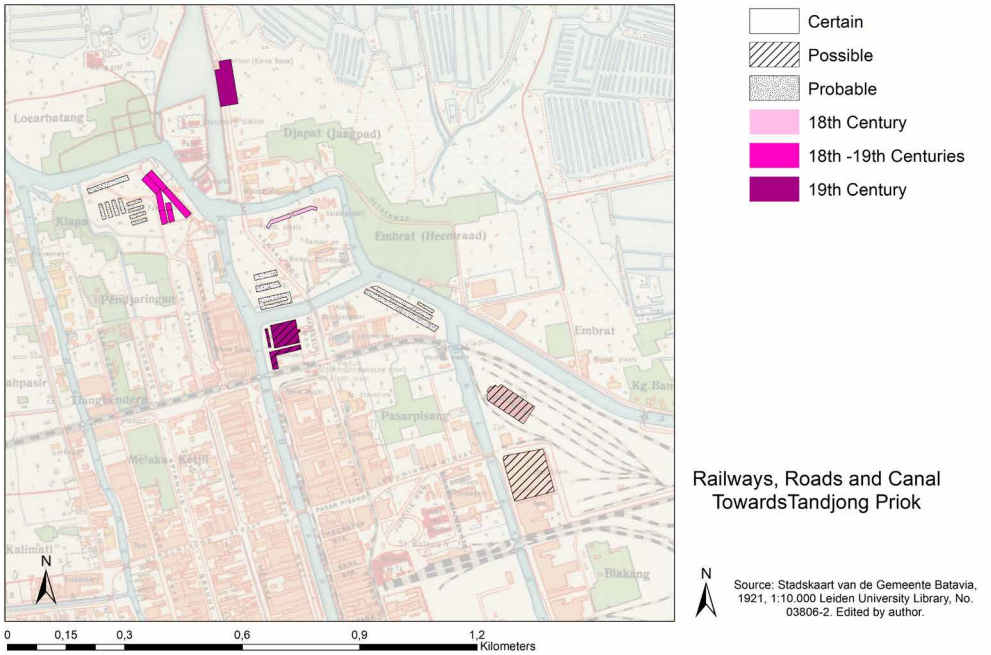

FIG. 3.14 Overview map of coffee warehouses located in the port city of Batavia. Indicated are the periods in which they functioned and the certainty regarding their use for storing coffee. As the sea is to the north, most warehouses were concentrated in the seaside part of the city. An exception is the two warehouses adjacent to the railway establishment in the eastern part of the city. It is known that before 1918, coffee arriving by rail was stored in such warehouses instead of in the modern port. However, it proved impossible during this study to determine whether this applied to these specific buildings. Hence, the classification 'possible'.

Sources: "Nederlandsch-Indische Havens", Indonesia, Vol. 5, Departement der Burgerlijke Openbare Werken, (Batavia, 1920), 22. 'Algemeene kaart van Nederlandsch Oostindie, voorgesteld in agt verenigde bladen: met hoogst desselfs toestemming opgedragen aan Zijne Majesteit de Koning der Nederlanden, Prins van Oranje Nassau, Groot Hertog van Luxemburg etc.', G.F. Baron van Derfelden van Hinderstein, 1839-1855, sheet 7, Leiden University Library, Digital Collections, Dutch Colonial Maps KIT, no. KK 112-05-01/113-01-04. Background: 'Stadskaart van de Gemeente Batavia', 1921, 1:10.000, Leiden University Library, Digital Collections, Dutch Colonial Maps KIT, no. KK 161-02-08/09.

However, at the end of the nineteenth century, a dedicated coffee warehouse was constructed in the old port, indicating a shift in the mode of transporting coffee beans from the Priangan to the sea. What is special about this warehouse is that it was clearly intended for coffee arriving by rail. This is evident from the fact that it was located at the end of a railway line to the east of the city, as indicated by the yellow arcs in Figure 3.15. Since the line appears to be a direct extension of the line from Buitenzorg (indicated by the green arrow), it suggests that the NISM deemed it beneficial to deliver coffee from Batavia's hinterland directly to its port. Apparently, they assumed, with or without close deliberation with the colonial government, that the volume of coffee arriving would be sufficient to necessitate a dedicated warehouse.

TOC

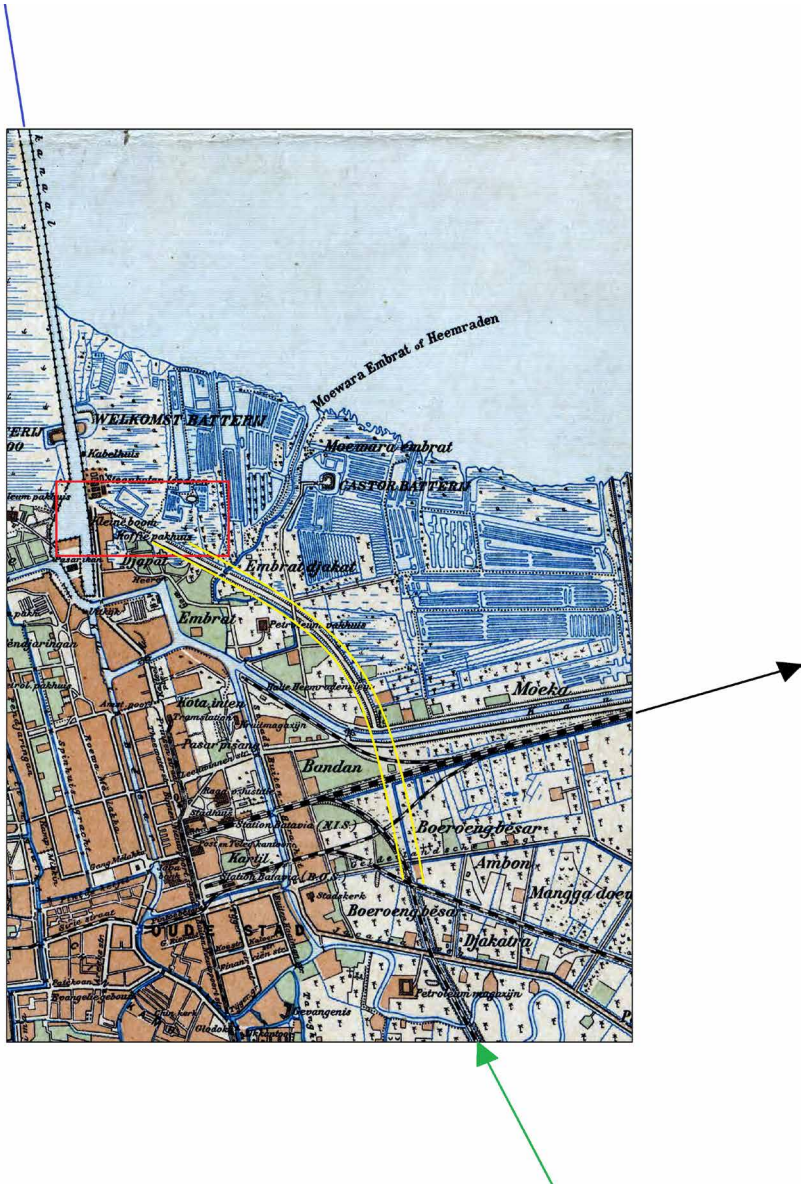

FIG. 3.15 Plan detail of Batavia from 1897, showing the various routes by which coffee from the hinterland—especially Priangan—reached the sea. The red square indicates the dedicated coffee warehouse located at the intersection of the city's old port and the railway arriving directly from the hinterland (shown by the green arrow in an outward direction). The yellow arcs indicate the slope of the former railway connection. The dark blue arrow indicates the overseas transport route of the coffee via the old harbour canal. The black arrow on the right side indicates the route to the new harbour of Tandjong Priok in the northeast of the city.

Source: 'Kaart van Batavia en Omstreken', Topographisch Bureau (Batavia), 1897, 1:20.000, Leiden University Library, Digital Collections, KITLV Maps, no. D E 24,7. Edited by the author.

Together with its counterpart in Bandung, this coffee railway establishment highlights the increasing integration of coffee cultivation and railway infrastructure for direct transport to the sea. The integration of the railway line with the old port continued up to 1897 at most. In that year, the railway line had already been dismantled. This can be explained by the fact that in the meantime, a modern harbour had been constructed far to the northeast of Batavia (indicated by the black arrow on the right side of the map, which shows the railway connecting them).

The identification of coffee warehouses in Batavia is not the final step in reconstructing the logistical layer of the export side of this coffeescape. The final questions that need to be answered are: how was the coffee loaded onto sea-going vessels, what infrastructural interventions were deemed necessary for this? And what were the standpoints of the organisations involved in the coffee chain?[135]

The main factor of relevance for this research is that the seagoing vessels shipping the coffee to the Netherlands were too large to moor near the coast or enter the harbour canal of Batavia. Therefore, for the majority of Batavia's history, they anchored in open wate/r at the Reede (roadstead), which was part of a naturally sheltered bay.[136] This was the reason why the coffee transports between Batavia's warehouses and Reede were primarily carried out by the pirogues.

The Dutch East India Company did not intervene much in the natural landscape around Batavia to improve transhipment practices. Their plans were limited to the construction of two stanching dams that were gradually extended over several centuries. Similarly, in the mid-nineteenth century, the only significant action taken was the construction of a detour of the Great River to the west before it flowed into the Java Sea. The aim was to reduce the silting up of the Reede and the port canal between the two dams by disconnecting it from this river.[137] However, the ongoing necessity to dredge the harbour canal thereafter indicates that it was not a completely satisfactory measure.[138]

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135 It is important to note that in this context, both Batavia's traditional port and its modern harbour complex did not function solely for the export of coffee, nor even exclusively for colonial agricultural export commodities. After all, items were also brought in from overseas.

136 Veering, "Knopen in het maritieme netwerk", 133.

137 The oldest map found on which the river freely flows into the sea dates from 1842. It was made by Gijsbrecht Franco Baron von Derfelden van Hinderstein, *Ugemeene Kaart van Nederlandsch Oostindie, met hoogstdeszelfs toestemming opgedragen aan Zijne Majesteit den Koning der Nederlanden*, 1:10.200.000 (Den Haag, 1842). Sheet no 6. Via David Rumsey Map Collection: www.davidrumsey.com, no. 6940.008.

138 "Nederlandsch-Indische Havens", *Indonesia*, vol. 5, Departement der Burgerlijke Openbare Werken, (Batavia, 1920), 14.

FIG. 3.16 Photograph from around 1872 of the Kali Besar, the canalised section in Batavia of the Ci Liwung before it flowed into the sea. The sails of the pirogues are clearly visible.

Source: 'Kali Besar te Batavia met links het koepeltje van het Stadhuis', Woodbury & Page (Batavia), Leiden University Library, Digital Collections, KITLV Southeast Asian & Caribbean Images, no. 3266.

What is telling is that during the heyday of the Cultivation System, the enormous quantities of coffee arriving in the port were not reflected in any serious port improvements by colonial organisations. This was despite, but perhaps also because of, the enormous profits that were made from the export of colonial commodities.[139] As a result, the port infrastructure remained rudimentary and largely unchanged.[140]

139 Veering, "Knopen in het maritieme netwerk", 135. Moreover, the Dutch Trading Society was closely involved with the SMN and the KPM. Mansvelt, *Geschiedenis van de Nederlandsche Handelmaatschappij*, 90.

140 Veering, "Knopen in het maritieme netwerk", 133. There were only a few interventions that were not of direct relevance to our research: the defence fortress (Water Castle) located in the sea at the end of one of the scratching dams was demolished and replaced by lighthouses. Additionally, the construction of a watch tower (Kijkuit), and a small and large mooring place (Groote and Kleine Boom). *Stadskaart van de Gemeente Batavia*, 1921, 1:10.000 Leiden University Library, no. 03806-2.

FIG. 3.17 Etch showing the rede of Batavia. In between, smaller rowing boats and some pirogues can be identified. In the background, Batavia is visible.

Source: 'De reede van Batavia', Mathias de Sallieth, after a drawing by Hendrik Kobell, 1779, Dutch National Museum, no. RP-P-1911-294.

The public debate that emerged in Batavia after 1850 regarding the construction of a new modern port offers a unique opportunity to investigate the standpoints of various parties who were also involved in the transport and transhipment of coffee. This pertains to both their arguments and their spatial plans. To clarify this, we first need to take a closer look at the nature of the problems in the old port and the transhipment practices.

These were the result of various concurrent developments. Firstly, Batavia's Reede continuously silted up. Secondly, an increase in maritime trade had occurred. Thirdly, the poor organisation of port formalities resulted in congestion. The situation was especially dire during both the monsoon and drought seasons. It either meant that the

TOC

heavy rains and winds were too severe for the pirogues to sail out, or that the water level at the Reede was so low that it was full of sandbanks. Frequently, the transhipment between Batavia and anchored seagoing ships came to a complete standstill.[141]

These troubles were amplified by the introduction of large-scale steamships. Apart from their larger size and depth compared to sailing ships, this also related to their need for guaranteed access to the shore to uphold their scheduled services.[142] Lastly, the abolition of fixed deliveries and the guaranteed transport of government products for shipping companies, which had been part of the early arrangements with the Dutch Trading Society, had an important consequence. It meant that the speed of deliveries from the hinterland, the transhipments in the port, and the transport to the Netherlands became a decisive factor in the business models of these businesses. Because they no longer had any guarantee for cargo.[143]

The occasionally fierce public debate that commenced in the Dutch East Indies press as a result of these problems continued intermittently until the 1870s. Criticism was directed at the colonial government, which, according to several authors from Batavia, neglected the port works and failed to provide a structural solution. The debate and proposed interventions between the nineteenth and early twentieth centuries have already been thoroughly reconstructed by Arjan Veering.[144] While his analysis focuses on the role of engineers and the colonial state, he also examines the broader context of the public debate. What is most relevant to the inquiry is Veering's explanation of how the issues were perceived and the solutions proposed by companies. These consist of the Stoomvaart Maatschappij 'Nederland', the Batavian trading interests expressed through the city's Chamber of Commerce, and the NISM railway company.

The debate fully erupted in 1871 with a public statement by Prins Hendrik 'de Zeevaarder', a member of the Dutch royal family, in which he criticised the attitude of the colonial state. However, more important than his family background is the fact that he was the initiator, an important investor, and honorary director of the newly established Stoomvaart Maatschappij 'Nederland' (SMN).[145] This was the first large-scale steamship company with a scheduled service between the Netherlands and the Dutch East Indies, which is why it would become an important player in the overseas coffee export.

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141 That is: customs and shipping administration practises. The following section is based on Veering's publication: "Knopen in het maritieme network, vorming van het havenstelsel", in *Bouwen in de Archipel, Burgerlijke openbare werken in Nederlands-Indie en Indonesië 1800-2000* (Zutphen, 2004), 133-134.

142 Compared to sailing ships, the factor time became fundamental for efficient exploitation of steam lines.

143 Veering, "Knopen in het maritieme network".

144 Idem.

145 *Java-bode: nieuws, handels- en advertentieblad voor Nederlandsch-Indie*, 21-10-1872.

However, this organisation suffered greatly from the poor port conditions in Batavia, which, according to the prince, was "the main [governmental] seat and most important port for goods of the Dutch Indies."[146] Yet, it was simultaneously seen as 'the main bottleneck of the entire voyage'. The prince thus clearly defended his own interests and those of 'his' company when he called for a structural solution to the problems in the port of Batavia.

With his plea, the prince also stood up for Batavia's trade interests in general.[147] And the reserved attitude of the colonial state was indeed to the dismay of the traders there. However, in addition to criticism, they also proposed a solution. Their plan consisted of a new port located right next to the existing harbour canal and was thus situated relatively close to the old port and the main trading district by the seaside of the old city, where many of these organisations and the (coffee) warehouses were located.

One specific element of their plan forms an important clue about the main interest of these traders. It provided for a quay where goods could be transhipped to pirogues. This should be understood in light of the fact that the plan's creators, the trading houses, were the owners of the only two existing pirogue companies in Batavia at that time.[148] They obviously understood that a port allowing seagoing vessels to moor directly would render their pirogue services redundant, which in turn would result in them losing their privileged position in the logistical chain.[149] Hence, their port design with a pirogue transhipment quay must be understood as an attempt to secure their interests, consisting of monopolizing their coffee chain chackle.

The port improvement plan proposed by the NISM indeed had the potential to render the pirogues out of action. Moreover, the plan's execution would have been a serious blow to the existing trading houses in Batavia in an additional way. The reasons behind these were that the NISM planned to connect their Buitenzorg – Batavia track with port facilities to be constructed near the islands of Onrust and Kuiper. These were located in the far western corner of the Bay about twenty kilometres away from Batavia (Figure 3.18).

146 Veering, "Knopen in het maritieme network".

147 Idem.

148 The circumstances were such that the larger shipping companies could not establish themselves, so in fact, there were no (potential) competitors.

149 However, pirogues would not become irrelevant, since much coffee was still delivered to Batavia by them.

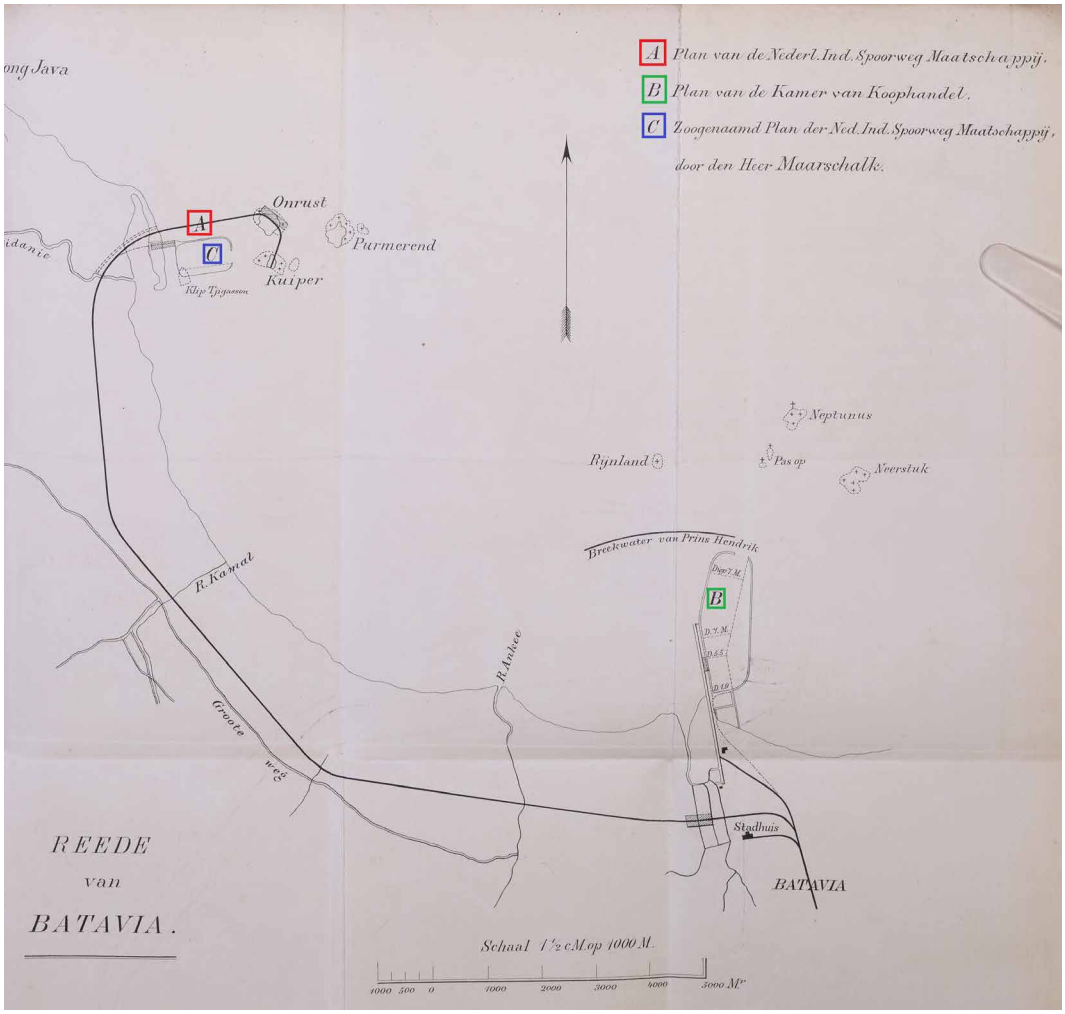

FIG. 3.18 Detail of a map showing several variants of port plans that were under consideration during the public debates about the port improvements for Batavia. Both the plans of the railway company (indicated with red "A" and blue "C"), as well as the one proposed by the trading houses located in Batavia (green "B"), aimed to monopolise trade by securing exclusive control over (parts of) the commodity chain.

Source: J. Groll, Eene zeehaven voor Batavia, (Rotterdam, 1873).

TOC

In other words, when realised, the plan would have given the NISM a direct shipping facility and complete control over the transport of goods arriving in Buitenzorg from the Priangan to the sea. Compared to the aims behind its Batavia – Buitenzorg railway line, namely passenger transport imposed by the colonial government, this port plan suggests that the NISM also thought of export goods over seas. Given the period in which these plans were envisioned, namely during the heyday of the Culture System and shortly thereafter, it is almost inevitable that when these organisations thought of goods they could transport from Batavia's vast hinterland to the sea they explicitly had coffee in mind.

Not surprisingly, this plan, but especially the winning proposal for a large-scale modern harbour at Tandjong Priok as suggested by engineers nine kilometres east of the old city centre encountered substantial protest from Batavia's Chamber of Commerce. Moreover, this organisation, representing the established trading organisations, feared that Tandjong Priok would undermine their interests for another reason. It envisioned that a newly established harbour, situated at a considerable distance from the existing economic centre, would attract newcomers.

The land route of coffee transports from Priangan to the north coast eventually shifted permanently from the old city centre and Reede to the modern large-scale harbour at Tandjong Priok when it opened in 1887. The fact that coffee was indeed exported from there is supported by an annual report of the NISM and an official report on the harbour's operation.[150] It thus became an integral part of the logistical layer of the coffeescape by the end of the period investigated.

This shift must also be explained by the fact that the new large steam shipping companies that would take over the overseas transport of coffee to the Netherlands were located there. This primarily concerned the already mentioned SMN and the Rotterdamsche Lloyd. This may also apply to the Stoomvaart Maatschappij 'Oceaan' and Steamship Company "Nederland".

150 *Jaarverslag van de Staatsspoorwegen in Nederlandsch-Indië*, (Batavia, 1897), Attachment no. 22, 499. Dutch National Railway Museum Utrecht. Furthermore, an official report on the state of the ports in the Dutch East Indies from 1920 mentions the financial value of coffee exports through Tandjong Priok for two years. Namely: 2.7 million guilders in 1913 and a bit over half a million in 1918. "Nederlandsch-Indische Havens", *Indonesia*, vol. 5, Departement der Burgerlijke Openbare Werken, (Batavia, 1920), 28. It would also be strange if this port was not used for coffee export because eventually all large-scale maritime transport went via Tandjong Priok. Veering, "Knopen in het maritieme netwerk", 141 and Passchier, *Bouwen in Indonesië*, 67.

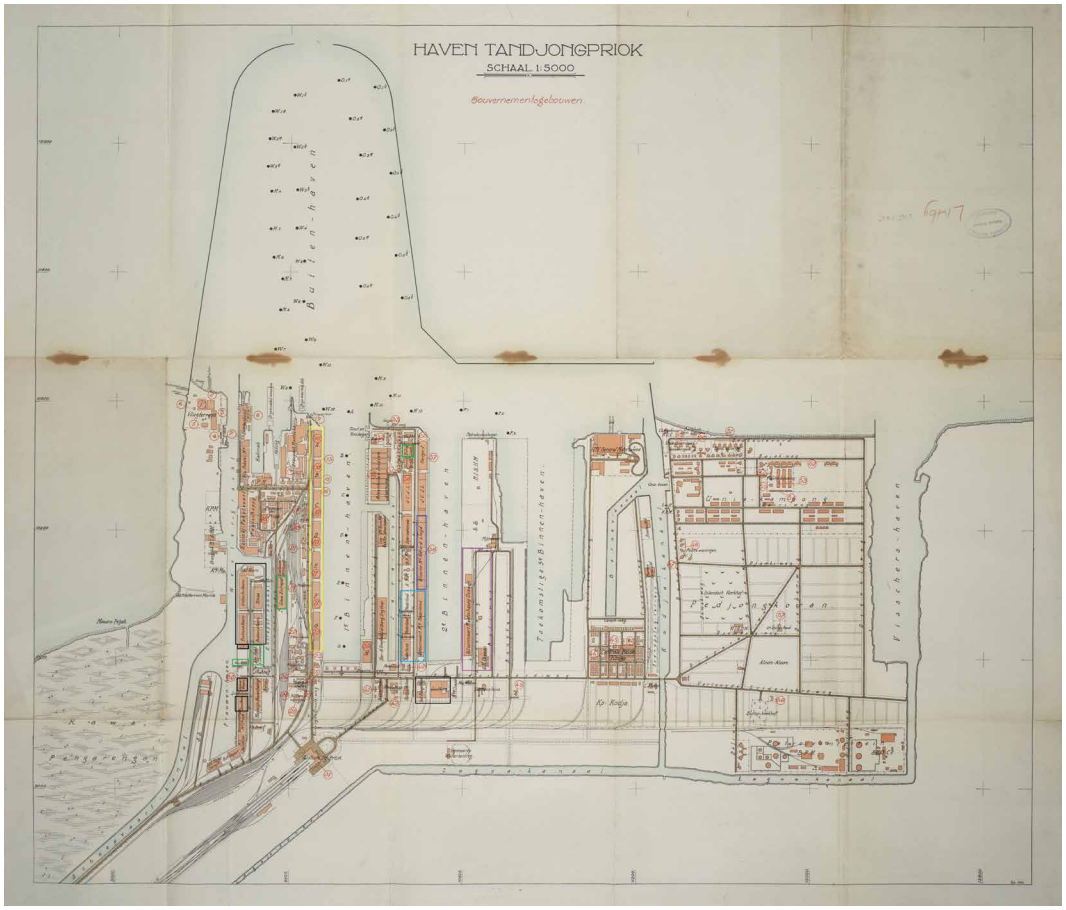

FIG. 3.19 Detail from a plan of Tandjong Priok from 1929. Indicated are the buildings most likely used for the storage of coffee. The yellow rectangle indicates the quay where the seven main warehouses stood since the harbour's opening, not belonging to a specific shipping company. In green: the government's warehouses/entrepôts. In black: veem warehouses (Java Veem, Indisch Veem, Batavia Veem). In dark blue: buildings of the steamship company Rotterdamsche Lloyd. In light blue: buildings of the Steamship Company "Nederland". In purple: buildings of the Steamship Company "Oceaan".

Sources: Veering, "Knopen in het maritieme netwerk", 139. 'Haven Tandjong Priok', 1929, 1:5000, Leiden University Library, Digital Collections, Dutch Colonial Maps KIT, no. KK 024-04-06. Edited by the author.

TOC

Coffee might have been stored at Tandjong Priok directly in the warehouses of these shipping companies. The presence of veemen like the Java Veem (est. 1896), Batavia Veem (est. 1912), and Indisch Blauwveem (probably 1918) suggests that coffee might have been stored there as well.[151] Veemen were large-scale commercial warehouse companies that were involved in the storage of goods often on behalf of traders. Lastly, it is possible that coffee was stored in the nearby warehouses of the colonial state prior to the total abolition of forced coffee cultivation in the Priangan in 1917. However, due to a lack of sources it could not be established with certainty what exactly was the case.[152] The possible buildings were indicated on a detailed plan from 1929 (Figure 3.19).[153]

3.2.8 Priangan's South Coast Becomes Part of the Global Maritime coffeescape

Over time Priangan's south coast also became part of the export side of Java's coffeescape. Coffee had already been exported overseas from the Wijnkoopsbaai in the southwest of Priangan following the crop's arrival there in 1835.[154] Also, as early as 1829, a private landowner with an estate in the centre of Priangan advocated shipping agricultural products via this bay.[155] However, 1859 was the earliest year for which it could be established that coffee was indeed shipped from there. Moreover, from the same source, we learn that after the commodity was collected at the beach warehouses, it was directly transported to the Netherlands by Dutch ships.[156]

151 "Havenwerken van Batavia, Uitbreiding van de haven Tandjongpriok", 1915, 1:5000. Leiden University Library, no. 11970. It is unclear who took the initiative for the first two. However, it is likely that the latter was initiated by Dutch Blauwhoedenveem-Vriesseveem, of which it is known to have been active in the Dutch East Indies after 1918. Hugo van Driel, *Vier eeuwen veembedrijf, de voorgeschiedenis van Pakhoed 1616-1967*, (Rotterdam, 1992), 109. Veering, "Knopen in het maritieme netwerk", 138, 151. No sources were found based on which a more definitive answer on the storage of coffee in Tandjong Priok could be given.

152 "Nederlandsch-Indische Havens", 22.

153 This map was used as it was the most detailed plan available of the port's largest extent at the end of the researched period. KIT / KITLV collections. Leiden University Library, Digital Collections, *Haven Tandjong Priok* (1:5000), 1929, no. KK 024-04-06.

154 Breman, *Koloniaal profijt*, 235.

155 For example, Andries de Wilde, the former owner of the large-scale Soekaboemi estate north of the Wijnkoopsbaai. Andries de Wilde, *Berigten betreffende de landschappen genoemd de Preanger Regentschappen, op Java gelegen*, (Amsterdam, 1830).

156 Official Cultivation Report of the Priangan. Dutch National Archive, 2.10.21 Inventaris van het archief van prof. dr. W.H. de Vriese [levensjaren 1806-1862]: Commissie van Onderzoek naar de Cultures in Nederlands-Indië, (1817) 1857-1862, inv. no. 62.

Moreover, during the nineteenth century, no port developed there as a result of these coffee shipments.[157] The role of the southern coast in the maritime coffee chain only changed in that direction at the end of the nineteenth century when a port was established at Tjilatjap, situated at the extreme south-eastern coast of Priangan. In fact, this location had the best natural harbour of Java.[158] However, it only became attractive for the overseas transport of substantial volumes of coffee (among other commodities) after its connection to the state's railway in 1887.[159]

The fact that this indeed pertained to large quantities is supported by the seven dedicated warehouses built for it in the port (Figure 3.20). These were constructed by the colonial state for coffee originating from the forced Cultivation System in Priangan. This organisation must therefore have perceived an advantage in exporting the commodity via the southern route, likely primarily because of the considerable distances of the extreme southwestern parts of Priangan in relation to Batavia.

Still, this new harbour continued to face competition from that port and even from Semarang, to the east of Batavia, with which it shared its agricultural hinterland. Regarding coffee, Batavia had, of course, established itself as the main coffee export port in previous centuries, and the key players were located there. Moreover, Tandjong Priok was appealing because of its superior harbour facilities. The attraction of Java's northern ports in general stemmed from their frequent visits by international shipping companies.[160]

Nonetheless, at the beginning of the twentieth century, the idea of exporting agricultural commodities via the southern coast became more popular. This reorientation can be observed, for example, through the eyes of the highest colonial officials of Priangan, namely Resident Gideon Oudemans. In 1912, Oudemans expressed high expectations for several bays along the south coast for this purpose, again particularly regarding the Wijnkoopsbaai, due to its natural conditions and the numerous agricultural estates in its hinterland.[161]

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157 Topographische kaart der Residentie Priangan Regentschappen. Published 1894, 1:100.000, Leiden University Library, no. 04892.

158 Veering, "Knopen in het maritieme netwerk".

159 *Jaarverslag van de Staatsspoorwegen in Nederlandsch-Indië*, 474.

160 Veering, "Knopen in het maritieme netwerk".

161 Which is again an indication that this bay was not yet, or not frequently, used for this purpose.

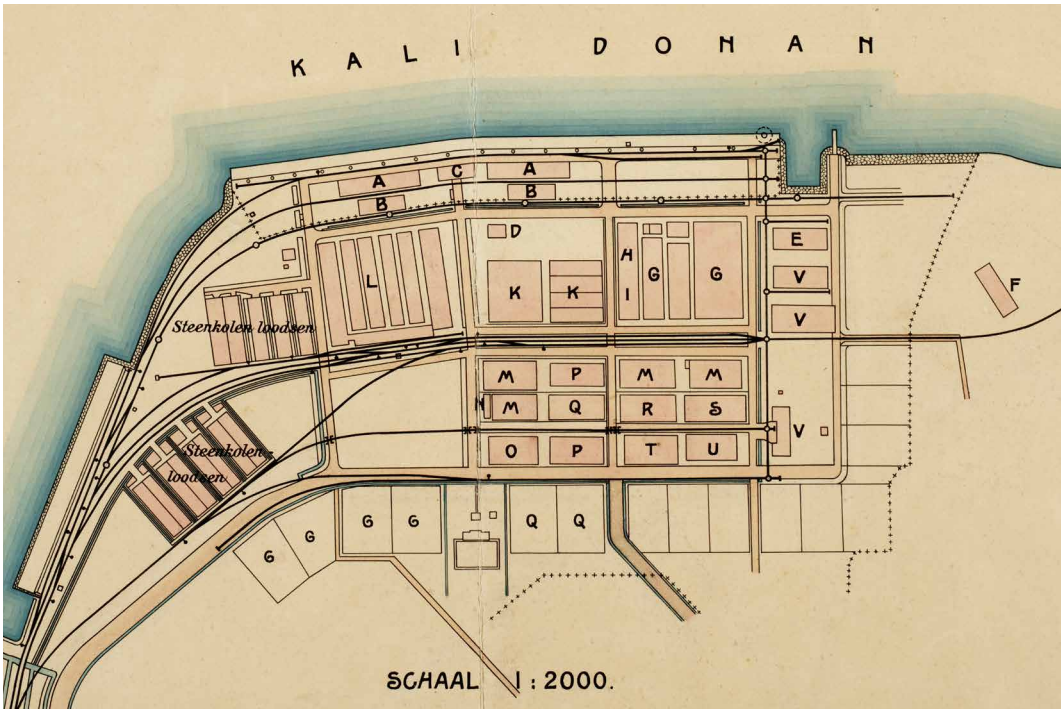

FIG. 3.20 Detail of a map showing the port of Tjilatjap in 1910. The design reveals the importance of government coffee. The 'L' indicates the relatively large area occupied by the seven government warehouses completely dedicated to coffee and close to the railway.

Source: 'Haven van Tjilatjap', 1910, 1:100.000, Leiden University Library, Digital Collections, Dutch Colonial Maps KIT, no. KK 164-01-10.

Oudemans had the possibilities clearly in mind when he discussed the natural suitability of each bay on the Priangan's south coast in relation to plans to build railways to open up the southern part of the residency.[162] The first line would connect the north of Priangan with the Wijnkoopsbaai. The second, known as the 'southern coast railway', was intended to connect Tjilatjap in the east with the Wijnkoopsbaai in the west. He expected that the railway would become a vital link for agricultural products from a large area of Priangan on their way to the sea. To achieve this he deemed it necessary to construct port facilities such as a jetty, storage buildings, etc.[163]

162 This concerns from west to east: Wijnkoopsbaai (Palaboehna Ratoe), Zandbaai (Tjiletoe), Dirk de Vriesbaai and Mauritsbaai (Panandjoeng).

163 Dutch National Archive, 2.10.39 Inventaris van de Memories van Overgave, inv. no. 23 (1911), 77.

TOC

The construction of the first line along the coast began in the south-east of the residency in 1924.[164] However, until the southern railway line was completed, he considered some bays indispensable as intermediate transhipment points.[165] Oudeman's orientation towards the south coast marks a departure from the exclusive northern orientation towards Batavia that was characteristic of previous centuries. This shift should be understood in the context of the continued expansion of the commodity frontier in a southern direction.

The southern railway plans had their counterpart in a private initiative for a coastal shipping line that connected the residency' south coast with Tjilatjap.[166] Very telling thereof was the fact that various agricultural entrepreneurs sought permission to construct jetties along the coast to facilitate the easier loading of their produce onto ships. Furthermore, Resident Oudemans also mentions an entrepreneur who, with the infrastructural plans being developed and the associated prospects of economic development, already started to acquired land in various bays. Oudemans suspected him of opportunistic behaviour aiming for a monopoly once the railway was constructed.[167] Although it has not become clear how this affair ended, the entrepreneur clearly aimed to secure a favourable position for himself once commodities found this coast to be exported.

The further integration of Java's south coastal area into maritime commodity chains can also be observed by the expansion of shipping lines along the south coast. In the latter part of the nineteenth century, Wijnkoopsbaai and Tjilatjap were not yet integrated into the regular lines of the large steam shipping companies.[168] However, in the two decades after 1900, this began to change, particularly because of the growing interest by the Koninklijke Paketvaart-Maatschappij (Royal Packet Navigation Company, KPM).[169]

164 Ibidem, 76. Leiden University Library, Dutch Colonial Maps KIT, "Voorontwerp van een spoorweg van Bandjar naar Parigi", Topografische Inrichting in Nederlandsch-Indië (Batavia), no. KK 031-02-06.

165 Dutch National Archive, 2.10.39 Inventaris van de Memories van Overgave, inv. no. 23, 77-78.

166 Ibidem, 76.

167 Dutch National Archive, 2.10.39 Inventaris van de Memories van Overgave, inv. no. 24 (1912).

168 Veering, "Knopen in het maritieme netwerk".

169 This becomes clear by comparing the routing maps of the Koninklijke Paketvaart Maatschappij between 1891 and 1915. Leiden University Library, Dutch Colonial Maps KIT, Koninklijke Paketvaart Maatschappij [groei tussen 1891 en 1921], (Amsterdam, 1921), no. KK 009-02-01.

This Batavia based organisation did not sail to the Netherlands. Instead, it delivered the goods it had taken from other places in the Indonesian Archipel including to other shipping companies in Tandjong Priok for further transport to the Netherlands.[170] The connection to Priangan's south coast indicates that the commodity chains of Priangan's south coast slowly became more structured, with existing small-scale initiatives being replaced. Although, in the beginning, the visits of the KPM were limited to once every two months.[171]

Despite a significant decline in coffee cultivation at the end of the nineteenth century, and although some Residents viewed its cultivation as a dead end for the area only shortly before, its popularity as a crop increased once more during the same period as the southern coast began to be developed.[172] We could therefore cautiously claim that some Residents of Priangan, the private transport companies (i.e., shipping companies and railway initiatives), the private agricultural businesses, and the entrepreneur who acquired land in the bays bear discovered the Priangan's south coast as a new opportunity to export agricultural commodities overseas.

The previous reconstruction demonstrates that the volumes of coffee passing through the chain were of great importance for the state and commercial businesses to deem it worthwhile to invest in improving logistics. In this specific case of coffee in Priangan, this was, of course, closely related to the enhanced accessibility of the area, thanks to the coffee frontier advancing southward. This implies that organisations only intervened in the landscape when a threshold in the volumes to be transported was either reached or could be reasonably anticipated.

170 Veering, "Knopen in het maritieme netwerk". Other Dutch steam shipping compagnies did not connect to the Island's south coast either. G.J.J. Jongh, *Route-atlas van den Rotterdamsche Lloyd*, 4th edition (Rotterdam, 1927). *Reis-atlas der N.V. Stoomvaart Maatschappij "Nederland"*, (Amsterdam, ca. 1935).

171 Dutch National Archive, 2.10.39 Inventaris van de Memories van Overgave, inv. no. 24 (1912).

172 Ibidem, no. 22 (1907), 13, 23 and no. 23 (1911), no. 26 (1933).

3.3 The Governance Layer: Locations from Where the Coffee Chain Was Coordinated

Essential for understanding how governance influenced the evolution of the coffeescape in Priangan is that the system was based on forced labour. This was part of the existing 'feudal' hierarchies, whereby the local inhabitants were obliged to perform services for their local rulers, the so-called Regents, consisting of cultivation, tributes, and construction work, among other tasks. The labour in this system was controlled by an intermediate layer of local bosses. These aspects together formed the basis of the forced coffee cultivation and delivery system once the Dutch East India Company took over and placed itself at the top of the existing hierarchy as the ultimate masters to whom tribute had to be paid.[173]

From a coloniser's perspective, there were important reasons to take over the local hierarchy instead of replacing it with a colonial bureaucracy. The first concerned the ratio between colonial civil servants and the local population. Even after more than a hundred years of coffee cultivation by 1820, only 44 Europeans lived in the Priangan Residency, while there were at least 121,000 local households in Priangan. This ratio only changed very gradually thereafter.[174]

A second reason that made direct control over Priangan very difficult was the vast area. It was equivalent to two-thirds of the Netherlands.[175] Hence, at the outset it was impossible to establish a permanent control system for the entire area. The Dutch East India Company thus did not directly interfere with specific coffee cultivation practices. In fact, certainly in the beginning, it had little insight into them.[176] Moreover, as the profits for, and the coffee demanded by, the Dutch East India Company grew, their interests increased as well.[177] At the same time, as the coffee frontier expanded away from Batavia, the coordination from the port city did not get any easier.

173 Breman, *Koloniaal profijt,* 117.

174 Ibidem, 158.

175 Ibidem, 309.

176 Ibidem, 56.

177 Ibidem, 22.

The evolution of the coffeescape's governance layer was closely related to the specific parts of the coffee chain being coordinated. For Priangan, this first part relates to the Kota's, the courts that were the initial collection locations and place for sale of the beans by the Regents to the Dutch East India Company. It also concerns the location where the Resident, the highest colonial official of the residency, was seated and the spatial distribution of control points at the lowest spatial scale. Moreover, since most organisations involved in governance were located in centres of colonial power outside of Priangan, attention is given to the locations of their offices.

The fate of the local inhabitants as they became forced in the coffee chain has already been extensively analysed by other scholars, especially Jan Breman. For this reason, this will not be discussed in detail. However, these already established insights will be used to reconstruct and explain the spatial development of the coffeescape.

3.3.1 The Regional and Local Places of the Colonial Coffee Control System

The spatial reconstruction of the governance layer starts with the changes on the regional level and ends with the locations of control at the lowest spatial scale. Originally, the Resident, the highest official in the Priangan in the Dutch colonial system, was stationed in the coastal town of Ceribon. The Resident there was already involved in coffee cultivation as early as 1726.[178] That this was also the case thereafter must be understood from the fact that Priangan was explored by the colonists from there and that the cultivation of coffee had partially spread along the same (river) routes.

Accordingly, in 1816, the Resident was restationed in a western direction to the town Wanayasa.[179] This new location was deeper in the interior of the island and located roughly equidistant between Ceribon and Batavia. In 1816, the seat of the Resident was moved once again, this time to Tjiandjoer. This town lay within the latter boundaries of the Priangan residency which were officially established by the colonial government in the same year. Importantly, Tjiandjoer at that time was a significant centre for coffee cultivation.[180] Furthermore, the post was moved for a third and final time in 1864 to Bandung. This town had become an increasingly important centre of the coffee cultivation. These movements are indicated by the blue arrows of Figure 3.21.

178 Ibidem, 75.

179 Ibidem, 154. At the time, the town was part of Priangan, but after a border redraw, it lay north of the residency.

180 'Kaart der Preanger Regentschappen en Crawang', 1817, Dutch National Archive, 4.MIKO, inv. no. 966 and Breman, *Koloniaal profijt*, 154 and 218.

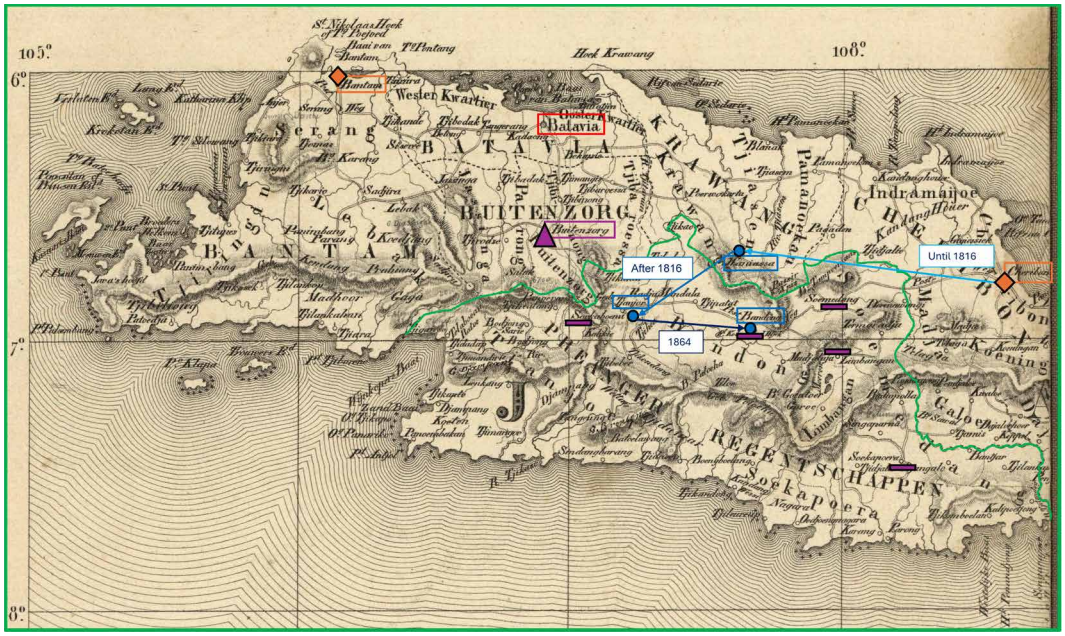

FIG. 3.21 This map detail indicates the main locations of the colonial and domestic organisations involved in the governance of the export side of the Global maritime coffeescape. The red rectangle indicates the port city of Batavia, where the headquarters of the Dutch East India Company and the Dutch Trading Society were located, as well as the capital of the Dutch East Indies. The orange diamond shows two former competing ports that were eliminated or subdued by the Dutch East India Company before the coffee cultivation started, namely Banten and Ceribon. The purple triangle marks the location of the palace of the Governor-General in Buitenzorg from the eighteenth century onwards. The blue circle represents the headquarters of the Resident, with its shifts over time depicted by the blue arrows. The purple rectangles stand for the final five main courts of the Priangan Regents. Lastly, the green line indicates the definitive border of the Priangan as established by the Dutch Colonial State at the beginning of the nineteenth century.

Sources: 'Algemeene kaart van Nederlandsch Oostindie', sheet 6. The spatial shifts of the headquarter of the Resident were based on Breman, Koloniaal profijt, 71, 154, and 218. Edited by the author.

What these locations had in common was that one of the Regents had a court there. The way in which the Dutch East India Company positioned itself at the top of the hierarchy was strictly social. In the nineteenth century, this was followed by an actual spatial relocation of the highest colonial official of Priangan by the Dutch colonial state. Tellingly, in both periods the relocations mirrored the spatial movement as the coffee frontier.

It is noteworthy that the last relocation occurred after a significant increase in coffee yields in Bandung.[181] Although it cannot be ruled out that this increased even further after the resident settled there, the decision to move was of a subsequent rather than directive nature. Of course, many motives for the relocation are possible, but in relation to the coffee culture, it is most likely that the intention was to keep up with the frontier and to be centrally located within it to improve colonial control over the area and cultivation.

In the meantime, both the Dutch East India Company and the Dutch Trading Society themselves were located in Batavia throughout their existence. However, in addition, Buitenzorg, located against the northern slopes of the northern volcano border of Priangan, became the seat of the Governor-General from the second half of the eighteenth century. The town is indicated on the map by the purple triangle. Lastly, the five purple bars indicate the Kota's of the Regents, the focal points of the regional social hierarchy, see Figure 3.21.

The first four subordinate colonial officials below the Resident appear to largely mirror the spatial distribution of kampongs and other types of settlements. The question, therefore, is how the colonial hierarchy exercised control over the coffee fields not in the (immediate) vicinity of these villages and how that informs us about the governance layer of the coffeescape.[182] This question was answered by looking into so-called Pasangrahan, guesthouses for travelling colonial officials.[183] As becomes clear from two examples based on the residency map (Figure 3.22), these buildings were often located near coffee fields that were either very extensive, or far removed from the more populated areas, or both.

181 With a maximum annual harvest in 1842 of more than 8 million kilograms, which was seven times that of the lowest (1814) in the period 1813-1845. Breman, *Koloniaal profijt*, 232.

182 These were not fully mapped because a global exploration of their locations throughout the entire Priangan, based on the residency map, already gives the impression that they were present in nearly all significant settlements. Furthermore, the weight of the office corresponded to the importance of the settlement in question. These facts suggest that these were part of a general colonial system aimed at controlling the local population.

183 Ensie: pasangrahan, (https://www.ensie.nl/vivat/pasangrahan), 18-8-2023.

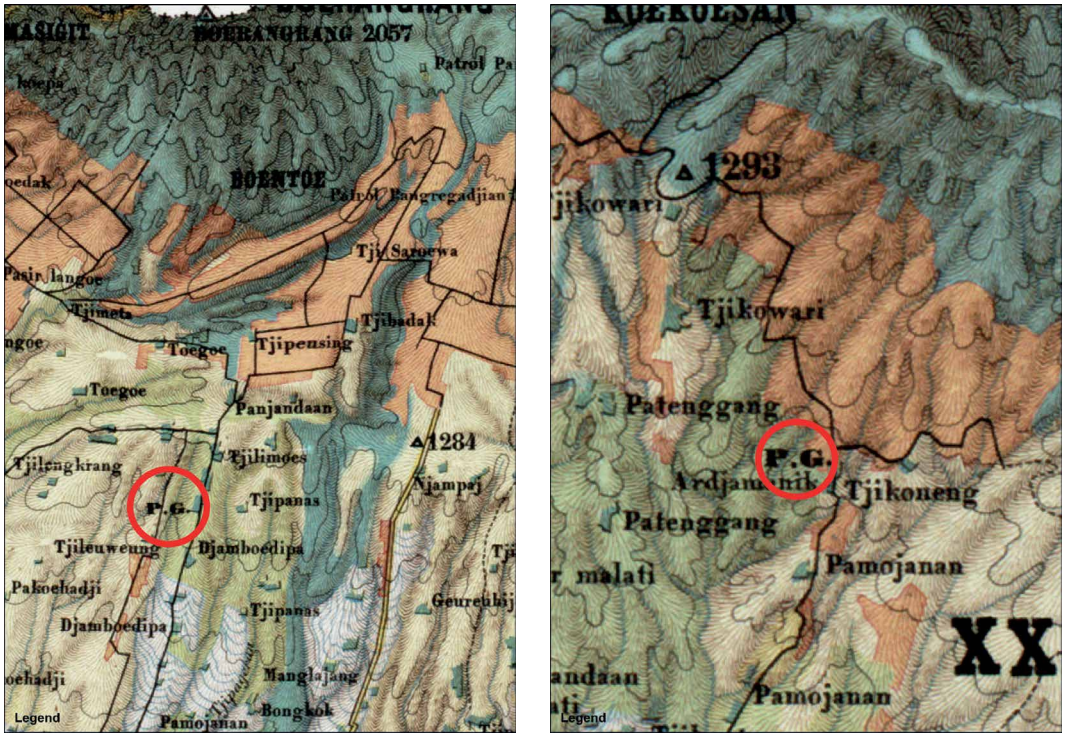

FIG. 3.22 Two details of the residency map, with the abbreviation P.G. in the centre of the image which stands for pasangrahan. These examples show that these buildings were situated close to the large-scale coffee gardens – depicted in orange – of the Cultivation System. It is also clear that they were located in areas where there was not always a coffee warehouse.

Source: 'Topographische kaart van de residentie Preanger regentschappen'.

This spatial pattern indicates the ambition of the colonial government to control the coffee chain up to its cultivation, despite its limited resources. Moreover, since these buildings were not always accompanied by coffee warehouses, their construction followed a logic different from pure logistical considerations. While many coffee warehouses possessed a certain centrality, the guesthouses seem to have served as the ultimate outposts of governance.

3.3.2 Colonial Governance in Batavia and Priangan

As already mentioned, the Dutch East India Company had subjugated local rulers in coastal towns like Banten and Cirebon before the emergence of large-scale coffee exports. Nonetheless, in the period thereafter, the colonists remained fearful of local rulers rising again to power and taking a role in the coffee chain.[184] The reason for this was that local rulers and the population could also benefit from the high prices for coffee, mainly by smuggling it out of the Priangan and thus out of the compulsory system of the Dutch India Company.[185]

The Dutch East India Company coordinated the coffee trade from its headquarters in Batavia, the aforementioned Castle until it was liquidated in 1799. The fortress of course had a broader social significance in defending the port city against attacks from overseas. However, the fact that coffee was stored there also holds relevance from the perspective of governance. It signifies the great importance the organisation attached to the commodity. This is also why the new warehouses were built within the city defences. In addition, the storage of coffee at, and near, the organisation's headquarters may in addition hint at the wish for efficient administration.

The Factorij, the colonial headquarter of the Dutch Trading Society in the Dutch East Indies, did not move into the Castle of its predecessor, for the simple reason that it had been demolished in 1809. Instead, in 1832, eight years after its founding, an office was built along the Kali Besar, the canalised section of the Great River in Batavia (see Figure 3.23). Despite its modest appearance, this office would serve as the nerve centre of governing the Coffee Chain for over a century.

This office was only replaced by a new building in 1933. As the images show, it was enormous compared to its predecessor (Figure 3.24). This increase should be viewed as illustrative of the wealth and influence the Dutch Trading Society had accumulated in the prior century. This was partly achieved due to its success in the overseas coffee trade. However, the new building was no longer situated on the Kali Besar but at a square further southeast in the city, close to the Railway Station and City Hall.

184 Breman, *Koloniaal profijt*, 69. Bantam in 1684. This made it possible from then on to channel all intra-Asian trade through Batavia. Ceribon in 1681. The treaty involved the closure of its transport route to and from the Priangan highlands. Breman, *Koloniaal profijt*, 70 and 318.

185 Ibidem, 70, 76, 80, 102, and 132.

FIG. 3.23 Photograph of the head office of the Factorij of the Dutch Trading Society in Batavia, located on the Kali Besar from 1832 to 1932. Given the enormous impact of the officials in this building in governing the global maritime coffee chain and that nothing indicates that coffee was ever stored there, it is a central element of the coffeescape's governance layer.

Source: 'De Factorij van de Nederlandse Handel Maatschappij te Batavia', Batavia, 1901, Leiden University Library, Digital Collections, KITLV Southeast Asian & Caribbean Images, no. KITLV 5229.

In both cases, no indications were found that coffee was ever stored in these buildings. However, they were situated relatively close to the central coffee warehouses of their time. The first head office, lay near the old warehouses of the Dutch East India Company that were still in use, and it was accessible by pirogues over water. The second building was located directly opposite of Batavia's main railway station on the east side of the city. As a result of which it well connected to the modern port in Tandjong Priok. These facts suggest that the Dutch Trading Society kept some logistical considerations in choosing its office's locations.

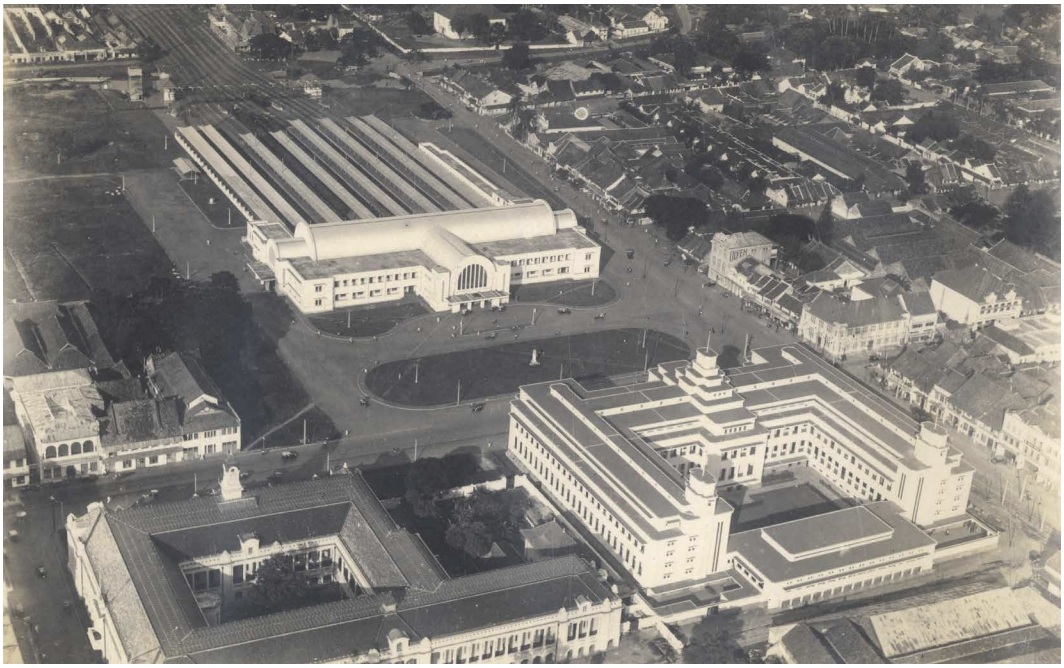

FIG. 3.24 Photograph of the new head office of the Factorij of the Dutch Trading Society which was opened in 1933. The enormous dimensions of the building compared to the previous one are evident. This can be interpreted as a result of the significant increase in wealth, influence and status of the society, which can be partly attributed to its role in the overseas transport of coffee. It is directly opposite of the main railway station of Batavia connecting the inner city to the modern port of Tandjong Priok.

Source: 'Luchtfoto van de Factorij van de Nederlandse Handel Maatschappij en station Gambir te Batavia', Batavia, circa 1935, Leiden University Library, Digital Collections, KITLV Southeast Asian & Caribbean Images, no. KITLV 179130.

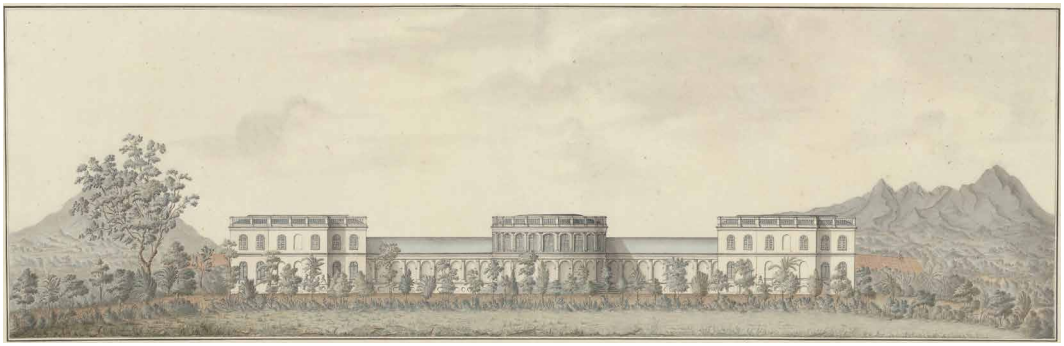

FIG. 3.25 Coloured painting of the palace of the Governor-General of the Dutch East Indies in Buitenzorg. Although the move towards this new town seems to be unrelated to the developments of the coffeescape, the decisions made there became extremely important for the latter's evolution.

Source: 'Gezich op de voorzijde van het paleis te Buitenzorg', probably mid-nineteenth century, Dutch National Archive, 4.VELH Inventaris van de verzameling buitenlandse kaarten Leupe, supplement, 1621-1813 (1925), inv. no. 467.

In contrast, the locations of the buildings from which the colonial state coordinated the inland Coffee Chain were more detached from logistical considerations. After all, they were situated far from the storage and transhipment of coffee in Batavia and its ports. This primarily applies to the location of the Governor's official residence, the palace in Buitenzorg. It also pertains to several of the executive branches of the colonial administration that became located in Batavia's upper city in a district known as Weltevreden during the nineteenth century. The establishment of state buildings in Buitenzorg and Weltevreden was prompted by the extremely unhealthy living conditions of the low-lying seaside districts of Batavia.[186]

3.3.3 A Colonial Commercial Clique Governing Java's Maritime Coffee Chain

The remaining question is what happened with the governance layer in the period that activities that previously fell under a state monopoly were increasingly executed by private organisations. To answer this, we will examine the office locations of merchant houses and banks. Especially when these two phenomena were not influenced by logistical considerations they contribute to revealing the spatial distribution of the elements that make up the coffeescape's governance layer.

Due to the gradual liberalisation of the economy during the nineteenth century, more and more new organisations appeared on the port city's stage. Additionally, their variety increased as Batavia became home to trading houses, shipping companies, and banks. Each played a specific role in managing the Global maritime coffee chain.

Relevant organisations that financed private coffee enterprises on Java included, for example, the Javasche Bank (est. 1828), the Nederlands Indische Handelsbank (est. 1863), the Rotterdamsche Bank (est. 1863), and the Nederlandsch-Indische Escompto Maatschappij (est. 1857).[187] Also various maritime trading houses in Batavia were involved in coffee. This applies for example to Reynst & Vinju, (est. 1836), and the Internationale Crediet- en Handelsvereniging "Rotterdam" (est. 1863).[188]

186 Passchier, *Bouwen in Indonesië*, 35 and 38. Peter Harmen van der Brug, *Malaria en malaise, de VOC in Batavia in de achttiende eeuw*, (Amsterdam, 1994).

187 It was only examined whether there was involvement in coffee through financing, trade, or enterprise ownership. Hence, these examples are indicative rather than exhaustive.

188 Molsbergen, *Gedenkboek Reynst & Vinju.*

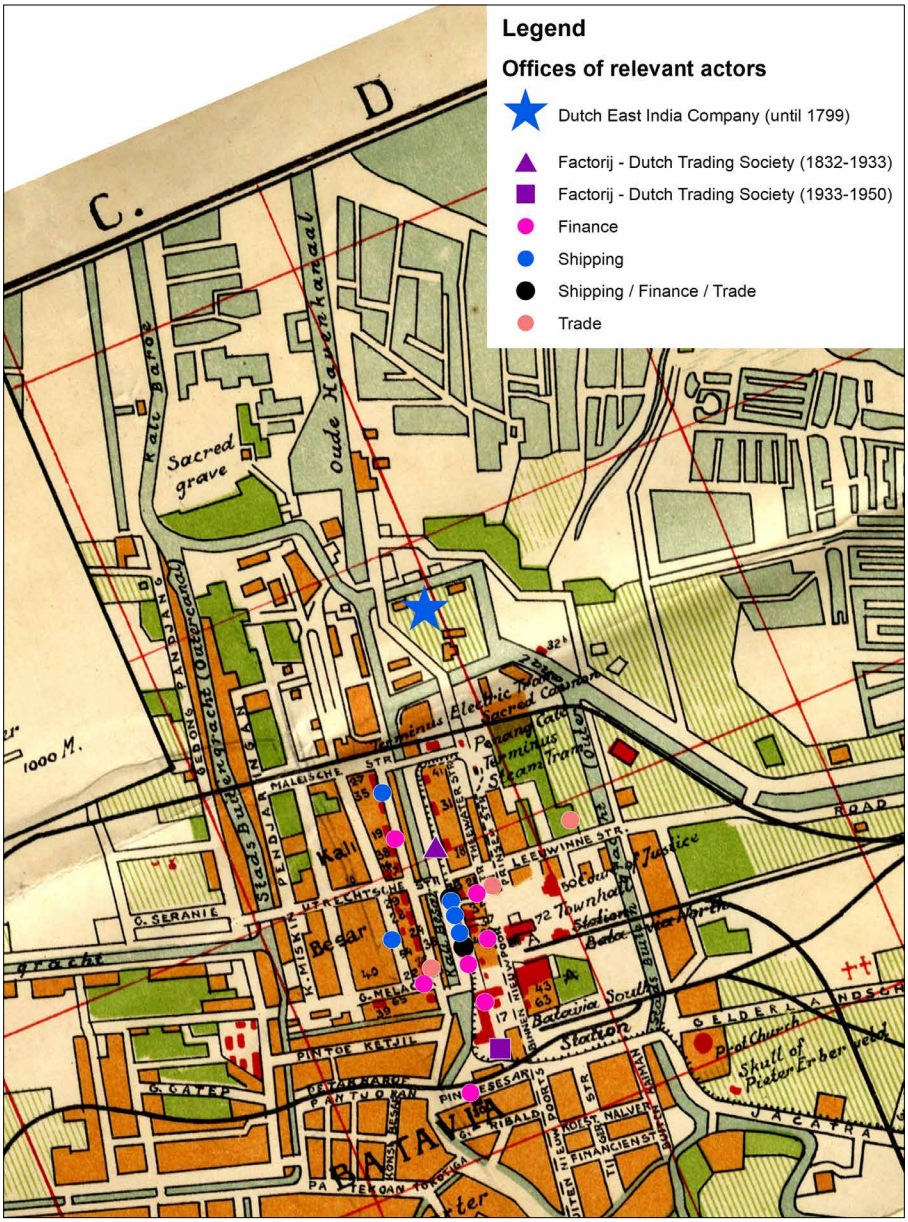

FIG. 3.26 Map of Batavia with data collected around 1930. It shows the locations of the offices of commercial organisations involved in the Global maritime coffee chain. The Kali Besar in the old city immediately stands out as a main concentration area. The seventeen businesses that had some involvement in governing the Global maritime coffee chain identified in this research were located there.

Sources: Wikipedia: Colonial architecture in Jakarta, (https://en.wikipedia.org/wiki/Colonial_architecture_in_Jakarta), 1-1-2021. 'Plan of Batavia', Officiële Vereeniging voor Toeristenverkeer in Nederlandsch Indië (Batavia), Leiden University Library, Digital Collections, KITLV Maps. Made by the author.

TOC

FIG. 3.27 Head Office for the Dutch East Indies of the Internationale Crediet en Handels-Vereeniging "Rotterdam" (i.e. 'Internatio') on the eastern side of the Kali Besar in 1916.

Source: Courtesy of Obbe Norbruis and Hulswit Fermont Cuypers Foundation.

Many of the organisations who were directly or indirectly associated with the coffee chain had their offices along the Kali Besar. In addition, there was a small spatial concentration of them in the city's southeast corner, near the station square, the city hall and later the Dutch Trading Society. See Figure 3.26 and Figure 3.27.

Many of the buildings along the Kali Besar were converted into office buildings for trading companies after the colonial offices moved from there to Weltevreden in the early nineteenth century.[189] The move of the trading house Reynst & Vinju this location was in fact motivated by the need for pirogues to deliver goods directly to the warehouse.[190] However, the relocation also seems to have been prompted by the organisation's preference for proximity to the trading centre of the port city.[191] The same – more social – consideration lay behind the choice for the first office building of the Javasche Bank. In 1828 it took office in a building near the Kali Besar in 1828, rather than in Weltevreden, which had recently gained importance as a centre for administrative functions. Since no coffee was ever stored in its building, this financial institute was steered by the desire of being near the commercial organisations at the Kali Besar.[192]

The fact that their location choices cannot be explained solely by logistics follows from two preliminary observations. First, the Kali Besar continued to grow as a commercial trading centre, even during the period when the actual transport of goods increasingly took place via Tandjong Priok.[193] Even to the point that in the first decades of the twentieth century, the old port was also discovered by many international organisations, such as banks and shipping companies. These organisations clearly sought proximity to one another.

Second, this spatial clustering of offices meant that many of the organisations were neighbours. This reflected a dense social network of often personal connections between individuals affiliated with different organisations. This was also reflected in the fact that people transferred between functions across the various businesses and institutes of Batavia. If we limit ourselves to the examples described in the memorial book of Reynst & Vinju, we find many of these personal interrelations.

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189 L. de Bree, *Gedenkboek van de Javasche Bank, 1828-24 Januari-1928*, (Weltevreden, 1930), 68.

190 The case actually does not relate to coffee exports via Hoboken, but to imported goods sold in the Indies. According to the publication, relocating the office from the Tijgersgracht to the Kali Besar improved transport. In 1863, the company shifted again to another building on the same quay. Molsbergen, *Gedenkboek Reynst & Vinju*, 33.

191 Idem.

192 Bree, *Gedenkboek van de Javasche Bank*, 215.

193 Passchier, *Bouwen in Indonesië*, 187.

Employees of merchant and trading houses had personal links with the Factorij, and firm members also served on the Board of Directors of the Javasche and other banks. Several employees worked at some point in their careers as officials of the colonial government, such as the Director of Goods, members of the colonial secretariat, or as the President of the Chamber of Commerce. In addition, in their personal lives they were managers and/or owners of agricultural enterprises. Lastly, the density of the social-commercial network was further strengthened by family ties and through personal and family asset management, which they used to finance other enterprises.[194] To conclude, Batavia was characterised by a colonial maritime trade clique in which multiple interests aligned in a complex social network.[195]

194 Molsbergen, *Gedenkboek Reynst & Vinju*, 9, 31, 35, 60 and 64.

195 The only organisation identified in relation to this chapter that did not have an office in the old town was the Koninklijke Paketvaart Maatschappij (KPM) established in 1916. This may be attributed to its close relationship with the colonial administration. A partially alternative social explanation is that this canal had the most prestige. However, it seems unlikely that this was the main motive, as it was the Tijgersgracht that held this status since the seventeenth century. This, of course, does not alter the fact that this status increased as successful commercial organisations settled there over time. No further research has been conducted into this line of inquiry. Marsely L. Kehoe, "Dutch Batavia, Exposing the Hierarchy of the Dutch Colonial City", *Journal of Historians of Netherlandish Art*, 7, no. 1 (2015).

3.4 The Imaginative Layer: Organisations Claiming Their Involvement in Coffee?

The last step to be completed is the reconstruction of the imaginative layer of this Global maritime coffeescape. Only a few artefacts were found on which to base the analysis. However, it proved possible to determine the self-conception of both the Dutch East India Company and the Dutch Trading Society based on their logos and trademarks. In addition, one architectural element was discovered that reveals how a financial organisation located at the Kali Besar viewed itself in relation to traded commodities.

3.4.1 The Maritime Self-Conception of the Dutch East India Company

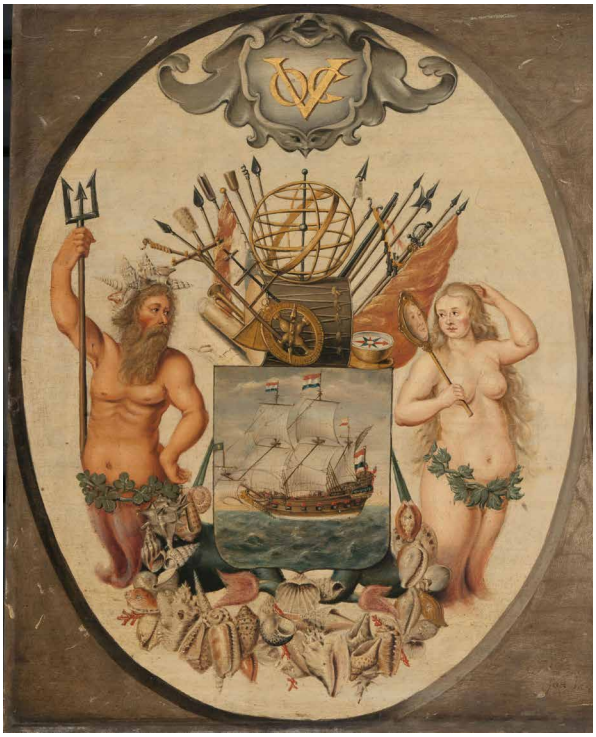


FIG. 3.28 Emblem of the Dutch East India Company from 1651. The numerous references to the sea illustrate how this organisation identified itself with a maritime world in a very broad sense.

Source: 'De wapens van de VOC en Batavia', Jeronimus Becx (II), 1651, Dutch National Museum, no. SK-A-4643.

The first organisation whose self-conception will be examined is the Dutch East India Company. The analysis was carried out based on an official emblem dating from 1651 (Figure 3.28). However, since it was created before the large-scale cultivation and transport of coffee, it reveals little about the role the organisation saw for itself in this commodity's global maritime chain. Nonetheless, the image is valuable for our inquiry, as no other 'trademarks' were found for the period when coffee became so vital to its operations.

The absence of concrete commodity chain elements in the image holds significance in itself. It reveals that this organisation did not base its self-conception on a single, or a number of commodities in which it traded. Instead, its maritime identity was more general. This is reflected in the different elements of the image.

First and foremost, the emblem shows a ship sailing on the sea in the middle of the image. Secondly, the scene is flanked by Neptune on the left and possibly a mermaid on the right.[196] Furthermore, atop the central image, we find shipping equipment, recognisable as symbols related to the maritime world. These include a nautical chart, compass, and sextant, among other items. The organisation's maritime character is ultimately supported by the seashells depicted at the bottom of the image. The image thus reflects that the organisation identified itself as a maritime shipping enterprise within a larger maritime world comprising both profane and mythological elements.

3.4.2 Applying Maritime Symbols in Trademarks by the Dutch Trading Society

The Dutch Trading Society also used maritime symbols in its official logos. Examples of this are the two emblems registered in 1876, intended for use in the trade of goods.[197] They consist of a rather sober version, which only depicts an anchor, and a somewhat more elaborate version showing a sailing ship (Figure 3.29).

In the second image, some animals and plants can be distinguished. Although it is quite difficult to determine which they are, it is unlikely that they pertain to coffee.

196 This is based on the description from the website of the Dutch National Museum. However, the image of the lady itself does not contain any elements suggesting this.

197 Ton de Graaf, *Voor handel en maatschappij, geschiedenis van de Nederlandsche Handel-Maatschappij, 1824-1964*, (Amsterdam, 2012), 255-256.

Thus, despite the great importance of this commodity for the Dutch Trading Society, a more generic illustration was used.

We must therefore conclude that this organisation, too, had quite a general maritime self-conception. Furthermore, as these trademarks did not include clearly tradable goods, both the Dutch East India Company and the Dutch Trading Society did not present themselves as being involved in a Global Maritime Commodity Chain. At most, they expressed the idea that they were powerful maritime trade players.

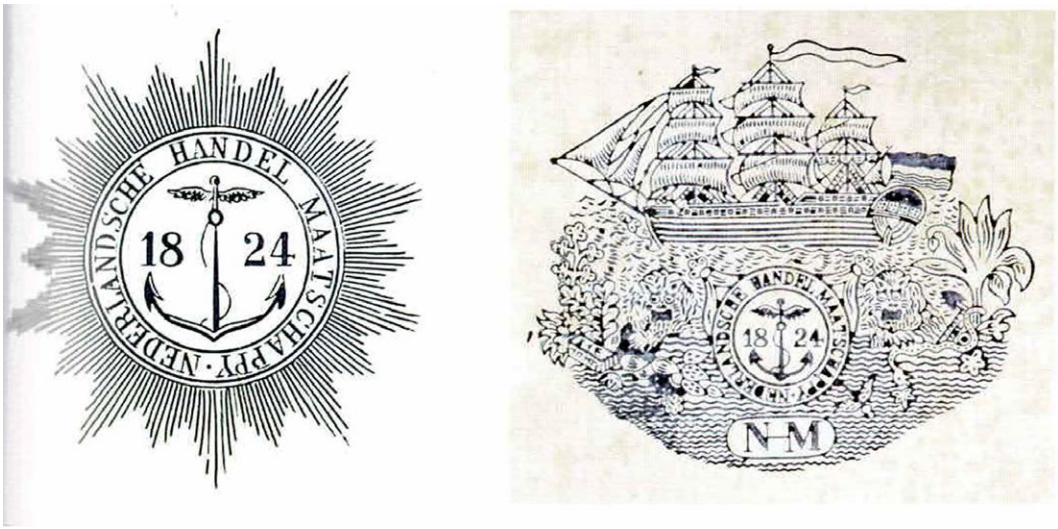


FIG. 3.29 The two logos that the Dutch Trading Society had officially registered in 1876 as trademarks.

Source: T. de Graaf, Voor handel en maatschappij, geschiedenis van de Nederlandsche Handel-Maatschappij, 1824-1964, (Amsterdam, 2012), 256 (image section).

There were also no design elements referring to the Global maritime coffee chain found in the buildings identified in the reconstruction of the coffeescape thus far. In fact, there was only one example of an architectural element related to commodities. This consisted of a stained-glass window with five columns. It belonged to the office of the Chartered Bank of India, China, and Australia. An organisation that had this office built at the Kali Besar in 1920.[198]

198 Obbe H. Norbruis, *Landmarks from a bygone era: life and work of Ed. Cuypers & Hulswit-Fermont in the Indonesian Archipelago 1897-1927*, (Volendam, 2020), 238.

The artefact's relevance for this thesis lies not so much in the portrayal of coffee, but rather in its absence from an otherwise fairly comprehensive overview of colonial commodities. The five columns from left to right depict tobacco, rice, sugar, tea, and rubber (Figure 3.30). These references must be understood as claiming a real or fictitious involvement in their commodity chains. Simultaneously, the absence of coffee should be viewed as symptomatic of its diminishing commercial value – both for this organisation and for the port of Batavia in general.

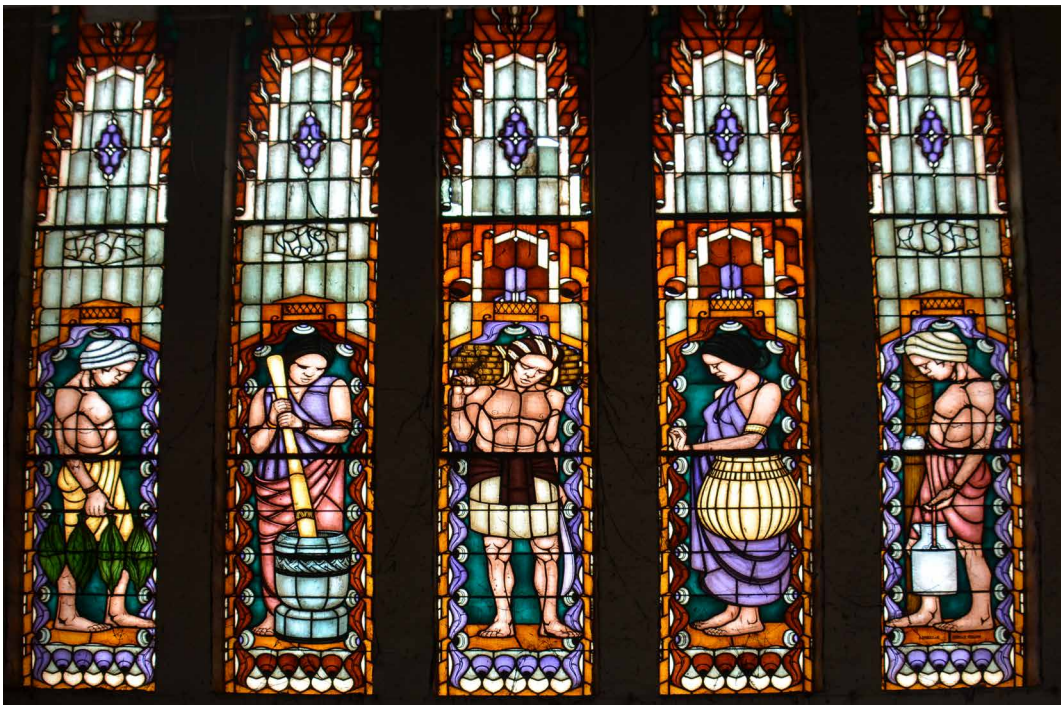


FIG. 3.30 Photograph of the stained-glass window in the office building of the Chartered Bank of India, China and Australia, built in 1920. Depicted from left to right are tobacco, rice, sugar, tea, and rubber. It is telling that the coffee that was so important to Batavia's history was missing.

Source:, O.H. Norbruis, Landmarks from a Bygone Era, Life and Work of Ed. Cuypers & Hulswit-Fermont 1897-1927, (Volendam, 2020), 59. Courtesy of Obbe Norbruis and Hulswit Fermont Cuypers Foundation.

3.5 Conclusion

This first empirical chapter reveals that clear phases can be distinguished in the development of the Javanese coffeescape. The periods can be divided schematically on the basis of the reigns of the Dutch East Indian Company, the collaboration of the Dutch Trading Society and the Colonial government in the Cultivation System and the freer market after the implementation of the Agricultural Law of 1870. Each was characterized by a combination of the specific type of colonial organisations, cultivation regimes, transport practices in relation to infrastructural interventions, and the system's scale in terms of landscape impact and volumes of coffee transported.

At the same time these phases are somewhat misleading. It is evident that continuity of certain coffeescape aspects was also prominent. In addition, some developments started just before or after what we could consider the boundaries of the historic phases. As a result, it seems legitimate to claim that there was always a certain degree of overlap between elements from different phases and systems. The various coffee fields as they were visible on the residency maps for the second half of the nineteenth century are exemplary.

Moreover, the developments on Java cannot be considered in isolation because, due to their connection with the Netherlands through the maritime coffee chain, they are fundamentally linked to developments on the consumption side there. The aim of the next chapter is therefore to reconstruct the developments in the coffeescape in the Netherlands for the same period and to determine whether, and if so, which, phases can be distinguished there.

4 Shaping the Dutch Part of the Maritime Coffeescape

This chapter reconstructs the Dutch part of the Global maritime coffeescape between 1700 and 1950 as the counterpart of the Javanese side analysed in the previous chapter. By doing so, we will encounter some of the same organisations, but also new ones as we move down the chain. However, the focus remains on how their decisions shaped the logistical, governance, and imaginative layers and how these together resulted in the coffeescape.

4.1 The Logistical Layer of the Dutch Global Maritime Coffeescape

The purpose of this section is to determine how the large volumes of coffee from Java arrived in the Netherlands and how these were further distributed and processed. Since all coffee was pursued by sending ships over the North Sea and all coffee also arrived via this sea, the reconstruction begins with the water routes that connected it with the main port cities of Amsterdam and Rotterdam. We will also look at the logistical interventions in the natural landscape to improve these sailing routes.[199]

199 During the period under investigation, other port cities in the Netherlands were also involved in the coffee trade. In the first years after its establishment, the Dutch Trading Society also shipped coffee to Antwerp. However, after the Belgian secession in 1830, some coffee was sent to smaller Dutch port cities such as Middelburg and Schiedam. However, for the sake of clarity, it was decided to focus on the two main ports.

4.1.1 Pursuing and Delivering Coffee via the North Sea

Viewed from the natural landscape, the water bodies that originally connected Amsterdam and Rotterdam to the North Sea were unfavourable for large-scale maritime transport. Ships had to take detours that were cumbersome to navigate because of sandbanks. This was further complicated by tides, currents, and the weather. These natural conditions made both the dispatch of ships to the East Indies and especially the return of heavily laden ships quite challenging.[200] Their cargo often had to be transhipped to smaller boats to continue their journey.

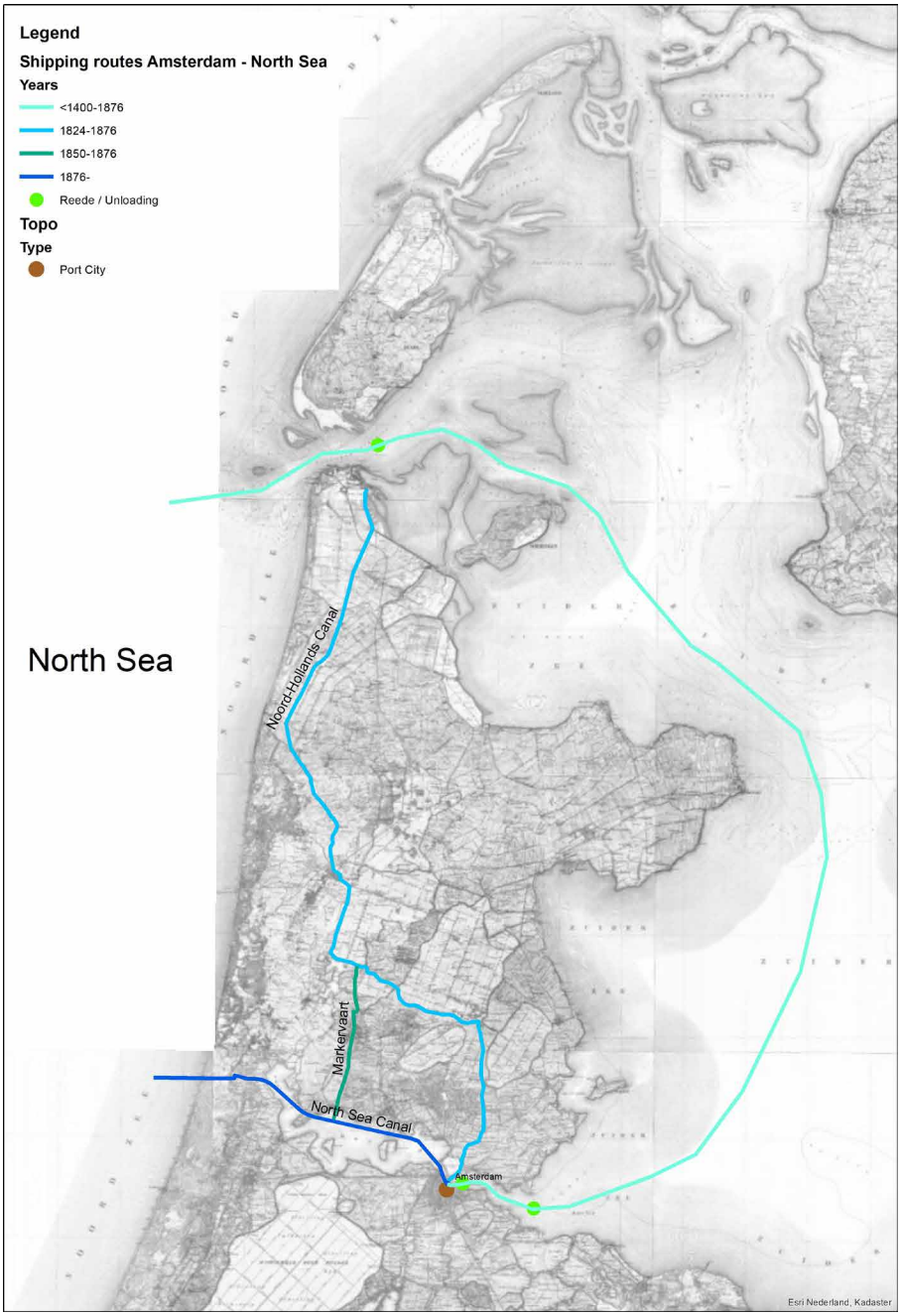
For centuries, Amsterdam was only accessible via the Zuiderzee and Rotterdam through the various river arms in the Meuse and Rhine delta. This situation was only improved when King Willem I initiated the construction of sea canals. The opening of the Noord-Hollands Canal in 1824 improved the accessibility of Amsterdam and in 1832 a canal through the island of Voorne achieved the same for Rotterdam.

Their routes were determined by the fact that at that time it was not yet technically feasible to construct large-scale, deep and direct waterways to the North Sea. As a result, these early nineteenth century canals led to some improvement, but hey could not accommodate the increase in the number and scale of ships. Hence, their opening almost immediately led to congestion and significant delays.[201]

Real improvements in access to the sea were achieved with the construction of the Nieuwe Waterweg (New Waterway) for Rotterdam (1872) and the Noordzeekanaal (North Sea Canal) for Amsterdam (1876). Their initiators were the Dutch state and the municipal authorities of the port cities. Figure 4.1a and Figure 4.1b show the routes taken over time between these port cities and the North Sea and reveal what a significant reduction in distance the last canals entailed compared to the previous situation. In addition, these canals ultimately became suitable for the large-scale steamships that emerged as the norm during the same period.

200 Van Driel, *Vier eeuwen veembedrijf*, 6-7.

201 Even by using the Voornse Canal, reaching the sea from Rotterdam could still take up to 35 days out of a total of 127 for the entire journey to the East Indies. Ludovicus Jacobus Rogier, "Met een Oostinjevaarder van Rotterdam naar zee in 1840, fragment uit een reisjournaal van N. A. Schrant", *Rotterdamsch Jaarboekje*, no. 89, 12 (1935), 87-107. Another issue was that fully loaded ships, upon arrival, still had to be unloaded before they could sail this canal. Famously, the large vessels of the Dutch East Indies Company were unloaded at the Reede of Texel and transported over the Zuiderzee and the IJ by so-called 'sea camels', large-scale mobile constructions which assisted them in floating.



4.1A The water routes available to ships between Amsterdam and the North Sea during the researched period.

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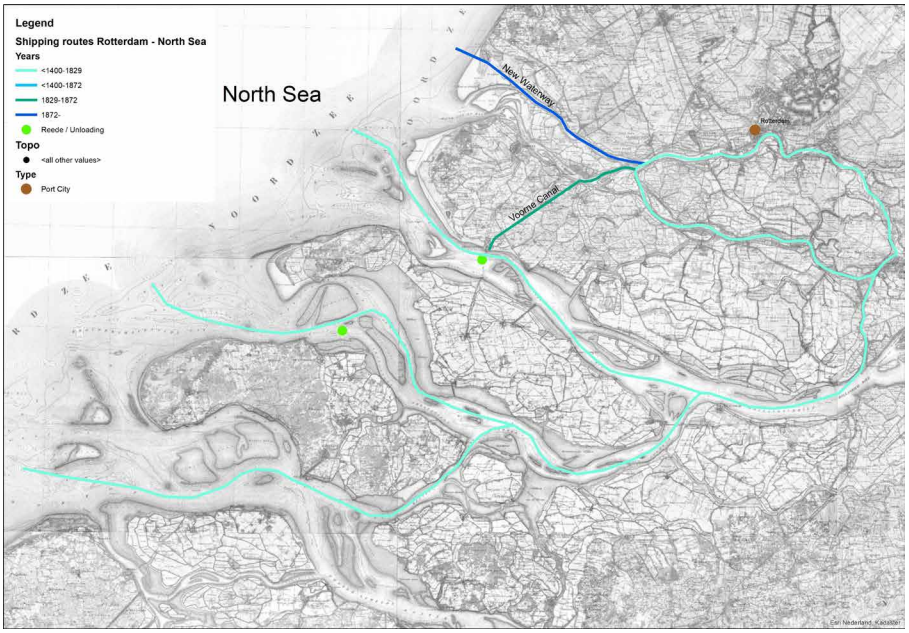

4.1B The water routes available to ships between Rotterdam and the North Sea during the researched period. The two maps clearly illustrate how the construction of Het Noordzeekanaal (Figure 4.1A) and the Nieuwe Waterweg (Figure 4.1B) resulted in a significant shortening of the routes that ships had to take. The green dots indicate the locations where the arriving loaded ships had to be unloaded before they could continue their journey further inland.

FIG. 4.1 The water routes available to ships between the North Sea and the port cities Amsterdam and Rotterdam during the researched period.

Sources 4.1A: 'Topographische Militaire Kaart van het Koninkrijk der Nederlanden', Topografisch-Militaire Dienst, The Hague, 1850-1864, 1:50.000, via: Topotijdreis, (https://www.topotijdreis.nl/), Kanalen in Nederland, (Canals in the Netherlands), (https://kanaleninnederland.nl/). A.M. Overwater, Van leitsagher tot loods, 400 jaar loodsen van Rotterdam, Stichting Historische Publicaties Roterodamum, historische werken over Rotterdam, Vol. 25, (Rotterdam, 1980). Made by the author.

Sources 4.1B: 'Topographische Militaire Kaart van het Koninkrijk der Nederlanden'. Kanalen in Nederland, (Canals in the Netherlands), (https://kanaleninnederland.nl/). Hilde Sennema, "Caland Against the Tides: The Turbulent History of the New Waterway", Portus online, (https://portusonline.org/caland-against-the-tides-the-turbulent-history-of-the-new-waterway/), 29-11-2021. Overwater, Van leitsagher tot loods. Made by the author.

4.1.2 Transhipping and Storing Coffee in Amsterdam and Rotterdam

The dedicated harbour facilities of the Dutch East India Company in Amsterdam and Rotterdam were another vital element of the eighteenth-century Dutch logistical layer of the coffeescape. Firstly, it was here that this organisation built and equipped its seagoing vessels to travel to the Dutch East Indies. Secondly, it was also the location where large volumes of coffee beans were transhipped, stored, and sorted.[202]

Specifically, in Amsterdam the latter activities took place in the Oost-Indisch Zeemagazijn (built in 1665) and Het Nieuwe Magazijn (built in 1720) at the organisation's premises in the north-west of the city towards the Zuiderzee. Figure 4.2a. In Rotterdam, the coffee was stored in a dedicated room of the organisation's city office next to the Meuse River.[203] Figure 4.2b. The fact that both locations were situated near where the coffee arrived from oversea reveals that the Dutch East India Company preferred to store the coffee at strategic locations that kept the supply lines short. This situation would continue until the liquidation of the Dutch East India Company in 1799.

The establishment of the Dutch Trading Society in 1824 resulted in a divide between the transport and the governance of coffee arriving from Java. The first was thereafter carried out by private shipping companies. This specialisation was not accidental, but part of the explicit plan for this entity to stimulate the Dutch (maritime) economy.[204]

The two main transporters of Java coffee during the first decades of the nineteenth century were Anthony van Hoboken and Willem Ruys. Each was responsible for a large share of the enormous volumes shipped to the Netherlands.[205] Hoboken remained quite successful in this until at least 1857.[206] Ruys continued to be important until the early twentieth century, following its continuation as the Rotterdamsche Lloyd in 1883.

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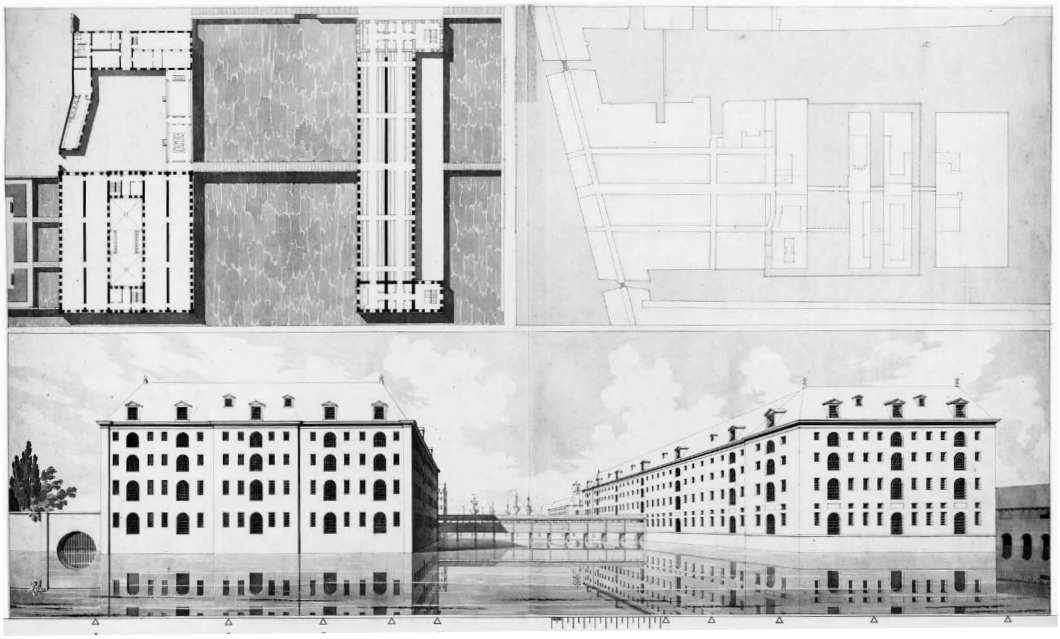
202 These terrains were identified with the help of the publication by Roelof van Gelder and Lodewijk Wagenaar, *Sporen van de compagnie: de VOC in Nederland*, (Amsterdam, 1988).

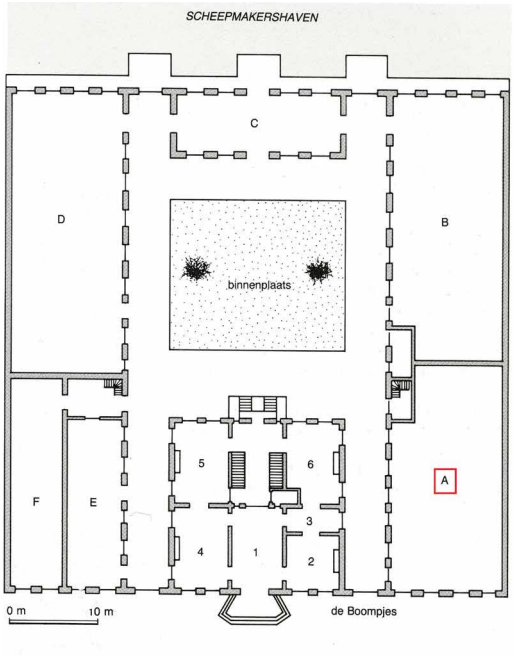
203 However, the organisation's yards in that city were not at the same location.

204 Mansvelt, *Geschiedenis van de Nederlandsche Handelmaatschappij*.

205 Hereafter: Hoboken and Ruys. Anthony Hoynck van Papendrecht, *Gedenkboek A. van Hoboken en co., 1774-1924*, (Rotterdam, 1924). Anthony Hoynck van Papendrecht, *De zeilvloot van Willem Ruys Jan Danielszoon en de Rotterdamsche Lloyd*, (Rotterdam, 1933). During the nineteenth century, this ranking changed. In Amsterdam, some shipping companies / trading houses also became involved, although not in equal numbers. Illustrative is Van Eeghen's decision to resume its shipping activities in the 1840s due to the opportunities resulting from the increase in colonial products offered for export by the Dutch Trading Society in Java. Amsterdam City Archive, 447 Archive of Trading House Van Eeghen and Co., description. Eventually van Eeghen would have six ships exporting goods.

206 Papendrecht, *Gedenkboek A. van Hoboken en co.*, 274.





4.2A Plan and drawing from 1822 of the two warehouses in Amsterdam: Het Nieuwe Magazijn (1772) on the left, and a plan for re-building the collapsed Oost-Indisch Zeemagazijn on the right.

4.2B First floor plan of the Rotterdam office of the Dutch East India Company, with the room where coffee was stored marked in red.

FIG. 4.2 The buildings of the Dutch East India Company used for the storage of coffee in Amsterdam and Rotterdam.

Source .4.2A: 'Ontwerptekening met perspectivische schets, situering en plattegrond voor het herstel van het Oost-Indisch Zeemagazijn op Oostenburg na de gedeeltelijke instorting op 14 april 1822', Jan de Greef, Amsterdam City Archive, inv. no. 10056 Collectie Stadsarchief Amsterdam: bouwtekeningen, no. 010056917234.

Source 4.2B: R. van Gelder and L. Wagenaar, Sporen van de compagnie, de VOC in Nederland, (Amsterdam, 1988), 111.

Because both organisations existed due to maritime trade in general, their existence obviously cannot be confined to their role in the coffee chain that is central to this thesis. However, when the opportunity arose due to the establishment of the Dutch Trading Society, they secured a vital position in the overseas transport of Java coffee. In fact, they made an important contribution to its functioning and sustained themselves for a considerable period.

From the second half of the nineteenth century, large-scale steam shipping companies increasingly dominated the Dutch coffee transport. The first direct delivery from Java to the Netherlands by steam occurred in 1872, and by around 1894, the share of sailing in the total Dutch coffee supply had become negligible.[207] The Amsterdam-based Stoomvaart Maatschappij 'Nederland' and the Rotterdamsche Lloyd (who we encountered in the previous chapter) became essential for the connection with Batavia.[208]

These coffee transporters also shaped the Dutch part of the coffeescape. They did so by relocating their logistical activities, thus integrating new sites of arrival, processing, and distribution. Their actions closely followed general harbour developments, as described in various historical studies and models.[209] Figure 4.3 summarises the relocations of Ruys, as this shipping firm was based in Amsterdam, before it moved to Rotterdam in 1834.[210] There it was relocated three times prior to taking office next to the Meuse River at the Willemskade. There, Ruys started the Rotterdamsche Lloyd. This organisation subsequently relocated from the city centre to the new large-scale port areas at deep water to accommodate the increasingly larger steamships.

That this relocation trend also occurred in Amsterdam underlines its more general nature (Figure 4.5) and should be explained by the construction of the large, direct canals towards sea around that time. A telling exception is the fact that Hoboken never relocated its business. As this coincides with the fact that this sailing company never made the switch from sail to steam seem to suggest that Hoboken's ability to remain integrated into the Global maritime coffee chain diminished over time.[211]

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207 Hugo van Driel, "Uitschakeling van de Nederlandse koffiehandel in de negentiende en twintigste eeuw?", *NEHA-Jaarboek voor economische-, bedrijfs- en techniekgeschiedenis*, no. 60 (1997), 165.

208 Van Driel, *Vier eeuwen veembedrijf*, 77. Michiel George de Boer, *Gedenkboek der Stoomvaart Maatschappij Nederland 1870-1920*, (Amsterdam, 1920), 72. The Dutch Trading Society was closely involved with this shipping company. Mansvelt, *Geschiedenis van de Nederlandsche Handelmaatschappij*, 90.

209 See for example the Anyport Model of James Harold Bird, *The Major Seaports of the United Kingdom*, (London, 1963).

210 Bram Oosterwijk, *Reder in Rotterdam, Willem Ruys (1809-1889)*, (Rotterdam, 1989), 19.

211 Hoynck van Papendrecht, *Gedenkboek A. van Hoboken en co.*, 17 and 97.

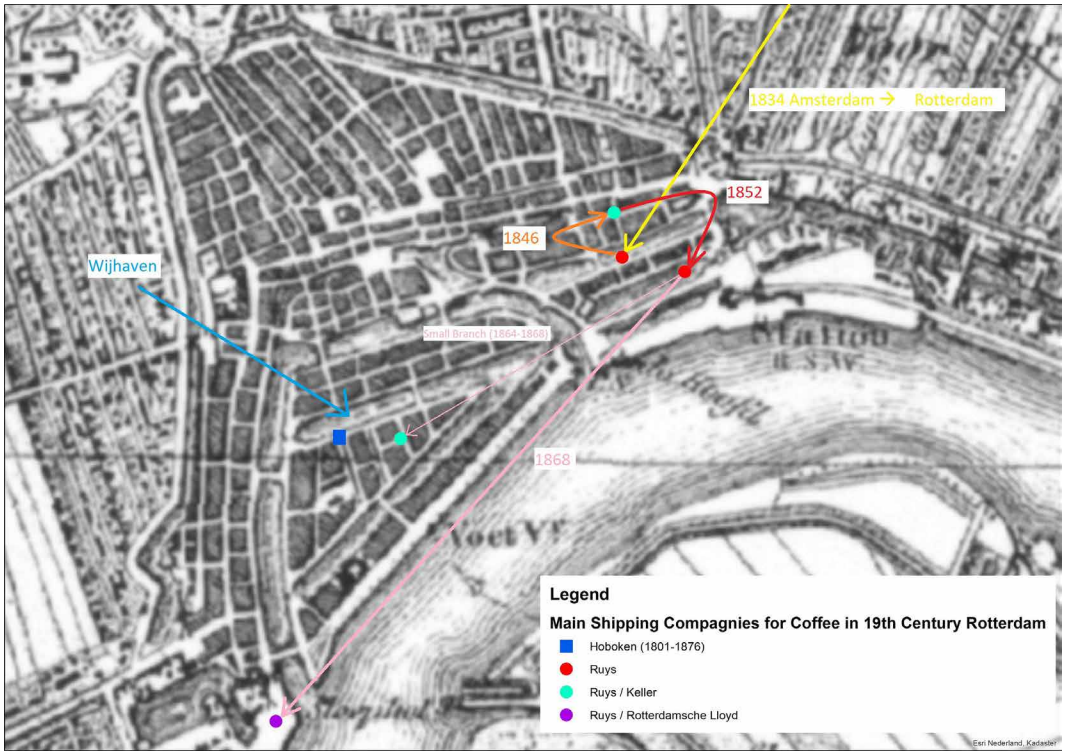

FIG. 4.3 This map of Rotterdam shows the locations of Hoboken and Ruys (later the Rotterdamsche Lloyd) during the nineteenth century. The difference in the number of times they relocated is striking.

Sources: Bram Oosterwijk, Reder in Rotterdam, Willem Ruys (1809-1889), (Rotterdam, 1989) and Oosterwijk, Koning van de koopvaart, Anthony van Hoboken (1756-1850), 2nd extended edition, (Amsterdam, 1996). Background: 'Topographische Militaire Kaart van het Koninkrijk der Nederlanden'.

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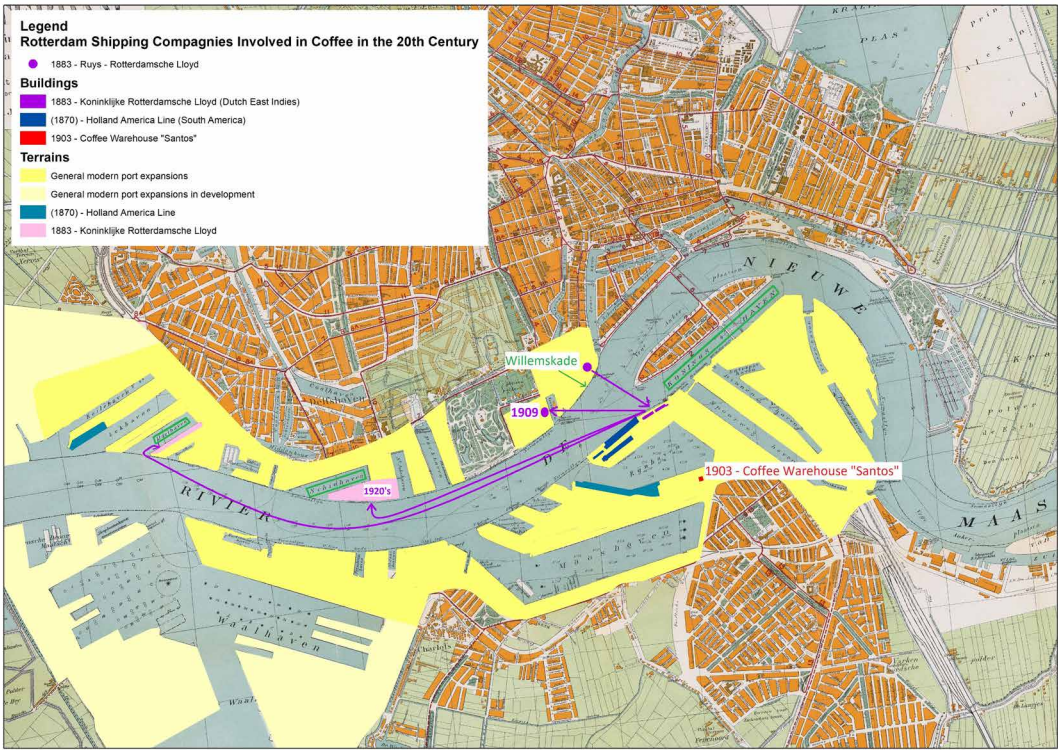

FIG. 4.4 This map from 1925 shows the subsequent relocations of the main shipping companies involved in the maritime transport of coffee to Rotterdam. The Rotterdamsche Lloyd relocated from the Willemskade to the left bank of the Meuse River, next to the Koningshaven, and then returned to the right bank between the St. Jobshaven and the Schiehaven, where it acquired large terrains. In 1925, it also had a significant establishment along the Ijsselhaven dedicated to cargo. The Holland America Line was included for its importance in importing coffee from South America (to be discussed later).

Sources: G.J.J. Jongh, Route-atlas van den Rotterdamsche Lloyd, 4th edition, (Rotterdam, 1929) and 'Plattegrond van Rotterdam in 1925', J. (J.) Treffers, 1925, 1:10.000, Rotterdam City Archive, 4001, Collectie kaarten en plattegronden 1558-, no. I-187-01. Made by the author.

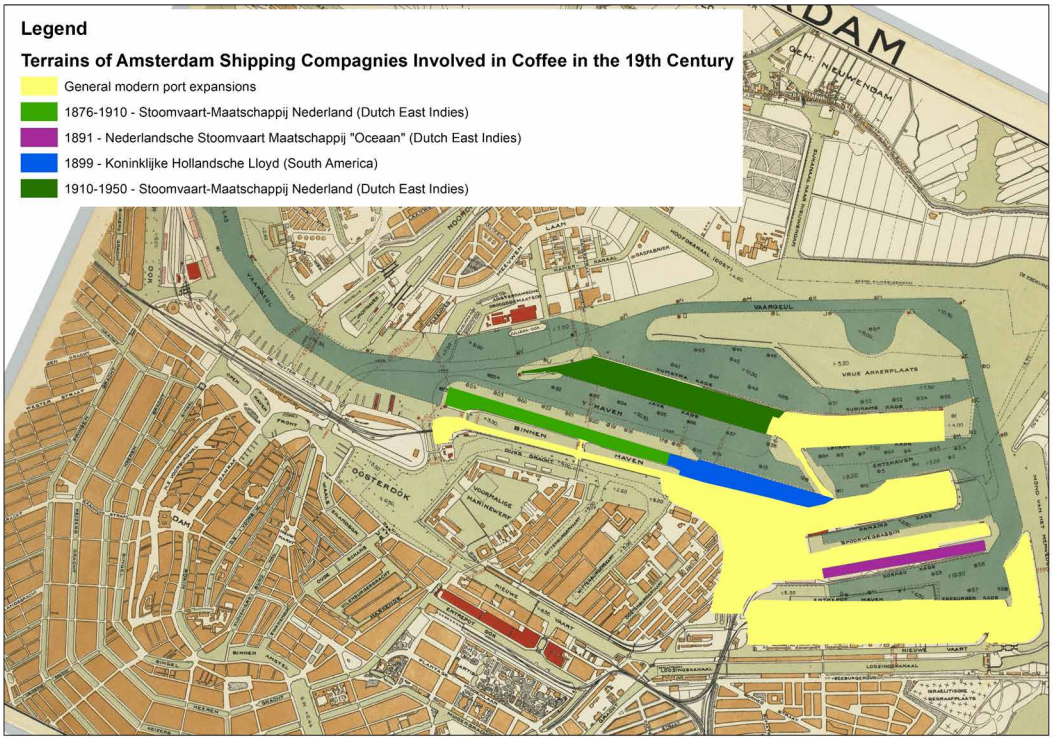

FIG. 4.5 This map of Amsterdam from 1918 depicts the modern, large-scale port facilities in the northeast of the city and the locations of shipping companies that imported coffee. In this city too, companies like the Koninklijke Hollandsche Lloyd obtained their coffee from South America in this period.

Source: 'Haven van Amsterdam', Dienst Openbare Werken, 1918, 1:10.000, Amsterdam City Archive, 10095 Collectie Atlas Kok, no. KOKA00373000002. Made by the author. [212]

212 Between 1870 and 1876 the Stoomvaart-Maatschappij Nederland was located in Den Helder, as the North Sea Canal was not constructed yet.

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4.1.3 Storing Coffee in Amsterdam and Rotterdam Between 1824 and 1950

After the establishment of the Dutch Trading Society in 1824, and especially its entanglement with the Cultivation System in Java from 1830 onwards, the incoming volumes of coffee increased considerably.[213] The Dutch Trading Society thus had to find a place to store all of it. This was especially challenging because one of the former warehouses of the Dutch East India Company in Amsterdam had just collapsed.[214]

The required storage space was found in many warehouses distributed throughout the inner cities of Amsterdam and Rotterdam. This implies that the Dutch Trading Society did not store the coffee itself but hired external parties. This decision should be explained by the fact that local merchants were shareholders of the Dutch Trading Society. Accordingly, between 1824 and 1858, the coffee storage activities were carried out by the Pakhuismeesteren van de Koffie (Warehouse Masters of the Coffee) a subsidiary of the Dutch Trading Society.[215]

After the abolition of this organisation in 1858, the Dutch Trading Society began to rent private warehouses directly from their owners: the so-called veemen. Due to a lack of (access to) sources, it was not possible to determine accurately whether any warehouses were specially built at that time to store coffee. Based on the construction years of buildings that still exist and the fact that reuse would have made sense, it is likely that both occurred.[216]

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213 Breman, *Koloniaal profijt*, 255.

214 Het Oost-Indisch Zeemagazijn collapsed in 1822. No indications were found that the old warehouse (i.e., Het Nieuwe Magazijn) was used by the Dutch Trading Society for this purpose.

215 Locating this organisation, or the warehouses it used, proved to be impossible based on the available sources. The organisation was not found in general sources such as address books, nor did it leave its own archive in the City Archive of Amsterdam or the National Archive. This might suggest that this 'independent' organisation operated from within the office of the Dutch Trading Society. Alternatively, this organisation may have operated from within the office of the Pakhuismeesteren of the Thee, which was located in the Oost-Indisch Huis until 1883. In both cases, it is likely that the storage of coffee was already beginning to take place in the warehouses in the inner city, in a manner that became characteristic of the period after 1858, when the veemen took over. C. Bierens de Haan, *Memorie boek van Pakhuismeesteren van de Thee te Amsterdam, 1818-1918, en de Nederlandsche theehandel in den loop der tijden*, (Amsterdam, 1918).

216 Online database of Dutch National Monuments, (https://rijksmonumenten.nl/).

FIG. 4.6 Photograph from 1936 of traditional warehouses at the Brouwersgracht in Amsterdam, reused for the storage of coffee delivered under the auspices of the Dutch Trading Society during the nineteenth century.

Source: 'Brouwersgracht 206-200', Amsterdam City Archive, 10009 Archief van de Dienst Ruimtelijke Ordening en rechtsvoorganger: foto's, no. 010009004997.

These warehouses were clearly vital elements of the logistical layer of the Dutch coffeescape. Hence, to observe this layer's spatiality, the warehouses were mapped for two specific points in time: 1858 and 1910. The former marks the year that the Dutch Trading Society decided to rent warehouse space from the veemen, and it is the first year in which specific warehouses were mentioned in their coffee auction books. 1910 is on the eve that new large-scale warehouses in newly constructed port areas outside the old city centres would become the norm for coffee storage.

When we examine the first map depicting the warehouse locations in Amsterdam, a number of notable features emerge. Firstly, there is a concentration in three areas located around the Brouwersgracht (A), Westelijke Eilanden (B), and Achtergracht (C). Secondly, solitary warehouses can be seen scattered along the

(New) Keizersgracht (indicated by the small blue circles). Thirdly, there is a looser concentration around Uilenburg, east of the Nieuwmarkt (indicated by the large brown oval). In addition to this, there are seven truly isolated cases. It also seems that only one building located in the former Dutch East India Company district was re-used for coffee storage during this period. Figure 4.7.

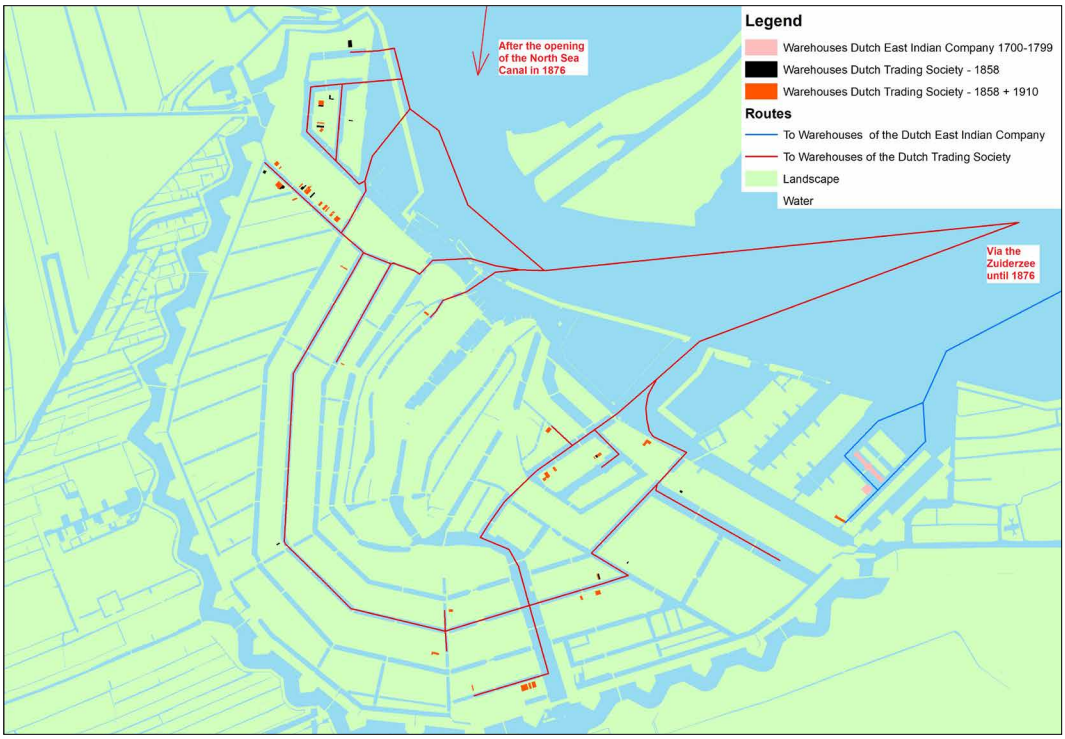

FIG. 4.7 Map of warehouses in Amsterdam used for storing coffee during the Dutch East India Company between 1700 and 1799 (in pink) and the Dutch Trading Society between 1858 and 1910 (in black). For the latter period, 90 warehouses were identified, of which 22 were only in use in the first year. The other buildings were utilised in both years. The map further depicts the most likely routes over water used to ship the coffee between the sea and the warehouses. The blue line indicates the straightforward routes that the ships of the Dutch East India Company took, while their red counterparts indicate the various routes possibly used to transport the coffee to the warehouses of the Dutch Trading Society until 1910.

Sources: Auction books Dutch Trading Society, Dutch National Archive, 2.20.01, Nederlandsche Handel-Maatschappij, 1824-1964, inv. nos. 10974-10982 and R. van Gelder and L. Wagenaar, Sporen van de compagnie, de VOC in Nederland, (Amsterdam, 1988). Background: cadastre 1832, via HISGIS, (https://www.hisgis.nl). Made by the author.

The core question is what the spatial distribution of these coffee warehouses reveals about the considerations of the Dutch Trading Society.[217] First, various locations should be understood as typical for a staple market. The rationale then is that a location receives its strategic suitability as a storage place from short and easy transport of the coffee from and to the sea. This strategy is evident from the numerous warehouses located near the port and the IJ, particularly along the Brouwersgracht and on the Westelijke Eilanden in the northwest of the city.

Some warehouse locations, however, cannot be explained by this, as they are situated far removed from the IJ, despite their accessibility via many waterways. This applies in particular to the locations at the Achtergracht and Nieuwe Keizersgracht in the southeast of the city. It is likely that these locations consisted of vacant lots for a relatively long time after the city's seventeenth-century expansion.[218] Perhaps the veemen could acquire these plots at low prices and gladly used them to construct warehouses. Perhaps the location is related to its proximity to the Amstel River, which was used for inland transport.[219]

Lastly, the fact that some warehouses were used in both years while others were not suggests two things. On the one hand, that there was some degree of routine regarding which buildings to use. On the other hand, that there was a flexible arrangement in case of insufficient capacity. However, it does not seem that this followed any specific spatial pattern.

The fact that the main storage locations were chosen based on short supply lines is further confirmed by the spatial pattern in Rotterdam (Figure 4.8). There too, the warehouses were concentrated in the main port district in the southwest of the inner city and close to the River Meuse. These were the main routes via which the coffee was delivered by the Dutch East India Company and the shipping companies commissioned by the Dutch Trading Society and that were used for further distribution by other skippers.[220]

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217 It is theoretically also possible that the spatial distribution of warehouses in Amsterdam was prompted by the aim to reduce risks from fire. However, this could also have been achieved by using warehouses at multiple locations along the IJ. As this was clearly not the case and given that the Brouwersgracht was characterised by a large series of continuous warehouses, this does not seem to be a convincing explanation.

218 Jaap Evert Abrahamse, *De grote uitleg van Amsterdam: stadsontwikkeling in de zeventiende eeuw*, (Bussum, 2010).

219 This waterway indeed played a role in the further transport of coffee to the wider Amsterdam hinterland, and it was a transport artery until the twentieth century. However, this connection could not be determined based on the sources found in this research. Jaap Evert Abrahamse, Menne Kosian, and Erik Schmitz, *Atlas Amstelland, biografie van een landschap*, (Bussum, 2012), 54.

220 More precisely: Leuvehaven, Wijnhaven, Scheepmakershaven and Boompjes.

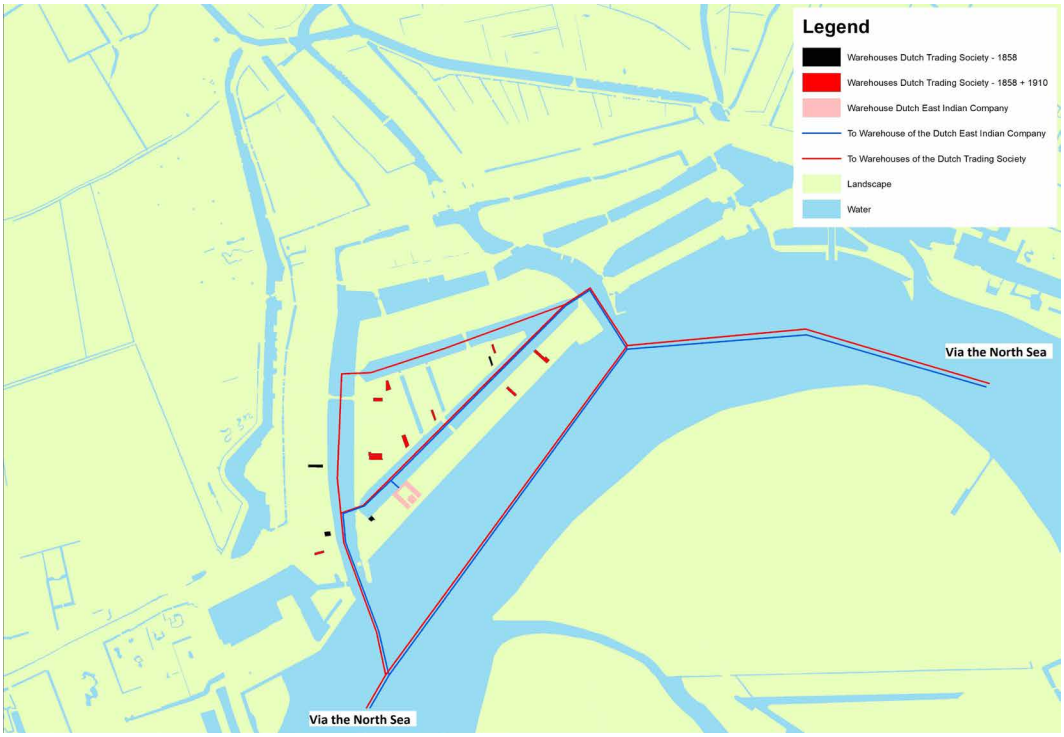

FIG. 4.8 This map illustrates the locations of warehouses used for coffee storage in Rotterdam by the Dutch East India Company and the Dutch Trading Society. It also depicts the routes that ships most likely took to transport the coffee to and from these warehouses. The fifteen identified warehouses from the period of the Dutch Trading Society were all situated in the main harbour district close to the River Meuse.

Sources: Auction books Dutch Trading Society, and van Gelder and Wagenaar, Sporen van de compagnie. Background: cadastre 1832, via HISGIS, (https://www.hisgis.nl/). Made by the author.

The changing role of the veemen within the Global maritime coffee chain over the long term led to important changes in the logistical layer. Although the veemen started as 'simple' handlers and storers of coffee, their tasks diversified and became more significant for how the Global maritime coffee chain functioned. This process primarily occurred in the latter part of the nineteenth century. However, this was not a linear and unambiguous development, since their role in handling coffee changed multiple times.

Originally, the Amsterdam veemen were competing corporations of individual carriers that delivered goods brought in from overseas to the weighing houses in Amsterdam. This practice originated in the sixteenth century, well before coffee was introduced. They only became involved in handling the large volumes of coffee during the eighteenth century, which resulted in the first change in the organisations' role.

FIG. 4.9 A painting by Isaac Israëls from 1886 depicting koffiepiksters ('coffee peelers'). This activity clearly belongs to the Global maritime coffee chain, as it was a vital link that existed only because of the large-scale overseas coffee deliveries. Simultaneously, its impact on the global maritime coffeescape was limited, as it took place in attics of buildings that were not necessarily deliberately constructed for this purpose.

Source: 'The Coffee Sorters by Isaac Israels', Isaac Israels, Wiki Commons, (https://commons.wikimedia.org/wiki/File:The_Coffee_Sorters_by_Isaac_Israels.jpg).

To understand the change, we must return to the initial situation. The Dutch East India Company never delivered its Java coffee to one of the city's weighing houses. On the one hand, the Company executed a state-sanctioned monopoly. On the other, the city's bylaws required weighing only when goods passed through smaller boats before storage. Because the Company moved its Java coffee directly from its seagoing ships to one of its two warehouses, this requirement did not apply.[221]

Over time, instead of carrying out their original task, the veemen occasionally began to assist the Dutch East India Company in storing coffee at times when extra labour was required due to particularly large deliveries. The dissolution of the Dutch East India Company and the establishment of the Dutch Trading Society about twenty-

221 Van Driel, *Vier eeuwen veembedrijf*, 16.

five years later did not significantly affect this role. The task of the veemen remained limited to providing extra labour for the Dutch Trading Society on an occasional basis. The Society assigned this task to the aforementioned Pakhuismeesteren van de Koffie, which directly caused this situation.

It is therefore not surprising that the role of the veemen increased significantly when the Dutch Trading Society abolished the Pakhuismeesteren van de Koffie. From then on, the handling of coffee was outsourced to a combination of three such organisations: Blaauwhoedenveem, Klapmutsenveem, and Roodhoedenveem. The tasks were increasingly assigned to the first.[222]

This change in the role of veemen also entailed an extension of tasks, as the peeling and sorting of the beans became increasingly important next to the traditional transhipment and storage practises. Prior to 1864, peeling and sorting had been seasonal work that employed only a limited number of labourers (mainly women and children). This was related to the fact that the Dutch Trading Company auctioned the Java coffee only twice a year.

A consequence of the increase in the frequency of coffee auctions to ten times a year was that the number of coffee peelers had to be increased dramatically.[223] These changes strongly encouraged the veemen to adapt. It was during this period that they transitioned to semi-specialised storage companies. This entailed, among other things, that they increasingly acquired ownership of the warehouses identified in the previous section.[224]

While the traditional warehouses already represented a key element of the logistics layer of the coffeescape, a third change in the role of the veemen had a particularly large impact on its spatial evolution. This relates to the fact that between 1870 and 1940, these organisations became fully operating port companies. This was an indirect outcome of the decision by the Dutch Trading Society to cease its protective and regulating measures regarding guaranteed shipping tonnage from the Dutch Indies, and the withdrawal of the colonial state from the Cultivation System in Java in 1870.

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222 Ibidem, 55-58 and 72.

223 P. van Dijk, *Koffiebranderijen en theepakkerijen,* Stichting Projectbureau Industrieel Erfgoed Nederland, report series, no. 36 (Zeist, 1999), 4 and 9. Due to the limited spatial impact and the frequency of only twice a year, this activity was not included in the analysis of the coffee landscape before 1869.

224 Van Driel, *Vier eeuwen veembedrijf*, 33-72.

The consequence of these changes was that the transport of coffee from the Dutch East Indies became characterised by free competition between shipping companies. The reason for this was that the importance of speed and cost efficiency in long-distance commodity transport had increased. What was also of great importance was that after the abolition of the Cultivation System, the number of private cultural enterprises in Java increased enormously. This systematic change of the maritime coffee transport was in addition driven by the transition from sailing ships to larger steamships, accelerated by the opening of the Suez Canal in 1869.

4.1.4 The Effects of Increased Competition on Locations of Veem Warehouses

The new situation also led to severe competition among the Amsterdam veemen, as their coffee deliveries were no longer guaranteed by the Dutch Trading Society. A shared challenge for all veemen was the scale of operations. Firstly, as steamships could carry larger volumes, the veemen needed warehouses with much greater capacity to store peak supplies, compared to their current warehouses.[225]

Secondly, these ships had to dock in deep water, as it was impossible for them to get close to the old warehouses in the centre of Amsterdam due to the narrow and shallow canals. In fact, the conventional practice of unloading ships on open water and transhipping the coffee onto smaller barges was still the norm until 1910.[226] This practice was very laborious, time-consuming, and therefore expensive. It even had become a greater bottleneck in the chain following the construction of the large-scale North Sea Canal in 1876.[227]

Hence, the veemen had ample reasons to reorient themselves and to seek out more suitable locations for building large-scale warehouses near deep water. This resulted in a spatial shift of the veemen from the scattered warehouses in the city centre of Amsterdam closer to the IJ. In 1879, Vriesseveem, a relative newcomer in the coffee processing business, since it had never handled any coffee from the Dutch Trading Society, constructed the first new large-scale warehouse outside the seventeenth century city centre at the Nieuwe Vaart.

225 Ibidem, 77.

226 Initially, this was even the practise at the newly built warehouses located next to deep water. Ibidem, 60.

227 Ibidem, 72-96.

The newly established docks in the northeast of the city, particularly the Handelskade, thereafter became the prime location in Amsterdam for Vriesseveem and Blaauwhoedenveem to compete.[228] The Handelskade was the preferred location because of its facilities as a large-scale transit quay, situated next to deep water and well connected by rail to the hinterland.

The first warehouse constructed there was of enormous dimensions for the time; it was comparable to many conventional veem warehouses in the old city centre.[229] Although the initiative had been taken by N.V. Handelskade, a new commercial entity, it quickly fell into the hands of Blaauwhoedenveem (1885-1886). Though by coincidence, the acquisition fitted well with the strategy being developed by the organisation at that time. This cumulated in 1893 when Blaauwhoedenveem decided to redirect its assets to this new port area and permanently cease the purchase of any new warehouses in the city centre.

The Handelskade became an important location for the storage and processing of coffee for Blaauwhoedenveem as well as Vriesseveem, and it would remain so after their merger in 1917.[230] However, the competition between the coffee-processing veemen was not limited to that location. In 1896, Het Nederlandsche Veem built a large-scale warehouse and peeling factory for coffee on the northwest side of the Amsterdam waterfront.[231] In this way, adding a new feature to the logistical layer of the Dutch Global maritime coffeescape. It shows that the opening of new locations and buildings was strongly related to the attempts of both new and existing veemen to secure their position in the coffee chain.[232]

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228 It was built by the Amsterdam municipality who rented out the first terrains in 1881. Ibidem, 84.

229 Ibidem, 85.

230 Ibidem, 108.

231 It is worth mentioning that one of the former veemen was Klapmutsenveem. It had recently lost the coffee trade of the Dutch Trading Society. Ibidem, 90.

232 However, although the relocation of warehouses to the modern port facilities in Amsterdam made sense from a logistical point of view, the management of Blaauwhoedenveem was sceptical about whether the Amsterdam traders wanted to place their goods that far outside the city's trade centre. This perception probably had to do with the increased difficulty in controlling, managing, and inspecting the goods the traders sold due to the increased distance. As a result, the traders had to place greater trust in the abilities of the veemen. Van Driel, *Vier eeuwen veembedrijf*, 86.

FIG. 4.10 Photograph from ca. 1921 of the large-scale dedicated warehouse of N.V. Blaauwhoedenveem-Vriesseveem at the Oostelijke Handelskade in Amsterdam, specifically built for the storage of (colonial) commodities delivered from overseas including coffee. In 1917, the two competitors had merged.

Source: 'Oostelijke Handelskade 25-27', Amsterdam City Archive, Collectie Stadsarchief Amsterdam: foto's, no. OSIM00004004985.

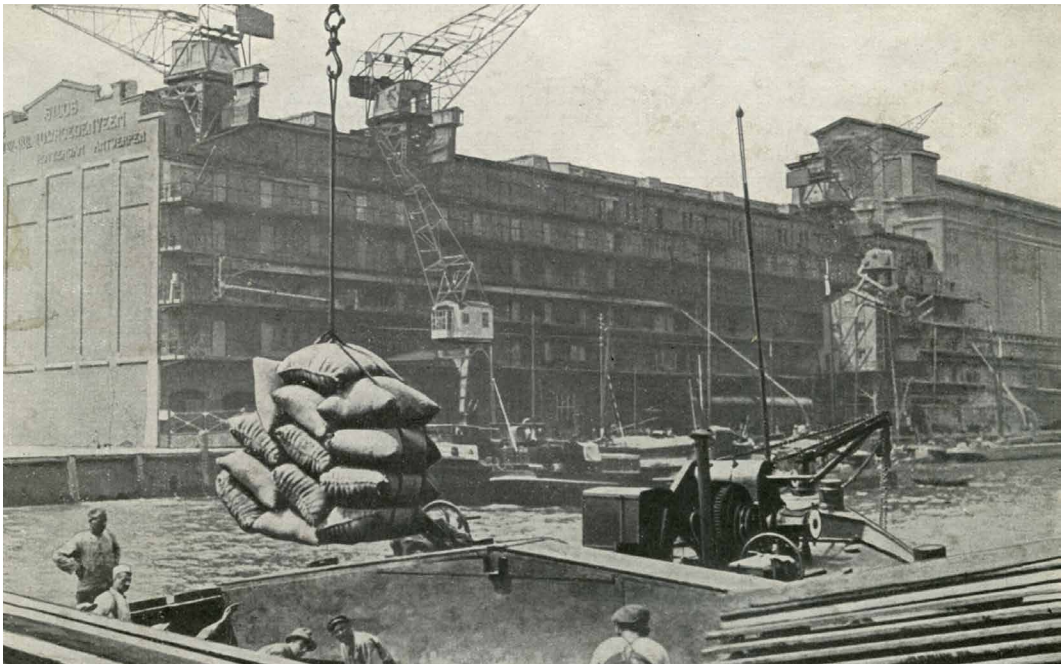

FIG. 4.11 Photograph of the St. Job's warehouse of N.V. Blaauwhoedenveem in Rotterdam. In the foreground, the transhipment of bales (possibly containing coffee) onto an inland ship in the St. Jobshaven is visible.

Source: 'Overladen van balen en pakken uit een binnenvaartschip in de St. Jobshaven voor het pakhuis van Sint Jobs Blauwhoedenveem', Andor von Barsy, Rotterdam City Archive, 4002, Collectie Havenbelangen, 1925-1985, no. FD-3242.

The behaviour characteristic of the major Amsterdam veemen to become integrated into, and competing over, the Global maritime coffee chain was also the primary reason for extending their activities to Rotterdam. It was the Amsterdam Vriesseveem that initiated the rivalry in Rotterdam by establishing itself there in 1871. Blaauwhoedenveem followed in 1878.[233] The timing of establishing these branches was also related to the opening of the New Waterway.

The subsequent relocation of veem buildings within Rotterdam largely resembled the developments in Amsterdam, with warehouses being constructed near locations where large-scale ships could moor. However, the spatial developments in Rotterdam occurred over a shorter period and involved more relocations. This was due to the rapid development of the port of Rotterdam. The veemen were initially located in the inner city at the Leuvehaven. Unfortunately, due to the lack of precise data, it was difficult to map all warehouses. Nevertheless, it is evident that these buildings must have been small in scale, largely reflecting the situation in the inner city of Amsterdam until the end of the nineteenth century.

The veemen subsequently moved their activities to the Wilhelminakade on the south bank of the River Meuse, where they established large warehouses from 1891 to 1894 as part of a competition comparable to that at the Handelskade. The Wilhelminakade derived its special attractiveness from the initial presence of the Rotterdamsche Lloyd and the presence of the Holland America Line. As demonstrated earlier, the former was significant for its connections with the Dutch East Indies, while the latter was pivotal for the increasing importance of coffee imports from South America.[234] The latter also explains why Blaauwhoedenveem built a new warehouse at this location in 1903 to store coffee, which continued to operate until 1950.[235]

The background thereof was that after 1886, the coffee business of Blauwhoedenveem came under increasing pressure. This was caused by the fact that the veem received less and less coffee from the Dutch Trading Society.[236]

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233 Ibidem, 80.

234 Ibidem, 96-99. Especially proximity to the Holland America Line was an important criterion. At the second location, the railway connections were also significant.

235 *Bouwhistorische verkenning pakhuis Santos*, Flexus AWC, (Rotterdam, 2011), 11. However, it should be noted that the building was never truly successful because its location on the quay was too far from deep water to be efficient.

236 The abolition of the Cultivation System in 1870 meant that in the period between 1870-1917 the Dutch Trading Society received coffee from what remained of the forced coffee cultivation of the Priangan System.

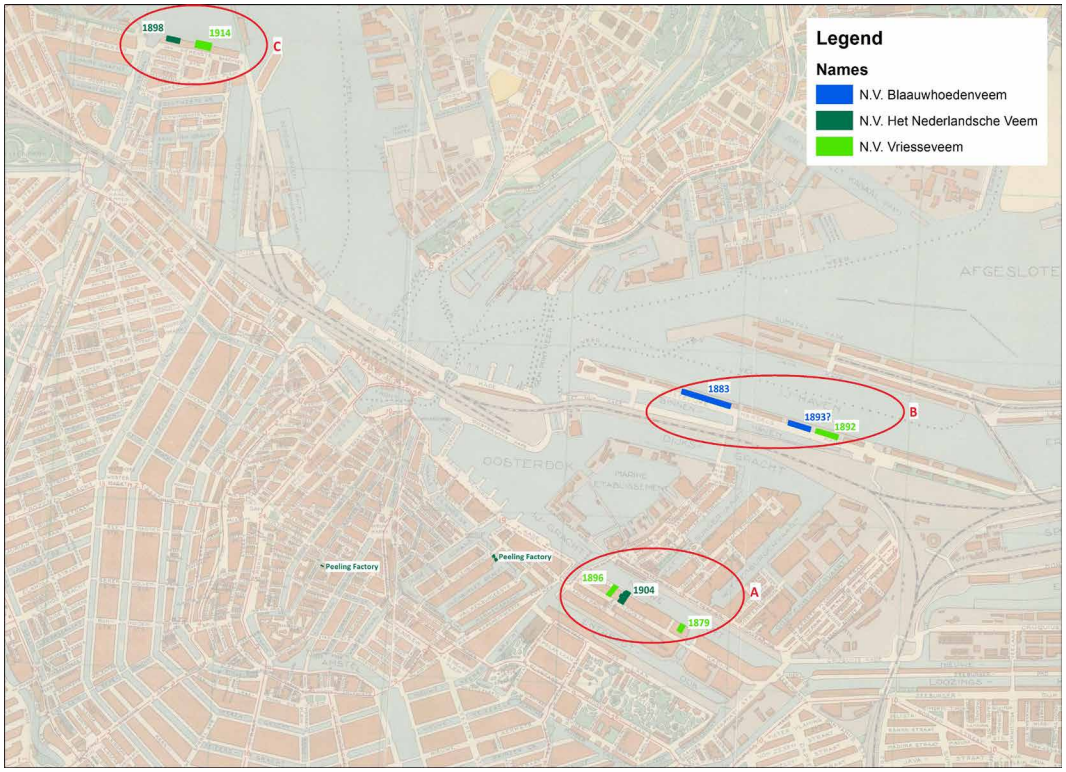

FIG. 4.12 aMap of Amsterdam showing the locations to which the veemen moved from the inner city and where they built their large-scale warehouses in their pursuit of proximity to deep water, shipping companies, and modern port facilities: A) the Nieuwe Vaart, B) the Handelskade, C) the Houthaven.

Sources: H. van Driel, Vier eeuwen veembedrijf, de voorgeschiedenis van Pakhoed 1616-1967, (Rotterdam, 1992), Amsterdam City Archive, Collectie Stadsarchief Amsterdam, 30274 Address Books, 1-98, (1821-1940).[237] *Amsterdam op de kaart, (Amsterdam on the Map), (https://amsterdamopdekaart.nl/), 13-8-2024. Background: 'Kompas van Amsterdam', Smulders & J. Co, 1948, 1:11.500, City Archive Amsterdam, Collectie Stadsarchief Amsterdam: kaarten van geheel Amsterdam, no. KAVB00030000001. Made by the author.*

237 See appendix II for a detailed discussion of the (problematic) features of this source and its usability for this thesis.

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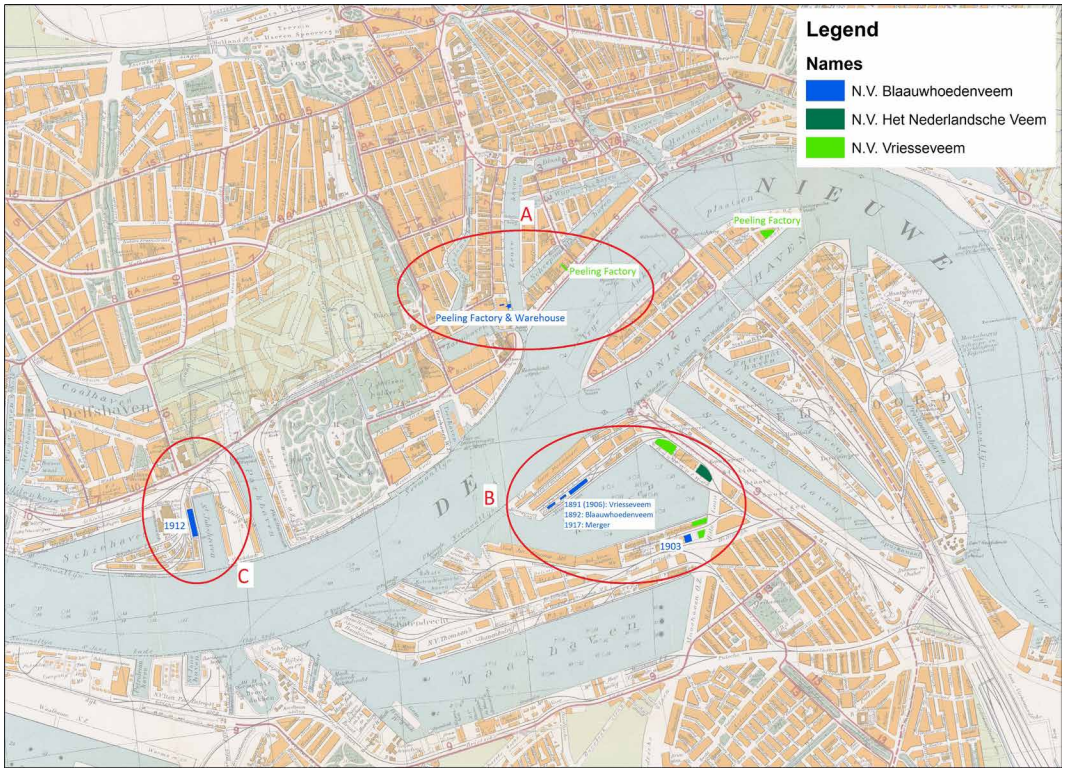

FIG. 4.13 Map of Rotterdam showing the locations to which the veemen moved from Amsterdam and where they built their large-scale warehouses with the same intentions. For the unlabelled buildings, it could not be established with certainty whether they were used for coffee. Circled in red: A) The old city, B) The Wilhelminakade and the establishments around the Rhine harbour basin, C) the St. Jobs harbour.

Sources: Rotterdam City Archive, 3023 Adresboeken Rotterdam, nos. 01-77, (1808-1939) and 'Plattegrond van Rotterdam', Bureau van gemeentewerken, City Archive Rotterdam, Topografische seriekaarten vervaardigd door Gemeentewerken Rotterdam, 1903, 1:2500, no. I-138-02. Background: 'Plattegrond van Rotterdam in 1925', J. (J.) Treffers, 1925, 1:10.000, Rotterdam City Archive, 4001, Collectie kaarten en plattegronden 1558-, no. I-187-01. Made by the author.

In response to this decline, the veem constructed the first dedicated large-scale coffee peeling plant in Rotterdam that year. Still, it was ultimately Het Nederlandsche Veem that became the most successful in this coffee chain activity. It even had the only profitable coffee peeling facility in Amsterdam in 1927 and at one point handled most coffee arriving from the Dutch East Indies.[238]

Lastly, although the Wilhelminakade in Rotterdam remained a prime location for the veem warehouses, in 1910 Blaauwhoedenveem built an enormous warehouse at the Sint Jobshaven on the northern shore of the River Meuse. This warehouse was an immediate success and solidified Blaauwhoedenveem's position in Rotterdam. The building stored and processed coffee with an integrated peeling plant.[239] This expansion by Blaauwhoedenveem to the St. Jobshaven was unique in that it anticipated the relocation of the Rotterdamsche Lloyd and other shipping companies from the left bank to the right bank of the Meuse River.

The previous long-term spatial history of the veemen can be summarized as attempts to become integrated in the Global maritime coffee chains arriving in the Netherlands. As their sector of handling coffee after arrival became progressively driven by fierce competition, these organisations had to adapt constantly. The main expression of this behaviour was relocating to different areas within the same port city or even expanding their activities to other ports.

238 In 1938, Het Nederlandsche Veem made an agreement with Pakhuismeesteren in Rotterdam, whereby the latter would take over all Rotterdam operations, and the former would refrain from activities there. In return, Pakhuismeesteren renounced all veem activities in Amsterdam. Both parties thus strengthened their positions in their respective primary cities. Van Driel, *Vier eeuwen veembedrijf*, 113.

239 Ibidem, 94 and 108.

4.1.5 Selling Coffee in Amsterdam and Rotterdam: Coffeeshops and Coffeehouses

The introduction of coffee in the Netherlands also led to the emergence of organisations specialised in its sale.[240] This took place in coffee shops and in coffee houses. In this section they are mapped to identify their individual locations and overall distribution within the urban fabric of Amsterdam and Rotterdam as part of logistical layer. The data used for the maps was based on the *Kohier van de personele quotisatie* (a Dutch tax register) dating from 1742.[241]

To begin with Amsterdam, the map clearly indicates that coffeeshops do not exclusively occur in the port areas or along the waterfront of the IJ over its entire length. However, some concentrations in the city centre are evident, especially in the inner city. A second, though more dispersed cluster, exists in the southeast of the canal belt, west of the Amstel River, largely coinciding with an area known for its wealthy inhabitants.[242]

The individual coffee shops in general seem to have been located in the city centre close to the canals. Whereas in the outer neighbourhoods, they were predominantly found on shopping streets. Additionally, there is no clear concentration near the IJ or any of the port districts from where the coffee arrived. Lastly, it is noteworthy that the coffee shops were positioned at fairly regular intervals and on street corners.

It is therefore probable that the spatial distribution of the coffee shops follows a more generic logic. Most like that of retail, as the patterns overlap with those that have been demonstrated for bakeries.[243] This is a spatial pattern that was driven by the shop owner's desire to be close to its customers, who, in a spatial sense, constitute its small market. This may suggest that specialisation was more easily achieved in urban contexts inhabited by consumers with high purchasing power. Which could explain the concentration of coffee shops in the wealthy districts.

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240 No wholesalers were identified in the sources. This must be an oversight, as it seems unlikely that the small coffee shops purchased directly from the veemen.

241 This means they are more indicative than complete. This especially goes for the inclusion of coffeehouses. Other sources mention 24 coffeehouses in Amsterdam in 1692. Van Gelder and Wagenaar, *Sporen van de Compagnie*, 114. It is unclear why they were not all included in the Quotisatie Kohier fifty years later. An actual decrease is also possible. Willem Frederik Hendrik Oldewelt, *Kohier van de personeele quotisatie te Amsterdam over het jaar 1742*, 1945. See appendix II for a detailed discussion of the (problematic) features of this source and its usability for this thesis. Rianne de Koning, Stephen Snelders, Els Stronks, "Niet zo civiliserend als we dachten. Koffiehuizen in Amsterdam, c. 1685 – c. 1785", *Tijdschrift voor Nederlandse Taal- en Letterkunde*, 139, no. 1, (2023).

242 Miko den Leeuw and Martin Pruijs, *De Gouden Bocht van Amsterdam*, (The Hague, 2006).

243 Clé Lesger, *Het winkellandschap van Amsterdam, stedelijke structuur en winkelbedrijf in de vroegmoderne en moderne tijd, 1550-2000,* (Hilversum, 2013), 134.

FIG. 4.14 Map of the spread of coffee shops and coffee houses in Amsterdam in 1742. Shopkeepers: 83; coffee house owners: 12. The first category was clearly concentrated in the inner city. A looser distribution is also visible in the wealthier area known as the Golden Bent: the canals of the seventeenth century on the eastern side of the Amstel. However, the absence of these coffee establishments in the port areas is noteworthy.

Source: W.F.H. Oldewelt, Kohier van de Personeele Quotisatie te Amsterdam over het jaar 1742, (Amsterdam, 1945). Background: 'Amsterdam', Gerrit de Broen jr., 1744–1750, ca. 1:3.500, Amsterdam City Archive, 10095 Collectie Atlas Kok, no. KOKA00142000001. Made by the author.

TOC

FIG. 4.15 Map of the spread of coffee shops and coffeehouses in Rotterdam based on the same tax register from 1742. In total, forty shopkeepers and three coffeehouses were located here.

Source: W.F.H. Oldewelt, Kohier van de Personeele Quotisatie te Amsterdam over het jaar 1742, (Amsterdam, 1945). Background: 'Topographische Militaire Kaart van het Koninkrijk der Nederlanden'. Made by the author.

The spatial distribution of coffee shops in Rotterdam has similarities and differences when compared to that in Amsterdam. The main similarities are a concentration in the city centre and a presence along the shopping streets that extend from there to the city outskirts. Moreover, as in Amsterdam, there are only a few coffee shops in the harbour areas.

The maps also reveal similarities in the spatial patterns of coffeehouses mentioned in the Kohier. In both Amsterdam and Rotterdam, they are concentrated in the city centres. There, these establishments were located next to the city hall and relatively close to the stock exchange, thus in the immediate vicinity of political and economic power.[244] This concentration can be explained by the role that coffeehouses acquired during the eighteenth century as a place where the political and economic elite met.[245]

The next process step in the Global maritime coffee chain involves roasting the coffee beans. This activity was not carried out by the veemen but was primarily a private activity undertaken by end consumers at home – or by someone in the coffeehouse. This was the case from the arrival of coffee around 1700 and it was not until 1900 that the industrial roasting of coffee beans became the norm.[246] The reason for this is that the industrious coffee roasting companies emerged after the application of steam engines for roasting and grinding the beans.

Reconstructing the spatial distribution of the first phase will therefore almost entirely overlap with that of dwellings. Consequently, it is unlikely that mapping this activity will reveal any spatial patterns that are meaningful to our inquiry. Furthermore, doing so would be very time-consuming and labour-intensive, as there are no sources that permit a complete spatial reconstruction necessary to distinguish such patterns.[247]

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244 In Rotterdam, the coffeehouses were located near the stock exchange, but not the city hall, which was located at some distance.

245 Which has also been established for at least nine coffee houses at the end of the nineteenth century. De Koning, Snelders, and Stronks, “Niet zo civiliserend als we dachten. Koffiehuizen in Amsterdam, c. 1685 – c. 1785”.

246 H.F.W. Bantje and W.C. Kind, *Twee eeuwen met de weduwe, geschiedenis van de erven de Weduwe J. Van Nelle N.V., 1782-1982*, (Rotterdam, 1981), 21. Van Nelle requested to roast coffee beans at the Rotterdam municipality. Around 1700 preparing coffee at home was the norm. Johannes Jacobus Voskuil, “De verspreiding van koffie en thee in Nederland”, *Volkskundig bulletin*, 14, no. 1 (1988), 77. Though, it could also be done by the shopkeeper. P. van Dijk, *Koffiebranderijen en theepakkerijen*, 11.

247 To get an idea about the role of coffee in households, one can look at probate inventories. See for example Hester C. Dibbits, *Vertrouwd bezit, materiële cultuur in Doesburg en Maassluis, 1650-1800*, (Nijmegen, 2001).

It is, however, useful to map the large-scale coffee roasters that emerged during the nineteenth century. Because the application of steam engines entailed an increase in scale, these industrial coffee roasters were highly dependent on sufficient and constant overseas coffee supplies. This explains why most of them in 1910 in Amsterdam and Rotterdam were located near the waterfront. (Figure 4.16 and Figure 4.17).

The results show that, on the lowest spatial scale, most coffee roasters in these port cities were located in places accessible by water. One of them was situated in an industrial harbour area in the east of the city. However, on a macro scale, there was no particular concentration of such factories near the ports or the IJ waterfront. Instead, they demonstrate a fairly even distribution throughout the inner city.

This must be understood as the outcome of two principles. First, the relatively equal spread among the coffee roasters suggests that each also primarily served its own (small) urban market. Second, the locations on the outer edges of the urban fabric can perhaps be explained by the allocation of these areas for industrial activities. The concentration in the poorer working-class district of the Jordaan is particularly striking. Perhaps there is a relationship with the fact that it was workers class area.[248] The absence of this industry in the seventeenth century canal belt follows from the area being designated as a residential area and where the well of citizens lived.

Rotterdam in 1910 was the city in the Netherlands with the largest number of coffee roasters.[249] This seems to be related to the fact that large volumes of coffee were shipped to this port, and form multiple areas around the world. It is significant that eight of these roasters were located in the old port districts, such as Leuvehaven, and even eleven in the old inner city. Four roasters were located north of there. These locations suggest that there was a distinction between those roasters that had local significance and those that were situated near the Meuse River at favourable spots for overseas supply and the further distribution of the processed coffee over water directly from the factory.[250]

248 Both regarding the availability of labour and cheaper real estate prices. However, this has not been investigated further.

249 P. van Dijk, *Koffiebranderijen en theepakkerijen*, 11.

250 Bantje, *Twee eeuwen met de weduwe*, 80.

FIG. 4.16 A map of Amsterdam with the locations of the 14 coffee roasters that were located in the city in 1910.

Source: Amsterdam City Archive, Collectie Stadsarchief Amsterdam, 30274 adresboeken, no. 68, 1910. Background: 'Chromo-Topographische Kaart van het Koninkrijk der Nederlanden', Topographische Inrichting, 1910, 1:25.000, via Topotijdreis, (https://www.topotijdreis.nl/). Made by the author.

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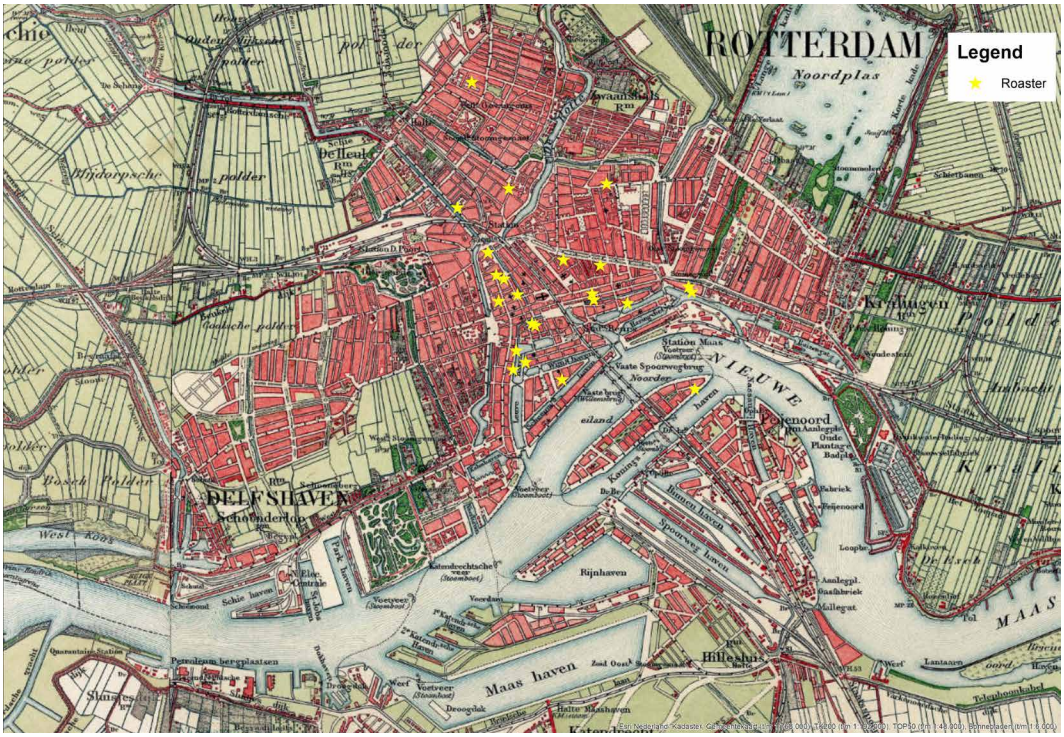

FIG. 4.17 Map of Rotterdam with the location of the 23 coffee roasters that were located in the city in 1910.

Source: Rotterdam City Archive, 3023 Adresboeken Rotterdam, no. 54, 1910. Background: 'Chromo-Topographische Kaart', via Topotijdreis, (https://www.topotijdreis.nl/). Made by the author.

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4.1.6 The Distribution of Coffee in the Hinterlands of Dutch Port Cities

The spread of coffee, of course, did not end in Amsterdam or Rotterdam. Instead, it was distributed far into the Dutch hinterland. The spatial reconstruction of the logistical layer of the Dutch coffeescape central to this thesis is finalized by mapping the locations where the coffee ultimately ended up.

For this purpose, a map of the Netherlands was created based on a national telephone directory published in 1910.[251] This source was used because it was the first nationwide directory to mention coffee roasters, which allowed for determining their location.[252] However, at the same time, this source had important limitations, the most significant of which was that it included only 36 cases out of a total of 125 known coffee roasters that existed around that time.[253] Hence, the results should be approached with caution, and the conclusion should be limited to a few general impressions.

If we examine the resulting map (Figure 4.18), even the limited number of cases shows that coffee in 1910 had reached landlocked areas that were situated far from the sea and Amsterdam and Rotterdam, such as North Brabant, Limburg, and Gelderland.[254] The map also shows that the roasters were located in both large and small cities, as is the case, for example, in the provinces of Limburg and Gelderland. Other studies indeed confirm their presence in major cities.[255] The distribution of coffee roasters across the hinterland must therefore be explained in terms of their role in specific urban sales markets.

251 See appendix II for a detailed discussion of the (problematic) features of this source and its usability for this thesis.

252 Although the source covers traders, coffee shops and coffeehouses, we focus on roasters. The reason for this is that, for the other categories, it proved difficult to determine how representative the instances with a telephone connection were compared to the totals. This makes it challenging to ascertain what the resulting spatial patterns signified.

253 Jan Charles August Everwijn, *Beschrijving van handel en nijverheid in Nederland*, vol. 2, (The Hague, 1912), 693. P. van Dijk, *Koffiebranderijen en theepakkerijen*, 11. Explicitly mentioned are Rotterdam, Amsterdam, Groningen, Breda, Den Bosch, Leiden, Maastricht, Roosendaal, Utrecht and Zwolle.

254 This dataset simultaneously suggests that this was not the case for the entire county, as the border regions of Drenthe and Overijssel may not have been fully reached yet for large volumes of coffee.

255 P. van Dijk, *Koffiebranderijen en theepakkerijen*, 1. Everwijn, *Beschrijving van handel en nijverheid in Nederland*, vol. 2, 693.

FIG. 4.18 Map of the Netherlands featuring the distribution of four different coffee businesses in the Dutch hinterland of Amsterdam and Rotterdam in 1910, along with their counts, but excluding those located in Amsterdam and Rotterdam. Additionally, six organisations were excluded as they were identified as 'in coffee,' which was too vague to categorize.

Source: Naamlijst voor den telefoondienst 1910, Posterijen en Telegrafie, Hoofdbestuur, (The Hague, 1910). Background: 'Gemeente kaart', 1899, 1:400.000 via Topotijdreis, (https://www.topotijdreis.nl/). Made by the author.

TOC

In addition, the map also shows a distribution pattern of other coffee organisations in the hinterland. With the same reservations, several aspects stand out. Coffee traders appear to be more concentrated in the maritime regions. Coffeehouses are present in various cities, but surprisingly, many were also located along the rivers. Although this was limited to coffee organisations with telephone connections, their presence there may be linked to the way coffee was distributed throughout the hinterland via rivers. A hypothesis that will be explored in greater depth in the next section.

Primary sources that can shed light on the distribution of coffee in the Dutch hinterland between 1700 and 1900 are extremely scarce, or very difficult to access. However, the emergence of a market for coffee in the Dutch hinterland was an important factor in the profitability of the Global maritime coffee chain.[256] Hence, the starting point for reconstructing this part of the logistical layer are the speculations that the Dutch anthropologist Jan Voskuil formulated based on local coffee consumption rituals in the second half of the twentieth century.[257]

I interpret his explanation of the spread of coffee in the Netherlands as following four principles. Firstly, coffee (and tea) diffused from the west to the east of the country. Secondly, it spread from urban centres to the countryside. Thirdly, it moved from the upper social classes to the lower. Finally, the author highlights the important role of distribution via rivers.[258] The most relevant spatial principles for this research are number 2 and 4. The first principle is assumed, and the third is primarily a social matter, of which spatial considerations are an outcome.

In his explanation of the spatial spread of coffee in the Netherlands, Voskuil did not pay much attention to intermediate organisations. As a consequence, it remained unclear how the initial distribution of coffee functioned in concrete terms.[259] Nonetheless, the type of organisation that can be expected to have played a key role in the distribution of coffee in the hinterland is the grocer.

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256 Another important mid-term source exists that could potentially shed some light on this, namely the earliest version of the Dutch cadastre, the nationwide land tax register dating from 1832. It is especially valuable as it includes the occupations of property owners. Despite its partial digital availability through https://hisgis.nl/, the researcher's request for access to the datasets during this research was not granted. Moreover, other archives did not permit a reconstruction of coffee shops in the hinterland prior to 1850, resulting in a gap of at least 150 years during which coffee found its way into the hinterland, but the exact development remained obscure.

257 Voskuil, *De verspreiding van koffie en thee in Nederland*.

258 Idem.

259 Ibidem, 70–80. Also, the presence of coffee houses along the rivers Rhine and Meuse, as shown on the map, can be understood because of coffee transport on the rivers.

This assumption is based on the fact that the grocery store served as a collection point for all kinds of goods, including those that were brought in from overseas, especially colonial products. Moreover, it is known from the biographies of some of them that they eventually specialised in coffee roasting. Developments that are also reflected in their purchase records.[260]

4.1.7 Coffee Purchases of Hinterland Coffee Roasters

A solution to gain more insight into the way coffee spread to the rest of the Netherlands was found by reconstructing the routes via which coffee roasters in the hinterland purchased their coffee. This approach was applied to the only three coffee roasters located there of which purchase books enabled a relatively long-term reconstruction.[261]

The first roaster concerns A. Beukenhorst & Zn., located in Winterswijk. The second is Douwe Egberts, situated in Joure, which opened a second factory in Utrecht, located in the centre of the Netherlands. The third case is A. de Leeuw in Den Bosch.[262]

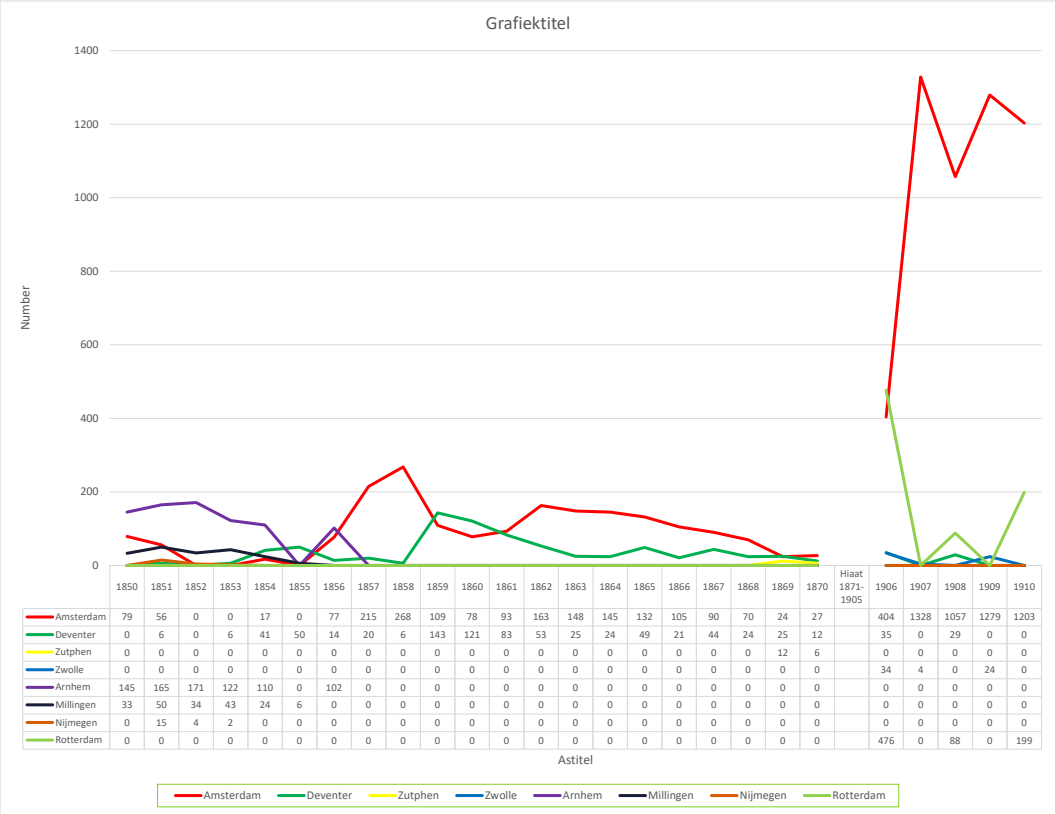
A. Beukenhorst & Zn. was located in the small town of Winterswijk in the far east of the Netherlands and was the least accessible from Amsterdam and Rotterdam. This was due to its considerable distance from these port cities and the fact that Winterswijk was landlocked. Before the second half of the nineteenth century Winterswijk was hardly connected by any modern infrastructures. The latter was true both in a westerly direction and towards Prussia in the east. In addition, Winterswijk was located at roughly the same distance to Rotterdam and Amsterdam. This suggests that no port city, from a sec logistical point of view, would be preferrable for the roaster to purchase coffee.

260 Johan Christiaan Wijnand, *Gedenkschrift uitgegeven door de N.V. Douwe Egberts tabaksfabrieken, koffiebranderijen en theehandel, Joure en Utrecht, 1753-1928*, (Joure/Utrecht, 1928). Erfgoedcentrum Achterhoek en Liemers, 0265 Koffiebranderij en Theehandel A. Beukenhorst & Zn. te Winterswijk, (1815-1955), purchase books inv. nos. 1 and 3.

261 Based on an extensive inquiry of the nation-wide database of archives in the Netherlands (https://www.archieven.nl/nl/) and the Amsterdam City Archive.

262 Brabants Historisch Informatie Centrum (BHIC), 504 Koffiebranderij A. de Leeuw in 's-Hertogenbosch, 1849 – 1947, nos. 5, 18, 22, 24, and 27.

Figure 4.19 shows the historical development of the locations where Beukenhorst purchased its coffee between 1850 and 1910. Several observations can be made based on this graph. Firstly, the significance of the rivers for the supply of coffee, as suggested by Voskuil, appears to be confirmed. This is evident from the fact that, apart from the seaport cities, all towns were situated on rivers.



	1850	1851	1852	1853	1854	1855	1856	1857	1858	1859	1860	1861	1862	1863	1864	1865	1866	1867	1868	1869	1870	Hiaat 1871-1905	1906	1907	1908	1909	1910
Amsterdam	79	56	0	0	17	0	77	215	268	109	78	93	163	148	145	132	105	90	70	24	27		404	1328	1057	1279	1203
Deventer	0	6	0	6	41	50	14	20	6	143	121	83	53	25	24	49	21	44	24	25	12		35	0	29	0	0
Zutphen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	6		0	0	0	0	0
Zwolle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		34	4	0	24	0
Arnhem	145	165	171	122	110	0	102	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Millingen	33	50	34	43	24	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Nijmegen	0	15	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Rotterdam	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		476	0	88	0	199

FIG. 4.19 The locations where coffee roaster Beukenhorst in Winterswijk did its purchases between 1850 and 1910, in bales per year. Only in the years 1869-1870 coffee was bought in Zutphen directly.

The graph also allows for a partial reconstruction of the seaport from which the coffee supplies originated, as several of the river towns could not be connected to Amsterdam or Rotterdam with certainty. At least not solely based on their position or without further in-depth research into where these intermediate traders sourced the coffee.[263]

263 This exercise is too extensive to undertake in the context of this thesis.

TOC

Still, the graph clearly shows that this Beukenhorst bought coffee directly in Amsterdam for almost the entire period. Rotterdam also appears in the records, albeit to a much lesser degree. The coffee purchased in cities located to the north of the IJssel, namely Zwolle and Deventer, most likely came from Amsterdam via the Zuiderzee, as this is a shorter route compared to Rotterdam.

Based on the same criterion, the first recorded purchase of coffee by Beukenhorst in Millingen will likely have originated in Rotterdam. The same is most likely true for the coffee bought in Nijmegen. However, the water routes connecting these places to Amsterdam mean there is a possibility that these batches originated from there as well.[264]

For the two remaining river towns, Arnhem and Zutphen, it is more difficult to determine the most likely sea ports that supplied the coffee based on this source. This is mainly because their positions within the inland water network made them almost equally accessible from Amsterdam as well as Rotterdam. Moreover, the purchasing books seem to suggest that coffee was also transported to Arnhem by railway, and such rail transport of coffee did indeed take place. Especially facilitated by the Rhijnspoorweg (Rhine Railway) company that at this time had already connected Amsterdam and Rotterdam with Arnhem.[265] Hence, this transport mode also does not provide any definite answer for the question from which seaport the coffee originated from.

Lastly, the ways in which the coffee finally reached Winterswijk from these river towns are also difficult to prove based solely on a preliminary exploration. However, from Zutphen, it can hardly be otherwise than that the coffee reached Winterswijk by cart via the Straatweg. The only 'modern' road that connected both places via Ruurlo and Groenlo. After all, it was the most direct, paved and regulated land infrastructure in the entire area. At least in the period before the opening of a railway connecting Amsterdam with Winterswijk in 1878.[266]

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264 Via the IJssel river and the so-called 'Keulse Vaart', a canal connecting Amsterdam with the Rhine via Utrecht.

265 The suggestion that the coffee purchased by Beukenhorst in Arnhem might be delivered there by train is corroborated by the terms 'spoor' and 'station' which were added to some of the transactions. However, in this limited number of cases, the writing was difficult to decipher. This is particularly true due to the similarity in the writing of the words 'spoor' (railway) and 'spoed' (urgent). Unfortunately, no company statistics regarding cargo were preserved for the Rhijnspoorweg, which operated the Amsterdam-Arnhem railway track during this period. Additionally, annual reports of the company that were available at the Dutch National Railway Museum, covering the years 1845-1866, did not specify rates for coffee. J.W. Sluiter, *Overzicht van de Nederlandse spoor- en tramwegbedrijven*, (Utrecht, 2011), 43. Van Driel, "Uitschakeling van de Nederlandse koffiehandel in de negentiende en twintigste eeuw?", 164.

266 Sluiter, *Overzicht van de Nederlandse spoor- en tramwegbedrijven*, 100.

As far as the connection to Arnhem is concerned, it is certain that in the earliest period there was no direct road to Winterswijk. There was only a very scattered pattern of disconnected smaller roads. Since the distance was even greater compared to Zutphen, it seems highly impractical to use such a land route for the (bulk) delivery of coffee.[267]

The purchasing locations of Beukenhorst for the researched period and the probable ways in which these were integrated with Amsterdam and Rotterdam through various routes and infrastructures are presented in Figure 4.20. This logistical reconstruction of the coffeescape provides several insights. Firstly, it can be concluded that the demand for coffee in Winterswijk was such that it was profitable to transport the coffee over relatively large distances, and even despite the minimal land infrastructure. At the same time, transport by water was preferred as a cheaper means of transportation. Coffee transport by rail up to Winterswijk was an exception until 1878.

Second, we can cautiously conclude that this organisation preferred direct purchases in Amsterdam. At the same time, Rotterdam was not shunned when the supply in the former city was, apparently, disappointing. This is evidenced particularly by the two opposing developments in the number of bales that were respectively bought in these port cities for several years after 1906.

A last insight is that Beukenhorst was quite flexible in its purchasing locations. It bought coffee at different locations. This illustrates that this organisation was far from being exclusively oriented towards Amsterdam or Rotterdam. Although the coffee it purchased there dominated, before 1906 it acquired the commodity just as readily in various regional towns. This changed considerably thereafter, but even then, Zwolle, Nijmegen, and Deventer played kept playing a minor role.

The same reconstruction was conducted for Douwe Egberts. Apart from determining were this company sourced its coffee, it is relevant that it built two new factories in Utrecht. Both had to be included in the reconstruction of routes and transport modes used to deliver the coffee.

267 Perhaps the coffee was even loaded from railway wagons in Arnhem onto boats to be transported to Zutphen over the IJssel, from where it reached Winterswijk via the aforementioned road. However, without further data, this route remains speculative.

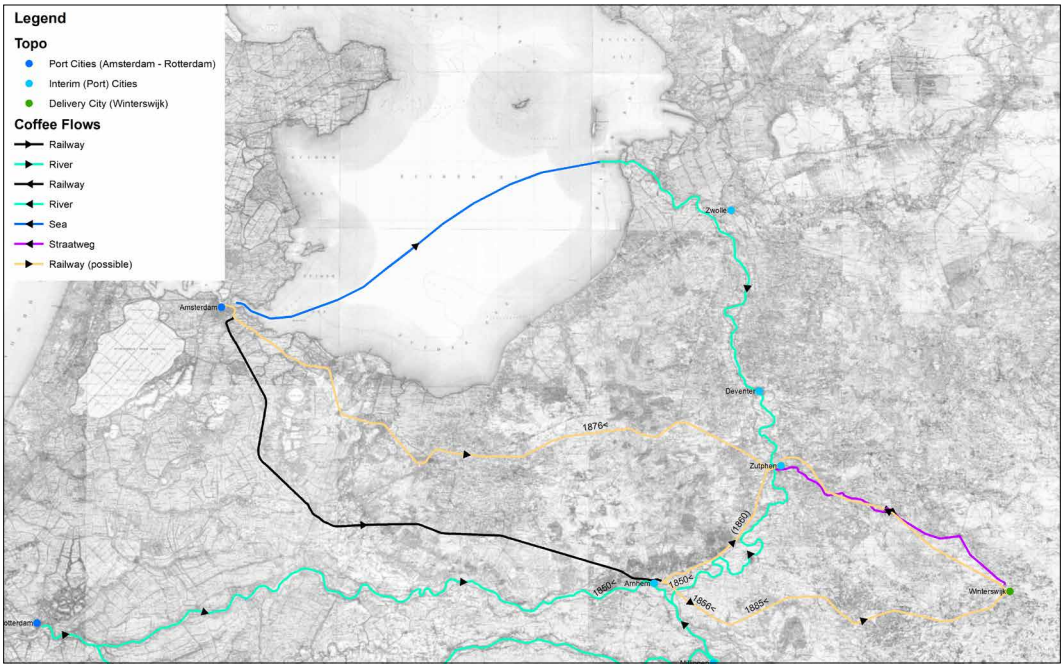

FIG. 4.20 Map with reconstructed routes likely used to transport coffee from Amsterdam and Rotterdam to Winterswijk over time. The green dot near Winterswijk on the right side represents the coffee roaster A. Beukenhorst & Zn. The two dark blue dots to the west indicate the two seaport cities from which the coffee originated. The light blue dots represent the intermediate river cities and the small town of Millingen. In terms of both the number of coffee bales and the period in which they were used for transport, the waterways predominated. These were depicted in various shades of blue. The black lines represent the railways. Finally, in purple the only significant and direct road connection from Zutphen to Winterswijk is depicted.

Sources: (Canals in the Netherlands), (https://kanaleninnederland.nl/) Topografic Basic Registration The Netherlands 10:000. Background: 'Topographische Militaire Kaart van het Koninkrijk der Nederlanden' and Kanalen in Nederland. Made by the author.

The reconstruction of Douwe Egberts' purchasing history was not based on a continuous period that entirely overlaps with the reconstruction of A. Beukenhorst & Zn.[268] Instead, three years were utilised as a reference. The reconstruction starts in 1877/1878, the first year for which purchase books are available. 1910 was chosen as an interim point because it aligns with the national reconstruction discussed in the previous section. This year also optimises the overall comparability in this chapter as it was also applied for the Beukenhorst reconstruction. 1950 marks the end year for the researched period.

268 The reason for this was the exceptionally high number of coffee purchases by Douwe Egberts during this period.

TOC

Even if though the results presented in Figure 4.21 cannot provide more than an indication, Douwe Egberts had a different relationship with the main seaports compared to its counterpart in Winterswijk. Firstly, in all three years, it purchased coffee exclusively in Amsterdam and Rotterdam.[269]

This can be explained by a combination of factories. First, the very large quantities this organisation bought made direct contact with suppliers in port cities much more efficient than purchasing small batches through intermediaries in small towns. Second, the shorter distances from Joure and Utrecht to Amsterdam and Rotterdam, coupled with better accessibility because of existing water connections, must have played a decisive role.[270]

Based on the coffee's destinations of Joure and Utrecht the routes and methods used for the transport were reconstructed.[271] They imply that this was done via the Zuiderzee and various rivers and canals. For the service between Lemmer and Joure, it is likely that coffee was transported by the steamboat connection from Lemmer to Groningen, since Lemmer was the closest Zuiderzee port connected to Joure by a waterway.

Water transport was also the primary mode for reaching the factory that Douwe Egberts had built in Utrecht next to the Merwede Canal in 1919. Moreover, this also applies to the second factory the Douwe Egberts established there in 1929. In addition, this factory was even connected with both Amsterdam and Rotterdam by railway lines. However, the more evident integration of Douwe Egberts with these sea ports compared to Beukenhorst mainly follows from the fact that this business apparently already exclusively bought its coffee there in 1877.

269 After the Second World War, Douwe Egberts bought large quantities of coffee in The Hague at the Koffie Grondstoffen Bureau, the Raw Materials Bureau. However, this was not a natural phenomenon, nor something related to maritime trade per se, as it was created by the Dutch State for rationing and distribution in the post-war period. Therefore, it was excluded from the data.

270 An alternative explanation is that this data represents a later period, when the role of intermediary traders may have already been eliminated. However, this does not eliminate the other factors.

271 Tresoar, (Frysk Histoarysk en Letterkundich Sintrum), 110 Douwe Egberts Koninklijke Tabaksfabriek, Koffiebranderijen, Theehandel, inv. nos. 2867, 2875, 2876, 2892, 2893, and 2894.

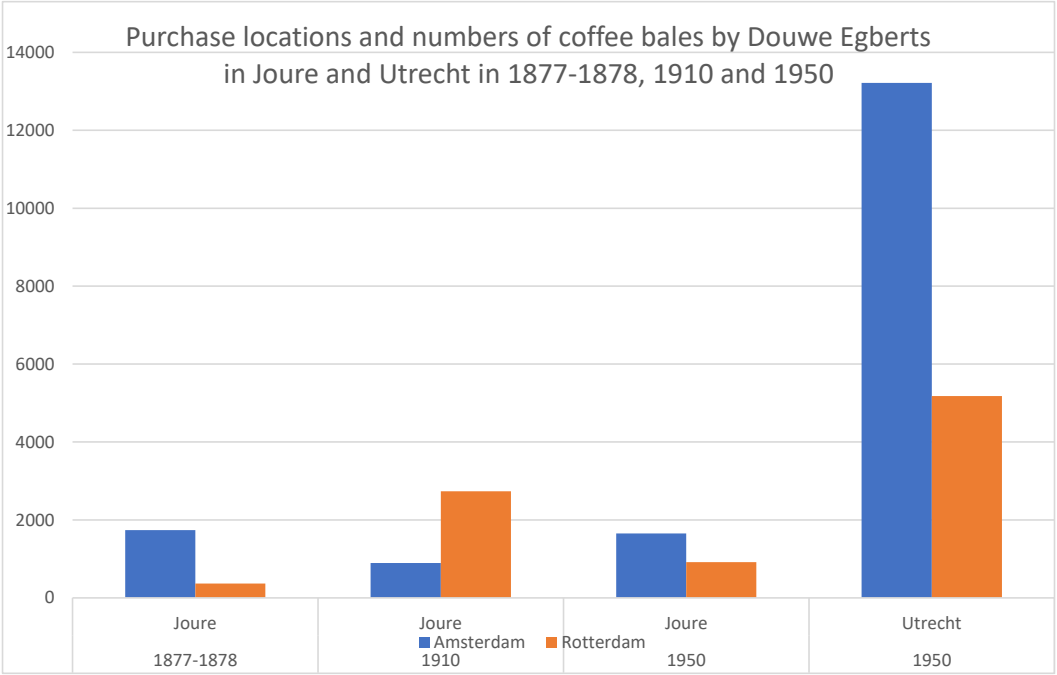

FIG. 4.21 The locations where the coffee roaster Douwe Egberts, based in Joure and in Utrecht since 1919, purchased its coffee between 1877-1878, 1910, and 1950. Measured in bales per year. In comparison with the previous organisation, it is noteworthy that this entity for these reference years bought all its coffee directly from the two main Dutch port cities.

Source: Tresoar, (Frysk Histoarysk en Letterkundich Sintrum), 110 Douwe Egberts Koninklijke Tabaksfabriek, Koffiebranderijen, Theehandel, inv. nos. 2867, 2875, 2876, 2892, 2893, and 2894.

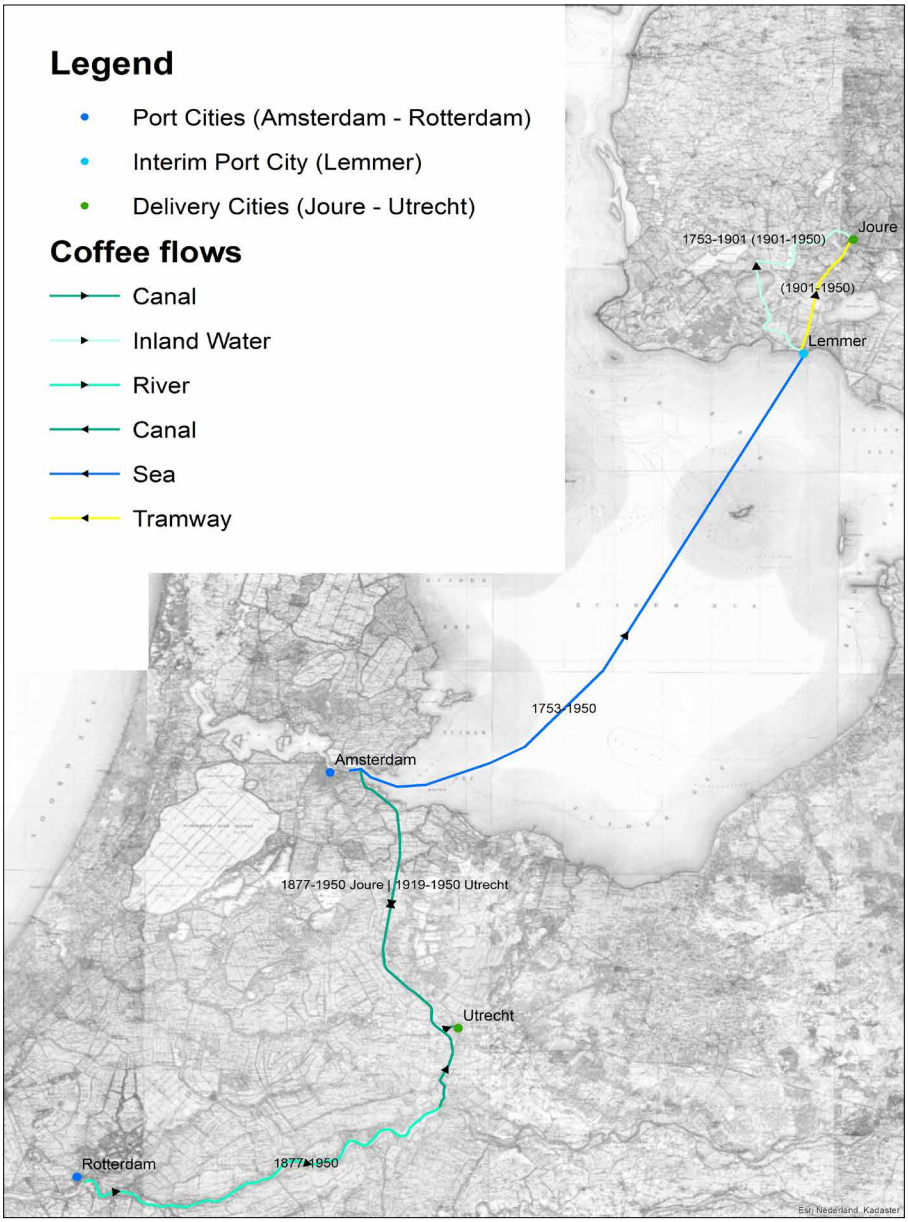

FIG. 4.22 This reconstruction map shows the routes and modes by which the coffee was most likely delivered from Amsterdam and Rotterdam to the Douwe Egberts factories. Firstly, to Joure, and from 1919 onwards also to Utrecht. This coffee roaster purchased coffee directly in the main seaport cities and not through any intermediate river cities.

Sources: (Canals in the Netherlands), (https://kanaleninnederland.nl/) Topografic Basic Registration The Netherlands 10:000. Background: 'Topographische Militaire Kaart van het Koninkrijk der Nederlanden' and Kanalen in Nederland. Made by the author.

TOC

The opening of a second factory by Douwe Egberts in the city centre of Utrecht in 1919 is in itself a significant decision as it shaped the logistical layer of the coffeescape. This also applies to the decision to move the main operations to Utrecht in 1929 to a new and lager factory west of Utrecht. Moreover, these interventions arose partly from the desire of the directors of Douwe Egberts to be closer to the maritime origins of the coffee supply as it would save time and reduce costs.[272] And indeed, compared to Joure the relocation resulted in a significant shortening of the supply lines to the Utrecht factory from both Rotterdam and Amsterdam.[273] What is more, the decision to shorten the supply lines made economic sense especially in this period, as it was characterised by severe competition between the coffee roasters (and larger grocers) on an increasingly national scale.[274]

Internal business correspondence confirms that Douwe Egberts was well aware that the accessibility of the factory for supplies, was crucial for its economic survival. This pertained to both the continuation of the business and its further expansion.[275] Moreover, the organisation expected that future increases in commodity supply would be realised by water transport. Hence, the choice of the second Utrecht factory along the Merwede Canal and the construction of jetties there (Figure 4.22).[276]

One last factor is relevant in assessing Douwe Egberts' move to Utrecht from the perspective of realising shorter supply lines. Namely, the fact that Rotterdam was completely dominated by Van Nelle, the largest Dutch coffee roaster, and therefore the Douwe Egbert's main competitor. Van Nelle and the other coffee roasters concentrated in this port city and Amsterdam must have prevented Douwe Egberts from setting up a factory there.[277] If we assume this, we can still interpret the opening of the new factory in Utrecht as an attempt to get closer to the overseas supply of coffee.

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272 Tresoar, 110 Douwe Egberts, inv. nos. 47 and 96.

273 The distance from Amsterdam to Joure were roughly 90 kilometres in a direct line, while the same distance from Amsterdam to Utrecht was roughly 35 kilometres. The distance between Rotterdam and Joure was clearly reduced even further by the relocation. Calculated via: Mapsdirections, (https://www.mapsdirections.info/nl/cirkel-straal-kaart/).

274 P. van Dijk, *Koffiebranderijen en theepakkerijen*, 11 and 15.

275 Tresoar, 110 Douwe Egberts, inv. no. 1766.

276 As already mentioned, the importance or expectations regarding the use of the railway connection could not be assessed. Moreover, it is known that the factory's track was demolished around 1950, which of course also indicates that it was not used very often. Tresoar, 110 Douwe Egberts, inv. nos. 1759 and 1766, Historical topographical maps of the Netherlands (1929-1950) via: Topotijdreis, (https://www.topotijdreis.nl/).

277 It was particularly with Van Nelle that they faced significant competition in sales markets. P. van Dijk, *Koffiebranderijen en theepakkerijen*, 12.

Nonetheless, explaining Douwe Egberts' relocation solely by the motivation to shorten the supply lines between the Dutch main sea ports and the factory is incomplete. The business sources reveal that various other factories played a role. These included the private preferences of members of the director's family, opportunities for expanding the business in Utrecht, the sales market that city represented, along with the wide scope of services there compared to Joure. A last consideration for the relocation was the strategy to divide the national market between the two factories: the Joure factory would supply the northern parts of the country while the rest of the country would be done from Utrecht.[278]

The third case of a coffee roasting factory located in the hinterland, namely that of de Leeuw in Den Bosch, reflects the purchasing practise of Douwe Egberts. A primarily scan reveals that this business already exclusively bought its coffee directly in seaports, primarily in Rotterdam and Amsterdam in the period between 1849-1882. This included, for example direct purchases from the Dutch Trading Society. Moreover, it occasionally bought coffee in Antwerp and Le Havre.[279] These findings underscore that the position of the factory in the physical landscape had a great influence on the port cities that supplied their coffee and thus on the entire logistical layer of the coffeescape.

278 Correspondence between the director of Douwe Egberts and his son about the Utrecht location. According to one of the directors, anything was better than conducting the same activities at both factories. Tresoar, 110 Douwe Egberts, inv. nos. 352 and 1928.

279 BHIC, 504 Koffiebranderij A. de Leeuw, inv. no. 22.

4.1.8 Van Nelle: Large Dutch Coffee Roaster Transforming the Logistical Layer

The logistical section of this chapter concludes with an analysis of the actions of coffee roaster van Nelle in Rotterdam. There are three reasons to do so. First, it is the only remaining business archive from a coffee roaster in Amsterdam or Rotterdam.[280] Second, as one of the largest and most successful coffee roasters in the Netherlands, it played an important role in shaping the logistical layer of Rotterdam's coffeescape.[281] Lastly, it influenced the logistical layer of the coffeescape beyond the Netherlands—most notably through its intervention in Java, part of a broader trend explored in the governance section of this chapter. Possibly, its reach extended to numerous other regions worldwide.

The development of Van Nelle from a modest shop selling coffee among other products in 1782 to becoming a global player by the end of our research period hints at the importance of being located in a port city close to the sea.[282] On the one hand, this location enabled Van Nelle to receive coffee directly from the Dutch East Indies, both from the forced coffee fields as well as private enterprises, and increasingly emerging coffee exporting countries in South America. Moreover, the proximity of the sea allowed Van Nelle to distribute its products to almost all European countries and most continents.[283]

Van Nelle established its first dedicated coffee roasting factory in 1827 west of Rotterdam's inner city. However, in 1843, it was relocated to the organisation's main business site near the Leuvehaven, the largest pre-industrial basin of the city. Several reasons prompted the demolition of the old factory and the construction of a new one at the port. Of these, the decision to move to the port is most relevant as it reveals that the organisation wanted the facility to be closer to the port and the main office/warehouse.[284]

280 There were 22 coffee roasters mentioned in the Rotterdam Address Book of 1910. Various were most likely destroyed by the German bombardment of the city in 1940.

281 It is important to note that while Van Nelle sold coffee since it opened as a shop, and this commodity would remain significant, the company was also deeply involved in other Global Maritime Commodity Chains throughout the majority of the nineteenth century and the beginning of the twentieth. Of major importance was the handling of tobacco, while van Nelle was involved in the tea trade to a lesser extent. Bantje, *Twee eeuwen met de weduwe*, 74.

282 The Leuvehaven.

283 Although it is very likely that this mainly occurred via the sea, it could not be determined what proportion of railway transport was involved in this activity. Rotterdam City Archive, 944 Systematische plaatsingslijst van de archieven van de erven de wed. J. Van Nelle 1837-1988, M.C. van der Ent, (Rotterdam, 1999), inventory introduction, 1.

284 Bantje, *Twee eeuwen met de weduwe*, 35.

Given what we have established thus far, it is likely that this relocation was at least partially motivated by logistical considerations regarding the overseas supply of its commodities: coffee, tea and tobacco.

Van Nelle's location in a port city near the North Sea also appears to have facilitated its engagement in overseas logistical operations. Opportunities that were certainly not available to the three roasters in the hinterland previously discussed. This is primarily revealed by its long-term involvement in Global Maritime Commodity Chains that connected it with Javanese port cities and their hinterlands. Van Nelle had such connections already established in the 1830s when members of the directing family owned trading houses in the Dutch East Indies.[285] In this regard, they also collaborated with other Rotterdam entrepreneurial families in the coffee industry.[286]

In addition, following the onset of the liberal period in Java in 1870, various members of the van Nelle management family established, owned, and managed coffee estates in the Kediri Residency in central Java.[287] Moreover, in the same spirit, Van Nelle opened a coffee roasting factory in 1906 in that area to produce coffee for the local market.[288]

In addition, Van Nelle was involved in international shipping companies and established the Overseas Trading Company. The aim of this subsidiary was to facility the companies trade on the East African coast.[289] Although it could not be determined what the role of coffee therein was, and this international outlook falls outside of the scope of this research, it is unlikely that van Nelle would have undertaken these if it had not been located in a port city.

Back home, the main challenge van Nelle faced was the persistent lack of capacity in its buildings, prompted by the continual increase in overseas commodity supplies and the capacity constraints imposed by the urban landscape of Rotterdam.

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285 Ibidem, 32 and 51.

286 Like in 1837 with Dunlop. Ibidem, 27.

287 Ibidem, 60. It concerned three coffee estates, established probably in the late 1870s or early 1880s. This conclusion is drawn from various sources, including the *Handboek voor cultuur- en handels-ondernemingen in Nederlandsch-Indië*, 1908/1910. It is only for the year 1894 that the administration of the estate is documented in the Van Nelle archive, 944 Van Nelle archive, inv. no. 1386. The residency map of the area on Java, dating from 1881, shows that one of the estates, *Karan Redjo*, is a toponym that still refers to a kampong rather than an agricultural enterprise.

288 It was not a success and sold again just four years later. In fact, none of Van Nelle's overseas coffee ventures were successful. The coffee cultivation enterprises ultimately failed and were liquidated or sold. Bantje, *Twee eeuwen met de weduwe*, 61-62.

289 Since these seem mostly related to tobacco products and could not be related to coffee based on the inventory, they were not investigated further. Rotterdam City Archive, 944 Van Nelle.

Van Nelle initially addressed its storage capacity problem by renting and building warehouses.[290] This first happened in 1837 when the company rented an additional warehouse.[291] Around 1910, this had resulted in Van Nelle owning ten warehouses spread across the city, mostly located near the quays (Figure 4.23).

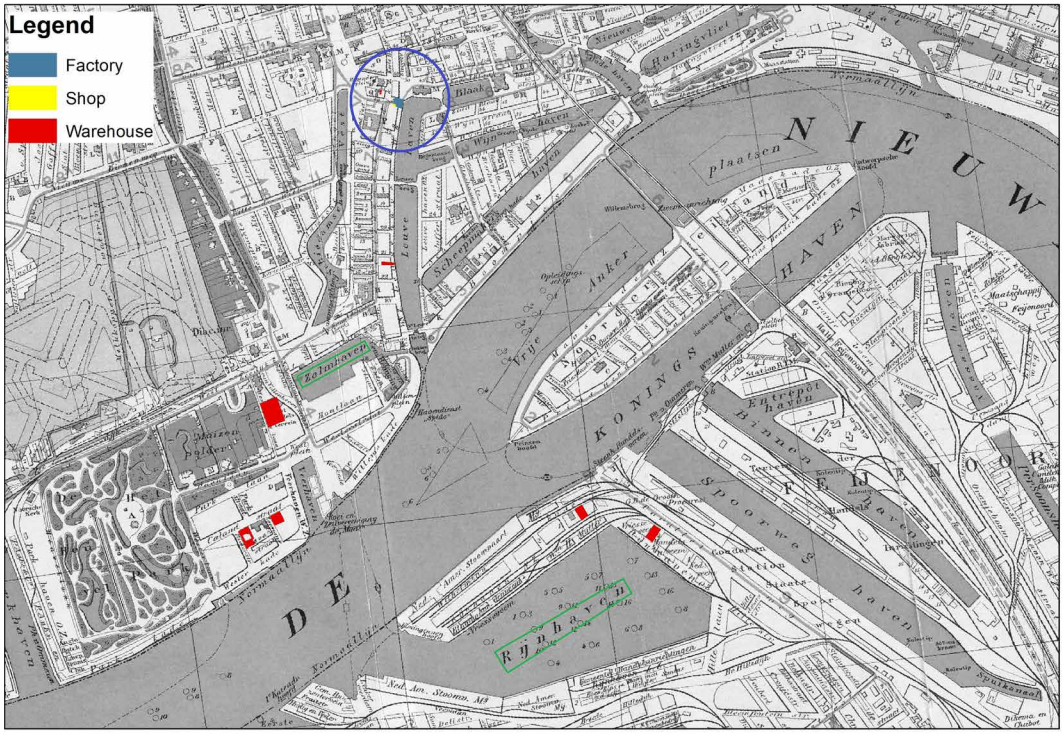

FIG. 4.23 This map shows the warehouses owned by Van Nelle in the port of Rotterdam in 1910. Only one of them was located directly next to the original factory near the Leuvehaven (indicated by the blue circle). The others were situated at different harbours: near the Zalmhaven and Rijnhaven (indicated by the green frames). One warehouse, located at the Wilhelminakade on the south bank of the Meuse River, served as a tea packing factory. For the other seven warehouses, it could not be determined from business sources whether coffee was stored there, but this is likely.

Sources: 3023 Adresboeken Rotterdam, no. 54, page 190. Sources: H.F.W. Bantje and W.C. Kind, Twee eeuwen met de weduwe, geschiedenis van de erven de weduwe J. Van Nelle N.V., 1782-1982, (Rotterdam, 1981). Background: 'Plattegrond van Rotterdam in 1925', J. (J.) Treffers, 1925, 1:10.000, Rotterdam City Archive, 4001, Collectie kaarten en plattegronden 1558-, no. I-187-01. Made by the author.

290 Bantje, *Twee eeuwen met de weduwe*, 32.

291 P. van Dijk, *Koffiebranderijen en theepakkerijen*, 11.

The capacity issue especially became problematic between 1881 and 1909.[292] Hence, from the 1910s onwards, Van Nelle planned to build a completely new, large-scale factory at a new location.[293] The documented decision-making process reveals that the primary criterion for the new factory location was its accessibility by ships.[294] Navigable water was deemed vital for the supply of commodities, as well as for distribution to urban markets. In fact, the final location was chosen because it was only fifteen minutes by ship to and from the Meuse River via the newly constructed Schie Canal, and because it had a good water connection with Amsterdam.[295]

292 Bantje, *Twee eeuwen met de weduwe*, 51, 73, and 90.

293 The coffee processing facilities in the new factory were operational in 1929. Ibidem, 110.

294 Other criteria were square meter price of the land to be purchased or rented, the distance to the city centre and city extension plans, and infrastructural connections. Bantje, *Twee eeuwen met de weduwe*, 93-96. We also see this with the construction of the tea factory at the Wilhelminakade. The temporary relocation of the coffee roasting facilities and the main office to the Coolsingel in 1926 is not taken into account, as the new factory was already under construction at that time, thus representing a very temporary situation. Bantje, *Twee eeuwen met de weduwe*, 94.

295 Yet, for van Nelle too there were other, non-maritime criteria involved that prevent to reduce the entire process and final decision to those concerning adequate accessibility. Bantje, *Twee eeuwen met de weduwe*, 95.

4.2 The Governance Layer of the Dutch Side of the Global Maritime Coffeescape

This section focuses on the governance decisions made by Dutch organisations involved in the Global maritime coffee chain.[296] The analysis again begins with the coffee's arrival from the North Sea and concludes with its consumption. The chapter segment focusing on offices looks at their locations and/or their collective spatial distribution. Attention is also given to governance decisions of an intangible nature. Lastly, the governance interventions of a new organisation category consisting of coffee associations and interest groups were briefly addressed without aiming for completeness.

4.2.1 The Dutch East India Company Governing the Coffee Chain

The governance layer of the Dutch side of the Global maritime coffeescape was also influenced by interventions of the Dutch East India Company as it sought to coordinate the Global maritime coffee chain.[297] First of all, the Dutch East India Company was organised by local boards in six Dutch port cities: Amsterdam, Rotterdam, Delft, Hoorn, Enkhuizen, and Middelburg. This, in combination with the company's monopoly, significantly limited the cities to which Javanese coffee was sent from Java. This clearly indicates that the way in which this organisation was structured had a direct influence on the spatial layout of the Dutch side of the coffeescape. Even without elaborating on the exact reasons behind this organisation form, these city's involvement in coffee was not solely the outcome of logistical considerations or an outcome of free market dynamics.

Among these cities, during the eighteenth century, coffee from Java was primarily delivered to Amsterdam and Rotterdam. For the former, this is not surprising, as the Dutch East India Company had its headquarter there. Moreover, it was from this city that the Global maritime coffee chain was coordinated, primarily for sending the ships to the East Indies.

296 For example, coffee shop keepers, coffee house owners, and coffee roasters were often characterised by the convergence of their logistical and governance activities at the same location.

297 At the time of the Cultivation System, the Dutch Trading Society imported nearly ninety percent of Java coffee. Van Driel, *Vier eeuwen veembedrijf*, 56.

A B C

FIG. 4.24 Images of the first three offices of the Dutch Trading Society. A: Between 1824 and 1831, the office was located in a wing of the Royal Palace in The Hague, the building on the right side of the image. B: The second office was in Amsterdam, located at the Herengracht near the Brouwersgracht between 1831 and 1858. C: The third office was also situated at Herengracht, on the corner of the Spiegelstraat, between 1858 and 1926. Except for the enormous building constructed in 1926, none of these buildings were specifically built as the head office of the Dutch Trading Society. The activities of this key organisation were coordinated from here and this had a substantial influence on the spatial development of the Global maritime coffeescape in the Dutch Colonial Empire during the nineteenth century.

Source: Gedenkboek der Nederlandsche Handel-Maatschappij, (Amsterdam, 1924), 14/15, 18/19, 50/51.

An important indication for the organisation's coordination effort is also the fact that from 1686 onwards, coffee was consistently on the list of goods that were requested to be sent back to the Netherlands.[298] Followed by various demands to increase yields, this was a form of governance that clearly had an effect on the Javanese part of the coffeescape. Albeit via the prism of the translation thereof in more concrete instructions in Batavia.

The organisation's main operations were coordinated from the so-called Oost-Indisch Huis, located on the Kloveniersburgwal in Amsterdam (Figure 4.25). Although this building was also used for storing commodities, it is unlikely that it was ever the case for coffee.[299] First, it was primarily used as a warehouse in the period before the introduction of coffee. Second, from the moment coffee was delivered on a regular basis, the large warehouses as identified in the previous section, were already operational. Third, coffee as a commodity had more in common with the spices located there than with the fine goods, such as silk, stored in the Oost-Indisch Huis.[300]

298 Van Gelder and Wagenaar, *Sporen van de Compagnie*, 114.

299 Ibidem, 68.

300 Van Driel, *Vier eeuwen veembedrijf*, 34.

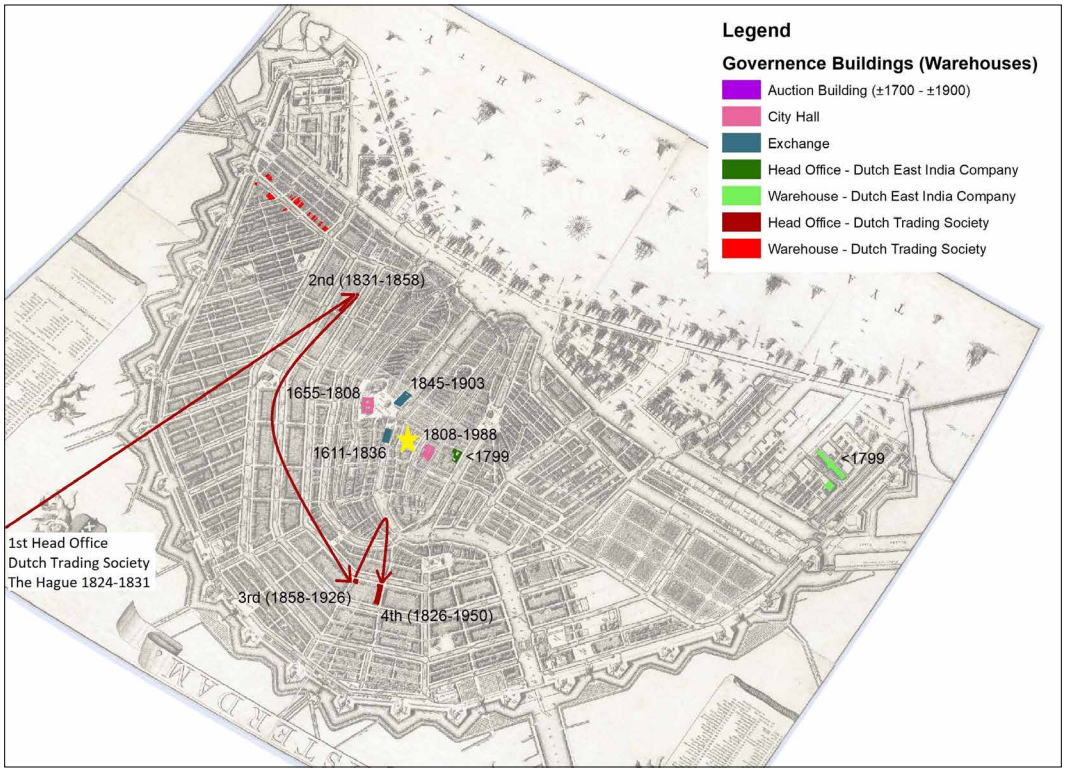

FIG. 4.25 This map combines the elements of the governance layer of the Amsterdam part of the coffeescape as described in the previous section. It depicts the locations of the head office of the Dutch East India Company in relation to the organisation's warehouses and the port city's principal institutions: the city hall and the stock exchange. The yellow star denotes the Brakke Grond, the main building for auctioning coffee for both the Dutch East India Company and the Dutch Trading Society. It also indicates the three relocations of the latter head office between 1824 and 1926, first from The Hague to Amsterdam and subsequently within Amsterdam. It is noteworthy that almost all these offices were relatively distant from the port areas where the coffee arrived and was stored, except for the first. Considering that, from the end of the nineteenth century, coffee was stored in large-scale warehouses in the modern harbour built in the IJ suggests that the governance and social-political network considerations of the organisations in selecting the locations took precedence over logistical factories.

Background: 'Amsterdam', Gerrit de Broen jr., 1744-1750, ca. 1:3.500, Amsterdam City Archive, 10095 Collectie Atlas Kok, no. KOKA00142000001. Made by the author.

TOC

Therefore, as far as coffee is concerned, this head office was a key element of the governance layer of the coffeescape. This also applies to the Brakke Grond, a dedicated building where the Dutch East India Company in Amsterdam publicly auctioned its Java coffee. This decision was motivated by the price-increasing effect of this financial instrument.[301] Although there was coffee available for assessment, these were samples from the large batches stored at the warehouses. This building and its location were therefore not the result of logistical considerations but rather an expression of how the chain's governance was designed by the Dutch East India Company.

In this context, it is also relevant to mention that both buildings were not only close to each other but also to other urban institutions that were of major influence on how Amsterdam's maritime trade functioned. This includes, first, the Amsterdam city hall, where the city council, important for establishing the rules of maritime trade resided. Secondly, it was in close proximity to the stock exchange, where shares of the Dutch East India Company were traded.

Hence, the spatial proximity of the buildings from which the Global maritime coffee chain was coordinated by the Dutch East India Company was part of a larger closeness among members of the political and economic institutions of Amsterdam. The reason for this was that the Dutch East India Company was not the authority in Amsterdam, despite a significant overlap between the company's directors and those in the city government.[302] Therefore, although the Oost-Indisch Huis was located on the east side of the city, and thus relatively close to the IJ, it did not move to the terrains were its warehouses and wharves were. This was probably because it wanted to remain integrated into this economic-political port network.

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301 P. van Dijk, *Koffiebranderijen en theepakkerijen*, 36. This was the main auction building. Occasionally, auctions also took place at lodges elsewhere in the city. Since these lodges were not specifically built or used for the sale of coffee but instead had multiple functions, they should be considered less a part of the coffeescape. The situation in Rotterdam was different. During the Dutch East India Company, the coffee was stored and sold in the same building where the organisation had its offices, namely the Oost-Indisch Huis, at the Boompjes, the quayside of the Meuse River. It was only during the coffee auctions by the Dutch Trading Society that the activities were split, as in Amsterdam. The auctions took place at: Algemeen Verkooplokaal Oost-Singel and the Sociëteit Harmonie. Dutch National Archive, 2.20.01 Inventaris van het Archief van de Nederlandsche Handel-Maatschappij, inv. no. 10983. For this reason, the dissimilarity between the logistical and governance layers of the coffeescape were illustrated by the Amsterdam context and not further analysed for Rotterdam.

302 R. van Gelder and L. Wagenaar, *Sporen van de compagnie*, 60.

4.2.2 The Dutch Trading Society Governing the Coffee Chain

As stated previously, the reason for establishing the Dutch Trading Society was to stimulate the Dutch economy, especially through overseas trade. With that goal in mind, this entity took several measures to governance the Global maritime coffee chain. Some of these significantly shaped the governance layer of the coffeescape.

The first measure concerns the artificial equal division of the quantity of coffee that was transhipped from Java to Amsterdam and Rotterdam.[303] The aim of this strategy was to prevent fierce competition between the two port cities, which the Dutch Trading Society feared could develop in a free market. Therefore, the fact that these port cities became pivotal to the Dutch coffeescape during the nineteenth century was the result of policy rather than simply a spatial reflection of local and regional demand for coffee.[304]

Secondly, the Dutch Trading Society continued the sale of coffee through public auctions at the Brakke Grond. In addition, it also established this practise in Rotterdam.[305] However, of importance to our endeavour is that this organisation implemented additional rules. In 1859, only coffee buyers who lived in Amsterdam or Rotterdam were allowed to attend. Moreover, in 1869, this rule was replaced by the regulation that coffee brokers, or their clients, had to reside within the Dutch Empire.

That the Dutch Trading Society was resolute in its intentions follows from the fact that if a broker did not represent a buyer meeting this criterion, he would be banned. These protectionist measures must be understood from the objective of keeping the profits of the Javanese Maritime Coffee Chain within the Dutch empire.[306]

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303 Between the establishment of the Dutch Trading Society in 1824 and the Belgian secession in 1831, Antwerp was an important port city for coffee deliveries from the Dutch East Indies. Given the brevity of this period and to keep the research manageable, Antwerp has been excluded from further analysis. Moreover, from the 1830s onwards, coffee was also stored in warehouses in the smaller port cities of Schiedam, Dordrecht, and Middelburg. However, these have also been excluded with the aim of identifying and analysing the main *Global Maritime Coffee Chain*. Everwijn, *Beschrijving van handel en nijverheid in Nederland*, vol. 2, 688.

304 Van Driel, *Vier eeuwen veembedrijf*, 58.

305 The latter took place in the Society Harmonie. Anthony Hoynck van Papendrecht, *Gedenkschrift van de vereeniging sociëteit "Harmonie" (Doele), gevestigd te Rotterdam, ter gelegenheid van haar honderdjarig bestaan 1826-1926*, (Rotterdam, 1926), 32.

306 Dutch National Archive, 2.20.01 Nederlandsche Handel-Maatschappij, 1824-1964, inv. no. 10970. Unfortunately, based on these sources, it was impossible to determine exactly when these conditions were introduced, especially since the earliest auction regulation found, dating from 1835 for Rotterdam, does not mention any. Amsterdam City Archive, 1374 Archief van Firma Jacobus van Hoorn Jr. 1828-1976, inv. no. 32. Nonetheless, it is clear that by 1914 these rules were even stricter. In that year, the purchase of coffee was only permitted for individuals or associates based in Amsterdam or Rotterdam. However, this could have been related to the First World War.

Seen through the lens of the coffeescape, it installed an intangible administrative boundary around the empire intended to restrict coffee and profits to flow beyond its borders without benefiting the Dutch economy.

The instructions of the Dutch Trading Society were also designed and issued from office buildings that were never used for storing coffee. In this case the head office was relocated several times. The first office was located in The Hague, in a wing of the Royal Palace on the Noordeinde. This was the result of the fact that the Dutch Trading Society was established by King Willem I and his advisors, as well as his direct involvement in the early years of the organisation.[307]

This affiliation continued until 1831, when the majority of the shares of the society came into the hands of the commercial elite of Amsterdam. The head office subsequently moved to the capital, where it became located at the Herengracht, a prominent residential canal without a port function.[308] However, the new office was located relatively close to the Brouwersgracht, where likely a lot of coffee was already stored at that time. Yet, more important than closeness to these warehouses for the location choice was probably that the building had belonged to a Governor-General of the Dutch East Indies. This illustration of a good functioning colonial network suggests that social considerations were at least as important.

Whatever reasons led to the first location, in 1858, a new office was opened in the southern part of the Herengracht. This location was definitely chosen on social grounds compared to logistical criteria. This is evident based on the fact that the site was in the heart of the Golden Bent, the wealthiest area of the inner city with logistical port city activities at a large distance. The choice was likely steered by proximity to businesses and residents active in maritime trade, prestige or both.

The head office of the Dutch Trading Society would remain there until 1926. In that year the office was relocated one final time to the Vijzelstraat.[309] The new location was relatively close to the previous one, as the organisation preferred a site not too far from the current office. The exact reasons for both remain unclear, although one of the most important reasons to move to a new building was that the increased

307 Dutch National Archive, 2.20.01 Nederlandsche Handel-Maatschappij, 1824-1964, inventory introduction, 21.

308 Amsterdam Monumentenstad, (Amsterdam City of Monuments), (https://www.amsterdam-monumentenstad.nl/database/grachtenboek_objecten.php?id=1883).

309 Mariëlle Hageman, Stefanie van Odenhoven and Ludger Smit (eds), *De Bazel, Tempel aan de Vijzelstraat in Amsterdam*, (Amsterdam/Bussum, 2007), 69.

workforce could be accommodated. Alos chance could certainly have played an important role: it just so happened that large plots of land became available at the Vijzelstraat as part of an urban redesign project.[310] Hence, few reasons were found that had anything explicitly to do with the maritime coffee trade, neither in terms of its logistics nor its governance, was behind this last shift. The relocations of the head office of the Dutch Trading Society over time are summarised in Figure 4.24.

4.2.3 A Shipping Company Office Location Guided by Maritime Symbolism

Some steam shipping companies involved in the transport of coffee from Java to the Netherlands also separated their offices from their logistical activities. An important example is the Scheepvaarthuis, built in 1916. This office served as a collective office for no less than six large steam shipping companies, including two heavily involved in the coffee transport from Java.

The Scheepvaarthuis, however, was not located in the modern port areas in the north west of the city where the vast veem warehouses stored the Javanese coffee. Instead, it occupied a place of significant maritime symbolism.[311] Namely the quay where the Dutch sea heroes Cornelis en Frederick de Houtman initiated the first Dutch journey to the far East in 1595.[312] This once again demonstrates how the location choice for offices was often dictated by considerations other than logistics.

310 Ibidem, 72.

311 The shipping companies relevant for this thesis were: the Stoomvaart Maatschappij "Nederland" (Netherlands Steamship Company), the Koninklijke Paketvaart Maatschappij (Royal Packet Navigation Company), and the Koninklijke Nederlandsche Stoomboot Maatschappij (Royal Dutch Steamboat Company).

312 The Scheepvaarthuis is located on the Prins Hendrikkade in Amsterdam.

4.2.4 The Role and Offices of Coffee Intermediaries and Trade Associations

The Java coffee that was auctioned by the Dutch East India Company and the Dutch Trading Society at the Brakke Grond in Amsterdam and the Harmonie in Rotterdam was purchased by brokers and other intermediary traders.[313] The presence of brokers and other intermediaries is, in itself, an important indication of the functioning of the Global maritime coffee chain. This is because of the role they fulfilled in bringing together overseas supply and inland demand. As such, they constituted a typical institution for port cities.

Also their number and degree of specialisation help to understand the way the chain functioned. Because it is likely that specialist coffee brokers only emerged when the market reached a minimal size. As with the coffee shops specialising in one commodity compared to groceries, this was probably not the case before and during the earliest days of the regular coffee supplies from Java in the beginning of the eighteenth century. For that period, it is more likely that brokers only traded in coffee sporadically and/or partially.[314]

It is evident that these intermediaries operated within the sphere of governance. The coffee itself was namely not present at the locations where they worked, at least not in large quantities. Nor did their work require the actual movement of batches of coffee.

The most easily accessible sources – Amsterdam Merchant Guides from the late eighteenth century and various Address Books from the nineteenth and early twentieth centuries – unfortunately hinder an exact reconstruction of the number of brokers specialised in coffee over time.[315] Often, only 'in coffee' was mentioned, and for a substantial period, only general brokers were indicated.

313 This practise probably continued until 1917, the year when the system of forced coffee cultivation in Priangan was permanently abolished by the Dutch colonial government.

314 During the period of the Dutch East India Company, Amsterdam brokers were organised in a guild and convened in the Guild House. Although, as an administrative building, it belongs to the governance layer of the coffeescape, it has not been included in the further analysis, mainly because it served a more general purpose rather than being dedicated specifically to coffee brokers or trade.

315 Amsterdam City Archive, 30398 Collectie Stadsarchief Amsterdam: koopmansboekjes, (1766-1838) and Collectie Stadsarchief Amsterdam, 30274 adresboeken, 1-98, (1821-1940).

Therefore, it is impossible to determine what their role in the coffee trade was, their total number, and whether changes therein over time reflect a factual, administrative, or source-specific change.[316]

If we take the number of coffee brokers mentioned in these sources nevertheless at face value, we observe a significant increase between the years 1869-1870 compared to 1940. In the first year, we count 36 coffee brokers, whereas in the latter year, there are 52.[317] A growth corresponding to around thirty percent.[318] That this is not entirely unrealistic, despite the problematic interpretation of the source, is supported by conclusions from other research. This indicates that there was no elimination of the Dutch intermediary coffee trade before the Second World War.[319]

In fact, it is plausible that the rise in coffee brokers reflected an increase in their importance for the functioning of the Dutch Global maritime coffee chain after 1870. Since then, the supply side of the Dutch coffee market had increasingly diversified due to two developments. First, the establishment of multiple private coffee enterprises after the abolition of the Cultivation System. Second, newer coffee-producing countries became more dominant on the world stage, especially South American nations.[320] For example, Brazil had been supplying coffee to the Dutch market since 1833, but until 1857 its annual share sometimes did not exceed 5% of the market.[321]

316 One possible approach would have been to determine for each broker whether it traded in coffee, for instance by consulting the digitised Amsterdam notarial archives. This, however, lay beyond the scope of the study given its labour-intensive nature. Further insights might have been gained from connecting brokers who were mentioned in the archives of Beukenhorst, Douwe Egberts, De Leeuw, or Van Nelle with historic sources in Amsterdam and Rotterdam. However, attempts to link these proved only successful in a very limited number of cases, underscoring the fragmented, and incomplete nature, of the coffee brokers category as represented in the address books. In addition, no business records of coffee brokers appeared to be preserved. An alternative avenue, analysing the veem archives, was similarly unfruitful, as their contemporary successor, Vopak, declined to grant access.

317 Collectie Stadsarchief Amsterdam, 30274 adresboeken, nos. 30 (1869-1870) and 96 (1939-1940).

318 There are, of course, multiple possible explanations for this increase, such as larger organisations losing business to several small newcomers without any change in the rest of the chain. However, here we sought an explanation that made sense from the perspective of the developments in the entire Global Maritime Coffee Chain.

319 According to Hugo van Driel, it was hard to empirically prove the three trends that previous studies had assumed about the undermining position of Dutch intermediaries in the international coffee trade (van Driel, "Uitschakeling van de Nederlandse koffiehandel in de negentiende en twintigste eeuw?", 202). However, I deviate from this author's subsequent conclusion that the functional hypothesis itself should therefore be rejected. The increase in the number of brokers can be well explained by their function in the entire coffee chain, which was characterised by an increase in both the diversity of supply and demand for coffee.

320 Everwijn, *Beschrijving van handel en nijverheid in Nederland*, vol. 2, 689.

321 Van Driel, "Uitschakeling van de Nederlandse koffiehandel in de negentiende en twintigste eeuw?", 169.

However, this country's share would become increasingly significant thereafter up to 60% in 1909 next to the deliveries from the Dutch East Indies.[322]

As a result, the coffee deliveries varied in price and quality. This was additionally caused by biological variation, differences in the locations of coffee fields within the natural landscape, the capabilities of the managers running the estates and the preparation methods. Furthermore, uncertainties arose from the fact that coffee, as an agricultural commodity, could vary significantly in quality between harvests. That is why, as early as 1869, a Rotterdam coffee broker noted that knowledge of coffee in the Netherlands had increased, and stakeholders conducted their own quality research.[323]

Simultaneously, there was an important change on the demand side. The emerging industrial coffee roasters required larger quantities and more frequent supplies of coffee to be economically profitable. Their relatively large purchasing power, along with their dependence on consistent coffee quality for their brand value, would have led them to be more critical in their purchases than coffee shops or end consumers had been in earlier periods. Furthermore, the number of roasters continuously increased dramatically to about a maximum of 500 by 1941.[324] Hence, to connect the supply and demand of coffee within multiple Global maritime coffee chains, a specialised group of coffee brokers with product knowledge emerged.[325]

The functional contribution of the coffee brokers and other intermediaries in these Global maritime coffee chains thus explains their emergence. However, rather than passively undergoing these changes, they also played a major role in governing these chains. They both attempted to block or counter trends that potentially undermined their intermediary position and leveraged other trends to their advantage. This happened especially in a period that was characterised by severe competition with other European port cities that had more direct and regular steam shipping connections with coffee-exporting ports.[326]

Three acts conducted by intermediaries are relevant in this context. The first concerns the Amsterdam Coffee Association, which was founded in 1887. It consisted of brokers, importers, traders, commission agents, agents, and

322 Everwijn, *Beschrijving van handel en nijverheid in Nederland*, vol. 2, 691.

323 Joseph Jacobson, *Het Koffij-veiling-stelsel in Nederland*, (Rotterdam, 1869), 18.

324 Van Driel, "Uitschakeling van de Nederlandse koffiehandel in de negentiende en twintigste eeuw?", 191.

325 Ibidem, 202. Van Driel explained this for tea: a product of high value that differs greatly in quality, transported over great distances and for a large sales area. Van Driel, *Vier eeuwen veembedrijf*, 38.

326 Van Driel, "Uitschakeling van de Nederlandse koffiehandel in de negentiende en twintigste eeuw?", 172-175.

wholesalers, although these were not strict categories.[327] The reason for the association's establishment was to act together against a number of perceived abuses in the coffee trade and to prevent the Amsterdam global position as a powerful coffee trading centre from degrading into a simple consumer market.[328]

For this purpose, it established a futures market for coffee. This institute was known to have attracted Global maritime coffee chains. This had occurred in New York and Le Havre in 1882, and in Hamburg in 1886. In Le Havre in particular, this had led to explosive growth among coffee traders.[329]

The second case concerns the action of the Dutch Association of Importers of Dutch-Indies Products, established in 1918.[330] This organisation deliberately obstructed attempts to standardise coffee arrivals from the Dutch Indies which would have resulted in a formal classification of their quality. This refusal can be attributed to the fact that it would have made their role as 'inspecting' intermediary agents within the coffee chain redundant. Moreover, they could also earn more if the specifications of individual batches of arriving coffee were left intact compared to bulk transport. Given these interests, it is no surprise that the association continued to resist standardisation until 1931.[331]

The third example shows how coffee intermediaries secured their place in the global maritime coffee chain by establishing a covenant. This was agreed upon in 1924 by the Association of Brokers and Agents in Coffee in Amsterdam and the Association of Amsterdam Coffee Traders. It prohibited direct sales between importers/exporters and domestic organisations and stipulated that all businesses had to be conducted through the brokers and agents of one of these associations instead.[332]

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327 Van Dijk, *Koffiebranderijen en theepakkerijen*, 4.

328 Albert Willem Wichers Hoeth, *Gedenkboek van de Vereeniging voor den Koffiehandel ter gelegenheid van haar vijftig-jarig bestaan 1887-1937*, (Amsterdam, 1937), 4.

329 Van Driel, "Uitschakeling van de Nederlandse koffiehandel in de negentiende en twintigste eeuw?", 172-174. Followed in 1888 by a sister organisation in Rotterdam: De Rotterdamsche Vereeniging voor den Koffiehandel (Rotterdam Association of Coffee Traders). Its archive was destroyed during the bombardment of Rotterdam in 1940.

330 Vereniging van Importeurs van Nederlandsch-Indische Production (Association of Importers of Netherlands-Indies Produce).

331 Van Driel, "Uitschakeling van de Nederlandse koffiehandel in de negentiende en twintigste eeuw?", 190.

332 Respectively the Vereeniging van Makelaars en Agenten in Koffie te Amsterdam (Association of Coffee Brokers and Agents in Amsterdam, est. 1918) and the Vereeniging van Amsterdamse Koffiehandelaren (Association of Amsterdam Coffee Merchants, est. 1887). Van Driel, "Uitschakeling van de Nederlandse koffiehandel in de negentiende en twintigste eeuw?", 192.

One action taken by the Association for Coffee Trade in Amsterdam is relevant in a different way. Between 1888 and 1892, it lobbied the Holland America Line to include the important Brazilian coffee export port city of Santos in the company's journeys to South America.[333] This was deemed necessary when the share of South American coffee on the world market became dominant.[334] This action was thus aimed at redirecting ocean-going shipping companies to establish the integration of Amsterdam in the Brazilian export part of a coffee chain and thus was an important governance strategy.

After an initial failure of seducing the Holland America Line, the Amsterdam organisation continued its campaign until 1908. At that moment, it finally managed to establish a fixed scheduled service to Brazil with the Koninklijke Hollandsche Lloyd.[335] Moreover, its counterpart in Rotterdam did exactly the same during this period by successfully convincing the shipping company Hamburg Süd to load coffee from Santos to Rotterdam from 1883 onwards.[336]

We conclude the governance role of Dutch coffee intermediaries with their demise. Their importance fell structurally directly after the Second World War. This was due to the occurrence of various disruptions that solidified trends that were already set in motion, and to which these organisations had no adequate answer or halt.

Firstly, Indonesia ceased to be a colonial coffee supplier when it became an independent country and subsequently cut off its colonial trade ties with the Netherlands. A second development involved the concentration of industrial coffee roasters on the demand side, resulting in fewer organisations with greater purchasing power.[337] This meant there were fewer buyers.

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333 Michiel George de Boer, *De Holland-Amerika Lijn 1873-1923*, (Rotterdam 1923), 40.

334 Hoeth, *Gedenkboek van de Vereeniging voor den Koffiehandel*, 4. Despite the efforts, these lines were short-lived. The Rotterdam Association of Coffee Traders had more success by collaborating with a Hamburg shipping company in 1893.
Van Driel, "Uitschakeling van de Nederlandse koffiehandel in de negentiende en twintigste eeuw?" 176-177.

335 Idem.

336 Ibidem, 178. In 1910, the second Santos Coffee Syndicate decided to establish a direct fourteen-day route between Santos and Amsterdam, with the Dutch Trading Society playing an important role in purchasing, shipping, storage, management, and later also sales of the coffee. Dutch National Archive, 2.20.01 Inventaris van het Archief van de Nederlandsche Handel-Maatschappij, inv. no. 10970.

337 Van Driel, *Vier eeuwen veembedrijf*, 129.

A third cause was the improvement of communication tools and modes of transport, such as telephones and aeroplanes. These brought supply and demand closer together. They provided the coffee roasters in the Netherlands with the opportunity to directly contact the coffee producers on the other side of the world. This marked a fundamental and definitive transformation in the functioning of the Dutch Global maritime coffee chain.

4.2.5 The Governance Interventions of Veemen

Veemen also operated within the governance sphere, as they developed additional – non-logistic – strategies to strengthen their positions in the Global maritime coffee chain. The first intervention consisted of stimulating trade by placing freely transferable ownership certificates, so-called *celen*, on the products stored in their warehouses.[338] As these papers could be traded without having to move any coffee, and because it was possible to receive credit on them, the hope was that this would fuel the speculative spirit in the port cities and thus cause prices to rise. This, in turn, would benefit the veemen as it stimulated the demand for storage space.

The practice of issuing *celen* was older than the veemen. It even had been the main motive to establish the Pakhuismeesteren van de Koffie in 1828.[339] Moreover, the practice continued at least until 1874. This suggests that the instrument indeed fulfilled a need.[340] Hence, this governance intervention that potentially stimulated the maritime trade, should be viewed as a sophisticated means of these organisations' aim to attract commodity flows to their warehouses.

A second strategy implemented by the veemen consisted of competing on the price they charged for peeling coffee. The aim was to acquire contracts from commercial traders. This scheme became especially important after 1870, when the guaranteed coffee supplies from the Dutch Trading Society ended.[341] An illustrative example of this is the action taken by the Blaauwhoedenveem-Vriesseveem combination. This company invested in peeling facilities in their warehouse on the Amsterdam Handelskade and indeed commenced peeling coffee there in 1927.

338 Ibidem, 53.

339 Ibidem, 102.

340 Van Driel, "Uitschakeling van de Nederlandse koffiehandel in de negentiende en twintigste eeuw?", 173.

341 Van Driel, *Vier eeuwen veembedrijf*, 77.

However, tellingly, the operation was never aimed at making any profit. Instead, its sole purpose was to offer lower rates to the coffee traders for processing their coffee than the competition, to attract coffee.[342]

A third example consisted of veemen that intervened directly in the coffee trade by taking over important trading houses. For instance, in 1899, Vriesseveem took over Chabot & Andres in Rotterdam as a defensive act. This was prompted by the fact that the veem feared an imminent loss of business in the processing of coffee.[343]

Likewise, in 1928, the combination of Blaauwhoedenveem-Vriesseveem took over half of the business of the Rotterdam trading company Internationale Crediet- en Handelsvereeniging 'Rotterdam' (Internatio). This was an important coffee trader and owned several coffee cultivation enterprises in the Dutch East Indies.[344] Such take-overs resulted in a reduction in the power of the coffee traders to the benefit of the veemen. Especially since the latter acquired a more central, and therefore stronger, position within the Global maritime coffee chain.

4.2.6 Private Cultivation Estate Offices as Part of the Dutch Governance Layer

The last category of organisations that left a mark on the governance layer of the Dutch part of the coffeescape consisted of the cultivation enterprises introduced in the previous chapter. As explained there, such coffee estates were located in Priangan and on Java in general. Their offices, however, were predominantly located in the Netherlands.[345]

342 Ibidem, 102-103, and 113. Eventually, however, Blaauwhoedenveem-Vriesseveem did not enjoy the commercial coffee peeling much. The reason for this was that this specific veem heavily depended on the harvests from the Dutch East Indies. Since these became increasingly disappointing towards the end of the nineteenth century the results were poor.

343 Ibidem, 102.

344 Ibidem, 110. Rotterdam City Archive, 1256 Archieven van de Internationale Crediet- en Handelsvereniging "Rotterdam" en C.V. en N.V. Wm H. Muller & Co. (Internatio-Muller N.V.), inventory description.

345 These offices were not solely linked to coffee estates in Priangan but also throughout Java. Likewise, several of the cultivation firms that had offices in Batavia owned their coffee estates in other regions of Java.

This separation between functions can only be clarified by considering the societal sphere in which these organisations operated, which largely determined the suitability of the office locations compared to the cultivation activities. The presence of these organisations in the Netherlands / Europe has been primarily explained in previous research by the expectations of their founders that raising capital would be easier there than in the Dutch East Indies.[346] Apart from this strategy to be integrated into the social-economic elite of the Netherlands, it obviously also mattered that many of the initiators were living there.

To see how this strategy determined the governance layer, our interest lies in the cities where these offices were located. If we examine the data, we observe a clear concentration in the Dutch port cities of Amsterdam and Rotterdam, as well as the governmental city of The Hague.[347] In addition, we see a few other (smaller) Dutch towns with one or two offices, namely in Arnhem, Zutphen, Deventer, Utrecht, Haarlem, Dordrecht, and the village of Gorssel.[348]

Offices of Dutch East India coffee cultivation enterprises were also located in other European port cities such as London and Antwerp.[349] Of these, London stood out in terms of numbers. Lastly, few offices were located in the Dutch East Indies. These were concentrated in the port cities of Batavia and Semarang, as well as in the residential city of Buitenzorg.

The concentration of offices of Dutch East India coffee cultivation enterprises in port cities can be explained by the presence of the global maritime coffee chain. This interpretation gains further support when examining their exact locations and distribution. The offices were particularly clustered in the commercial port districts and the upper-class neighbourhoods where a lot of maritime traders lived (Figures 4.26, 4.27 and 4.28). In Amsterdam, it is especially telling that their spatial spread overlapped with the locations of coffee brokers.

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346 Although the amount of available capital and the means to raise it were undoubtedly higher in Europe than in the Dutch East Indies, the previous chapter revealed that it would certainly not have been impossible in Batavia. Mainly because of the establishment of various banks in Batavia and the fact that the Dutch Trading Society's increasingly began to operate like a financier of such enterprises.

347 Database Colonial Businesses Indonesia, (https://www.colonialbusinessindonesia.nl/en), which was based on the: *Handboek voor cultuur- en handels-ondernemingen in Nederlandsch-Indië, 1888-1940*, (Amsterdam).

348 Some were based in two cities simultaneously, with one branch often located in Amsterdam, Rotterdam, or The Hague.

349 There was also one in Basel.

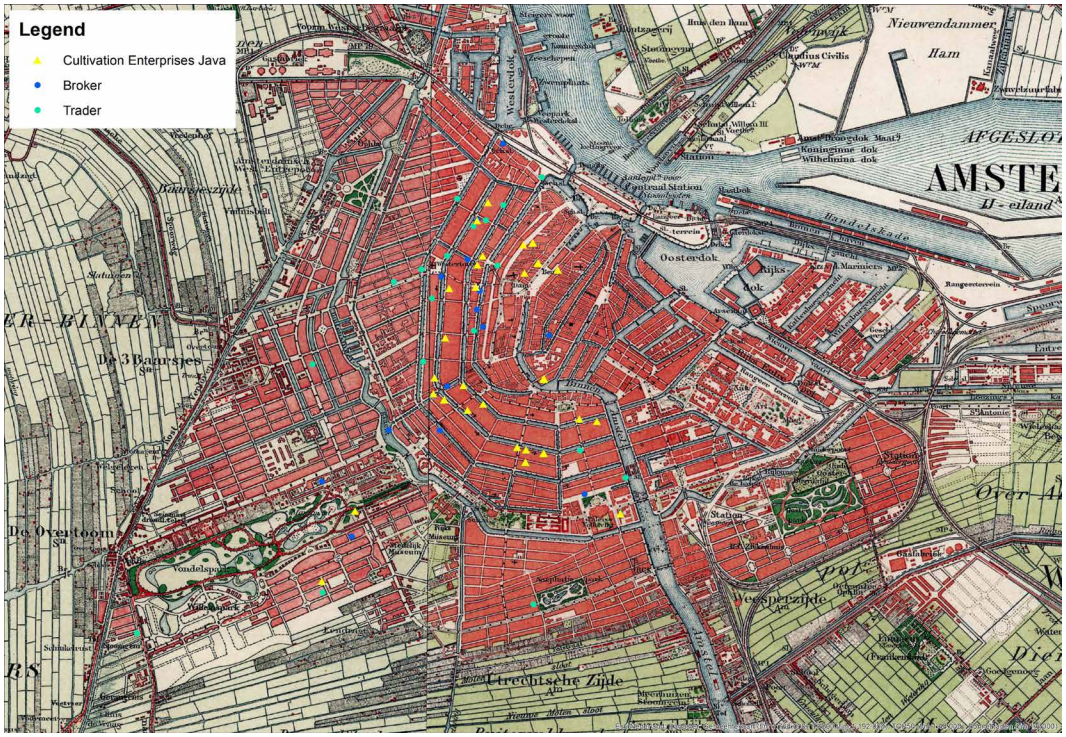

FIG. 4.26 Map of Amsterdam in 1910 showing the locations of offices of private cultivation enterprises on Java that also cultivated coffee (53) and coffee traders and brokers (33). It is striking that none of the businesses in these categories were found in the port districts where the coffee arrived, and only two were located near where the commodity was stored. Instead, they were predominantly located in the old inner city and some in the high-class neighbourhoods newly built in the southwest. Another aspect that stands out is the spatial overlap with the brokers and cultural enterprises. Both facts are important for understanding these organisations' aim to be integrated into the maritime social-economic clique.

Sources: Naamlijst voor den telefoondienst 1910, Posterijen en Telegrafie, Hoofdbestuur, (The Hague, 1910). Database Colonial Businesses Indonesia, (https://www.colonialbusinessindonesia.nl/en). Based on Handboek voor cultuur- en handels-ondernemingen in Nederlandsch-Indië, Vol. 23 (Amsterdam, 1910). Amsterdam City Archive, Collectie Stadsarchief Amsterdam, 30274 adresboeken, no. 68, 1910. Background: 'Chromo-Topographische Kaart', 1:25.000, via Topotijdreis, (https://www.topotijdreis.nl/). Made by the author.

TOC

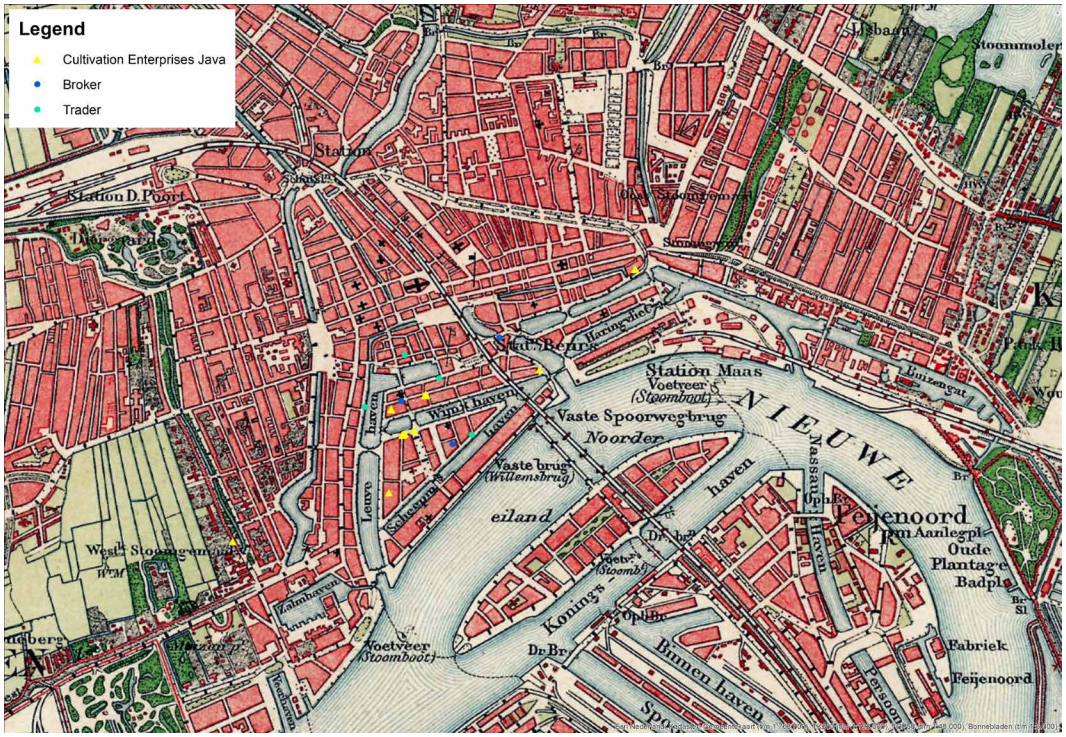

FIG. 4.27 Map of Rotterdam in 1910 with the office locations of the private cultivation enterprises on Java that also cultivated coffee (27) and coffee traders and brokers (8). When this is compared to the situation in Amsterdam in the same year, two things stand out. First, the number of organisations in these categories was much lower. Second, the majority of these were located in the port area.

Sources: Naamlijst voor den telefoondienst 1910, Posterijen en Telegrafie, Hoofdbestuur, (The Hague, 1910). Database Colonial Businesses Indonesia, (https://www.colonialbusinessindonesia.nl/en). Based on Handboek voor cultuur- en handels-ondernemingen in Nederlandsch-Indië, Vol. 23 (Amsterdam, 1910). Rotterdam City Archive, 3023 Adresboeken Rotterdam, no. 54, 1910. Background: 'Chromo-Topographische Kaart', 1:25.000, via Topotijdreis, (https://www.topotijdreis.nl/). Made by the author.

TOC

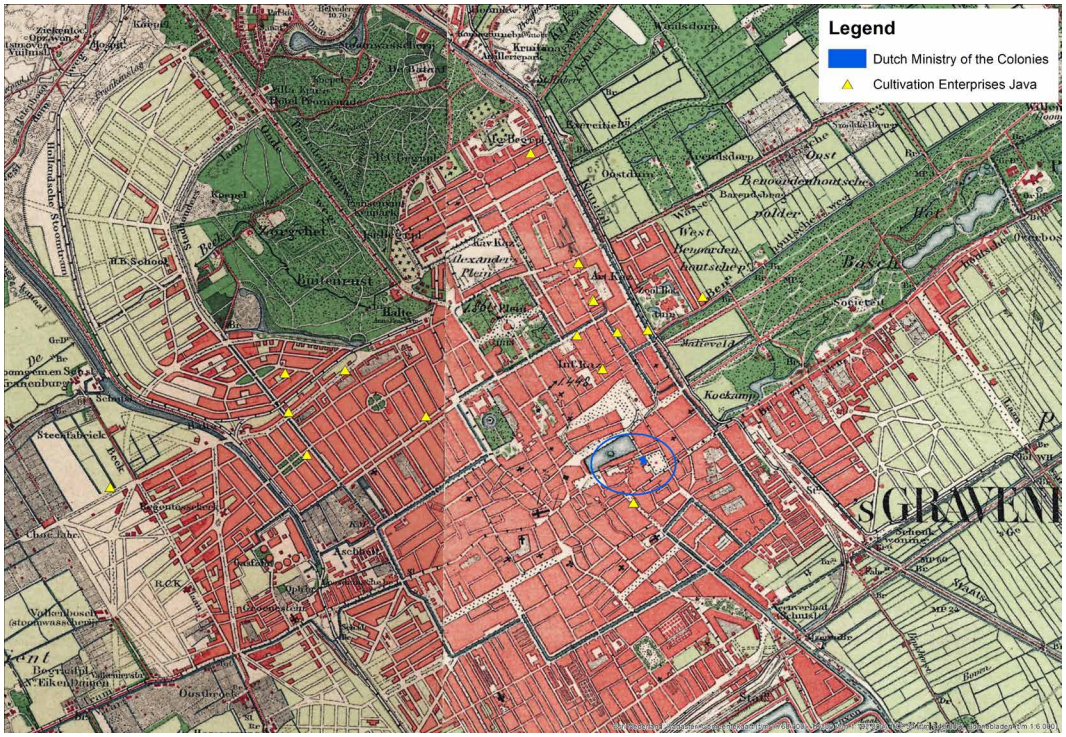

FIG. 4.28 The locations of 22 offices of private coffee cultivation enterprises on Java in The Hague in 1910. The blue oval indicates the government district and the building in which the Dutch Ministry of Colonies was housed.

Sources: Naamlijst voor den telefoondienst 1910, Posterijen en Telegrafie, Hoofdbestuur, (The Hague, 1910). Database Colonial Businesses, (https://www.colonialbusinessindonesia.nl/en). Based on Handboek voor cultuur- en handels-ondernemingen in Nederlandsch-Indië, Vol. 23 (Amsterdam, 1910). Background: 'Chromo-Topographische Kaart', 1:25.000, via Topotijdreis, (https://www.topotijdreis.nl/). Made by the author.

In addition, there was a concentration of offices in the government city of The Hague. This is easily explained. The Hague was an attractive location for commercial enterprises due to its proximity to the Ministry of Colonies, which was essential for lobbying, as businesses relied on administrators and policymakers for their Dutch East Indies operations.[350] Besides, there was an extensive network of former East Indies professionals with relevant experience from which these enterprises could recruit staff.[351]

350 Audrey Wagtberg Hansen and Andréa A. Kroon, "Sporen van Smaragd, Indisch erfgoed in Den Haag, 1853-1949", (*VOM-reeks Monumentenzorg*), (Den Haag, 2013), 5.

351 Ibidem, 8.

The concentration of various organisations in specific neighbourhoods and near the government indicates a close social network that, in this case too, could be understood as a 'clique'. Importantly, there are two additional signs that seem to support this. Firstly, these organisations emerged in a relatively short period, which suggests that members of the same social network inspired one another to set up these types of enterprises. Secondly, several of these agricultural enterprises were even housed in the same building that had been newly constructed for them.[352] It is therefore inevitable that their employees knew one another.

Particularly relevant (but not visible on the Rotterdam map) in this context was the fact that six of such cultivation enterprises in the Dutch East Indies were registered in the same building of Hoboken, the sailing company that was deeply involved in the transport of coffee from Java during the Cultivation System until at least 1857. Some of these were explicitly intended for the cultivation of coffee, while others had a more general agricultural purpose.[353] Nonetheless, it reveals the organisation's overseas involvement in the Coffee Chain.

4.2.7 Dutch State Buildings belonging to the coffeescape's Governance Layer

The role of the Dutch state in shaping the Dutch Maritime coffeescape has already been touched upon various times. Especially in relation to establishing the Dutch East India Company and the Dutch Trading Society, and in issuing the Agricultural Law of 1870 for the Dutch East Indies. Furthermore, the Dutch state undertook numerous actions that directly or indirectly influenced the way in which the coffeescape developed. Occasionally with far reaching consequences.

It is impossible to provide a complete picture of the state's influence at this point in the analysis. Especially considering the complex developments of almost 250 years of colonialism in which the coffeescape was shaped.[354] Nonetheless, the state's involvement means that the main buildings of the Dutch state in The Hague inevitably belonged to the coffeescape's governance layer.

352 One example of an office building shared by multiple commercial (coffee) cultivation enterprises was found in The Hague. Idem.

353 Database Colonial Businesses Indonesia, (https://www.colonialbusinessindonesia.nl/en).

354 The exact role of the Dutch State in governing this Global Maritime Coffee Chain for the entire research period requires separate research that goes behind the scope of this thesis.

This concerns far and foremost the Dutch parliamentary buildings where the colonial bureaucracy and the Ministry of Colonies took decisions, prepared and implemented them (Figure 4.29). It was from the latter building that the Dutch State dispatched the Governor-Generals and lower officials. Moreover, decisions taken there directly influenced the functioning of the Coffee Chain. For example, by the implementation of differential export duties for coffee leaving Java during the nineteenth century. An instrument also explicitly designed to ensure that the coffee would be directed to Dutch ports instead of foreign alternatives, by making export thereto less attractive by higher tariffs.[355]

FIG. 4.29 The first building of the Dutch Ministry of Colonies in The Hague next to the Parliament building.

Source: 'Het Ministerie van Koloniën aan het Plein in 1844', A.P. van Langenhuysen, The Hague City Archive, Image Collection, B 1251.

355 The instrument remained in effect until 1872. The new law that year ended the differential rights that had prohibited free enterprise and trade in the colony. Van Driel, "Uitschakeling van de Nederlandse koffiehandel in de negentiende en twintigste eeuw?", 170. Jantje de Jong, *Van batig slot naar ereschuld, de discussie over de financiële verhouding tussen Nederland en Indië en de hervorming van de Nederlandse koloniale politiek, 1860-1900*, dissertation, (Groningen, 1989), 54, 66-57, 76, and 183. Maarten Rowald Manse, Promise, pretence and pragmatism, Governance and taxation in colonial Indonesia, 1870–1940 (PhD thesis, Leiden University, 2021), 50. It could not be established how effective the tariffs were.

4.3 The Imaginative Layer: Organisations Claiming Their Involvement in Coffee?

This section focusses on the way in which organisations involved in the Global maritime coffee chain imagined their roles therein. To determine this, we focus on expressions in architecture, trademarks, advertising images and the use of toponyms. The section starts in the eighteenth century by analysing two Amsterdam façade stones. However, as the number of images dating from before 1900 is scarce, the analysis' main focus is on the period between 1900 and 1950. The section concludes by examining the use of toponyms for buildings in that period.

4.3.1 Few Businesses Claims of Involvement in the Coffee Chain in Urban Space

The scarcity of images used by coffee vendors in the earlier period is evident when we examine a collection of 1,097 façade bricks in Amsterdam.[356] Within this corpus, there were only three cases related to coffee, all dating from before 1800. One depicts a coffee bale, the second shows coffee bushes (Figure 4.30). The third, which depicts a coffee barrel, is known to be unrelated to any organisation involved in the coffee chain. Instead, it refers to the accidental discovery of a coffee cargo from a wrecked ship.[357]

In addition to the fact that three out of 1,097 stones relating to coffee constitute a very small number, it is difficult to determine the exact relationship between the artefacts and their patron, or the residents of the buildings on which they were placed.

356 Gevelstenen van Amsterdam, (Façade stones of Amsterdam), (https://www.gevelstenenvanamsterdam.nl/), 2023. This is an online database consisting of the description of 1097 façade stones in the city of Amsterdam. Rotterdam was not analysed because the city's bombardment in 1940 destroyed most of the façade bricks that would have been present. Additionally, no sources were found that would have facilitated a workaround.

357 Stadsherstel Amsterdam, (Urban Renewal Amsterdam), (https://stadsherstel.nl/nieuws/niet-het-huis-van-een-koffiehandelaar-maar-van/), 1-6-2019.

FIG. 4.30 The only two façade stones in the Amsterdam collection related to coffee. The first shows a coffee bale, probably made in 1727. The second image depicts, according to the caption 'In Drie Boonstrvycken', in English: 'In three bean bushes.' It is likely that coffee beans are intended, as suggested by the similarity of the depicted beans. This artefact dates from the second half of the seventeenth century.

Courtesy of Gevelstenen van Amsterdam

Even if we assume that these organisations were involved in the coffee trade, as a broker, trader, or shop owner, it is hard to determine whether this concerned an overseas trader or a coffee shop owner solely based on what is visible. Even though the coffee in the left image was wrapped in a manner used for maritime transport.[358]

4.3.2 Businesses Claiming Control over Maritime Commodity Chains in Adverting Images

From the late nineteenth century, trademarks and advertising images reveal how coffee businesses imagined their role in the commodity chain. Around 1900, industrial roasters in particular began to depict parts of Global Maritime Commodity Chains. This too should be understood in the context of fierce competition between the roasters and increasingly larger grocery stores on a national scale.[359] Based on the available material the main focus of the analysis is on Douwe Egberts and Van Nelle, supplemented with some examples from smaller players.

The aim here is not to completely analyse all images depicting commodity chain elements and how they have been used in the long term to create specific public business images, or brands. In a separate in-depth article that focuses on the chain images employed by Douwe Egberts, I reveal how these were increasingly deployed to evoke the idea of a company with total control over its global commodity chains.[360] Instead, here I build on these insights by discussing these images in a more generic sense.

Douwe Egberts began using images depicting commodity chain elements in various advertising and correspondence materials from the late nineteenth century onwards.[361] Apart from some early examples that solely focused on the organisations' factories, it quickly emphasised these buildings' water connections by portraying ships docked in front. This practice was continued in the images of

358 This seems more likely than that the image refers to a person's name. At the very least, there is no (D.) Koffibaal in the main database with personal information of the Amsterdam archive consisting of 822,861: entries. Alle Amsterdamse Akten, (All Amsterdam Deeds), (https://www.amsterdam.nl/stadsarchief/alleamsterdamseakten), 6-9-2023.

359 Van Dijk, *Koffiebranderijen en theepakkerijen*, 11 and 15.

360 TM van den Brink, "Douwe Egberts, depicting the commodity chain for corporate branding". In preparation.

361 This is not the place for an in-depth analysis of all these images and their development over time. For that, I refer to the previous article.

the first and second factory in Utrecht. As a result, the organisations' integration into larger commodity networks was highlighted, albeit in an indirect manner since not the entire supply chain was depicted. Some uncertainty aside, it is likely that the public understood that these ships related to the large-scale supply of commodities from elsewhere. The main reason for this assumption is the fact that the ships depicted were relatively large.

From the late 1920s onwards, the factory images were supplemented by coffee and tea cultivation landscapes that evoked the Dutch East Indies.[362] These windows on the overseas parts of various Global Maritime Commodity Chains set a trend in motion to extend the geographic scope of what was imagined. Eventually this resulted in a large promotional image depicting the entire Global Maritime Chains of coffee, tea, and tobacco from cultivation to consumption and in great detail (Figure 4.31). This image was distributed on panels around 1950 and used as shop decoration.[363]

It is remarkable that in the port windows, the presence and role of human figures is downplayed, rendering them small and barely visible. Instead, they highlight transport and infrastructure—ships, tugs, railways, cranes, quays, and trucks. This focus on anonymous logistics suggests a vague claim by Douwe Egberts of chain control in port cities. In particular when contrasted with its stronger claim to guaranteed product quality, emphasized in depictions of the cultivation landscapes and internal processes of its factories.[364]

The subsequent question is whether this claim of control over Global Maritime Commodity Chains through advertising images was more common among coffee processing businesses. If we examine the first advertisements of Van Nelle depicting of Coffee Chain elements, the conclusion must be that this is not necessarily the case.[365] Van Nelle primarily depicted its Rotterdam steam coffee roasting factory (Figure 4.32). The connection between this building and a larger chain is only emphasised in a very minimal way, namely by the depiction of carriers in an urban setting in front of the building. Overseas elements of its Global Maritime Commodity Chains are simply absent.

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362 Regarding the integration of Douwe Egberts into the Global Maritime Tobacco Chain, the image refers to cultivation fields in South America.

363 It is known that these shop decorations were used in grocery stores in Amersfoort, Bussum, Naarden, and Weesp. These towns are all located in the centre of the Netherlands. Treasor, 110 Douwe Egberts, inv. no. 5043.

364 Moreover, in the archive, some individual advertising images were found, depicting the transhipment of coffee bales into large ships, thereby visualising the maritime transport of coffee.

365 Many other advertisements featuring Van Nelle were executed in a rather abstract and stylistic manner.

FIG. 4.31 This very detailed advertising image of Douwe Egberts, depicting the entire Global Maritime Commodity Chain consists of all the processing steps required for coffee, tea, and tobacco, from their cultivation in the tropics to their final consumption in the Netherlands. It is striking that the maritime dimension of this scene, which includes the overseas supply routes as shown on the world map and the transhipment in the ports, is the most general and anonymous. This is particularly evident when comparing the presence and level of detail of human figures with the other scenes. It suggests that the organisation aimed to claim total control over the Global Maritime Commodity Chains on which it depended yet placed less emphasis on the port city components. The image was displayed on multiple panels and distributed to grocery stores that sold Douwe Egberts products for indoor advertising.

Source: Tresoar, 110 Douwe Egberts, inv. no. 5043.

TOC

FIG. 4.32 An advertisement from the end of the nineteenth century of the Rotterdam coffee roaster Van Nelle featuring the organisation's factory and a female figure symbolising the Spes, the Roman goddess for Hope. In this example, there are no references to the integration of the factory in a Global Maritime Commodity Chain. Also, the large anchor above all stands as a symbol of hope.

Source: 'Reclame van stoomtabaksfabriek De Rijzende Hoop van de firma Van Nelle aan de Schiedamsedijk', Rotterdam City Archive, 4275 Affichecollectie Van Nelle, inv. no. 2002-629.

One relevant element in the image stands out, namely a large anchor. However, interpreting this as a maritime symbol is half the story, as in this case it primarily stands for hope. This is firstly evident form the factory name: De Rijzende Hoop, 'The Rising Hope'. Second, the female figure appearing with the anchor symbolises Spes, the Roman goddess of hope.[366]

366 See for example this image of Spes (Hope) in the Collection of Museum Boijmans van Beuningen Rotterdam, (https://www.boijmans.nl/collectie/kunstwerken/146214/hoop).

That the use of an anchor by Van Nelle was, however, not entirely detached from its maritime meaning is evident in another advertisement (Figure 4.33). Although this image relates to tobacco, the anchor is depicted alongside items such as the Mercury rod, Hermes' helmet, a bale, barrels, and gear. Together, these evoke the concept of maritime trade and industry.

FIG. 4.33 This second advertising image by Van Nelle from 1896 promotes tobacco. The similarity with the previous image lies in the representation of the Roman goddess Spes and the anchor as references to hope. However, it differs significantly, as in this case Van Nelle's integration into the Global Maritime Tabacco Chain is suggested by the depiction of the sea, ships, tropical coasts, the tobacco plant, and the various instruments that symbolise (maritime) trade. As such we should understand it as an imagined integration in Global Maritime Commodity chains.

Source: 'De Erven de Wed. J. van Nelle, Rotterdam. Stoomtabaksfabriek "De Rijzende Hoop"', Rotterdam City Archive, 4006 Collectie Affiches, inv. no. II-0000-0259.

FIG. 4.34 This letterhead image used by the Utrecht coffee roaster "Java," dating from around 1900 depicts a tropical bay scene evoked by the presence of palm trees and non-Dutch figures and a ship. Although it is not completely certain whether the image was intended to symbolise Java, as nothing reminds us of the island specifically, the connection is suggested by the name of the roaster. By evoking this overseas connection of the Global maritime coffee chain, the image evokes the business' integration therein.

Source: 'Kop van een nota van F.H. Knottenbelt & Zoon, Stoom-Koffiebranderij "Java", Mariastraat 31 te Utrecht', Utrecht City Archive, 1854 Verzameling Utrechts handels- en reclamedrukwerk, afkomstig van Bernard Martens van Vliet, inv. no. 711364.

TOC

FIG. 4.35 Letterhead image of a coffee merchant dating from 1874 referring to coffee's maritime trade: a ship, an anchor, and the packaging materials used for transport.

Source: Municipality Archive Roermond, 7003-F Collectie Briefhoofden, Finken-Lommen, inv. no. 14.

In fact, this advertisement does suggest the organisation's integration in a Global Maritime Commodity Chain by depicting the overseas origin of tobacco. This is evoked by the tropical landscape, as indicated by the depiction of a recognisable palm tree. The maritime nature of the chain is subsequently suggested by the extensive sea in which one ship sails, and another is moored along the coast. Therefore, it seems that Van Nelle also conveyed the idea of being integrated into Global Maritime Commodity Chains, although not equally in all advertisements. While this was established for a different commodity than coffee may be somewhat artificial, it is not problematic, as the message remains the same.

The idea that these coffee roasters claimed their integration into a Global Maritime Commodity Chain through visual rhetoric, and that this imaginative layer constitutes a notable part of the coffeescape, is supported by other examples. A similar overseas scene was featured on a letterhead from the Utrecht coffee roaster "Java" (Figure 4.34). Even a coffee roaster as far from the sea as Roermond included an anchor and a ship in its letters (Figure 4.35). As for the images used by other coffee roasters, they mainly depicted the factory, occasionally in combination with ships.[367]

367 A good example of this is the advertisement of the Rotterdam coffee roaster, "Nederlandsche Stoomkoffiebranderijen H.E. van IJsendijk jr." which was also located at the Leuvehaven. Rotterdam City Archive, 4006 Collectie Affiches, 1895, inv. no. G-0000-0348.

4.3.3 Expressing Integration in Global Maritime Coffee Chains via Offices

This section examines how imagining the Global maritime coffee chain materialised in architecture and integrated artworks. By far the most comprehensive example of a Dutch building that evokes a maritime world as part of the coffeescape is the Scheepvaarthuis in Amsterdam. The maritime theme was applied as a design motif from the smallest details to the overall design. Within this vast sea of maritime images and symbols, we also find several references to commodities that arrived in the Netherlands from overseas. These include coffee, alongside tea, herbs, spices, and cacao. These products flank four sculptures of seventeenth-century seamen and sailors on the building's exterior. (Figure 4.36).

Scenes, depicting the cultivation, unloading and storage of commodities were also part of the building's interior, particularly illustrated through several detailed wood carvings in the executive room. Examples include a rice field scene and the harvesting of tobacco. Another carving depicts a coffee and tea cultivation landscape: a bush being picked by female Asian figures. The identification of the commodity as coffee is based on a letter of the artist about the artwork and tea is supported by the large bags carried by the human figures.[368]

The depiction of commodities imported from overseas, however were exceptional in the overall decorative programme. In fact, the latter was completely dominated by more general maritime and shipping themes. Therefore, also for these commodities, the maritime relation was vaguely evoked instead of made explicit by depicting entire Global Maritime Commodity Chains. The overall maritime character of this building is so total, overwhelming and elaborate in almost every conceivable way that this completely dominated the buildings' expression.

368 Louise de Blécourt, *Het Scheepvaarthuis, Eerste Gebouw van de Amsterdamse School*, (Zwolle, 2025), 124.

FIG. 4.36 Photograph of the four sculptures refereeing to seventeenth-century seamen and sailors placed at the facade of the Scheepvaarthuis. They are flanked by commodities consisting of coffee, tea, herbs, and spices – goods that were transported by the shipping companies that had their offices in this building.

Courtesy of: Loek van Vlerken/Hildo Krop Museum, (https://kenniscentrum.hildokropmuseum.nl/), Steenwijk.

FIG. 4.37 Photograph of one of the wood carvings on the wall located in the general boardroom of the Scheepvaarthuis. The scene depicts a coffee cultivation landscape in the Dutch East Indies with human figures that harvest the beans.

Courtesy of Louise de Blécourt.

FIG. 4.38 Photograph of one of the tapestries in the main boardroom of the Scheepvaarthuis. This artefact, combined with the metal relief below and the wallpaper, illustrates the rich decoration that captures the maritime theme throughout the many details in the building.

Courtesy of Louise de Blécourt.

The foregoing stands in stark contrast to the application of symbols Dutch East India Company and Dutch Trading Society offices. In fact, regarding the first, no examples were found at all.[369] Regarding the first three headquarters of the Dutch Trading Company, only one explicit maritime symbol was found for the facade. This is a sculpture consisting of the organisation's trademark on top of its head office between 1858 and 1926 (Figure 4.39). However, it was not particularly public, as both the material used and its great height above the street made it difficult to see from the street.

369 However, no further research has been done on the interior or its wall paintings.

FIG. 4.39 Photograph of the roof façade of the head office of the Dutch Trading Society between 1858 and 1926. At the very top, one can recognise the anchor belonging to this organisation's trademark.

Source: Google Street View image of Herengracht 466, Amsterdam. Captured August 2021, accessed via Google Earth Pro on December 5th 2025.

In the exterior of the head office of the Dutch Trading Society from 1926 more symbols were applied. On the roof, three large-scale colonial 'heroes' were constructed, consisting of three Governor-Generals of the Dutch East Indies, namely: Jan Pieterszoon Coen, Herman Willem Daendels, and Jo van Heutsz.

The main entrance of the building is flanked by two allegorical figures representing Europe and Asia, the main continents where The Dutch Trading Society was active.[370] In addition, there are two sculptures located on the corners of the building's base. The first sculpture shows three men holding a rope and an anchor. These shipping instruments and the maritime clothing of the figures are among the few explicit references in the building's design to this organisation's involvement in maritime transport. The second sculpture symbolises trade and production consisting of 'two traders making a sale' with a central figure overseeing it. It is likely that this central figure refers to the Dutch Trading Society, portrays the owner of the building as an intermediary (Figures 4.40a-b).

370 Hageman, van Odenhoven and Smit (eds), *De Bazel*, 126-127.

4.40A Photograph of the first sculpture consisting of three men holding a rope and an anchor. These shipping instruments and the maritime clothes of the figures are among the few references in the building's exterior that allude to this organisation's involvement in maritime transport.

4.40B Photograph of the second sculpture representing trade and production as 'two traders making a sale'.

FIG. 4.40 Photograph of the two sculptures in the head office of the Dutch Trading Society from 1926.

Source 40A: Amsterdam City Archive, Collectie Stadsarchief Amsterdam. Courtesy of the Amsterdam Archive.
Source 40B: Amsterdam City Archive, Collectie Stadsarchief Amsterdam. Courtesy of the Amsterdam Archive.

TOC

The overall design of the building also refers to Javanese architecture. This applies to the form, the materials used, and the decorative patterns.[371] This provides only a very limited basis for reconstructing the Dutch Trading Society's institutional identity within the Javanese coffeescape.

4.3.4 Overseas Toponyms and Names of Coffee Buildings in the Netherlands

In this Dutch coffeescape, imagination was conveyed not only through visual artefacts but also through language. The final step in reconstructing the coffeescape's third layer is therefore to analyse the use of Dutch East Indian toponyms and names for coffee buildings in the Netherlands. Such naming practices inscribed colonial geographies into urban space. Several examples show how linguistic choices embedded imagined connections to coffee's origins within the built environment.

Firstly, in Amsterdam, there was a building named 'Oost Indië' (East Indies) and in Rotterdam there was a coffee peeling facility called 'Insulinde'.[372] Moreover, the first main office of Blauwhoedenveem in Rotterdam from 1885 was called 'Neerlandsch Indië' and an Amsterdam warehouse, acquired in 1954 by Het Nederlandsche Veem, was known as 'Java'.[373]

The geographical origin of coffee was also reflected by a Rotterdam coffee and tea importer in 1939 named 'Preanger', the Dutch word for Priangan, which reflected the region's importance as a coffee-producing region. In Amsterdam in the same year, there was even a coffee shop called 'Salah-Gedeh'. The first word generally means "big", but it is also the name of an important volcano in Priangan, where coffee had been cultivated since at least the nineteenth century.[374] The attachment of the coffee to the Priangan is also confirmed by 'Gabah' the name of a Rotterdam coffee steam peeler which is the Javanese word for 'grain'.[375] Lastly, the Santos warehouse in Rotterdam from 1903, forms the most explicit link between a warehouse name and the important Brazilian coffee-exporting port city.

371 The building's overall architectural style has been interpreted as being reminiscent of Borobudur, a temple in Central Java. However, it remains unclear whether many people would directly associate this with the Dutch Trading Society's main overseas trading territory for coffee. Ibidem, 36.

372 Van Driel, *Vier eeuwen veembedrijf*, 102. Google Translate, (https://translate.google.com/).

373 It was simultaneously known as the d'Peliekaan. Ibidem (The Pelican), 82, and 130.

374 'Kaart der Preanger Regentschappen en Crawang', 1817, Dutch National Archive, 4.MIKO, inv. no. 966.

375 Van Driel, *Vier eeuwen veembedrijf*, 102, Google Translate, (https://translate.google.com/).

This small collection shows that such names were not extremely common. In addition, their familiarity among the general public as refereeing to the overseas coffeescape can be doubted. This impression arises from the fact that these coffee traders often added the specific commodities in which they traded.[376] Apparently, these toponyms alone were not enough to convey that the traders sold coffee. Moreover, names referring to the Dutch East Indies, were not exclusively applied to buildings that were part of the coffeescape.[377] On the contrary, they were much more commonly used, especially for warehouses.

Despite the discussed imagination of a business' integration in the Global maritime coffee chains via the design, architecture and name giving of buildings we must remain cautious because of the scarcity of cases. Especially as it became apparent that it was not always easy to relate the examples explicitly to the Global maritime coffee chain. Another factor that complicates the analysis is the fact that certainly not all coffee businesses employed any symbols or references in their public expressions.

4.4 Conclusion

The Dutch side of the coffeescape also went through distinct phases, shaped largely by the central colonial companies, notably the Dutch East India Company and the Dutch Trading Society. After 1870, liberalisation led to a significant increase in the number and diversity of actors, reshaping the chain in both logistics and governance. Among the most influential were the new shipping lines, roasters, specialised brokers and intermediaries, and private agricultural enterprises, alongside cattlemen. The Dutch state likewise played an indispensable, if often background, role.

Here too, there was both change and continuity: change in the vast increase in scale and spatial expansion, with ever larger volumes stored in warehouses and processed in dedicated facilities; continuity in the persistence of monopolies and the overlap between conventional and modern practices. Within this longer trajectory, the public imagination of the maritime coffee chain is a relatively recent phenomenon, visible mainly in advertising, with far fewer references in architecture or place names.

376 Amsterdam City Archive, Collectie Stadsarchief Amsterdam, 30274 adresboeken, inv. no. 96 (1939), page 700 and Rotterdam City Archive, 3023 Adresboeken Rotterdam, inv. no. 77 (1939), 523. Van Driel, *Vier Eeuwen veembedrijf*, 125.

377 Idem.

5 Conclusion

Reconstructing the spatial impact of the maritime coffee chain linking Java and the Netherlands over time reveals the impact of commodity trade facilitated by port cities on the natural and built environment. As a case study, it revealed how decisions by states, businesses, social organisations and private persons in the logistical, governance, and imaginative spheres intersected to shape a global "coffeescape." More importantly, how it influenced not only landscapes and societies nearby, but also regions on the other side of the world and separated by vast oceans.

5.1 The development of the Javanese part of the coffeescape

The Javanese coffeescape came into being because of the Dutch East India Company's demand for coffee. After the establishment of regular coffee deliveries to the Netherlands shortly after 1700 and thanks to the Company's monopoly its profits increased enormously. Profit would continue to be the main driving force behind the coffeescape's development for the remainder of the researched period.

Initially, the Company's oversight in Batavia over the coffee chain in the Priangan hinterland can be characterised by absenteeism. The organisation's means to observe and coordinate the coffee activities were limited, since there was a small number of colonial officials and an enormous population and vast territory where the coffee was cultivated. Hence, the Company's logistical involvement in the inland coffee chain was limited to collecting beans at a few warehouses north of Priangan where the rivers became navigable.

In terms of governance, the Company's role was also indirect, but with far-reaching consequences. The Dutch organisation positioned itself at the top of the local social hierarchy. This enabled the Company to demand coffee as tribute, cultivated and delivered as corvée service that the local population owed their lords. It was also the responsibility of the local inhabitants to deliver the beans overland to Batavia.

The elimination of rival towns on Java's northern coast prior to the establishment of the coffeescape, the features of the colonial society and the physical landscape on the northern coast secured Batavia as the dominant port city. There, the Company constructed and equipped central warehouses for the collection of beans. The pirogues delivered coffee from the Priangan via the rivers and the sea to these warehouses, and from there to the Company's seagoing ships which lay at anchor in the roadstead.

This system functioned until the bankruptcy of the Dutch East India Company in 1799. It was due to the establishment in 1824 of the Dutch Trading Society that the maritime coffee chain between Java and the Netherlands was re-established. Like its predecessor, this organisation acquired a monopoly on the transport and the sale of Java coffee.

A crucial turning point in the development of Java's coffeescape was the alignment of the Dutch Trading Society with the Dutch colonial state in 1830 through the foundation of the Cultivation System.

This system was firmly anchored in the principle of forced labour and in the Priangan it incorporated the previously established unfree cultivation practises. This was against the background of the continuation by the Colonial State of claiming the tributes and corvée of the local inhabitants via the inland rulers during the nineteenth century.

However, from 1830 to 1870 the Cultivation System developed, strengthening colonial control. The seat of the highest colonial official in the Priangan, the resident, was moved three times from the coastal town of Cheribon until it finally settled in the central Priangan town of Bandung. This relocation closely followed the spatial shift of the coffee frontier. At the same time, colonial control on the lowest level and in the most remote coffee cultivation areas was exercised by travelling state officials. Although the colonial grip and the utilization of local labour intensified, the process remained gradual and piecemeal.

Spatially, the main characteristic of the Cultivation System was the enormous leap in scale. This concerned the number of coffee trees planted, the labour that required, the scale of individual and overall plantations, and the large quantities of coffee that had to be delivered to Batavia as a result. Where the previous coffee cultivation practises were more characterized by numerous, small-scale and scattered fields close to settlements, the Cultivation System would have an enormous impact on the Priangan landscape.

It is because of this system that the coffee cultivation in this area developed into a frontier of unprecedented magnitude and dynamics. The ever-expanding frontier consumed vast areas of forest, and many plantations were later abandoned. This left behind large *Alang Alang* landscapes with only small fragments of (perhaps still functioning) coffee fields.

These landscape changes were evident and reflected accurately by nineteenth century maps. However, not all signs of deterioration of the natural landscape were directly clear or captured by this cartographic source. One of the significant consequences was that the rivers used for coffee transport to Batavia began to silt up. On top of that, as the frontier expanded to increasingly remote and mountainous areas transport times for some estates to regional collection points rose sharply.

These interconnected developments of longer distances, larger volumes and deteriorating rivers confronted the Dutch Colonists with a severe logistical challenge. It was only during the nineteenth century that interventions by the Dutch Colonial State began to change the logistical layer of the coffeescape. Although these were implemented relatively slowly and intermittently.

The solution was found by building regional warehouses in two phases and the construction of roads suitable for carts carrying the beans. The increased volumes and the damage that the fully loaded carts caused to the land routes was also the primary reason to open the main road on Java and to locate coffee warehouses next to it. By the end of the nineteenth century railways were added to the coffeescape. Although these were not built solely for transporting coffee, a coffee railway establishment in Bandung and a coffee railway warehouse in Batavia's port reveal the commodity's importance and coffee was indeed transported by rail during the researched period.

However, in Batavia, the practise of central coffee collection initially did not change much. The coffee was largely stored in the warehouses of the former Company's. Although the Castle's warehouses were no longer available because of its demolition around 1800.

The Agricultural Law of 1870 ended the Cultivation System and put a definitive end to the coffee monopoly of the Dutch Trading Society. It was replaced by opening the Javanese landscape for foreign private investors. A characteristic of this system was that land was allocated in more remote, uninhabited areas where the colonial state judged that no rights of the local population applied.

This new phase resulted in another leap in scale consisting of even larger private agricultural estates that surpassed the previous scale of the Cultivation System plantations. Both regarding individual enterprises as well as the overall frontier. From then on multiple crops per estate became more normal. These private estates did not completely end the forced coffee cultivation of Priangan, as this system continued to function until it was officially abandoned in 1917.

Changes in the Priangan were also reflected by changes in Batavia and its port. New commercial merchant houses and financial institutions were established there. Many of whom in the period before 1940 clustered along the Kali Besar, the inner city's harbour canal dating from the Company's time. The relocations were logistically and socially motivated. By being direct neighbours, as well as through very personal and even family relationships and dual roles at different institutions, staff members formed a colonial clique.

In the last quarter of the nineteenth century the discussion about port improvements were fuelled by commercial transport and trade companies that aimed to secure positions in the maritime coffee chain. Ultimately, Tandjong Priok would become the new export port of Batavia because of the transhipping facilities of the large-scale commercial shipping companies. The Dutch Trading Society together with the Dutch Colonial State continued to receive coffee from forced labour from Batavia's until 1917. Moreover, also thereafter, it kept playing a role as a financier of the commercial enterprises. It is therefore no surprise that its new large scale headquarter of the 1930's was built opposite of the main railway stations and between the city and Tandjong Priok.

Nevertheless, the commodity frontier moved persistently in a southern direction as it was pushed by successive Dutch colonial organisations extracting more and more coffee. The frontier eventually integrated Priangan's south coast in the coffeescape. Especially after a newly established port with coffee warehouses, shipping connections, railway tracks and private businesses initiatives was built.

As far as the cultural sphere is concerned, there were tellingly few examples in which organisations used images to evoke their involvement in the Global Maritime Coffee Chain, let alone claim their role. However, despite the scarce material, the maritime self-conception of both the Dutch East Indies and the Dutch Trading Society was evident. Consequently, the analysis of the imaginative layer of the Global Maritime coffeescape, aimed at revealing the maritime nature of the involved organisations, was the most inconclusive part of Java's coffeescape reconstruction. No clear relevance to the commodity frontier could be attributed to it.

5.2 The Dutch part of the maritime coffeescape

The emergence of the coffeescape in the Netherlands was the direct consequence of regular coffee shipments from Java by the Dutch East India Company in the early eighteenth century. However, this colonial maritime chain was only possible because the Company built ships, dispatched them to Java, and returned with the beans. Sailing to and from Amsterdam and Rotterdam therefore relied entirely on the waterways connecting the Dutch ports to the North Sea.

The Dutch natural landscape formed the foundation for the coffeescape to take root and develop. From the nineteenth century onwards, infrastructural works such as canals were undertaken to improve maritime logistics. In particular the two large-scale and direct canals built between the North Sea and Rotterdam and Amsterdam in the 1870s were influential. These projects, however, served broader purposes and were not constructed solely for coffee transport.

The first true logistical elements of the Dutch coffeescape were storage facilities. In Amsterdam these consisted of the large Company warehouses, while in Rotterdam coffee was kept in a dedicated office room. In both cities, storage followed direct transhipment from seaworthy Company ships moored alongside these buildings.

The beans were subsequently distributed to coffee houses and shops in Amsterdam and Rotterdam. In both cities, eighteenth-century coffee houses clustered around the main economic and political institutions, while coffee shops were more widely distributed. However, the spread was far from even: concentrations appeared in the oldest, densely populated districts, likely reflecting vendors' aim to remain close to their market. In Amsterdam, the presence of coffee shops in an elite neighbourhood is particularly noteworthy in this context.

This study was unable to determine exactly how inner-city coffee transport was organised in the eighteenth century. The same uncertainty applies to the commodity's wider distribution across the hinterland. However, it is known that coffee reached distant places during this period, and it is likely that most of it was transported over the dense network of waterways.

The most explicit governing decision concerning this colonial maritime coffee chain before 1799 was the Dutch State granting the Dutch East India Company a monopoly on the sale of Priangan coffee in the Netherlands. The Company executed this monopoly by auctioning the beans in Amsterdam and Rotterdam.

The Company offices were important elements of the coffeescape's governance layer. Nationally, their presence in six cities likely reflected the organisation's structure more than local demand for coffee or the logistical needs of its transport. In Amsterdam, the Company's head office primarily hosted board meetings and administrative functions and therefore remained close to the major political and economic institutions, even after the seventeenth-century city expansions. The Rotterdam office, by contrast, was located near the Meuse River, as it partly functioned as a warehouse.

Notably, coffee does not appear to have penetrated the public imagination during this period. Cultural artefacts depicting the commodity were extremely limited, both in number and in type. One shortcoming of this inquiry is that the interiors of buildings were not examined. However, this does not alter the explanation that, although the importance of coffee increased significantly for Amsterdam (and to some degree Rotterdam) in the eighteenth century, it still made only a small contribution to the cities' overall maritime based wealth.

After 1824, the Dutch Trading Society re-established and controlled the maritime coffee chain between Java and the Netherlands. The organisation's impact on the Dutch coffeescape was marked by several important changes alongside elements of continuity. One major change was that the Society no longer transported the coffee to the Netherlands itself, as its predecessor had done. Instead, with the aim of stimulating the Dutch maritime economy, it guaranteed coffee to Dutch shipping companies for the overseas transport.

Regarding the logistical practices and layer, an important change was that coffee was no longer stored in warehouses owned by the Dutch Trading Society. In Amsterdam, coincidence partly determined this outcome, as one of the Company's large warehouses had collapsed shortly before the Society's founding. Nevertheless, this development also aligned with the Society's broader objective of stimulating private enterprise.

Many previously built warehouses in Amsterdam were filled with large quantities of Java coffee by Pakhuismeesteren van de Koffie, an organisation explicitly created for this purpose. Although it remains unclear whether this organisation was also active in Rotterdam, the practice there was the same. The warehouses were all

situated in the inner cities, with notable concentrations near the ports. This can be explained by the desire to maintain short logistical lines, since transhipment under the new circumstances was no longer carried out directly from large seagoing ships but required unloading onto smaller inland vessels for delivery to the warehouses. After 1858, the transhipment, sorting and storing of coffee in Amsterdam passed to three veemen.

In terms of governance, it is important to note that the equal quantities of Java coffee delivered to Amsterdam and Rotterdam by the Society were not simply a response to local demand, but a deliberate decision to prevent fierce competition between the two main Dutch ports. During the Cultivation System on Java (1830–1870), there initially appears to have been little change in the governance of the Dutch part of the chain. In this period, it was the Dutch Trading Society that was granted the state monopoly for auctioning coffee produced under the system, thereby taking over the role once held by the Dutch East India Company.

In Amsterdam, the auctions were even continued in the venue formerly used by the Company. In Rotterdam, the limited change appears to have been driven more by practical considerations than by a fundamental break with past economic thinking. There, the former Company office was assigned a new function, while the growing importance and volume of coffee necessitated the separation of storage and auction buildings.

Yet more profound changes also occurred. Deliveries had grown to such an extent that the number of auctions auctions per annum was raised from two to ten. A direct logistical consequence was the emergence of coffee peelers and pickers around 1864, marking a shift from seasonal to permanent work. From the last quarter of the nineteenth century onwards, this task was increasingly taken over by the veemen, who thereby secured another important logistical link of the coffee chain. The activity itself left its mark on the logistical layer of the coffeescape when the farmers set up special buildings for it.

A clear change in governance compared to the previous period was that first Pakhuismeesteren van de Koffie and later Veemen issued warrants on their warehouses in order to stimulate trade. Other governance decisions characteristic for this period included protective measures requiring brokers to reside in the Netherlands or the Dutch Empire. In this case, however, it cannot be determined whether this represented continuity or change, as it remained unclear how such matters were arranged during the Company's time.

The changing character of the Dutch Trading Society as coordinator of the Javanese coffee chain was also reflected in the relocations of its head office, which further shaped the coffeescape's governance layer. It first operated as an institution housed in a wing of the King's palace in The Hague. However, after most shares came into the hands of Amsterdam's commercial elite, the office was moved to that city. The Society's decision to settle in the prestigious canal belt is uncertain, but coincidence may have played a role.

The Hague nonetheless remained fundamental for the development of the colonial part of the coffeescape throughout the remainder of the research period. This was particularly the case because decisions taken in the parliament building there had far-reaching consequences for the Dutch East Indies in general and for coffee production on Java in particular. This applies most clearly to the watershed created by the Agricultural Act of 1870. The more operational implementation of policy and the appointment of colonial officials of all ranks also took place in this city, ultimately within an independent Colonial Department building.

The piecemeal reduction of the Dutch Trading Society's monopoly and the abolition of the Cultivation System on Java in 1870 also had important repercussions for the Dutch side of the coffeescape. One of the most consequential logistical effects was the increased competition among large steam shipping companies once guaranteed coffee deliveries came to an end. This, in turn, affected coffee-storage practices in Amsterdam and Rotterdam, particularly in relation to the large volumes with each consignment.

The veemen now had to compete for these large-scale deliveries, which encouraged them to replace their numerous small warehouses in the old inner cities with large facilities on deep water in the new port districts. Striking in this context was the expanding of operations of Amsterdam veemen to Rotterdam, integrating them into the global maritime coffee chains there. Yet coffee storage in city warehouses—especially in Rotterdam—persisted until the early twentieth century, only then being fully replaced by modern facilities.

It is most likely that coffee reached urban centres in the hinterland through groceries. Logistically, these centres became increasingly accessible by railway, while the most remote areas still relied on land transport. Nevertheless, water transport is likely to have remained dominant.

The analysis of the coffee purchasing policies of the three industrial coffee roasters from the mid-nineteenth century onwards suggests that these were strongly influenced by their location in the natural landscape. Those situated far inland and in landlocked areas not only purchased coffee directly in Amsterdam and Rotterdam but also through various intermediaries in nearby river towns. Roasters located near the North Sea purchased their coffee exclusively and directly in port cities.

In terms of governance, the Dutch state during this period also influenced the colonial coffee chain on a global scale, particularly by replacing the Society's monopoly with other protectionist measures. One such measure was the introduction of differential tariffs designed to ensure that coffee from Java would go to Dutch ports rather than to competing international ports if prices there were higher—a scenario that was not unlikely after the abolition of the coffee monopoly.

Many of the private agricultural estates established on Java during this period had their offices deliberately located in Amsterdam, Rotterdam, and The Hague. This enabled them to integrate into the trade network clique for acquiring capital, recruit colonial servants, and exercise political influence. The decisions of Van Nelle and Hoboken to establish private coffee estates on Java demonstrate that such ventures were not merely isolated initiatives, even though they appear exceptional.

The end of the Cultivation System and the Dutch Trading Society's monopoly also appears to have increased the importance of intermediate coffee organisations. Particularly significant were the brokers and, towards the end of the nineteenth century, the Amsterdam and Rotterdam associations of coffee traders. Although such figures had already played a role since the time of the Dutch East India Company, this initially seems to have concerned more general intermediaries rather than specialised coffee traders.

The increased importance of specialised coffee brokers was a direct result of systemic changes in the colonial and global maritime coffee chains. On Java, the establishment of private enterprises, alongside the remaining deliveries of the Priangan System, diversified the quality of coffee. At the same time, the rise of other coffee-producing countries further increased the variety available on the Dutch market. A significant change also occurred on the demand side. The practice of roasting small quantities of coffee at home was increasingly replaced by large-scale industrial factories in the decades around 1900. These roasters became major buyers of coffee and relied heavily on sufficient and consistent quantities and quality for their brand value. The confluence of changes on both the supply and demand sides of the chain led to the growing importance of specialised coffee brokers.

The governance of the coffee chain in general was quite dynamic in the decades before 1900. It saw the foundation of intermediate coffee associations. They aimed to this in two ways. First, by attracting new coffee chains by establishing a futures market in Amsterdam. Second, by lobbying shipping companies to call at Santos in Brazil and connect the important coffee exporting port directly to Amsterdam and Rotterdam. Meanwhile, veemen started to take over trading houses deeply involved in coffee to secure supplies.

Around 1900, coffee roasters increasingly used images to present themselves as integrated into global maritime commodity chains. Such visual claims became part of their commercial identity and branding. The most elaborated example is the shop-wall decoration of Douwe Egberts, which meticulously depicted all the steps of the global maritime commodity chains in which the company was involved, in this case: coffee, tea, and tobacco.

Other examples include the imagined overseas chain of Van Nelle for its tobacco products and the maritime commodity chain depicted in images of various coffee roasters further inland. The aim of these organisations was clearly to assert their (total) control over these chains in the eyes of the general public. Such imagined claims of (partial) integration in maritime commodity chains appeared far less frequently in architecture. Some enterprises, however, did emphasise their intermediary role, as illustrated by the sculptures in the Dutch Trading Society's head office (1926) and the Scheepvaarthuis (1916).

The public imagination of overseas coffee chain elements might occasionally be evoked using toponyms for buildings and companies involved in coffee. These included references to the Priangan, the Dutch East Indies, and Santos. However, these were occasional, and it remained unclear to what extent the public truly associated them with coffee.

Finally, in the last decades of the research period, further changes signalled the emergence of a new phase. These intermediate coffee associations countered tendencies that might have rendered their role redundant by opposing both the standardisation of coffee quality, direct contacts between importers and exporters and the formation of cartels. In the long run, however, these efforts proved to be in vain. This was due to the definitive severing of ties with the former colony of Indonesia and the influence of new technologies in global communication and transport.

5.3 Towards Sustainable Futures for Port Cities

The 250-year history of the Dutch-Java maritime coffee chain shows how logistical, governance, and cultural layers together produced a global coffeescape. What began as a monopolised colonial enterprise evolved into a vast network that reshaped Java's landscapes, exploited labour, and fuelled the growth of Dutch ports and trade. Despite its end after 1945 as a colonial system, its history reveals important insights that can increase our understanding of the environmental, social and cultural impacts of global commodity chains.

This final part of the conclusion therefore explores the implications of analysing the coffeescape development from a normative standpoint and looks to the future. The leading question is to investigate what the states, businesses and private persons that pursued profit by shaping the global maritime commodity chains might bring for the future without providing definitive answers. This issue also requires reflection on the relationship between science and society.

The most prominent negative effects encountered in this thesis included forced labour and environmental destruction. Although these issues were sporadically addressed, the moral discussions and vehement objections they evoked—and continue to evoke—along with an assessment of the severity of the concrete catastrophes, have been addressed by others.[378]

Although the future is fundamentally open, it emerges from the long-term dynamics of the past and the decisions made today. Many contemporary examples can easily be found that reflect the developments outlined for the coffeescape in this thesis. The most recent example of this might be the global hunt for scarce metals. While these commodities are intended to facilitate the green energy transition in industrial countries, there is a significant risk that they will cause and sustain social and environmental damage elsewhere in the world.

378 Breman, *Koloniaal profijt*. Eduard Douwes Dekker, *Max Havelaar, of de koffieveilingen der Nederlandsche Handel-Maatschappij*, Gerard Willem Huygens (ed), (Rotterdam, 1974).

This thesis also demonstrated that, in the past, both state-sanctioned monopolies and market dynamics played their role in the creation and development of commodity frontiers that are at odds with sustainability. Hence, perhaps this thesis can contribute—albeit with some caution—by formulating questions that invite reflection and fostering a broader discussion on the sustainability of port cities and other regions. These plans should be assessed in terms of global impact, not merely through local or regional trajectories of intended sustainability.

Whatever the assessment of what constitutes a desired future, this thesis demonstrates that the perspectives and actions of the involved organisations are fundamental for its direction. Businesses are always interested in the future. However, what we need for sustainability are approaches that can incorporate their perspectives, interests and engagements instead of creating additional abstract models and theories. Hence, governments and businesses should collaborate to optimise global commodity production in ways that align with sustainability. Both sides benefit from ensuring that cultivation remains viable over the long term.

Bibliography

"Nederlandsch-Indische havens", *Indonesia*, vol. 5, Departement van Burgerlijke Openbare Werken (Batavia, 1920).

Aa, A.J. van der, *Biographisch woordenboek der Nederlanden, Bevattende levensbeschrijvingen van zoodanige personen, die zich op eenigerlei wijze in ons vaderland hebben vermaard gemaakt*, vol. 9 (Haarlem, 1860).

Abrahamse, J.E., *De grote uitleg van Amsterdam, Stadsontwikkeling in de zeventiende eeuw* (Bussum, 2010).

Abrahamse, J.E., M. Kosian and E. Schmitz, *Atlas Amstelland, Biografie van een landschap* (Bussum, 2012).

Abrahamse, J.E., R.J. Rutte, M. IJsselstijn and Y.B.C. van Mil, *Nieuwe historische atlas van Amsterdam, Een wereldstad in zestig kaarten 1200–2025* (Bussum, 2021).

Almanak van Nederlandsch-Indië voor het jaar 1867, vol. 40 (1867).

Bair, J., *Frontiers of commodity chain research* (Stanford, 2009).

Bantje, H.F.W., and W.C. Kind, *Twee eeuwen met de weduwe, Geschiedenis van de erven de Weduwe J. van Nelle N.V., 1782–1982* (Rotterdam, 1981).

Barthes, R., *De nulgraad van het schrijven gevolgd door inleiding in de semiologie*, Dutch translation by E.A. van Caspel (Amsterdam, 1970).

Barthes, R., *Image, music, text, Essays selected and translated by Stephen Heath* (London, 1977).

Barthes, R., *Mythologieën*, Dutch translation (Amsterdam, 1975).

Bartholomew, J.G., *Atlas of the world's commerce, A new series of maps with descriptive text and diagrams showing products, imports, exports, commercial conditions and economic statistics of the countries of the world* (London, 1907).

Beckert, S., U.T. Bosma, M. Schneider and E. Vanhaute, "Commodity frontiers and global histories, The tasks ahead", *Journal of Global History*, 16, no. 3 (2021), 466–469.

Begemann, F., *Zuid-Holland's nijverheid in beeld* (Haarlem, 1920).

Beukers, E., and K. Tomeï, *De Bosatlas van het cultureel erfgoed* (Groningen, 2014).

Beunder, S., E. Nijhoff, J.P. Corten and G. van Stijn, *Industrieel erfgoed, Nederlandse monumenten van industrie en techniek* (Utrecht, 1998).

Beunder, S., *Het industrielandschap in de haven van Rotterdam*, Stichting Projectbureau Industrieel Erfgoed, report series, no. 23 (Zeist, 1995).

Bierens de Haan, C., *Memorie boek van Pakhuismeesteren van de Thee te Amsterdam, 1818-1918, en de Nederlandsche theehandel in den loop der tijden* (Amsterdam, 1918).

Bijblad op het Staatsblad van Nederlandsch-Indië, (1876), 01-01-1876, no. 2738.

Bird, J.H., *The major seaports of the United Kingdom* (London, 1963).

Blas, J., and J. Farchy, *The world for sale, Money, power, and the traders who barter the earth's resources* (New York, 2021).

Blécourt, L. de, M. van Maanen, G.F. Putri and Y.A. Setiyawan, "Indonesische invloeden in het Scheepvaarthuis", *VVAK*, 2 (2023), 3–18.

Blijdenstijn, R., and K. Volkers, *Over historische wegen, Varen, rijden en sporen door de provincie Utrecht* (Amsterdam, 2018).

Blijdenstijn, R., and R. Stenvert, *Bouwstijlen in Nederland (1040–1940)* (Utrecht, 1994).

Blok, P.J., and P.C. Molhuysen, *Nieuw Nederlandsch biografisch woordenboek*, vol. 8 (Leiden, 1930).

Blussé, L., and E. Locher-Scholten, "Buitenste binnen, De buiten-Europese wereld in de Europese cultuur", *Tijdschrift voor Geschiedenis*, 105, no. 1 (1992), 341–345.

Bodenhamer, D.J., J. Corrigan and T.M. Harris, *Deep maps and spatial narratives, The spatial humanities* (Bloomington, 2015).

Bodenhamer, D.J., J. Corrigan and T.M. Harris, *The spatial humanities, GIS and the future of humanities scholarship* (Bloomington, 2010).

Boer, G.J. de, *The centenary of the Stoomvaart Maatschappij "Nederland", 1870-1970* (Michigan, 1970).
Boer, M.G. de, *Gedenkboek der Stoomvaart Maatschappij Nederland 1870-1920*, (Amsterdam, 1920).
Bonke, H., *Amsterdamse pakhuizen, 16de-20ste eeuw* (Zutphen, 2011).
Bosma, U.T., "Het cultuurstelsel en zijn buitenlandse ondernemers, Java tussen oud en nieuw kolonialisme", *Tijdschrift voor Sociale en Economische Geschiedenis*, 2, no. 2 (2005), 162-184.
Boterenbrood, H., and J. Prang, *Van der Mey en het Scheepvaarthuis* (The Hague, 1989).
Bouwhistorische verkenning pakhuis Santos, Flexus AWC (Rotterdam, 2011).
De koloniale agrarische wet, Toegelicht uit de officiële stukken en de discussiën in de beide kamers der Staten-Generaal, Met aanteekeningen (Rotterdam, 1870).
Brandon, P., G. Jones, N. Jouwe, M. van Rossum and M. Tosun, *De slavernij in Oost en West, Het Amsterdam-onderzoek* (Amsterdam, 2020).
Braudel, F., *The Mediterranean and the Mediterranean world in the age of Philip II*, vols. 1–2 (London, 1972).
Bree, L. de, *Gedenkboek van de Javasche Bank, 1828-24 Januari-1928* (Weltevreden, 1930).
Breman, J., *Koloniaal profijt van onvrije arbeid, Het Preanger stelsel van gedwongen koffieteelt op Java* (Amsterdam, 2010).
Broeze, F., *De stad Schiedam, De Schiedamsche scheepsreederij en de Nederlandse vaart op Oost-Indië omstreeks 1840*, Publication of the Linschoten-Vereeniging, vol. 80 (The Hague, 1978).
Brug, P.H. van der, *Malaria en malaise, De VOC in Batavia in de achttiende eeuw* (Amsterdam, 1994).
Brugmans, I.J., *Tachtig jaren varen met de Nederland, 1870-1950* (Amsterdam, 1950).
Bruhèze, A.A.A. de la, H.W. Lintsen, A. Rip and J.W. Schot, *Techniek in Nederland in de twintigste eeuw*, vols. 1–7, Stichting Historie der Techniek (Zutphen, 1998–2003).
Bulthuis, P., *Een weduwe in koffie, Thee en tabak uit de tweehonderdjarige geschiedenis van het Rotterdamse bedrijf de Erve de Wed. J. van Nelle N.V. 1782-1982* (Rotterdam, 1982).
Camijn, A.J.W., *Een eeuw vol bedrijvigheid, De industrialisatie van Nederland, 1814-1914* (Utrecht, 1987).
Clark, P. (ed), *The Oxford handbook of cities in world history* (Oxford, 2013).
Combrink, T., "Slave-based coffee in the eighteenth century and the role of the Dutch in global commodity chains", *Slavery & Abolition*, 42, no. 1 (2021), 15–42.
Crystal, D., *The Cambridge encyclopedia of the English language* (Cambridge, 2019).
Daalder, R., *Havens van Amsterdam en Rotterdam sinds 1870*, Jaarboek van de Vereeniging Nederlandsch Historisch Scheepvaart Museum (Zutphen, 2008).
'De Bataviasche Havenzaak', *Java-bode: nieuws, handels- en advertentieblad voor Nederlandsch-Indie*, 21-10-1872. Via Delpher.
De Blécourt, L., Het Scheepvaarthuis, Eerste Gebouw van de Amsterdamse School, (Zwolle, 2025).
De Vletter, M.E., R.P.G.A. Voskuil, J.R. van Diessen and J. van Dulm, *Batavia/Djakarta/Jakarta, Beeld van een metamorfose*, Indische stedenreeks, 1 (Purmerend, 1997).
Dekker, E.D., *Max Havelaar, of de koffieveilingen der Nederlandsche Handel-Maatschappij*, ed G.W. Huygens (Rotterdam, 1974).
Delft, M.T.G.E. van, R. Storm and P.C.J. van der Krogt, *De geschiedenis van Nederland in 100 oude kaarten* (Tielt, 2019).
Devolder, A.M., *Architectuur Rotterdam, 40 gebouwen gedocumenteerd* (Rotterdam, 1991).
Dibbits, H.C., *Vertrouwd bezit, Materiële cultuur in Doesburg en Maassluis, 1650-1800* (Nijmegen, 2001).
Diessen, J.R. van, and R.P.G.A. Voskuil, *Batavia 1937–1941, De fotocollectie Thomassen à Thuessink van der Hoop* (Gorredijk, 2020).
Diesseen, J.R. van, and R.P.G.A. Voskuil, *Stedenatlas Nederlands-Indië* (Purmerend, 1998).
Dijk, P. van, *Koffiebranderijen en theepakkerijen*, Stichting Projectbureau Industrieel Erfgoed, report series, no. 36 (Zeist, 1999).
Doedens, A., and M. Borsboom, *Gepeild verleden, 700 jaar loodsengeschiedenis in Nederland* (Zwolle, 2024).
Drieënhuizen, C., *Koloniale collecties, Nederlands aanzien, De Europese elite van Nederlands-Indië belicht door haar verzamelingen, 1811–1957* (PhD thesis, VU University Amsterdam, 2012).
Driel, H. van, "Uitschakeling van de Nederlandse koffiehandel in de negentiende en twintigste eeuw?", *NEHA-jaarboek voor economische-, bedrijfs- en techniekgeschiedenis*, no. 60 (1997), 159–203.
Driel, H. van, *Vier eeuwen veembedrijf, De voorgeschiedenis van Pakhoed 1616-1967* (Rotterdam, 1992).
Everwijn, J.C.A., *Beschrijving van handel en nijverheid in Nederland*, vols. 1-3 (The Hague, 1912).
Fasseur, C., *Kultuurstelsel en koloniale baten, De Nederlandse exploitatie van Java 1840–1860* (PhD thesis, Leiden University, 1975).

Finstad, T., “Familiarizing food, Frozen food chains, technology, and consumer trust, Norway 1940–1970”, *Food and Foodways*, 21, no. 1 (2013), 22–45.
Folkerts, J., *De koloniale illusie, Herman Warner Muntinghe (1773-1827), Architect van de koloniale staat* (Amsterdam, 2023).
Frenzel, H., „The landscape in poster art“, *de Gebrauchsgraphik*, 8, no. 12 (1931).
Frijhoff, W.M., M. Prak and J. Gawronski (eds), *Geschiedenis van Amsterdam, Zelfbewuste stadstaat, 1650–1813*, vol. 2 (Amsterdam, 2005).
Gaastra, F.S., *De geschiedenis van de VOC*, 10th rev. edn. (Zutphen, 2007).
Gedenkboek der Nederlandsche Handel-Maatschappij (Amsterdam, 1924).
Gedenkboek N.V. Internationale crediet- en handels-vereeniging “Rotterdam”, Uitgegeven bij het vijf-en-zeventig jarig bestaan op 28 Augustus 1938” (Rotterdam, 1938).
Gedenkschrift ter herinnering aan het 50-jarig bestaan der Rotterdamsche Bank, Thans Rotterdamsche Bankvereeniging, 1863-1913 (Rotterdam, 1914).
Gelder, R. van, and L. Wagenaar, *Sporen van de compagnie, De VOC in Nederland* (Amsterdam, 1988).
Gelderblom, O., *Cities of commerce, The institutional foundations of international trade in the Low Countries, 1250–1650* (Princeton, 2013).
Gereffi, G.A., and M. Korzeniewicz, *Commodity chains and global capitalism* (Westport, 1994).
Godée Molsbergen, E.C., *Gedenkboek Reynst & Vinju, 1836-1936* (Batavia, 1935).
Goey, F.M.M., *Zee-, binnen-, luchtvaart en hulpbedrijven van het vervoer, Een geschiedenis en bronnenoverzicht*, Economisch-Historisch Archief, Historische Bedrijfsarchieven, vol. 7 (Amsterdam, 1993).
Gombrich, E.H., *Art and illusion, A study in the psychology of pictorial representation*, reprint 1995 (London/New York, 1960).
Graaf, T. de, and J.J. Mobron, “Bankiers en reders, Belangen en invloeden van banken op maritiem gebied (1870–1964)”, *Tijdschrift voor Zeegeschiedenis*, 14 (1995), 63–107.
Graaf, T. de, *Voor handel en maatschappij, Geschiedenis van de Nederlandsche Handel-Maatschappij, 1824-1964* (Amsterdam, 2012).
Groll, J., *Eene zeehaven voor Batavia* (Rotterdam, 1873).
Groten, M.P., “Een koloniale cultuur langs de Zaan, Rijstpellerijen en de verbeelding van een imperiale ruimte, ca. 1870–1914”, *Tijdschrift voor Geschiedenis*, 133, no. 3 (2020), 587–589.
Haasse, H.S., *Heren van de thee* (Amsterdam, 1992).
Hageman, M., S. van Odenhoven and M. Bax (eds), *De Bazel, Tempel aan de Vijzelstraat in Amsterdam* (Amsterdam/Bussum, 2007).
Handboek voor cultuur- en handels-ondernemingen in Nederlandsch-Indië, vol. 23 (Amsterdam, 1910).
Hariri, Y., *Sapiens, A brief history of humankind* (London, 2011).
Harry, E., and A. van der Louw, *150 jaar, 100 jaar vrij entrepot, ’n stukje geschiedenis van Rotterdam* (Rotterdam, 1979).
Have, J.J. ten, *Handelsatlas* (The Hague, 1912).
Heimann, J., and S. Heller (eds), *All-American ads, 1900–1919, English edition* (Cologne, 2005).
Heimann, J., and S. Heller (eds), *All-American ads, 1920–1929, English edition* (Cologne, 2005).
Hein, C.M. (ed), *Oil spaces, Exploring the global petroleumscape* (New York, 2022).
Hein, C.M. (ed), *Port cities, Dynamic landscapes and global networks* (London, 2011).
Hein, C.M., “Oil spaces, The global petroleumscape in the Rotterdam/The Hague area”, *Journal of Urban History*, 44, no. 5 (2018), 887–929.
Hein, C.M., “Port cities and urban wealth, Between global networks and local transformations”, *International Journal of Global Environmental Issues*, 13, nos. 2–4 (2014), 339–361.
Hein, C.M., and Y.B.C. van Mil, “Mapping as gap-finder, Geddes, Tyrwhitt, and the comparative spatial analysis of port city regions”, *Urban Planning*, 5, no. 2 (2020), 152–166.
Hein, C.M., and Y.B.C. van Mil, “Towards a comparative spatial analysis for port city regions based on historical geo-spatial mapping”, *PORTUSplus*, 9 (2019), 1–18.
Hell, M., *De Amsterdamse herberg 1450-1800, Geestrijk centrum van het openbare leven* (Nijmegen, 2017).
Heywood, D.I., S. Cornelius and S. Carver, *An introduction to geographical information systems*, 4th edn. (Harlow, 2011).
Holm, N., *Advertising and consumer society, A critical introduction* (London, 2017).

Hopkins, T.K., and I.M. Wallerstein, *World-systems analysis, Theory and methodology. Explorations in the world-economy* (Beverly Hills, 1982).
Hoynck van Papendrecht, A., *Gedenkboek A. van Hoboken en Co., 1774–1924* (Rotterdam, 1924).
Hoynck van Papendrecht, A., *Gedenkschrift van de vereeniging sociëteit "Harmonie" (Doele), Gevestigd te Rotterdam, ter gelegenheid van haar honderdjarig bestaan 1826–1926* (Rotterdam, 1926).
Hoynk van Papendrecht, A., *De zeilvloot van Willem Ruys Jan Danielszoon en de Rotterdamsche Lloyd* (Rotterdam, 1933).
Jaarverslag van de Staatsspoorwegen in Nederlandsch-Indië, attachment no. 43, (Batavia, 1884), Dutch National Railway Museum Utrecht.
Jacks, D.S., and K. Pendakur, "Global trade and the maritime transport revolution", *The Review of Economics and Statistics*, 92, no. 4 (2010), 745–755.
Jacobson, J., *Het koffij-veiling-stelsel in Nederland ontvouwd* (Rotterdam, 1869).
Jong, J. de, *Van batig slot naar ereschuld, De discussie over de financiële verhouding tussen Nederland en Indië en de hervorming van de Nederlandse koloniale politiek, 1860–1900* (PhD thesis, University of Groningen, 1989).
Jongh, G.J.J., *Route-atlas van den Rotterdamsche Lloyd*, 4th edn. (Rotterdam, 1929).
Kehoe, M.L., "Dutch Batavia, Exposing the hierarchy of the Dutch colonial city", *Journal of Historians of Netherlandish Art*, 7, no. 1 (2015).
Kingma, J., V. Kingma and H. Boekhout, *Vernuftelingen en kooplieden in een bijzonder landschap, 450 jaar Zaanse industrie* (Wormer, 2019).
Kist, J.B., *Van VOC tot werkspoor, Het Amsterdamse industrieterrein Oostenburg* (Utrecht, 1986).
Klein, J.W. de, *Het Preangerstelsel (1677–1871) en zijn nawerking* (PhD thesis, Delft University, 1931).
Knaap, G.J., *Shallow waters, Rising tide, Shipping and trade in Java around 1775* (KITLV Press, Leiden, 1996).
Knecht-van Eekelen, A. de, M. Stasse-Wolthuis and G.J. Bos, "Voeding in onze samenleving, In cultuurhistorisch perspectief", *Voeding en gezondheid*, vol. 10 (Alphen aan den Rijn, 1987).
Kolen, J., J. Renes and R. Hermans (eds), *Landscape biographies, Geographical, historical and archaeological perspectives on the production and transmission of landscapes* (Amsterdam, 2015).
Koloniaal Verslag, (Colonial Report of the Dutch State), (The Hague, 1887).
Koning, R. de, S.A.M. Snelders and E. Stronks, "Niet zo civiliserend als we dachten, Koffiehuizen in Amsterdam, c. 1685–c. 1785", *Tijdschrift voor Nederlandse Taal- en Letterkunde*, 139, no. 1 (2023), 29–62.
Kroon, A., and A.W. Hansen, *Sporen van smaragd, Indisch erfgoed in Den Haag, 1853–1949*, VOM-reeks Monumentenzorg (The Hague, 2013).
Kuitenbrouwer, V., "Songs of an imperial underdog, Imperialism and popular culture in the Netherlands, 1870–1960", in *European empires and the people, Popular responses to imperialism in France, Britain, the Netherlands, Belgium, Germany and Italy*, ed J.M. MacKenzie (Manchester, 2011), 90–123.
Laan, J. van der, *Industrielandschap de Zaan*, Stichting Projectbureau Industrieel Erfgoed, report series, no. 22 (Zeist, 1995).
Laar, P.T. van de, *Historische atlas van Rotterdam, De groei van de stad in beeld* (Nijmegen, 2012).
Laar, P.T. van de, *Stad van formaat, Geschiedenis van Rotterdam in de negentiende en twintigste eeuw* (Zwolle, 2000).
Leeman, F.W.G., *120 jaar zeevaart, Van barkschip tot "Willem Ruys"* (Rotterdam, 1961).
Leenaers, H., H. Donkers and F.J. Ormeling jr., *De Bosatlas van het voedsel* (Groningen, 2014).
Leeuw, M. den, and M. Pruijs, *De Gouden Bocht van Amsterdam* (The Hague, 2006).
Lennep, J. van, J. ter Gouw and F.W. Zürcher, *De uithangteekens in verband met geschiedenis en volksleven beschouwd*, vols. 1–2 (Amsterdam, 1868).
Lesger, C.M., *Het winkellandschap van Amsterdam, Stedelijke structuur en winkelbedrijf in de vroegmoderne en moderne tijd, 1550-2000* (Hilversum, 2013).
Manse, M.R., *Promise, pretence and pragmatism, Governance and taxation in colonial Indonesia, 1870–1940* (PhD thesis, Leiden University, 2021).
Mansvelt, W.M.F., *De economische samenwerking tusschen Nederland en Nederlandsch-Indië* (Batavia, 1938).
Mansvelt, W.M.F., *Geschiedenis van de Nederlandsche Handelmaatschappij, Uitgegeven ter gelegenheid van het honderdjarig bestaan*, 2nd edn (Haarlem, 1924).
Mees, A.C., *N.V. Internationale crediet- en handelsvereniging "Rotterdam"* (Rotterdam, 1938).

Memorieboek van Pakhuismeesteren van de Thee te Amsterdam 1818-1918 en de Nederlandsche theehandel in den loop der tijden (Amsterdam, 1918).
Moore, J.W., "Sugar and the expansion of the early modern world-economy, Commodity frontiers, ecological transformation, and industrialization", *Review*, 23, no. 3 (2000), 409–433.
Mulder, A.J.J., H.J. Legemaate and J.R. van Diessen, *De eeuw van de "Nederland", Geschiedenis en vloot van de Stoomvaart Maatschappij "Nederland", 1870–1970* (Zierikzee, 2003).
Naamlijst voor den telefoondienst 1910, Posterijen en Telegrafie, Hoofdbestuur (The Hague, 1910).
Nederveen Pieterse, J., *Wit over zwart, Beelden van Afrika en zwarten in de Westerse populaire cultuur* (Amsterdam, 1990).
Nibbering, M., *Naamloze Vennootschap "Het Nederlandsche Veem" Amsterdam* (Amsterdam, 1991).
Nijhof, P., *Oude fabrieksgebouwen in Nederland* (Amsterdam, 1985).
Norbruis, O.H., *Architecture from the Indonesian past, Life and work of Fermont-Cuypers, 1927-1957* (Edam, 2021).
Norbruis, O.H., *Landmarks from a bygone era, Life and work of Ed. Cuypers & Hulswit-Fermont 1897-1927* (Volendam, 2020).
Oldewelt, W.F.H., *Kohier van de Personeele Quotisatie te Amsterdam over het jaar 1742* (Amsterdam, 1945).
Oosterwijk, B., *Koning van de koopvaart, Anthony van Hoboken (1756–1850)*, 2nd extended edn. (Amsterdam, 1996).
Oosterwijk, B., *Reder in Rotterdam, Willem Ruys (1809-1889)* (Rotterdam, 1989).
Oostindie, G.J., *Het koloniale verleden van Rotterdam* (Amsterdam, 2020).
Oostindie, G.J., review of Jan Nederveen Pieterse, *Wit over zwart, Beelden van Afrika en zwarten in de Westerse populaire cultuur* (Amsterdam, 1990), *Bijdragen tot de Taal-, Land- en Volkenkunde*, 147, nos. 2–3 (1991), 365–367.
Ormeling, F.J. jr., "De topografische dienst van Nederlands-Indië, Batavia 1864-1950", *Caert-Thresoor*, 36, no. 3 (2017), 102-114.
Ormeling, F.J., sr., "Bodemerosie op West-Java", *Geografisch Tijdschrift*, 65 (1953), 153-162.
Ormeling, F.J., sr., "De theecultuur in West-Java", *Geografisch Tijdschrift*, 65 (1953), 207-212.
Ormeling, F.J., sr., "De Tji Tarum en het welvaartsplan West-Java", *Geografisch Tijdschrift*, 65 (1953), 261-266.
Ormeling, F.J., sr., "Opmerkingen over verkeer en bodemgebruik in West-Java", *Geografisch Tijdschrift*, 65 (1953), 29-62.
Ormeling, F.J., sr., "De erfcultuur op West-Java", *Geografisch Tijdschrift*, 65 (1953), 29-62.
Ormeling, F.J., sr., "Het transport van de koffie tijdens het Cultuurstelsel", *Geografisch Tijdschrift*, 65 (1953), 199-206.
Overwater, A.M., *Van leitsagher tot loods, 400 jaar loodsen van Rotterdam,* Stichting Historische Publicaties Roterodamum, Historische werken over Rotterdam, vol. 25 (Rotterdam, 1980).
Overzee, P., *Pakhuizen en vemen te Amsterdam in de zeventiende eeuw* (Amsterdam, 1936).
Paesie, R., *Dragend bestaan, Amsterdamse korendragers in historisch perspectief, ca. 1525–ca. 1940* (Hilversum, 2023).
Pakhuizen der stad Amsterdam, grachten, straten, enz. (Amsterdam, 1863).
Passchier, C., *Bouwen in Indonesië, 1600-1960* (Volendam, 2016).
Pierson, N.G., *Het kultuurstelsel, Zes voorlezingen* (Amsterdam, 1868).
Pieterse, E., *Sporen van Smaragd, Per trein door Nederlands-Indië, 1867-1949* (Zwolle, 2017).
Pitron, G., *Rare metals war, The dark side of clean energy and digital technologies* (London/Melbourne, 2023).
Pothoven, B., and M. Dicke, *Vopak, 400 jaar opgeslagen, 1616–2016* (Rotterdam, 2016).
Rau, H., W. Elias, E. Stubbe and G. Vereecke, *Van Brakke Grond tot Vlaams cultureel centrum, Zes eeuwen geschiedenis van een gebouw aan de Amsterdamse Nes (1406–1992)* (Amsterdam, 1992).
Ravesteijn, W., and J.H. Kop, *Bouwen in de archipel, Burgerlijke openbare werken in Nederlands-Indië en Indonesië 1800–2000* (Zutphen, 2004).
Rees, O. van, *Overzigt van de geschiedenis der Preanger-Regentschappen, ontleend aan het rapport van het lid van den Raad van Nederlandsch-Indië, belast met eene zending naar die Regentschappen,* Verhandelingen van het Bataviaasch Genootschap van Kunsten en Wetenschappen, vol. 39 (Batavia, 1877).

Reinders, P., T. Wijsenbeek-Olthuis and S. Braat, *Koffie in Nederland, Vier eeuwen cultuurgeschiedenis* (Zutphen/Delft, 1994).
Reis-atlas der N.V. Stoomvaart Maatschappij "Nederland" (Amsterdam, ca. 1935).
Reitsma, S.A., *Korte geschiedenis der Nederlandsch-Indische spoor- en tramwegen* (Weltevreden, 1928).
Révész-Alexander, M., *Die Alten Lagerhäuser Amsterdams*, *Eine Kunstgeschichtliche Studie* (The Hague, 1928).
Roels, F., *Psychologie der reclame*, 2nd edn. (Amsterdam, 1952).
Rogier, L.J., "Met een oostinjevaarder van Rotterdam naar zee in 1840, Fragment uit een reisjournaal van N. A. Schrant", *Rotterdamsch Jaarboekje*, 89, no. 12 (1935), 87-107.
Rusu, M.S., and K. Ismo, "A time of meta-celebration, Celebrating the sociology of celebration", *Journal of Comparative Research in Anthropology and Sociology*, 7, no. 1 (2016), 1–22.
Scheltjens, W. *Dutch deltas, Emergence, functions and structure of the Low Countries' maritime transport system, ca. 1300–1850* (Leiden, 2015).
Schendel, F. van, *Djolotigo, Ontginning en exploitatie van een particuliere koffie-onderneming op Java 1875-1898* (Amsterdam, 2000).
Schöffer, C., *Het huis Hofmann Schöffer & Co., Eene schets bij gelegenheid van het vijftigjarig bestaan der firma* (Amsterdam, 1888).
Schoor, A. van der, and N. Schadee, *Stad in aanwas, Geschiedenis van Rotterdam tot 1813* (Zwolle, 1999).
Schreurs, W., *Geschiedenis van de reclame in Nederland* (Utrecht, 2001).
Schrover, M., *Voedings- en genotmiddelenindustrie, Een geschiedenis en bronnenoverzicht*, Economisch-Historisch Archief, Historische Bedrijfsarchieven, vol. 5 (Amsterdam, 1993).
Schuitema, E.B.W., *Grondslagen der moderne reclame* (The Hague, 1939).
Sennema, H., "Caland against the tides, The turbulent history of the New Waterway", *Portus online*, 29-11-2021.
Sigmond, J.P., *Nederlandse zeehavens tussen 1500 en 1800* (Amsterdam, 1989).
Sluiter, J.W., *Overzicht van de Nederlandse spoor- en tramwegbedrijven* (Utrecht, 2011).
Sluyterman, K.E., *Groot- en tussenhandel, Een geschiedenis en* bronnenoverzicht, Economisch-Historisch Archief, Historische Bedrijfsarchieven, vol. 13 (Amsterdam, 1993).
Statistiek van de fabrieks- en ambachtsnijverheid in Nederland, Getrokken uit de verslagen, Welke door Burgemeester en Wethouders, Ingevolge art. 182 der Gemeentewet, Jaarlijks den Gemeenteraad worden aangeboden, Department of the Interior (The Hague, 1874).
Stipriaan, A. van, *Rotterdam in slavernij* (Amsterdam, 2020).
Swyngedouw, E., review of Henri Lefebvre, *The production of space*, *Economic Geography*, 68, no. 3 (1992), 317–319.
Taselaar, A., *De Nederlandse koloniale lobby, Ondernemers en de Indische politiek, 1914-1940,* CNWS Publications, vol. 62 (Leiden, 1998).
Taverne, E., and I. Visser (eds), *Stedenbouw, De geschiedenis van de stad in de Nederlanden van 1500 tot heden* (Nijmegen, 1993).
Teketay, D., "History, botany and ecological requirements of coffee", *Walia*, 20 (1998), 28–50.
Terpe, S., "Working with Max Weber's 'spheres of life', An actor-centred approach", *Journal of Classical* Sociology, 20, no. 1 (2020), 22-42.
Tignor, R.L., *Worlds together, Worlds apart, A history of the world from the beginnings of humankind to the present*, 2nd edn. (New York, 2008).
Tijn, T. van, *Twintig jaren Amsterdam, De maatschappelijke ontwikkeling van de hoofdstad, Van de jaren '50 der vorige eeuw tot 1876* (Amsterdam, 1965).
Veenendaal, G., "De locomotief van de moderniteit, Aanleg van het net van spoor- en tramwegen", in W. Ravesteijn and J.H. Kop (eds), *Bouwen in de archipel, Burgerlijke openbare werken in Nederlands-Indië en Indonesië 1800–2000* (Zutphen, 2004), 63-91.
Veenendaal, G., *De spoorwegen in Nederlands-Indië 1864-1942, Op smalspoor door tropische Nederland 1864-1942* (Zwolle, 2020).
Veering, A., "Knopen in het maritieme netwerk, Vorming van het havenstelsel", in W. Ravesteijn and J.H. Kop (eds), *Bouwen in de archipel, Burgerlijke openbare werken in Nederlands-Indië en Indonesië 1800–2000* (Zutphen, 2004), 129-157.
Verriet, J., "The domestication of innovation, The image of canned foods in the Netherlands, 1945-1985", in L. Steel and K. Zinn (eds) *Exploring the materiality of food "stuffs"* (London, 2016), 39-56.

Visser, C., “Jacob int wythof beschrijving van een gevelsteen”, *Amstelodamum: orgaan van het Genootschap Amstelodamum,* no. 19 (1932).
Voskuil, J.J., “De verspreiding van koffie en thee in Nederland”, *Volkskundig bulletin*, 14, no. 1 (1988), 68-92.
Vries, J. de, “Studying cities in their context”, *Urban History Review*, 18, no. 3 (1990), 193-199.
Vries, J. de, and A.M. van der Woude, *Nederland 1500–1815, De eerste ronde van moderne economische groei* (Amsterdam, 2005).
Wennekes, W., *Eeuwenoud, De lange levens van zeven Nederlandse bedrijven, van Eeghen, Wessanen, van Lanschot, Bols, Douwe Egberts/Van Nelle, Mees & Hope, Scholten Linde* (Amsterdam, 1989).
White, R., “What is spatial history”, Stanford University, *Spatial History Lab* (2010).
Wichers Hoeth, A.W., *Gedenkboek van de Vereeniging voor den koffiehandel ter gelegenheid van haar vijftig-jarig bestaan 1887-1937* (Amsterdam, 1937).
Wijck, H.C. van der, *De Agrarische Wet*, 2nd edn. (The Hague, 1870).
Wijnand, J.C., *Gedenkschrift uitgegeven door de N.V. Douwe Egberts tabaksfabrieken, koffiebranderijen en theehandel, Joure en Utrecht, 1753-1928* (Joure/Utrecht, 1928).
Wilde, A. de, *Berigten betreffende de landschappen genoemd de Preanger Regentschappen op Java gelegen* (Amsterdam, 1830).
Wiskerke, C., *De scheepvaartwegen van Rotterdam naar zee* (Rotterdam, 1948).
Wit, O. de, *Telefonie in Nederland 1877-1940, Opkomst en ontwikkeling van een grootschalig technisch systeem* (Amsterdam, 1998).
Woud, A. van der, *Een nieuwe wereld, Het ontstaan van het moderne Nederland* (Amsterdam, 2006).
Wttewaall, G., *Bijdragen tot de staathuishoudkunde en statistiek* (Utrecht, 1836).
Wymeersch, P., review of Jan Nederveen Pieterse, *Wit over zwart, Beelden van Afrika en zwarten in de Westerse populaire cultuur* (Amsterdam, 1990), *Afrika Focus*, 7, no. 1 (1991), 59–63.
Ysselsteyn, H.A. van, *The port of Rotterdam*, 3rd edn. (Rotterdam, 1908).
Zee, P.R. van der, *Van winkelnering tot wereldmerk, Douwe Egberts van 1753 tot 1987* (Utrecht, 1987).
Zwart, P. de, *Globalization and the colonial origins of the great divergence, Intercontinental trade and living standards in the Dutch East India Company's commercial empire, c. 1600–1800* (PhD thesis, Utrecht University, 2015).

TOC

Sources

Archives

Amsterdam City Archive

- 447 Archief van Handelshuis Van Eeghen en Co.
- 1374 Archief van Firma Jacobus van Hoorn Jr. 1828-1976
- 10009 Archief van de Dienst Ruimtelijke Ordening en rechtsvoorganger: foto's.
- 10056 Collectie Stadsarchief Amsterdam: bouwtekeningen.
- 10095 Collectie Atlas Kok.
- 30398 Collectie Stadsarchief Amsterdam: koopmansboekjes, (1766-1838).
- Collectie Stadsarchief Amsterdam, 30274 adresboeken, 1-98, (1821-1940).
- Collectie Stadsarchief Amsterdam: foto's
- Collectie Stadsarchief Amsterdam: kaarten van geheel Amsterdam

Brabants Historisch Informatie Centrum (BHIC)

- 504 Koffiebranderij A. de Leeuw in 's-Hertogenbosch, 1849 – 1947

Dutch National Archive

- 2.10.21 Inventaris van het archief van prof. dr. W.H. de Vriese [levensjaren 1806-1862]: Commissie van Onderzoek naar de Cultures in Nederlands-Indië, (1817) 1857-1862
- 2.10.39 Inventaris van de Memories van Overgave, 1852-1962 (1963).
- 2.20.01 Inventaris van het Archief van de Nederlandsche Handel-Maatschappij.
- 3.01.28 Rekenkamer ter Auditie en Opvolgende Colleges, Inv. no. 39, 'Kohier van de personeele quotisatie over het jaar 1742'.
- 4.MIKO Inventaris van kaarten en tekeningen behorende tot het archief van het Ministerie van Koloniën en rechtsopvolgers, (1702) 1814-1963.
- 4.VELH Inventaris van de verzameling buitenlandse kaarten Leupe, supplement, 1621-1813 (1925).

Erfgoedcentrum Achterhoek en Liemers

- 0265 Koffiebranderij en Theehandel A. Beukenhorst & Zn. te Winterswijk, (1815-1955).

Municipality Archive Roermond.

- 7003-F Collectie Briefhoofden (o.a. van bedrijven).

Rotterdam City Archive

- 944 Archieven van de Erven de weduwe J. van Nelle.
- 944b Archieven van de Erven de weduwe J. van Nelle – Gebouwarchief.
- 944-02 Archieven van de Erven de weduwe J. van Nelle - Reclamecollectie J. Jongert.
- 944-03 Archieven van de Erven de weduwe J. van Nelle – Fotocollectie.
- 944-04 Collectie reklame en bedrijfsgeschiedenis van de Erven de Wed. J. van Nelle B.V..
- 1256, Archieven van de Internationale Crediet- en Handelsvereniging "Rotterdam" en C.V. en
- N.V. Wm H. Muller & Co. (Internatio-Muller N.V.).
- 3023 Adresboeken Rotterdam, nos. 01-77, (1808-1939).
- 4001 Collectie kaarten en plattegronden 1558-.
- 4201 Topografische seriekaarten vervaardigd door Gemeentewerken Rotterdam.
- 4002 Collectie Havenbelangen, 1925-1985.
- 4006 Collectie Affiches, 1895.
- 4275 Affichecollectie Van Nelle

The Hague City Archive

- Image Collection

Tresoar (Frysk Histoarysk en Letterkundich Sintrum)

- 110 Douwe Egberts Koninklijke tabaksfabriek, koffiebranderijen, theehandel, 1753-1979 (1983).

Utrecht City Archive

- 1854 Verzameling Utrechts handels- en reclamedrukwerk, afkomstig van Bernard Martens van Vliet.

Special Collections

Collection of Museum Boijmans van Beuningen Rotterdam.
Dutch National Film Museum (https://www.eyefilm.nl/en).
Library of Dutch National Railway Museum.

Leiden University Library (Digital Collections)

- Dutch Royal Tropical Institute
  - Colonial Sources;
  - Dutch Colonial Maps.
- KITLV Collection, (Royal Netherlands Institute of Southeast Asian and Caribbean Studies):
  - Koloniale Verslagen, (Colonial Annual Reports for the Dutch State 1866-1932)[379];
  - Maps collection;
  - Photo collection;
  - Southeast Asian & Caribbean Images collection.

Museum Bronbeek, (Dutch National Museum of Colonial Military History).
Dutch National Museum of World Cultures.

Databases

- Amsterdam Address renumbering table, Amsterdam City Archive.
- Database Colonial Businesses based on *Handboek voor cultuur- en handels-ondernemingen in Nederlandsch*
- *Indië*, (Amsterdam, 1892-1940), (https://www.colonialbusinessindonesia.nl/en).
- BAG (Basic Registration of Buildings The Netherlands)
- (https://data.europa.eu/data/datasets/basisregistratie-adressen-en-gebouwen-bag-?locale=en).
- TANAP, (Archives of the office of the Dutch East India Company in Batavia), day registers (https://databases.tanap.net).

379 https://kitlvdocs.library.leiden.edu/open/Metamorfoze/Kol.%20Verslag/koloniaal%20verslag.html.

Websites

- Alle Amsterdamse Akten, (All Amsterdam Deeds), Amsterdam City Archive, https://www.amsterdam.nl/stadsarchief/alleamsterdamseakten.
- Amsterdam Monumentenstad, (Amsterdam City of Monuments), https://www.amsterdam-monumentenstad.nl/database/grachtenboek_objecten.php?id=1883
- Amsterdam op de kaart, (Amsterdam on the Map), (https://amsterdamopdekaart.nl/).
- Amsterdamse grachtenhuizen (https://amsterdamsegrachtenhuizen.info).
- Analysing the palimpsestic petroleumscape of Rotterdam, (Online exhibition, Global Urban History), (https://globalurbanhistory.com/2016/09/28/analyzing-the-palimpsestic-petroleumscape-of-rotterdam/?shareadraft=57ea1be60f827).
- Archieven.nl, (Central portal of most Dutch Archives), (https://www.archieven.nl/en/).
- Atlas of Mutual Heritage, (Map Portal of Dutch East and West Indies Companies Maps), (https://www.atlasofmutualheritage.nl/).
- Cambridge Dictionary (https://dictionary.cambridge.org/dictionary/).
- Colonial Architecture & Town Planning Repository (https://colonialarchitecture.eu/).
- David Rumsey Map Collection (https://www.davidrumsey.com/).
- Delpher, (Central Dutch collection of digitized books, journals and news papers), (https://www.delpher.nl/).
- Digital Library of Dutch Literature (https://www.dbnl.org/).
- Dutch National Monuments Database (https://monumentenregister.cultureelerfgoed.nl/).
- Dutch National Museum (https://www.rijksmuseum.nl/en).
- Ensie, (Largest online Dutch encyclopaedia), (https://www.ensie.nl/).
- Gevelstenen van Amsterdam, (Façade stones of Amsterdam), (https://www.gevelstenenvanamsterdam.nl/).
- Google Translate (https://translate.google.com/?hl=nl&sl=nl&tl=en&op=translate).
- Het Geheugen van Nederland, (Memory of the Netherlands), (https://geheugen.delpher.nl/nl).
- Hopkins Distribution Company, History of logistics (https://hdcusa.com/news/history-of-logistics-distribution-and-supply-chain-management/).
- Huygens KNAW: Dutch East India Company Glossary (https://resources.huygens.knaw.nl/vocglossarium/index_html_en).
- International Advertising & Design Database (https://iaddb.org/#/query/64ff7b61-5c50-4f0a-a870-36a5f32c8599).
- Kanalen in Nederland (Canals in the Netherlands), (https://kanaleninnederland.nl).
- Loek van Vlerken/Hildo Krop Museum (https://kenniscentrum.hildokropmuseum.nl/).
- Lloydatelier (https://lloydatelier.nl/).
- Maps & Directions (https://www.mapsdirections.info/nl/cirkel-straal-kaart/).

- Merriam Webster Dictionary (https://www.merriam-webster.com/).
- NoordHollands Nieuws (https://www.nhnieuws.nl).
- Oxford Learner's Dictionaries (https://www.oxfordlearnersdictionaries.com/).
- Oxford reference (https://www.oxfordreference.com/).
- PotCityFutures (https://www.portcityfutures.nl/home).
- Reclame Arsenaal (https://www.reclamearsenaal.nl/).
- Stadsherstel Amsterdam (Society of urban restoration), (https://stadsherstel.nl/).
- Top10.nl (website) (https://nieuws.top010.nl/).
- Topotijdreis (https://www.topotijdreis.nl/).
- Veem (website) (https://www.veem.nl/nl).
- Wederopbouw Rotterdam (https://wederopbouwrotterdam.nl).
- Wikipedia (https://en.wikipedia.org/wiki/Main_Page).
- Wikimedia Commons (https://commons.wikimedia.org/wiki/Main_Page).

Appendices

I Sources Chapter 3 - Java

The reconstruction of the Javanese part of the Global maritime coffeescape was based on topographic maps, city plans, address books, business indices, photographs and other images. The precise spatial reconstruction of the coffeescape was complicated by a number of properties of the cartographical sources used. For this reason, they are briefly discussed below.

– 'Kaart der Preanger Regentschappen en Crawang', copy by J.T. Bik after the map by Mr Beetjes, 1817, Dutch National Archive, 4.MIKO Inventaris van kaarten en tekeningen behorende tot het archief van het Ministerie van Koloniën en rechtsopvolgers, (1702) 1814-1963, inv. no. 966, sheets 1-20.

This map, dating from around 1817, is the earliest preserved to depict coffee gardens in Priangan specifically. It is a rather sketchy, hand-drawn map. Although the coffee plots are clearly rendered, the style of the map is quite vague. Hence, it could not be integrated into the GIS database, nor could any calculations be executed. This was due to the fact that it proved impossible to determine the exact locations, shapes, sizes, and altitudes of the coffee fields. Although the map is thus limited for a detailed reconstruction of the frontier's evolution, it does provide relevant insights. It offers a rough indication of the locations of the coffee fields, the size of the largest examples, and their overall number.

It is likely that this map is linked to a four-month expedition undertaken by Dutch colonists in the same year from Batavia across Java.[380] While this connection cannot be confirmed with certainty, the map nonetheless provides the greatest available time depth from a cartographic source. For this reason, the frontier analysis begins with this source, despite its limitations.

380 Breman, *Koloniaal profijt*, 151.

TOC

— ‘Topographische kaart van de residentie Preanger regentschappen opgenomen ingevolge gouvernements besluit van den 28n. september 1871 No. 28, in de jaren 1871-1886’, Topograaphische Inrichting, The Hague, (published 1894), 1:100,000, Leiden University Library, Digital Collections, inv. no. KK 114-01-01/03-05, (sheets 1–16).

The residency map was the principal source for reconstructing the development of the Priangan coffee frontier in this thesis. It received its common name from the regional administrative division of Java implemented by the Dutch colonial government. Priangan was one of these regions.

The map was published at a scale of 1:100,000 and was created for military purposes while bearing witness to the statistical and economic interests of its makers.The latter becomes apparent from the heading on the first map sheet that states: ‘Received from the Government Secretary [...] 1895 [...] for the Inspector of Cultures [...].’[381]

Although it provides a much more detailed, precise, and accurate rendering of the Javanese landscape compared to its 1817 counterpart, this map too is a problematic source for reconstructing the spatial developments relevant to this thesis. Firstly, the map was published in batches over time. The sheets covering Priangan were produced between 1871 and 1886. Moreover, the situation depicted on the map does not necessarily coincide with the official publication dates, as revisions between field measurements and official publication could take up to ten years, and the entire map was ultimately completed only in 1894.

A second restriction is that the map was never sufficient for its military purpose because the triangulation had been carried out incorrectly.[382] Due to the need to measure the spatial impact of the coffee frontier, this was a significant issue. Fortunately, this could be addressed by georeferencing the old maps so that they were aligned according to correct geometry.

The georeferencing was conducted using data acquired from Open Street Maps. Features that were used for this purpose included Java’s coastline, mountain peaks, rivers (especially where they were crossed by bridges as these intersection are often quite resilient), footpaths, and railways. The number of control points required for an individual map sheet to be georeferenced could rise to almost 750 points

381 Ormeling, F.J. jr., “De topografische dienst van Nederlands-Indië, Batavia 1864-1950”, *Caert-Thresoor*, 36, no. 3 (2017), 103.

382 Ormeling, “De Topografische Dienst”, 104.

to compensate for the inconsistencies in the triangulation. Considering that the Priangan consisted of 12 map sheets, the total number of control points for the entire residency was enormous.

A third complication is that the coffee fields, rendered with full hatching across entire areas, suggest a much more homogeneous character of planted trees than was necessarily the case. This is particularly relevant considering that, based on the research of Jan Breman, we know that many of these fields actually consisted of disorderly planted trees. Hence, the calculated figure based on the acreage might lead to an overstatement of the area under cultivation, let alone that it could be used as an indication for an even harvest.[383]

A fourth issue was caused by the fact that the officially established legend of 1860 was applied inconsistently to the island as a whole.[384] Fortunately, however, this proved not to be the case for Priangan. The orange colour in the legend referring to the cultivation of coffee corresponds, without variation, to the coffee fields on all the map sheets of this residency.

Although cultivation inspections had a long history of inaccuracies and errors up to and including the nineteenth century, it can be assumed that they had reached at least a certain level of correctness around the time the map was finished around 1900. Hence, when these problems are taken into account in its critical analysis, the map provides vital information for locating the relevant data and reconstruction over time to an adequate degree of precision.

Combining the high number of coffee cultivation fields depicted on this map in a GIS database was an important step for several reasons. First, it ensured a systematic counting of the (small) plots spread over an extensive area. Second, GIS enabled the calculation of the acreage of land used for coffee cultivation. This applied to individual plots, total acreage, and averages. Third, it became possible to observe the spatial distribution of all plots, including their integration into the existing landscape. This also applies to their spatial relationship to the infrastructural components of the coffeescape, including those located in the port city of Batavia. The other sources used to determine the elements of the coffeescape in Priangan and Batavia were less ambiguous and could be used without much problems.

383 Breman, *Koloniaal profijt*, 177, 225, and 239.

384 Ormeling, “De Topografische Dienst”, 106.

II Sources Chapter 4 – the Netherlands

The main problematic sources for reconstructing the Dutch side of the global maritime coffee chain consisted of indices with spatial data, namely an eighteenth-century tax register, nineteenth-century address and business books, and a telephone book from the early twentieth century.

The *Kohier van de personeele quotisatie over het jaar 1742* was the earliest source that allowed for a spatial reconstruction of coffee businesses across Amsterdam and Rotterdam apart from the Dutch East India Company. It consisted of a general taxation register for the province of Holland. It mentioned various coffee organisations and enabled the reconstruction of their numbers and spatial distribution. It thus provided insight into the situation approximately thirty years after the beginning of regular overseas supplies of Javanese coffee by the Dutch East India Company in 1713.[385]

The source, however, could not be utilised in a straightforward way. There were two major issues. The first stems from the fact that the register was a reflection of a taxation of the wealthier population in the principal cities of the province of Holland. The source is thus clearly incomplete from a socio-economic perspective. It represents only a small fraction of the total urban population and provides no insights into the professions and locations of the poorer majority of the cities' inhabitants.

This, however, is not necessarily problematic for this thesis, provided we assume that the organisations involved in the coffeescape belonged to the higher socio-economic classes.[386] This assumption is supported by the source itself, which shows that by 1742 some 83 organisations in Amsterdam had specialised in coffee. The commodity evidently generated sufficient income to sustain them, legitimising a focus on the higher income classes—even if this does not yield a complete picture of coffee's role in wider society.[387] Likewise, the exclusion of certain occupational groups, mainly guild members, posed no insurmountable problem for the use for this thesis.

The second difficulty in using this source concerns ambiguity in individual cases regarding the precise coffee business category to which they belonged, as not all occupational labels were clearly defined. This made it challenging to determine the type of organisation actually intended. Some entries were straightforward—such as coffee shop, coffee shopkeeper, coffeehouse, coffeehouse keeper, coffee broker,

385 Van Dijk, *Koffiebranderijen en theepakkerijen*, 3.

386 Oldewelt, *Kohier van de Personeele Quotisatie*, introduction.

387 Van Driel, *Vier eeuwen veembedrijf*, 14.

or coffee roaster. Others, however, were less clear: for instance, merchant in coffee could refer either to an intermediary or to someone in retail. The greatest difficulty lay in the vague formulation in coffee, which was so generic that it might denote a trader, a shopkeeper, or a combination of both.[388]

These ambiguities complicated the interpretation of their spatial distribution. Nonetheless, everything considered, it was decided to maintain the vaguely defined organisations as a separate category and to see whether their role in the coffee chain could be determined more precisely based on the spatial pattern emerging.

The resulting maps also depended heavily on how the positions in the register were translated into locations in the GIS dataset. This was particularly important because inaccuracies at the micro level could create significant distortions at the macro level.[389] Moreover, given the many long streets on which coffee organisations were located, it was insufficient to reconstruct their locations at a general scale. The reconstruction had to be carried out at the level of individual building plots to be truly meaningful.

The spatial reconstruction of the persons mentioned in the Kohier was therefore conducted in several steps. First, the register reflects a walking route through the city along which officials moved from building to building. This produced a numbered list of entries divided by streets. Consequently, when a coffee entry was close to a street corner, its location could be determined with great accuracy by using the 1832 land registry plots available in HISGIS, since most streets had not changed much during the intervening period.[390]

It was also possible to draw on the completed reconstruction of bakeries in Amsterdam.[391] These locations provided additional anchor points from which to determine the positions of coffee entries on very long streets. As with street corners, by counting building plots a relatively accurate location could be established if a coffee organisation was near a bakery.

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388 The fact that 'in' was also used for other products, including tobacco, porcelain, herbs, and fruit, did not assist much with the interpretation. The same applies to the sale of various products by one person; the combination of diverse roles such as sea trader and shopkeeper did not reveal what the person's involvement in coffee was.

389 This soon became apparent when a reconstruction at the street level was considered. In Amsterdam, particularly in relation to the canal belt, it became clear that this would result in a pattern with little significance due to the considerable length of these canals.

390 Amsterdam and Rotterdam GIS-dataset of the Dutch cadastre, 1832. Some inaccuracies could, of course, not be avoided, depending on the changes that occurred between 1742 and 1832.

391 In the limited number of cases where this led to an alternative location for placing the coffee shop than that constructed by Clé Lesger, it was assumed that he had placed the bakeries more accurately due to the use of additional sources.

In some cases, however, the number of entries per street in the register did not match the number of plots in HISGIS.[392] Assuming that several households often occupied a single building, the locations of such persons were determined using street ratios. Starting from a corner, it was then possible to estimate in which section of the street the organisation should be positioned—halves, thirds, quarters, and so forth. This method yielded reasoned estimates that, although less certain than the previous approaches, produced only minor spatial deviations and thus provided the best possible accuracy given the available sources.

Address books (Amsterdam and Rotterdam)

Other sources used for mapping coffee businesses in the Dutch urban context were nineteenth-century address books (Amsterdam, 1858), 1910 and (Rotterdam, 1939). These contained sections listing specific business categories, among them those related to coffee and their addresses.[393] However, there is no evidence that the compilers applied a systematic or predefined classification, suggesting that businesses may have chosen their own occupational labels. As a result, ambiguous categories also appeared in this source. Another difficulty was the risk of duplicates, as businesses could be listed in multiple sections, a problem avoided by comparing the names of the organisations and persons.

Other indices used to map coffee locations in the nineteenth century and 1910

The coffee auction books of the Dutch Trading Society were used to reconstruct the warehouses where the commodity was stored in 1858–1868 and 1910. These data were supplemented with publications on Amsterdam warehouses that listed their names. As an intermediate step toward mapping, the warehouse names had to be linked to specific locations.

For Amsterdam, the reconstruction was based on secondary literature, contemporary sources, and an official municipal table of street renumbering and renaming (e.g. 1796, 1853, 1875).[394] In Rotterdam, by contrast, the 1940 German bombing posed a major obstacle: almost the entire city centre was destroyed and the original street plan replaced by a new design. As these choices reflected deliberate planning rather than organic urban growth, the location of coffee organisations cannot be

392 The assumption that the number of households per building is the same across the entire street obviously could lead to errors in the results.

393 An analysis of the dataset of the Dutch cadastre for Amsterdam and Rotterdam revealed very few coffee-real estate owners in 1832. Hence, this does not mean that they did not exist, but the source is unsuitable for identifying them.

394 Amsterdam Address renumbering table, Amsterdam City Archive. It concerns changes for the years: 1796, 1853 and 1875.

read as the outcome of the global maritime coffee chain. Nevertheless, a digital version of the first street numbering map (1903) made it possible to create a reasonably accurate GIS-based reconstruction of the city's coffeescape.

National telephone register 1910

The first source that allowed for a systematic reconstruction of coffee businesses nationwide was the Naamlijst voor den telefoondienst 1910, Posterijen en Telegrafie, Hoofdbestuur, (The Hague), published annually between 1901 and 1950 and digitally available in Delpher.[395] After making the source searchable by an Optical Character Recognition (OCR) process, the register was searched using the word 'kof'.[396]

A key concern is whether the directory offers a complete picture of the coffeescape. Assessing this would require cross-checking all municipal registers, which fell outside the scope of this thesis. It is therefore assumed that the directory primarily covered the higher socio-economic classes, organisations already well integrated into the coffee chain. This focus on the upper echelons also allows for comparison with the highest class in the Kohier of 1742, even if based on different criteria.

One category in this sources was excluded, namely railway coffee houses. Their locations were determined entirely by the railway network's own rationale, unrelated to the spatial evolution of the global maritime coffeescape. Even though they obviously indicated locations where coffee was delivered.

Another limitation of the telephone list was that address numbers were not always given. Locational accuracy therefore had to be distinguished between house, street, and town level. Because many cases fell into the latter two categories, the analysis remained fairly general. Yet this posed little problem: the aim of the nationwide reconstruction is not to map precise urban plots but to trace the broader spread of coffee into the wider hinterland. At this scale, it is more important to know which towns coffee reached than the exact addresses of the business. Moreover, micro-level patterns in inland towns are unlikely to have differed significantly from those in port cities; what matters is how the urban distribution first seen in the ports of Amsterdam and Rotterdam was replicated elsewhere.

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395 An earlier nationwide source, namely: *Statistiek van de fabrieks- en ambachtsnijverheid in Nederland, Getrokken uit de verslagen, Welke door Burgemeester en Wethouders, Ingevolge art. 182 der Gemeentewet, Jaarlijks den Gemeenteraad worden aangeboden, Department of the Interior* (The Hague, 1874) contains only one coffee roaster, located in Maastricht.

396 In theory, some brand names may have been so familiar to the public that adding 'coffee' was unnecessary, causing them to be missed by this search strategy. This risk, however, seems negligible, since even the most famous Dutch trademarks—Van Nelle and Douwe Egberts—explicitly included the term.

Curriculum vitae

Thomas van den Brink is a historical geographer fascinated in the long term interaction between time and space. He obtained his Bachelor's degree in History with a minor in Archaeology and Landscape at Utrecht University (2010), followed by the Research Master in Landscape History at the University of Groningen (2013). For his Master's thesis he received the Best Thesis Prize 2010–2014 from the Fryske Akademy (Dutch Royal Academy of Sciences).

During his early academic career he contributed to research projects at Utrecht University and the Dutch Cultural Heritage Agency. These projects included studies on early modern urban development, historical land use patterns, and unrealised reclamation plans for the Zuiderzee. Between 2014 and 2016 he worked for the Atlas of Mutual Heritage, where he assisted in cataloguing and analysing VOC and WIC cartographic collections.

From 2016 onwards his work increasingly focused on GIS based historical geography. He developed typologies of Dutch and European sandy soil landscapes, mapped European landscapes with unique toponyms, and contributed to the landscape integrity assessment for a Dutch UNESCO World Heritage site. He also participated in projects on the urbanisation of the Dutch lowlands, the spatial implications of the green energy transition, and the heritage of rail and tramway infrastructures.

Alongside his research, Thomas has been active in academic teaching and supervision. He supervised theses in architectural and urban history at TU Delft (2019–2020) and in cultural heritage and planning at Wageningen University (2017), and lectured on interdisciplinary consultancy in planning (2016). Since 2016 he has served as Editorial Secretary of the Dutch Journal of Historical Geography, and from 2013 to 2020 he was a board member of the Historical Geographic Association Utrecht.

He is currently a project leader at RAAP, the Netherlands', oldest and largest company for archaeological, heritage and cultural landscape research. In this role he writes landscape biographies, conducts research into urban genesis, performs heritage inventories and impact assessments, and writes management reports on heritage.

Thomas maintains an active portfolio of projects, publications and media contributions on his website THOM – Telling History With Original Maps: https://www.tellinghistorywithoriginalmaps.org/

26#14

A maritime coffee chain and the making of a colonial coffeescape

From coffee cultivation on Java to consumption in the Netherlands between 1700 and 1950

Thomas van den Brink

This thesis examines the 250-year spatial development of the maritime coffee chain connecting Java and the Netherlands between 1700 and 1950. By integrating the Global Commodity Chain framework with the Petroleumscape concept, the study demonstrates how state institutions, private businesses, shipping companies, social associations, and intermediaries together formed a colonial "coffeescape," consisting of a logistical, governance, and imaginative layer.
Based on extensive archival research and detailed contemporary maps and images, architectural and spatial analyses, the thesis demonstrates how the expansion of coffee cultivation on Java profoundly transformed its landscape. The advancing frontier was initially strongly anchored in forced labour after which it was succeeded by free market forces. However, both systems led to an enormous environmental degradation. The thesis further shows how this process was connected to developments in port cities like Amsterdam and Rotterdam and their hinterland which underwent substantial infrastructural, organisational, and imaginative changes as they processed ever-increasing volumes of Java coffee.
The spatial perspective applied in this research shows that decision makers shaped the Coffeescape far beyond their own locations, revealing the wider consequences of their choices. Reflecting on sustainability, the thesis argues that understanding past systems of extraction and chain coordination is essential for evaluating the global environmental impacts of future decisions and the role of port cities. This coffeescape's history demonstrates the enduring consequences of commodity-driven development. The research therefore concludes that sustainable futures require engaging with the perspectives and decisions of organisations shaping these global maritime commodity chain today rather than by abstract models.

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