Threads of Imperialism

Colonial Institutions and Gendered Labour Relations in the Textile Industry in the Dutch Empire

Elise van Nederveen Meerkerk

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Abstract
This chapter explores the effect of colonial institutions on gendered labour relations in the Javanese and Dutch textile industries through the perspective of mutual colonial influences. Indigenous Javanese textile production was less dramatically affected by Dutch state-subsidized textile imports than most historians suggest. Javanese workers, particularly women, found niche markets and profited from the imported factory-made yarns and white cloth, which stimulated hand-weaving and -printing until the 1920s. Simultaneously, colonial policies and connections affected metropolitan textile production. Firstly, Dutch exports to Java stimulated industrialization in the Netherlands, entailing new gendered divisions of labour. Secondly, colonial profits contributed to rising male wages in the late nineteenth century, presumably causing married Dutch women to comparatively quickly and extensively withdraw from formal paid work.

Keywords: textile production, colonialism, women's work, Java, The Netherlands

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Introduction

The process of industrialization has been vital to many historical explanations for sustained economic development. In the late eighteenth and early nineteenth century, many countries in the “Global North” succeeded in enhancing their labour productivity through the mechanization and rationalization of production, leading to unprecedented levels of economic growth.1 Although there is an ongoing debate among historians about the timing of the “Great Divergence” between “the West” and “the rest”,2 it is clear that the beginning of the nineteenth century marked a significant widening of this gap, and that this was related both to the process of industrialization and to the increasing impact of colonial institutions, particularly in this period.

As Jeffrey Williamson has recently argued, in the nineteenth century, the economic gap between the First World and the Third World grew enormously. In the context of industrialization and the global trade boom, the “poor periphery”, as Williamson terms it, specialized in the export of primary products and raw materials, whereas the industrializing “core” exported manufactures globally. This worldwide specialization led to unequal terms of trade that favoured deindustrialization of the periphery and furthered the Great Divergence, because industrialization in the same period led to unprecedented economic growth in the core.3 However, with his emphasis on global market mechanisms, Williamson largely overlooks the role of institutions, and, to a lesser degree, the role of relative factor prices. He barely engages with the debates on the effects of colonial policy,4 nor does he pay much attention to different paths towards industrialization, such as labour-intensive industrialization, in which labour – rather than capital or land – provided the competitive advantage in the world economy.5

The labour-intensive textile industry offers an excellent case study for investigating the relations between industrialization, labour intensity, and colonial institutions. In many countries, textile production was (one of) the first to be mechanized and rationalized. Cotton textiles – which until well into the eighteenth century had (literally) been in Asian hands – were especially prone to mechanization. Before industrialization, India in

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1 See, e.g., Mokyr, *The British Industrial Revolution*.
3 Williamson, *Trade and Poverty*.
4 For an excellent review of Williamson’s book, see Crafts, “Review: Trade and Poverty”.
5 Austin and Sugihara, *Labour-Intensive Industrialization*. 
particular had been the major exporter of cotton cloth, due to its competitive advantage in terms of low wage costs. Supposedly, “this global competition became the impetus for transforming the textile manufacturing process in Europe”, meaning that the overwhelming demand for Indian cotton textiles stimulated Europeans to find ways to raise productivity in this industry at home. Indeed, colonial policies after the British “Calico Acts” of the early 1700s, aimed at a severe restriction of Indian imports, influencing domestic textile production in Asia.

Colonial institutions intensified during the nineteenth century, when European empires increased their political influence on the Asian continent. This chapter explores to what extent (colonial) institutions entailed the process of deindustrialization of the Dutch East Indies, present-day Indonesia, in relation to parallel industrialization in the Netherlands, and how this affected labour relations in both the colony and the metropole. The case of the Dutch Empire is particularly interesting, as colonial extraction in the Dutch East Indies was stringent compared with many other empires in the nineteenth and early twentieth century. The forced cultivation of export commodities via the colonial “Cultivation System” (c. 1830 to 1870) in Java led to favourable terms of trade for agricultural export commodities. While the exports of tropical goods from Java accordingly took off, Dutch policy simultaneously favoured the imports of textiles from the Netherlands, thus artificially creating a new market for its emerging textile industry.

Many historians contend that these complementary trade flows ruined indigenous textile production in Java, contributing to declining living standards and deindustrialization. This chapter takes a rather different approach, by investigating to what extent Javanese textile producers responded to the consequences brought about by colonial economic institutions. There are several reasons to believe that native indigenous consumers were for quite some time reluctant to buy European textiles, as has likewise been noted for India and Africa. It may be very worthwhile to explore local production with a more nuanced perspective on native Javanese people’s agency

6 Broadberry and Gupta, “Lancashire”.
9 E.g., Boomgaard, “Female Labour”; Lindblad, “De handel in katoentjes”; Van Zanden and Marks, An Economic History, pp. 92-93. A notable exception is Van der Eng, “Why Didn’t Colonial Indonesia”. Van der Eng acknowledges that cotton textile production increased during most of the colonial period, but contends that it was internationally non-competitive.
10 Haynes, Small Town Capitalism, p. 13; Austin, “Resources”, p. 602.
and flexibility under the constraints of colonial institutions. As textile production was traditionally women’s work, the effects of the imported cotton goods from Europe on gendered labour relations in Java must have been enormous, but this has barely been studied. In addition, this chapter aims to explore what effects textile imports in Java had on labour relations in the metropole. The work of girls and women was presumably particularly affected by the increasing quantities of cloth exported from the Netherlands to the Dutch East Indies. Parts of the Netherlands, especially the formerly agrarian eastern province of Overijssel, experienced rapid industrialization, drawing – at least for a few decades – many young women to the emerging textile factories. This shift in Dutch labour relations and women’s labour force participation has, to my knowledge, not yet been explicitly linked to the colonial enterprise.

This chapter aims to contribute to the debates both on the effect of colonial institutions on economic development and on changes in gendered labour relations, by studying developments in the textile industry in Java and the Netherlands through the perspective of mutual colonial influences. While the framework of “extractive institutions” has attracted ample scholarly attention to explain persistent economic underdevelopment, it entails the danger of overlooking alternative forms of (temporal) development, as well as outings of colonial agency, resulting in a teleological view on the world, or a “compression of history”. Closer scrutiny of the workings of colonial institutions and changes over relatively shorter periods of time, and the responses of indigenous people – men and women – allows us to gain a less linear picture of economic development in colonies, and the ways in which colonial agency featured. In turn, it is highly relevant to study the effects of colonial institutions on economic development and labour relations in the “industrial core”, to avoid the impression of straightforward endogenous growth. Moreover, analysing such imperial connections may provide important insights into women’s position in metropolitan society.

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11 An exception is Boomgaard, “Female Labour”, but his article focuses more on the demographic than the socioeconomic aspects, let alone the labour relations involved.
12 For a recent analysis of women’s rising labour force participation in the Enschede textile industry, see Boter, “Before She Said ‘I Do’”.
13 Several economic historians have noted the interconnections between Dutch industrialization and textile exports to Indonesia, e.g., Fischer, “De ontwikkeling”; Lindblad, “De handel in katoentjes”; Van Zanden and Van Riel, Strictures of Inheritance, p. 178. The link between women’s work in the Netherlands and colonial institutions, however, has not often been made.
14 E.g., Acemoglu, Johnson, and Robinson, “Colonial Origins”.
15 Austin, “The ‘Reversal of Fortune’ Thesis”.
16 Cooper, Colonialism in Question, p. 4; Van Zanden and Van Riel, Strictures of Inheritance.
on the one hand, and colonial society on the other, in connection to their labour relations in the textile industry.

The chapter is structured chronologically, exploring labour relations in the textile industry in the Dutch empire in three different periods: before the nineteenth century, between 1824 and 1873, in which colonial institutions were most important, and the period from 1874 up to the First World War, constituting a period of trade liberalism.

Prelude: Textile production, gender, and colonial connections before the nineteenth century

In pre-colonial times, cloth in the Indonesian archipelago had a religious and ceremonial value, and increasingly served as a marker of socio-economic status. Moreover, textiles were commonly used as currency and also frequently in gift giving. As a rule, both bark cloth – still very common in Southeast Asia at that time – and cotton textiles were produced by women. Cloth making was primarily associated with women and the “life-giving properties of females”, who metaphorically spun the “thread of life”. This differed, for instance, from India, where cotton weaving was mainly executed and controlled by men. Batik, the traditional labour-intensive Indonesian craft of wax printing cotton cloth with all sorts of artistic patterns, was practiced by elite women, for instance at courts. However, the elites increasingly started to be interested in cotton and silk fabrics from India and China.

From the seventeenth century onwards, the Dutch East India Company (VOC) tightened its grip on trade in the Dutch East Indies, most notably Java and the “spice islands” of the Moluccas. Textiles formed an intrinsic part of this chain, being shipped from the coasts of China and India to the East Indies, to be traded for spices and other goods by the VOC. Certainly, the VOC built on earlier trade routes forged by Asian merchants, and historians have debated the actual impact of the Europeans on trade and production in Asia in the eighteenth century, but there is no doubt that textiles were very important under merchant colonialism. Indian textiles

20 Matsuo, Javanese Cotton Industry, p. 2; Prakash, The Dutch East India Company.
21 See, e.g., Chaudury’s critique on Prakash: Chaudury, “European Companies”; See also Hall, “Textile Industry”, p. 108.
were shipped to the archipelago for consumption by indigenous elites, a trade that the VOC tried to monopolize, but both tariffs and prohibition of local cotton production and weaving failed. While until the first half of the seventeenth century, domestic cotton spinning and weaving had suffered fierce competition from Indian imports, increasing prices led to a revival of cotton weaving on the islands of Java, Bali, and Sumatra from the seventeenth to the early nineteenth century. In the wake of this growing production and the waning trade in Indian textiles, the VOC shifted to collecting cotton yarns produced by the local population to satisfy the increasing demand for cotton in Europe. Where the VOC closely cooperated with local elites, they imposed a tax on the local population to be paid not in cash, but in yarn.

In Europe, cotton textiles had been virtually unknown until the sixteenth century. Spinners and weavers processed wool, flax, and hemp, which were generally coarse fabrics that required intensive labour. By the late Middle Ages, a pronounced division of work had already come into being, in which women dominated the more labour-intensive preparatory stages of textile production, and men were occupied in the processes with higher added value, such as weaving, cloth shearing, and dyeing. In the Netherlands, these finishing stages had become mostly urban artisanal work, and craft guilds tried to monopolize and regulate production and set rules against the acceptance of married women as independent artisans. In addition, they tried to restrict the rural production of cloth. When global trade expanded from the end of the fifteenth century onwards, the lighter and more colourful cotton fabrics from India became increasingly popular among European elites. Because the techniques for producing cotton thread and cloth were not available in Europe, artisans realized they had to find alternative ways to compete. From the end of the sixteenth century, lighter types of woollen cloth (such as serge) emerged, first in the Southern and Northern Netherlands, and later in England. For much of the seventeenth century, the Dutch town of Leiden became the leader in the production of woollen cloth for the world market. This greatly affected gendered labour relations in the Netherlands. In the first place, wage labour and forms of subcontracting in textiles increased; for both men and for women. As there was a growing demand for yarn, the labour-force

22 Watson Andaya, “Cloth Trade”, pp. 38-40; Clarence-Smith, “Production of Cotton Textiles”.
24 Van Nederveen Meerkerk, “Segmentation”.
participation of women increased significantly, both in the textile towns and in the countryside.\textsuperscript{26}

Despite these innovations, the demand for cotton in Europe continuously grew. Feeling the threat of cotton imports from the British and the Dutch East India Companies, many governments, including the British and the French, imposed restrictions on calico imports to protect their home textile industries. However, the Dutch opposed such mercantilist measures and continued to import and re-export cotton cloth via the VOC. In the continued absence of the knowledge to process cotton, large volumes of cotton yarn were imported from the East Indies, which Dutch weavers used in their mixed linen-cotton fabrics.\textsuperscript{27} Moreover, European entrepreneurs started to develop workshops for printing imported calicoes in the last quarter of the seventeenth century. Around 1740, the Netherlands counted about a hundred printing shops, and similar initiatives were taken in British and French towns.\textsuperscript{28} Accordingly, the larger calico workshops experimented with hiring women and children, thus providing an alternative to the waning of spinning labour in the same period.\textsuperscript{29} Thus, in many ways, mercantile colonial connections, as well as (more or less successful) mercantilist institutions, had already changed labour relations as well as gendered work patterns both in East and West before the advent of nineteenth-century industrial colonialism. While introducing new techniques, the textile industries in both parts of the world largely kept following the labour-intensive pathway. This was about to change in the century to come.

Deindustrialization or adaptation? Colonial institutions and Javanese textile production, 1824 to 1873

After the VOC's abolition in 1799, the Dutch aimed to centralize, bureaucratize, and monetize Javanese society, thus strengthening direct rule over the colony. In 1809, for example, the yarn tax was transformed into a monetary household tax.\textsuperscript{30} The British interregnum of Sir Thomas Raffles (from 1811 to 1816) accelerated these processes. The British were keen on importing cotton

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\textsuperscript{26} Van Nederveen Meerkerk, “Couples Cooperating?”.
\textsuperscript{27} Clarence-Smith, “Production of Cotton Textiles”, p. 131.
\textsuperscript{28} Lemire and Riello, “East and West”, pp. 895-897.
\textsuperscript{29} Berg, “What Difference”, p. 40.
\textsuperscript{30} Matsuo, Javanese Cotton Industry, pp. 2-3.
calicoes produced in English factories into the Indonesian archipelago.\textsuperscript{31} Around 1815, Raffles noted about these imports:

A very extensive and valuable assortment of these cottons, imitated after the Javan and Malayan patterns, was recently imported into Java by the East India Company, and on the first sale produced very good prices; but before a second trial could be made, the natives had discovered that the colours would not stand, and the remainder were no longer in demand.\textsuperscript{32}

The Dutch, who regained control over Java in 1816, attempted to replicate the British system. However, despite the immediate introduction of import tariffs on goods transported on foreign ships in 1817,\textsuperscript{33} as well as tariff increases and implicit government subsidies later in the nineteenth century, their policies only partly succeeded. In part, as I argue below, this was due to obstacles similar to those indicated by Raffles regarding the native consumptive demand for textiles, even if European textiles were certainly cheaper than the labour-intensive, home-made cottons. Dutch imports most likely led to a variety of strategies by local Javanese textile producers, who seem to have been able to adapt quite flexibly to the given circumstances.

In 1824, the Dutch King Willem I established the Dutch Trading Company (\textit{Nederlandsche Handel-Maatschappij}, or NHM), which concentrated on trade with the Netherlands’ overseas possessions, most notably the East Indies. While formally a private company, the NHM was intended to promote Dutch economic interests, in the broadest sense, particularly by stimulating metropolitan industry and international trade. The king himself, envisaging a successor to the VOC in the new company, took 4,000 shares with a total value of four million Dutch guilders (Dfl.).\textsuperscript{34} Although the NHM did not gain a full monopoly, it was given trading preferences for Dutch goods and ships sailing under the Dutch flag, as well as the exclusive rights to handle all government shipping to and from the colonies.\textsuperscript{35} After 1830, when the Cultivation System was implemented in Java by the colonial government, the NHM was thus crucial in the shipping of increasing exports of agricultural products from Java. Under the Cultivation System (c. 1830

\textsuperscript{31} Van Zanden and Van Riel, \textit{Strictures of Inheritance}, pp. 111-112.
\textsuperscript{33} Van der Eng, “Why Didn’t Colonial Indonesia”, p. 1025.
\textsuperscript{34} This was almost 15 per cent of the eventual starting capital of the company. De Graaf, \textit{Voor handel en maatschappij}, pp. 39-41.
\textsuperscript{35} Van Zanden and Van Riel, \textit{Strictions of Inheritance}, p. 112.
to 1870), Javanese peasants were forced to cultivate a certain percentage of their land for cash crops such as coffee, sugar, and tea, for which they received – a very small – monetary recompense, called *plantloon* (cultivation wage). This forced system of cultivation led to an intensification of labour and increasing monetization of the Javanese economy in the first half of the nineteenth century.

Before the Cultivation System, Javanese men and women mostly worked in subsistence agriculture, with a specific division of labour. Rice growing on dry (*tegal*) lands and garden agriculture were more the prerogative of women, whereas both men and women were required for wetland (*sawah*) rice cultivation. Women, sometimes assisted by children, were responsible for the labour-intensive transplanting of young rice seedlings onto the *sawahs*, whereas men in the following three months were in charge of the maturing of the crop, carrying out tasks such as weeding, tilling, and water control. Harvesting was a community task, done by men, women, and children. Moreover, regional market exchange traditionally existed in large parts of Java, and a proportion of the agricultural produce, as well as processed food, was traded for money or goods. Women dominated local markets and often ran *warungs* (small shops), implying their longstanding significance in commodified labour relations. Other important economic activities for women were spinning and weaving, both for their own household use and for regional markets. In some areas, such as Surabaya, Gresik, and Besuki, about 50 per cent of all households owned a spinning wheel and/or a loom at the beginning of the nineteenth century. It is unclear how much of this activity was market production, but its contribution must have been substantial, ranging from small pocket money to more than the amount the household earned from agriculture.

Some historians have suggested that Javanese women had less time to produce their own textiles after the introduction of the Cultivation System, because they had to devote more time to (subsistence) agricultural activities, while their husbands now had allocated time to the forced cultivation of cash crops. In addition, they would have found more profitable side activities

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36 The percentage varied over space and time – some historians report an overall average of 20 per cent, others note that it varied from 6 per cent in 1830 up to 75 per cent in some regions in the 1840s. Elson, *Village Java*; Boomgaard, “Female Labour”, p. 8.
37 For more on the Cultivation System, see Fasseur, *Kultuurstelsel*; Elson, *Village Java*.
38 Stoler, “Class Structure”, p. 77.
than spinning and weaving, such as preparing and selling food to male workers. Moreover, the monetization that the Cultivation System entailed provided native households with more cash and the opportunity to buy their cotton cloth in the market. These two factors would have ruined local textile production in the Dutch East Indies. Although European imports (see Figure 5.1) definitely affected markets for locally produced textiles, in my opinion the story is far more complicated than one of outright decline.

First, while large-scale cotton spinning had seriously declined by 1900, local hand weaving remained important until the 1920s. This was similar to India, where local hand weaving in the colonial period has likewise been overlooked due to a focus on Western-style industrialization. Second, as I

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**Figure 5.1** Total imports of cotton goods (cloth and yarns) in Java, as well as exports, 1822 to 1873

now turn to show, Javanese producers were able to make qualitative shifts in textile production, specializing in particular niches, due to which they were still well able to compete against imported cottons. Both of these developments, I argue, are closely related to the reallocation of women’s time, as well as to shifts in the division of labour between men and women. A third factor may have been that the development of regional markets – in which women played a large role – after some time indeed led to the loss of local textile production in particular regions, whereas it simultaneously intensified in others.

Figure 5.1 indicates that, in terms of trade volume in Dutch guilders, textile imports into Java rose tremendously from the early 1820s onwards. However, if we look at the five-year moving averages of per capita imports (the grey dotted line), we see that whereas imports per person rose quickly before around 1840, they remained relatively stable thereafter until the early 1870s (around Dfl. 1.25). Textile exports from Java (the light grey line) also followed a steady upward trend in this period, suggesting that – in

Source: Van der Eng, “Why Didn’t Colonial Indonesia”, p. 1023
addition to production for home use and regional markets – indigenous weaving for export markets remained substantial. Moreover, the overall rise in the total value of textile imports (the black line) should be related to market prices and population growth. Therefore, it is worthwhile to look at per capita imports in *volume*, instead of total value, as price shocks may distort the actual imported amount of cloth. This exercise was carried out by Van der Eng (see Figure 5.2).

By calculating the per capita volume of imported cotton goods (cotton cloth and yarns together), Van der Eng made estimates of local textile production by gauging local demand, which he estimated to be between 0.4 and 0.6 kilograms per capita, depending on economic circumstances, and roughly equalling only one sarong per year. According to his estimates, local production seems to have been quite inelastic, in the sense that the cumulative trends (imports plus local production) followed the more general patterns of effective demand for imported textiles. However, there are reasons to believe local textile producers responded in much more flexible ways to particular events. As Haynes describes for India, handloom weavers in this period adjusted their production swiftly in response to favourable or unfavourable prices, as well as occasions of famine or drought.46 Thus, colonial institutions did not unilinearly lead to deindustrialization.

Taking the issue to a less aggregated level may inform us more precisely about what happened in this period. First, we need to disaggregate the import statistics and distinguish between imported cloth (and the different types of cloth) and imported yarns. Second, we must disaggregate at the geographical level, and examine local reports and what they state about textile imports and production. Third, it is vital to take gendered labour relations into account when making assumptions about textile production, something not many historians have yet considered.47 Changes in the allocation of labour time, as well as some shifts in the gendered division of labour, allowed the Javanese to compete with textile imports both at the higher- and the lower-quality ends of the market for textiles.

Both the increased labour burden on the Javanese peasants and the success of textile imports from the Netherlands under the Cultivation System are said to have disrupted traditional Javanese spinning and weaving. However, whereas colonial institutions may have hampered local production at first, Javanese textile producers seem to have found a new balance

in the 1840s. For some decades they even profited to some extent from the imports of European cottons, both factory-made yarns and uncoloured woven cloth. Indeed, hand spinning in these years slowly but surely disappeared and made way for imported cotton yarns. The question is to what extent this was actually a problem for the local population, and whether historians should consider it as such. Hand spinning is extremely time consuming, and especially for finer yarns, spinning machines deliver a more even product. Even if opportunity costs traditionally may have been low for hand spinning, thus enabling competition with factory-made yarns, the Cultivation System probably made women’s labour time in subsistence as well as market agriculture more valuable than before. This implies that households instead bought imported factory yarns that women could weave into cloth, either for home use or for the (local) market.

Although the general colonial trade statistics for the period 1825 to 1874 do not distinguish between imported yarns and other cotton goods, I found evidence in other sources that, especially after the 1860s, yarn imports increased considerably, both in terms of value and of weight. As Figure 5.3 below shows, imports of cotton yarns increased dramatically, particularly in two periods, first in the 1840s – an increase of over 200 per cent within the decade – and then again in the 1870s, actually increasing as much as fivefold. As Figure 5.2 shows, total per capita cotton imports (the dotted line) declined in exactly the same periods, which suggests that local weaving with the use of imported yarns may have increased, instead of more or less following the general trends of cotton imports, as suggested by Van der Eng.

Both records in the local archives and more qualitative indications in literature indeed suggest that Javanese women started to weave on a larger scale in the decades after 1840; not only for household use, but also for the market. As we have seen, exports from Java – mainly to the outer islands of the Indonesian archipelago – continued to grow in this period (Figure 5.1). In some regions in particular, such as Priangan (West Java), thousands of women were active in weaving – sometimes with their own spun yarns, but increasingly with European yarn – and their cloth was traded both locally and regionally in the 1840s and 1850s. In 1862, it was stated that cotton cultivation could not revive in this residency, because the Javanese

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48 As was also argued for pre-colonial Africa: Austin, “Resources”, p. 603.

49 Elson, Village Java, p. 277. A similar process occurred in the mid- to late nineteenth century in India, but Haynes reports that there were fewer labour market alternatives for women, as Indian weavers were generally male. Haynes, Small Town Capitalism, pp. 44-47.

50 Arsip Nasional di Republik Indonesia, Jakarta (henceforth ANRI), Residential Archives Priangan, 3/12, Algemeen Verslag (henceforth AV) 1849 and 30/4, Statistiek 1852.
population “rather bought [...] European yarns to weave their rugs”\(^5\). And in 1864, the Resident of Batavia noted that as a result of high textile prices due to the American Civil War, demand for imported cotton cloth was low, with the sole exception of cotton yarns for which there was still a demand (see also Figure 5.3).\(^5\)

In the 1860s, the colonial authorities became increasingly concerned about the stagnating consumption of Dutch fabrics in Java. Complaints were heard about the increasing volume of unused textiles rotting away in the Batavian warehouses. Several reports were made, but these could not give conclusive answers to the reasons for the decline: could it be the high textile prices, combined with the declining welfare of the Javanese population? Or was it perhaps the increased competition by local producers, as some reports seemed to suggest? Estimates were given that in the period from

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51  ANRI, Archives Director Cultures, 1621, Cultuurverslagen Preanger Regentschappen, Verslag 1862. Note the somewhat downplaying expression of “rugs” instead of “cloth”.
52  ANRI, Residential Archives Batavia, 350/7, AV Batavia 1864, p. 99.
1864 to 1868, cotton imports could only have catered for somewhat over a third of all Javanese textile consumption, implying that Javanese production amounted to about 65 per cent of the total value of textile consumption of the (adult) Javanese population. This contemporary figure seems to suggest that Van der Eng’s estimates of local consumption were somewhat modest, and that perhaps consumption was – at least in this period – less influenced by imports than he proposed. It is telling that contemporary observers could not understand why Javanese peasants complained about their increased labour efforts due to the forced deliveries of cash crops, but were still able to increase their textile production. Clearly, they too overlooked the labour input of Javanese women in weaving.

Native consumer tastes played a large role in such shifts. As had earlier been noted by Raffles, the Javanese consumer preferred the higher-quality dyed domestic textiles over the cheaper, but lower-quality European ones. Apparently, now, Javanese producers also started to compete with lower-quality textiles, as a report notes:

The time is gone, that the native exclusively focused on the making of batiks as a form of art, which were of exquisite beauty, but had to be recompensed likewise. Nowadays, he delivers products in this genre that, in quality related to the price, are in no sense inferior to those fabricated in Europe. To sustain competition with him, the European batik producer will need to be able to deliver his manufactures for a much fairer price.

One observer around 1900 even called tjapping (block printing) “the answer of the Javanese batik industry to European factory competition”. In addition to the flexibility and agency Javanese textile producers clearly displayed, there is an interesting gender dimension to this new competitiveness, as the more traditional, labour-intensive batik production continued to be performed by women, and the newer, more mechanical,

53 National Archives, The Hague (henceforth NA), Koloniën 1850-1900, inv. no. 2362, Verbalen, no. 80, 26 November 1870. Due to the high import duties, imports from elsewhere were negligible in this period.
54 Van der Eng, “Why Didn’t Colonial Indonesia”, pp. 1023-1024. Probably, Van der Eng consciously made conservative estimates to stay on the safe side, as I actually agree with his larger argument that – at least in the nineteenth century – deindustrialization of the Indonesian countryside should seriously be questioned. My figures are thus not intended to criticize Van der Eng’s reasoning, but instead to take it a step further.
55 As noted in the margins of the report. NA, Koloniën 1850-1900, 2362, 26 November 1870.
56 NA, Koloniën 1850-1900, 2362, 26 November 1870.
and labour-extensive process of *tjap* became an almost exclusively male activity. This hitherto underresearched division of textile labour is explored below, but let us first look at developments in the Netherlands in the period up to 1873.

**Successful industrialization? Production for the colonial markets and shifting labour relations in the Netherlands, 1824 to 1873**

The Netherlands was relatively late to industrialize. Before the secession of the southern provinces of the kingdom in 1830 – present-day Belgium – King Willem I had looked towards the south for the industrial project. Indeed, the increase in cotton goods imported into Java in the 1820s had mainly come from the southern Netherlands. After the defeat by Belgian troops, new plans in this domain had to be designed. The proto-industrial region of Twente, in the east of the Netherlands, was specifically assigned to develop a modern industry. To discourage foreign textile imports, in 1824, the Dutch government set tariff barriers of 25 to 35 per cent, as opposed to only 6 per cent for Dutch textiles (this was raised to 12.5 per cent in 1836 after serious British protests). Only in the late 1860s were tariffs lowered, and were eventually equalized for Dutch and foreign imports in 1874. However, from the onset, Dutch companies made secretive contracts with the NHM that refunded the import tariffs after the goods had arrived in the East Indies. These refunds were heavily subsidized by the Dutch government in the first decades of the NHM's existence.

In 1833, the NHM founded a weaving school in the Netherlands, where boys were taught by English weavers how to use the flying shuttle. Yarns were largely imported from England, which the first textile firms in Twente in the 1830s and 1840s still put out into the countryside to be woven on handlooms. Companies were still small and many survived only for a few years. In 1842, 103 firms delivered 205,000 pieces of bleached cotton cloth for the East Indies market: on average, almost 2,000 per firm per year. Nevertheless, the first decades of textile production in Twente were relatively volatile. After a number of successful years, the annual reports of the NHM begin to mention overproduction and declining demand in the Javanese

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60 Van Nederveen Meerkerk, Heerma van Voss, and Hiemstra-Kuperus, "The Netherlands".
market in the 1850s. This downturn was attributed to British competition, which led thousands of (male) handloom weavers in Twente to switch to agricultural work.\footnote{NA, Archives NHM, Inv. no. 5271. Verslagen van de Agent te Nijverdal, Reports 1855, 1856, and 1857.} Apparently, the report states, there were many more cotton textiles imported into Java than the NHM thought. However, import statistics show stagnation in the 1850s, and a simultaneous upsurge of local production (compare Figure 5.1 and Figure 5.2). It can thus be concluded that Javanese textile production directly led to unemployment of Dutch weavers in this period.

The mechanization of Dutch spinning and weaving occurred slowly, but surely. Whereas Twente only counted six mechanized spinning mills and three weaving mills in 1857, in the early 1870s, there were countless factories in the region.\footnote{Plimp van Duiveland, Twentsche weefsels, pp. 19, 26.} These factories increasingly employed women and children as cheap wage labourers, to be as competitive as possible in the national and international market. While building on a tradition of female and child employment in the cottage industry, labour relations in the households nevertheless drastically changed, as the spheres of the home and the workplace became increasingly separated.\footnote{Brouwer and Van Eijndhoven, “Fabrieksarbeidsters”, pp. 83-84.} 

Mechanization not only led to changes in the physical workplace, but also in the division of labour between men and women. Whereas hand spinning had traditionally been a job performed mainly by women and children,\footnote{See, e.g., Van Nederveen Meerkerk, “Couples Cooperating”.} the spinning mills instead mainly employed adult men, who were generally assisted by boys. Women and girls were nevertheless also amply employed in the new factories, for tasks such as burling, darning, and roving.\footnote{Van Nederveen Meerkerk, Van Voss, and Hiemstra-Kuperus, “The Netherlands”, pp. 379-380.} This was reflected in the labour-force participation of unmarried women. The percentage of women who stated an occupation at marriage in the town of Enschede – one of the major textile centres of Twente, after a steep decline in the first decades of the nineteenth century – shows a remarkable increase from the 1840s onwards, reaching 75 per cent towards the end of the century.\footnote{Boter, “Before She Said “I Do””, p. 10.} Married women, on the other hand – who had been very important in the protoindustrial textile industry – were not particularly welcome in the factories, although norms and values differed regionally.\footnote{Janssens, “De rol van vrouwen”, p. 94.}

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\footnote{NA, Archives NHM, Inv. no. 5271. Verslagen van de Agent te Nijverdal, Reports 1855, 1856, and 1857.}
Working conditions in the factories were harsher than in traditional home industry. Not only were the factory halls noisy, dark, and polluted, but the machines led to many accidents. Moreover, unlike domestic industrial workers, factory workers were unable to decide for themselves on the pace of their work and the length of their working days. Two contemporary inquiries into child labour showed that both in 1841 and in 1860, children on average worked twelve to thirteen hours per day, and it remained at this high level, despite the fact that mechanization had raised labour productivity considerably over these two decades. Although there was a long way to go, the labour conditions in these factories led to growing societal indignation and concern, out of which the first Child Labour Law was eventually introduced in 1874. These changes in social protection were thus a direct consequence of the “social question” arising during industrialization in the Netherlands, a process that was, in its first decades, stimulated by exports to the Dutch East Indies.

The textile market in the Dutch East Indies continued to fluctuate, leading the Dutch textile enterprises to redirect their attention to other markets, especially in the context of increasing English competition after the lowering of the tariffs in the 1860s. In addition to growing European markets, some textile factories found alternatives in the African market, where the wax prints, which had not really satisfied Javanese consumers, became very popular. In 1873, the NHM agent noted this increasing globalization of the textile trade in his annual report:

Behold, who could have thought or predict, that in small-town Goor, where in 1834 the first flying shuttle buzzed through the warp, 40 years later, French merchants would come to buy its manufactures, and deliver it carriage-free to an English port, destined for the African Gold Coast – and yet, it is indeed a fact.

It can thus be concluded that Dutch textile exports to the East Indies were far from an outright success story in the nineteenth century, both in terms of competitiveness with British and with Javanese textiles, and in terms of constant employment in Twente. Nevertheless, the persistent attempts by the Dutch government to get industrialization off the ground, by implementing institutions such as import barriers in the colony for foreign traders, as well as hidden subsidies for Dutch colonial textile contracts, did

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70 NA, NHM, Inv. no. 5271, Report 1873.
in the end lead to rapid industrialization in the Netherlands. Consequently, this influenced labour relations in the metropole in the period until 1874, in the sense that the factories drew large numbers of women and children to perform wage labour, and moreover impacted on the gendered division of work in the textile industry.

**Coping with competition: Textile production and gender relations in Java, 1874 to 1914**

In the 1870s, the transformation of the Netherlands from a pre-industrial to an industrial society gained full momentum, and the country would from then on approximately follow the European norms of sustained economic growth. The added value of industry compared with agriculture increased tremendously in this period, suggesting structural change in the economy. Moreover, real wages, which had been practically stagnant since the eighteenth century, started to rise rapidly between the 1860s and the end of the nineteenth century. Whereas the Dutch metropolitan economy had already been following liberal policies since the 1840s, this shift was only implemented in the East Indies in the 1870s. Due to increasingly heated debates about forced labour, the Cultivation System was abandoned.

Moreover, as mentioned, the preferential trading of the NHM was abolished in 1874, allowing for more competition in the realm of imports. With regard to textiles, this mainly implied the influx of British cotton in the Javanese market during this period, which affected the demand for Dutch textiles. Some historians have suggested that this policy of liberalization also drastically affected local textile production by hindering mechanization of the native industry, which had long-term effects reaching into the post-colonial period. However, the effects of liberalization should not be exaggerated. Indeed, textile imports rose drastically in the year 1874 (total value Dfl. 34,632,000) compared with the year before the equalization of import duties for Dutch and other importers, 1873 (total value Dfl. 20,508,000): a rise of 69 per cent. After that year, however, total textile imports more or less stabilized, at least until 1890 (see Figure 5.4). Moreover, although the share of Dutch textile imports declined somewhat

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72 Ibid., p. 275.
73 Lindblad, "De handel in katoentjes", pp. 93-94.
74 Dick, "Nineteenth-Century Industrialization", p. 137.
compared with the total textile imports, this decline was not spectacular before 1900.\textsuperscript{75}

From 1874 onwards, it is possible to distinguish between imported yarns and other cotton goods in the import statistics. The graph shows interesting contrasting trends in the imported volumes of yarns and woven cotton cloth, suggesting that the Javanese demand for foreign cloth may have responded quite flexibly to the supply of home-woven cloth from imported thread. Moreover, in a relative sense, the importance of textile imports in the total imports into Java seem to have diminished, which implies that, as Lindblad has remarked, “for the eastbound trajectory of the trade between motherland and colony the manufactures were a stable factor, but not a dynamic source of change”.\textsuperscript{76} From this, it can be inferred that trade liberalization favoured other imports – especially rice, iron, and machinery – much more than the textile trade after 1874.\textsuperscript{77} As the Javanese population rose quite rapidly in this period, the relatively stable import of

\textsuperscript{75} Lindblad, “De handel in katoentjes”, p. 93, Graph 2.
\textsuperscript{76} Ibid., p. 99.
\textsuperscript{77} Lindblad, “De handel tussen Nederland”. 
textiles either means that consumptive demand declined, or that the gap was filled by local textile production.

Data on the purchasing power of Javanese commoners in the colonial period is scarce and is heavily debated by historians. Overall estimates per twenty-year period suggest that between 1815 and 1913, GDP per capita grew in most periods, but only marginally so. Exceptions occurred in the 1840s and 1860s, when GDP per capita had a negative annual growth rate of 0.4. These are, of course, highly aggregated figures, both in terms of geography and of chronology, but even so, the period of the Cultivation System, in general, seems to have had the most negative consequences for Javanese living standards. According to Booth, the famines in the late 1840s and 1850s were caused not by food shortages, but by declining purchasing power.83 Boomgaard, too, has contended that food consumption in terms of quantity and quality was lower in the period from 1850 to 1880 than it had been before 1830.80 However, other historians, such as Elson, are less pessimistic about the negative effects of the Cultivation System on Javanese living standards.81 Most certainly, the economic tide did change somewhat in the 1860s, when per capita income grew. Rising standards of living probably enhanced the demand for textiles, which according to Van der Eng increased in this period to an annual average of 0.9 kilograms per capita (around two sarongs).82 As several authors have suggested, this change probably did not result from higher real wages, but from the increased time the different members of the Javanese household spent on labour due to the Cultivation System.83 Among these activities, hand weaving and – more crucially in the period after the 1860s – the finishing of cotton cloth, were very important.

Indeed, multiple sources indicate that there was ample weaving activity in Java, although probably more concentrated in particular regions than earlier. This was a consequence of the development of (supra)regional markets, which in time made self-sufficiency in terms of textile production redundant, although spinning and especially weaving for household use remained existent well into the twentieth century.84 Typical textile centres

78 Van Zanden and Marks, *An Economic History*, p. 50.
79 Booth, *The Indonesian Economy*, p. 94.
84 Jasper and Pirngadie, *De inlandsche kunstnijverheid in Nederlandsch Indië. Vol. II*, p. 6; Dalenoord, “Textiel-nijverheid in Nederlandsch-Indië”.
around 1900 were Priangan, Krawang, Djapara, Bagelan, Yogyakarta, and Madiun.85 Colonial authorities noted around 1890 that in Priangan,

There is hardly a quarter, a hamlet or a house where the clattering of the loom does not resonate. That which the industrious mother of the house produces more than is needed for the clothing of the family, she brings to the market. Indeed, it is only a plain tissue, but due to the reliability of the good and its low price (Dfl. 1.50 à f 3.-), this indigenous fabric can easily compete with the European calicoes, which testifies to the fact that cheap is expensive.86

Two decades later, researchers claimed that despite European competition, “there are still many regions in the Archipelago where the population for their clothing prefers domestically produced fabrics, which are generally much stronger than the imported tissues”.87 In addition to weaving, domestic spinning was certainly not totally eradicated, as the cultivation of

86 Quoted in Rouffaer, “De voornaamste industrieën”, p. 12.
local cotton in fact seems to have been growing alongside the increase in imported yarns (see Figure 5.5).

As well as spinning and weaving, the finishing of undyed cloth has traditionally been a Javanese specialty. Whereas weaving with coloured thread also constituted a longstanding practice, and increasing quantities of coloured yarns were imported from Europe, a more refined traditional art of colouring white cotton tissues was the production of batiks.

As noted above, batik was a traditional form of handicraft, mainly performed by women. Originally, batik was particularly an art that was the prerogative of aristocratic women, who had the time to devote to the careful and labour-intensive process, which involved waxing and colouring with multiple dye baths. The batiks, depending on the quality of their maker, were relatively expensive, and they were particularly desired by the higher-ranked people in Javanese society.

From around 1860 onwards, however, a new product emerged that was more affordable than batik, yet of higher quality than the imported

88 Only indigo dyeing was still widely practiced in Java around 1900, as the quality of European dyes for blue and black yarns could not compete with the indigenous indigo. Jasper and Pirngadie, *De inlandsche kunstnijverheid in Nederlandsch Indië. Vol. II*, p. 61.
European coloured cloth. The new product, probably adapted from block-printing techniques in British India, was called *tjap*, which was produced in a more standardized fashion than *batik*. It was much cheaper than *batik*, because labour intensity was far lower: an experienced craftsman could produce almost twenty printed sarongs per day, whereas it took twelve to fifteen days to *batik* one piece of cloth.90 *Tjaps* could compete favourably with European imports, and they were mainly processed by men instead of women. Again, local preferences played a large role in the demand for these textile goods. Around 1900, it was observed that “every native, who can somehow afford it, chooses the real *batiks* over the *tjap*, and the *tjapped* cloth over the factory-made ones”.91 Other Dutch observers explicitly criticized the influence of European imports: “With their use of bright, gaudy colours, the import trade in some regions has unfortunately spoiled the want of the population for sober, warm dyes.” However, as they more optimistically continued, traditional handicrafts such as coloured weaving and printing luckily persisted, “which, concerning their designs could educate European

90 Ibid., p. 79.
masters”. These adherents to local culture mirrored similar enthusiasm for indigenous Indian textiles by the Arts and Crafts Movement in Great Britain at the time.

What this all means in terms of production volumes and total labour force is of course an important question. Minimum estimates around 1900 suggest that in the two residencies of Sala (East Java) and Pekalongan (Central North Java) alone, the production of *batiks* and *tjaps* amounted to respectively five million and two million guilders on an annual basis.

**Table 5.1** Registered labour-force participation of the adult population, Java and Madura, 1905

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th></th>
<th>Women</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>% of all men</td>
<td>n</td>
<td>% of all women</td>
</tr>
<tr>
<td>Only agriculture</td>
<td>4,229,606</td>
<td>54.4%</td>
<td>1,189,807</td>
<td>16.8%</td>
</tr>
<tr>
<td>Only industry</td>
<td>618,268</td>
<td>7.9%</td>
<td>703,364</td>
<td>9.9%</td>
</tr>
<tr>
<td>Only service</td>
<td>322,861</td>
<td>4.1%</td>
<td>357,275</td>
<td>5.0%</td>
</tr>
<tr>
<td>Agriculture + industry</td>
<td>333,545</td>
<td>4.3%</td>
<td>123,164</td>
<td>1.7%</td>
</tr>
<tr>
<td>Agriculture + service</td>
<td>561,185</td>
<td>7.2%</td>
<td>50,021</td>
<td>0.7%</td>
</tr>
<tr>
<td>Agriculture + other</td>
<td>126,794</td>
<td>1.6%</td>
<td>17,839</td>
<td>0.3%</td>
</tr>
<tr>
<td>Other</td>
<td>381,615</td>
<td>4.9%</td>
<td>344,363</td>
<td>4.9%</td>
</tr>
<tr>
<td>Without recorded profession</td>
<td>1,206,852</td>
<td>15.5%</td>
<td>4,305,685</td>
<td>60.7%</td>
</tr>
<tr>
<td>Total</td>
<td>7,780,726</td>
<td>100%</td>
<td>7,091,518</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Source: NA, Handelingen Staten Generaal, 368, Bijlage C, Koloniaal Verslag, 1907*

Table 5.1 shows that according to the census of 1905, about 85 per cent of all adult Javanese men were registered with an occupation, compared with about 40 per cent of all adult Javanese women. Of course, official census statistics are highly problematic, especially with regard to capturing economic activities in the non-formal sectors, and particularly for women's work. Most probably, the percentage of women without a recorded occupation is too high. Despite these likely underestimates of women's work, the figures do give an indication of the minimum numbers of women involved in the different sectors of the economy. Although the

95 See, e.g., Humphries and Sarasua, “Off the Record.”
The 1905 census does not differentiate between various branches of industry, we can see that about a quarter of all women officially registered in the labour market were active in industry. Moreover, another 4.5 per cent of them were registered as performing industrial activities alongside agricultural work. This implies that over 820,000 women were formally registered as industrial workers, the majority of whom will have been active in textile production.

Furthermore, if we compare the female with the male labour force (Figure 5.8), we can see that women comprised about half of the industrial labour force around 1900. As many men were active in a variety of industries around 1900, such as metalwork, construction work, and labouring in sugar mills, textile production, was – apart from *tjapping* – dominated by women and constituted a considerable share of the total labour force at the time. Most probably, the census left out all of those women who were still spinning and weaving for domestic use, activities that nevertheless contributed to the household income in kind, either as

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96 Fernando, “Growth of Non-Agricultural Economic Activities”, p. 100.
replacing expenditure for home use, or because surpluses yielded some profit in the market.  

Changes in the Dutch textile labour market, 1874 to 1914

In the meantime, the Dutch textile industry experienced fundamental changes. From the 1870s onwards, the mechanization of the Dutch cotton industry, both in spinning and weaving, progressed spectacularly. In the early 1880s, the last – predominantly male – cotton hand weavers disappeared. The lifting of import duties in 1874 meant that other players, mainly the British in this period, entered the East Indies market for textiles. The 1880s constituted a period of stagnation, in which overall growth rates in the Dutch textile industry were low or even negative. Excess capacity in the 1870s and 1880s probably led to a loss of job security for many textile workers, as can be deduced from a fall in married women’s labour-force participation in a textile town such as Enschede. Despite these problems, however, the Dutch textile industry was still able to stabilize its share in the East Indies market (around 50 per cent) after 1875, up to the First World War.

After the difficult 1880s, the Dutch textile industry grew: production capacity recovered, and almost doubled between 1890 and 1910. This development can be attributed both to expansion into the European market, and to an increase in domestic demand, reflecting the rising real wages of Dutch labourers after the 1860s. In the period from 1860 to 1913, the textile industry ranked third in value added in terms of overall national industrial production, which signifies its importance in this period despite some difficult years. When Dutch textile exports to the Indies, as well as to other countries, again expanded in the 1890s, the number of young women working in textiles increased likewise. Indeed, it seems that in this period, children and women – and especially married women – formed a flexible pool of factory workers who could be hired and dismissed according to requirements.

97 Verslag van den waters- en voedingnood, Appendix L.
98 De Jonge, De industrialisatie in Nederland, p. 106.
100 Fischer, Fabriqueurs, p. 184.
101 Van Zanden and Van Riel, Strictures of Inheritance, pp. 296-295.
102 Boter, “Before She Said “I Do””, p. 10; Fischer, Fabriqueurs, p. 185.
As Figure 5.9 shows, the census of 1899 reveals that in contrast to Java, the Dutch industry sector was dominated by men. Only the clothing and textile industries were very important industrial sectors in which Dutch women and girls worked, but nevertheless, the proportion of men compared with women in textiles was much higher: respectively 70 per cent and 30 per cent in 1899. Over 17 per cent of all the women and girls active in industry worked in textile production. On the other hand, its share only amounted to 5 per cent of all the girls and women with an occupational mention in the census, and moreover, only about 10 per cent of the women working in textiles were married. Compared with other western European countries, the participation of women in the labour market was low by 1900, whereas it had been approximately on par around 1850. Apparentemente, despite the upsurge of women’s labour-force participation in textile regions in the 1840s and 1850s, and again in the 1890s with the recovery of the Dutch

103 Pott-Buter, Facts and Fairy Tales, p. 31.
textile industry, Dutch women’s participation in the overall labour market declined faster than elsewhere in Europe. Only in the textile regions, most notably in the cotton factories, did the participation of both young unmarried and married women remain relatively high compared with the average participation of Dutch women.

Historians of Dutch women’s work have explored several explanations for this diverging trend in female labour-force participation, such as sociocultural roots in the seventeenth century, the Netherlands’ late industrialization, and even its neutrality in the First World War. I would, however, like to point to another possible factor, which again leads us to colonial connections. Especially after the 1850s, the Dutch economy profited immensely from the excessive gains from the Cultivation System, and after its abandonment in 1870, from other income derived from Java. Van Zanden and Van Riel have calculated that the Batig Slot (colonial surplus) from the Cultivation System amounted to over 50 per cent of all the tax income in the Dutch treasury, and also after that, the gains were considerable until deep into the 1870s. Most probably, Dutch colonial extraction was relatively more stringent than that of other imperial powers in terms of shares of GDP and total tax income. Although historians and economists have intensely debated the effects of this colonial surplus in terms of the growth of Dutch public finances and national income, they can by no means have been negligible. For the late colonial period (1925 to 1940), contemporary economists Tinbergen and Derksen estimate the total income from the Dutch East Indies to have been about 14 per cent of the annual Dutch national income, and this will not have been less in the preceding period, which is known as even more extractive.

Between 1860 and 1900, exactly in the period when the colonial surpluses had balanced the Dutch public debt, real male wages in the Netherlands rose significantly, by more than 150 per cent, and more than in other European countries (see Table 5.2). Not only did the prices of foodstuffs

104 Schmidt and Van Nederveen Meerkerk, “Reconsidering”.
106 For an overview of the literature, see Van Nederveen Meerkerk, “Vergelijkingen”.
109 Derksen and Tinbergen, Berekeningen, p. 17. Historians have debated whether this can be called a high percentage. See, e.g., Wesseling, Indië verloren, p. 296.
110 Frankema and Buelens, “Conclusion”, p. 275; Van Zanden and Van Riel, Strictures of Inheritance, pp. 275-276.
in the world market decline due to the agrarian depression, but coffee and tea – new working-class beverages in this period – and sugar also continued to be imported for relatively low prices from the East Indies. Because of the large revenues from the Dutch East Indies in the second half of the nineteenth century, excises on some basic consumption goods in the metropole could be lowered.\footnote{Vermaas, “Real Industrial Wages”, pp. 147-149.} Although perhaps not in the low-wage textile regions, this may have sped up material realization of the ideal of the male breadwinner in the Netherlands, according to which the housewife stayed at home to take care of the household, and children went to school. In more than one sense, colonial connections formed an important element in these developments.

Table 5.2 Indexed real wages in some Western European countries, 1850 to 1913 (1860 = 100)

<table>
<thead>
<tr>
<th>Year</th>
<th>Netherlands</th>
<th>England</th>
<th>France</th>
<th>Sweden</th>
</tr>
</thead>
<tbody>
<tr>
<td>1860</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>1870</td>
<td>110</td>
<td>105</td>
<td>116</td>
<td>108</td>
</tr>
<tr>
<td>1880</td>
<td>144</td>
<td>115</td>
<td>123</td>
<td>109</td>
</tr>
<tr>
<td>1890</td>
<td>160</td>
<td>145</td>
<td>143</td>
<td>131</td>
</tr>
<tr>
<td>1900</td>
<td>190</td>
<td>163</td>
<td>164</td>
<td>159</td>
</tr>
<tr>
<td>1913</td>
<td>200</td>
<td>175</td>
<td>167</td>
<td>179</td>
</tr>
</tbody>
</table>

Source: Van Nederveen Meerkerk, “Vergelijkingen en verbindingen”, p. 32

Colonial gains and imperial relations not only help to explain these late-nineteenth-century changes in the labour allocation and purchasing power of Dutch households, but – and this is particularly interesting in the light of this chapter – colonial influences can also be seen in Dutch consumption habits for cotton cloth. Towards the end of the nineteenth century, more and more batik from the East Indies appeared in ordinary Dutch households, due to the intensified traffic of goods and people from and to the colony.\footnote{Legêne, Spiegelreflex, p. 135.} Moreover, several prominent members of Dutch society actively propagated the consumption of batiks in the Netherlands, arguing that their elegance and class could ameliorate the tasteless cotton mass products that the Dutch urban working classes were used to wearing. In this sense, it was argued, Dutch consumers had much to learn from their
Javanese counterparts. Around 1880, Twente textile manufacturers even launched an initiative to transport 4,000 of their factory workers by train to a National Exhibition of Colonial Industry in Arnhem. Here they could see with their own eyes the finished batiks for which they had produced the white cloth in the factories. These are not only good examples of how textile production and consumption in different parts of the empire came together, but also a reminder of how entangled the metropole and colony in fact were around the turn of the twentieth century.

Conclusion

This chapter has aimed to highlight the interwoven histories of textile production in the Netherlands and Java. While the impact of colonial institutions on the colony seems obvious, I argue here that on the one hand, the economic position of the native population was affected in quite different ways than most historians have anticipated, and on the other hand, that colonial policies and connections in turn have affected the metropole in ways that have previously been underresearched.

In the pre-colonial period, global trade impacted on gendered labour relations in Java and the Dutch Republic. VOC institutions – such as the implementation of a cotton yarn tax – in combination with favourable market conditions, shifted Javanese women’s labour allocation from subsistence agriculture to spinning and weaving for the market. Thus, a move from reciprocal to commodified labour relations had already started before 1800. In addition to that, women traditionally worked as artisans in the batik industry. In the Netherlands, the urge to compete with Asian cotton led to quality changes in woollen production, consequently stimulating women’s participation in the labour market and their shift to wage labour, but in the lower value-added segments of textile production. While the grip of colonial institutions became firmer in the early nineteenth century, they did not always have the intended effects on the Javanese economy. Certainly, the Cultivation System again entailed a shift of women’s labour to subsistence agriculture, but only for the first years. As only a few historians have noted before me, the Javanese textile industry recovered in the 1840s, and was able to hold its own against competition from foreign imports until the 1920s. Moreover, this industry was mainly in the hands of weaving and batik women. In some ways, the shift from weaving with factory-made yarns

113 Ibid., pp. 132-133.
and the *batik*ing of factory-woven bleached cloth ensured the reallocation of local producers’ time, who now engaged in higher value-added stages of the production process.

These changes involved the shift of women from more time-consuming hand spinning to cotton weaving. Probably, the time women saved by not having to spin was well compensated for by weaving: the surplus cloth that the household did not need could be sold in increasingly developing regional markets. This means that a further acceleration of commodified labour took place under the influence of colonial policies and institutions. Because the living standard debate has until now tended to focus on male real wages, including women’s economic contributions in the picture may indeed solve part of the puzzle of how – despite the atrocities of colonial extraction in the form of forced cultivation and taxes – Javanese households were still able to survive and perhaps even somewhat expand their consumption. Moreover, from around 1860, new dyeing techniques emerged. In addition to the artistic and expensive *batik*, dominated by women, men started *tjapping* (block printing), which was less labour-intensive and thus more competitive with the factory imports from Europe. The consumer preferences of the Javanese population played an important role in all of this. Although information on the purchasing power of the native population is still inconclusive, it is clear that there was a huge market for domestic textiles, whose quality was generally more highly rated than that of the imported cloth from Europe.

Turning our gaze to the metropole, we find that colonial policies clearly had a direct as well as an indirect impact on textile production and the division of labour in the Netherlands. The preferential trading status of the NHM and interlinked state subsidies until the 1870s stimulated Dutch industrialization, starting with its textile industry. Although the profits may not have been as high as expected, state subsidies and tariff barriers favoured Dutch textiles, which slowly but surely led to a shift from cottage production by hand to factory production using machines. In the process, married women became first more, and towards the end of the century less, important in the production process of textiles, but children and young women were drawn to the factories in large numbers as cheap wage labourers.

These changes were accompanied by a rise in male real wages in the period from 1860 to 1900, partly caused by the colonial revenues that flowed into the Dutch economy and society at that time. By indirect tax reform, these colonial gains partly trickled down to the lower classes. Although the reality of the male breadwinner society could only be fully attained after
the First World War, and was certainly far away for the working classes in low-wage textile regions, the ideal had already firmly gained ground by around 1900. Interestingly, around this time, according to such ideals, the higher classes even sought to “educate” the lower classes in their consumer preferences, and tried to stimulate them to refine their consumption of textiles by buying batiks. In addition, prevailing norms were reflected in Dutch labour legislation as well as social practice. For women, factory work formed a stage in their life cycle, and if they kept working after marriage, it was in the informal sector, not in formal wage labour. Thus, in contrast to the – artistically and economically – highly valued textile work by Javanese women, the position of female textile workers in the Netherlands, which had already deteriorated with the guild exclusions in the early modern century, was very low, and factory work was increasingly seen as unfit for married Dutch women.

Institutions indeed interfered with colonial market relations, seemingly leading to deindustrialization in colonial Indonesia, as Williamson suggests, and industrialization in the Netherlands. However, indigenous economic adaptability, in combination with cultural values – such as the consumer preferences of the Javanese, or the rise of the male breadwinner ideology in the Netherlands – direct our attention to additional forces of change, such as the agency of both indigenous textile producers and consumers, the gendered division of labour, and the unintended consequences of colonial policies. In this way, the success story of the Dutch textile industry, as well as the presumed collapse of Javanese labour-intensive textile production, can and should be seen in a more nuanced perspective.

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**About the Author**

Elise van Nederveen Meerkerk is Associate Professor at the Department of History and Art History at Utrecht University and Professor of the Comparative History of Households, Gender and Work at Radboud University Nijmegen (The Netherlands). Her work is mostly in the field of comparative labour relations, gender, and households from the early modern period to the present. Publications include: “Challenging the De-industrialization Thesis: Gender and Indigenous Textile Production in Java under Dutch Colonial Rule, ca. 1830-1940”, *Economic History Review* (2017); *Towards a Global History of Domestic and Care Workers* (Leiden, 2015) (co-edited with Dirk Hoerder and Silke Neunsinger).

E-mail: e.j.v.vannederveenmeerkerk@uu.nl