Twilight of an Industry in East Africa: Textile Manufacturing, 1830-1940

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Chapter 1: Introduction: Africa's Piece of the Global Textile Puzzle

1.1 Global and Local Forces in Deindustrialization

Manufacturing was the engine of economic growth during the nineteenth and twentieth centuries.¹ The mechanization of domestic textile industries, in particular, transformed nineteenth-century Britain into the workshop of the world and later underpinned the rapid twentieth-century advance of several countries in East Asia. Sub-Saharan Africa, however, did not take industrial flight during these centuries. In fact, handicraft textile manufacturing, which had thrived across the continent for centuries fell into rapid decline in a number of locales, particularly in the east, by the early twentieth century. Today, Africa remains the least industrialized continent in the world. What accounts for such stark contrasts of industrial success?²

Sub-Saharan Africa has remained largely overlooked in global studies of the "great divergence," which saw "the West" rapidly pull ahead of other parts of the world through industrialization-driven economic growth.³ Many scholars of sub-Saharan Africa have settled for a broadly generalized explanation for the region's comparatively lackluster acceleration, centering on the deindustrializing impact of globalization: as sub-Saharan Africa, and other parts of the global "periphery," were increasingly integrated into both the global trading system and European empires by the nineteenth century, domestic industries were devastated by a growing influx of imported manufactures, particularly textiles, from those world regions that had more quickly modernized their own industries.⁴ However, as Munro (1984) pointed out decades ago, the implications of imported manufactures for domestic African industries have been "less than adequately investigated" as "too often historians have merely assumed their disappearance under competition from imports." He cautioned against "suppos[ing] that when some branches of handicraft production declined they did so

¹ The research for this monograph derives from the project "Unravelling the African textile mystery: A quantitative investigation of global and local factors in sub-Saharan Africa's long-term industrial lethargy," funded by the Netherlands Organization for Scientific Research (NWO) and the N.W. Posthumus Institute and carried out at Wageningen University & Research. The final manuscript was completed at Utrecht University and made possible by funding from the European Research Council project "Race to the bottom? Family labour, household livelihood and consumption in the relocation of global cotton manufacturing, ca. 1750-1990," for which I worked as a postdoctoral researcher.

² In the context of this study, the term "industry" broadly includes handicraft production, which has traditionally served as a forerunner to further manufacturing development. Likewise, the term "deindustrialization" is used here to refer to the disappearance of handicraft industries.

³ Much of the spotlight has been placed on Asia and Latin America (see, e.g., Pomeranz 2000; Parthasarathi 2011; Williamson 2006).

⁴ For an early proponent of this perspective, see Rodney (1972).

under the pressure of imports," yet numerous scholars have continued to make this assumption (Munro 1984, 62-63). Consequently, limited empirical evidence and a paucity of case studies, especially for East Africa, have precluded definitive conclusions on the causes and nature of industrial decline in sub-Saharan Africa.

This book takes up Munro's invitation to closely examine industrial decline in sub-Saharan Africa, focusing primarily on handicraft textile production in East Africa, which has received relatively little attention from scholars, who have focused primarily on West Africa, where handicraft textile manufacturing persisted much longer.⁵ Like much of the continent, East Africa became increasingly integrated into global trade and open to foreign influence by the nineteenth century; but here, textile manufacturing began to decline comparatively earlier than in other parts of sub-Saharan Africa. The region consequently provides excellent underexplored terrain to examine mechanisms, both global and local, that affected industrial production outcomes.

The central questions addressed throughout this book are: When and why did handicraft cloth industries in East Africa decline? How did cloth imports affect domestic textile industries during the nineteenth and early twentieth centuries? And what role did global and local forces play in influencing local production choices? Although analytical emphasis is placed on East Africa, this study takes a broader comparative approach to better evaluate the purportedly central role played by global forces. In-depth case studies focus on the disappearance of cotton cloth production in central and southern East Africa during the nineteenth and twentieth centuries, but findings are considered in light of existing studies on more resilient textile industries in both northern East Africa and West Africa, which encountered similar global forces during the nineteenth and twentieth century. Regional comparison highlights the unique periodization and pathways of industrial decline (or persistence) in different African locales, challenging one-size-fits-all deindustrialization suppositions and offering more nuanced insights into sub-Saharan Africa's piece of the global textile puzzle.

This study provides the first long-term quantification of cloth imports into East Africa from the mid-nineteenth to the mid-twentieth century, detailing the scale, composition, and pricing of imports, which is a crucial step in investigating any relationship between cloth imports and deindustrialization. As this first chapter will illustrate, these data suggest that competition from imported cloth is indeed an insufficient explanation for the deterioration of domestic textile industries in the region and elsewhere in sub-Saharan Africa. In some parts of East Africa, textile manufacturing disappeared *before* cloth imports ramped up.

⁵ For existing treatment of East African cases, see Kjekshus (1977, 105-109); Davison and Harries (1980); Alpers (2009, 79-98); Clarence-Smith (2014); Mandala (1990, 41-44).

Furthermore, cloth producers residing in northern East Africa persevered much longer than their central and southern East African neighbors in spite of significantly higher per capita import levels. Similarly, West Africa imported more cloth per capita than East Africa, yet handicraft production continued to thrive in the west after similar industries waned in much of the east. Competition-centered explanations have evidently overlooked other decisive mechanisms that affected differing regional production outcomes in late pre-colonial and early colonial sub-Saharan Africa. This book highlights the importance of bringing *local factors* into the deindustrialization equation. Comparative analysis reveals that local conditions played a key role in determining how global forces affected domestic industries across sub-Saharan Africa. In some cases, for example, growth in global trade helped stimulate local cloth industries, while in others, it helped set in motion local transformations that precipitated a decline in domestic production.

The following sections first outline and critique deindustrialization perspectives that emphasize global forces and then introduce alternative conceptualizations that bring local factors to the fore. This chapter concludes with a discussion on methods, sources, and the organization of the book.

1.2 Globalization and Industrial Decline: Coercion and Competition

For the past half-century, academic debate has raged over the causes of limited industrial growth in much of the developing world compared with the rapid industrial expansion experienced in Europe and North America from the second half of the eighteenth century. In the early post-colonial period, dependency theorists suggested that underdevelopment had been affected via an exploitative "world system" that was dominated by wealthy "core" countries at the expense of poorer "peripheral" countries (Frank 1966; Wallerstein 1989). The concept of a core-controlled global economy has been recently revisited by Beckert (2014) in his sweeping history of the cotton-driven industrial divergence, whereby Europe - with the use of institutionalized, state-backed violence usurped Asia's position as the original textile workshop of the world and undermined burgeoning industries across the globe. He broadly argues that European industrial dominance was actively orchestrated through a system of "war capitalism," which facilitated Europe's global control over factors of production and external markets through "slavery, the expropriation of indigenous people, imperial expansion, armed trade, and the assertion of sovereignty over people and land by entrepreneurs" (Beckert 2014, xv). In the case of Africa, however, he suggests that imperial efforts to secure the continent's resources often met with failure since many Africans "remained far removed from world markets and experienced little if any commercialization in their lives [and thus] felt little economic pressure to produce cash crops" and instead "favored long-established local exchanges" (Beckert 2014, 371).

Rodney (1972), conversely, famously asserted in the 1970s that Europe had guite effectively "underdeveloped" Africa through centuries of aggressive trading policies, which were followed by colonial coercion, a dynamic that placed agency firmly in the hands of foreign capitalists. In his view, African markets were actively flooded with first Indian and then European cloth brought by European traders from the fifteenth century onward, which progressively crowded domestic cloth out of African markets – particularly as European manufacturing technology advanced – and thus prevented local producers from taking advantage of increasing African demand for manufactured goods. Consequently, "by the time Africa entered the colonial era, it was concentrating almost entirely on the export of raw cotton and the import of manufactured cotton cloth," with the region thus suffering a catastrophic "loss of development opportunity" (Rodney 1972, 103-105). Likewise, Palat and Wallerstein (1999, 36-37) have suggested that Indian-made cloth undermined industry in places like East Africa, largely due to the comparatively more advanced technological capacity and cheap labor of producers on the subcontinent. East Africa did indeed import gradually increasing quantities of Indian-made cloth in exchange for primary products from around the fourteenth century onward (Riello 2013, 23; Chittick 1970, 103). According to Machado, domestic East African textiles and Indian-made cloth enjoyed complementary niches in local markets through much of the early modern period, but an uptick in imports would ultimately upset this balance so that "local textile production in East, east central, and south-east Africa was much reduced by the eighteenth century" (Machado 2005, 109-110; 2009, 167-169).

However, most deindustrialization arguments that hinge on unbeatable competition from imported cloth focus specifically on the *nineteenth century*, which saw a substantial increase in East Africa's global trade integration, as well as the imposition of colonial rule.⁶ From around the 1830s, American, European, and Indian traders flocked to East Africa, especially the island entrepôt of Zanzibar, to exchange manufactures for primary products, like ivory, cloves, gum copal, rubber, and hides and skins, which were increasingly demanded in industrializing regions. While many of these primary products came from coastal and coastal hinterland areas, trade caravans carried imported manufactures inland to exchange for lucrative ivory found principally in the deep interior. In Iliffe's view, interior textile industries simply "could not compete" once imported cloth stocks increased from around the second half of the nineteenth century (Iliffe 1979, 60, 67). Tambila argues that by the last quarter of the century, imports of comparatively cheap, mass-produced manufactures began to "push out the artisan goods of the region" as the domestic economy was "reoriented to production taking place in industrial or industrializing Europe and north

⁶ For arguments focusing on the nineteenth century, see, e.g., Koponen (1988, 374); Kjekshus (1977, 106-110); St. John (1970, 227); Raum (1965, 193-194); Davison and Harries (1980, 189); Mandala (1990, 43-44, 56, 92).

America" (Tambila 1981, 80-81, 162-163). In the case of West Africa, Inikori (2009) suggests that, while textile production did not necessarily disappear, the progression of industry to a proto-industrial phase was arrested as the region's markets were captured by imported cloth during the nineteenth century.

Some dependency arguments have focused on the impact of exploitative colonial policy that favored the advancement of cash-crop production over industrial development in line with what Wrigley (1959, 33) has characterized as a broader colonial "doctrine" that often regarded "dependencies [as] exist[ing] in order to supply the metropolis with cheap raw materials." Rodney described colonialism as a deliberate "system of underdeveloping" the continent for the benefit of European economic interests (Rodney 1972, 223). With respect to German-controlled mainland Tanzania⁷ (German East Africa from 1885 to 1919), Koponen (1995) nuances this perspective, arguing that colonialism did result in development but that the *nature* of that development was influenced by an overarching colonial policy of exploitation, which did not foster industrial growth. In this sense, "development was an essential part of the mechanisms of underdevelopment" (Koponen 1995, 671). Shenton and Freund argue that colonial-era socio-economic dynamics and production choices were strongly influenced by the machinations of newly imposed colonial administrations, which included the imposition of taxation, partly as a "spur to commodity production" to serve the needs of metropolitan capitalists (Shenton and Freund 1978, 13-19). At the same time, Swainson (1980) argues, eager metropolitan industrialists strategically undermined domestic industries in early colonial East Africa since the region was viewed as an important market for manufactures. Local industries "represented a threat" that was mitigated by swamping markets with imported manufactures, which "effectively wiped out" domestic industries during the late nineteenth century, particularly in British East Africa (Swainson 1980, 26). Fig. 1.1 illustrates the externally oriented dependency model of deindustrialization in the global periphery.

[Figure 1.1 Here]

Fig. 1.1 Dependency school deindustrialization model

⁷ For the sake of clarity, modern African country names are often used in this study in lieu of colonial-era names, which changed over time.

Other scholars have focused on the overwhelming influence of emerging nineteenthcentury *global market forces* as the principal driver of deindustrialization in the "poor periphery," as conceptualized in Fig. 1.2 below. Neoclassical market-centered perspectives on deindustrialization prove even more deterministic than dependency theory: global demand and market forces determined all, thus leaving little space for human agency, even among industrial countries. This perspective has been most recently championed by Williamson (2011), who largely casts aside the institutional power relations inherent in the traditional dependency school and instead engages primarily with Ricardian trade theory. He argues that rapid European industrial labor productivity growth, linked to relative factor prices, gave Europeans an unparalleled manufacturing advantage, while increasing global demand for industrial inputs generated strong terms of trade for primary products from Africa, Asia, and Latin America, particularly between 1820 and 1870. At the same time, a dramatic decline in transportation and transaction costs, highlighted by O'Rourke and Williamson (1999, 29-55), opened global markets on an unprecedented scale, boosting global market integration. In response, producers in lesser-developed regions - where industrial labor productivity was comparatively low and factor endowments favored primary production – consequently made the seemingly rational economic choice to reallocate labor from handicraft industries to the production and/or collection of raw materials to export to the industrializing core in exchange for manufactures that were becoming increasingly affordable. In places like East Africa, output of primary product sectors thus increased, while import-competing industrial sectors declined.⁸

Similarly, in Sheriff's view, foreign trade led to the development of a "lopsided character" of the East African economy as "backward" sectors, like elephant hunting (to procure ivory exports), mining, and slave-based commodity production, were extensively developed at the expense of a "stunted industrial sector." As East Africa's integration into the global trading system expanded, textile industries "showed signs of decline." This development pattern intensified as global commodity prices, particularly for ivory, climbed during the nineteenth century (Sheriff 1987, 1-4, 13, 247).

[Figure 1.2 Here]

Fig. 1.2 Market-centered deindustrialization model

⁸ Labor reallocation arguments offer an alternative to Hla Myint's much-criticized "vent-for-surplus" theory regarding the rise of agricultural export production in the global periphery. Myint assumed that underdeveloped "subsistence economies" had previously failed to maximize production possibilities and argued that these societies first engaged in international trade by simply applying "semi-idle labour" to cash-crop production on underutilized land (Myint 1958, 318-327).

The various globalization-centered deindustrialization arguments highlighted above may differ with respect to the principal theoretical drivers (i.e., imbalanced power relations versus pure market forces), but they share a common thread: they take for granted the capacity of imported cloth to displace domestic textiles. However, in recent research on the Javanese textile industry, for example, van Nederveen Meerkerk (2017) has illustrated the fallacy of the simplistic Ricardian supposition that traded goods were perfectly substitutable between countries or regions. "Because quality and taste mattered," she points out, "the assumption of perfect competition makes little sense" (van Nederveen Meerkerk 2017, 1222).

Yet much of the historiography on East Africa implicitly adheres to this flawed substitutability assumption and suggests that mass-produced imported cloth was largely responsible for undermining locally produced East African cloth. These conclusions are derived in part from accounts of late-nineteenth-century Western travelers who attributed what they viewed as industrial malaise in East Africa to the presence of imported cloth. Edward Hore, for example, hyperbolically lamented, "The sudden flooding of some regions of Africa with cheap European goods has simply obliterated many valuable native industries" (Hore 1889, 595). It is no surprise that a number of historians of the region – influenced by broad statements like Hore's – have come to take as fact the deindustrializing impact of cloth imports. However, accounts like these often exhibit significant bias, overgeneralizations, and contextual misassumptions.

Pawełczak has recently suggested that "imported cloth, even that of mean quality, surpassed most of what local weavers could offer" (Pawełczak 2010, 56). However, many contemporaries, like Nyasaland (British-controlled Malawi) colonial commissioner Harry Johnston, were genuinely perplexed by the eventual replacement of domestic cloth with imported varieties, given what they deemed substantial differences in quality, particularly durability: "Curiously enough the native-manufactured cotton cloth is far superior to the European introduction [...] woven a hundred degrees higher in taste than the execrable Manchester criterion" (Johnston 1894). Similar favorable contemporary appraisals were made of textiles produced in German East Africa (see, e.g., Fülleborn 1906, 512).

However, from the perspective of observers from rapidly industrializing countries, the model and scale of East African cotton cultivation and cloth production was fundamentally uncompetitive. One missionary, Brother Rodriguez, reflected that he had never seen a "real" cotton farm in the interior of East Africa, with cotton instead cultivated on a small scale in what he considered "the most primitive manner" (Rodriguez 1908-1909, 223). Hore believed that domestic industries had great potential, but that the *success* of local producers, burdened by "native ignorance," would "require [European] encouragement and assistance to utilise the resources of their country and become

themselves elevated" (Hore 1889, 595). Consequently, for many Western observers, the arrest and decline of domestic industries in the face of machine-manufactured imports seemed an inevitable outcome. This assumption led observers to make hasty conclusions. For example, upon traveling through the Nyasa-Tanganyika Plateau (modern-day southwestern Tanzania) in the early 1880s, German explorer Paul Reichard submitted, "The native weavers cannot compete with the cheap European substances" (Reichard 1892, 234). To the contrary, when Kerr Cross visited the plateau nearly a decade later, he noted numerous weavers and looms in every village (Kerr Cross 1891, 94).

Furthermore, many areas had not historically produced cotton cloth on a significant scale, but this critical detail was lost on some observers who took the absence of weaving to be a sign of general deindustrialization. Karl Weule, who spent six months among the Makonde in southern German East Africa in 1906, concluded that cotton weaving had become "obsolete through the cheapness of imported calico" (Weule 1909, 225). Crucially, however, the Makonde traditionally specialized in bark and palm cloth production, with only a limited association with cotton (Merensky 1894, 149; Schurtz 1891, 149). Furthermore, a contemporary ethnographer noted that Weule had only witnessed a small part of a rite incorporating imported cloth into the closing ceremony, whereas participants spent the rest of the weeks-long rite clothed in domestic bark cloth (see translator's note by Alice Werner in Weule 1909, 277). In spite of flawed qualitative accounts, many scholars steadfastly maintain that imports indeed must have caused industrial decline in East Africa.

1.3 The Case Against Import Competition

Some scholars remain unconvinced of the purportedly deindustrializing effects of imported cloth in the global periphery. With respect to India, for example, historians have pointed out that handloom weaving long survived alongside mass-produced imports; more still, mechanized factory manufacturing would, in the midst of largescale imports, kick off on the subcontinent by the mid-nineteenth century (e.g., Lal 1988; Roy 1993). Likewise, some scholars of Africa – especially West Africa – have challenged the assumption that cloth imports doomed local textile industries.

Thornton has questioned the superiority of European products and production methods, pointing out that "competition [was] not between advanced technology in Europe and underdeveloped technology in Africa. It [was] between hand-produced goods made by very skilled workers in Africa and goods produced by very rudimentary versions of technology in Europe." Early industrial European machinery, he points out, regularly broke down, thus diminishing productivity, and tended to produce substandard products. The *quality* of hand-made artisanal cloth was generally higher than machine-made imports (Thornton 1990, 14-15). Furthermore, the functional design of hand looms used in a given

region was often well suited to local needs. For example, Austin argues that the use of the narrow band loom, which produced thin strips of cloth, in much of West Africa was likely a practical choice conditioned by a combination of local factors: aesthetic preferences for cloths produced by stitching together narrow pieces; a wet-season labor bottleneck that limited the supply of raw cotton that could be produced without imperiling food security; and the low opportunity cost of industrial labor during the dry agricultural off-season, which minimized pressure on weavers to produce cloth more rapidly by using a wider loom (Austin 2008, 602-603).

Indeed, Africans were often engaged in manufacturing for only part of the year – during the dry season, when agricultural labor demands decreased – thus lowering the marginal cost of industrial labor. This allowed artisans to deliver high-quality products at competitive prices (Johnson 1978, 267). Price certainly mattered, but so too did quality. African consumers, Richardson (1979) has pointed out, were highly selective. Their particular preferences and demands varied over time and shaped the composition of foreign imports as they readily rejected imported cloth that did not meet their expectations. Prestholdt has shown that in East Africa the particularity of consumer demand was so strong that it directly influenced the output of foreign textile producers seeking to capture the region's market (Prestholdt 2008, chapter 3).

Alongside consumer preference, the size of the local market for cloth could affect how domestic industry was impacted by imports. Thornton notes that the majority of cotton cloth imports were consumed in African regions that had long histories of cloth consumption and could accommodate increases in supply with evenly matched increases in local demand for a wide array of textiles (Thornton 1992, 48-52). Similarly, Fage (1978) has argued that the mere presence of imported cloth in African markets does not imply that local manufacturing ceased, for high-quality local cloth was often consumed *alongside* massproduced imports. Thus, an increase in imports was indicative of more people consuming a wider variety of cloth rather than a simple displacement of domestic varieties by imports (Fage 1978, 272-273; see also Hopkins 1973, 121). Indeed, Kriger has noted that increased West African involvement in cash-crop exporting – a driver of industrial decline according to some deindustrialization theorists – augmented regional purchasing power among increasingly wealthy traders and producers, thereby generating enhanced demand for highquality cloth, both imported *and* domestic (Kriger 2006, 45-47).

Growing textile imports may have also helped stimulate overall African demand for cloth products, including domestic cloth. In West Africa, a dramatic upsurge in cloth production occurred during the nineteenth century – just as textile imports began to show a marked increase – with the textile industry becoming the second largest sector in the Sokoto Caliphate, exceeded only by agricultural production (Kriger 1988, 54). According to

Clarence-Smith (2011), East Africa also saw a spurt of output growth in textile industries between the seventeenth and nineteenth centuries, even as foreign cloth increasingly entered the region. In fact, East African cloth production methods reportedly benefitted from cloth imports as weavers incorporated thread from unraveled foreign cloth to improve local weaving techniques and designs (Clarence-Smith 2011, 94-95). Prestholdt notes that textile imports also encouraged related crafts, like tailoring, dyeing, stamping, and embroidering, as imports were regularly reworked to suit local tastes (Prestholdt 2008, 69-71). Kriger has identified similar import-stimulated domestic cloth production innovations in West Africa (Kriger 2009, 124). Eltis and Jennings, in contrast, have argued that pre-colonial foreign imports had no substantial impact, positive or negative, on African domestic industries (Eltis and Jennings 1988, 957).

The debate surrounding the impact of imported cloth on domestic manufacturing has proven difficult to resolve given that contemporary qualitative sources offer only circumstantial – and often shaky – evidence. This study engages previously underexploited quantitative data that strongly suggest that scholars must look beyond competition with imported cloth to understand deindustrialization in East Africa. Region-level import data reveal that per capita cloth imports were, on average, significantly lower in nineteenth-century East Africa relative to West Africa, where imports regularly exceeded East African levels by a factor of two between 1855 and 1900 (see Fig. 1.3).

[Figure 1.3 here]

Fig. 1.3 Per capita cloth imports into East and West Africa, 1850-1941. *Sources*: See Appendix 1. *Note*: Three-year moving averages with the exception of four single annual data points (Italian Somaliland: 1895, 1897, 1905; British West Africa: 1903). West African data only include imports from the United Kingdom.

In reality, the nineteenth-century regional disparity in import levels was much greater than reflected in Fig. 1.3 since the nineteenth-century data for West Africa only represent imports from the United Kingdom, while the nineteenth-century East African data include imports from each of the three largest exporters of cloth to East Africa during the second half of the nineteenth century: the United Kingdom, the United States, and Bombay. Furthermore, cloth imports into coastal regions of West Africa were substantially higher than the regional average depicted in the figure. Imports into the Gold Coast (modern-day Ghana), for example, where *kente* cloth has long been produced, numbered roughly ten yards per capita through the 1880s. In spite of a longer experience with higher import levels,

West African textile centers thrived long after cloth production disappeared in much of East Africa, persisting in many cases into the post-colonial period (see, e.g., Aronson 1980).

Looking exclusively at East African cases, it becomes evident that cloth imports do not adequately explain deindustrialization in the region. Cloth production in the Lower Shire Valley of what is today Malawi (colonial-era Nyasaland) declined during the 1860s and 1870s, several decades before per capita cloth imports into the region would show a substantial uptick. Now, let's consider nearby mainland Tanzania (colonial-era German East Africa and British Tanganyika). Although disaggregated colony-level data only become available from the 1890s, it is clear that imports per capita were far above the latenineteenth-century East African average (4 yards per capita in 1890 versus the regional average of 1.5), suggesting that a large share of the cloth exported to East Africa was concentrated in mainland Tanzania. This is unsurprising given its position directly adjacent to the island entrepôt of Zanzibar, the heart of nineteenth-century East Africa's global trade activity. Caravans increasingly traversed mainland Tanzania during the nineteenth century, loaded with cloth to exchange for ivory. However, cloth industries in the area showed significant variation amid rising imports. In Unyamwezi (west-central Tanzania), for example, cloth production dwindled during the second half of the nineteenth century, whereas in Ufipa (southwestern Tanzania), domestic production would only begin to wane in the first decade of the twentieth century. Both regions were firmly integrated into the nineteenth-century caravan system, which provided access to imported cloth, yet the timing of deindustrialization differed substantially. Even on Zanzibar, through which most of East Africa's nineteenth-century cloth imports passed, artisanal weaving was ongoing until at least the mid-1920s.

In the case of Italian Somaliland (eastern modern-day Somalia) in northern East Africa, a rise in cloth imports again does not correspond with industrial decline. Around the time that the textile industry in Tanzania's Ufipa was beginning to weaken, cloth imports into Italian Somaliland shot up rapidly, quickly *surpassing* mainland Tanzania's import levels. This, however, did not lead to industrial decline in the famed Mogadishu textile center on Somaliland's Benadir Coast. The industry took the enhanced market competition in stride, adapted to changing consumer demands, and continued to thrive into the mid-twentieth century (Alpers 2009, chapter 5).

1.4 Alternative Conceptualizations: Bringing in the Local

Rather than focusing principally on the impact of *external forces* in influencing production outcomes in the global periphery, scholars must look closely at *local conditions* –

which interacted with and mediated external forces – to understand the array of factors that swayed local labor allocation decisions. For example, Johnson has argued that it was not direct competition from factory-made imports that stymied cloth production in parts of Africa; rather, "alternative employment opportunities" often drew the local labor force away from industry (Johnson 1978, 267). Of course, these alternative opportunities may have been linked with widely felt global market forces, as suggested by Williamson (2011). However, if external change were the driving force behind local labor allocation choices, a relatively homogenous response would be expected throughout the tropical periphery as global demand for tropical commodities increased. To the contrary, labor in Africa – and elsewhere in the global periphery – was not uniformly diverted from domestic industries to export-oriented activity, nor did deindustrializing labor reallocation take place at the same historical moment where this did ultimately occur in various East African locales.

Recent scholarship has focused attention on the central role of local forces in guiding unique local industrial responses to external stimuli. Studies on nineteenth- and earlytwentieth-century textile industries in India and Southeast Asia, for example, have highlighted location-specific variation in confrontations with global market forces. Here, industrial resilience was often facilitated through adaptive strategies based on local labor allocation systems and region-specific demand patterns. These studies underscore the importance of local agency and contest the excessive weight that deterministic deindustrialization theories have placed on the role of outside forces – be they imperial powers or global market forces – in affecting production outcomes (see Haynes 2012; van der Eng 2013; Roy 2013; van Nederveen Meerkerk 2017). Furthermore, recent work on labor-intensive industrialization in the global periphery has highlighted variable dynamic pathways to industrial development, which differ markedly based on relative local supplies of labor and capital. This innovative research simultaneously undermines long-held Eurocentric conceptualizations of successful modernization strategies and brings to the fore local conditions as critical determinants of economic strategies (Austin and Sugihara 2013). Fig. 1.4 brings together the wide array of possible production-influencing factors – derived from the theoretical literature – that are explored in this book.

[Figure 1.4 here]

Fig. 1.4 Location-centered model for production outcomes

With respect to sub-Saharan Africa, scholars have long suggested that production choices in various locales can only be understood by considering local factor endowments – particularly the ratio of arable land to available labor, affected by local geography and

environmental conditions – which influence location-specific production possibilities. This perspective relates to the Heckscher-Ohlin theorem of international trade, which revises the classical Ricardian theory of comparative advantage and posits that production and trade choices (i.e., resource allocation) are based not only on relative labor efficiency but on the relative local supply (and thus prices) of factors of production (land, labor, and capital), with producers favoring goods – industrial, agricultural, or otherwise – that require the intensive use of the most locally abundant factor.⁹

Nearly fifty years ago, Hopkins (1973) suggested a factor-endowment-centered approach to studies of African development. Likewise, Tosh pointed out that to understand production choices in Africa, researchers must embrace an "agricultural point of view" and consider those local factors of land and labor "which loomed so large in the peasant's own calculations" and affected the range of production possibilities (Tosh 1980, 82-84; 1978, 417). Local environmental factors have since received attention but with a caveat against environmental determinism since the impact of the local environment on economic development is influenced by a wide array of factors (Widgren 2004, 1-4; Beinart 2009; Vansina 1990; Mandala 1990; Austin 2008).¹⁰

Additionally, geographic location may have affected production choices in Africa – where the mechanized transportation revolution was slow to penetrate the interior – given that regions distant from coastal ports remained largely removed from global trade booms up to at least the early twentieth century (Austin 2013, 209). However, it is important to bear in mind that distance from the coast did not, in itself, determine degrees of industrial resilience. Indeed, while Austen has argued that interior African textile centers continued to thrive strictly because they were geographically protected from largescale imports, Thornton points out that this conclusion ignores the fact that many surviving West African textile centers lie along the coast (Austen 1987, 99; Thornton 1990, 17).

The importance of the local labor force – in terms of quantity (population size), quality (skills), and composition (gender and age) – in economic development has also been emphasized in recent studies on the global periphery (Austin and Sugihara 2013). With respect to Africa, Austin has called for a revision of long-held conceptualizations of the region's factor endowments, pointing out that labor – branded as perpetually scarce – was actually abundant during the agricultural "slack" season, significantly diminishing the cost of industrial labor for much of the year. Austin has, in turn, linked season-specific labor

⁹ Scholars of Europe have also engaged with factor endowments to explain development trajectories. Local factor prices, namely post-Black Death labor costs, figure heavily in Allen's work on the underlying causes of nineteenth-century British primacy in industrial mechanization (Allen 2009).

¹⁰ Sokoloff and Engerman (2000) have likewise drawn attention to the role of the environment in influencing long-term economic development in the Americas.

supplies to persistently low industrial labor productivity in the region, arguing that the relative cheapness of labor during the non-agricultural dry season dampened initiative to adopt labor-saving technologies. At the same time, the scarcity of labor during the agricultural season impeded expansion of raw cotton cultivation – thus diminishing potential textile output – since labor was necessarily devoted largely to the cultivation of vital food crops during the fairly short wet season (Austin 2008, 597-598, 602-604).

Beyond relative supply, the composition of the local industrial labor force must also be taken into account. Here, local institutions come to the fore. Across West Africa, weaving was not uniformly dominated by one gender – although men and women used different looms – resulting in a large potential industrial labor pool (see Johnson 1978, 260; Kriger 1993). In central and southern East Africa, by contrast, men were almost invariably responsible for weaving, along with much of the spinning. Female participation in cloth production was confined to picking and cleaning cotton and, to a lesser extent, spinning cotton into yarn (see Davison and Harries 1980, 182; Mandala 1990, 41; Burton 1859, 382; Boileau and Wallace 1899, 613). Consequently, any significant depletion of local male labor was potentially catastrophic for textile production. Of course, these culturally ingrained gender divisions of labor could, in theory, shift; however, the possibility of women in East African societies bucking tradition and taking up weaving in periods of male labor scarcity was undoubtedly diminished by the accompanying intensification of female agricultural work in the absence of men, particularly in areas with limited means for shoring up diminished labor through, for example, slave-labor institutions (see Chapter 5).

Williamson's theoretical connection between global trade and deindustrialization in the periphery does engage local factor prices and geography as underlying explanations for differing development trajectories, but he strongly devalues the mediating power of institutions and local agency, arguing that production outcomes were "not a choice at all" (Williamson 2011, 190). Among many scholars of Africa, in contrast, issues of land and labor have remained ever-present, but so too has their interaction with local institutions. In the case of West Africa, for example, both Kriger and Lovejoy have noted that institutionalized slavery within the Sokoto Caliphate effectively harnessed the region's labor to the benefit of the domestic textile industry during the nineteenth century, providing "an important source of manpower for producing and processing raw materials for spinning and weaving" and for the simultaneous production of food and cash crops (Kriger 1988, 54 (quoted); Lovejoy 1978). In southern Nigeria, the use of household slave labor helped free up female labor hours for weaving, facilitating an expansion of textile production during the nineteenthcentury palm oil export boom (Kriger 2006, 51; Austin 2009, 18). Thus, local labor institutions could interact with local endowments, altering factor prices and production possibilities to the benefit of local industry, although some scholars note that internal slavelabor institutions may have constrained expansion by depressing purchasing power (see, e.g., Hopkins 1973, 25; Mahadi and Inikori 1987, 71). Finally, local cultural institutions, including religion and sumptuary norms, also played a significant role in the viability of domestic industries by influencing demand and consumption preferences.

Of course, local factor endowments and institutions did not operate within a bubble. While they could mediate external forces, they could in turn be influenced by external developments. For example, the increasing application of West African captives to domestic production during the nineteenth-century was partly stimulated by a decline in the global trade of West Africa slaves, which was influenced by abolitionist debates raging in Europe (see Lovejoy 1978, 342; Flint 1974, 386; for abolition, see Hopkins 1973, 124).

The incorporation of local factors provides scope to evaluate another external force, which looms large in African economic history: the purportedly central role of metropolitan agendas and colonial institutions in determining production choices within colonized African regions. Europeans undoubtedly had economic visions in mind when they surveyed the African continent during the nineteenth century. Indeed, one of the major objectives of David Livingstone's famous mid-century travels through Africa was to encourage local people to "cultivat[e] their lands, with a view to the production of raw material to be exported to England in return for British manufactures" (Livingstone 1866, 9). But the degree to which colonial players and policy directly influenced production outcomes remains open to debate. According to Austin, it was "a combination of European and African agency that strengthened and exploited the region's comparative advantage in landextensive primary production," as African producers chose to allocate their labor where the most profit could be accrued – based on local conditions and global trading opportunities – sometimes in direct opposition to metropolitan visions (Austin 2013, 208). In the case of French West Africa, Roberts has pointed out that, in spite of French colonial efforts, the region's cotton output could not be effectively diverted from domestic looms to French textile factories. "This outcome," he reflects, "provides important insights into the history of local processes withstanding pressures of the world economy [emphasis added]" (Roberts 1996, 9; emphasis mine).

1.5 Methods and Sources

Taking a comparative approach, this book explores how various combinations of local conditions and external forces interacted over time to generate diverse industrial outcomes in sub-Saharan Africa. Specifically, I employ both quantitative and qualitative methods to track and analyze long-term developments in global trade and consumption across East Africa and conduct in-depth investigations into cases of deindustrialization in the central and southern portions of the region with a comparative eye toward more robust industries in northern East Africa and West Africa. Fig. 1.5 identifies the major locations discussed in this book, distinguishing between primary case study areas and regions included for comparative analysis.

[Figure 1.5 here]

Fig. 1.5 Map of case-study and comparison regions, c. 1914

For the purposes of this study, "East Africa" includes the eastern portion of the continent ranging from Mozambique in the south to modern-day Somalia in the north, as well as the island of Zanzibar adjacent to mainland Tanzania.¹¹ To closely study the process of industrial decline in central and southern East Africa, I have selected important cotton cloth production centers located in what are today Tanzania and Malawi, where notable pockets of cotton weaving developed alongside regions that principally consumed alternative fibrous textiles (e.g., bark cloth) and animal skins. In each case, deindustrialization would eventually occur, but at different historical moments and as a result of temporally and spatially unique interactions between external and local forces. Thus, the cases do not reveal some broad developmental trend in the region; rather, they illustrate how global processes were met with *diverse reactions* that were influenced by local-level conditions, although some of these conditions, especially labor scarcity, were present in all cases.

While each case has a unique periodization based on its specific experience with deindustrialization, the whole of this study spans approximately 1830 to 1940. The roughly century-long period under analysis saw profound changes across East Africa as the region's global engagement quickly intensified and areas once largely isolated from global trade became increasingly integrated, providing excellent scope to examine the influence of global forces on industrial outcomes. Important developments included a significant uptick in East Africa's export-oriented trade, facilitated during the nineteenth century in large part by merchants operating from the island of Zanzibar; stimulation of the East African slave trade,

¹¹ While the large Indian Ocean island of Madagascar, which lies 400 km off the coast of East Africa, has been home to a variety of long-enduring weaving traditions, the "mini-continent" differs considerably from continental sub-Saharan Africa in a number of fundamental respects and is often closely linked with Southeast Asia in the historiography of textile manufacturing. Madagascar is consequently omitted from this study's intra-continental comparison. For the island's textile manufacturing traditions, see Fee (2002, 2005) and Mack (1989).

partly to sustain the development of the region's coastal and island slave plantations as global demand for tropical products grew; considerable growth in East African ivory hunting and exporting, which saw cloth-bearing trade caravans push increasingly deeper into the interior in search of ivory sources; and the carving up of East Africa among European colonial powers by the end of the nineteenth century.

The substantially different degrees of industrial resilience in central and southern East Africa relative to northern East Africa and West Africa, along with the striking theoretical disparity regarding the relative impact of imports exhibited in the historiography of these different regions, raises stirring questions about the causes of industrial decline in sub-Saharan Africa. Most studies on sub-Saharan African textile industries exclusively zoom in on single cases or regions.¹² While these studies are illuminating in their own right, intraand inter-regional comparison must be employed to identify the salient external and local forces that influenced differing industrial trajectories across the continent. To provide a broader continental perspective, I engage with existing studies on textile manufacturing in northern East Africa, specifically Ethiopia and Somalia, and in West Africa, with emphasis placed on geographically diverse and comparatively densely populated Nigeria, which housed a number of cloth centers in the forest, savanna, and Sahel zones ranging from south to north. Comparison highlights the importance of location-specific factors, particularly since the endowment makeup and local institutional structures of central and southern East Africa differed significantly from the more resilient textile centers in northern East Africa and West Africa.

This study engages both qualitative and quantitative sources to add new perspectives to an old debate. As a first step to investigating the implications of imported cloth for local industry, I have compiled a wide array of trade statistics to construct a hitherto absent database of cloth imports into, as well as commodity exports from, East Africa during the late pre-colonial and colonial periods, ranging from the mid-nineteenth to the mid-twentieth century.¹³ The pre-colonial data include imports from the three largest

¹² For East Africa, see, e.g., Davison and Harries (1980) and Clarence-Smith (2014). For West Africa, see, e.g., Johnson (1978) and Kriger (2006).

¹³ Official annual trade records were consulted to obtain the Indian and British share of nineteenth-century trade. These included various issues of the *Report on the commerce of Bombay, Annual statement of the trade and navigation of the Presidency of Bombay,* and *Annual statement of the trade of the United Kingdom with foreign countries and British possessions* held at the British Library in London. Similar nineteenth-century American reports do not provide details on trade with East Africa. However, the Peabody Essex Museum's Phillips Library (Salem, Massachusetts) holds shipping records that report outbound cargoes to East Africa – including quantities, values, and varieties of goods shipped – along with sales records at Zanzibar and subsequent purchases of East African products. These were combined with data derived from nineteenth-century arrival and departure records of US ships at Zanzibar documented by American consuls, available at the United States National Archives and Records Administration (College Park, Maryland), to quantify nineteenth-century American trade with East Africa. Pawełczak (2010, 25) notes that statistics on Zanzibar's commerce reported by the American consuls during the 1880s sometimes represented guesstimates. While

exporters of cotton cloth to East Africa during the second half of the nineteenth century – the United States, the United Kingdom, and India¹⁴ – while the colonial-era portion of the database (c. 1890s to 1940s) includes imports from all origins.

These data illustrate developments in the quantitative scale of per capita cloth imports into East Africa and also offer a valuable disaggregated view of the qualitative composition of imported cloth – including relative durability, aesthetic details, and origin – which is of vital importance given that different types of textiles were met with variable levels of consumer demand and filled very different use-value niches over time and across space. Prices of cloth imports (at coastal points of entry) have also been collected to gain a sense of the economic accessibility of cloth imports – relative to domestic cloth – for average East African consumers. In order to reflect the price of imported cloth in interior regions, coastal prices have been carefully inflated based on contemporary qualitative and quantitative sources that provide insight into regional transportation and transaction costs.

For the various case studies, numerous qualitative sources were consulted, including consular and colonial reports, private business records, and traveler accounts. British consular officials stationed in Zanzibar, East Africa's major nineteenth-century trade center, detailed the region's trade activity and local consumer demand patterns in diplomatic and consular reports sent annually to the Foreign Office. Similarly, American consular officials residing on Zanzibar sent details about East Africa's commerce to Washington, D.C., which were published annually in *Commercial relations of the United States with foreign countries*, while American sales agents documented much of the region's trade dynamics in detailed business correspondences housed at the Phillips Library in Salem, Massachusetts.

From the mid-nineteenth century onward, countless European travelers and (later) colonial officials traversed East Africa, providing accounts of their explorations and impressions of the societies they observed. Notable accounts, among many others, come from David Livingstone, the famed Scottish missionary who explored much of southern and central East Africa, including Malawi and Tanzania, between the 1840s and 1870s; Richard Francis Burton, an English explorer who provided his impressions of life and commerce in

imperfect, these annual data provide insight into the scale and composition of American trade with Zanzibar. British colonial data for both East and West Africa have been derived from governmental trade reports ("Blue books" and *Statistical abstracts for the several British oversea dominions and protectorates*) housed at the National Archives in Kew Gardens, while German colonial data has been borrowed from Rainier Tetzlaff's study on the social and economic history of German East Africa (Tetzlaff 1970).

¹⁴ Most of the cloth entering the interior during the nineteenth century was derived from India, the United States, and the United Kingdom. The pre-colonial data does not include comparatively smaller amounts of fancy cloth imported from Muscat and consumed principally by elites or the colorful *kanga* material produced in the Netherlands and largely exported by Germany beginning in the late nineteenth century, which was consumed primarily by coastal groups up to the early twentieth century. However, cloth of all origins are accounted for in the colonial-era datasets.

Zanzibar and the interior of what is today mainland Tanzania during the mid-nineteenth century; Henry Morton Stanley, a Welsh-American journalist who traveled through Tanzania in the 1870s; Harry Johnston, the first British colonial commissioner for the British Central Africa Protectorate, later called Nyasaland (modern-day Malawi); Adolphe Lechaptois, a French missionary stationed in Karema (western Tanzania) from 1891 to 1917; and Paul Fromm, a German army officer who detailed social and economic life in early twentieth-century Ufipa in southwestern Tanzania (see Livingstone 1866, 1857; Burton 1859, 1860, 1872; Stanley 1872, 1899 [1878], 1891; Johnston 1894; Lechaptois 1913; Fromm 1912).

These accounts must be taken with a grain of salt given the biased lens through which many nineteenth- and twentieth-century Western travelers viewed the African continent. However, read cautiously with and against the grain – with careful consideration of author bias and agenda – they provide a view of social and economic life throughout the region and offer insights into the scale and composition of imports into various interior East African locales, along with local production, demand, and consumption patterns, just as the region opened increasingly to external forces. In an effort to mitigate source bias and capture a broad view, each area-specific study engages a wide variety of accounts provided by observers of numerous nationalities – German, American, British, French, etc. – with diverse personal backgrounds and agendas, including, for example, missionaries, abolitionists, military personnel, colonial administrators, explorers, ethnographers, and merchants. Qualitative accounts derived from different periods and locations are carefully considered with respect to their unique perspectives given that global integration accelerated at different moments in time and proceeded differently in each locale across sub-Saharan Africa.

1.6 Organization of the Book

This book is organized primarily along spatial lines, with most chapters dedicated to tracing developments in a particular East African locale within a demarcated time frame, building up to a synthesized intra- and inter-regional comparison in the last substantive chapter. Chapter 2 zooms in on the Lower Shire Valley in southern Malawi, where the Mang'anja cotton cloth industry declined during the second half of the nineteenth century, concurrent with slave raiding in the area, causing traditional cloth exporting to the Lower Zambezi region in central Mozambique to rapidly halt. This case study tests the terms-of-trade propositions of Williamson (2011) – since the decline of the valley's cloth industry was closely followed by a rise in export-oriented agricultural production – and highlights the importance of factor endowments in influencing production choices. Chapters 3 and 4 trace the growth and spatial distribution of cloth imports into nineteenth-century Tanzania, the mainland center of East Africa's late pre-colonial global trade activity, which was largely facilitated by the adjacent island of Zanzibar. Specifically, Chapter 3 explores how rising

exports of commodities produced on and near the coast (e.g., cloves, gum copal and rubber) from the 1870s affected consumption of imported cloth in near-coast areas during the ensuing decades and considers implications for weaving on Zanzibar. Chapter 4 tracks cloth imports entering the deep interior of Tanzania in exchange for ivory via the coast-interior caravan system during the second half of the nineteenth century and investigates the relationship between this trade and the decline of cloth production by the 1880s in Unyamwezi, which supplied large numbers of caravan porters and housed Tanzania's primary interior entrepôt, Tabora. Chapter 5 closely examines industrial decline in Ufipa, situated in southwestern Tanzania's Rukwa region, which was also integrated into the nineteenth-century caravan trade system. Here, cloth production would wane in the first decade of the twentieth century, providing scope to investigate the impact of German colonial policy on local labor allocation choices. Chapter 6 places the central and southern East African case studies within a broader comparative framework. Finally, Chapter 7 concludes by reflecting on how local and external forces interacted in sub-Saharan Africa to influence locally unique nineteenth- and twentieth-century industrial trajectories and then considers potential implications for contemporary development.

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CHAPTER 1

APPENDIX 1: Cloth Imports into East and West Africa, 1850-1941 – Sources and Methods

Introductory Note

I have compiled cloth imports into East and West Africa in a database that includes aggregated region-level imports, as well as more precise colony-level data. In some cases quantities were inferred from import values and cloth prices, although in many cases quantities were directly reported in the sources. Annual import quantities were divided by population estimates from Frankema and Jerven (2014) to obtain per capita import figures.

(a) East Africa, 1850-1900 (aggregated region-level data): A dataset of East Africa's cloth imports for the period 1850-1900 was constructed by aggregating annual data collected from various sources reporting exports of the United States, United Kingdom, and India to the region broadly encompassing modern-day mainland Tanzania, Rwanda, Burundi, Kenya, Uganda, Ethiopia, Somalia, Malawi, Mozambique, and Zambia. These three countries were the principal exporters of mass-produced, factory-made cotton cloth to East Africa during the second half of the nineteenth century. Their trade with the region thus provides a reliable estimate of the scale of per capita imports during this period. While much of the cloth exported to East Africa during the nineteenth century was initially imported into Zanzibar and then subsequently redistributed to the mainland, data on direct trade between the mainland and exporting countries has also been included in the database wherever possible.

The United States share of this trade was derived from consular trade reports, as well as records from private American merchant firms engaged in trade with East Africa via Zanzibar. The annual Indian share of exports (specifically from Bombay, which dominated the subcontinent's cloth trade to East Africa during the second half of the nineteenth century) to both Zanzibar and the mainland was derived from the *Report of the commerce of Bombay* and *Annual statement of the trade and navigation of the Presidency of Bombay*. Additionally, Bombay-exported yardage for 1861-1865 was calculated using total Bombay cloth export values to Zanzibar, reported by Sheriff (1987, 249-252), and corresponding prices for English cloth, which was Bombay's principal cloth export to East Africa until the 1870s. The annual share of cloth exports to East Africa (both via Zanzibar and directly to the mainland) from the United Kingdom was derived from the *Annual statement of the trade of the United Kingdom with foreign countries and British possessions*.

(b) East Africa, 1890s-1941 (colony-level data): Colony-level cloth imports into Malawi (British Central Africa Protectorate/Nyasaland), Tanzania (German East Africa/British Tanganyika), and Somalia (specifically Italian Somaliland) from the 1890s to 1941 were collected from official government reports ("Blue books" and Statistical abstracts for the several British oversea dominions and protectorates), other contemporary reports (Robecchi Bricchetti 1899, 84, 86; Chiesi 1909, 347), and secondary literature (Tetzlaff 1970, 293).

- (c) West Africa, 1855-1900 (aggregated region-level data UK exports only): Cloth import data for West Africa during the second half of the nineteenth century were derived from British exports to the region (which includes Liberia, the Gambia, Sierra Leone, the Gold Coast, Lagos, and Nigeria, along with the numerous "French Possessions" in West Africa). Data were collected from the Annual statement of the trade of the United Kingdom with foreign countries and British possessions. While this dataset unfortunately does not include yardage from other exporters, it does reflect that British exports alone to West Africa far surpassed the combined per capita cloth exports to East Africa from United Kingdom, the United States, and Indian during the same period.
- (d) British West Africa, 1900-1938: The colonial region of "British West Africa" was comprised of Nigeria, the Gold Coast, Sierra Leone, and the Gambia. Total yards of cloth (from all origins) imported into the region were compiled or, for some years, estimated by dividing reported import values by appropriate cloth prices using Statistical abstracts for the several British oversea dominions and protectorates (import values and quantities) and the Annual statement of the trade of the United Kingdom with foreign countries and British possessions (cloth prices for 1900-1915).

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Chapter 2: An Industry Vanishes: Cotton Cloth Manufacturing in Malawi's Lower Shire Valley, 1850-1930¹

2.1 The Disappearance of Mang'anja Cloth

In the late 1850s, David Livingstone entered the Lower Shire Valley in the south of what is today Malawi (colonial-era Nyasaland) and marveled at the prodigious manufacture of *machila* (or *machira*) cloth made from local cotton.² From at least the sixteenth century, the durable unbleached cloth was the valley's primary regional export commodity. It was used to obtain iron agricultural implements from the nearby Shire Highlands and for trade with the more distant Lower Zambezi region, along the Mozambique portion of the Zambezi River, where hand-woven cloth was the "single most important trade item" (see Fig. 2.1).³

[Figure 2.1 Here]

Fig. 2.1 Map of the Lower Shire Valley and surrounding areas

During the 1860s, production and export of Mang'anja cloth rapidly halted and subsequently failed to regain footing, while similar labor-intensive cloth industries successfully continued in other parts of sub-Saharan Africa well into the twentieth century. Indeed, as other chapters illustrate, cloth production persisted in parts of neighboring Tanzania up to the early twentieth century and continued to thrive in much of northern East Africa and West Africa well into the post-colonial period (see, e.g., Clarence-Smith 2014; Alpers 2009, 79-97; Johnson 1978; Aronson 1980). The deindustrialization theories outlined in Chapter 1 maintain that increasing integration into global markets – and resulting competition from imported cloth – prompted industrial decline in places like the Lower Shire Valley. In the case of the valley, in particular, Mandala points to the deindustrializing impact of international trade (Mandala 1990, 43-44, 293n137). However, broad global market forces also affected regions where handicraft industries *persisted*, suggesting that

¹ A version of this chapter has been published as Katharine Frederick (2017), "Global and local forces in deindustrialization: The case of cotton cloth in East Africa's Lower Shire Valley," *Journal of Eastern African Studies* 11(2): 266-289.

² For descriptions of *machila* production in the mid-nineteenth century, see Livingstone (1866, 114, 123-124) and Foskett (1965, 240-241).

³ A number of scholars have noted the trade of *machila* cloth in the Shire and Lower Zambezi regions (Davison and Harries 1980, 187 (quoted); Alpers 1975, 25, 55; Mandala 1990, 48-49; Machado 2005, 109-110).

additional factors must be taken into account to explain the disappearance of textile manufacturing in the Lower Shire Valley.

This chapter argues that the valley's deindustrialization was prompted primarily by local factors that were influenced in part by global market forces. This process occurred over two broad contiguous periods but was only cemented during the second. Production was initially disrupted in the 1860s when regional slave raiding, driven by global demand for slave-produced commodities, temporarily threw the valley into chaos and halted cotton cultivation and cloth production. At the same time, local drought conditions led to an unprecedentedly severe famine. The resulting devastation of the Mang'anja population produced lasting effects on the local labor supply, which influenced production choices in the decades that followed.

The second phase of deindustrialization began in the mid-1870s when raiding subsided in the valley. Village life resumed, but organized cloth production did not. This chapter argues that this sectoral shift was not prompted primarily by global market forces or competition from imported cloth, but by an increase in productive land relative to diminished labor. In the mid-1870s, a long-term drop in Shire River dry-season levels exposed large tracts of exceptionally fertile riverbed in the valley. With a contracted population and no extant slave-labor institutions to shore up diminished local labor supplies, villagers responded to the new factor-endowment ratio by abandoning community-based labor-intensive industry in favor of higher-productivity, household-based cash-crop farming. The labor supply issue was solved, but the valley's economic activity narrowed, creating a dependence on agricultural exports. The situation was markedly different in regions with larger populations and slave-labor institutions, particularly in West Africa and northern East Africa, where cloth production and cash-crop cultivation flourished simultaneously and enjoyed sectoral linkages.

The case of the Lower Shire Valley illustrates that a synthesis of global and local forces, and a careful unpacking of their respective and interrelated influences, is crucial for understanding deindustrialization processes. When considered in comparative perspective, this case study suggests that cloth production was more likely to continue in African regions with relatively large populations and coercive labor institutions, which provided ample labor and substantial local markets for domestic cloth. Areas with more constricted labor sources, like the Lower Shire Valley, were more inclined to abandon cloth production in favor of less labor-intensive alternative production opportunities geared toward global markets.

2.2 Global Trade: Driver of Industrial Decline?

Theories of deindustrialization overwhelming point to global forces as the principal drivers of industrial decline. Williamson argues that nineteenth-century global demand prompted an "industrialization-driven great divergence" when "peripheral" regions reallocated labor from industry to primary production as European manufacturing productivity and demand for raw materials increased, creating strong terms of trade for primary products relative to imported manufactures (Williamson 2011, 27). Dependency theorists have reasoned that large-scale imports of manufactured goods undermined existing local industries through increasing market competition and diversion of labor to non-productive activities, like ivory and slave hunting, to procure sought-after imports. Other theorists have highlighted the role of colonial forces in driving African production choices.⁴ In his work on the Lower Shire Valley, which provides valuable context for the study of the region, Mandala has brought attention to local factors, highlighting the role of environmental forces in influencing local decision making amid external pressures (Mandala 1990, 7-11, 94-95, 270-272). However, regarding domestic industries, he focuses on the "onslaught of foreign imports" as the cause of industrial decline and highlights "the impact of merchant capital on the cloth industry," which, in his view, "was so devastating that some oral historians today deny that the Mang'anja ever made cloth from cotton" (Mandala 1984, 148; 1990, 293n137). More generally, he suggests that, along with cloth manufacturing, the local production of pottery, salt, and iron "declined as manufactured products penetrated rural markets" (Mandala 1982, 30).⁵

The domestic textile industry would indeed vanish during the second half of the nineteenth century, a process documented by European observers. Livingstone, who had reported extensive cloth production in the valley in the late 1850s, noted rapid disruption of industry in the early 1860s as a result of severe regional unrest that would plague the valley through the mid-1870s (Livingstone 1866, 381). While Buchanan witnessed some weaving in the nearby Shire Highlands in 1876, Morrison observed in the early 1880s that Mang'anja villagers were using bark cloth if they could not obtain imported cotton cloth (Buchanan 1885, 127-128; Morrison cited in Mandala 1990, 92). In the early 1890s, colonial commissioner Harry Johnston noted the absence of what was once "universal" cotton cultivation for local cloth production (Johnston 1894). This rapid decline of the valley's domestic textile industry was affected in part by outside forces but in different ways than global-focused theories have supposed.

⁴ See section 1.2 in Chapter 1 for an extended discussion of externally oriented deindustrialization conceptualizations.

⁵ For more on the impact of merchant capital and imports on domestic industry, see Mandala (1990, 43-44, 56, 92).

Trade data suggest that the presence of imported cloth could not have been the principal driver of deindustrialization in the Lower Shire Valley. Cloth imports into the region only took off in the last decade of the nineteenth century, well after the virtual disappearance of Mang'anja cloth production by the early 1880s. As Fig. 1.3 in Chapter 1 illustrates, a gradual increase of cloth imports into East Africa occurred from the 1850s, when foreign cloth was acquired in the East African interior primarily via ivory exports. Ivory, however, was not a traditional Mang'anja export good, nor were the terms of trade for ivory (relative to imported cloth) particularly favorable in the interior.⁶ Furthermore, as the next chapter illustrates, much of the growth of cloth imports into East Africa during the last quarter of the nineteenth century was tied to an increase in exports of coastal products (cloves, gum copal, rubber, etc.), and imports were principally comprised of flimsy British-and Indian-made cloth rather than the durable unbleached American-made cloth (Swahili: *merekani*) that was strongly favored throughout the East African interior (for interior preferences, see Burton 1872, 484; Portal 1892, 11; Cave 1899, 14).

Even if cloth imports had heavily penetrated the valley earlier on, the mere presence of imported cloth did not automatically spell disaster for local manufacturing. As Fig. 1.3 shows, imports per capita were comparatively higher in West Africa, where cloth production flourished in many places, like Kano in northern Nigeria, into the twentieth century.⁷ In northern East Africa, too, weavers in Mogadishu on the Benadir Coast and throughout Ethiopia retained their foothold in regional markets well into the twentieth century, sometimes by adapting products to compete with foreign varieties (Alpers 2009, chapter 5; Pankhurst 1968, 261). In the interior-situated Lower Shire Valley, by contrast, although cloth imports arrived more slowly, production ceased during the last half of the nineteenth century, and the former cloth-producing Mang'anja turned to agricultural production for global export. The Lower Shire Valley, Mogadishu, Kano, and much of Ethiopia were all traditional cloth-producing areas confronted with similar global forces. Importantly, however, their local circumstances differed markedly, particularly with respect to their population levels and labor institutions, which dramatically impacted the nature of their respective regional responses to global stimuli.

The Heckscher-Ohlin theorem of international trade points directly to local conditions as the major determinant of production and trade choices, proposing that resource allocation is governed by specific local factor endowments as a country or region will choose to produce and export goods that intensively utilize the factor that is locally

⁶ Mang'anja involvement in professional ivory hunting was reportedly very limited. Rather, elephants were primarily hunted as a food source (Mandala 1990, 40). For a discussion on terms of trade for ivory in the interior, see Chapter 4 of this book.

⁷ Imports into West Africa were even higher than depicted in Fig. 1.3 since the statistics for West Africa only include British cloth imports.

most abundant (Krugman, Obstfeld, and Melitz 2012, 80). In line with the Heckscher-Ohlin theorem, this chapter argues that an alteration in local factor endowments in the Lower Shire Valley – brought about by local demographic and environmental change – precipitated the abandonment of cloth production. However, these local production choices were made within the context of the local institutional framework and a changing global trading landscape.

The following section describes the decline in the Mang'anja population as a result of mid-nineteenth-century slave raiding and famine. Contemporary discussion comes from European travelers whose abolitionist agendas no doubt colored their writing. However, the regional population drain from slave raiding must have been great, as an official report from Zanzibar noted that nearly 80 percent of the slaves imported into the slave-trading island entrepôt in 1860 came from the Lake Nyasa area, resulting in significant depopulation.⁸ Further, slave trading was a common feature in Ethiopia, the Benadir Coast, and northern Nigeria, but an associated severe attenuation of local populations and industrial decline was not similarly reported in these regions by European travelers. Taken with a grain of salt, these reports provide insight into the causes of the Lower Shire Valley's population decline and its consequences for production choices.

2.3 Slave-Raiding and Socio-Economic Disorder

In nineteenth-century Mang'anja villages, individuals from different households worked together to produce handicraft industrial goods, including cloth, with women and children often cleaning cotton and women sometimes spinning it into thread, while men regularly spun and invariably wove (Mandala 1990, 41). Subsistence agriculture, conversely, was organized on the household (*banja*) level and involved both *mphala* dryland and *dambo* wetland fields. Village-adjacent dryland fields were cultivated under the rain-fed *munda* system, while fertile wetland fields on the marshy banks of the Shire River required no rain under the drought-resistant *dimba* system. The wetland fields were annually refreshed with alluvial river deposits during the wet season and then exposed for cultivation during the dry season, which typically lasted up to six months (June to December, with the first rains arriving in November) until the mid-1870s. These two ecosystems facilitated two different, sometimes overlapping agricultural seasons (Mandala 1984, 139-142).

However, the Lower Shire Valley temporarily became what Johnson (1974, 181) has referred to as a "disaster economy" – in which producers must abandon extra-subsistence activity to focus on survival – in the 1860s and 1870s when villages were regularly attacked

⁸ An estimated 15,000 of the 19,000 slaves annually brought to Zanzibar in the early 1860s were "from the neighbourhood of the great lake of Nyassa [...] this miserable traffic is [...] depopulating vast tracts of fertile country" (Rigby 1861, 9).

by slave raiders seeking labor for Indian Ocean slave-plantation islands. Villagers left behind all "they possessed, except the little they could carry on their heads" and sought refuge on small islands in the Shire River, where cultivation opportunities were limited (Livingstone 1866, 381; Mandala 1990, 76).⁹ Livingstone lamented, "[Villages] were all deserted: one where we [...] two years before [...] saw a number of men peacefully weaving [...] was burnt" (Livingstone 1866, 381; see also Rowley 1969 [1867], 112). Disorder caused by raiding disrupted the relationship between Mang'anja households and village-communities, undermining work-group industry. Further, when villagers fled to river islands, they left behind their cotton plants, which grew exclusively in dryland fields since river wetland fields were, historically, not sufficiently dry for a long enough annual period to allow cotton plants to reach maturity (a full six months).

More still, multi-year drought conditions led to a severe famine from 1862 to 1863, intensified by the disruption of cultivation (Mandala 1990, 7, 44, 76-78). Visitors reported, "The river-banks, once so populous [were] all silent [...] an oppressive stillness reigning where formerly crowds of eager sellers appeared with the various products of their industry [...] The sight and smell of dead bodies was everywhere" (Livingstone 1866, 475; see also Rowley 1969 [1867], 363-386; Foskett 1965, 595). In this context, any available labor energy was focused entirely on producing what little food could be grown on river-island refuges. It was reported that in many cases, villagers were too exhausted to even attempt to cultivate food crops (Livingstone 1866, 481-482). Any labor-intensive cotton and cloth production was undoubtedly halted given that cloth – unlike food – was not a survival necessity in the temperate valley. Indeed, James Stewart, who visited in the midst of this chaos thought that Livingstone must have exaggerated the extent of the valley's industry.¹⁰

The combined crisis of slave raiding and famine devastated the region's population. In 1860 alone, roughly 15,000 captives were taken from the area and its surroundings to be sold at Zanzibar – which Livingstone points out did not include those slaves taken to Portuguese ports – while the 1862-63 famine resulted in many deaths (Rigby 1861, 9; Livingstone 1866, 412). Contemporary estimates of the decline in the valley's population

⁹ To the north, villagers sought protection from armed Makololo immigrants, who subsequently established authoritarian control. This study focuses on the independent south, which retained autonomy.

¹⁰ Mandala notes that Livingstone had motives to present the valley's cotton cultivation in a positive light but also points out that Stewart visited precisely when productivity-stalling famine and slave raiding had begun to ravage the region in 1862-63 (Mandala 1990, 41-43, 293n139, 294n140). John Kirk, a botanist accompanying the Livingstone expedition, gave a detailed description of regional cotton cultivation from 1858–60 that supports Livingstone's favorable account. He reported that in the Lower Zambezi region, where already "the slave trade and war ha[d] combined to desolate this rich country," only some wild cotton was found growing. But in the Lower Shire Valley, which was at that time not yet besieged by slave raiding, he reported extensive cotton cultivation for the "manufacture of cloths [which] all engage in [...] from the chief to the poor people" (Kirk 1861, 25, 28).

range from 50 percent to an undoubtedly over-stated 90 percent (Anderson-Morshead 1897, 39; Rowley 1969 [1867], 384). Regardless of the precise mortality figures, it was reported that "Labor had been [...] completely swept away from the Great Shire Valley" (Livingstone 1866, 496). While slave raiding and drought-induced famine were only temporary disruptions, they produced lasting consequences. The resulting population drop would profoundly influence labor-allocation choices in the decades following the decline of slave raiding.

Furthermore, raiding likely affected the Mang'anja gender balance as raiders often targeted females for use as slave-wives and agricultural laborers (Livingstone 1866, 220, 224, 498; Rowley 1969 [1867], 92-93; McCracken 2012, 32). Consequently, even if Mang'anja cloth production had immediately resumed in the post-slave-raid period, a relative decline in females might have created an input supply bottleneck given that women were reportedly involved in labor-intensive cotton cleaning and spinning processes.¹¹ Perhaps more importantly, a gender imbalance may have placed more of the subsistence-agricultural labor burden on men, diminishing available time for male non-agricultural activities, including weaving, while simultaneously impeding the reproduction of the region's labor force in the long run.

2.4 The Role of Foreign Imports Revisited

Local disorder, brought on by a combination of external demand for slave-produced commodities and local environmental forces, accounted for the initial disruption of cloth manufacturing in the valley. But why didn't the industry resume with vigor after slave raiding diminished by the late-1870s? Mandala (1990, 47-48) points to the steady loss of traditional regional export bases for Mang'anja-produced cloth due to foreign competition. Cloth imports into colonial Nyasaland would only take off toward the end of the nineteenth century (see Fig. 1.3 in Chapter 1). Imported cloth had penetrated some parts of southern East Africa earlier on, particularly in Portuguese Mozambique, where imports of Indianmade cloth – which was regularly used as a form of currency – were reportedly encouraged as a means of enhancing imperial profits (Davison and Harries 1980, 187).¹² Thus, Mang'anja-made cloth may have indeed faced competition in the Lower Zambezi region. Eventually, competition with foreign cloth may have affected regional export markets closer to home. Vaughan notes that as the second half of the nineteenth century progressed, long-distance trade activity began to enable "the acquisition of exotic goods" in the nearby Shire

¹¹ According to Mandala (1984, 141), women in the Lower Shire Valley spun yarn and men wove cloth. Elsewhere, however, he reports that male labor dominated in all aspects of cloth production with occasional female assistance (Mandala 1990, 41; see also Livingstone 1866, 114, 124).

¹² For imported cloth as currency in the Lower Zambezi region, see Machado (2005, 110, 170, 243) and Livingstone (1857, 635).

Highlands to which the Mang'anja of the valley had traditionally exported much of their cloth in exchange for iron goods (Vaughan 1982, 355-356).¹³

At face value, it seems plausible that the presence of foreign cloth in traditional Mang'anja export areas may have compromised the valley's industry. But in other parts of sub-Saharan Africa, weavers responded to competition not by closing shop but by adapting and expanding. In his study of the textile industry of Mogadishu during the nineteenth and twentieth centuries, Alpers illustrates that incorporation into "the world capitalist system of production and exchange" helped inspire industrial developments in spite of portents by contemporary "doomsayers" predicting failure in the face of competition (Alpers 2009, 80). Similar responses have been identified in resilient cloth industries in nineteenth- and twentieth-century Java and India (Roy 2013; van Nederveen Meerkerk 2017). Furthermore, Alpers (1975, 25) has noted that Mang'anja machila cloth had long existed alongside and even competed with Indian cloth imports in the Lower Zambezi region because of the domestic cloth's unique durability, which he suggests undercuts the "assertion that it could not stand the pressure of foreign competition." Moreover, a loss of export markets would not account for the valley's decline in production for *local* consumption, especially since a substantial increase in the area's cloth imports did not occur until the end of the century, decades after the cloth industry deteriorated.

Rather, local influences must be considered, particularly changes in the valley's landlabor ratio. A decline in the local population not only reduced available industrial labor but also diminished the *local market* for Mang'anja-produced cloth. In more densely populated northern East Africa and West Africa, in contrast, larger local markets demanded more product (see Chapter 6). Furthermore, just as the Lower Shire Valley's population declined, local environmental changes substantially altered agricultural production possibilities. This helped generate "alternative employment opportunities" in cash crop production extending into what had once been the traditional non-agricultural season, a development that Johnson pinpoints as a common driver of textile deindustrialization in sub-Saharan Africa (Johnson 1978, 267).

2.5 Land and Labor in the Lower Shire Valley

Just prior to the decline of regional slave raiding in the late 1870s, ecological changes began in the valley, which affected the Mang'anja dryland–wetland cultivation system as village life resumed. From the mid-1870s to the 1930s, dry-season Shire River levels dramatically decreased, thus annually exposing increasingly larger tracts of exceptionally fertile wetlands for cultivation. Likewise, water levels of Lake Nyasa (today Lake Malawi),

¹³ The Mang'anja of the valley would eventually begin importing foreign-made iron goods using cash-crop profits (Nyasaland Protectorate 1911, 5).

which feeds the Shire River, steadily declined from the mid-1870s (Nicholson 1998, Appendix A; Sieger 1887). As of 1910, the dry-season depth of the Shire River was little more than one foot (0.3 meters) (Mandala 1990, 6-7). "Formerly the highway into Nyasaland," a colonial official reported, "[the Shire] cannot be regarded as a navigable river" (Murray 1922, 67). This stands in stark contrast to Livingstone's account from the early 1860s, which cites two fathoms (3.7 meters) as the lowest observed depth, corresponding to dry-season depths during the 1930s when the river suddenly returned to its pre-1870s level (Livingstone 1866, 88; for rising levels in the 1930s, see Mandala 1984, 154).

Furthermore, the increasingly larger wetland fields were exposed for progressively *longer* seasonal periods. The wetland agricultural season, which had historically lasted no more than six months, covered roughly three quarters of the year by the 1880s.¹⁴ However, this ecological shift was not associated with a decline in the region's rainfall, which would have impaired dryland cultivation. Rather, Lake Nyasa water levels, which determine Shire River levels, were largely affected by rainfall patterns further north in southern Tanzania (Nicholson 1998, 218-222). Villagers effectively boosted household agricultural capacity by developing a three-season system, including rainy-season cultivation of *mphala* dryland fields along with two consecutive *dimba* wetland cultivation periods during the river's elongated dry season. The once-per-annum labor required to clear freshly exposed wetlands thus now facilitated two planting cycles.¹⁵ Agricultural production for both subsistence and export came to dominate the entire Mang'anja year. Further, economic activity came to be more family oriented rather than village oriented, with agriculture largely pursued on the household level, while industrial tasks, like cloth production, had traditionally been undertaken in village workgroups (Mandala 1990, 37, 93).

Local ecological changes clearly influenced production choices. However, taken alone, environmental change cannot adequately explain the abandonment of cloth production. In fact, geological evidence reveals that the Shire River had experienced many decades-long periods of diminished dry-season levels, even as recently as the early nineteenth century (Nicholson 1998, 214-216; 1981, 258-259). However, earlier ecological shocks had not generated a permanent redistribution of industrial labor hours to agriculture. I argue that this response was occasioned by the almost *simultaneous* decline in the Mang'anja population. A change in the valley's land-labor ratio significantly altered both industrial and agricultural production possibilities and strongly influenced the choice to abandon industry in favor of export-oriented cultivation. And for the Mang'anja, who knew

¹⁴ In the early 1860s, Rowley noted that the marshlands were wet from roughly early November to early May (Rowley 1969 [1867], 62). Twenty years later, however, flood waters were only persisting from late December to March (Mandala 1990, 7).

¹⁵ For wetland clearing and planting methods and the development of a three-season system, see Mandala (1990, 7, 58-59, 94-95; 1982, 27-28).

from past experience that periods of river-level decline could last a lifetime, an economic transition centered around wetland exposure must have seemed a rational response to the altered circumstances.

In the period following the famine and slave raiding that severely depopulated what Livingstone (1866, 483) had previously described as a "well-peopled valley," Mang'anja production strategies undoubtedly hinged on the most productive application of remaining labor. In Mang'anja villages, labor scarcity was not shored up with slave labor. Institutions of slavery were generally weak in the decentralized valley, while a system of penal servitude (ukapolo) that had once existed had faded by the time the valley emerged from the chaos of slave raiding. Sena people began moving into the valley in the 1890s, but Mang'anja villagers did not typically enslave or employ these immigrants, who settled in sparsely inhabited areas previously controlled by slave raiders (Mandala 1990, 32-36, 95-97; Rowley 1969 [1867], 62-63). Labor in the valley was thus largely confined to diminished villagecommunity members, unlike in Mogadishu, Ethiopia, and Kano, where slavery and other forms of servile labor were common and integrated into the textile industry. Ethiopia, for example, lost an estimated one-third of its population to severe famine and disease epidemics from 1888 to 1892, but this series of events produced no fundamental reorientation of economic activity akin to the deindustrialization of the Lower Shire Valley (McCann 1995, 91). In more densely populated Ethiopia, population decline did not generate labor depletion with the same severity experienced in the Lower Shire Valley, partly because Ethiopian areas that did experience significant shortages were sent laborers from newly conquered southern regions (Pankhurst and Johnson 1988, 54, 56).

The Logic and Impact of Cash-Crop Production

As village life resumed in the Lower Shire Valley following the decline of raiding, Mang'anja households began introducing cash crops into their fields, particularly sesame oilseeds demanded in Europe to produce cooking oil (Mandala 1990, 93; McCracken 2012, 88). Mang'anja households were taking advantage of increasing agricultural production possibilities on expanding wetlands in an effort to maximize their sharply diminished labor resources by funneling labor previously applied to labor-intensive industry toward agriculture. An observer recalled how villagers "took [oilseeds] down, in their large dug-out canoes, to the Zambesi to sell to the Banian traders" (Murray 1922, 44). Eventually, the development of colonial-era railways would better connect the Lower Shire Valley to global markets, linking Port Herald with Sena in Mozambique and onward to Beira on the Indian Ocean coast by 1922 (see Fig. 2.1). This, according to McCracken, helped ensure more favorable prices "than those obtained in less fortunately situated [...] areas further north" (McCracken 2012, 198; on the Central African Railway, see Murray 1922, 71). Williamson's theory of deindustrialization would suggest that the valley's sectoral shift from industry to export-oriented agriculture was motivated by improved terms of trade as global demand for primary products increased. Curiously, however, oilseed terms of trade (relative to imported *merekani* cloth) had actually *dropped* in the years preceding the valley's turn to export-oriented agriculture in the 1870s (see Fig. 2.2). Oilseed prices declined (see Fig. 2.3), while global raw cotton and cloth prices increased due to a global "cotton famine" precipitated by the American Civil War (Farnie 1979, 162). Although a subsequent decrease in cloth prices provided a modest boost for oilseed terms of trade in the second half of the 1870s, declining oilseed prices reversed these gains in the 1880s. It was only during the 1890s, well after cloth production had already been abandoned in the valley, that oilseed terms of trade experienced a substantial rise.

[Figure 2.2 here]

Fig. 2.2 Terms of trade for oilseeds, 1846-1910 (1902 = 100). *Sources*: Global oilseed prices: Sauerbeck (1886, 1894, 1905, 1917); price of unbleached *merekani* cloth: Sheriff (1987, 253-256); Great Britain (1906, 1926); shipping and trade records collected from the MH 23, MH 235, MSS 901, and MSS 24 series, Peabody Essex Museum, Salem Massachusetts, USA. *Note*: The base year (1902) reflects a period of global trade stability.

[Figure 2.3 here]

Fig. 2.3 Oilseed price index, 1846-1910 (1902 = 100). *Source*: Sauerbeck (1886, 1894, 1905, 1917). *Note*: The base year (1902) reflects a period of global trade stability.

Why, then, did villagers turn to export-oriented sesame cultivation? Why not instead retool the domestic cloth industry and adapt to compete with foreign imports in regional markets? Or, alternatively, disengage from export markets entirely as village life recommenced following the decline in slave raiding, resuming cloth and agricultural production but only for subsistence? I suggest that in the face of altered factor endowments – particularly diminished labor – the transfer of labor from industry to agriculture was influenced by the relative labor demands of the two products at hand.

First, sesame oilseed cultivation is generally less labor intensive than cotton cultivation (Tosh 1978, 428; 1980, 85-86). In the Lower Shire Valley, dryland-produced cotton demanded considerable weeding labor, particularly since the short native *thonje-kaja* cotton could not be intercropped due to overshadowing by taller food crops. Harvest was also time-consuming since *thonje-kaja* cotton adhered tightly to its seeds (Mandala 1990, 55).¹⁶ Secondly, oilseeds are a single-stage product, while cloth production requires not only cotton cultivation but also highly labor-intensive manufacturing (cleaning, spinning, and weaving). As Livingstone (1866, 397) remarked before slave raiding disrupted production:

From the amount of native cotton cloth worn [...] it is evident that a goodly number of busy hands and patient heads must be employed in the cultivation of cotton, and in the various slow processes through which it has to pass, before the web is finished in the native loom.

Clothing the valley's inhabitants required considerable labor. Based on contemporary reports, a two-man team could produce one square yard of cloth in 16 hours.¹⁷ Roughly 112,500 yards were likely consumed annually in the valley based on early colonial-era consumption habits (five yards per capita) and the population in 1895 (22,500).¹⁸ Multiplying this by the hours required to weave one yard yields 1,800,000 annual hours to produce sufficient cloth for the domestic market alone. This excludes the labor hours applied to cleaning cotton and what Livingstone (1866, 124) described as the "painfully slow" process of spinning it into yarn. Deindustrialization freed this labor for agricultural activity.

Moreover, labor applied to agriculture was becoming progressively more productive due the expanding availability of highly fertile wetlands. By transferring what had once been labor hours used for industry to increasingly productive agriculture, villagers could consume some (imported) cloth – using new cash-crop profits – without expending the region's depleted labor on labor-intensive cloth-making. However, a significant rise in the consumption of imported cloth would await the 1890s when cash-crop profits increased as

¹⁶ A taller foreign species was also noted by Livingstone, but the native *thonje-kaja* was preferred "because it makes a stronger cloth" (Livingstone 1866, 123).

¹⁷ James Stewart reported that two men working four four-hour days (that is, 32 man-hours) could weave a one-by-two yard cloth (Wallis 1952, 155 cited in Mandala 1990, 41). Thus, an estimated 16 man-hours were required per square yard.

¹⁸ For estimated per capita consumption levels in the valley, see per capita imports into Nyasaland (Malawi) reflected in Fig. 1.3. For the valley's population in 1895, see Mandala (1990, 95, 309n151).

the region came under British colonial rule and Indian merchants began to trade more extensively in the Lower Shire Valley (McCracken 2012, 88-89).

Importantly, export-oriented agriculture could only have arisen if labor-scarce Mang'anja households could simultaneously achieve food security. Sesame was an ideal initial cash-crop choice, requiring relatively little labor and doubling as an emergency food source.¹⁹ Additionally, cash-crop production could threaten food security in areas with short planting seasons by diverting resources from subsistence production (Tosh 1980, 84-86). But the extension of the valley's wetland planting season had mitigated this problem; at the same time, labor-saving intercropping techniques – which minimize both weeding tasks and the incidence of plant disease – allowed villagers to cultivate oilseeds with a variety of subsistence crops in the same drought-resistant wetland fields, a method that was not possible with the short *thonje-kaja* cotton plant.²⁰ The Mang'anja thus fully maximized their diminished labor supplies, producing export goods and ensuring greater food security than would have been possible had labor reverted back to its pre-1860s industry-agriculture division.

Changing production patterns also affected gender and generational dynamics in Mang'anja households. With the disappearance of village-community industrial workgroups and the rise of household cash-cropping, spouses now shared in export-oriented output, working their fields together. Agricultural tasks even became more gender-neutral as male tree-felling responsibilities, for example, diminished in importance as shifting dryland cultivation progressively declined. Spousal power relations consequently evened to some extent in monogamous households as women claimed more equal income control, regularly accompanying their husbands to market their product. However, at the same time, institutional controls over youth labor were extended, and non-agricultural activity, including schooling, was strongly discouraged. While this tack guaranteed agricultural labor, it undoubtedly contributed to restricting the range of possible Mang'anja economic activities and consequently heightened the valley's dependence on cash crops (Mandala 1982, 30-31; Davison 1993, 410).

2.6 The Return of Cotton

¹⁹ Like the Mang'anja, the Langi in Uganda had initially produced cash-crop oilseeds partly because they could serve as a food source (Tosh 1978, 428). Decades later, when production of non-edible cash crops took off in the Lower Shire Valley, villagers reportedly often neglected export-oriented crops to focus on food production (Nyasaland Protectorate 1909a, 12; 1909b, 9; 1921, 7).

²⁰ Intercropping significantly reduces labour inputs relative to sole cropping (i.e., growing different crops in separate fields) since weeding is performed in a single operation. Meanwhile, the greater ecological diversity of intercropped fields helps prevent plant disease, increasing overall yield potential (Richards 1985, 66-69). A variety of food crops were cultivated together in the same fields in the valley (see, e.g., Livingstone 1866, 123; Murray 1922, 70).

Oilseed exports and cloth imports surged in the mid-1890s, partly stimulated by the increasing presence of foreign merchants, who facilitated greater global integration of the region. In the early 1890s, Indian merchants who had focused on trade in the Lower Zambezi area in the preceding decades moved into the south of modern-day Malawi, encouraged by armed peace in the region with the imposition of British colonial rule in 1891 (McCracken 2012, 88). Of at least equal importance, however, was the implementation of colonial taxes in the newly established British Central Africa Protectorate (later renamed Nyasaland). In the early 1890s, a hut tax was imposed to raise revenue and generate wage labor for European plantations. The Mang'anja circumvented plantation labor by instead increasing household sesame cultivation to pay taxes and take advantage of increasing trading opportunities (Mandala 1990, 94, 111-132). A Nyasaland administrator complained that it was difficult to induce the cash-crop farmers to provide labor since they "find it so easy to obtain the small sum of money needed to pay hut tax" (Sharpe 1901, 13-14).

However, oilseed exports soon declined. Recurrent early-twentieth-century drought conditions forced villagers to focus on food security, and it was reported in 1906 that oilseeds were no longer "specially cultivated for export," presumably retained for local consumption (British Central Africa Protectorate 1907, 5).²¹ A brief resurgence in oilseed exports was followed by a transition to increasingly more lucrative export-oriented cotton production in the 1920s, as the Mang'anja again reallocated available labor, this time from sesame cultivation to cotton cultivation (see Fig. 2.4). This was likely tied to price shifts: just as oilseed prices stagnated and declined, cotton prices rose (see Fig. 2.5). It seems that, over time, as the valley's economy became increasingly dependent on cash-crop exports, Mang'anja production choices had become more sensitive to global demand patterns.

[Figure 2.4 here]

Fig. 2.4 Villager-grown sesame oilseed and lint cotton exports, 1897-1939. *Sources*: Sesame oilseed exports: British Central Africa Protectorate (1898-1905); Nyasaland Protectorate (1908-1935). Lower Shire Valley villager-grown cotton (originally reported as seed cotton, which weighs approximately three times more than de-seeded lint cotton): Mandala (1990, 137, Table 4.1); cotton exports for the years 1902 and 1904 (indicated by white data points) are colony-wide export figures derived from British Central Africa Protectorate (1903, 1905).

²¹ Drought conditions regularly affected the valley in the early twentieth century, with limited rainfall in 1900-1901, 1907-1908, 1911-1913, 1920-1923, 1927, and 1933-1934 (Mandala 1990, 176).

[Figure 2.5 here]

Fig. 2.5 Unit prices of sesame oilseeds and raw cotton, 1902-1938. *Sources*: Prices for raw cotton and sesame oilseeds are calculated from values and quantities reported in British Central Africa Protectorate (1903-1905); Nyasaland Protectorate (1908-1935); Great Britain (1926, 1935, 1939).

The initial disruption of cloth production in the tumultuous 1860s had been linked with the sudden desertion of cotton fields, which, according to Livingstone (1866, 123), "every family of any importance own[ed] [and] carefully cultivated" before the slave raids. Cotton remained neglected for decades before making its dramatic comeback. Whereas European settler-produced cotton failed in the Shire Highlands, abandoned in favor of tobacco, Mang'anja villagers and recent Sena immigrants succeeded in the valley. Cotton exporting dominated the valley economy until the late 1930s (Green 2012, 11, 21; McCracken 2012, 90-91). Cotton cultivation was encouraged by the British Cotton Growing Association, which distributed Egyptian and American Upland seeds (Mandala 1990, 127-128). The colonial government, eager to secure cotton for British looms, also made efforts to guarantee prices at which "it pays to cultivate" (British Central Africa Protectorate 1905, 10; 1906, 13).

However, as Mandala (1990, 7) points out, the transition to export-oriented cotton cultivation was enabled by local environmental factors. By the early twentieth century, the extended dry season made it possible to cultivate cotton in fertile wetland (as opposed to dryland) fields prior to the annual floods. Although cotton cultivation was more labor-intensive than sesame cultivation, yields of wetland-produced cotton were extraordinarily high: a one-acre dryland field yielded roughly 70 pounds of cotton, while one acre of wetlands yielded approximately 300 pounds. Furthermore, while the short native *thonje-kaja* cotton species was traditionally grown in separate fields to avoid over-shading by other crops, Sena immigrants began planting taller foreign cotton species intercropped with food plants by 1909, dramatically diminishing the weeding labor demands and food security limitations of cotton cultivation (Mandala 1990, 55, 135, 139-140). After a half-century hiatus, cotton had regained its position in the Mang'anja economy, but as a global export rather than a local industrial input.

A Renaissance of Local Cloth?

In spite of the growing availability of cotton cloth's requisite raw material, Mang'anja villagers continued to focus their labor on agriculture, pursuing no renaissance of the local cloth industry. According to Austin, cotton cloth production traditionally faced an agricultural-season "labor bottleneck" that limited raw cotton supplies, as allocating more labor to cotton cultivation threatened food-crop output (Austin 2008, 597-598, 603). However, by the 1920s, ecological changes and cultivation innovations in the valley had enhanced agricultural productivity, and food crops grew alongside unprecedentedly large cotton yields. Why, then, did the reappearance of cotton in the Lower Shire Valley fail to stimulate yet another economic shift, with some labor reallocated back to industry to revive cloth production for home consumption and external trade?

To begin with, export-oriented cotton cultivation did not take off in the valley until nearly half a century after traditional textile production - and associated skill reproduction had virtually disappeared. Consequently, there was no existing cloth industry to benefit from the twentieth-century resurgence of cotton cultivation. In much of West Africa, by contrast, cloth manufacturing had continued *alongside* the rise of cash-crop production, creating sectoral linkages, as cultivators provided raw materials, while global-export earnings stimulated demand for both imported and local cloth among prospering producers and traders (see Chapter 6). Similarly, in northern East Africa, domestic cloth production in Ethiopia continued to thrive even as imports of cotton cloth and exports of hides, skins, and coffee were bolstered by the opening of the Ethio-Djibouti Railway in the early twentieth century (Pankhurst 1968, 261, 336). Here, cloth imports were generally used to make trousers, while local weavers continued to supply togas. In the already deindustrialized Lower Shire Valley, however, growing demand stimulated by increasing cash-crop profits was met exclusively by foreign cloth. In fact, the initial rise of cash-crop agriculture had essentially required the demise of industry in the context of scarce labor, thereby depriving the valley of the possibility of agricultural-industrial linkages enjoyed in more labor-rich regions.

The failure to resume cloth production and take advantage of potential sectoral linkages was influenced by increased opportunity costs of cloth production in the valley, particularly after environmental shifts had made profitable cotton exporting possible. A twentieth-century resumption of cloth production would have diminished export profits, with cotton diverted from global markets to local producers. As global demand pushed up cotton prices during the first quarter of the twentieth century, while regional demand for Mang'anja cloth had long since evaporated, greater profits could be realized by allocating labor to increasingly productive cash-crop cultivation on fertile wetlands than would have been possible had labor been reallocated back to labor-intensive industry. As a counter-example elsewhere in the Global South, *diminished* agricultural opportunities in Java –

caused by land constraints – encouraged a 1930s resurgence of labor-intensive cloth-making (van Nederveen Meerkerk 2017, 1238).

Moreover, in the Lower Shire Valley, the staggered scheduling and increasing annual length of the dual-ecosystem agricultural season required male and female labor year-round, often in both dryland and wetland fields, with a colonial-era observer noting in the 1930s, "There is no period of the year when the Lower River native is not occupied with some work in his garden" (Mandala 1990, 94-95, 134; 1984, 149). There was now scarce time for what had once been a lower-opportunity-cost industrial activity during the previously longer agricultural off-season.

Higher agricultural productivity levels relative to industry no doubt impacted earlytwentieth-century production choices. Southern East African cloth production had traditionally relied on hand-spinning and comparatively low-productivity fixed-heddle ground looms (Livingstone 1866, 124; Davison and Harries 1980, 181). More sophisticated labor-saving methods had not been developed or adopted before the Mang'anja cloth industry declined for a number of possible reasons. First, time-consuming industrial labor had not impeded other vital activities during the historically longer agricultural off-season, so there was little incentive to markedly enhance industrial productivity; second, demandstimulating cash-crop production had not yet developed and encouraged a related increase in industrial output, as occurred elsewhere in sub-Saharan Africa; and third, the valley's cloth output had, in any case, been historically limited by the relatively low output of nonintercropped dryland cotton, which competed with food crops.²² The cloth industry had already disappeared before the agricultural off-season shortened, before cash-crop profits stimulated increased cloth demand, and before intercropped wetland-cultivated cotton overcame the old input bottleneck, any of which could have inspired more efficient methods. In other parts of Africa, robust cloth industries served growing demand by achieving economies of scale through labor-saving innovations. These included, for example, large cloth-dyeing vats in northern Nigeria, treadle looms in West Africa and northern East Africa, and spinning wheels on the Benadir Coast (Shea 1974; Kriger 2005; Alpers 2009, 81-82).

Further, in these more resilient cloth-producing regions, slave-labor institutions helped mitigate labor constraints, allowing industrial-input cultivation and local manufacturing to continue alongside food and export-crop production (Kriger 1988, 54; Alpers 2009, 81-85). Internal use of slaves in West Africa increased during the nineteenth century with the cessation of the trans-Atlantic slave trade, and by the mid-nineteenth century, plantation slave labor often supplied raw materials for textile industries in places

²² This reasoning is inspired by Austin (2008, 603).

like the densely populated, centralized Sokoto Caliphate (Lovejoy 1978). Similarly, on northern East Africa's Benadir Coast, cloth production was supported by slave-produced raw material inputs in the nineteenth century – later replaced by imported yarn – while rural plantations supplied food, freeing up labor hours for urban weavers (Alpers 2009, 83-85, 88-90; Sheriff 1987, 71-72).

In the Lower Shire Valley, by contrast, slave-labor institutions were already weak by the first half of the nineteenth century and had largely vanished by the time the valley began to recover from the slave-raid era of the 1860s and 1870s (Mandala 1990, 97). In fact, as the valley's inhabitants continued to apply as much household labor as possible to subsistence and cash-crop cultivation, colonial Nyasaland went through a textile consumer revolution, with demand for labor-saving finished items on the rise by the 1920s. Unfinished cloth imports into Nyasaland were progressively replaced with ready-made apparel, while in more diversified, labor-abundant economies, like Ethiopia, foreign and local cloth was often finished by professional tailors (Nyasaland Protectorate 1928, 11-12; Pankhurst 1968, 261-262). Relatively high labor availability thus facilitated multi-sectoral economies in parts of northern East Africa and West Africa, while economic activities progressively narrowed in the labor-scarce Lower Shire Valley.

2.7 Evaluating Global and Local Factors

The case of the Lower Shire Valley's defunct cloth industry highlights the relationship between local and global factors in guiding development outcomes and shows that the role played by global forces was different and less decisive in the valley than deindustrialization theories suggest. When considered alongside other sub-Saharan African cases, this study reveals how diverse local contexts within the "periphery" generated very different responses to broad global processes.

Importantly, the case of deindustrialization in the valley illustrates how the purportedly damaging role of foreign imports has been overemphasized in dependency theory arguments. Cloth imports only took off in the Lower Shire Valley decades after the process of deindustrialization was complete. Imported cloth may have circulated sooner in the Lower Zambezi region, a traditional Mang'anja cloth export base, but this was not a crucial mechanism in the deindustrialization of the valley. After all, cloth industries in both West Africa and northern East Arica faced competition from foreign imports earlier and in greater quantities but competed very effectively with – and were even stimulated by – imported machine-made cloth. Likewise, the theorized role of favorable agricultural terms of trade as a primary motivator for deindustrialization and cash-crop production in the Global South does not hold in the case of the Lower Shire Valley. Global terms of trade for oilseeds had actually declined relative to cloth just before the valley abandoned cloth

production in favor of export-oriented sesame cultivation in the second half of the nineteenth century. A substantial improvement in oilseed terms of trade occurred only in the late-1890s, decades after the domestic cloth industry had deteriorated.

Rather, the choice of Mang'anja villagers to permanently abandon cloth production can best be explained by shifting local conditions, particularly a sharp decline in labor immediately preceding an increase in fertile land. Within this altered local context, laborintensive cloth production had simply become less feasible relative to agricultural production for subsistence and export. In the more densely populated regions of West Africa and northern East Africa, larger labor supplies and expansive internal markets allowed cloth production to thrive alongside cash-crop agriculture as rising incomes stimulated further demand for domestic and foreign cloth. The already comparatively large populations of these regions were further augmented by slaves, whose additional labor simultaneously provided industry-supporting inputs, food sources, and export commodities.

The valley's altered factor-endowment ratio was partly influenced by global forces, especially the growth in global demand for slave-produced commodities. But the ultimate impact was conditioned by the local context. In the valley, destructive and disruptive slave raiding interacted with multi-year drought conditions to produce a deadly famine that resulted in stark attenuation of the Mang'anja population. Northern East Africa also experienced severe famine in the late nineteenth century, but large populations and entrenched servile labor systems helped mitigate labor deficiencies in the period that followed. In fact, the centralized Ethiopian state sourced fresh labor from newly conquered regions. This was not possible in the decentralized, labor-scarce Lower Shire Valley, where forced labor institutions were historically weak and had virtually disappeared by the 1870s. When combined with rapidly intensified labor scarcity, the environmentally contingent emergence of rich, cultivable land tipped the valley's factor-ratio balance in favor of exportoriented cultivation and deindustrialization. This illustrates how, as posited by Mandala, environmental conditions can influence social and economic outcomes within the parameters of the local institutional and historical context.

By the beginning of the colonial period, Mang'anja production choices became increasingly sensitive to global forces as the valley's economy had come to depend heavily on agricultural exporting. The adoption of oilseed production in the 1870s and 1880s had largely been a response to local circumstances, but the early-twentieth-century abandonment of oilseeds in favor of raw cotton exporting was in large part a response to global market opportunities. Again, however, local environmental developments had made the transition possible. With respect to colonial forces, British institutional policies and agendas did not directly influence deindustrialization. However, certain colonial schemes – including seed distribution and guaranteed raw cotton prices – did provide incentives for

villagers to continue focusing labor on household-based agricultural production for subsistence and export crops rather than working on European plantations or pursuing a reinvigoration of the cloth industry as raw cotton supplies increased in the twentieth century.

However, the choice to forgo reindustrialization is also linked to local circumstances. Prior to deindustrialization, historically contingent local factors had likely disincentivized the adoption of more efficient cloth production techniques that might have made a reverse reallocation of some labor from export-oriented agriculture to cloth production more feasible and profitable. More efficient methods had been developed to supply large populations in places like Nigeria and Ethiopia, where cloth production thrived well into the twentieth century and benefitted from demand-enhancing sectoral linkages.

Household-based cash-crop agriculture remained the keystone of the Mang'anja economy until the valley's factor-endowment ratio - and, thus, production possibilities again changed. At the end of the 1930s, the cash-crop economy collapsed when the dambo wetlands became once again submerged as the Shire River suddenly returned to its pre-1870s annual dry-season level with the breakup of a large sandbar at the mouth of Lake Nyasa. At nearly the same time, the Great Depression caused global cotton prices to slump. Increased sensitivity of the valley's economy to global market forces strongly intensified the effects of local ecological change, and the impact was harsh and far-reaching. The nowundiversified valley economy was unable to absorb the local shock of diminished land and the global shock of falling prices, and many Mang'anja men turned to labor migration. Formerly balanced gender power relations became skewed in favor of males as women lost their stake in raw cotton exporting and were often forced to rely on male family members for economic assistance (Davison 1993, 411). Food security was regularly compromised as villagers now depended primarily on drought-sensitive dry-lands (Mandala 1990, 7, 189). Thus, over the course of less than a century, the interaction of local and global forces had produced numerous significant social and economic transformations in the valley, including the decline of industry, the rise of export-oriented agriculture and, eventually, the breakup of Mang'anja households and villages.

As this case study has illustrated, the deindustrialization of the Lower Shire Valley occurred *before* imports of foreign-made cloth began to increase substantially. In the deep interior of neighboring Tanzania, in contrast, industrial decline would occur later, in the midst of increasing cloth imports into East Africa. As a starting point for uncovering how rising import levels ultimately affected domestic cotton textile industries in Tanzania, the following chapters take a close look at the scale, composition, and distribution of foreign-

made cloth in the region during the nineteenth century and identify factors that influenced these import patterns.

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Chapter 3: Rise of the Coastal Consumer: Coast-Side Drivers of East Africa's Cotton Cloth Imports, 1830-1900

3.1 Zanzibar and the Central East African Coastline

For much of the second millennium, East Africa engaged in modest trade with the Indian Ocean world, but beginning in the mid-1830s, the region's participation in global trading began to change in unprecedented ways as the island of Zanzibar, adjacent to the central East African Swahili coastline, rapidly became the "key to trade" in East Africa under the tutelage of the Sultan of Oman (Speer 1862, 30-31).¹ European and American traders began flocking to the island to purchase East African products demanded by emerging industries and increasingly worldly consumers. In exchange, the island entrepôt imported manufactures – especially cotton cloth from the United States, India, and the United Kingdom² – which were largely re-exported to the adjacent mainland coast, with a portion taken deep into the interior to exchange for ivory via a network of caravan routes through what would eventually become German East Africa (see Fig. 3.1).³

[Figure 3.1 here]

Fig. 3.1 The central East African coast and interior in the nineteenth century. *Not*e: The colonial borders illustrated here would only emerge in the finals decades of the century. Caravan routes are based on Rockel (2006, Map 0.1).

¹ William S. Speer, "Report on Zanzibar," 1862, RG 59, Volume 3509 (Book 4), National Archives and Records Administration, College Park, USA (hereafter NARA).

² French and German merchants also traded in nineteenth-century Zanzibar, but the French brought few manufactures, while the majority of German exports were not consumed throughout the mainland (Rigby 1861, 24; Glassman 1995, 51). There are, however, two notable exceptions: German-exported muskets and gunpowder, which competed with American munitions from mid-century; and Dutch-printed, German-exported *kangas*, which became popular on Zanzibar and the mainland coast toward the end of the century. For munitions, see William H. Jelly to the owners of *Lucia Maria*, 13 February 1850, Box 11, MH235, Peabody Essex Museum, Salem, Massachusetts, USA (hereafter PEM); Edward D. Ropes to John Bertram, 5 May 1867, Box 3, Folder 1, Correspondence No. 104, MSS 104, PEM. For *kanga* exports, see section 3.5 below.

³ For the development of Zanzibar's commercial activity, see Sheriff (1987).

This chapter argues that the scale and composition of nineteenth-century foreignmade cloth imported into East Africa was heavily influenced by a series of changes in trade and production along the East Africa coast, including Zanzibar, and in the coastal hinterland.⁴ To begin with, merchant correspondences suggest that early import growth was driven in part by hyper-competitive practices of opposing trading groups on Zanzibar, particularly American merchants who brought high-quality unbleached cotton cloth referred to locally as merekani.⁵ As Prestholdt points out, "increasing commodification of produce and people" did begin stimulating demand for imported cloth in East Africa already by the 1840s (Prestholdt 2008, 75). However, trade data suggest that a massive commodificationdriven boom in demand and consumption of foreign-produced cloth would await the 1870s (see Fig. 3.2), which saw a precipitous rise in the export of coastal and coastal hinterland products – especially cloves, gum copal, rubber, and hides and skins – which stimulated consumption on and near the coast. Imports of both the durable American-made merekani cloth – which had developed a persistent following in the interior of East Africa – and of more expensive luxury cloths were quickly surpassed by imports of lower-quality, but cheaper Indian-made and, to a lesser degree, British-made cloth.

[Figure 3.2 here]

Fig. 3.2 Cloth exports to East Africa from the United Kingdom, United States, and India, 1836-1900. *Sources*: See Appendix 1. *Note*: Indian and British figures include direct exports to Zanzibar and other East African destinations, especially Mozambique. American figures reflect direct exports to Zanzibar, where American trade was concentrated.⁶

The rapid increase in cloth imports from the 1870s was partly tied to rising trade with the interior via caravan routes as exports of interior-derived ivory likewise increased

⁴ Pawełczak identifies a narrow and broader coastal hinterland (Pawełczak 2010, 18-19). In the context of this study, the general "coastal hinterland" includes both and extends up to 200-300 km inland. Additionally, I use the term "near-coast interior" to refer to the inland areas lying roughly 300-400 km from the coastline, while the term "deep interior" is used to indicate everything beyond this point.

⁵ For clarity, the term *"merekani"* is used only in reference to the original American-made unbleached cloth.

⁶ American trade with Mozambique was limited. American traders were discouraged already in the 1830s by what Salem merchant Edmund Roberts saw as "exorbitant" Portuguese tariffs "particularly on the American trade" (Edmund Roberts, "Voyage from Muscat to Mozambique," mid-1830s, Box 2, Reel 1, Edmund Roberts Papers, Library of Congress, Washington, DC (hereafter LOC); see also United States 1858, 185). Americans complained about "various vexatious" extractive activities in Mozambican ports up to the end of the century (Allen 1896, 271). Direct American trade with the Benadir ports on the Somali coast picked up from the 1880s, but figures for this trade are unavailable.

(see Chapter 4), but was more strongly linked, I argue, to burgeoning consumption of coastal and coastal hinterland producers. The aim here is not to revive the "long tyranny of the coast" over East African historiography (Roberts 1968, v). Rather, it is to demonstrate that the uptick of cloth into East Africa during much of the second half of the nineteenth century should not be overwhelmingly attributed to an inflow of cloth into the interior. Indeed, much of the plain cloth imported into East Africa must have remained at or near the coast to compensate emerging producer groups, many of whom could not afford much of the more exotic and luxurious imports – so-called "cloths with names" – which cost three to 100 times more than simple monochromatic imports.⁷ Lower-income consumers instead sated much of their consumption desires with plainer variants that were often embellished through stamp-printing and dyeing within East Africa, especially prior to the late-century expansion in imports of printed *kanga* cloth. Consequently, this analysis focuses primarily on the plain, monochrome cloth imports at the lower end of the spectrum, which comprised the majority of East Africa's nineteenth-century cloth imports.

This chapter concludes by considering how the importation of large quantities of cloth into Zanzibar affected weaving on the island. Contrary to the received wisdom of deindustrialization theories, which suggests that imports undermine local industries, global trade integration helped stimulate the development of a textile industry on Zanzibar during the nineteenth century. Enterprising weavers, who were producing turbans for local consumers by the mid-1830s, began adding fashionable borders to imported cloth by the 1840s and weaving indigo-dyed cotton cloth for coastal markets by the 1860s, using Indian-produced raw cotton and yarn, which was imported in rapidly increasing quantities from 1870. Cloth-making activities persisted through the island's heyday as East Africa's principal trade entrepôt.

3.2 American Competition and the Rise of Merekani

As late as 1834, Zanzibar's trade was "very trifling," amounting to exports of "a little gum and ivory [...] with a few cloves" and imports of "dates, and cloth from Muscat to make turbans."⁸ Trade ramped up with the arrival of American merchants, who dominated East Africa's Zanzibar-centered international trade from the mid-1830s. Between 1832 and 1835, for example, American vessels trading at Zanzibar shipped 5,497 tons of merchandise, while the British shipped 1,403 tons, and French and Spanish merchants brought only 340 and 319

⁷ For a discussion of these higher-grade imported textiles, see Fee (2017).

⁸ Captain Hart of the H.M.S. Imogene (1834) quoted in Burton (1872, 469).

tons, respectively (Roberts to Forsyth, 10 October 1835). American trading primacy on the island would persist up to the start of the American Civil War in 1861.⁹

Initially, Americans exported large amounts of specie, and the trade goods they did carry were ill-suited for the East African market (Waters to Pingree, 7 December 1833; Sheriff 1987, 92).¹⁰ But as the decade progressed, American merchants found their export niche: unbleached cotton cloth.¹¹ Along with brass wire, muskets, gunpowder, tobacco, and soap, they began shipping increasing quantities of durable *merekani* cloth, which came to be "the foundation of all [American] Zanzibar business" and quickly dominated the Zanzibar market (Goodhue to Seward, 28 September 1863).¹² The British share in the cloth trade was minimal during this period, although dyed cloth exported by India maintained an important position in the market (Bennett 1961, 32; Burton 1859, 429-430). Unbleached merekani became particularly instrumental for inland-bound caravans seeking ivory from the interior, where a steadfast preference for the American cloth - often referred to as "domestics" developed and would persist well into the twentieth century (see Chapter 4). Alongside other imported goods and traditional interregional trade goods, merekani quickly became an essential commodity currency circulating in the interior of central East Africa, where trade caravans exchanged the cloth for ivory tusks, food, water, and the right to safely pass through territories (Burton 1859, 442; Cave 1899, 14; Rockel 2006, 220).¹³

By the close of the 1830s, American merchants had established a system of credit whereby vessels arriving at Zanzibar left bales¹⁴ of *merekani* cloth and other American goods with resident Indian sales agents before departing for other Indian Ocean destinations, particularly Mocha, Aden, and Muscat, where they exchanged still more *merekani* for dates, coffee, and hides. Back on Zanzibar, agents bartered the American manufactures for consignments of East African products, which were later loaded onto American ships making return stops to the island before heading homeward (Sheriff 1987, 96).¹⁵

¹⁴ Bales varied in size, but usually consisted of 750 to 800 yards of cloth.

⁹ Edmund Roberts to John Forsyth, Secretary of State, 10 October 1835, Box 3, Reel 2, Edmund Roberts Collection, LOC.

¹⁰ John Waters to David Pingree, 7 December 1833, Box 75, Folder 7, MSS 901, PEM.

¹¹ For the introduction of *merekani* cloth and its rapid ascendancy over competitors, see Prestholdt (2008, 73-75) and Sunseri (2007, 211).

¹² Letter from William W. Goodhue to William H. Seward, 28 September 1863, reproduced in Bennett and Brooks (1965, 523).

¹³ Cloth currency in the interior is discussed in detail in Chapter 4.

¹⁵ For the Indian Ocean trading destinations and cargoes of American ships, see shipping records from MH 23, MH 235, MSS 901, and MSS 24 series, PEM; "Arrival and Departure of American Vessels, Jan 1 1857 to June 29 1894," RG 84, Volume 084, NARA.

The Price of Competitive Trade

Merekani was remarkably well received in East African markets - reportedly "preferred to any other manufactured goods" by 1851 – and certainly crucial for the interior ivory trade, but contemporary sources suggest that, perhaps more than a rapid ascent of local demand, it was aggressive trading games that had the strongest hand in influencing the mounting supply of cloth imported into Zanzibar during this early period of increasing global integration. Correspondences between American trading firms, Zanzibar sales agents, and ship captains reveal how American trading tactics forced up the supply of cloth during the heyday of American trade with Zanzibar (c. 1830-1861). In spite of the American cloth's popularity, by the 1840s the Zanzibar cloth market was – seemingly paradoxically – regularly depressed, and demand was often stagnant, even during periods when both prices and cloth stocks were low. For example, in 1851, while an American consular clerk at Zanzibar had reported to the US Secretary of State that American-made cottons were "most in demand" relative to other cloth imports, an American merchant in Zanzibar regretfully sent word to the home enterprise in Salem, Massachusetts that cloth "stocks in the market [are] small, but [there is] no demand for them." Three months later, in April 1851, he again reported that the market was still in "a rather depressed state" in which "cottons work off slowly" and had thus decided not to land the entire cargo of an arriving ship at Zanzibar, "as the prospect is she will be likely to realise as much or more elsewhere." Hope remained that demand would pick up once the rains ended and the copal trade on the coast increased, but this was not to be the case. As of July 1851, there was "not one article which we can recommend as likely to give a profit," as supply outpaced demand. The following year, a depressed Zanzibar market experiencing "no demand for cottons" was again reported, and it was noted that cloth stocks were "working off slowly."¹⁶

Oversupply problems were in large part a consequence of fierce competition that had quickly erupted among foreign traders at Zanzibar, particularly between members of rival American merchant firms headquartered in the small northeastern American town of Salem from which 80 percent of American vessels entering Zanzibar hailed between 1832 and 1835 (Bennett 1959, 256; Bennett 1961, 32, 44-47).¹⁷ An enduring pattern developed in which merchants of competing concerns purposefully paid higher prices for East African exports in an effort to preemptively force up prices (usually in terms of imported

¹⁶ Quotations in this paragraph are derived from the following correspondences: George Abbot to Secretary of State Daniel Webster, 12 March 1851, RG 59, Volume 3508 (Book 3), NARA; William H. Jelly to George West, 27 January 1851, Box 10, MH 235, PEM; William H. Jelly to George West, 26 April 1851, Box 10, MH 235, PEM; William H. Jelly to Ephraim Emmerton, 19 July 1851, MH235, Box 23, PEM; S.R. Masury to George West, 5 February 1852, Box 10, MH 235, PEM; S.R. Masury to George West, 9 March 1852, Box 10, MH 235, PEM.

¹⁷ For vessels entering Zanzibar from 1832 to 1835, see "List of Foreign Arrivals in the Port of Zanzibar from the 16th Septem. 1832 to 26th May 1835," Box 4, Reel 3, Edmund Roberts Collection, LOC.

manufactures, especially cloth) for competitors known to be en route to Zanzibar (Jelly to owners of *Lucia Maria*, 28 July 1849).¹⁸ American merchants also undercut European buyers of goods like gum myrrh simply to "prevent it going to England" (Shepard to Webb, 22 October 1849).¹⁹ Similarly, in 1870, American merchants complained that ivory prices had been punitively forced up by German buyers angered by American purchases of orchilla weed (Webb to Bertram, 22 January 1870; Webb to Bertram, 18 April 1870).²⁰ Thus, steadily increasing prices of Zanzibar's exports relative to foreign manufactures were significantly affected by the artful and often vindictive dealings of traders.

American competitors were especially aggressive in the cloth trade. One captain wrote that, although cloth prices at Zanzibar were thoroughly depressed, he sold at still lower prices, for it was "good policy to crowd the Zanzibar market to leave no opening there" (Webb to Shepard, 8 December 1849).²¹ Such tactical maneuvering resulted in an almost permanent overstocking of imported goods, especially unbleached American cloth, in the decades preceding the American Civil War as Salem merchants sent ever-larger quantities at progressively lower prices, a dynamic that was amplified by increasing output of New England textile mills and rising competition for East Africa's exports.²² By the 1840s, sales agents at Zanzibar were advising American firms to send much smaller quantities in the hopes of staving off a fall in cloth prices in Zanzibar,²³ but ships continued to arrive with larger loads (see Fig. 3.3). As the decade advanced, Zanzibar trade was often "overdone," with sales of American exports frequently reported as "dull" (Waters to bin Khalfan, 1 July 1843; Jelly to owners of *Lewis*, 26 September 1849).²⁴ But American merchants persisted in their competitive practices, holding out for a major upswing in demand that would only come decades later.

[Figure 3.3 here]

¹⁸ William H. Jelly to the owners of *Lucia Maria*, 28 July 1849, Box 11, MH 235, PEM.

¹⁹ Michael Shepard to Francis Webb, 22 October 1849, Box 4, Folder 4, MH 23, PEM.

²⁰ Francis Webb to John Bertram, 22 January 1870, Box 3, Folder 2, MSS 104, PEM; Francis Webb to John Bertram, 18 April 1870, Box 3, Folder 1, MSS 104, PEM.

²¹ Francis Webb to Michael Shepard, 8 December 1849, Box 4, Folder 4, MH 23, PEM.

²² For rapidly rising New England textile output from 1826 to 1860, see Davis and Stettler (1966, 221).

²³ See, e.g., a letter from Richard P. Waters to John G. Waters, 2 September 1843, reproduced in Bennett and Brooks (1965, 246).

²⁴ Richard P. Waters to Said bin Khalfan, 1 July 1843, reproduced in Bennett and Brooks (1965, 245); William H. Jelly to the owners of *Lewis*, 26 September 1849, Box 9, MH 235, PEM.

Fig. 3.3 Exports of *merekani* from the United States to Zanzibar, 1836-1865. *Sources*: Shipping and trade records from MH 23, MH 235, MSS 901, and MSS 24 series, PEM; "Arrival and Departure of American Vessels, Jan 1 1857 to June 29 1894," RG 84, Volume 084, NARA; William S. Speer, "Report on Zanzibar," 1862, RG 59, Volume 3509 (Book 4), NARA.

The situation came to a head during the 1850s, which saw the peak of American trade dominance on Zanzibar. Prices for cloth had increased on the American market at the start of the decade as the price of raw cotton shot up by 75 to 100 per cent (Shepard to Bates, 20 January 1850).²⁵ And although it was clear on Zanzibar that "cottons in this trade at present prices in such quantities must prove a ruinous business," American merchants had locked themselves into a competitive pricing game from which none would disengage (Bates to Shepard, 24 March 1850).²⁶ Stocks of imported *merekani* continued to swell, while East African demand did not (yet) expand apace. American sales agents on the island beseeched merchants at home to curb their competition and reduce shipments to the saturated East African market (Jelly to Emmerton, 19 July 1851; Bennett 1961, 47, 52).²⁷ But the advice was largely ignored for fear that "others by our over-caution may obtain advantage over us" (West to Cloutman, n.d. January 1852).²⁸ To compound matters, by the early 1850s, Salem merchants were progressively losing their control over American trade with Zanzibar. Ships from Providence, Boston, and New York increasingly arrived with their own loads of *merekani*.²⁹

In 1851, Indian merchants in Zanzibar had reportedly refused to buy cloth cargoes for distribution, for they were "obliged to retail them at the same as they give for them, and often times for less" as imported stocks continued to exceed local demand (Jelly to Emmerton, 19 July 1851).³⁰ Salem agents in Zanzibar even began purchasing the cloth of competing American shipping concerns off the Zanzibar market to boost sales opportunities for their affiliates sailing to Zanzibar (Masury to West, 4 May 1852).³¹ But it did little good. As one captain reflected, the Zanzibar market had become "anything but promising"

²⁵ Michael Shepard to Capt. Wm. B. Bates, 20 January 1850, Box 11 Folder 2, MH 23, PEM.

²⁶ William B. Bates to Michael Shepard, 24 March 1850, Box 11, Folder 2, MH 23, PEM.

²⁷ William Jelly to Ephraim Emmerton, 19 July 1851, MH235, Box 23, PEM.

²⁸ George West to Capt. Stephen Cloutman, n.d. January 1852, Box 23, MH 235, PEM.

²⁹ For mounting pressures with the arrival of non-Salemite ships and calls for cooperation between the Salem companies, see William Jelly to Ephraim Emmerton, 19 July 1851, MH235, Box 23, PEM. Bennett has pointed out that while the increasing arrival of American trade ships drove down sales prices for American merchants, the influx of foreign-made merchandise was a considerable boon for the Zanzibar Customs Master (Bennett 1959, 256; Bennett 1961, 44).

³⁰ William Jelly to Ephraim Emmerton, 19 July 1851, MH235, Box 23, PEM.

³¹ William Masury to George West, 4 May 1852, Box 23, MH 235, PEM.

(Waters to West, 2 February 1852).³² The problem of oversupply relative to demand persisted into the late 1850s, which saw imports from the United States "so excessive that considerable losses have been submitted to [...] there is nothing that can be sent here from the U. States which is likely to pay a profit" (Mansfield to Cass, 31 December 1857).³³

Northern and Southern Markets

American trading firms stationed merchants not only on Zanzibar, but also in strategic locations on the Arabian Peninsula, Madagascar, and Mozambique (Bennett 1961, 53). Efforts were made to cope with lackluster demand and low cloth prices on Zanzibar by re-exporting large loads of imported cloth to these other markets (McMullan to Shepard, 23 June 1848).³⁴ Although prices for *merekani* had declined throughout the western Indian Ocean trading world from the 1830s, prices at Arabian Peninsula ports, where demand for *merekani* remained more buoyant, were consistently higher than in Zanzibar, as reflected in Table 3.1 (see Webb to Fabens, 2 February 1844).³⁵ This trend would continue until at least 1870 (Webb to Bertram, 19 July 1870).³⁶ Madagascar and the Comoros Islands also provided a valve for overflowing Zanzibar stocks, frequently absorbing "a good pack of the stock" and "somewhat relieving the market" (Jelly to owners of *Lucia Maria*, 22 February 1849; Jelly to West, 23 March 1850).³⁷

[Table 3.1 here]

Sources: shipping and trade records from MH 23, MH 235, MSS 901, and MSS 24 series, PEM. *Note*: Prices are reflected in \$US. ³⁸

*Figures derived from a single shipping record observation

³² Robert H. Waters to George West, 2 February 1852, Box 10, MH 235, PEM.

³³ Letter from Daniel H. Mansfield to Lewis Cass, 31 December 1857, reproduced in Bennett and Brooks (1965, 502).

³⁴ William McMullan to Michael Shepard, 23 June 1848, Box 7, Folder 1, MH 23, PEM.

³⁵ Letter from John F. Webb to Benjamin F. Fabens, 2 February 1844, reproduced in Bennett and Brooks (1965, 247).

³⁶ Francis Webb to John Bertram, 19 July 1870, Box 3, Folder 3, MSS 104, PEM.

³⁷ William H. Jelly to the owners of *Lucia Maria*, 22 February 1849, Box 11, MH 235 (first quote); William H. Jelly to George West, 23 March 1850, Box 9, MH 235, PEM (second quote). See also William McMullan to Michael Shepard, 23 June 1848, Box 7, Folder 1, MH 23, PEM; William H. Jelly to the owners of *Lucia Maria*, 13 February 1850, Box 11, MH 235, PEM.

³⁸ The value of the US dollar was nearly equal to the Maria Theresa thaler (\$MT) circulating on the coast, at \$MT 1.00 = \$US 0.972 in 1862. William S. Speer, "Report on Zanzibar," 1862, RG 59, Volume 3509 (Book 4), NARA, 57.

While it may seem to have been ostensibly wiser for American merchants to redirect their trade entirely to ports with higher demand for *merekani*, demand in the United States was particularly high for exports shipped from Zanzibar, including gum copal used to make varnishes (Pingree, Waters, and West to Waters, 22 February 1844; West to Waters, 9 October 1851).³⁹ However, by the 1850s, the situation had become so dire that some American vessels avoided landing cloth on Zanzibar altogether and instead took their cloth cargoes straight to other western Indian Ocean destinations (Jelly to owners of *Lucia Maria*, 13 February 1850).⁴⁰

Higher prices at Arabian ports may have been partly indicative of stronger demand for American cloth in northern East Africa, which developed an deep-rooted preference for *merekani* (Portal 1892, 11, 32; Powell-Cotton 1902, 512). A late-nineteenth-century American commercial report noted that *merekani* imports into Aden "cross to the African coast into Somaliland, Abyssinia, and Eritrea, whence they are carried to the interior by camel caravans to Harrar and other places 300 and 400 miles from the coast" (Cunningham 1899, 957; see also Stace 1893, 5). This flow of goods likely extended back to the midnineteenth century, when expensive Ethiopian slaves were in particularly high demand in Muscat, for example, which often shipped its *merekani* imports to the entrepôt of Aden (Buckingham 1829, 92; Wellsted 1838, 389).⁴¹ Thus, to some degree, lackluster midnineteenth-century demand on Zanzibar and the adjacent central East African mainland may have helped stimulate increased consumption of *merekani* cloth in northern East Africa, where local cloth production evolved alongside these foreign imports.⁴²

A Supply-Demand Incongruity

The re-export of cloth from Zanzibar to northern Arabian ports and Madagascar probably did provide some relief for the glutted Zanzibar market. However, even when supplies decreased in Zanzibar – as in April 1849 when the stock dropped to 100 bales (roughly 7,500 to 8,000 yards) after 600 bales had been shipped to Madagascar – neither demand nor prices rose (Jelly to owners of *Lucia Maria*, 22 February 1849 and 16 April 1849).⁴³ Although American merchants had pushed cloth onto the East African market, the proverbial fish was not biting. This was not a question of quality or preference, for the high quality of *merekani* relative to its rivals was touted time and again up to the end of the

³⁹ David Pingree, John G. Waters, and George West to Richard P. Waters, 22 February 1844, Box 1, Folder 4, MH14, PEM; George West to Robert H. Waters, 9 October 1851, Box 10, MH 235, PEM.

⁴⁰ William H. Jelly to the owners of *Lucia Maria*, 13 February 1850, Box 11, MH 235, PEM.

⁴¹ For *merekani* exports, see Captain Bates to Michael Shepard, 8 July 1850, Box 11, Folder 2, MH 23, PEM.

⁴² For discussion of domestic cloth production in northern East Africa, see Chapter 6.

⁴³ William H. Jelly to the owners of *Lucia Maria*, 22 February 1849, Box 11, MH 235; William H. Jelly to the owners of *Lucia Maria*, 16 April 1849, Box 11, MH 235, PEM.

century (see Prestholdt 2008, 74; Cave 1898, 13-14). I suggest that this was a problem of economic timing, for demand for imported cloth *would* rise quite dramatically two decades later and at prices roughly equivalent to those of the late-1840s and 1850s.

The American unbleached cloth, which quickly became a staple of inland-bound caravans, did enjoy strong links with the Zanzibar ivory trade from the 1830s onward (Bennett 1962, 46; Rigby 1861, 21). However, increasing imports of cloth into Zanzibar seem to have been less determined by demand emerging from the ivory trade and more a consequence of American trade tactics. While ivory exports from Zanzibar to the United States increased at various points between the 1830s and the start of the American Civil War in 1861, it was not with the same sustained upward momentum as American exports of merekani cloth (see Fig. 3.4 relative to Fig. 3.3). The growth of East African ivory exports to Bombay during the same period was more impressive, but until the 1870s a substantial share of Bombay's reciprocal exports to East Africa was comprised of goods other than cloth, especially beads and wire – also used for caravan purchases in the interior – along with grain consumed on the East African coast. For example, cloth made up only 35 percent of the value of Bombay's exports to Zanzibar in 1850 and 56 percent in 1860, only climbing to 72 percent in 1870 (Bombay Presidency 1851; 1861; 1871). American export cargoes, in contrast, were regularly made up almost entirely of cloth, accounting for 86 to 95 percent of total annual export values prior to the American Civil War (see source list for Fig. 3.3).

[Figure 3.4 here]

Fig. 3.4 Ivory exported from East Africa, 1836-1861. *Sources*: United States: 1836-1852: shipping and trade records from MH 23, MH 235, MSS 901, and MSS 24 series, PEM; 1856-1861: "Arrival and Departure of American Vessels, Jan 1 1857 to June 29 1894," RG 84, Volume 084, NARA. Bombay and United Kingdom: Sheriff (1987, 249-258). *Note*: Bombay and UK data include ivory exported from Zanzibar and other East African ports, especially Mozambique, where American trade was limited (see note 6). American data up to 1852 is based on records of Salem ships. Thereafter, vessels of all American origin are included.

In theory, ivory-seeking caravans could have simply stocked significantly more *merekani* cloth for ventures to the interior as the Zanzibar cloth market became glutted and cloth prices dropped. This would have helped relieve the entrepôt's market. Crucially, however, as a caravan moved farther into the interior, the relative value of cloth increased

enormously, meaning that less yardage was required to purchase ivory.⁴⁴ This was a result of both relative scarcity of foreign cloth in the interior and high transportation costs. Naturally, it was in the best interest of caravan financiers to foster this existing system of "buying cheap and selling dear" (Koponen 1988, 55, 67-68). Thus, even as cloth stores increased on Zanzibar as foreign merchants drove stocks up, caravan traders and financiers were likely disinclined to send any more yards of cloth on interior-bound caravan journeys than was necessary. Beyond potentially altering these favorable terms of trade by increasing the cloth supply in the interior, caravan operators also had to pay porters to carry the goods inland. The larger the interior-bound haul, the higher the cost in total porter wages (for porter wages, see Rockel 2006, 211-228).

What about other potential *merekani* consumers? Zanzibar elites primarily wore higher-grade, colored textiles (Rigby 1861, 8). Consequently, they did not form a substantial consumer base for the unbleached American cloth, although they may have retained some *merekani* as a store of wealth.⁴⁵ However, other groups living on and near the coast did consume a portion of the *merekani* cloth imported into East Africa. By mid-century, the growing slave population of Zanzibar and the adjacent mainland coast consumed American cloth, as well as indigo-dyed *kaniki* imported from India.⁴⁶ People living on and near the coastline also consumed imported cloth – often procured by trading modest amounts of gum copal – including *merekani* and Arab and Indian checked, printed, or dyed cloth (Sunseri 2007, 210-212; Prestholdt 2008, 73; Burton 1859, 54, 429-430). Importantly, however, a pronounced growth in coastal demand for imported cloth would await the more extensive development of East Africa's coastal and coastal hinterland export production, which expanded rapidly in the early 1870s, enhancing the consumption possibilities of ordinary coastal and coastal hinterland consumers.

American Munitions, the Slave Trade, and Cloves

While the Zanzibar market was frequently glutted with American cloth imports between the late 1830s and early 1860s, American muskets and gunpowder enjoyed more consistent demand.⁴⁷ By at least the early 1840s, American merchants were purchasing portions of their Zanzibar cargoes with munitions, which were subsequently re-exported

⁴⁴ For details on increasing prices of Zanzibar's imports as they moved inland, see Burton (1859, 57, 423, 429).

⁴⁵ For example, Brühwiler (2018) traces the use of cloth as a form of wealth, collateral, and credit in colonialera Dar es Salaam.

 ⁴⁶ Fair (1998, 65) includes a sketch from 1856 of slaves wearing *merekani* cloth. See also Burton (1859, 429, 431) and McMahon (2013, 131).

⁴⁷ For mid-century American munitions sales, see William H. Jelly to the owners of *Lucia Maria*, 22 February 1849, Box 11, MH 235, PEM; William H. Jelly to the owners of *Lucia Maria*, 16 April 1849, Box 11, MH 235, PEM. Americans remained major suppliers of arms until the American Civil War (Bennett 1961, 54).

south to Kilwa in exchange for slaves, thus indirectly supporting the development of Zanzibar's slave plantation system, which would provide one of East Africa's major nineteenth-century exports: cloves.⁴⁸

As global demand for cloves grew and the population of slaves on Zanzibar increased, the production of cloves grew enormously, increasing over 1500 percent between 1839 and 1849 (Sheriff 1987, Table 2.3). However, sales of American muskets were abruptly disrupted in the early 1850s, revealing the depth of their relationship with the slave trade. In the summer of 1850, Zanzibar's Sultan forbade Banyans and Hindus from engaging in slave trading within his dominion, which effectively "paralised [sic] all trade at Kilwa" and consequently arrested demand for American muskets on Zanzibar (Masury to owners of Lucia Maria, 17 July 1850).⁴⁹ Muskets had rapidly become "a bad article for this market," and prices fell by nearly half (Jelly to owners of *Lucia Maria*, 31 August 1850).⁵⁰ Zanzibar's slave trade regained footing by the mid-1850s and so too did American sales of muskets. From an estimated \$2,475 worth of American muskets sold by Salem merchants at Zanzibar in 1852, total American musket sales climbed to \$32,125 in 1858.⁵¹ Zanzibar's slave trade grew rapidly, and the island's slave plantations soon came to produce the majority of the world's cloves, forming a cornerstone of the East African coastal production system (Hines to Seward, 25 October 1864).⁵² Zanzibar's growing population of slaves would, in turn, soon become a significant consumer base for lower-end foreign-made cloth as imports began to rise dramatically from the 1870s onward.

The Decline of American Trade Domination on Zanzibar

Competitive trading games between American firms on Zanzibar persisted through the 1850s, cooling down only with the beginning of the American Civil War (Bennett 1961, 52-53). In 1861, the war forced a sudden withdrawal of Americans from the East African trade (Speer 1865, 553; Bennett 1961, 53-56). The price of American cloth had increased immensely at home, temporarily forcing the few remaining Americans trading on Zanzibar

⁴⁸ See, for example, "Account of sales of merchandise at Zanzibar for account of owners of Brig *Cherokee*," 6 June 1840, Box 2, Folder 6, MH 23, PEM. On the systematic exchange of American munitions for Kilwa slaves, see Samuel Masury to the owners of the *Lucia Maria*, 17 July 1850, Box 11, MH 235, PEM.

⁴⁹ Samuel Masury to the owners of the *Lucia Maria*, 17 July 1850, Box 11, MH 235, PEM.

⁵⁰ William H. Jelly to the owners of *Lucia Maria*, 31 August 1850, Box 11, MH 235, PEM. Prices fell from \$4.25 per musket in 1849 to \$2.62 in 1851. See William H. Jelly to the owners of *Lucia Maria*, 22 February 1849, Box 11, MH 235; William H. Jelly to George West, 27 January 1851, Box 10, MH 235, PEM.

⁵¹ 1852 figure derived from Salem-Zanzibar shipping records from MH 23 and MH 235 series, PEM. In 1852, nearly three-quarters of American trade vessels visiting Zanzibar came from Salem. 1858 figure derived from "Arrival and Departure of American Vessels, Jan 1 1857 to June 29 1894," RG 84, Volume 084, NARA.

⁵² Letter from William H. Hines to William H. Seward, 25 October 1864, reproduced in Bennett and Brooks (1965, 527).

to purchase British cloth for barter or rely on specie and goods like codfish and soap (Goodhue 1863, 605; Bennett 1961, 55-56). In general, the American departure from Zanzibar's trade created a greater space for other foreign merchandise, especially British-made cloth re-exported from India by Bombay merchants. Although Kutch had played a prominent role in India's trade with Zanzibar during the first half of the nineteenth century, Bombay exporters (many of whom were Kutchi-born) increasingly came to dominate India's trade with the island, taking particular advantage of the decline of American trade in the 1860s (Prestholdt 2008, 77-83).⁵³ However, global raw cotton prices – and consequently cloth prices – rose during the American Civil War as access to American raw cotton dwindled (Farnie 1979, 162). Such unattractive wartime prices, passed on to the East African consumer, must have done little to raise demand, and total cloth import levels dipped during the first half of the 1860s (see Fig. 3.2).

Just as suddenly as American trade in East Africa had halted, it resumed with vigor after the Civil War came to a close. But merchants returned to find that *merekani*'s "almost-monopoly" in the Zanzibar cloth market had vanished (Webb 1873, 704). Bennett has argued that local consumers only purchased Indian and European cloth "when there was no alternative" (Bennett 1962, 37). Yet Americans found that in the late 1860s and early 1870s buyers frequently ignored *merekani* in favor of the lower-quality British-made unbleached cloth that had increasingly entered the market in its wartime absence (Ropes to Bertram, 9 June 1867; Webb to Bertram, 13 April 1870).⁵⁴ Sturdy American cloth retained a loyal market in the East African interior and would consequently continue to play a crucial role in Zanzibar's ivory export trade.⁵⁵ But the marked upturn in total cloth imports that would soon begin in the early 1870s would be perpetually dominated by British- and Indian-produced varieties, bolstered by the opening of the Suez Canal in 1869, which dramatically reduced transit time between Europe and East Africa, and the expansion of Bombay-Zanzibar steam service in the 1870s (Bennett 1962, 44; Prestholdt 2008, 81-82).

3.3 The Rise of Coastal and Coastal Hinterland Producers

Bennett suggests that a rise in Indian-made cloth imports into Zanzibar was partly influenced by the active maneuvering of powerful Indian merchant Tharia Topan, who "brought much cheap Indian cotton in to replace the more expensive American goods" (Bennett 1962, 48). The success of Indian imports, however, depended on responses to

⁵³ Bombay merchants first re-exported mostly British-made cloth but would eventually shift to exporting mostly Bombay-made cloth from the early 1870s (Prestholdt 2008, 77-83).

⁵⁴ Edward D. Ropes to John Bertram, 9 June 1867, Box 3, Folder 1, Correspondence No. 107, MSS 104, PEM; Francis Webb to John Bertram, 13 April 1870, Box 3, Folder 1, MSS 104, PEM.

⁵⁵ See Chapter 4 for a detailed discussion of demand for American cloth in the interior. For connections between American cloth and the East African ivory trade, see Bennett (1962, 46-48, 60).

these relative prices by East African consumers, particularly near the coast. Their changing demand patterns, Prestholdt has shown, would ultimately aid in "remaking Bombay" into an industrial center.⁵⁶ Cloth prices in the Zanzibar market began to decline across the board after spiking in the mid-1860s, but American cloth prices – kept high by post-war labor costs (Prestholdt 2008, 77) – would generally hover far above British and Indian varieties until at least the final decade of the nineteenth century (see Fig. 3.5).

[Figure 3.5 here]

Fig. 3.5 Unit price per yard of unbleached cloth at Zanzibar, 1836-1900. *Sources*: See Appendix 2. *Note*: Data are reflected in three-year moving averages where possible (British data: 1862-1900; American: 1867-1892; Indian: 1873-1900). Indian price data before 1878 include sales throughout East Africa due to aggregation in the original source. British trade statistics do not distinguish between cloth exports by type. British prices may thus include dyed, bleached and/or printed cloth.

To some degree, the decline in prices from the 1830s to the 1850s had likely conditioned consumers to demand low prices. Accordingly, cloth imports only began to rise considerably when, in the early 1870s, British and Indian cloth prices declined markedly, remaining far below American levels until the 1890s (see Figs. 3.1 and 3.5). However, the lower prices of what a British consul noted as "inferior" British- and Indian-made cloth were undoubtedly partly offset by the faster rate of replacement required relative to "stouter" American cloth (Cave 1898, 12-14). To understand both the timing of the upturn in nineteenth-century cloth imports and the corresponding quantity-quality tradeoff choices made by consumers, we must first consider who, primarily, these consumers were and what use values they attached to imported cloth.

Gone were the days in which the stock of cloth in Zanzibar was conditioned in large part by the competitive activities of foreign traders, which had so frequently created a mismatch between supply and demand. Rather, by the 1870s, supply was increasingly contingent upon and congruent with local demand, especially among emerging coastal and near-coast consumers. From the early 1870s, coastal and coastal hinterland export sectors began expanding rapidly, enhancing the buying power of associated groups. Zanzibar's combined exports to the United States, Bombay, and the United Kingdom reveal that the

⁵⁶ Prestholdt illustrates how enhanced East African demand for lower-cost Bombay-made cloth underpinned factory expansion in Bombay during the second half of the nineteenth century (Prestholdt 2008, 77-83).

value of export goods produced at and near the coast soon surpassed exports of ivory derived from the interior (see Fig. 3.6).⁵⁷

[Figure 3.6 here]

Fig. 3.6 Coast-produced exports and ivory exports from East Africa, 1848-1900.⁵⁸ *Sources*: Bombay share: annual trade reports (Bombay Presidency 1849-1853, 1861-1867, 1871-1901) and Sheriff (1987, 249-252); UK share: annual trade reports (Great Britain 1858-1871, 1876-1901); US share: shipping and trade records from MH 23, MH 235, MSS 901, and MSS 24 series, PEM; "Arrival and Departure of American Vessels, Jan 1 1857 to June 29 1894," RG 84, Volume 084, NARA; Cheney, "Trade Report on Zanzibar, June 30th 1883 – June 30th 1884," RG 59, Volume 3512 (Book 7), NARA; Bachelder (1883, 33); Pratt (1888, 841); Ropes (1892, 398); Jones (1893, 363); Dow (1894, 301); Allen (1896, 286); Mohun (1898, 354); United States (1899, 294); Sarle and Mansfield (1900, 276). *Note*: Annual American ivory import figures become scarce after 1873. From 1874 onward, years including American ivory data are indicated with an outlined marker. Bombay and UK data include trade with Mozambique, where American trade was limited.

The timing of the dramatic rise in cloth imports into East Africa illustrated in Fig. 3.2 corresponds strikingly with this expansion in production of coastal and coastal hinterland exports. This sudden surge in demand compares starkly with the years just before the rapid rise in coast-oriented export production, when demand for imported cloth was reportedly languishing (Ropes to Bertram, 8 February 1867; Ropes to Bertram, 21 April 1867).⁵⁹ The following section takes a close look at the rapid expansion of East Africa's primary nineteenth-century coastal and coastal hinterland exports to subsequently connect these developments with a rise in the cloth consumption possibilities of associated producer groups.

The Coastal Export Boom of the 1870s

Production of a variety of export goods expanded rapidly in the final quarter of the nineteenth century as global demand stimulated entrepreneurship along the coast and

⁵⁷ While ivory was historically available relatively near to the coast, by mid-century overhunting had pushed the ivory frontier deep into the interior, reaching what is today the Democratic Republic of the Congo by the 1870s (Sheriff 1987, 78, 103-104).

⁵⁸ "Coast-produced exports" include goods produced on East Africa's coast-adjacent islands (Zanzibar and Pemba), along the East African coastline, and in the coastal hinterland. These were principally gum copal, cloves, rubber, hides, and skins, along with smaller amounts of coir yarn, ebony, tortoise shell, chilies, gum myrrh, orchilla weed, aloe, copra, sesame, cowries, and beeswax.

⁵⁹ Edward D. Ropes to John Bertram, 8 February 1867, Box 2, Folder 6, MSS 104, PEM; Edward D. Ropes to John Bertram, 21 April 1867, Box 2, Folder 6, MSS 104, PEM.

coastal hinterland of East Africa. This era witnessed the expansion of large-scale, slavebased plantations, along with the development of much smaller-scale market-oriented kinbased production (Pawełczak 2010, 142). On Zanzibar and the adjacent mainland coast and its hinterland, major exports included cloves, gum copal, and wild rubber, along with grain cultivated to supply inland-bound caravans, Indian Ocean trade ships, and emerging exportoriented producer groups (for grain production, see Pawełczak 2010, 78-97; Kjekshus 1977, 30-34). Further north, the Benadir Coast supplied increasing amounts of hides and skins (Burton 1859, 446; Portal 1892, 10). Alongside these principal commodities, East Africa also exported coast-produced copra (coconut kernels), cowries, chilies, coir, gum myrrh, orchilla weed, aloe, and sesame (see sources for Fig. 3.6).

By mid-century, increasing foreign demand for East African goods had led producers on Zanzibar to begin experimenting with new products, including clove stems (the oncediscarded base of the valuable bud) and bird peppers (Jelly to West, 29 April 1851).⁶⁰ Cloves, however, were the island's most important homegrown export. Clove production had been carried out on Zanzibar since the 1830s, stimulated by global "clove mania," and expanded partly in response to the gradual British strangulation of Zanzibar's slave export trade, which encouraged the retention of slaves for export-oriented cultivation.⁶¹ The industry experienced significant profit-reducing global overproduction between the 1840s and 1860s, but clove prices rebounded during the 1870s (Sheriff 1987, 61-63). The intensity of clove production expanded considerably after slave exporting became officially forbidden on Zanzibar in the early 1870s, while the *ownership* of slaves by non-British subjects would not be abolished until the final years of the century.⁶² Owners consequently funnelled slave labor into internal production, in a process similar to the early-nineteenth-century increase in slave-based domestic cultivation in West Africa with the demise of the trans-Atlantic slave trade (Lovejoy 1978, 342).

At the start of the decade, the momentum of Zanzibar's export of cloves – and other coastal goods – was temporarily slowed as a result of two blows: first, a cholera epidemic raged through East Africa, and then a hurricane ravaged Zanzibar's plantations in 1872 (Webb to Bertram, 22 January 1870; Webb 1873, 704; Sheriff 1987, 234-235).⁶³ Thereafter, however, clove exports rebounded with verve, bolstered by the establishment of more plantations on neighboring Pemba Island (Sheriff 1987, 57). As plantation clove output grew, the volume of cloves exported from Zanzibar to Bombay and the United Kingdom, the

⁶⁰ William H. Jelly to George West, 29 April 1851, Box 10, MH235, PEM.

⁶¹ For the early development of clove slave plantations on Zanzibar, see Sheriff (1987, 48-65).

⁶² The slave trade was officially prohibited following the signing of the *Treaty between Her Majesty and the Sultan of Zanzibar for the suppression of the slave trade* on 5 June 1873.

⁶³ Francis Webb to John Bertram, 22 January 1870, Box 3, Folder 2, MSS 104, PEM.

largest importers of East African cloves, expanded rapidly (see Fig. 3.7). As of the early 1890s, cloves produced on Zanzibar and Pemba reportedly provided four-fifths of the world's supply, and "almost every available acre of ground ha[d] been devoted to cloves" (Portal 1892, 9).

[Figure 3.7 here]

Fig. 3.7 Zanzibar's clove exports to Bombay and the United Kingdom, 1852-1900. *Sources*: Bombay and UK annual trade reports (Bombay Presidency 1853, 1861-1867, 1871-1901; Great Britain 1858-1871, 1876-1901). *Note*: Three-year moving average, except annual data points in 1852-1860. The year 1852 includes only Bombay-bound exports; 1855, 1858 and 1865 include only UK-bound exports.

While Zanzibar and Pemba cultivated cloves, the most important mainland coast and coastal hinterland exports were gum copal and hides and skins, favorite articles of American traders, along with rubber, which was exported primarily to the United Kingdom (Portal 1892, 10). Growth in the export of these commodities is reflected in Fig. 3.8. Gum copal was extracted from fossilized trees, lying a few feet underground, by "coast clans" living along what Richard Burton referred to as the "copal coast," which spanned from Mombasa in southern Kenya to Ibo in northern Mozambique and ranged from "a few miles" to 60 kilometers inland (Burton 1859, 436; Hines to Seward, 25 October 1864; Rigby 1861, 21; Pawełczak 2010, 98).⁶⁴ Gum diggers or community representatives sold the extracted gum copal – primarily exchanged for foreign imports, especially cloth – to merchants residing on the mainland coast, who then sent the gum onward to Zanzibar for sale to global buyers.⁶⁵

[Figure 3.8 here]

Fig. 3.8 Re-exports of hides, skins, rubber, and gum copal from Zanzibar to the United States, United Kingdom, and Bombay, 1836-1900. *Sources*: See sources for Fig. 3.6.

⁶⁴ Letter from William H. Hines to William H. Seward, 25 October 1864, reproduced in Bennett and Brooks (1965, 530).

⁶⁵ On the copal trade, see Sunseri (2007) and Pawełczak (2010, 97-99). For contemporary accounts of copal extraction and trading, see Burton (1859, 435-440) and Elton (1879, 78-79).

Already in the 1830s, American merchants had competed fiercely for gum copal, which was used for varnish in the American furniture industry and in the mid-1840s reportedly "pa[id] better than anything else" (Pingree to Waters, 27 July 1833; Pingree, Waters, and West to Waters, 22 February 1844).⁶⁶ By 1859, Americans claimed 68 percent of the gum, while Germany and Bombay took 24 and 8 percent, respectively (Sunseri 2007, 207). American imports of gum copal dropped off during the American Civil War but immediately rebounded and increased in 1866. However, East Africa's gum copal exports had continued to increase during the war, and when Americans re-entered the trade, their share only comprised about 20 percent of total gum copal exports, with Germany and France taking larger shares (45 and 35 percent, respectively), particularly after the opening of the Suez Canal in 1869. Hong Kong also became a major importer of East African gum copal by at least the 1880s (Sunseri 2007, 207). Thus, total gum copal export figures would have been significantly higher than illustrated in Fig. 3.8.

In the 1870s gum copal harvesting and trading played a key role in the coast-side economy as "the most lucrative commerce" for Indian traders situated along the mainland coast (Elton 1874, 227). However, by the early 1880s, exports of gum copal declined as natural deposits began to dwindle. At the same time, global demand for rubber boomed. Rubber vines frequently grew directly on trees in copal fields, enabling diggers to easily combine gum digging with rubber tapping and take away substantial profits. Rubber tapping quickly expanded farther inland than the more concentrated copal forests had allowed and by the 1880s reached the Donde area roughly 180 km from the coastline, which consequently expanded consumption possibilities and demand for imported goods in what Pawełczak (2010) terms the "broader" hinterland of the coast.⁶⁷ Rubber tapping proved even more lucrative than copal digging, bringing \$19.50 per *frasilah*, while copal declined to \$7 per *frasilah* (Sunseri 2007, 217).⁶⁸ Rubber profits were so high that a few days' labor could reportedly yield income sufficient to purchase a year's worth of food for one adult (Pawełczak 2010, 101).

Many export-oriented coastal and coastal hinterland producer groups came to increasingly rely on food provided by market-oriented grain cultivators. In the early 1860s, Colonel Rigby, the British Consul in Zanzibar, had reported with an air of condescension that

⁶⁶ David Pingree to John G. Waters, 27 July 1833, Box 75, Folder 7, MSS 901, PEM; David Pingree, John G. Waters, and George West to Richard P. Waters, 22 February 1844, Box 1, Folder 4, MH14, PEM.

⁶⁷ For a discussion on the transition from copal to rubber production, see Sunseri (2007, 215-17). For Pawełczak's distinction between the "narrow" and "broader" hinterland, see Pawełczak (2010, 18-19).

⁶⁸ The *frasilah* is a unit of weight, equivalent to roughly 35 pounds, that was used on Zanzibar and mainland East Africa during the nineteenth century.

exports of gum copal were restrained by the "indolence of the Negroes, who will only dig enough to supply their daily wants" (Rigby 1861, 21). But he seems to have misunderstood the dynamics at hand. Instead of idleness, it was most likely seasonal food production constraints that limited the extraction of gum copal. Initially, gum diggers may have been unwilling to spare the increasing amounts of labor required to meet growing global demand, for the best time to harvest gum copal coincided directly with the agricultural season, when the rains aided gum extraction (Jelly to West, 27 January 1851; Elton 1874, 228; Burton 1859, 93).⁶⁹ However, gum diggers (and, later, rubber collectors) in southern coastal Tanzania began increasingly purchasing grain (Kjekshus 1977, 30; Behr 1893, 78). For example, gum diggers regularly traded portions of gum copal for rice in the Rufiji River area, which came to be known as Calcutta *Mdogo* ("Little Calcutta") because of its large output of rice (Beardall 1881, 647; Kjekshus 1977, 32).

The export supply problem cited by Rigby eased, and by the 1870s a seemingly endless stream of diggers could be seen year-round carrying loads of gum to Indian traders to exchange for cloth (Elton 1874, 228). However, in 1884 and 1885 drought caused "famine all along the coast" (Cheney 1886, 521; Pawełczak 2010, 173-174). Rubber exports, which had reached exceptional heights in 1882 and 1883 fell precipitously during the famine and did not begin to recover until 1890 (see Fig. 3.8). Clove exports, too, dipped during the famine years but recovered fairly quickly thereafter since Zanzibar could rely on rice imports from India, which increased in value from 186,494 rupees in 1883 to 1,105,286 rupees the following year (see Bombay Presidency 1886).⁷⁰ As a result of these disruptions in coastal production, cloth imports fell sharply in 1884 and 1885 but recovered by 1886 (see Fig. 3.2).

Much of East Africa's coastal exports came from Zanzibar and the adjacent coast and coastal hinterland spanning from southern Kenya to northern Mozambique, but Indian Ocean island of Madagascar to the south and the Benadir Coast (of modern-day Somalia) to the north also participated in Zanzibar's trading network, shipping goods to the island for global export. Goods from Madagascar included modest amounts of ebony, tortoise shell, and beeswax.⁷¹ More important, however, were the cow hides and goat skins sent to Zanzibar from Brava, Mogadishu, Marka, and other parts of the Benadir region in exchange for imported manufactures, especially American cloth (Burton 1859, 446; Portal 1892, 10).⁷² It was prophesized in the late 1860s that hide exporters would benefit immensely from "the

⁶⁹ William H. Jelly to George West, 27 January 1851, Box 10, MH 235, PEM.

⁷⁰ Zanzibar also shipped relief supplies of imported grain to Lamu, Mombasa, and Lindi (Pawełczak 2010, 180-181).

⁷¹ "Arrival and Departure of American Vessels, Jan 1 1857 to June 29 1894," RG 84, Volume 084, NARA.

⁷² Orchilla weed was also imported from the Benadir Coast in smaller quantities and was purchased by European traders for use in silk dyeing. Letter from William H. Hines to William H. Seward, 25 October 1864, reproduced in Bennett and Brooks (1965, 531).

great competition" among American merchants, in particular, searching for inputs for the American leather industry (Webb to Bertram, 24 October 1869).⁷³ Indeed, as Fig. 3.8 shows, even as American imports of gum copal declined in the late 1870s and 1880s, American demand for hides and skins continued to increase.

3.4 The Growth of Coastal Consumption Possibilities

From the 1870s onward, the pronounced increase in global exports of goods produced along the East African coast and coastal hinterland helped dramatically increase the amount of cloth annually imported. On northern East Africa's Benadir Coast, increasing profits were primarily spent on American-made cloth, a consumption pattern that persisted through the century. A British consul had reported with much chagrin that in the Benadir region "natives seem to prefer to give the higher price for the American goods" (Portal 1892, 11, 32). Consequently, a visiting Englishman noted, "the Americans practically monopolize the two chief branches of trade [...] the importation of grey [i.e., unbleached] shirting and the export of skins and hides" (Powell-Cotton 1902, 512). The durable unbleached *merekani* reportedly suited the "exact requirements of the country" (Powell-Cotton 1902, 512 quoting a British consul in Somaliland).

It is difficult to gauge how much cloth was imported into northern East Africa's Benadir region based on the available Zanzibar trade figures, for much of the Zanzibarimported *merekani* was destined for markets in the interior of the directly adjacent central East African mainland. Furthermore, as American interest in hides and skins grew in the 1880s, American merchants increased direct trade with Benadir ports, which reportedly comprised roughly half of America's total trade with East Africa by 1887, although figures for this trade are unavailable (Bennett 1962, 57-58). Given strong American demand for Benadir hides and skins, imports of American-made cloth into the region must have been substantial. Consequently, the share of American cloth exports reflected in Fig. 3.2 (based on American cloth landed at Zanzibar) does not include part of the *merekani* consumed farther north. In fact, the decline of *merekani* imports into Zanzibar during the late 1880s and early 1890s may partly reflect a diversion of *merekani* to northern ports with the intensification of direct American-Benadir trade.

As *merekani* imports into the Benadir Coast increased, the American cloth began to compete with locally produced unbleached cloth. However, local production did not collapse under the pressure. Rather, local textile producers effectively adapted and remained resilient in the face of mounting competition. While some producers continued to

⁷³ Francis Webb to John Bertram, 24 October 1869, Box 3, Folder 2, MSS 104, PEM.

weave plain unbleached cloth, others took advantage of emerging demand for colored garments and began specializing in multi-colored striped cloth (Alpers 2009, 89-91).

Slave Consumption on the Clove Islands

As on the Benadir Coast, consumption of imported cloth increased on Zanzibar and the adjacent coast of central East Africa, although consumer demand patterns differed. Here, interest in comparatively expensive American cloth had waned when prices rose precipitously during and after the American Civil War (Ropes to Bertram, 9 June 1867; Webb to Bertram, 13 April 1870).⁷⁴ Consequently, along and near the coast of what is today mainland Tanzania, much of the cloth consumed by burgeoning producers was British or Indian in origin. Taking the case of cloves, for example, growth in exports strongly mirrors the pattern of increasing imports of cloth from India (see Figs. 3.2 and 3.7). This is unsurprising given that Bombay typically claimed the majority of Zanzibar's clove exports (see sources for Fig. 3.7). More broadly, a British consul noted an association between the relative success of the annual clove crop and the respective rise or fall of cloth import levels (Cave 1901, 12).

The expanding clove plantation system enhanced incomes for planters on Zanzibar and Pemba while also generating a large population of cloth-consuming slaves. Although slave fashions were limited compared with the lavish styles of Zanzibar elites, slaves (particularly female slaves) increased their range of consumption as the nineteenth century progressed (Fair 1998, 67-68). A British resident commented in 1874, "With a taste for dress, the Zanzibar slaves [...] always [have] a strong desire for the possession of such articles" (Christie 1876, 309-310). Along with unbleached cloth, a substantial portion of imported indigo-dyed cloth was likely consumed by slaves given its general association with poorer and servile classes on Zanzibar and the adjacent Swahili Coast (McMahon 2013, 131; Fair 1998, 78; Burton 1859, 431).

The reported per-annum cost for slave owners to clothe a Zanzibar slave suggests that island slaves consumed a considerable chunk of the comparatively cheap Indian and British cloth imported from the 1870s onward – based on my calculation, between roughly 1,282,000 and 2,051,000 yards per year, or 6.4 to 10.3 yards per slave.⁷⁵ This is far above

⁷⁴ Edward D. Ropes to John Bertram, 9 June 1867, Box 3, Folder 1, Correspondence No. 107, MSS 104, PEM; Francis Webb to John Bertram, 13 April 1870, Box 3, Folder 1, MSS 104, PEM.

⁷⁵ In 1862, American consul Speer reported that an owner's cost of clothing each Zanzibar slave per annum was between \$0.50 and \$0.80 (William S. Speer, "Report on Zanzibar," 1862, RG 59, Volume 3509 (Book 4), NARA, 47). Dividing Speer's upper- and lower-bound estimates by the nearest available unit price per yard of unbleached imported cloth – \$0.078 in 1863 (Sheriff 1987, 255) – yields 6.4 to 10.3 yards per slave per annum. According to Cooper, the slave population of Zanzibar alone was around 200,000 in 1857. Other estimates range up to 266,000 for Zanzibar and Pemba Islands by 1858 (see Cooper 1977, 56; Croucher 2015, 87).

the very low per capita annual consumption figures for the whole of East Africa (see Fig. 1.3 in the Chapter 1), indicating the marked concentration of imported cloth consumption at and near the coast through the second half of the nineteenth century, even among slaves. Based on this estimate, consumption of island slaves alone would have accounted for an average of between 14 and 22 percent of the Indian, British, and American cloth imported into East Africa via Zanzibar by the first half of the 1870s.⁷⁶ The substantial expansion of plantations on Pemba Island from the mid-1870s onward must have further increased cloth-consuming slave populations on the islands as the century progressed.

According to the American consul at Zanzibar, already in 1862 the daily outfit of a plantation slave usually consisted of at least two yards of cloth at a given time (Speer 1862, 47).⁷⁷ The adoption of Islam likely further augmented cloth demands following conversion, which was, in theory, "the first imperative" of slave owners (Cooper 1977, 215). Indeed roughly 95 percent of the total population of Zanzibar was Muslim. Slaves were, however, discouraged from certain fashions, particularly donning caps (for males) and veils (for females) in order to facilitate the identification of servile status (Fair 1998, 68).

Some slaves could consume more cloth than others, particularly those with greater commercial freedom seeking to integrate into society via production, exchange, and consumption.⁷⁸ Beyond plantation production, slaves were also employed in transportation, construction, and artisanal capacities (Clarence-Smith 1989, 4). Already in 1856, slaves could earn wages of \$2.50-3.00 per month for manual labor, while "higher order Servants" could earn \$7.50-\$10.00 per month for preparing and shipping cargoes, a portion of which was likely expended on extra clothing (Mansfield to Marcy, 31 January 1856).⁷⁹ Some slaves borrowed from Indian money lenders to invest in commercial activities and obtain imported textiles signifying "distinction and respectability" (Bishara 2017, 49-50). Consumption would further increase with eventual abolition of slave holding on Zanzibar in 1897, as once-servile groups sought to redefine their social position by consuming more cloth and more elaborate styles (Fair 1998, 74-77).

Consumption on the Mainland Coast and Coastal Hinterland

On the adjacent mainland coast and its hinterland, increasing exports of gum copal and rubber, along with locally traded grain, provided ordinary free laborers with increasing incomes by the mid-1870s (Pawełczak 2010, 360). Although Indian merchants took a

⁷⁶ Or 8 to 12 percent of cloth imported into both Zanzibar and Mozambique ports.

⁷⁷ William S. Speer, "Report on Zanzibar," 1862, RG 59, Volume 3509 (Book 4), NARA, 47.

⁷⁸ For opportunities for slaves to engage in commercial life, see Glassman (1995, 86-89).

⁷⁹ Letter from Daniel H. Mansfield to William L. Marcy, 31 January 1856, reproduced in Bennett and Brooks (1965, 500).

substantial cut from global sales, as did Zanzibar's customs house, gum copal diggers netted goods equivalent to roughly half of the \$9 per *frasilah* ultimately paid for the gum by foreign buyers at Zanzibar (Sunseri 2007, 210). Diggers exercised a degree of power over prices, negotiating with merchants for hours and even days for larger hauls comprised primarily of cloth (Elton 1879, 78-79; Sunseri 2007, 209-213). Already in the early 1850s, before gum copal exports had jumped, a relationship was noted between gum collection seasons and an increase in demand for American cloth, although copal diggers also traded their gum for a cheaper dyed Indian cloth, known as *kitambi* (Jelly to West and the owners of *Lucia Maria*, 16 April 1851; Burton 1859, 429).⁸⁰ Consumption among coastal diggers no doubt increased as exports grew, particularly since, like Zanzibar residents, people residing on and near the coast tended to demand relatively large amounts of cloth due to Islamic influence (Pawełczak 2010, 56-57, 332).

Using export profits as a proxy for cloth consumption possibilities, we can obtain rough estimates of the shares of cloth that were likely consumed by coastal and coastal hinterland producer groups as incomes increased. From the second half of the 1860s to the first half of the 1870s, gum copal diggers, for example, could have claimed an average of 8 percent (reaching a peak of 16 percent in 1873) of the total yards of Indian, British, and American cloth annually imported into East Africa via Zanzibar.⁸¹ This average annual figure climbs to around 16 percent (or 32 percent in 1873) if we include the half of the final sale price retained by merchant middlemen and the Zanzibar customs house. Importantly, this estimate is based on profits from gum copal exported to the United States and Bombay alone.⁸² It does not include the large shares of gum copal reportedly purchased by merchants from Germany, France, and (by the 1880s) Hong Kong, which undoubtedly further drove up cloth consumption possibilities for copal diggers (Sunseri 2007, 207).

Rubber tapping profits also significantly enhanced consumption possibilities by the first half of the 1880s, with the British share of rubber exports alone providing sufficient income for tappers to consume on average 10 percent of cloth imported via Zanzibar, with a high of 17 percent in 1882.⁸³ Again, this figure doubles to 20 percent (reaching 34 percent in

⁸⁰ William H. Jelly to George West and the owners of *Lucia Maria*, 16 April 1851, Box 11, MH 235, PEM.

⁸¹ Or 5 percent (reaching 7 percent in 1873) of cloth imported into both Zanzibar and Mozambique ports.

⁸² This consumption estimate is based on the export profits of copal diggers, which was derived by halving the total value of gum copal exported to the United States and Bombay given that copal diggers reportedly earned roughly half of the ultimate export price. This was then divided by the price of unbleached cloth imported from Bombay, which came to comprise the largest share of cloth entering Zanzibar from the mid-1870s onward. The cloth price paid by gum copal diggers takes into account the 79-percent increase in price incurred once cloth crossed from Zanzibar to the coast noted by Burton (1859, 57).

⁸³ Or 7 percent (reaching 12 percent in 1882) of cloth imported into both Zanzibar and Mozambique ports.

1882) if we include the takeaway of middlemen traders and the customs house.⁸⁴ By the middle of the decade, however, Germany laid colonial claim to the Tanzanian mainland, and by the close of the century, the colonial government set a market price for rubber and gum copal – \$17 and \$7 per *frasilah*, respectively – dampening the bargaining power of diggers and tappers (Sunseri 2007, 217). Still, rubber tappers prospered, and as a late-nineteenth-century traveler noted, tappers in the coastal hinterland were exceptionally well clothed (Adams 1899, 132 cited by lliffe 1979, 129-130). Grain suppliers – which included small-scale household surplus operations alongside sizeable slave-based plantations – must have similarly enjoyed increasing consumption possibilities as commercial activity boomed during the last three decades of the nineteenth century (for grain production, see Pawełczak 2010, 78-97, 142). It is impossible to estimate cloth consumption levels since grain output figures are unavailable, but as Glassman points out, even "ordinary peasants" along the coast and coastal hinterland were marketing their agricultural surpluses of both grains and exportoriented cash crops to obtain imported cloth (Glassman 1995, 37, 45-46; see also Pawełczak 2010, 90).

As this section has illustrated, emerging producer groups residing on and near the East African coast were afforded access to a large share of rapidly growing imports of cloth, which strikingly mirrored the simultaneous expansion of exports derived from the coast and coastal hinterland from the 1870s onward. Alongside export producer groups, coastal merchants also took a share of export profits in the form of manufactured imports. These included not only wealthy Indian traders but also a "lower class" of coastal merchants who had become more active during the rubber boom (Pawełczak 2010, 100). While most better-off merchants would have clothed themselves in finer garments, they undoubtedly claimed large portions of simpler imports as stores of wealth and investment capital. Indeed, plain imported cloth came to serve as the primary form of collateral in complex credit and debt systems on the Swahili Coast, persisting well into the colonial period when residents of coastal cities continued to deposit their "savings" in the form of imported cloth at local shops (Brühwiler 2018).

3.5 Indian Cloth: The Quality-Quantity Tradeoff

In general, cloth consumption levels on the coast and coastal hinterland ramped up in the last quarter of the nineteenth century. A conspicuous example comes from the final years of the century when imports of *kangas* rapidly increased (Fair 1998, 76-77). Women, particularly on Zanzibar, voraciously consumed these colorful, printed cotton wrappers, which were primarily stamped in the Netherlands, then exported to East Africa by German

⁸⁴ Calculated using the same method employed to estimate consumption possibilities afforded by gum copal exports (see note 82).

merchants. A British official wrote, "Zanzibar is the Paris of East Africa [...] to keep up their reputation for smart dressing involves the frequent purchase of new kangas, of which, I understand a Zanzibar girl will possess as many as two to three dozen sets at one time," equal to approximately 48 to 72 yards (O'Sullivan-Beare 1901, 15). Indeed, consumption levels of imported cloth on Zanzibar were strikingly higher than the East African average of 1.3 yards per capita in 1900 (see Fig. 1.3 in Chapter 1), kept low by the still comparatively minimal consumption of imported cloth in much of the interior (see Chapter 4). On Zanzibar, cloth was not only consumed in large quantities, but also swiftly discarded. *Kanga* sets were quickly replaced with new prints as fashions changed rapidly. As Cave noted, "it must not be supposed that a woman with any proper respect for herself or for her family will be seen in these patterns in three months' time." Further, these imported *kangas* must have worn out fairly quickly given that, although they were stamped in the Netherlands, they were produced using non-durable Manchester cloth, known to deteriorate upon washing (Cave 1898, 14).

The design concept for Dutch-printed *kangas* reportedly arose from innovations that were developed locally in the preceding decades. Coastal fashions had already been shifting toward more vibrant styles by the late 1860s, when it was reported by Edward D. Ropes, the American Consul in Zanzibar, that "demand for 'Kaniki's,' 'Prints'& Handkerchiefs has increased four-fold during the past five years." As American traders re-entered Zanzibar markets following the American Civil War, he expressed concern that this shift in coastal preferences would undermine demand for American unbleached cotton cloth, although he had "no doubt" that the American *merekani* would at least "soon take precedence over" British-made unbleached variants (Ropes to Bertram, 11 August 1867).⁸⁵ As it would turn out, coastal demand for unbleached cloth did not dissipate, but the American-made variety failed to regain its earlier primacy in coastal markets.

Alongside dyed and printed imports, plain unbleached cloth was transformed into more fashionable wrappers for coastal women, underpinning Prestholdt's suggestion that many imports into East Africa would be better conceptualized as "partially manufactured" rather than "finished" since they were often "radically redesigned" (Prestholdt 2008, 69). Slave women reportedly dyed unbleached imported cloth using locally produced indigo to improve its aesthetic appeal (Fair 2001, 67). Likewise, handkerchiefs were sewn together and plain imported cloth was resist-dyed and/or stamped with cutouts made from starchy vegetables and woodblocks to make more elaborate garments from imported materials. Although it remains unclear if these more advanced innovations first arose from the initiative of coastal women or Gujarati immigrant artisans, oral sources place their

⁸⁵ Edward D. Ropes to John Bertram, 11 August 1867, Box 3, Folder 1, Correspondence No. 112, MSS 104, PEM.

provenance around the 1850s (Ryan 2013, 85-99; 2017, 101-109).⁸⁶ Based on import patterns, this locally processed cloth was likely produced using imports of first British and, increasingly, Bombay-made unbleached cloth, which comprised the bulk of Bombay's cloth exports to East Africa by the 1880s (see Fig. 3.9). Of particular interest is the *timing* of the substantial rise in imports of plain, unbleached cloth from Bombay, which coincides not only with rising coastal and near-coast export-derived consumption opportunities but also almost exactly with the "decade of design" (1876-1886) identified by Ryan (2017), during which European producers mimicked East African (along with Indonesian) motifs to create the Dutch-printed *kanga* material that would emerge on the coastal market by 1886.

However, both British and Indian unbleached cloth exports were consistently reported to be inferior to the more expensive American version – which was "stouter and more durable cloth" – that remained in constant demand throughout the interior (Cave 1898, 13-14; see also Cave 1899, 14). British cloth immediately lost weight and texture when the "gruel" infused into the fabric to bulk it up washed away. Initially "beautifully white calico" was reduced to what "looked more like dish-cloths," and even a dry piece of new British cloth would, upon "vigorous rubbing," produce a white powder and threadbare spots (Jackson 1930, 178). While Bombay-made cloth did not suffer as extensively from washing problems, it was significantly thinner and flimsier than American cloth, weighing only 6.5 lbs. per 30-yard piece compared with 9.5 lbs. per sturdy American piece (Cave 1898, 13-14).

[Figure 3.9 here]

Fig. 3.9 Composition of Bombay's exports of cloth to East Africa, 1870-1900. *Source*: Bombay annual trade reports (Bombay Presidency 1871-1901).⁸⁷

At face value, it seems paradoxical that consumers – who were by all accounts highly discerning⁸⁸ – would increasingly purchase significantly lower-quality cloth. I argue,

⁸⁶ For the re-processing of imported cloth in coastal cities, see also Prestholdt (2008, 70-71) and Vander biesen (2009, 320, 329).

⁸⁷ Regarding "British" cloth in Fig. 3.9: Bombay's annual trade reports identify exports as either "Indian Produce" or "Foreign Merchandise," but the overwhelming majority of Bombay's cloth imports (and thus reexports) were from the United Kingdom. Textual reports also indicate that Bombay's re-exports to East Africa were comprised of mostly British-made cloth (see, e.g., Bombay Presidency 1896, 19). The "British colored/printed/dyed cloth" may have been dyed in Bombay prior to re-export (see Alpers and Goswami 2019).

however, that this dynamic depended on the comparatively large quantities and low prices (at and near the coast) of *merekani* substitutes. The "only merit" of these textiles may have been "their extreme cheapness," as an American consul reported in reference to unbleached Bombay-made cloth (Pratt 1888, 840). However, price figured heavily into the calculations of coastal and coastal hinterland people eager to consume more cloth as the century progressed. Prestholdt (2008, 77, 82) highlights the importance of low relative prices of Bombay-made cloth, which could "appeal to an even wider market."

For a wide array of coastal and near-coast people – including gum copal and rubber collectors, hide and skin suppliers, and grain and clove cultivators – the prospect of purchasing imported cloth was now well within reach. Even relatively poor consumers, including slaves, could increasingly afford to more regularly replace less durable, but lower-cost British and Indian cloth with fresh supplies from the "immense quantities" of these cheap goods sent to East Africa by the 1880s (Pratt 1888, 840). Similarly, during the "calico craze" in seventeenth- and eighteenth-century England, increasing imports of comparatively low-cost Indian cotton cloth had brought fashionable imported textiles within reach of average consumers, kicking off conspicuous consumption among lower-income people.⁸⁹ John Styles has argued that the appealing appearance of handmade Indian cloth imports had attracted eighteenth-century English consumers more than their purportedly affordable price (Styles 2007).

In contrast, the majority of imports into late-nineteenth-century East Africa was comprised of much lower-quality – but also lower-cost – machine-produced Indian and British cloth. Among many lower-income East African coastal consumers, cost and quantity – even above quality – likely became principal deciding factors. I suggest that between the American Civil War and the last years of the century, the notable price differential of American unbleached cloth relative to British and Indian variants drew East Africa's coastal and near-coast consumers to the cheaper, less durable alternatives, which could be readily replaced with freshly dyed and/or stamped patterns as coastal trends changed.

⁸⁸ Prestholdt (2008, 62-71) elaborates on the complexity and refinement of nineteenth-century East African demand.

⁸⁹ In the case of England, fashionable imports had previously been enjoyed principally by wealthy consumers, with textile imports primarily composed of more modest amounts of expensive silks, woolens, and linens. Economic historians have argued that the English calico craze ultimately helped stimulate rapid development of domestic cotton textile production and calico printing, particularly with the imposition of import prohibitions in the early eighteenth century (see Lemire and Riello 2008, 894-895; Parthasarathi 2002, 288; Wadsworth and Mann 1931, 132-41; Berg 2009, 401-414). In fact, many of the technological innovations generated by English competition with India would later be adopted by Indian industrialists, facilitating the output of the machine-produced cloth that would be shipped from Bombay to East Africa in the nineteenth century.

This is well illustrated by consumer decision-making among coastal buyers, who generally preferred American-made cloth in *qualitative* terms, but for whom cost was paramount. Based on oral interviews, Ryan surmises that the embellishment of imports was likely stimulated by initial dissatisfaction with the quality of "inferior" unbleached substitutes that emerged with the absence of genuine *merekani* during the American Civil War (Ryan 2013, 85, 96).⁹⁰ However, when American-made cloth returned to the market following the war, demand for the cheaper unbleached substitutes persisted among coastal consumers, much to the disappointment of American traders (Webb to Bertram, 13 April 1870).⁹¹ One merchant reported in 1867 that "American cottons [are] very dull of sale," with 450 bales remaining on the Zanzibar market unsold (and more on the way), which "we fear, [will] give a loss"; "English cottons," he explained, "are in better demand," noting their "small prices." The following month he reported, "We can see no prospect for any improvement here for a long time to come" (Ropes to Bertram, 9 June 1867; Ropes to Bertram, 5 July 1867).⁹²

Again, in 1870, another American representative in Zanzibar reported dismal sales of American cloth, as "all have bought English 'T' cloth" (Webb to Bertram, 13 April 1870).⁹³ Within a decade, equally low-priced unbleached Bombay-made cloth began flooding Zanzibar's market. Eventually, during the early 1890s American cloth prices finally declined to levels similar to British and Indian prices (see Fig. 3.5). Demand for the American article apparently rebounded, with a British consul noting in 1896 that among imports of "grey cotton sheeting [...] those which sell most freely in Zanzibar are all of American manufacture [...] The cloths imported from America are of a superior quality to those of the *same price* [emphasis added] sent from Manchester [...] the American material is preferred to that of English manufacture at the present time" (Hardinge 1897, 9).

Another British consul reflected on consumer preferences on the Swahili Coast, providing insight into the frequent acceptance of lower-quality, but cheaper cloth: "If he has to choose between a cheap article which may last him a month and one a little more expensive, which will wear for half a year, he will have no hesitation in buying the one that costs him the least" (Cave 1901, 15). Cheap unbleached cloth, which was often used for loin-cloths and for producing *kanzus* (long shirts) for lower-income coastal men, remained an important staple for male consumers (Sinclair 1904, 4; Lyne 1905, 233). In reference to

⁹⁰ According to Prestholdt, who notes cloth stamping on Zanzibar as of the 1850s, merchants often embellished imports to raise their value (Prestholdt 2008, 70-71).

⁹¹ Francis Webb to John Bertram, 13 April 1870, Box 3, Folder 1, MSS 104, PEM.

⁹² Edward D. Ropes to John Bertram, 9 June 1867, Box 3, Folder 1, Correspondence No. 107, MSS 104, PEM; Edward D. Ropes to John Bertram, 5 July 1867, Box 3, Folder 1, Correspondence No. 110, MSS 104, PEM.

⁹³ Francis Webb to John Bertram, 13 April 1870, Box 3, Folder 1, MSS 104, PEM.

female consumers, the same observer noted that even when garments were of "undoubtedly inferior" quality, "that is a detail which, so long as she can be dressed in the latest fashion, the native lady is quite prepared to overlook" (Cave 1898, 14). The apparent willingness of coastal and coastal hinterland consumers to regularly replace relatively cheap and flimsy, but fashionable, garments undoubtedly helps account for much of the large quantities of Indian and British cloth imported into late-nineteenth-century East Africa.

By the end of the nineteenth century, consumption of Dutch-produced *kangas* was spreading on the coast and saw an "enormous increase" in the last year of the century (Kestell-Cornish 1902, 5). But local stamping of low-cost imported cloth was still occurring along the Swahili Coast as of 1901. And although reports indicate that by the turn of the century coastal domestic printing could pose no serious threat to the increasing imports of factory-printed versions, local printing reportedly persisted into the mid-twentieth century (Ryan 2017, 104-109; 2013, 98).

The Limits of Imperial Influence

This chapter has illustrated how the dramatic uptick in cloth imports from the 1870s was linked with changing consumption and demand patterns among producer groups along and near the East African coast. However, the possible role of British intervention in affecting the scale and composition of imports must be considered given that the British gained increasing political influence in Zanzibar from the 1840s onward and also exerted colonial control in Bombay. French and American traders had widely viewed the ongoing British project to subdue slave trading on the East African coast as "odious intermeddling" designed to assert "hegemonic British influence" over the lucrative trading entrepôt (Speer 1862, 43; Sheriff 1987, 237).⁹⁴ British anti-slavery interventions probably did affect the island's economy by indirectly encouraging the development of clove plantations. It is unlikely, however, that the associated rise of cloth imports from colonial Bombay was influenced by British intervention.

Britain undoubtedly benefitted from the precipitous growth of British-ruled Bombay's exports to East Africa, especially when specifically British-made re-exports from Bombay rose during the American Civil War. The tide turned, however, with the sudden growth of Bombay-produced cloth exports by the late 1870s, as Indian-made unbleached cloth began replacing the British product in East African markets (see Fig. 3.9). This was by no means an entirely welcome phenomenon. In 1885, the British consul at Zanzibar complained that the "comparatively flimsy material which the rising manufacturing industry of India is now producing [has] seriously interfered with our [British-made] goods" (Frederic

⁹⁴ William S. Speer, "Report on Zanzibar," 1862, RG 59, Volume 3509 (Book 4), NARA.

Holmwood cited by Metcalf 2007, 168). In any case, even if an increase in exports of Indianmade cloth had been in the best interest of the colonial metropole, the British generally had great difficulty influencing consumption habits in East African regions, even in British protectorates. In British colonial Uganda, for example, British-made cloth struggled to gain traction as consumers persistently demanded American-made cloth in spite of concerted efforts to push the metropole's product (Cave 1899, 14; United States 1908, 724).

The success of Bombay-made unbleached cloth imported into Zanzibar was supported by extensive Indian information networks, strengthened with the establishment of telegraph service on the island in the 1870s, which kept Bombay firms attuned to changing local needs and demand patterns (Prestholdt 2008, 81).⁹⁵ Networks of information were extraordinarily important in Zanzibar, called by American Consul Speer "the city of secrets" since "life and fortune" depended on guarding trade secrets. Indian residents, he concluded, were the "shrewdest" masters of Zanzibar's trade (Speer 1862, 10-11, 58).⁹⁶ They far outweighed all other foreign merchants, with between 5,000 and 6,000 residing on Zanzibar alone in the 1860s and "in considerable numbers at all the towns and villages on the opposite coast of the mainland" (Rigby 1861, 4-5). Comparatively, no more than twenty European and American merchants resided on the island at any given time (Speer 1862, 27).⁹⁷

Indian merchants were simply well set up to respond to East African demand in ways that other merchants could not. The Indian networking system thus supported the agency of East African consumers while simultaneously enhancing the economic power of Indian merchants and investors. While many of the Indians residing in East Africa were British subjects, the integration of large Indian commercial networks at the local, regional, and international level provided Indian – and not British – producers with a special advantage in East Africa that would ultimately help Bombay industrialize on its own terms. In fact, investment in the industrial textile machinery that produced cloth destined for East African markets was made with Indian rather than British capital, derived in part from raw cotton trading profits accrued during the global "cotton famine" of the 1860s (Prestholdt 2008, 81; Beckert 2014, 172).

3.6 Textile Manufacturing on Zanzibar

Lastly, we turn to cloth manufacturing on the island of Zanzibar itself and consider the implications of mounting global trade integration for the entrepôt's burgeoning textile

⁹⁵ For the older development of Gujarati networks in East Africa, see Machado (2009, 57).

⁹⁶ William S. Speer, "Report on Zanzibar," 1862, RG 59, Volume 3509 (Book 4), NARA.

⁹⁷ William S. Speer, "Report on Zanzibar," 1862, RG 59, Volume 3509 (Book 4), NARA.

industry. Zanzibar only began to rise to prominence as a cloth production center following the transfer of the Sultan of Oman's residence to the island in the early nineteenth century (Clarence-Smith 2014, 268). Thereafter, in the midst of Zanzibar's global trade boom, textile manufacturing was repeatedly reported by visitors as the century progressed. Ruschenberger observed in 1835 that the inhabitants of Zanzibar were "all actively employed" and "before some of the houses, on raised terraces or porches of mud, men were weaving cloth for turbans by hand" (Ruschenberger 1839, 38). By the second half of the 1840s, "small looms" were being established specifically for the purpose of adorning cloth with fashionable borders and fringes to enhance its consumer appeal (Guillain 1856, 142). During the "the labour hour," Burton found in the 1850s, one could find "the weaver on his raised clay bench [...] engaged upon a turban" (Burton 1872, 350). Likewise, in a letter to the East India House in London, Fergusson reported that the "trades carried on by the natives at Zanzibar" included the manufacturing of cotton cloth "worn by the inhabitants" (Sykes 1853, 108). By the 1860s, weavers had reportedly developed an indigo-dyed cloth, samples of which were sent to Bombay and the Lowell mills of Massachusetts (Prestholdt 2008, 71, 202).

The island's manufacturing sector persevered even as large amounts of imported cloth passed into the entrepôt. In fact, global trade benefited the local industry. As Prestholdt (2008, 202) notes, Zanzibaris imported raw cotton from western India to use for domestic weaving. As early as 1850, Bombay exported some 72,100 lbs. of raw cotton to the "coast of Africa," presumably Zanzibar (Bombay Presidency 1852, 56). As Fig. 3.10 illustrates, Bombay's exports of raw cotton to Zanzibar would ramp up by the final quarter of the century, rising in tandem with the growth of the island's imports of foreign-made cloth. Only during the 1884-85 famine, which curtailed Zanzibar's economic activity, did raw cotton imports show significant, but temporary, disruption.

Alongside providing access to raw materials, global trade integration offered additional stimulus for local weaving professionals, who often produced "native-spun coloured border" pieces to attach to imported cloth (Lyne 1905, 233). Moreover, for the tailors, dyers and cloth printers active on Zanzibar and the East African coast, industrial opportunities only increased as demand for alterations of imported cloth grew alongside rising incomes and consumption possibilities. Indeed, a strong case has been made by Prestholdt (2008, 68-71) for viewing many of Zanzibar's manufactured imports as *intermediate* goods. This included not only imported cotton cloth that was reworked to suit local tastes, but also increasing imports of yarn, along with sewing thread (Fig. 3.11). Some of the twist imported into Zanzibar was re-exported to weaving centers in northern East

Africa, but the yarn and sewing thread that remained on the island was employed by local artisans to produce locally woven materials and modify imports to suit local tastes.⁹⁸

[Figure 3.10 here]

Fig. 3.10 Raw cotton exports from Bombay to Zanzibar, 1875-1916. *Source*: Bombay annual trade reports (Bombay Presidency 1876-1916). *Note*: Five-year moving average.

[Figure 3.11 here]

Fig. 3.11 Yarn and sewing thread exports from Bombay to Zanzibar, 1870-1916. *Source*: Bombay annual trade reports (Bombay Presidency 1871-1916). *Note*: Five-year moving averages.

Even on Zanzibar, the center of East Africa's nineteenth-century global trade boom, cloth manufacturing survived – and even flourished – amid rising imports. In fact, Zanzibar's weaving industry would outlast the island's commercial heyday, which came to a close by the end of the nineteenth century. In 1925, a British-made documentary about the island featured "local workmen [...] plying their crafts." Zanzibari "clothmakers" are shown working a treadle loom "of ancient Arabia [...] used for the weaving of patterned cloth" (Woolfe 1925). The industry dwindled in the decades that followed, concurrent with a decline in the economic position of the island, as trade shifted to ports on the East African mainland. Contrary to the basic tenets of deindustrialization theory, it seems that global trade was a *vital ingredient* for Zanzibar's industry. As of 1949, weaving was conspicuously absent from a government-produced list of Zanzibari industries, although designs for *kanga* prints were still being created on the island (Zanzibar Protectorate 1949, 13, 23). However, nearly a

⁹⁸ For re-exports of "twist" to Benadir ports in 1891, for example, see Portal (1892, 18, 32).

century after the local weaving industry began to fade, contemporary Zanzibari entrepreneurs are reportedly using inherited looms and locally grown raw cotton to revive the island's nineteenth- and early-twentieth-century textile manufacturing traditions (Brown and Page 2016).

3.7 Demand and Consumption: Coast vs. Interior

The nineteenth century saw profound developments in commerce and consumption along the East African coast as the region engaged increasingly with global traders. Over the course of the century, the scale and composition of foreign cloth imports into East Africa and the nature of demand changed significantly. As trade initially ramped up between the 1830s and early 1860s, unbleached American cloth cornered the market, but while it was well received, it was imported in quantities that perpetually outpaced local demand, a consequence of aggressive competition among American and European merchant firms and still-low local buying power. From the 1870s, however, consumption of cloth on and near the coast began to grow rapidly as exports of coastal and coastal hinterland products increased, exceeding exports of ivory from the East African interior. Rising incomes of producer groups living near the coast stimulated demand for foreign imports, especially cloth. Demand patterns of these producers and consumers influenced the scale and composition of East Africa's cloth imports by the 1870s. Coastal people, particularly nonelites, consumed large amounts of low-cost cloth that could be readily replaced as coastal fashions swiftly changed. Accordingly, imports into East Africa from the 1870s onward were comprised primarily of comparatively cheap Indian- and British-made cloth.

As the next chapter illustrates, demand preferences were conditioned very differently in the interior, where more expensive, but higher-quality American *merekani* cloth retained its demand advantage through the century. On the coast, cloth was primarily a cheap consumption good, thus durability was less paramount; in the interior, conversely, it was a valuable currency that was expected to survive both the long journey inland and exchanges through many hands. While part of the Indian and British cloth imported into East Africa was taken into the interior, *quality* was paramount among interior buyers, which helps explain the persistent preference for durable American cloth. If we first consider the very large amounts of Indian and British cloth imported into East Africa – compared with American cloth – from the 1870s onward and then take into account the marked differences in consumer preferences near the coast relative to the interior, we begin to see the primacy of coastal consumers in affecting the scale and composition of cloth imports. The next chapter investigates the flow of foreign-made cloth into the interior during the second half of the nineteenth century and further elucidates the substantial differences between

consumption levels and use values of cloth in the deep interior of East Africa relative to near-coast regions.

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Appendix 1 – Cloth imports into East Africa by origin, 1836-1900 – Sources and Methods

Introductory Note

Cloth imports into East Africa by origin have been compiled from various sources detailing cloth shipments to the region from the United States, India (particularly Bombay), and the United Kingdom, which were the three largest exporters of mass-produced, factory-made cotton cloth to East Africa during the nineteenth century. The lion's share of nineteenth-century cloth imports were funneled into the region through Zanzibar, which imported foreign-made cloth and then shipped it to the mainland. However, direct trade with the mainland has been included in the dataset wherever possible.

In the case of American exports, the vast majority of cloth passed to the mainland via Zanzibar. The American share of cloth exports to East Africa for the period 1836-1852 has been estimated by carefully compiling shipping and sales records of Salem-based merchant firms trading with East Africa via Zanzibar. Although merchant firms from other parts of the eastern United States also began trading with Zanzibar, Salem-based traders dominated American cloth exports to the island up to the 1840s. In 1848, for example, eight of the nine American ships that arrived at Zanzibar laden with cloth hailed from Salem. After this period, consular reports record American cloth exports to Zanzibar, including from non-Salem firms.

The annual share of exports from Bombay, which dominated India's cloth trade to East Africa during the second half of the nineteenth century, has been derived primarily from the *Report of the commerce of Bombay* and the *Annual statement of the trade and navigation of the Presidency of Bombay*. However, for the years 1861-1865, Bombay-exported yardage was calculated using total Bombay cloth export values to Zanzibar (from Sheriff 1987, 249-252) and corresponding prices for English cloth, Bombay's principal cloth export to East Africa until the 1870s. The annual share of cloth exports to East Africa from the United Kingdom were derived from the *Annual statement of the trade of the United Kingdom with foreign countries and British possessions*.

List of Primary and Secondary Sources from Which Cloth Imports By Origin Were Derived

Archives

- "Arrival and Departure of American Vessels, Jan 1 1857 to June 29 1894," RG 84, Consular Posts, Zanzibar, British Africa, Volume 084, National Archives and Records Administration, College Park, USA (hereafter NARA).
- William S. Speer, "Report on Zanzibar," 1862, RG 59, Consular Correspondence, 1789-1906, Despatches from Consular Officers, Volume 3509 (Book 4), NARA.
- F.M. Cheney, "Trade Report on Zanzibar, June 30th 1883 June 30th 1884," RG 59, Volume 3512 (Book 7), NARA.

- David Pingree Papers, 1803-1939, MSS 901, Boxes 74, 98, and 103 (various folders), Peabody Essex Museum, Salem, Massachusetts, USA (hereafter PEM).
- Emmerton Family Papers, 1784-1891, MSS 24, vol. 1, Account Book, PEM.
- Michael Shepard Papers, 1809-1893, MH 23, Boxes 1-11 (various folders), PEM.
- West Family Papers, 1832-1868, MH 235, Boxes 3, 4, 9, 10, 11, and 23, PEM.

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CHAPTER 3: APPENDIX 2: Unit Price Per Yard of Unbleached Cloth at Zanzibar, 1836-1900—Sources and Methods

Unit prices for unbleached Indian-produced cotton cloth have been derived from quantities and corresponding values of exports to East Africa (from 1878 onward, explicitly to Zanzibar) recorded in the *Report of the commerce of Bombay* and the *Annual statement of the trade and navigation of the Presidency of Bombay*. Unit prices for cloth exported by the United Kingdom are derived from quantities and corresponding values of exports, primarily to Zanzibar, reported in the *Annual statement of the trade of the United Kingdom with foreign countries and British possessions*. This source broadly groups Zanzibar's trade with that of other "East African Native States" up to 1891, but the vast majority of cloth exported to this broadly designated area appears to have been shipped to Zanzibar. Note that in the case of the British trade reports, cotton cloth exports (and thus prices) are not differentiated by type. They consequently include not only unbleached cloth, but also unknown shares of dyed, bleached and/or printed cloth.

Prices for American-made unbleached cloth (*merekani*) exported to East Africa have been either collected or calculated using an array sources. For the period 1836-1852, most annual observations have been derived from aggregated values and quantities compiled from the shipping and trade records of Salem-based merchant firms trading on Zanzibar, collected from the Peabody Essex Museum's Phillips Library in Salem, Massachusetts (hereafter PEM). A number of annual observations for the period 1865-1892 have been derived from the aggregated values and quantities of ships' cargoes collected and reported by American consuls. The following annual observations rely on a single sales price either reported in ships' papers or in correspondences from American merchants or consuls:

- 1840: Based on shipping records of the *Cherokee* (Box 2, Folder 6, MH 23, PEM).
- 1851: William Jelly to Ephraim Emmerton, 19 July 1851, Box 23, MH 235, PEM.
- 1865: Based on consular records of the trade of the *Glide* (see "Arrival and Departure of American Vessels, Jan 1 1857 to June 29 1894").
- 1866: Edward D. Ropes to John Bertram, 28 July 1866, Box 2, Folder 6, MSS 104, PEM.
- 1867: Edward D. Ropes to John Bertram, 14 January 1867, Box 2, Folder 6, MSS 104, PEM.
- 1870: Francis Webb to John Bertram, 23 August 1870, Box 3, Folder 3, MSS 104, PEM.
- 1875: Based on consular records of the trade of the *Essex* (see "Arrival and Departure of American Vessels, Jan 1 1857 to June 29 1894").
- 1883: Ropes Emmerton Co. to James S. Williams, 11 April 1883, Box 42, Folder 3, MSS 103, PEM.
- 1886: Ropes Emmerton Co. to Tharia Topan, 9 March 1886, Box 42, Folder 5, MSS 103, PEM.
- 1888: Ropes Emmerton Co. to Tharia Topan, 7 Feb 1888, Box 43, Folder 1, MSS 103, PEM.

Additional reported annual prices come from:

- 1863: Sheriff (1987, 255).
- 1881: Bachelder (1883, 33).

- 1884: Cheney, "Trade Report on Zanzibar, June 30th 1883 June 30th 1884."
- 1887: Pratt (1888, 841).

List of Primary and Secondary Sources from Which Cloth Prices Were Derived

Archives

- "Arrival and Departure of American Vessels, Jan 1 1857 to June 29 1894," RG 84, Consular Posts, Zanzibar, British Africa, Volume 084, National Archives and Records Administration, College Park, USA (hereafter NARA).
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Chapter 4: The Limits of the Caravan Trade: Cloth Imports into Interior Central East Africa, c. 1850-1900

4.1 A Flood of Cloth? Imports in the Deep Interior

By the nineteenth century, handicraft cotton cloth industries had developed in a number of locales in the interior of central East Africa. Broad theories of deindustrialization suggest that such labor-intensive textile industries deteriorated as rising globalization and declining global transportation costs led to an inflow of foreign-made cloth in the global "periphery" during the nineteenth century, thus dis-incentivizing domestic manufacturing, particularly as terms of trade improved for primary products relative to machine-made manufactures from industrializing countries.¹ With respect to Zanzibar-adjacent mainland Tanzania,² the heart of central East Africa's nineteenth-century ivory trade, numerous historians suggest that competitive cloth imports devastated domestic textile production as the region was confronted with "aggressively expanding world trading networks" that saw caravans enter the interior, loaded with cloth to exchange for tusks (Kjekshus 1977, 110; see also Koponen 1988, 374).³

This chapter investigates the degree to which mounting cloth imports inundated the interior and undermined domestic textile production during the nineteenth century. Based on traveler accounts, Prestholdt notes that already by the mid-nineteenth century imported "cloth was readily available as far as eastern Congo" and points to the use of Americanmade unbleached cloth (*merekani*) as a form of currency in the deep interior as "a testament to [its] interpenetration" (Prestholdt 2012, 92). Gordon suggests that by the late 1860s imported cloth was "ubiquitous" along interior trade routes and that consequently "only in remote areas or among very poor subjects and slaves" did people continue to wear domestic cloth or skins (Gordon 2013, 27). Foreign cloth was certainly present in the deep interior and observed by Western visitors, who generally traveled on "well-worn" caravan routes along which imported cloth was systematically doled out in exchange for safe passage, food, and ivory (Fee 2012, 3). But even in the final years of the nineteenth century, German traveler Friedrich Fülleborn noted "very little" foreign-made cloth when he ventured off the beaten track just east of the northern tip of Lake Nyasa, in the area

¹ For the impact of improved terms of trade for raw materials on industrial production in the global periphery, see Williamson (2011). For declining transportation costs, see O'Rourke and Williamson (1999, 29-55).

² When necessary for clarity, this chapter uses the modern name for mainland Tanzania. The area was called German East Africa (which included Rwanda and Burundi) and Tanganyika during the German and British colonial periods, respectively.

³ See also section 1.2 of this book.

between Lupembe and Idunda, not far from major interior trade arteries (Fülleborn 1906, 247).

I challenge the notion that cloth imports led to deindustrialization in the interior of nineteenth-century Tanzania, arguing that imports actually remained remarkably limited in much of the interior prior to the twentieth century. Further, although imported cloth became more plentiful along caravan trade routes, particularly closer to the Zanzibaradjacent coast, imports were not evenly distributed throughout the interior. Textile import levels varied substantially across geographic space, contingent upon differing local demand patterns, global-oriented export activities, and proximity to nodes of global trade. Furthermore, in much of the interior, imported cloth came to occupy a special position as a valuable commodity currency, leaving ample space for local cloth-makers to continue to produce for consumption purposes.

East African import data reveal that imports of the cloth most heavily demanded in the interior – high-quality American-made *merekani* – remained low and comparatively steady through the century, while imports of lower-quality Indian unbleached cloth grew precipitously (see Figs. 3.2 and 3.9). Outbound figures from coastal ports to ultimate mainland and interior destinations do not exist, but contemporary reports from consular officials and travelers, along with existing scholarship on interior regions, provide clues for mapping the regional distribution of East Africa's cloth imports in the interior. This chapter begins with a discussion on the specific use value of imported cloth as a high-value currency in the deep interior, which helps explain why *merekani* imports remained so low. Thereafter, the geographic distribution of imports in the interior is explored by analyzing the constricted pathways through which cloth and other imported manufactures was dispersed via the caravan system. Focus is placed on the principal nineteenth-century central ivory route, which extended from the Zanzibar-adjacent mainland coast through Ugogo in what I refer to in this chapter as the "near-coast interior" (300-400 km inland) to the major ivory markets of Tabora and Ujiji in the "deep interior" (western Tanzania), then into the "deeper interior" beyond Lakes Tanganyika and Victoria.⁴ Caravan routes traversing mainland Tanzania during the nineteenth century are illustrated in in Fig. 3.1 in Chapter 3.

The value of imports increased dramatically as they moved inland, allowing caravans arriving in the interior from the coast to comparatively cheaply exchange imported manufactures for tusks that were then transported to Zanzibar and sold at increasingly higher prices.⁵ The previous chapter has shown that a substantial share of East Africa's

⁴ For comparison with southern and northern trade routes, see Pawełczak (2010, 109-124).

⁵ In addition, slaves were often purchased along caravan routes to be subsequently exchanged elsewhere in the interior for tusks (Roberts 1970, 59).

mounting cloth imports from the 1870s onward was obtained via exports of goods produced and supplied by coastal and coastal hinterland people, who consequently consumed increasing amounts of cloth. Due to their favorable location, these groups enjoyed superior terms of trade for their exports relative to most ivory providers, who were primarily situated deep in the interior, far from global trading nodes. This chapter argues that the nature of the coast-interior trading system allowed certain coastal groups on Zanzibar and the mainland coast, particularly merchants and caravan financiers, to capture a large portion of the profits – largely in the form of imported manufactures – derived from increasingly favorable global terms of trade for ivory from the deep interior.⁶ It also explores the degree to which the East African slave trade affected the amount of imported cloth taken into interior Tanzania during the second half of the nineteenth century, concluding that the impact on interior cloth levels was limited.

Contrary to competition-based deindustrialization theories, the nineteenth-century expansion of global trading only moderately increased cloth stocks in the deep interior of central East Africa. Moreover, cloth production continued in much of interior Tanzania well past the peak and decline of the region's nineteenth-century ivory boom. German Geographer Hans Meyer published a map illustrating where the use of domestic cloth had been reported up to at least the late nineteenth century in the area that became German East Africa in 1885 (modern-day mainland Tanzania, Rwanda, and Burundi), indicating consumption across large swaths of the western and southern portions of the colony, where traditions of cloth production had developed in the preceding centuries (see Fig. 4.1).⁷ In fact, the art of weaving was reportedly still *spreading* in the interior at the turn of the twentieth century (Richter 1900, 126).

[Figure 4.1 here]

Fig. 4.1 Cloth production in German East Africa in the late nineteenth century. *Source*: Based on Meyer (1909). *Note*: In addition to manufactured textiles, the original map indicates that animal-skin garments were found "all over."

4.2 Cloth as Currency

⁶ Zanzibar's merchants and caravan entrepreneurs were engaged in complex familial and economic relations with Oman and India. Consequently, a portion of the wealth accrued on the island via regional and international trade was transferred beyond East Africa (McDow 2008; Bishara 2017).

⁷ The map was originally formulated by Karl Weule and based on the findings of ethnologist Heinrich Schurtz, derived from numerous ethnographic reports (Meyer 1909; Schurtz 1891).

Through the nineteenth century, coastal caravans entered the interior loaded with imported manufactures used to fund the voyage inland (i.e., to pay porter wages, purchase food, and pay for safe passage through territories) and to purchase ivory. These imported goods, consisting primarily of cloth, beads, and metal wire, progressively increased in value as they moved into the interior, where they were transformed into valuable currencies in lieu of coins circulating on the coast (Rigby 1861, 26; Burton 1859, 57). Chief among these commodity currencies was imported cloth. Cloth had been instrumental as a medium of barter exchange in sub-Saharan Africa for centuries. In 1609, for example, explorer João dos Santos noted that cloth was commonly used to settle debts and retained as a store of wealth in southern East Africa (dos Santos 1901, 270, 275). There, domestic cloth was reportedly the original medium of exchange, but between the sixteenth and eighteenth centuries, imported cloth increasingly entered circulation and had become the "only currency" used in some areas by the 1850s (Davison and Harries 1980, 187).⁸

Indeed, by the mid-nineteenth century, imported cloth had become the principal commodity currency throughout much of interior East Africa, including Tanzania, particularly as East African ivory exports – largely exchanged for imported cloth – increased during the second quarter of the century. In some areas, domestic cloth and other local manufactures continued to facilitate barter exchange. The Wafipa, for example, situated along a main caravan route in southwestern Tanzania, regularly traded their domestic cotton cloth for salt and iron implements until at least the late 1890s (Boileau and Wallace 1899, 601, 613). However, imported commodities would serve as the general currencies of nineteenth-century East Africa. American-made *merekani* cloth, in particular, became "a complete money" in much of interior Tanzania, circulating alongside other imported commodity currencies and traditional interregional trade goods (e.g., iron hoes, salt, and tobacco) that helped lubricate the long-distance trade system.⁹

Prior to the 1830s, cloth imports into Zanzibar were largely comprised of indigocolored dyed *kaniki* – the "worst and flimsiest" of cloths – imported from India (Burton 1859, 421). Thereafter, however, sturdier unbleached American cloth was introduced and rapidly dominated East African markets (Abbot to Webster, 12 March 1851).¹⁰ *Merekani* became essential for upcountry caravans, and Richard Burton recalled making "the mistake of ignorance by not laying in an ample store of American domestics" when collecting

⁸ On imported cloth as currency in southern East Africa, see Machado (2005, 90-95, 102, 110, 150, 170, 243); Livingstone (1857, 635).

⁹ Rockel (2006a, 299n97) notes the primacy of *merekani* as currency in the interior, based on Sissons (1984, 42-52). For the use of interregional trade goods along caravan routes, see Pallaver (2009, 22).

¹⁰ George J. Abbot to Daniel Webster, 12 March 1851, RG 59, Consular Correspondence, 1789-1906, Despatches from Consular Officers, Volume 3508 (Book 3), National Archives and Records Administration, College Park, USA (hereafter NARA), 5.

supplies and commodity currencies for a voyage to the interior in the mid-1850s (Burton 1872, 484). By mid-century, ivory was largely being purchased from interior sellers using the American cloth, along with imported beads and metal wire. Payments in central Tanzania's Unyamwezi, for example, which housed the central ivory market of Tabora, were regularly made using forearm-length "cubits" of *merekani* (Rigby 1861, 26).

By the late 1850s, dyed *kaniki* cloth also functioned as currency, but it was, according to Burton, "wholly rejected" by some interior groups (Burton 1859, 86, 423). The American unbleached cloth held its place as the currency standard and would reportedly continue to "form in some parts of the country the only currency" through the century (Cave 1899, 14; Rockel 2006a, 220). This enduring preference was partly related to highly developed brand loyalty among discerning interior buyers, who by the 1860s prized lengths of American-made cloth bearing specific trademarks (Grant 1864, 87; see also Ropes to Bertram, 2 December 1866).¹¹ Consequently, American merchants hailing from Salem, Massachusetts were keen to ship *merekani* brands, like "Massachusetts A," that were in particularly high demand, even when they came from firms in Boston and New York rather than Salem's own Naumkeag Cotton Steam Company.¹²

As discussed in Chapter 3, when American merchants withdrew from Zanzibar during the American Civil War (1861-65), imports of *merekani* temporarily dwindled, providing greater space for lower-quality British and Indian products in East African markets. Imports from Bombay, in particular, increased markedly, and as the previous chapter has argued, the cheaper but less durable cloth was adopted by some coastal and coastal hinterland consumers as increasing buying power led to a rise in consumption, even among lowerincome groups. However, while more expensive American cloth may have lost its advantage among coastal consumers, the superior American product quickly regained and held its footing in interior markets once American trade with East Africa resumed following the Civil War.

In the early 1870s, over half of the cloth cargo brought on Henry Morton Stanley's voyage to the interior consisted of American unbleached cloth, along with half that amount

¹¹ Edward D. Ropes to John Bertram, 2 December 1866, Box 2, Folder 6, MSS 104, Peabody Essex Museum, Salem, Massachusetts, USA (hereafter PEM).

¹² Original purchase receipts and maker's marks listed on outward shipping manifests spanning from the founding of the Naumkeag mill in the 1840s to the last decade of the nineteenth century show that Salem shipping firms regularly purchased the bulk of their Africa-bound cloth stocks from storehouses in New York and Boston. See outward shipping manifests in MH 23, MH 235, MSS 901, MSS 103, MSS 104, and MSS 24 series, PEM; Ropes Emmerton & Co. Salem Office Records: Ships' Account, 1873-1886, Box 17, Folder 8, MSS 103, PEM; Cotton Sheeting Purchases, 1883-1890, Boxes 17 and 18, MSS 103, PEM.

of dyed *kaniki*. In addition, his load included a smaller supply of various fancy colored cloths (Stanley 1872, 23). The higher-end textiles in this final category – commonly referred to as "cloths with names" – were characterized by Burton as "minor items" in interior-bound caravans and were typically included in comparatively smaller quantities to give to chiefs, exchange for particularly valuable items (e.g., livestock), or conclude difficult barter transactions (Burton 1860, 531-533). Although these fancier cloths comprised a relatively small percentage of each caravan's cargo, Fee (2017) has rightly noted that they were vital for lubricating trade. However, analysis of the diverse varieties of fancy cloths imported into East Africa falls beyond the scope of this study, which focuses on the plainer cloth goods that were shipped to East Africa on a much larger scale and thus presented more of a (potential) competitive threat to domestic textile industries.

The high share of *merekani* in Stanley's cargo probably would have been higher still by the second half of the 1870s when America's *merekani* exports returned to pre-Civil War levels (see Fig. 3.2 in Chapter 3). A cheaper *merekani* "imitation" made in India was introduced by the mid-1870s, but the Indian variant was reportedly a "much poorer article" with a "looser weave," which helped the "genuine American cloth" remain "much in favor" up to at least the early twentieth century (United States 1908, 777). British unbleached cloth similarly struggled to compete with American cloth in the interior. At the end of the 1870s, Scottish explorer Joseph Thomson reported packing a few hundred yards of "worthless English cotton" relative to "thousands of yards of *merekani*, the strong and durable cotton of America, which is fast hustling England out of the African market" (Thomson 1881, 36).

British consuls bemoaned the consistent demand for the American product in interior East Africa, as interior groups regularly rejected products that were not from the United States well into the final years of the century, making it difficult for other producers to "compet[e] successfully with the United States" (Cave 1898, 13; 1899, 14; see also Hardinge 1897, 9). As Fig. 3.2 illustrates, East Africa imported markedly low and steady amounts of American-made cloth relative to much larger and increasing quantities of Indian and, to a lesser degree, British cloth as imports into East Africa began a rapid ascent from the early 1870s. Given the pronounced and persistent preference for American-made cloth among interior buyers and the high share of *merekani* in interior-bound caravan cargoes, this striking divergence in import levels suggests that the relative scale of East Africa's cloth imports ultimately flowing into the interior was likely lower than scholars have assumed.

The Exchange Virtues of Merekani

The popularity of American cloth in interior East Africa was attached to its use as a commodity currency, which favored uniformity and durability. Successful currencies must be "generally acceptable" across large distances and ideally backed by a form of

authentication (Johnson 1980, 193). *Merekani* fit the bill: with "uniform thickness [...] it can be always depended upon to be of the same weight [and] purchased without misgiving [...] whereas samples from other countries have frequently been known to vary" (Cave 1898, 13). American merchants were conscious of the premium placed on uniformity and were quick to identify irregularities. One agent wrote to his US supplier, "*Hellespont*'s sheetings were of very inferior quality, being much lighter weight [...] Any inferiority in quality of American standard sheetings will cause the natives to be suspicious, and cause a great deal of trouble hereafter." The offending sheeting was a mere one pound lighter per piece¹³ than usual (Ropes to Bertram, 11 August 1867).¹⁴ *Merekani* was also authenticated by smell – or lack thereof – for it was free from the strong odor of "gruel" (a chalky thickening agent used to temporarily bulk up cloth) present in other machine-produced cloth. A British consul hoped in vain that "if some odourless substance were to be used [...] British goods would command as ready a sale as the American" (Portal 1892, 32).

Merekani mitigated several common disadvantages of cloth currency, which helps explain its popularity as a medium of exchange among interior people. Cloth decays over time, particularly with moisture, and tends to require stock replenishing due to eventual withdrawal from circulation in spite of the "expectation that the recipient will probably use the money for further payments, rather than consuming it himself" (Johnson 1980, 193-194, 196-197). Johnson points out that West Africa's cloth imports – which were primarily English and Indian – deteriorated rapidly, and "only local cloth would stand up," which helped local varieties maintain a place as currency alongside imports (Johnson 1980, 200). In East Africa, conversely, imported merekani did not easily spoil upon contact with water since American producers did not use water-soluble thickening agents (Cave 1898, 13). This helped extend the currency life-span of a given piece of *merekani*. Moreover, although it is unclear at what point down the exchange line a recipient would choose to wear rather than further exchange the valuable cloth currency, the marked durability of *merekani* – attributed to its strong weave, "stouter cotton," and favorable manufacturing "climatic conditions" (Cave 1898, 13; United States 1908, 777) – facilitated numerous exchanges. Enduring circulation of durable, high-value *merekani* partly explains the low, relatively steady rate of imports through the nineteenth century.

The arrival of *merekani* in the interior may have diminished the potential for domestic cloth to serve currency functions, but it left ample space for local cloth to serve *consumption* functions. For one, imported cloth rose substantially in price as it entered the interior, reaching high values that must have decreased the economic logic of pulling it out

¹³ "Pieces" were typically 30-40 yards in length.

¹⁴ Edward D. Ropes to John Bertram, 11 August 1867, Box 3, Folder 1, Correspondence No. 112, MSS 104, PEM.

of circulation for personal consumption.¹⁵ Indeed, imported cloth currency was generally used to make big-item investments in the interior, including cattle purchases and payment of bridewealth, which could markedly improve socio-economic standing. Wanyamwezi caravan porters, for example, often invested their cloth-based wages in livestock purchases (Rockel 2006a, 68). Furthermore, commodity currencies are generally selected for their *relative scarcity* in the regions of exchange, crucial for preventing heavy inflation and maintaining sufficient exchange value (Pankhurst 1962, 213-214). Thus, the very use of imported cloth (*merekani* or otherwise) as currency through the whole of the nineteenth century belies the flood of imports into the central East African interior purported by deindustrialization theories.

British- and Indian-made cloth was also taken into the interior to serve as commodity currencies, especially in periods when American *merekani* became scarcer. During and immediately after the American Civil War, for example, *merekani* exports dropped off, forcing American merchants to rely on alternative exports to purchase African ivory. Annual American exports of specie to Zanzibar rose sharply from \$34,000 in 1860 to a peak of over \$680,000 in 1872 before declining as American cloth exporting again picked up steam.¹⁶ During this period of constricted *merekani* supplies, travelers noted Indian-dyed *kaniki* – produced using both British- and Indian-made cloth (Alpers and Goswami 2019) – and British-made unbleached *satini* circulating at the interior market of Ujiji (Stanley 1899 [1878]-a, 3; Hore 1883, 9; Hore 1892, 71). *Satini* and *kaniki* were still important interior currencies circulating alongside *merekani* as of the early 1880s (Burdo 1886, 170). Tellingly, these particular cloth varieties were, like *merekani*, imported into East Africa in comparatively modest, steady amounts through the century.¹⁷

Indian-made unbleached cloth would likewise eventually enter the interior, particularly toward the end of the century when the availability of American *merekani* again declined. In the 1890s, American cloth exports to East Africa were impeded by industrial disruption at home and rising demand for American cloth in China.¹⁸ Meanwhile, *merekani* imports into mainland central East Africa, in particular, were simultaneously further

¹⁵ Burton details increasing prices as cloth moved inland (Burton 1859, 57).

¹⁶ "Arrival and Departure of American Vessels, Jan 1 1857 to June 29 1894," RG 84, Volume 084, NARA.

¹⁷ Bombay's exports of British-made unbleached cloth (*satini*) and Indian- and British-made colored, printed, and dyed cloth (which includes *kaniki*) remained relatively low and stable through the century (see Fig 3.9), as did total British direct exports of cloth to East Africa (see Fig. 3.2).

¹⁸ Increasing manufacturing costs led to the closure of numerous mills, constraining supplies during the 1880s and into the 1890s. See Ropes Emmerton & Co. to Tharia Topan, 9 February 1886, Box 42, Folder 5, MSS 103, PEM; Ropes Emmerton & Co. to Tharia Topan, 20 October 1886, Box 42, Folder 5, MSS 103, PEM; Ropes Emmerton & Co. to Tharia Topan, 8 March 1887, Box 42, Folder 5, MSS 103, PEM; Ropes Emmerton & Co. to Tharia Topan, 14 October 1887, Box 42, Folder 5, MSS 103, PEM; Ropes Emmerton & Co. to R.M. Whitney, 28 October 1892, Box 43, Folder 1, MSS 103, PEM.

diminished as American merchants increasingly focused on procuring northern East African hides and skins, resulting in a diversion of American cloth exports to northern ports (Bennett 1962, 57-58; Powell-Cotton 1902, 512; United States 1907, 435). An American consul reported in 1897 that an Indian-made *merekani* imitation ("*Amerikano gamti*") was being "introduced in large quantities, especially at Bagamoyo [a Zanzibar-adjacent mainland trade center], whence it enters the interior as a medium of exchange for ivory" (Stephan 1898, 305). However, late-century supply was apparently at odds with demand as widespread preference for the American-made cloth remained steadfast in the interior through the century, so much so that as of 1897 a British consul reported that "throughout the German East African colony the natives will still refuse to look at anything that does not come from America" (Cave 1898, 13; see also Cave 1899, 14).

Complementary Commodity Currencies

Alongside imported cloth, other imported commodities became popular exchange goods in the interior during the nineteenth century, especially glass beads, brass and copper wire, and, in some areas, imported iron (Rigby 1861, 26; Burton 1859, 421, 428). While Indian unbleached cloth struggled to compete with American-made cloth among interior consumers, other Indian exports were in higher demand in the interior. Sheriff points out that with the sudden absence of merekani cloth during the American Civil War and the unwillingness of interior consumers to readily accept lower-quality alternatives, demand for beads and wire had "greatly increased" along the caravan routes (Sheriff 1987, 135). Bombay exporters responded accordingly, and exports of beads, copper, and brass wire expanded during the 1870s, perhaps partly conditioned by the return of competitive merekani cloth to interior markets following the Civil War. As Fig. 4.2 illustrates, Bombay's exports of these popular commodity currencies increased from only 29,500 pounds (consisting only of beads) in 1866 to over 200,000 pounds of beads, copper, and brass wire by 1880. Exports dipped following the famine of the mid-1880s, which disrupted the East African trade, before rapidly dropping off in the 1890s as central East Africa's ivory exporting peaked and declined. Bombay's iron exports also increased from the 1870s before declining during the 1890s.

[Figure 4.2 here]

Fig. 4.2 Beads and metals exported from Bombay to East Africa, 1866-1900. *Source*: Bombay annual trade reports (Bombay Presidency 1867, 1871-1901). *Note*: Five-year moving averages (except 1866).

In West Africa, non-cloth commodity currencies generally served a lowdenomination function alongside higher-valued cloth (Johnson 1980, 197). Likewise, in much of the East African interior, beads and wire were considered "small change" while imported cloth represented "the higher specie" (Burton and Speke 1858, 215; see also Pallaver 2009, 22). In some areas, however, non-cloth commodity imports formed the principal currency, outvaluing cloth. In Karagwe (northwestern Tanzania), for example, midcentury ivory purchases were generally made using imported beads and brass wire (Burton 1859, 442). In other cases, caravan traders had to first exchange imported manufactures for local goods, like livestock, demanded by ivory sellers (Pawełczak 2010, 57-58).

However, currency conventions changed over time. In the late 1850s Burton had noted, "The traveller in the Lake Regions loses by cloth [...] beads are a necessary evil to those engaged in buying ivory and slaves," while twenty years later, imported cloth circulated as an important currency along Lake Tanganyika's coastline (Burton 1859, 227; Stanley 1899 [1878]-a, 3). The adoption of cloth currency along the lakeshore was probably stimulated by the region's increasing integration into the coast-interior caravan system as trade networks extended westward toward the Congo basin. The extension of trade led to the development of a regularized bead currency in the market town of Ujiji, which by the mid-1870s was based on a cloth standard. Here, the amount of cloth in town determined the daily exchange rate of beads relative to the two-yard *shukka* and the four-yard *doti*, a system that was encouraged by Arab and Swahili merchants who settled in the region.¹⁹

Prices for imported commodity currencies of all varieties rose markedly as they moved into the interior, conditioned both by their relative scarcity in the interior and high transportation costs. European explorers replenishing their commodity currencies at interior markets were stunned by the high coast-interior price differential (Fee 2012, 4). In the late 1850s, Burton had reported that a measure of *merekani* worth approximately \$0.14 at Zanzibar increased to \$0.25 upon reaching the mainland coast, then rose to \$0.75 at Tabora and \$1.00 at Ujiji – respectively, a 79-percent, 436-percent and, finally, 614-percent increase from the price at Zanzibar – and would continue to increase the farther inland the cloth traveled and the more distant it was from the major interior ivory markets (Burton 1859, 57, 357).²⁰ Likewise, the price of non-cloth imported manufactures increased immensely

¹⁹ Hore provides a contemporary account of the cloth standard in Ujiji (Hore 1883, 9; Hore 1892, 71-72). For an extended discussion on bead currency, see Pallaver (2009). For the expansion of Ujiji's trade and the evolution of the town's exchange system during the second half of the nineteenth century, see Brown (1971, 619-623).

²⁰ Burton provides prices in both "dollars" and sterling. It is unclear if he is referring to the US dollar or the Maria Theresa thaler, although these were very close equivalents on Zanzibar. According to the American consul, one Maria Theresa thaler was worth \$US 0.972 in 1862. Both Speer and Mansfield noted that the English sovereign was worth \$4.75, while historian Abdul Sheriff gives the same conversion rate for pounds

between the coast and the deep interior. In the late 1850s, for example, a length of wire purchased for \$1.00 in Zanzibar rose to \$5.00 at Ujiji (Burton 1859, 428). As the next section illustrates, while prices for manufactures in the interior would gradually decline, they would remain remarkably high relative to coastal prices through the nineteenth century.

Importantly, even when and where imported cloth circulated in the interior, its use as high-value currency diminished the deleterious effects of competition purported by deindustrialization theories. For the average interior consumer, imported cloth was undoubtedly too valuable to regularly expend as a garment. In Ujiji, Edward Hore reported that, as of the start of the 1880s, the "common garment" remained traditional bark cloth and cotton cloth, which was manufactured in the area, although "European cloth" was also worn in the area, particularly by women living near the "Arab" settlements (Hore 1883, 10-11). Likewise, in Ufipa, lying 150 miles south of Ujiji, imported cloth was increasingly integrated into the local economy from mid-century as the region became an important mid-way stop for long-distance caravans traveling beyond Lake Tanganyika. Yet, the Wafipa cloth industry continued to flourish, serving both elites and commoners, with Western visitors regularly noting cotton cloth production in the area well into the early twentieth century, decades after the peak and eventual decline of the coast-interior caravan trade (Waller 1875, 461, 463; Thomson 1881, 220-221; Cameron 1877, 195-197; Boileau and Wallace 1899, 601, 613; Melland and Cholmeley 1912, 29-30).

4.3 Interior Ivory: A Coastal Boon

In quantitative terms, the scale of foreign-manufactured cloth brought into nineteenth-century East Africa via ivory-seeking caravans was almost certainly too low to precipitate competition-based devastation of domestic industry. This was partly a result of the character of the coast-interior trading system, which tended to progressively concentrate ivory profits toward the point of final sale: Zanzibar. While the immense difference in coastal and interior cloth prices may have galled European travelers seeking fresh commodity currency stocks, it generated sizeable returns for coastal financiers and seasoned traders venturing between the coast and the interior.

In West Africa, cloth currency – comprised of domestic cloth $strips^{21}$ – was most valuable in northern desert regions, where aridity prohibited cotton growing. As itinerant merchants traveled northward, they lucratively exchanged the strips for salt demanded in

sterling to Maria Theresa thalers. See William S. Speer, "Report on Zanzibar," 1862, RG 59, Volume 3509 (Book 4), NARA, 57; Daniel H. Mansfield to William L. Marcy, Zanzibar, 31 January 1856, reproduced in Bennett and Brooks (1965, 499); Sheriff (1987, 256).

²¹ See Chapter 6 for discussion of domestic cloth currency conventions in West Africa relative to imported cloth currency in East Africa.

the south (Johnson 1980, 196). In East Africa, the value of imported cloth currency progressively increased as it moved inland, where it was profitably exchanged for ivory. However, unlike West Africa's northern-procured salt, which was ultimately sold to southern consumers, East Africa's interior-procured ivory was ultimately sold on Zanzibar to *global* buyers willing to pay steep prices that were substantially pushed up by global demand between the 1820s and the early 1870s.²² Interior ivory prices increased, but not apace with the coastal price surge. Consequently, a substantial share of the wealth created via central East Africa's ivory exporting was accrued on Zanzibar and in adjacent mainland coastal trading centers, like Bagamoyo.

Coastal merchants amassed considerable profits that were reinvested into trade ventures, moneylending, and clove plantations, while a portion of coastal wealth was shifted beyond East Africa to other Indian Ocean locales via business and family networks linking Zanzibar with Oman and India (McDow 2008; Bishara 2017; Beachey 1967, 227). In the long run, Sheriff suggests, Zanzibar's "assimilation into the world system of trade" and the encroaching political subordination by the British during the second half of the nineteenth century would ultimately curtail the economic power of Zanzibar's merchant class, diminish the commercial economy of Zanzibar, and eventually undermine the Omani state (Sheriff 1987, 101-110, 202-208, 245). However, the material point in the context of this study is that the concentration of profits at the coast during the nineteenth-century ivory boom would effectively limit the amount of wealth – in the form of imported manufactures – transferred to the interior over the course of the century.

Interior Players in the Long-Distance Caravan System

This is not to suggest that interior people did not profit from East Africa's increasing integration into global trading networks. Chiefs situated along caravan routes enjoyed substantial gains, levying tolls (*hongo*) on passing caravans and often claiming one tusk of each elephant killed in their territories, which could be used to enhance political and military power (Deutsch 2007, 86). Furthermore, in some parts of the interior, a prospering merchant class developed, forming "a kind of agricultural and commercial élite" (Unomah and Webster 1976, 305; see also Sheriff 1987, 180-181). Subsistence farmers living along the major routes could also obtain imported goods by bartering food, although, as discussed below, the gains to be made on provisioning were largest closer to the coast.

Moreover, both people from the coast and the interior actively participated in longdistance caravan ventures, while existing interior exchange systems increased in tandem (Unomah and Webster 1976, 276, 284-289). Wanyamwezi people from the area surrounding

²² Zanzibar's ivory export prices steadily climbed from 22.00 Maria Theresa thalers in 1823 to 89.65 in 1873 (Sheriff 1987, Appendix B). According to Beachey, prices stabilized thereafter (Beachey 1967, 278).

Tabora were particularly important players. They had long engaged in regional trading in the interior and began traveling to the coast by at least 1800, initially dominating the coast-interior trade before coastal merchants began to increasingly organize interior-bound caravans during the second half of the nineteenth century (Roberts 1970, 49).²³ However, Wanyamwezi traders often encountered both discrimination and predation en route, which could diminish their profits. For example, caravans organized in the interior often paid significantly higher *hongo* fees compared with their counterparts hailing from the coast, indicative of a "caravan infrastructure" that increasingly favored "coast men" as the century progressed (Pawełczak 2010, 221). And as Burton (1859, 56-57) reported in the 1850s, Wanyamwezi caravans were often "plunder[ed] systematically" by self-governing coastal hinterland settlements whose "income [was] chiefly derived from the down-caravans of Wanyamwezi":

"Though rigorously forbidden by the Prince of Zanzibar, [these settlements] send large armed parties [...] as far as 150 and 200 miles into the country, where they act less like touters than highwaymen. By every petty art of mercantile diplomacy, sometimes by force, at other times by fraud [they] secure these caravans, bring them to the village, and then begin the work of plunder. Out of each frasilah from 8 dols. to 14 dols. are claimed as the Government due; the Diwans [settlement rulers] then demand 6 dols. as their fee [...] plus 1 dol. for ugali or porridge [...] and 1 dol. for the use of water [...] The owner of the tusk is afterwards allowed to deal with a Banyan, from whom the Diwan has received a bribe, [who] buys for 18 to 21 dols. the article which at Zanzibar is worth 50 dols."²⁴

Those Wanyamwezi caravans that made it to the coast often faced discriminatory duties charged by the Zanzibar customs house – particularly at Bagamoyo, the principal ivory depot on the Zanzibar-adjacent Mrima Coast²⁵ – which exceeded those levied on coastal caravans by over 65 percent in the 1860s (Hines to Seward, 25 October 1864).²⁶

²³ Wanyamwezi contact with the coast may even date farther back to the eighteenth century (Rockel 2006a, 43).

²⁴ At Zungomero, for example, "a great army of touters preyed on down-going and up-coming caravans" (Beachey 1967, 272n10).

²⁵ Around mid-century, Kilwa and Pangani also handled sizeable amounts of coastal exports to Zanzibar, but by the 1870s exports of ivory from the mainland to Zanzibar had become increasingly concentrated at Bagamoyo (Sheriff 1987, 122-123). For discussion of Mrima ports, see Pawełczak (2010, 124-133).

²⁶ Letter from William E. Hines to William H. Seward, Zanzibar, 25 October 1864, reproduced in Bennett and Brooks (1965, 531-532). For discussion of discriminatory duties, see Glassman (1995, 59); Sheriff (1987, 123, 125); Alpers (1975, 247); Deutsch (2007, 81). Pawełczak points out that while more equitable trade was possible at other depots, like Dar es Salaam and Saadani, interior-organized caravans were drawn to

Indeed, Sheriff suggests that a concerted effort was initiated in Zanzibar to "favor coastal Arab penetration of the interior, and to exploit the ivory brought by the Wanyamwezi traders to the maximum" (Sheriff 1987, 125). In addition, coastal community leaders levied brokerage fees on every non-Arab caravan entering Bagamoyo and Kilwa up to at least the 1870s (Pawełczak 2010, 292-294). Such practices diminished the earnings – in the form of imported manufactures – that interior-organized caravans could ultimately take back to the interior. It seemed to Burton that, "Everywhere the principle is one – the loss is to the barbarian, and the profits to the people of the coast" (Burton 1859, 57).

Deutsch suggests that Wanyamwezi traders were increasingly discouraged from organizing coast-bound caravans between the 1850s and 1870s as the ivory frontier moved westward, "out of the ambit of local Nyamwezi hunters and traders." While some followed the ivory frontier, they struggled with limited access to credit and strong competition from coastal traders, particularly once coastally connected merchants from Zanzibar began settling in the deep interior by mid-century (Deutsch 2007, 81). During the second half of the century, many Wanyamwezi became paid porters for large caravans, a development expertly documented by Rockel, while others would continue to travel to the coast independently and may have even outnumbered coast-organized caravans until 1880 (Rockel 2006a, 2000, 1997).

As a result of their strong coastal connections, the Wanyamwezi were renowned consumers of imported cloth by the 1860s (Speke 1860, 144; Hore 1883, 7). However, it is important to bear in mind that while some interior commercial entrepreneurs could increase their material wealth by engaging in the coast-interior trade system, most average consumers in the central East African interior did not enjoy substantial gains. Furthermore, they faced steep prices for imported commodities, particularly high-valued cloth imports, making the consumption of imported cloth an expensive luxury for the majority.

The Coastal Advantage

While enterprising interior traders and hunters acquired gains, the largest profits from the long-distance trade system were accrued by merchants and financiers on and near Zanzibar, who had mastered "the art of buying cheap and selling dear" (Koponen 1988, 55, 67-68). In 1890, the British consul-general in Zanzibar claimed, "The profits made by the Indian merchants, on the whole, have been enormous [...] unsatisfied with the modest returns of ordinary commerce" (Euan-Smith to Salisbury, 24 February 1890, quoted by Beachey 1967, 277). Meanwhile, Beachey points out that in the interior, "large fortunes from the ivory trade were not common," even among traders with close ties to coastal

Bagamoyo by higher overall purchase prices and greater subsequent employment opportunities in inlandbound caravans (Pawełczak 2010, 314; see also Glassman 1995, 64-65). financiers, partly due to high rates of interest on borrowed capital (Beachey 1967, 276). Indian merchants on Zanzibar, who advanced imported commodities to Arab and Swahili caravan traders on credit, often priced these imported goods 50 percent above their original purchase value, thus already doubling the value of commodity currencies even before they crossed to the mainland; and upon returning from the interior, caravans were subsequently offered purchase prices for their ivory far below the prices ultimately charged to global buyers. Many caravan traders consequently became heavily indebted to Indian financiers, whose presence on Zanzibar had increased substantially by mid-century (Sheriff 1987, 108; Unomah and Webster 1976, 275-277).

Price differentials between the interior and Zanzibar were incredibly steep, owing in part to high markups of ivory prices on Zanzibar and comparatively limited amounts of imported commodity currencies circulating in the interior, but also due to heavy transportation and transaction costs faced by caravans, as discussed in the next section. In the late 1850s, one *frasilah* (35 lbs.) of ivory could be bought at Tabora for as much as 44 yards of imported merekani (worth approximately \$3.20 at Zanzibar), then sold to global buyers at Zanzibar for \$52.50 (equivalent to about 722 yards at Zanzibar prices), a price increase of 1,540 percent.²⁷ Given an upper-bound interior market rate of 44 yards per frasilah and a total of roughly 13,960 frasilahs exported from Zanzibar in 1859 (Rigby 1861, 21), an estimated 614,240 yards of cloth could have been funneled into the interior in exchange for ivory exported from Zanzibar. This compares starkly with the roughly 8,587,000 yards imported into East Africa the following year, which is particularly striking given that interior-derived ivory accounted for over half of the value of East Africa's commodity exports until the early 1870s (see Fig. 3.6 in Chapter 3). Moreover, this figure undoubtedly overestimates yards traded in the interior in exchange for ivory since tusks were generally much cheaper in areas distant from central trading depots and could also be obtained using non-cloth commodity currencies.

Interior ivory prices did rise over time, but they remained far below Zanzibar prices (see Table 4.1). By 1876, one *frasilah* of ivory could be purchased at the major interior market of Ujiji on the northeastern shore of Lake Tanganyika for 140 yards of cloth (worth \$12.46 at Zanzibar). Meanwhile, Zanzibar's ivory price had already reached \$89.65 by 1873, a 620-percent advantage on the 1876 Ujiji market price.²⁸

²⁷ The price at Tabora is an upper-bound estimate since one *frasilah* was worth three *gorahs* of *merekani*, which ranged from 7 to 11 four-yard *doti*, or 28 to 44 yards (Burton 1859, 422, 442). For the Zanzibar *merekani* price (\$0.073 per yard in 1859), see Fig. 3.5 in Chapter 3. For the Zanzibar ivory price, see Sheriff (1987, 255).

²⁸ In 1876, one pound of ivory equaled four yards of cloth at Ujiji (Stanley 1899 [1878]-a, 4). In the same year, *merekani* cost \$0.089 per yard at Zanzibar (see Fig. 3.5 in Chapter 3). For Zanzibar's ivory price in 1873, see Sheriff (1987, 256).

[Table 4.1 here]

Sources: See notes 27 and 28. *Nearest available price (1873)

This "inflationary trend" in major market towns like Ujiji was undoubtedly influenced by supply and demand, but was also partly affected by price manipulation by local merchants. Brown notes that Wajiji traders artificially drove up ivory market prices to dampen the profits of competing Wangwana middlemen. Relative proximity to the coast was also an important factor, with market prices at Tabora generally higher than those at Ujiji (Brown 1971, 621-622, 625). Outside of the principal interior trading centers, however, ivory prices continued to remain substantially lower. For example, at Katupi, a smaller market village on the southwestern shore of Lake Tanganyika, Verney Lovett Cameron (1877, 209) reported that one *frasilah* of ivory was valued at only 40 yards of cloth (worth \$4.60 at Zanzibar) in 1874. By the mid-1870s, prices for ivory in both the interior and on the global market reportedly began to level off and remained relatively stable through the century (Beachey 1967, 278).

4.4 Transportation and Transaction Costs on the Trail

In Burton's view, the relatively limited flow of cloth into the interior resulted from coastal machinations, which posed "serious obstacles" by "monopolizing the import traffic" from at least mid-century (Burton 1859, 421). However, low quantities of cloth in the deep interior were also influenced by persistently high transportation and transaction costs associated with ivory-seeking upcountry caravans. These included tributary payments, food expenditures, and porter wages. Global transportation costs were declining during the nineteenth century with the construction of the Suez Canal and the development of steamships and railways. However, the mechanization of transportation lagged behind in central East Africa. The first rail line to the central interior of Tanzania was completed only in 1914 (Calvert 1917, 27). Nineteenth-century trade voyages to the deep interior were consequently lengthy and expensive, costing roughly £124 per ton to reach Tabora in the 1870s. This, Sheriff points out, "imposed severe limitations on the quality and quantity of commodities that could enter the channels of trade" and diminished the price-reducing impact of technology-driven decreases in global transportation costs (Sheriff 1987, 192, 113n50).

During the second half of the nineteenth century, European explorers and missionaries made several attempts to use animal-based transportation methods to reduce

costs and speed up voyages to the interior. Pallaver (2010) notes that donkeys were regularly used in the interior by the Wanyamwezi but had been relegated to short-distance journeys; their utility for longer treks was sharply limited by the prevalence of tsetse flies, particularly between the coast and interior, which proved fatal to draft animals. Consequently, all twenty of the donkeys that Burton and Speke attempted to take from the coast to Unyamwezi died en route, a fate suffered time and again by the donkeys, mules, elephants, horses, and oxen that Europeans attempted to drive upcountry. She suggests that these experiments were doomed to fail; Europeans had simply underestimated the underlying environmental and climatic characteristics of East Africa that had given rise to the existing system of porterage in lieu of alternative methods.

In fact, conditions may have been *especially* problematic for animal-powered transportation at the height of the nineteenth-century caravan trade. As overhunting depleted elephant populations between the coast and the expanding ivory frontier, what had once been expansive grasslands transformed into vast green wooded areas, ideal habitat for tsetse flies (Håkansson 2004). Gooding (2019) has recently highlighted temporary climatic changes – particularly increased rainfall during the El Niño event of 1877-1878 – that further stimulated the growth of vegetation, causing an "explosion" of tsetse flies just as missionaries began unsuccessfully experimenting with ox-cart transportation. Porterage would remain the primary mode of transportation in central East Africa into the early twentieth century. Later, the eventual construction of colonial rail lines would reduce the cost of transporting one ton of goods to connected regions to a remarkable 6 percent of the caravan-based transportation cost (Biermann 1995, 23).

The high expense of porter-based transportation during the nineteenth century drove up the price of imported cloth as it moved inland, which helps explain why *merekani* was favored in the interior. For the interior consumer, to whom these costs were ultimately transferred, it made scarce economic sense to purchase less durable, but still expensive varieties. Transportation and transaction costs also provide clues to the geographically differentiated distribution of imported cloth in the interior. The majority of cloth payments was dispensed along the central caravan route, particularly in the near-coast interior (300-400 km inland), where bargaining power was comparatively strong and imported commodities held less currency value relative to the deep interior beyond. Off the well-traveled routes, in contrast, foreign-made cloth was still scarce by the end of the century (Fülleborn 1906, 247).

Tribute and Provisioning

Caravans were obliged to pay tributary *hongo* to numerous chiefdoms along the main trade arteries in exchange for unfettered passage (Burton 1859, 148-152). Upcountry

hongo payouts – primarily plain cloth, beads, and some fancier cloth – made up a significant portion of the cloth outfitted for any given voyage to the interior (see, e.g., Speke 1864, 61-63, 69-71; Cameron 1877, 98; Becker 1887, 138). By the 1880s a small caravan might dole out 4,000 yards of *merekani* en route to the deep interior (Becker 1887, 470; Fee 2012, 6). On coastward voyages, in contrast, caravans typically paid *hongo* using domestic goods, especially iron hoes, tobacco, salt, and hemp, often obtained at interior market towns using imported beads (Deutsch 2007, 80; Roberts 1970, 52-53; Pallaver 2009, 22, 24, 27n43; Sigl 1892, 164-166; Becker 1887, 136).

The most expensive leg was through the relatively near-coast interior region of Ugogo, which enjoyed "economic prosperity" during the nineteenth-century due to its favorable position along the central caravan route (Sissons 1984; Rockel 1997, 27-28).²⁹ Situated relatively close to the coast, the value of cloth and other imported commodity currencies remained comparatively low here – at roughly double coastal prices.³⁰ The Wagogo consequently demand significantly larger *hongo* payments compared with areas located farther inland, where imported manufactures held much higher exchange values. Consequently, substantial quantities of the cloth entering the interior ended up here (Rockel 1997, 32).

Caravans passed through numerous small Ugogo territories, each requiring separate payments. Demanded amounts fluctuated based on the size and nature of caravans and generally increased over time (Burton 1859, 149-152; Wilson and Felkin 1882, 58). Some Western explorers, unaccustomed to these tributary arrangements, described "that irritating system of robbery [which could] amount in the course of a few days' journey to from twenty to twenty-five percent of the total property of a caravan" (Wilson and Felkin 1882, 58). Others, like Burton, considered *hongo* "not unjust [...] custom-dues of the government" (Burton 1859, 149).³¹ Indeed, caravans often received a number of benefits in exchange for paying *hongo*: access to guarded water wells, unfettered passage, and protection against theft (Rockel 1997, 32). Experienced caravan leaders could bypass particularly rapacious chiefs, albeit at the expense of time and convenience (Pawełczak 2010, 219-220). They could also negotiate *hongo* fees, although power relations generally "favored local communities" through most of the century (Rockel 2006b, 18).

²⁹ However, in the long run, the expansion of agricultural production to provision passing caravans ultimately eroded Ugogo's soil (Christiansson 1981, 149-153).

³⁰ In the early 1870s, for example, Cameron noted that commodity currencies were, in general, worth double their Zanzibar value in Ugogo. In 1881, White Fathers missionaries reported that the price of imported manufactures in Ugogo was a little more than double coast prices (Cameron 1877, 98; Pallaver 2009, 22).

³¹ On contrasting perspectives of *hongo*, see Pawełczak (2010, 219).

Rockel (1997, 33) notes that "the route through Ugogo could hardly be avoided" by caravans traveling between the Zanzibar-adjacent coast and the central Tanzanian interior during the second half of the nineteenth century. An older Ruaha-Isanga route, which was located farther south and passed through Ukimbu, was regularly used up to the 1840s, but martial disruption and provisioning difficulties led to a general northward shift through Ugogo. By mid-century, the route through Ugogo had become the principal path to interior ivory markets, with over 100,000 people passing through the area each year, in part due to the region's capacity to produce surplus food to provision caravans (Sheriff 1987, 177; Rockel 2006b, 12; 1997, 25-33).

Although caravans venturing upcountry regularly departed from different points on the coast, they typically converged in the Mpwapwa area of Ugogo – "the last place with good food and water supplies" – before diverging again as they moved farther inland into an arid, uninhabited tract (Rockel 1997, 18-19). Chiefs in Ugogo thus gained considerable power to levy *hongo* on passing caravans. Noncompliance could mean "complete destruction [and] massacre," even for armed caravans (Rockel 2006a, 154-155). Porters often fled rather than face violence should a caravan leader refuse to pay *hongo* (Wilson and Felkin 1882, 58). Thirst was also an important consideration. In Ugogo, water was accessible only from carefully guarded wells. Pruen (1891, 184) recounted how an Arab caravan leader chose to "refuse *hongo* and force his way," but in retaliation, "the wells along the route were closed, and new ones unknown to him opened for the local needs. Only two or three of his party [survived]."

Hongo was typically partly retained by the chief as accumulated wealth and doled out to his retinue to ensure loyalty (Burton 1859, 149, 428; Prestholdt 2012, 87). However, common people living near the caravan routes could also acquire commodities by trading provisions to caravans.³² During the second half of the nineteenth century, caravans purchased over one million kilograms of surplus grain from Ugogo per year in exchange for roughly 80,000 *doti* (320,000 yards) of cloth (Håkansson 2004, 585 citing Sissons 1984, 189). In addition, porters exchanged cloth, wire, tobacco, and gunpowder for other provisions, like fowl (Pruen 1891, 117). Imported beads were also commonly used to purchase provisions, serving a "small change" function (Pallaver 2009, 22-23). However, European travelers typically referenced the cost of provisions for porters explicitly in cloth terms. Giraud, for example, reported supplying roughly two yards per man each week, while Dodgshun provided one *shukka* (two yards) per day per seven-man group (Giraud 1890, 58; Bennett 1969, 52). Using a single piece of cloth to purchase rations in groups may have obviated the need for the small-change functionality offered by beads and wire –

³² For caravan provisioning, see Rockel (2006a, 152); Burton (1859, 97); Unomah and Webster (1976, 297); Kjekshus (1977, 32); Maddox (1996, 47-48).

particularly when purchasing more expensive provisions, like fowl, eggs, and milk – since men could exchange a higher-value piece of cloth for provisions to divide among themselves.

In the 1870s, Stanley (1872, 22) was advised that he would need, on average, forty yards per day to fee 100 porters (less than one-half yard per porter). However, more was required close to the coast and less in the deep interior due to geographically variable exchange values. Passing through Ugogo, Cameron lamented, "stores of cloth were melting away, owing to the high price of provisions and the large tribute we had so constantly been compelled to pay" (Cameron 1877, 96). Here, strong demand for provisions and a relative regional abundance of imported commodities kept food prices high. And times of elevated scarcity, like the drought-induced famine of 1884-85 and the rinderpest epidemic of the 1890s, must have augmented food prices, providing even more peasant bargaining power in Ugogo for those willing to part with a portion of their scarce food supplies.³³

But to what degree did comparatively large amounts of cloth entering Ugogo affect local clothing preferences? The aridity that helped allot considerable local bargaining power over caravans passing through the region would have presumably enhanced regional demand for imported cloth given that, as Burton noted, "the ground is too hard and the dry season too prolonged" to grow cotton in the area (Burton 1859, 404). At the same time, exposure to caravans may have enhanced interest in coastal consumption habits. Further, larger supplies and lower values of imported cloth, relative to the deep interior, likely comparatively increased the economic logic of consuming – rather than exchanging – imported cloth among inhabitants of Ugogo. Thus, perhaps more than anywhere else in the interior, we could expect to see local clothing replaced with imported cloth in Ugogo.

Even here, however, traditional garments remained in vogue. Hore described the clothing of Wagogo men in the 1880s, well into the boom years of the caravan trade: the typical costume was not comprised of imported cloth, or any cotton cloth for that matter, but a "short mantle of well softened goatskin, often fringed or embroidered with white beads, and covered with bands and spots of bark dye." This is not to suggest that imported cloth was not worn by Wagogo people. Women, he reported, did gravitate toward imported clothing, "according to their means" (Hore 1883, 6). And Cameron noted in 1873 that some Wagogo "obtain white cloth [from traders], which they dye a dirty yellow with clay" (Cameron 1877, 80). Local clothing customs thus persisted with ease alongside foreign-made cloth even in comparatively import-abundant Ugogo.

³³ For effects of the famine on caravan trading, see Rockel (2006a, 156-159).

Once in the deep interior, explorers purchasing provisions were generally relieved to find "cheaper prices, such as were not known in Ugogo" (Stanley 1872, 173), which consequently kept imported cloth stocks comparatively low, further diminishing the likelihood of local people replacing traditional garments with expensive imported cloth. Furthermore, common subsistence farmers in parts of the deep interior may have had decreasing opportunities to sell surplus food to passing caravans by the 1880s. Settlers from the coast and local residents who had accrued wealth through trade began investing in slave-based cultivation near interior markets like Tabora to provision caravans (Pallaver 2012, 6; Sheriff 1987, 181; Becker 1887, 30). And, importantly, at the main interior markets of Tabora and Ujiji, glass beads formed "the most important means of payment" for low-level purchases like food, with cloth generally used for ivory and slave purchases (Pallaver 2009, 23-24). Consequently, although cloth was generally more abundant near major interior trade centers, opportunities for local people to obtain imported cloth by selling their surplus foodstuffs were likely relatively limited.

Porter Wages

Porter wages also increased caravan transportation costs and affected interior cloth stocks, particularly in Unyamwezi, a veritable "nation of porters" (Sheriff 1987, 182). Initially, porter remuneration was principally comprised of *merekani*, along with smaller amounts of *kaniki* and expensive colored cloths (Rockel 2006a, 220-223). However, other goods were often accepted in lieu of cloth. Cowry shells, for example, were popular in the late 1850s since they could be profitably exchanged north of Unyamwezi, where they served as currency (Burton 1859, 448). Imported glass beads were also commonly accepted as wage payment (Pallaver 2009, 23).

Professional porters enjoyed significant bargaining power as the demand for porter labor increased from the mid-nineteenth century onward. Rates varied, but porters could receive 18-20 yards of cloth per voyage in 1858, rising to 60 yards by 1881.³⁴ However, assuming that each porter carried two 35-pound *frasilahs*, porter wages increased the cloth-based cost of interior ivory acquisitions by only 9-10 yards per *frasilah* in the late 1850s and by 30 yards by the last quarter of the century, still leaving coastal financiers with a substantial profit (see Table 4.2).³⁵

[Table 4.2 here]

³⁴ For an extended discussion on porter wages, see Rockel (2006a, 211-228).

³⁵ Typical loads weighed 60-75 lbs. (Stanley 1899 [1878]-b, 50; Rockel 2006a, 218).

Sources: See Table 4.1 for ivory prices (converted to yards based on Zanzibar *merekani* prices); porter wages from Rockel (2006a, 223) are divided two since porters typically carried two *frasilahs*.

¹Nearest available price (1873) ²Nearest available wage (1858) ³Nearest available wage (1881)

Some estimates suggest that 100,000 porters were annually active by the late nineteenth century; others propose lower figures in the tens of thousands (Raum 1965, 170; lliffe 1979, 44-45). Taking the upper-bound participation estimate and very liberally assuming that all wages were paid in cloth, a maximum of 6,000,000 yards – one-seventh of East Africa's total annual cloth imports or one-fifth of the cloth imported via Zanzibar alone – may have annually entered the interior as porter wages by the 1880s.³⁶

However, much of this cloth never reached the interior. Porters hired at the coast received between two and four months' worth of their wages before the journey inland and then either received a month-to-month wage while on the road or claimed a lump sum upon completion (Rockel 2006a, 213-214). A substantial portion of the advance wage was often spent at the coast as porters awaited the departure of upcountry caravans. And, as Glassman points out, by the 1880s porters commonly fell into extensive debt while sojourning at the coast. Indian shopkeepers advanced them cash at "exorbitant rates of interest, thus trapping them in ties of debt," which reportedly allowed coastal businessmen to regularly claim around half of the advance wages paid to porters prior to departure (Glassman 1995, 60). Much of the remaining commodity currency wages acquired upfront were expended en route before reaching the deep interior since caravan food rations (*posho*) were often scant and food was expensive in the near-coast interior (Rockel 2006a, 153; Cameron 1877, 96; Burton 1859, 409).

Further, by the 1870s, Wanyamwezi porters had begun shifting their preferred remuneration to include valuable firearms, partly due to turmoil at home but probably also because decades of collecting wages in cloth and other commodity currencies had gradually increased the stocks of these goods in Unyamwezi, thus slowly diminishing their currency value in the immediate area.³⁷ Unlike less well-stocked regions of the deep interior, the local consumption value of imported cloth in Unyamwezi likely began to exceed its

³⁶ Based on an 1881 wage of 60 yards. See Figure 3.2 in Chapter 3 for East Africa's cloth import levels.

³⁷ For firearms as wages, see Wilson and Felkin (1882, 43); Roscoe (1921, 54); Roberts (1970, 71); Rockel (2006a, 68). Firearms had also become a common *hongo* demand by the 1870s as chiefs sought to both protect and control their people in Unyamwezi and elsewhere (Stanley 1899 [1878]-b, 380). Gordon has argued that the adoption of firearms altered power relations in the interior, giving rise to "military chiefs" who came to monopolize trade at the expense of old elites (Gordon 2013, esp. 33-37).

exchange value. Indeed, relative to other deep interior groups, the Wanyamwezi were reportedly well-clothed in imported cloth, having been influenced by coastal fashions brought home both literally and figuratively (Hore 1883, 7; Bennett 1971, 32).

While Wanyamwezi traders and porters did increase their consumption of imported cloth, improvements in global terms of trade for ivory did not result in the flood of cloth into most of the deep interior theorized in prevailing deindustrialization narratives. Rather, as this section has illustrated, low interior ivory prices, regionally dependent *hongo* and provision prices, and fairly minimal porterage wage burdens limited the amount of cloth dispersing into the deep interior. Further, the cloth that did flow inland was concentrated in large part in the hands of privileged groups like the Wagogo and Wanyamwezi.

Peak and Decline of the Central East African Ivory Trade

The ivory trade, which drove the long-distance caravan system, would reach impressive heights during the 1880s and early 1890s before experiencing a rapid decline before the century's end (see Fig. 3.6 in Chapter 3).³⁸ During this boom period, however, the amount of cloth imported into the interior of mainland Tanzania in exchange for ivory did not increase with the same intensity. By the 1870s, a steady depletion of elephant herds had forced caravans to plunge far into the deeper interior beyond Lake Tanganyika, toward Manyema in the eastern Congo basin, where comparatively little cloth was required to purchase ivory.

Here, cowry shells, rather than cloth, were the preferred means of exchange in market towns into at least the mid-1870s (Stanley 1899 [1878]-a, 69). Moreover, as Arab merchants became increasingly established in the area by the 1870s and 1880s, they began to "employ bands of their own slaves, armed with guns" as ivory hunters (Roberts 1970, 60-61).³⁹ This not only minimized commodity currency expenditures – given that slaves were significantly "cheaper" than ivory in the interior – but must have also reduced the access of independent local ivory hunters to imported manufactures by the final decades of the century. In fact, Beachey suggest that during the 1880s, "increasing competition for ivory resulted in its being forcibly taken from the Africans [as] both Belgian and Arab were no longer trading for ivory, but plundering it by use of force" (Beachey 1967, 278; see also Gordon 2013, 32). Consequently, interior profits became increasingly concentrated into the hands of the few who could claim the region's dwindling ivory supplies, particularly slaveholders west of Lake Tanganyika.

³⁸ The value of ivory exported to the United Kingdom, the United States, and Bombay increased from \$866,557 in 1871 to \$1,269,043 in 1881 and peaked at \$1,904,278 in 1892, falling to \$585,889 by 1900.

³⁹ Captive boys were often trained as ivory and slave hunters (Page 1974, 72-73, 78; Stanley 1891, 238-239).

During the peak years of the ivory trade, Zanzibar's merchants garnered immense boom-time profits, partly through diplomatic maneuvering. With the foundation of German East Africa in 1885, trade agreements between the German-controlled mainland and Sultanate-controlled Zanzibar resulted in the addition of a fifteen percent tax on mainland goods sold via Zanzibar. The Sultan began a policy of augmenting the price of ivory – most of which continued to come through the "German sphere of influence" (Portal 1892, 10) – to generate larger tax profits. According to Bennett, "Indian merchants, who feared to oppose the Sultan, acted to bid up the price of ivory in the market" (Bennett 1962, 56). Thus, rising ivory prices in Zanzibar, partly affected through arbitrary manipulation, would have had little impact on cloth-based ivory profits in the interior during the boom years.

Eventually, ivory hunting became illegal in much of newly-established German East Africa with the imposition of colonial game laws in the 1890s, whereby "the staple product of the nineteenth-century economy became a trophy for wealthy tourists" (Iliffe 1979, 130). The center of East Africa's global ivory trade would subsequently shift northward to Mombasa (Beachey 1967, 289). By the last decade of the century, interior trading markets fell into "deep depression" as the ivory trade declined (Iliffe 1979, 130). Villages along caravan routes were also affected as traffic declined and the bargaining power long enjoyed by roadside provisioners eroded. Late-century European travellers often assumed that commercial caravans must have plundered these impoverished towns. Rockel points instead to the increasing presence of German colonists by the late 1880s, whose firepower and military backing allowed them to more readily disregard traditional *hongo* procedures, with some even permitting their porters to loot villages for provisions (Rockel 2006b, 18-20).

Consequently, the diffusion of imported cloth into the deep interior, already constricted through the nineteenth century, was paradoxically probably *more* limited during the late-century ivory boom and in the years that followed. This further complicates assertions that strong global terms of trade for primary products brought on deindustrialization in the global periphery.

4.5 Cloth and the Slave Trade

Along with exports of ivory and coastally produced goods, Zanzibar merchants also dealt in slaves derived from the mainland. It is thus necessary to also consider how the nineteenth-century East African slave trade may have affected flows of cloth to the interior. This section argues that the slave trade had relatively little impact on the amount of cloth entering Zanzibar and, ultimately, the interior of central East Africa, especially Tanzania. For one, the export of slaves from Zanzibar was prohibited as of 1873, thus quelling any direct inflow of foreign-made cloth to the island in exchange for slaves just before Zanzibar's cloth imports showed a precipitous rise. Second, most slaves traded along the central caravan route were retained in the interior rather than transported to the coast (Roberts 1970, 59). This is an important distinction: it means that, while slaves might be purchased in the interior using imported commodity currencies that were circulating as a result of the ivory trade, substantial *additional* supplies of imported manufactures were not being funneled into the interior in order to procure slaves for coastal sale.

Slave trading was indeed a staple of the exchange system in the deep interior, where captives were considered an important interregional trade item, "almost as much a form of currency as hoes or salt" (Roberts 1970, 60; see also Renault 1989, 155). Slaves could be procured in much of the deep interior at very low rates compared with ivory. In the 1870s, a single *frasilah* of ivory was worth 12 to 15 slaves near Manyema (Stanley and Neame 1961, 134). Prices were particularly low in smaller markets, and Wajiji traders often acquired slaves from distant locales to exchange them for higher rates in Ujiji (Brown 1971, 625-626). Wanyamwezi merchants regularly procured slaves to profitably exchange elsewhere for ivory and provide as *hongo* in Ugogo on journeys toward the coast (Deutsch 2007, 85; Roberts 1970, 59; Mnyampala 2015, 45). The application of these imported slaves to cultivation undoubtedly augmented Ugogo's capacity to provision ivory-seeking caravans (Unomah and Webster 1976, 300).⁴⁰ Thus, as Renault points out, the interior slave trade was "not directly [linked to the Indian Ocean] by the sending of caravans of individuals for sale, but indirectly by ensuring supplies of ivory" (Renault 1989, 162).

The interior central East African slave trading system was only marginally connected with the coastal slave trade, particularly by the 1870s. Deutsch suggests that coast-bound slave trading by the Wanyamwezi showed an increase from mid-century, but this soon tapered off with the British coastal anti-slavery blockade efforts of the early 1870s (Deutsch 2007, 84). British efforts to curb slave trading on the East African coast generated "great difficulty" for traders attempting to move captives from interior markets to the coastal slave markets and onward to Zanzibar. Consequently, many slaves remained indefinitely in interior market towns in central East Africa, with few making it to the coast (Unomah and Webster 1976, 299-300; see also Renault 1989, 157-158; Brown 1971, 625).

Western merchants and explorers often incorrectly assumed that most porters traveling to Zanzibar were slaves purchased in the interior and forced to carry ivory to the coast, where both would be auctioned, but this has been roundly contested by Rockel (2006a) who has illustrated that most porters heading from the interior to the coast were

⁴⁰ The population of Ugogo grew from an estimated 200,000 in 1860 to 360,000 by 1890 (Håkansson 2004, 585 citing Sissons 1984, 189).

wage workers.⁴¹ Rather, most slaves who arrived on Zanzibar during the second half of the nineteenth century were transferred from Kilwa, lying to the south of Zanzibar, which sourced slaves primarily from the southern East African hinterland, particularly northern Mozambique and Malawi, where export-focused slave raiding was carried out.⁴² Indeed, Renault notes that four-fifths of the slaves arriving in Zanzibar during the 1870s came from Kilwa, while Sheriff illustrates that those slaves that did come from the Zanzibar-adjacent mainland were derived primarily from coastal regions rather than the deep interior (Renault 1989, 146; Sheriff 1989, 132-133, 142-144). Caravans departing from Zanzibar to the central East African interior instead focused primarily on procuring ivory (Renault 1989, 152). According to Beachey, transporting slaves from the deep interior to the coast was simply far less profitable than ivory, partly due to high mortality rates in transit (Beachey 1967, 275-276). Furthermore, the Zanzibar customs duty on slaves brought from the adjacent interior was between double and triple that for slaves brought from southern East Africa (Pawełczak 2010, 319; Burton 1859, 356).

More generally, the very nature of coastal slave exchanges limited the amount of imported cloth that entered East Africa as a result of slave exporting. French traders, the major Western buyers of East African slaves, typically exchanged mostly bullion at Zanzibar, exporting very few manufactures, while arms and ammunition served as principal exchange commodities at the Kilwa slave market to the south (Rigby 1861, 24; see also Masury to owners of *Lucia Maria*, 17 July 1850).⁴³ Indeed, rather than cloth imports, it was disruptive slave raiding – aided by imported guns – that precipitated the destabilization of the Lower Shire Valley's cloth industry in southern Malawi, as illustrated in Chapter 2. This contrasts markedly with the exports brought by foreign traders seeking interior-derived ivory, who consigned cloth, beads, and wire to Zanzibar's merchants to stock caravans heading inland to procure ivory.⁴⁴ Thus, Zanzibar's slave export trade generated little additional imported cloth into East Africa's coastal entrepôts and the interior beyond. In fact, the greatest impact of the coastal slave trade on cloth import levels in Zanzibar would only come with the *prohibition* of slave exporting in 1873, which resulted in an increased application of the island's slaves to Zanzibar and Pemba's lucrative clove plantations (see section 3.3 in Chapter 3).

4.6 Local Cloth in the Global Nineteenth Century

⁴¹ For abolitionist interpretations of porterage, see Rockel (2006a, 8-23). While porters along the central caravan route were primarily wage workers, slaves were reportedly used more frequently as porters in the deeper interior, west of Lake Tanganyika (Renault 1989, 152-153).

⁴² For the prevalence of southern-derived slaves by the 1850s and 1860s, see Speer, "Report on Zanzibar," 1862, RG 59, Volume 3509 (Book 4), NARA, 45; Rigby (1861, 9); Alpers (1975, 237-239, 243).

⁴³ Samuel R. Masury to owners of *Lucia Maria*, 17 July 1850, Box 11, MH 235, PEM.

⁴⁴ For details on Zanzibar's global trading system, see Chapter 3.

As this chapter has illustrated, the scale of cloth imports entering the deep interior of mainland Tanzania during the nineteenth century remained relatively modest due to constraints imposed by the architecture of the coast-interior trading system, even in the midst of the region's mounting integration into global trade networks. But did the imports that reached the interior have an adverse impact on local cloth production, as suggested in the historiography? Baumann reported that in parts of Unyamwezi, cloth production had disappeared by the end of the 1880s (Baumann 1894, 232). This was probably a result of the region's unique direct relationship with coastal trading. Porter wages had increased stocks of foreign cloth in Unyamwezi, dulling its regional currency value and thus incentivizing consumption in place of exchange. In notable contrast to other regions visited by Hore, in Unyamwezi, "almost every tolerably well-to-do individual" wore imported cloth by the late 1880s (Hore 1883, 6-7). Deutsch suggests that prolonged sojourns at the coast had stimulated adoption of coastal dress among the Wanyamwezi and supposes that the decline in local cloth production occurred as a result of "the consumption of imported goods acquir[ing] social prestige in the second half of the century" (Deutsch 2007, 79-80).

But the attenuation of Unyamwezi's domestic cloth industry can be linked not only to the increase in cloth stocks afforded by the unique employment choices of the region's men but also to the local labor supply implications that arose from those choices. That is, among the Wanyamwezi, porterage drew away a large portion of males – traditionally weavers throughout East Africa (Burton 1859, 382; Davison and Harries 1980, 182) – during the dry agricultural off-season, when cloth making usually occurred. This pattern intensified through the second half of the nineteenth century, with men drawn away for increasingly longer periods, as what had once been a largely seasonal activity became a full-time profession (Rockel 2006a, 48-49, 69; Sheriff 1987, 182). Iliffe notes that in Unyamwezi, porterage withdrew men from the local economy "on a massive scale," while warfare in the 1870s further depopulated some areas (Iliffe 1979, 76). Huge proportions of labor were diverted from home production, with at least one-third of the Wanyamwezi male population annually engaged in porterage by the 1890s (Sheriff 1987, 182). This created "a great shortage of labour in Unyamwezi to attend to dry-season tasks" (Unomah and Webster 1976, 285). While many Wanyamwezi porters ultimately returned home, some remained at the coast indefinitely, either in an effort to integrate into coastal society or, in some instances, as debt-bonded slaves (Deutsch 2007, 82; Glassman 1995, 60, 63).

According to Unomah and Webster (1976, 284-285), this severe decline in local labor supplies explains why the Wanyamwezi became primarily "buyers rather than sellers of slaves" during the second half of the century. In Unyamwezi, household labor shortages were indeed partly shored up with slave labor. However, women and children – rather than men, who may have previously practiced the art of weaving in their home villages – were

generally preferred as slaves among the Wanyamwezi due to their perceived tractability and capacity to bear children who would subsequently belong to their owner's household. Moreover, the labor of male slaves was applied to vital tasks – like soil preparation, harvesting, and hut building – and to trading expeditions, not to industrial tasks like cloth production (Deutsch 2007, 92-94). This stands in contrast to the Sokoto Caliphate in West Africa, where slaves with manufacturing skills were engaged in spinning and weaving, while plantation slaves cultivated cotton and indigo for the domestic textile industry (Kriger 1993; Lovejoy 1978). In Unyamwezi, slave labor was also applied to cultivation, but focus was placed on growing food crops to provision caravans rather than producing raw materials for the fading local industry (Unomah and Webster 1976, 297; Deutsch 2007, 83).

Interestingly, the neighboring Wasukuma to the north of Unyamwezi also engaged in porterage in exchange for cloth wages, yet here Baumann witnessed greater cloth production (Baumann 1894, 232). Thus, the presence of imported cloth did not necessarily entail the demise of local industry. Ongoing cloth production may have been enabled by a generally larger labor supply in Usukuma, which Burton described as "perhaps the most populous province [...] in this part of Africa." He also noted a particular regional abundance of water sources, crucial for cotton cultivation (Burton 1859, 260). Indeed, Usukuma, with its plentiful water supplies and rich soils, would eventually become the center of a colonialera raw cotton boom during the 1930s in the northwest of what had become British Tanganyika (Hankins 1971, 56-57).

Furthermore, among the Wasukuma, only very young men tended to engage in porterage, leaving much of the local male labor force intact (Raum 1965, 169). Additionally, a stronger Swahili and Arab presence in Unyamwezi relative to Usukuma may have generated a greater proclivity toward coastal fashions among the Wanyamwezi, diminishing demand for locally produced cloth. That is not to suggest that coastal influences were not present in Usukuma, rather that they were especially strong in Unyamwezi. By 1860, strong commercial links had been established between Zanzibar and Tabora, and numerous Arab and Swahili traders and entrepreneurs resided in the area through the second half of the nineteenth century (Unomah and Webster 1976, 277-278, 306-308). But even in Unyamwezi, some cotton- and bark-cloth manufacturing was still reported at the peak of the caravan trade (Reichard 1890, 276). In fact, Wanyamwezi migrants in Bukoba in northwestern Tanzania were reportedly spreading the art of weaving at the close of the century (Richter 1900, 126).

In numerous other interior areas where cotton cloth production had traditionally formed an important part of the local economy – particularly east of Lake Tanganyika – domestic spinning and weaving continued during and after the boom years of the long-

distance caravan trade.⁴⁵ In the 1870s, Davide Livingstone had been impressed by cloth made from cotton cultivated "all along the shores of Lake Tanganyika," forming "the general clothing of all" (Waller 1875, 215, 461, 463). Twenty years later, at the peak of the caravan trade, David Kerr Cross noted specialist weavers in interior villages on the Nyasa-Tanganyika plateau with "several looms [...] in daily operation [and] wild cotton [...] woven into pretty patterns" (Kerr Cross 1891, 94). Likewise, L.A. Wallace reported production and regional exchange of patterned domestic cloth in the late 1890s in Ufipa, where *hongo* had been regularly demanded of long-distance caravans increasingly passing through the area over the course of the nineteenth century (Boileau and Wallace 1899, 601, 613).⁴⁶

The perseverance of cloth production in much of the deep interior makes sense given the immense inland value of imported cloth, which was amplified by its relative scarcity, particularly in areas distant from major caravan centers. We would expect lowerincome people to produce their own clothing rather than readily consume what little exchangeable imported cloth they might acquire, especially since cloth could be exchanged for important wealth-enhancing goods like cattle. Even in ivory market towns, where imported cloth was relatively more abundant, its high demand for trading purposes likely discouraged its consumption among poorer people.

However, in many cases, even wealthier consumers continued to wear fine locally made cloth, sometimes blending local and imported fashions, which provided market space for both higher-end domestic textiles and imports. In Ufipa, for example, royals wore patterned domestic *seketa* cloth until at least the end of the nineteenth century, when the German colonial military actively forced the King of Nkansi to don Western-style clothing (Tambila 1981, 132). Domestic royal fashions influenced other elite consumers. For example, McCurdy (2006) suggests that while "elite" Manyema slave concubines residing in Ujiji wore imported textiles, like silk trousers, their colored two-piece wraps were a "facsimile" of the fine domestic grass cloth wrappers worn by the wives of Manyema chiefs. In fact, rather than disappearing, these elite Manyema fashions, she argues, were subsequently transferred to the Swahili when Manyema concubines accompanied their Zanzibari owners on coastward journeys, thus influencing coastal *kanga* designs.

Thus, even in interior areas with concentrations of imported cloth, differentiated use values and aesthetic preferences facilitated the persistence of domestic cloth alongside imports. Accordingly, at the close of the 1870s, Hore had witnessed weaving in Ujiji, where

 ⁴⁵ See, e.g., Cameron (1877, 195-197); Thomson (1881, 220-221); Hore and Wolf (1971, 121); Johnston (1897, 419); Fülleborn (1906, 512); Rodriguez (1908-1909, 223-224); Fromm (1912, 86, 94); Lechaptois (1913, 252-257).

⁴⁶ For caravan traffic through the region from c. 1800 onward, see Waller (1875, 418) and Burton (1859, 257, 259). For *hongo*, see Tambila (1981, 78).

imported cloth had become the standard currency upon which other market currencies were based (Hore 1892, 85-86). And manufacture of "exceedingly finished material" was noted in the well-traversed region between Tabora and Ujiji even at the zenith of the ivory trade (Moloney 1893, 104). In Ufipa, textile manufacturing would persist well into the twentieth century in spite of German colonial interference in traditional royal clothing conventions (Melland and Cholmeley 1912, 98-99).

4.7 Taking Stock of Cloth Imports in the Interior

This chapter challenges assumptions that imported cloth flooded the interior of central East Africa and undermined domestic cloth industries as the region increasingly participated in global trade during the nineteenth century. While cloth imports into East Africa increased substantially from the 1870s onward, two related systems ensured that the flow of imports into the deep interior remained relatively modest. The first was an interior commodity currency system that integrated imported cloth as a valuable currency by the mid-nineteenth century and depended upon relatively steady – rather than precipitously increasing – import levels. Importantly, the use of imported cloth as a functioning currency through the century implies sustained scarcity in the interior. Accordingly, the cloth most in demand in the interior – American-made unbleached cloth – was consistently imported in comparatively low and remarkably steady amounts, as were other imported cloth currencies, like *satini* and *kaniki*.

The second was a coast-interior trading system that quickly expanded during the second half of the century in response to rising global demand for East African ivory, which was purchased in the interior using imported commodity currencies, especially cloth. The deep interior was situated far from global trading nodes, and the distance was accentuated by reliance on porterage, helping to create high coast-interior price differentials: imported cloth rose to extreme values as it moved inland, thus ivory could be procured at very low rates (relative to coastal prices), especially as the caravan system pushed even farther inland into the deeper interior beyond Tanzania from the 1870s onward. Once the ivory ultimately reached Zanzibar, it was sold at high rates to global buyers. Thus, while the terms of trade for ivory - relative to imported manufactures - were increasingly favorable on Zanzibar during much of the nineteenth century, the benefits did not commensurately extend to most people living in the deep interior. The scale of imported cloth entering the interior consequently remained relatively low even during the 1870s and 1880s, when East African ivory exporting intensified before peaking and declining by the start of the 1890s. In this sense, the case of interior mainland Tanzania lends support to deindustrialization theory arguments that point to the importance of mechanized transportation developments in helping to stimulate significant terms of trade improvements in the Global South. In Tanzania, a *lack* of mechanization diminished the theorized development of substantially improved terms of trade in the deep interior regions from which ivory exports were derived.

People in the near-coast interior, particularly Ugogo, staked a more sizeable claim on ivory export profits. Here, chiefs demanded large *hongo* payouts from passing caravans, while locals charged steep provision prices, opportunities facilitated by the comparatively low value of imported manufactures in the area (relative to the deep interior) and the difficulty of avoiding this arid gatekeeper region to reach valuable ivory sources farther inland. Even here, however, traditional clothing conventions continued to prevail alongside the use of imported garments. Wanyamwezi porters also claimed a portion of Zanzibar's cloth imports, which led to enhanced consumption of imported cloth in Unyamwezi. Likewise, successful trading and provisioning entrepreneurs located in and near major interior trade centers could accrue wealth in the form of imported commodities through their participation in the long-distance trade boom.

For most inhabitants of the deep interior, however, imported manufactures, especially cloth, were expensive luxury goods. Those who could obtain foreign-made cloth often used it as a high-value exchange commodity, leaving ample space for local cloth production to continue alongside imports. Indeed, cloth production was documented in numerous parts of the interior well after the nineteenth-century ivory trade peaked and waned. While cloth production did decline in Unyamwezi, this was likely precipitated by a massive withdrawal of male labor from the region as a result of extensive long-distance porterage activity during the caravan trade boom. As the next chapter reveals, a similar labor-dependent process of deindustrialization would eventually occur in Ufipa, but only decades later, when colonial taxation policies drew large amounts of male labor out of the local economy and into the coastal plantation system during the early twentieth century.

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Chapter 5: Globalization or Colonial Taxation? Explaining the Decline of Textile Production in Ufipa, Tanzania, c. 1880-1940

5.1 Global Integration and Local Production in Ufipa

Throughout the nineteenth century, production and regional exchange of patterned *seketa* cloth flourished in Ufipa, nestled between Lake Rukwa and the southern end of Lake Tanganyika in the Rukwa region of what is today mainland Tanzania (see Fig. 5.1).¹ However, during the first decade of the twentieth century, this industry began to rapidly wane as the number of men engaged in textile manufacturing dropped off. This chapter explores the forces that motivated numerous Wafipa weavers to quite suddenly abandon their looms.

Many theorists have highlighted nineteenth- and twentieth-century global trade integration as the primary driver of industrial decline in the Global South. Williamson (2011) suggests that a combination of competition from cheap imports and the allure of more profitable cash-crop production deterred industrial production in many tropical economies. Historians of Tanzania have overwhelmingly pointed specifically to the deindustrializing effects of import competition from the nineteenth century onward as central East Africa became increasingly integrated into global trade networks. Koponen notes that African's often preferred locally made cloth, but suggests that an inflow of imported cloth caused the labor-intensive industry to "sink into oblivion" by the late nineteenth century (Koponen 1988, 374).

With respect to Ufipa, in particular, Iliffe suggests that this process was already initiated in the mid-nineteenth century when the region began engaging with long-distance trade caravans bearing imported cloth, which yielded "destructive consequences" as "the local weaving industry decayed" (Iliffe 1979, 60, 67). According to Willis, Ufipa's domestic industry was actually stimulated by the nineteenth-century caravan trade, but began dying out by the early 1900s as a result of "competition from cheap, factory-made calico" (Willis 1981, 152, 257). St. John points specifically to late-nineteenth-century missionaries bringing "stores [of cloth] with which to build their stations and hire labourers [...] in such quantities that the local industries could not compete" (St. John 1970, 227). Raum claims that European cloth dealt a "death blow to the indigenous weaving craft" in the lakes region, which he attributes to rising purchasing power and a general "change in taste" that favored

¹ Present-day mainland Tanzania was called German East Africa from 1885 to 1919 (and then included presentday Rwanda and Burundi) and Tanganyika during the British colonial period thereafter (exclusive of Rwanda and Burundi).

imports, thus causing domestic cloth to "become scarce" by the end of the nineteenth century (Raum 1965, 193). And Tambila argues that by the 1880s and 1890s "mass produced goods began to slowly push out the artisan goods" in the Rukwa area, with local demand for domestic textiles waning by the early twentieth century in the face of lower relative prices for "cheap" imports (Tambila 1981, 80, 162-163; see also Seel, Mgawe, and Mulder 2014, 18, 37).

[Figure 5.1 here]

Fig. 5.1 Ufipa in Bismarckburg District, German East Africa, c. 1914. *Note*: Border of Ufipa and neighboring people based on Willis (1964) and Willis (1966).

A close look at Ufipa – which became globally integrated during the second half of the nineteenth century, but only experienced industrial decline during a later period of *diminished* trade integration – challenges these competition-centered explanations of deindustrialization in the region. This chapter argues that a rapid decline of domestic textile production in Ufipa, located in the Bismarckburg district of what became German East Africa in 1885 (later British Tanganyika), was prompted in the early twentieth century by mass outmigration of labor as a direct consequence of colonial taxation in the money-scarce region. Here, an increase in consumption of imported cloth would ultimately occur, but this was largely a *symptom* of policy-driven labor migration and consequent deindustrialization rather than a *cause*.

During the nineteenth century, Ufipa's cloth industry had thrived alongside cloth imports, even as they increased until 1889. Thereafter, the region's access to imported cloth declined as the traffic of cloth-bearing trade caravans passing through Ufipa dwindled, concurrent with a decline in ivory trading during the early colonial period, which economically isolated the region. Meanwhile, as Fig. 5.2 illustrates, the growth of cloth imports into German East Africa stalled and then declined between 1890 and 1907. At the same time, prices for imported cloth simultaneously increased, linked to a failure of American raw cotton production to meet global demand, which drove up raw material costs.²

² Between 1889 and 1910, American consumption of raw cotton increased by 60 percent, while output declined by 12 percent, causing "wild speculations" on the global market and a 50 percent increase in raw

The price of unbleached cloth imported in German East Africa grew precipitously, particularly after 1900. The price for "colored, printed, or dyed" (hereafter, "CPD") cloth experienced brief periods of decline – likely tied to the late-nineteenth-century adoption of cheap synthetic dyes (Stephan 1898, 306) – but would climb 42 percent between 1900 and 1914. Crucially, these decades of rising cloth prices correspond precisely with the period that most scholars suggest saw ruinous competition in Ufipa from abundant "cheap" imports. Cloth imports would increase from 1908 to 1913 but remained below the "barest essentials" of at least 8 to 13 yards per person per annum, sufficient for two to three garments.³ Import levels, which bottomed out during the First World War, would only reach minimum subsistence levels in the mid-1930s, well after Ufipa's industrial decline was underway.

[Figure 5.2 here]

Fig. 5.2 Per capita cloth imports and prices, German East Africa/British Tanganyika, 1890-1941. *Sources*: Imports, 1890-1913: calculated from import values provided in Tetzlaff (1970, 293) and import prices derived from Bombay annual trade reports (Bombay Presidency 1891-1917). Imports, 1921-1941: Blue books (Tanganyika Territory 1921-1941). Population data: Frankema and Jerven (2014). *Note*: Price data are derived from Zanzibar import prices from 1890-1899 and Dar es Salaam import prices from 1900-1916 to reflect the shift in the mainland's principal international port of entry.

Further, as Fage has pointed out with respect to West Africa, the mere presence of imported cloth in Africa did not necessarily entail the abandonment of distinctive domestic cloth, for which imports were often poor substitutes (Fage 1978, 272-273). Indeed, the *composition* of cloth imported into German East Africa during the period of Ufipa's industrial decline further complicates competition-focused arguments. Observers were struck by the "very well done" patterned and colored cloth produced in the lakes region (Fülleborn 1906, 512; see also Wyckaert 1927, 368). Meanwhile, imports were comprised largely of simple unbleached cloth up to the mid-1920s, nearly two decades after Ufipa's industrial decline began. The composition of imports would only begin to shift in favor of

cotton prices. In fact, fears that "the European textile industry would fall under the tyranny of an American trust" helped stimulate colonial cotton-growing initiatives at the beginning of the twentieth century (Brode 1911, 107).

³ The minimum annual cash requirement to clothe a low-income four-person family in interior Tanzania (45-75 shillings in the early 1950s) is converted to yards based on the nearest available annual price for unbleached cloth (£0.07 in 1948). For the minimum annual cash requirement, see Gulliver (1955, 18); for the 1948 import price per yard, see Tanganyika Territory (1948); for yards per garment, see Wyckaert (1927, 367).

CPD cloth from 1925 onward (see Fig. 5.3). Even still, only a portion of CPD imports was comprised of *patterned* cloth, which would have been most aesthetically comparable to domestic *seketa* cloth. Furthermore, the domestic cloth was consistently touted as "much more durable and practical than the usually quite inferior calico introduced here" (Fülleborn 1906, 512; see also Lechaptois 1913, 255). These data suggest that (purportedly) overwhelming competition cannot adequately explain the decline of cloth production in Ufipa.

[Figure 5.3 here]

Fig. 5.3 Composition of cloth imports, German East Africa/British Tanganyika, 1900-1941 (expressed in quantities). *Sources*: Bombay annual trade reports (Bombay Presidency 1901-1917); Blue books (Tanganyika Territory 1921-1941). *Note*: Data for the years 1900-1914 are comprised of Indian exports to German East Africa, which formed the bulk of the colony's cloth imports during the early twentieth century (see Obst and Kloster 1913, 481-482); 1920-1941 includes imports of all origin.

This chapter offers an alternative explanation, arguing that industrial decline was initiated by colonial policies that provoked mass labor migration from Ufipa, causing dramatic structural change. Research on West Africa has illustrated how labor migration could impede domestic industries when "village craftsmen [...] who would have produced something during the dry season, have migrated" Berg (1965, 166, 169). Among the Mossi in Burkina Faso, for example, significant labor constraints arose due to coercive colonial policies that prompted male labor migration, which led households to increasingly suspend cotton cultivation and manufacturing. In the absence of domestic weaving, imported cloth began filling the place of domestic textiles even though *demand* for domestic cloth persisted (Skinner 1960, 386-387; 1965, 62-63, 70-72). Similar mechanisms undermined cloth production in East Africa's Ufipa. Here, deindustrialization was a consequence of colonialera tax pressures – linked to colonial demands for plantation labor – that ramped up from 1907, when the German colonial administration began demanding rupee (German: Rupie) coin payments. This would prompt an almost immediate drain of men from the region, as they sought wage labor to pay their taxes, resulting in a decline in male-dominated cloth production.

In 1890 the Deutsch-Ostafrikanische Gesellschaft minted German East African rupees – current with the Indian rupee already in use on the coast – for circulation in the German colony. However, penetration of these coins into the interior was gradual (Sayers 1930, 184, 186). Indeed, in early-twentieth-century Ufipa, transactions were still based on traditional barter exchange rather than cash payments, precluding the possibility of raising tax money through local sales of handicraft manufactures. Additionally, the prospect of obtaining

rupees via export-oriented peasant cash-crop production at home was mitigated by transportation difficulties. Consequently, much of Ufipa's male population had little choice but to migrate to distant plantations or railroad projects, returning home for at best two months per year. Tambila (1981) has highlighted the deleterious structural effects associated with labor migration in the Rukwa region, pointing to depopulation, destruction of family life, and limited agricultural production. However, in line with broader deindustrialization theories, he cites competition with purportedly far cheaper textile imports as the primary cause of industrial malaise, noting a close "relationship between the destruction of local industry and foreign trade."⁴

This chapter illustrates that rather than competition from cheap cloth imports it was the exodus of the region's men that led to an abrupt decline in local textile manufacturing in the early twentieth century as male labor became scarce. Crucially, in Ufipa, as in most of East Africa, cloth production was a male undertaking. Some production continued among remaining (mostly older) Wafipa men, suggesting that demand for local cloth had not evaporated in the face of imports. However, the industry was doomed in the long run by the systematic withdrawal of Ufipa's young men, which halted the reproduction of cloth-making skills. The reallocation of labor from industry to migrant wage labor was thus driven by local structural change directly influenced by colonial policy.

The following sections employ traveler and missionary accounts, trade records, and secondary sources to sketch Ufipa's late pre-colonial production history and colonial-era deindustrialization. I begin by redressing the purportedly deindustrializing impact of the nineteenth-century caravan system. Thereafter, I move to the early twentieth century to explain the causes of industrial decline, first quantitatively challenging the proposition that the relative cheapness of imported cloth doomed domestic industry and then building the case that Ufipa's deindustrialization laid not with overwhelming competition but with the exodus of male labor precipitated by colonial taxation.

5.2 Prosperity and Industry in the Nineteenth Century

Ufipa was historically comprised of the Nkansi kingdom, described by Iliffe as "one of the most elaborate chiefdoms" of nineteenth-century Tanzania, and the smaller Lyangalile kingdom (Iliffe 1979, 21) indicated in Fig. 5.1. The whole of Ufipa was divided into three contiguous geographic zones that specialized in either cloth or iron production. The majority of Ufipa's cotton cloth was produced in the Rukwa Valley (along the western shore of Lake Rukwa) and along Lake Tanganyika's eastern shoreline. In the valley, in particular, much of the male population engaged in cloth-making, with certain families specializing in production for royals (Boileau and Wallace 1899, 613; Willis 1981, 281n258 citing Lyimo

⁴ See Tambila (1981, 80-81, 162-163) for the implications of import competition and Tambila (1981, 195-201) for structural effects of labor migration.

1975, 20). Between these two lakeside cloth-producing centers lies a plateau, where specialists produced iron implements, including hoes (*ise*) used in agricultural production and as currency for large outlays like bridewealth. A well-developed system of barter exchange prevailed, with Ufipa's cloth-producing zones exchanging *seketa* cloth for plateau-produced iron and, to a lesser degree, sending their goods beyond Ufipa. Small quantities of *seketa* were reportedly taken to Lake Mweru in northeastern Zambia to exchange for salt (Willis 1981, 146-157; St. John 1970, 202-207; Boileau and Wallace 1899, 601, 613).

Integration into the Long-Distance Caravan System

By the mid-nineteenth century a "dramatic transformation" was underway with the westward expansion of the coast-interior caravan trade, as the principal route connecting the market town of Tabora in Unyamwezi with ivory sources in present-day Zambia cut directly through Ufipa (Willis 1981, 87-88, 93). Although a route from Unyamwezi to Ufipa had been operational since at least the early 1800s, by mid-century explorer Richard Francis Burton noted trade caravans passing directly through Ufipa to reach the "dominions of Kazembe" east of the lakes corridor and reported that the Wafipa "have ever welcomed the merchants that visited them for slaves and ivory" (Waller 1875, 418; Burton 1859, 257, 259). The King of Nkansi instituted hospitality policies to encourage caravans – from which he collected customary passage tolls (hongo) in the form of imported manufactures - and welcomed the settlement of coastal merchants (Reichard 1892, 400; Thomson 1881, 217-218; Waller 1875, 532; Willis 1981, 93, 173-174). Inhabitants of the region engaged readily with long-distance traders. Enterprising hunters could obtain tusks from elephant-abundant Lake Rukwa to sell at regional markets or to caravans heading toward Tabora (Lechaptois 1913, 60). Villagers offered provisions to passing caravans – and by the 1880s to the Karema mission station north of Ufipa - in exchange for imported cloth and wire (Becker 1887, 292-293).

However, the Wafipa generally did not participate in the long-distance travel pursued by other interior groups like the Wanyamwezi (Tambila 1981, 81). Rather, men in the region "largely remained local, subsistence-oriented traders" (St. John 1970, 223). In St. John's view, the failure of the region's men to become professionalized long-distance traders was economically "crippling" (St. John 1970, 225). To the contrary, Ufipa's nineteenth-century manufacturing vitality depended on men remaining at home instead of seeking economic gain abroad. In contrast, nearby Unyamwezi's cloth industry had sharply declined before the century's end as Wanyamwezi men increasingly worked as caravan porters during the dry agricultural off-season, when cloth was typically produced (see Chapter 4).

The Benefits of Trade

Willis argues that Ufipa took "maximum economic advantage" of its involvement in long-distance trading networks (Willis 1988, 91). The royal state took an active role in encouraging both external and internal market activity, which then "fed back into and further stimulated the domestic cycles of production and exchange" (Willis 1981, 198). According to Iliffe, however, domestic textile producers along caravan routes could not enjoy the potential benefits of enhanced regional trade because local cloth was simply incapable of competing with imports (Iliffe 1979, 67). Conversely, eyewitness accounts report that cloth production in and around Ufipa flourished alongside the caravan trade (Waller 1875, 461, 463; Cameron 1877, 195-197; Thomson 1881, 220-221). Willis reasons that as the administrative state grew richer from passing caravans, social differentiation increased, which stirred demand for new variants of domestic cloth. By mid-century, Wafipa producers were developing methods to spin finer thread and incorporate indelible natural dyes, particularly red and black, resulting in a diverse array of higher-quality products. Since production for elites existed alongside "horizontal" exchange between lower-ranking producers, all levels of society benefitted from craft-skill improvements (Willis 1981, 152, 156).

Even as imported cloth entered the region via passing caravans, Western travelers noted the extensive production and use of domestic cloth. In 1872, David Livingstone saw "a very great deal of cotton" cultivated and woven all along the Lake Tanganyika shoreline, as did Verney Lovett Cameron in 1876 (Waller 1875, 461, 463; Cameron 1877, 196-197). Thriving production and exchange of domestic cloth in Ufipa was reported in 1897, well after cloth import levels into what had become German East Africa reached a nineteenth-century peak in 1890 (Boileau and Wallace 1899, 601, 613). Rather than experiencing the deterioration postulated by Iliffe, cloth production had flourished in Ufipa during the region's nineteenth-century introduction to global markets via long-distance caravan traders.

Declining Prosperity, Increasing Extraction

Circumstances began to change in Ufipa during the last decade of the century. Caravan traffic progressively declined as the Belgian-controlled Congo Free State diverted trade from the old eastward land-route through German East Africa to a westward river-route toward the Atlantic (Hinde 1897, 1-4; Willis 1981, 206). Rinderpest simultaneously raged through much of East Africa, decimating Ufipa's once-vast cattle herds in 1892. With the royal coffers drained as *hongo* payments declined and cattle wealth vanished, the Wafipa administration began aggressively extracting from common households. Previously,

state tribute required little compulsion (Willis 1981, 168, 205-206). But by 1893, it was reported,

Tax collectors [...] take goats, chickens, salt, cloth, pickaxes, etc. It is a real plunder [...] To protect themselves from these unpleasant harassments, the Ouafipas move away from the capital and hide in the most remote provinces (Dupont 1903, 68).

Still, Wafipa cloth production continued to thrive even in the midst of these pressures. In the late 1890s, L.A. Wallace noted, "All the villages on Rukwa weave cotton cloths [...] in most villages, especially in those of the Afipa and Awanda, a large portion of the men are engaged in either spinning the cotton or weaving." However, he suggested that imported cloth was displacing domestic material elsewhere in western German East Africa, with "European calicoes" worn in the Nyasa-Tanganyika corridor area to the south of Ufipa in lieu of the domestic cloth previously produced in the area (Boileau and Wallace 1899, 601, 613).

This disparity in industrial vitality was likely related to significant regional disruption caused by aggressive colonial pacification and inter-tribal discord in the corridor region. During the 1890s, German conflict with the Uhehe embroiled neighboring corridor people, disrupting local societies. Mbilinyi notes that German pacification, coupled with ecological crises, undermined the ability of people in the area "to sustain themselves economically" (Mbilinyi 1987, 131).⁵ Indeed, while in 1890 both David Kerr Cross and Harry Johnston noted vibrant textile production in the lake's corridor area, ten years later, Friedrich Fülleborn could find no more than three operational looms (Kerr Cross 1891, 94; Johnston 1897, 419; Fülleborn 1906, 512). For Ufipa, which was largely shielded from the turmoil to the south and principally depended on within-country industrial exchange, *seketa* production remained unaffected. In 1897, Wallace found that "all the men and women round Rukwa wear them [and] a portion is traded to the Afipa on the plateau for iron hoes" (Boileau and Wallace 1899, 613).

5.3 Industrial Decline: A Function of Price?

A decade after Wallace reported extensive weaving in Ufipa, cloth production persisted but reportedly showed signs of decline. Paul Fromm, who surveyed Ufipa in 1908-1909, reported, "The time is not far off when sekerta [*sic*] will be a rarity," pointing to displacement of the industry by "cheap imported materials" (Fromm 1912, 86, 94; see also Rodriguez 1908-1909, 223-224). Based on statements from observers like Fromm, scholars

⁵ For general discussion on pacification and disruption in the area, see Pizzo (2007).

have concluded that "cheap" imported cloth must have undercut costlier domestic variants. Before considering alternative explanations for declining production – namely, taxationstimulated labor migration – this section challenges the supposition that domestic cloth was significantly more expensive than imports. In fact, the barter-based cost differential between imported and domestic cloth in Ufipa proves to have been minimal, belying assumptions that cheap imported cloth undermined local production.

As Fig. 5.2 illustrates, prices for imported cloth steadily rose from the 1890s. Meanwhile, the cost of transporting cloth to the interior remained high, undoubtedly intensified by the late-nineteenth-century decline in caravan traffic. Further, the central railroad (completed only in 1914) would bypass Ufipa by over 300 km, prolonging dependence on human porterage for decades to come. It was noted as late as 1937 that "transport adds considerably to the cost" of imports in Ufipa (Greig 1937, 80). In 1902, coast-to-Ufipa porterage took 70-80 days and cost £106 per British ton (2,240 lbs.), equivalent in weight to roughly 10,338 yards of unbleached Bombay-made cloth.⁶ Thus, it cost £0.010 (Rp 0.154) per yard to transport the cloth to Ufipa, more than doubling the regional price relative to the initial coastal import price of Rp 0.12 per yard.⁷ Other cloth was even more expensive to transport. American-made *merekani*, for example, was significantly heavier (at roughly 7,073 yards per British ton) and thus cost an estimated £0.015 (Rp 0.225) per yard carried, nearly 50 percent more than the porterage cost for the lighter Bombaymade material (for cloth weights, see Cave 1898, 13-14). The original coastal price of imported cloth would have been further augmented in the interior by both transaction costs and comparatively limited stocks of imports in the interior, which kept prices elevated.

Relative Prices: Imports vs. Seketa Cloth

Still, however, it is crucial to consider how the price of imports compared with locally made cloth in Ufipa. In 1908, Brother Rodriguez, a White Father missionary, reported that one *seketa* cloth (3.6 yards) cost 2-3 rupees, equaling Rp 0.56-0.83 per yard (Rodriguez

⁶ These rates are based on the overland route from Bagamoyo or Dar es Salaam to Bismarckburg (Codrington 1902, 603). Tambila suggests that much cloth entered the Rukwa region via a British-controlled route to Kituta, which made use of the Shire River in Nyasaland (Tambila 1981, 79). However, colonial reports show that by at least 1905, the bulk of Nyasaland's re-exports were bound for North-Eastern Rhodesia (accounting for 77 percent of transit trade in 1910) and, secondarily, the Congo Free State. Even if German East Africa had received the *whole* of Nyasaland's transit trade, this would have amounted to no more than an average of four percent of the colony's total cloth imports from 1900-1909 (British Central Africa Protectorate 1906, 5-6, 47; 1907, 5-6; Nyasaland Protectorate 1911, 5-6, 8; for German East Africa's total imports, see Tetzlaff 1970, 292). Further, by the early 1900s, the Shire River route was impeded by remarkably low, and falling, dry-season river levels, as discussed in Chapter 2.

⁷ For the import price of Bombay-made unbleached cloth on the coast of German East Africa in 1902, see Bombay Presidency 1906, 209.

1908-1909, 224; for yards per cloth, see Wyckaert 1927, 367). Compared with the regional price of imported unbleached cloth in 1908 – Rp 0.315, based on the coastal import price plus transportation costs – *seketa* appears to have been significantly dearer.⁸ Tambila has taken Rodriguez's reported cash price as evidence that *seketa* cloth "was more expensive than imported cloth and therefore no longer attractive for consumers" (Tambila 1981, 163). However, this high reported cash price of *seketa* becomes less meaningful upon closer inspection. For one, this rupee price – charged specifically to Europeans in the area⁹ – corresponds almost exactly with a newly imposed colonial head tax of 3 rupees demanded exclusively in cash in the region as of 1907 (for taxes, see Bursian 1910, 15; Tambila 1981, 184). In the still non-monetized, rupee-deficient region, the seemingly high reported cash price for *seketa* likely reflected the new cash needs of people seeking tax money from foreigners.

Moreover, it was the relative *barter* prices – rather than the *cash* price – of cloth that held greater meaning for consumers in what still remained a barter-based economy in the early twentieth century. The cash-based price premium of *seketa* cloth (77-166 percent dearer than unbleached imports in 1908) far exceeded its barter-based price premium (only 11 percent) reported at the close of the nineteenth century (see Table 5.1). The slightly higher barter value of patterned *seketa* likely reflected its unique qualities (durability, design, and cultural value) relative to primarily unbleached imports. Indeed, demand for *seketa* persisted despite its modest barter premium. Even Fromm, who believed that the *seketa* industry would soon be annihilated by competition from "cheap" imports, reported that as of 1909 the traditional exchange of valley-produced cloth for plateau-produced iron continued (Fromm 1912, 90, 93).

Cash price:	Cash price:	<i>Seketa</i> cash	<i>Seketa</i> barter
<i>seketa</i> cloth	imported cloth	price premium	price premium
Rupees/yard	Rupees/yard	seketa cash price vs.	3.6 yards <i>seketa</i> cloth =
	(incl. transport cost)	import cash price	4 yards imported cloth
0.56 – 0.83	0.315	77 – 166%	11%

Table 5.1 Cash and barter price premiums of *seketa* relative to imported unbleached cloth

⁸ The import price of Bombay-made unbleached cloth on the coast of German East Africa was Rp 0.161 per yard in 1908 (Bombay Presidency 1910, 453).

⁹ "The seketa [...] are also a favorite article for many Europeans, who are glad to buy the piece for the price of 2-3 Rupees" (Rodriguez 1908-1909, 224).

Sources: Seketa price (1908): Rodriguez (1908-1909, 224); unbleached Bombay-made cloth price at Dar es Salaam in 1908 (Rp 0.161): Bombay Presidency (1910, 453); porterage cost for imported cloth: Codrington (1902, 603); exchange value of *seketa* and unbleached imports in 1897: Boileau and Wallace (1899, 601).

The already very modest barter price premium of *seketa* relative to unbleached imports would have disappeared entirely when compared with imported colored, printed, and/or dyed (CPD) cloth, which was significantly costlier than unbleached imports and more aesthetically comparable to patterned and dyed *seketa* cloth. From 1880-1900, CPD cloth imported from Bombay cost 63-93 (average: 73) percent more than unbleached imports at the coast.¹⁰ Unbleached and CPD import prices would only show significant convergence in the early 1930s. Furthermore, CPD cloth was imported into the colony in comparatively smaller quantities until the late 1920s (see discussion below). This relative scarcity would have further augmented its barter price in places like Ufipa.

In any case, the importance of relative prices should not be overemphasized. In the Rukwa Valley portion of Ufipa, cloth-making skills were traditionally widespread, meaning that households could simply clothe themselves (Tambila 1981, 32; Boileau and Wallace 1899, 613). Among cloth-producing households, the "cost" of *seketa* was the labor input required to cultivate and process cotton into cloth. Prices, it seems, did not doom the local industry. So what had changed between the close of the nineteenth century, when Wallace noted extensive production, and 1909, when Fromm forewarned of encroaching deindustrialization? As the following section argues, the weakening of Ufipa's textile industry corresponded with dramatic changes as the German colonial administration extended its reach into the area in the early twentieth century. Colonial taxation, in particular, profoundly affected the organization of labor in Ufipa with significant implications for domestic production.

5.4 Colonial Integration and Local Transformation

Compared with the more chaotic late-nineteenth-century pacification of the corridor region to the south, the slightly delayed extension of colonial authority to Ufipa and its surroundings was relatively subdued (Waters 2009, 71). In 1899, a military station was established on the southeastern bank of Lake Tanganyika to oversee administration of the new Bismarckburg district, which included Ufipa (see Fig. 5.1). In an early assault on local custom, the military administration ordered the King of Nkansi to discard his *seketa* robes and don a Western-style suit, while arbitration roles traditionally assumed by Ufipa's royal administration were granted to White Father missionaries (Tambila 1981, 132, 136).

¹⁰ The price premium of CPD cloth relative to unbleached cloth on the coast of German East Africa is calculated from prices derived from Bombay annual trade reports (Bombay Presidency 1881-1901).

Most significant for socio-economic organization, however, was the imposition of colonial taxes, collected from "men of *working age*" from 1900 (circular issued by Governor Liebert, 18 May 1899, quoted in Tambila 1981, 155). The "intention," elucidated at an 1899 Governor's roundtable, "was to raise the colored population to work" (Governor Liebert quoted in Bursian 1910, 11). For many Rukwa inhabitants, taxation would soon prompt long-distance labor migration.¹¹ Rather than competition from imported cloth, I argue, it was this drain of able-bodied men that undermined Ufipa's textile industry, which relied almost exclusively on male labor.

This did not occur immediately. Initially, tax collection in the region proceeded gradually and was collected in labor or kind through 1906 (Tambila 1981, 153, 155-156, 184). While taxes increased household pressures, most Wafipa villagers could, for the time being, meet tax demands while remaining at home and maintaining traditional production systems. Consequently, cloth production still thrived in Ufipa during the early years of the century. When colonial surveyors toured Bismarckburg in 1901, they noted "small scale" cotton cultivation and weaving throughout the southern portion of the district (Kolonial-Wirtschaftliches Komitee 1902, 11). Likewise, a 1904 survey expedition in the area reported product specialization, including cotton cultivation, weaving, and iron production (Fuchs 1905, 346).

Cash-Based Taxation and Labor Recruitment

However, in the first decade of the twentieth century, substantial regional change was underway, coinciding with broader economic shifts in German East Africa. Obst and Kloster pointed to 1907 as a pivotal colonial moment as output rapidly increased on European-owned sisal and rubber plantations along the northeastern coast. Writing in 1913, they proclaimed that German East Africa had become in an "astonishingly short time [...] a plantation colony!" (Obst and Kloster 1913, 470). This plantation system – and construction of the central railroad – depended on mobilizing significant manpower in the labor-scarce, land-abundant colony (Zache 1926, 41).

The development of a plantation labor force in German East Africa was not a clearcut case of colonial exploitation at the behest of plantation owners. Indeed, colonial perspectives on African labor became increasingly complex and divided following the Maji Maji rebellion of 1905-06, which had been linked to forced cotton cultivation schemes in the southwestern portion of the colony. In the aftermath, Albrecht von Rechenberg, the colony's governor from 1906 to 1912, upended existing pro-settler policy and promoted a pro-peasant planter strategy. European plantation owners continued to lobby for colonial

¹¹ For the development of Rukwa region labor migration during the early twentieth century, see Tambila (1981, chapter 6, especially 183-193).

initiatives geared toward generating a wage labor force, while pro-peasant factions resisted the calculated use of taxation as a tool for labor coercion (Sunseri 2001, 46-48). Ultimately, by 1914, policy would shift back in favor of settler agriculture, supported by increasing the African tax burden (Iliffe 1967, 562-573).

Paradoxically, Rechenberg's initial pro-peasant strategy would help underpin plantation-bound labor migration from regions, like Ufipa, with poor connections to global export nodes. Profitable export-oriented peasant production required modern transportation links, which were woefully limited in much of the German colony. Consequently, Rechenberg sought to swiftly enlarge the colony's rail network and in 1907 proposed the construction of a line connecting Dar es Salaam and Tabora, which would be funded via tax revenue. According to Iliife, "The servicing of the necessary loan shaped all his other policies" and the colonial administration was transformed into "a vast taxing machine" (Iliffe 1967, 566). From 1907 onward, Ufipa began providing tax money, but the region would remain too distant from the new rail line to profitably engage in cash-crop exporting. With the onset of cash-based taxation, Ufipa was instead relegated to a veritable labor reserve for settler plantations.

Tambila argues that development-retarding labor migration from the broader Rukwa region was fundamentally rooted in the 1907 imposition of specifically cash-based taxation – as opposed to earlier taxation in local labor service or kind – given the scarcity of money in the barter-based regional economy (Tambila 1981, 155, 199). As Biermann puts it, communities in German East Africa were "forced hot house fashion into a greater dependence on the market in order to pay taxes and survive" (Biermann 1997, 31). In Ufipa, 1907 also saw the initial arrival of labor recruiters who would become ubiquitous in the area (Tambila 1981, 184).

Cash-based taxation, alongside royal tribute due four to five times per year, heavily burdened households in Ufipa (on tribute, see Lechaptois 1913, 94-95). Frank Melland and Edward Cholmeley reflected in 1910 that the "very high tribute" collected in cash, clothes, labor, and livestock amounted to "a double tax" for Wafipa villagers. Furthermore, Wafipa commoners often paid more in colonial taxes than elites:

Collection [...] is left to the chief, who [...] is able to make up the total without calling upon his friends [...] If the sum produced falls below the estimate, police are sent to fetch in the people and their flocks, and once again it is not the chief nor his friends that suffer (Melland and Cholmeley 1912, 98).

As Fig. 5.4 illustrates, the colonial administration became increasingly effective in collecting taxes in German East Africa. In the Rukwa area, which remained under military

administration by the nearby Bismarckburg military headquarters until 1913, troops could be deployed in the event of resistance (Tambila 1981, 135, 138). However, per capita collection across the colony remained below the three rupees demanded per man, partly due to tax exemptions for migrants who remained at the same plantation for at least six months, which Bursian considered a key motivator for labor migration (Bursian 1910, 15-16).

[Figure 5.4 here]

In Ufipa, there were few opportunities to gain cash close to home. Some work was available at mission stations, but these were quickly overrun (Richter 1924, 666; Koponen 1995, 347). Cash-crop production could be "an alternative to leaving the village" (Berg 1977, 405). This option, Sunseri suggests, "left wage labour open to peasant volition [thus] peasants were not simply or uniformly pumped into the colonial economy by repressive taxation" (Sunseri 1996, 587). However, as Munro points out, where cash-crop production was unfeasible, "migratory labour over long distances was usually the only means of access to cash incomes" (Munro 1984, 45). In ill-connected Ufipa, transportation difficulties impeded export-oriented agriculture (Rodriguez 1908-1909, 223-224). Further, potentially profitable rubber had been quickly over-exploited already by 1904 (Fuchs 1905, 346; Tambila 1981, 160-161). Tambila points to wax as a possible income source (Tambila 1981, 172). However, wax collection was just beginning to accelerate in the colony when widespread drought in 1908 decimated essential flowers, causing the "destruction of whole bee colonies," which were slowly recovering as of 1913 (Obst and Kloster 1913, 478-479).

Consequently, the only viable cash-generating option was labor migration, which ramped up immediately after cash-based taxes were imposed. By 1908, "a large part of the men" of Ufipa were seeking work on coastal plantations or distant railroad projects (Fromm 1912, 93). As labor drained from Ufipa, missionaries came to consider labor recruitment "for this unhappy land, a scourge worse than the slave trade" (White Fathers annual report, 1912-13, quoted in Koponen 1995, 640).

Industrial Implications of Long-Distance Migration

Fig. 5.4 Taxes collected per adult male, German East Africa, 1898-1912. *Sources*: Koponen (1995, Table 4.3, Table 6.2); population data: Frankema and Jerven (2014). *Note*: The adult male population is assumed to comprise roughly one-third of the total population. This excludes Rwanda and Burundi, which paid almost no tax (0.002 rupees per man by 1910).

Long-distance labor migrants were generally away from home for extended periods of time. Those laboring on the coast were regularly absent for two consecutive years (Tambila 1981, 185). In the early twentieth century, plantation contracts usually consisted of 180 mandatory laboring days, but migrants often had to work for a year or more before fulfilling this quota since rainy days, holidays, sick days, and Sundays were not counted. Moreover, many fell into debt, which obliged them to remain even longer. Although workers were allotted a part of their wage to purchase food, the remainder was released only upon completion of their contract. Thus, to purchase other goods, like clothing and tobacco, laborers relied on "advance payments," which could require months of additional labor to repay. Should a disillusioned migrant leave without fulfilling his contract or clearing his debts, his wages would be forfeited, and "the plantation would have had him for years for nothing" (German colonial officer H. Fonck quoted in Tambila 1981, 181-182).

In addition to the time spent away from home while fulfilling labor contracts, it took weeks or even months to walk the roughly 800 km to and from coastal plantations.¹² These long absences took a toll on home regions. In 1910 a Bismarckburg district official reported seeing "many ruined and deserted villages [that] are immediately striking, while in others 75 percent of those one meets are women [who report]: 'the men have gone to work on the coast and have not yet returned'" (Koponen 1995, 640). Some would never come back. A Rukwa area missionary reported that, while many traveled home between contracts, "others die down there." ("Notes on Rukwa," 12 December 1908, quoted in Tambila 1981, 185). Indeed, illness-related death was a common risk for labor migrants traveling long distances to work in areas with unfamiliar diseases, climates and diets (Berg 1977, 398; Schwetz 1923, 323).

Ufipa's experience was not unique in the German colony. To the northeast, for example, coastward migration reportedly caused striking depopulation and declining birthrates in Unyamwezi (van der Burgt 1913). Villages in many parts of the colony were consequently depleted of labor, which "imposed a heavy toll on the peasant reproduction nexus" (Biermann 1995, 11). Biermann notes, "as the net was thrown even wider in search for male labour, the economic foundation of many peasant societies were undermined" (Biermann 1997, 31). In Ufipa, this shift undoubtedly upset household labor allocation and undermined textile production given that both spinning and weaving were male tasks in Wafipa society (Boileau and Wallace 1899, 613). Indeed, the industry was in clear distress in the years immediately following the imposition of cash taxes in Ufipa (Fromm 1912, 86, 94; Rodriguez 1908-1909, 223-224). Although numerous European visitors and missionaries

¹² Berg discusses the time-consuming foot travel associated with labor migration in sub-Saharan Africa, which could deter potential labor migrants, unless "they were desperately poor or *had some burning need for money income and could not earn it any other way* [emphasis added]" (Berg 1977, 398).

were stunned by the severe, generalized effects of labor migration across the Rukwa region, which destabilized socio-economic organization in Wafipa villages, many believed that domestic industry was condemned by "the invasion of cheap European fabrics" (Lechaptois 1913, 255). Importantly, however, this "invasion" occurred just as large-scale labor migration was ramping up.

When Fromm visited Ufipa in 1908 and 1909, he reported frequently coming across what were essentially "women's villages [...] under the 'masculine' protection of frail and disabled old men" (Fromm 1912, 93). The loss of able-bodied male labor meant that there were far fewer men available to spin and weave. Crucial for the long-run, however, was the withdrawal of young men from villages. Learning the skill of cloth-making traditionally involved an apprenticeship (see Fig. 5.5), but by 1908, youths were beginning to migrate for years at a time to not only pay their taxes but also to accrue bridewealth, which was increasingly demanded in the form of cash by the early twentieth century (up to 12 rupees by 1913).¹³ Boys as young as 12 reportedly headed coastward with recruiters (Koponen 1995, 617). The consequent failure to reproduce cloth-making knowledge sealed the industry's fate. Skinner noted in the case of Mossi villages in Burkina Faso, "When youths migrate at a very early age they never learn to weave; moreover, they often regard clothmaking as an outmoded economic activity of dubious utility" (Skinner 1960, 387). Wafipa males who were fifteen in 1908 reached their seventies in the mid-1960s, when Willis found that "the once-universal art of cloth-making in Ufipa is now known only to a handful of old men in the Rukwa valley" (Willis 1966, 26). This suggests that skill reproduction indeed ceased right around the time that labor migration took off.

[Figure 5.5 here]

Fig. 5.5 Young weavers in the Rukwa region, c. 1908. *Source*: Archives Générales des Missionnaires d'Afrique, Rome – Photothèque.

Further, labor migration diminished the local pool of consumers for domestic cloth, decreasing exchange opportunities. It also impacted agricultural production capacity, particularly since Wafipa households, the main locus of production, were relatively small, with on average only 3-6 members.¹⁴ As men departed to fulfill long labor contracts on

¹³ For apprenticeship, see Lyimo (1975, 19) cited by Willis (1981, 280n51). For youth migration, see Tambila (1981, 185). Lechaptois (1913, 146) reported that bridewealth in the Rukwa region generally did not exceed 20 francs (12 rupees) as of 1913, although some families might "settle for less, to have less to pay [back] in the event of a divorce."

¹⁴ Only very wealthy men, who could afford numerous concubines, produced larger families (Fromm 1912, 81).

distant plantations, male labor was removed not only during the dry season, when cloth production was most likely to occur, but often also during the agricultural wet season. Iliffe points out that while nineteenth-century caravan schedules, for example, had typically allowed porters to return home for essential wet-season planting tasks, twentieth-century plantation work tended to keep men away for much longer periods (Iliffe 1979, 167). By the 1910s, labor contracts were even extending beyond the earlier norm of 180 labor days, further hindering men from returning home for the wet season (Koponen 1995, 642).

Fromm reported that while agricultural work had traditionally been divided between men and women, "recently [...] since the men have been working on railroad construction and on the large plantations near the coast, the cultivation of the fields is almost exclusively left to women," particularly since the use of slaves to shore up diminished household labor had virtually disappeared from the area by the early twentieth century.¹⁵ The substantial increase in the female agricultural labor burden likely deterred Wafipa women from potentially breaking with tradition to take up the art of labor-intensive textile manufacturing in the absence of men. Indeed, no visitor accounts record female weaving in the region.

At the same time, traditional communal male labor responsibilities for village construction and physically demanding agricultural tasks undoubtedly increased for any remaining able-bodied men, diminishing time for industrial pursuits.¹⁶ According to Berg, when laborers migrate, "those who remain are forced to shift their energies to the most immediate tasks, notably the maintenance of food crops" (Berg 1965, 168-169). This would have been particularly true for portions of Ufipa that relied on *intuumba* cultivation, a labor-intensive soil-enhancement system utilizing compost mounds, which required male labor during both the wet and dry seasons (Mbegu 1996, 137; Lunan 1950, 88-89).

Relative Resilience in the Rukwa Valley

However, in the Rukwa Valley section, villagers did not rely on the labor-intensive mound system prevalent in other parts of Ufipa. The fertility of the soil surrounding Lake Rukwa allowed for a less labor-intensive ridge cultivation system (*imyaandi*) (Willis 1966, 23). Furthermore, cotton grew with particular ease in the valley soil, even when left wild (Fromm 1912, 94). Consequently, the labor input required for both subsistence agriculture and raw cotton cultivation were comparatively lower in the valley. Along with some communal male and/or female cotton harvesting and de-seeding labor, the principal

¹⁵ Fromm reported that there were no longer slaves in Ufipa by 1908. He did "not believe that it [the slave trade] is still being operated secretly in any form" in the area (Fromm 1912, 89-90).

¹⁶ In Ufipa, communal agricultural tasks included threshing and the labor-intensive construction of compost mounds (Willis 1981, 123).

requirement for cloth production was thus the dry-season availability of male labor for spinning and weaving.¹⁷

While cloth production reportedly waned in much of Ufipa, production was noted in the valley as of 1910, some years after migration had begun diminishing the area's male labor force. Melland and Cholmeley saw cultivation of "a good deal of cotton" in the valley and reported that inhabitants were "well-clothed [...] wearing the cloth of their own manufacture" along with imports (Melland and Cholmeley 1912, 29-30). Much of this production was undertaken by older men, likely unable to make the arduous coastward journey to perform heavy plantation work, yet still capable of spindle and loom work.¹⁸ The ongoing consumption of *seketa* cloth alongside available imports speaks to the value of the local product. The valley's still ongoing, if reduced, industry continued to fascinate observers, and a local loom was even sent to the Bankfield Museum in England in 1912 (Ling Roth 1918, 42).

Kjekshus attributes continued production in the area to the "patronage of Christian missions" and implies that, by the early 1910s, domestic industry had faded to such an extent that villagers had forgotten how to construct looms, for "when the White Fathers of Ufipa sought to rescue the local weaving industry, one of their difficulties was the reconstruction of the local looms" (Kjekshus 1977, 80, 109). However, Kjekshus mistranslated the French text of Monsignor Adolphe Lechaptois, who discusses un métier à filer le coton (spinning machine) – rather than un métier à tisser le coton (loom) – and wrote that the White Fathers wished to "improve [the industry] by perfecting it a little; but we have always been stopped by the difficulty of setting up a cotton spinning machine [emphasis added]" (Lechaptois 1913, 255-256). Brother Rodriguez similarly reported failed efforts at Karema mission station to introduce imported machinery (Rodriguez 1908-1909, 224). Rather than rescuing a forgotten industry, missionaries had unsuccessfully attempted to speed up yarn production via mechanization. The hand-spindle method employed in Ufipa may have been labor intensive, but traditional techniques undoubtedly contributed to the marked strength of the local cloth noted by observers (e.g., Fülleborn 1906, 512; Lechaptois 1913, 255). Franquemont (2009) describes how contemporary Andean spinners, for example, continue to use hand spindles to produce large quantities of durable cotton yarn that cannot be easily replicated via alternative methods. Although missionaries in the area clearly encouraged manufacturing, it was the durability and aesthetic appeal of domestic seketa cloth, rather than unsuccessful efforts to alter traditional methods, that accounted for the industry's persistence.

¹⁷ For a description of communal de-seeding, see Wyckaert (1927, 355).

¹⁸ Indeed, when Wyckaert (1927, 355) documented the region's cloth production during the First World War, he specifically described the weavers as "old" (*vieux tisserands*).

5.5 Imports as a Motivation to Migrate?

Just as labor migration was ramping up in German East Africa, Franz Stuhlmann noted production of durable *seketa* cloth in the Rukwa region, but predicted that it would "not be long before such materials [...] will be an ethnographic rarity." His prediction rested on the assumption that "*die bequemen Leute*" ("the comfortable people," connoting wealth) would cease cloth-making when they could more easily consume imports (Stuhlmann 1909, 508). This is a surprising characterization of people who were beginning to trek several hundreds of kilometers to labor far from home for most of the year. Far from suggesting comfort or wealth, this was an incredibly labor-intensive undertaking that provided relatively meager earnings.

According to Berg, in the long run, "the transformation of customary transactions into money terms" would become a central driver of labor migration. He argues, however, that "the possibility of buying European cloth [...] seems to have been the single greatest incentive to money earning in the early years in most parts of Africa [and thus] the earliest spur to voluntary emigration" (Berg 1977, 401-402). In his view, the role of taxation has often been over-exaggerated: while it "contributed" to voluntary labor flows, there were "severe limitations to its effectiveness as a recruitment device," which included low rates since "in most cases it took about one month spent in earning wages to supply tax money" (Berg 1977, 404). However, considering the sheer distance that Wafipa men had to travel to reach coastal plantations and the contractual obligations associated with most plantation work, it is unlikely that migrants would remain for only one month. Further, labor migrants could only gain tax exemption after laboring on the same plantation for at least half a year (Bursian 1910, 15-16).

Moreover, net earnings were, in fact, relatively low. Laborers were paid roughly 12-15 rupees per each 30-day period of work on northeastern coastal plantations and only 3-5 rupees farther inland (Calvert 1917, 99; Koponen 1995, 656-657). However, where wages were comparatively high, so too were living costs, which drained migrant earnings on nearcoast plantations, as did accumulated debts. Wage growth, it seems, failed to exceed rising food and clothing prices during the German colonial period (Iliffe 1979, 158). Although demand for labor consistently surpassed supply, wage levels did not increase accordingly, even as world-market prices for plantation products like sisal rose (Biermann 1997, 30; Bald 1970, 140). Consequently, after laboring for a year or more, the maximum a worker might bring home by the early 1910s was 10-20 rupees (Koponen 1995, 656-657; van der Burgt 1913, 710).

Fallacy of the Substitution Assumption

Two tenuous assumptions underpin both the argument that labor migration was spurred by desires for imported manufactures and the supposition that declining cloth production in Ufipa was caused by import competition. First, it is assumed that foreign and domestic cloth were generally interchangeable, which neglects substantial differences in qualities, use values, and design. As a contemporary ethnographer noted, "foreign invaders" could be clearly "distinguished from the products of native craftsmanship" in East Africa (Schurtz 1891, 153). Distinctive local products retained importance in the Rukwa region. For example, although imported cloth was consumed alongside *seketa* by 1910, it was reported that "when proceeding to worship, the priest attires himself in a cotton cloth of native manufacture" (Melland and Cholmeley 1912, 40).

Second, it is often supposed that imports were superior to local cloth (see, e.g., Rodriguez 1908-1909, 224). However, numerous contemporaries praised the region's cloth for its exceptional design and durability relative to imports (Fülleborn 1906, 512; Boileau and Wallace 1899, 613; Lechaptois 1913, 255; Wyckaert 1927, 368). Further, the quality of most imports into the interior of German East Africa had *diminished* by the start of the 1900s as Indian and British variants increasingly replaced the sturdier American-made *merekani* cloth that consumers in the East African interior had long preferred (see, e.g., Cave 1898, 13; 1899, 14). By 1905, the "greatest portion" of American cloth imported into the island of Zanzibar for redistribution to the East African mainland was being sent to northern East Africa, which exported the hides and skins that were in particularly high demand among American merchants (United States 1907, 435; Powell-Cotton 1902, 512). Lower-quality alternatives were reportedly often "not met with success" on the market (Weddell 1910, 1012 citing a British consular report).

Raum suggests that changing tastes encouraged a "spread of European clothes" that killed domestic production (Raum 1965, 193). Colored, printed, and/or dyed (CPD) imports – especially Dutch-printed *kangas* – certainly altered coastal fashions by the late-nineteenth century (Fair 2004). However, most of this comparatively expensive cloth was consumed near the coast and, secondarily, by interior elites.¹⁹ Furthermore, the majority of imports remained unbleached up to the mid-1920s (see Fig. 5.3). Some CPD imports were available in Ufipa by the early twentieth century, with the "ladies" of "wealthy" Wafipa men adopting coastal fashions and the Queen of Lyangalile wearing imported flower-printed cloth (Fromm 1912, 86). But these varieties were far dearer than larger-scale unbleached imports and likely unaffordable for the majority. Indeed, as of 1926, only unbleached cloth and monochromatic dyed *kaniki* were specifically identified in the annual Tanganyika Territory trade report as major cloth imports consumed in the interior.²⁰

¹⁹ For *kangas* as still primarily coastal Swahili dress in the early twentieth century, see Hardinge (1897, 8); Cave (1898, 14); O'Sullivan-Beare (1901, 15-16); Kestell-Cornish (1902, 5).

²⁰ Tanganyika trade report for the year ended December 31st 1926, 2-5, reproduced by Ryan (2013, 534-539).

Did this represent changing tastes, with Wafipa consumers gravitating toward more subdued fashions in lieu of long-preferred patterned garments? Qualitative sources suggest that regional consumers continued to demand patterned cloth. When the outbreak of World War I caused plantation closures along the German East African coastline, men began returning home, increasing Ufipa's male labor supply (Sabea 2008, 422-423; Iliffe 1979, 272). The region's diminished textile industry experienced a brief boost, further encouraged by a wartime import blockade (Wyckaert 1927; Tambila 1981, 216-217). This uptick in production was likely short-lived given that most able-bodied Wafipa men would be pressed into military porterage by 1916 (for porter service, see Tambila 1981, 208). However, a missionary documented the region's complex demand patterns and photographed Wafipa women wearing plaid-like *seketa* designs (see Fig. 5.6). He reported,

Some "want it with checkers, others with stripes, some with serpentines or diamonds; [some] ask for a white background and black drawings, while their neighbors prefer a black background and white drawings; And then there are the blacksmiths, a proud caste, who demand a special mark [...] The weaver knows all these little requirements of taste, vanity, or rank" (Wyckaert 1927, 368).

[Figure 5.6 here]

Fig. 5.6 Women wearing *seketa* cloth, c. 1914. *Source*: Archives Générales des Missionnaires d'Afrique, Rome – Photothèque.

Unbleached cloth, or even dyed *kaniki*, would have been poor substitutes for durable, uniquely designed, and socio-culturally significant domestic cloth, making it unlikely that the early-twentieth-century decline in Ufipa's industry hinged on an inability of *seketa* to compete with imports of lower functional and aesthetic quality. Likewise, it would have been counterintuitive for men to migrate as a means to secure these imports instead of remaining at home and producing/consuming domestic cloth if this had been an economically feasible option.

5.6 The Evaporation of Industrial Skills

After World War I, many surviving military recruits returned and remained home for several years as plantations awaited resale by the new British colonial administration of

what was now called Tanganyika (former German East Africa, excluding Rwanda and Burundi). During the post-war 1920s, cloth production in Ufipa was noted by British colonial officials (Steidl 2013, 46-47). Granted, production was likely fairly limited given that the Rukwa region, like much of the colony, had experienced significant wartime depopulation.²¹

By 1921, however, former German plantations were auctioned off and began resuming operations (Sabea 2008, 423). Systematic taxation of all males aged 16 or older simultaneously resumed in 1922 at a rate of 6 shillings (equivalent to 3 rupees).²² Consequently, the male exodus to coastal plantations recommenced with vigor, and a colonial official stationed in Ufipa reported as of 1924, "In August [...] it is an uncommon thing to encounter any able-bodied men in the villages: all have gone to the coast in search of their tax" (Ufipa District Annual Report, 1924, quoted in Willis 1981, 269n37). In the same year, a missionary noted, "The men are away again in excess [...] the 6 shillings tax is the cause" (Tambila 1981, 251).

The British period saw expansion in peasant cash-crop production in the former German colony (Leubuscher 1944, 73-76). Output from the Rukwa region, however, remained relatively limited in spite of efforts to expand cash-crop production due to the "long treks" required to sell local produce, relegating the region's men to to long-distance migration well into the 1950s.²³ As the pre-war pattern of male labor drainage resumed in the 1920s, domestic cloth production once again dwindled. Cloth-making would virtually disappear in the region during the inter-war period (Tambila 1981, 256). As old weavers, unable to pass their skills to absent younger men, progressively died off, so too did the craft.

The Rise of Competitive Imports

Cloth imports, which had dropped off during World War I, began to recover in the 1920s, reaching pre-war levels by 1927, but they would only climb higher during the second half of the 1930s (see Fig. 5.2). During this period, the composition of imports began to change. In the mid-1920s, CPD imports increased and the share of unbleached cloth dropped (see Fig. 5.7). Trade reports link this shift to increasing incomes, as "demand for higher priced goods," particularly *kanga* prints, was "fostered by, an increase in the general

²¹ For the ravages of World War I in German East Africa, see Gewald (2008). For wartime depopulation in the Rukwa region, see Tambila (1981, 210-213).

²² In the early 1920s, the British administration introduced the shilling to replace the rupee. "Hut tax" was paid by males with huts, while an equivalent "poll tax" was levied on those who did not possess a hut (Sayers 1930, 183-184). Although the British had attempted to tax the region during the war, taxation was regularized as of 1922 (Tambila 1981, 221-223).

²³ On continued disappointment in Rukwa cash-crop production, see Tambila (1981, 225-233). For ongoing labor migration, see Smythe (2006, 17-18) and Hirst (1969, 32).

prosperity of the native population."²⁴ However, this consumption-stimulating prosperity was primarily enjoyed by peasant cash-crop producers rather than wage workers. As of the 1940s, Leubuscher noted that even in periods of labor shortages, there was no "considerable rise in native wages" (Leubuscher 1944, 9, 74). Meanwhile, cloth import prices, which had surged during the war, remained elevated. Consequently, it is unlikely that low-income, migration-dependent Wafipa families had the means to partake in this consumer revolution, at least not initially. Like the initial surge in out-migration from Ufipa in the early twentieth century, it was again taxation-driven economic necessity – rather than a desire to acquire imports – that stimulated the resumption of industry-stifling labor migration by 1923.

By the 1930s, however, consumption possibilities would finally expand for lowerincome people as cloth import prices receded to pre-war levels. Simultaneously, CPD import prices at last began to approach historically lower unbleached prices (see Fig. 5.8). Thus, while scholars have assumed that "cheap" imports outpriced and outcompeted patterned *seketa* cloth in the late nineteenth and early twentieth centuries, prices for CPD cloth would only begin to come within reach of low-income Rukwa area consumers in the 1930s, more than two decades after cloth production had initially started to wane in Ufipa.

[Figure 5.7 here]

Fig. 5.7 Shares of cloth imports by type, British Tanganyika, 1921-1941. *Source*: Blue books (Tanganyika Territory 1921-1941).

[Figure 5.8 here]

Fig. 5.8 Prices of cloth imports by type, British Tanganyika, 1921-1941. *Source*: Blue books (Tanganyika Territory 1921-1941).

The importation of larger quantities of cloth – which finally reached per capita subsistence levels in the mid-1930s (see Fig. 5.2) – comprised of more aesthetically competitive varieties likely dampened the possibility of any eventual comeback of the

²⁴ This quote comes from a 1935 trade report. However, similar connections between *kanga* consumption and increasing "native prosperity" were already being noted by 1928. See Tanganyika Territory: Trade report for the year ended December 31st 1935, 10 cited by Ryan (2013, 545) and Tanganyika Territory: Trade report for the year ended December 31st 1928, 2 cited by Ryan (2013, 540).

domestic cloth industry in Ufipa. However, the ultimate cause of industrial decline had been the tax-motivated drain of labor from the region from 1907 onward and the post-war renewal of labor migration. The cloth industry was not alone in this respect. By the 1930s, the iron industry had also faltered. With respect to iron production, Tambila points to "disruptive effects" of labor migration based on R.C.H. Greig, who noted in the 1930s that even what had once been a privileged class of ironworkers was dispersing, as labor migration "breaks up the old yearly routine" of smiths on the Ufipa plateau (Tambila 1981, 257; Greig 1937, 80). The traditional intra-Ufipa exchange pattern of valley cloth for plateau iron had finally been extinguished by this time as "the natives from the shore of Lake Tanganyika and from the Rukwa valley no longer come to the plateau as they used to, to make their purchases" (Greig 1937, 80).

5.7 Local Consequences of Global Ambitions

The case of Ufipa illustrates that global trade integration, taken alone, is an insufficient explanation for industrial stagnation. From the mid-nineteenth century, Ufipa's economy had become increasingly pulled into the global fold, with the rise of the coast-interior long-distance caravan system, which introduced foreign-made cloth to the region. Yet Ufipa's cloth industry survived and even flourished during the nineteenth-century in spite of increasing access to imported manufactures, resulting in part from Wafipa institutions that encouraged both external trade *and* local industry. It was only during the first decade of the twentieth century that the region's cloth production began to wane, in conjunction with the intensification of German colonial intervention in the area.

This was not a case of sweeping industrial deterioration due to ruinous competition from cheap machine-made cloth. In barter exchange terms, domestic cloth was not dramatically dearer than imported cloth. Domestic cloth was also stronger and more aesthetically appealing than most imports up to the mid-1920s. Nor was this a case of active household labor reallocation from industry to more economically viable cash-crop production as posited by some theorists of deindustrialization. Rather, male-dominated cloth production declined largely as a result of colonial policy that wrenched male labor out of Wafipa villages. The imposition of colonial taxes prompted rapid, large-scale male labor migration from the cash-deficient region, with dire long-term consequences for local industry. To some degree, then, global trade integration *did* play a role in industrial decline in the region – although in a different way than theorists have supposed – as German colonial ambitions to generate globally exported cash crops set policies in motion that would profoundly alter Wafipa's society and economy.

Even as increasing amounts of imported cloth had entered Ufipa with returning migrants, local production continued among the region's remaining older men, speaking to

persistent demand for a high-quality product. Over time, however, the ongoing withdrawal of young men from the region permanently undermined the reproduction of industrial skills in Ufipa, and local cloth was ultimately replaced with lower-quality imports. The colonial administration attempted to stimulate cloth production during the lean years of World War II (Kjekshus 1977, 109). But this endeavor did not reverse the loss of skill among young men away on coastal plantations or, at this point, in Zambian mines. Twenty years later, in the mid-1960s, the art of spinning and weaving was reportedly all but forgotten (Willis 1966, 26).

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Chapter 6: Drivers of Divergence: Textile Manufacturing in East and West Africa from the Early Modern Period to the Post-Colonial Era

6.1 Imports and Industry in East and West Africa

During the nineteenth and early twentieth centuries, cotton textile industries in central and southern East Africa withered as the preceding case studies on Malawi and Tanzania have illustrated. However, at the same time, production in both northern East Africa and West Africa experienced stimulus and development. Most deindustrialization theories focus on the destabilizing effects of global forces, especially import competition. But, as Fig. 6.1 illustrates, nineteenth-century per capita cloth imports into more industrially resilient West Africa from Britain alone *surpassed* East African imports from Britain, India, and the United States. What then accounts for differing regional outcomes? This final chapter analyzes secondary literature on the more robust industries of West Africa and northern East Africa to place the preceding case studies on central and southern East Africa in comparative perspective and identify underlying regional factors that would ultimately affect nineteenth- and twentieth-century industrial outcomes as global integration intensified across the continent.¹

[Figure 6.1 here]

Fig. 6.1 Per capita cloth imports into East and West Africa, 1850-1900. *Sources*: See Appendix 1 in Chapter 3. *Note*: Three-year moving average. West Africa's imports include only the share exported from Britain.

Although each case is unique, broad regional conclusions can be teased out. Resilient industries tended to arise and persist (1) where textile traditions were adopted comparatively early, allowing robust industries and demand for domestic cotton cloth to develop several centuries prior to global integration and colonization; (2) in areas with relatively dense populations and access to comparatively large markets; (3) where precolonial institutions helped encourage industrial growth (e.g., the development of domestic cloth currencies and pro-industry state policies); (4) where local endowments and geography favored income-enhancing cash-crop cultivation; and (5) where nineteenth- and

¹ In the context of this comparative analysis, central and southern East Africa refer to Tanzania and Malawi. Northern East Africa refers to the Horn countries (Ethiopia and Somalia). West Africa refers to the numerous countries spanning the western portion of the continent from Senegal to Nigeria.

twentieth-century colonial intervention and fiscal institutions were comparatively less disruptive.

As a crucial starting point, this chapter first broadly identifies underlying regional characteristics that influenced the relative strength of textile industries prior to the nineteenth-century era of intensifying globalization. Subsequent sections highlight the unique development trajectories and productive strategies of more robust northern East African and West African hand-loom industries during the nineteenth and twentieth centuries relative to the cases of industrial decline in central and southern East Africa examined in the preceding chapters. I engage broadly with regional developments, but also highlight salient local cases to make the comparative analysis feasible and coherent. For northern East Africa, these include textile centers in both Ethiopia and on the Benadir Coast of what is today Somalia, which engaged with the broader Indian Ocean world for centuries before the growth of nineteenth-century global trade. For West Africa, I focus primarily on production centers in the large area encompassing modern-day Nigeria, which offers excellent ground for gauging the impact of external forces on domestic cloth manufacturing within the West African context, with its connections to both trans-Saharan and Atlantic trade networks. Nigeria, which came under British colonial rule by the turn of the twentieth century, housed a number of textile industries that continued to thrive and even derived benefits from global encounters.

6.2 The Relative Antiquity of Textile Production

A first notable difference between the longer-resilient textile industries of West Africa and northern East Africa versus those in central and southern East Africa lies in their comparatively earlier development. A longer history of production afforded more time to develop techniques, create specialized products, and establish consumer demand and loyalty to regional "brands" prior to an uptick in imports from the nineteenth century onward. Indeed, the existence of already entrenched and widespread preferences for a wide array of locally made cloth – often deeply ingrained with cultural value – advantaged many West African and northern East African producers during the nineteenth and twentieth centuries.² In many parts of central and southern East Africa, on the other hand, the production and consumption of domestic cotton cloth was still in the process of spreading at the start of the nineteenth century, which would heighten the region's industrial vulnerability in the era of global integration (Clarence-Smith 2011, 93-94).

The East-West Spread of Textile Traditions

² Renne (1995, 132) notes the importance of "social and ideological factors" underlying cloth production in West Africa.

The earliest establishment of cotton textile production on the continent probably occurred in relatively densely populated northern East Africa by the fourth century (Kriger 2005, 91). Production on northern East Africa's Benadir Coast began somewhat later, with the thirteenth-century foundation of the Sultanate of Mogadishu by Muslim immigrants from the Arabian Peninsula. However, a direct knowledge and technology transfer – including the spinning wheel, which was absent elsewhere in East Africa – allowed the Benadir industry to develop rapidly, and the region was soon shipping cloth of renowned quality to Egypt (Alpers 2009, 81). Cotton cloth production reportedly spread westward with Muslim merchants along trans-Saharan trade routes. Indeed, cloth industries developed in Islamic trade centers as religious conventions of modesty encouraged high per capita cloth consumption (Levtzion 1973, 119-120). Weaving and the use of cloth currency was reported in the Senegal River Valley by the eleventh century, with spinning and weaving techniques likely reaching southern Nigeria by the middle of the thirteenth century (Kriger 2005, 96-98).

In West Africa, different regions began specializing in particular cloths, and "a complex consumer market" for both cloth and raw material inputs developed well before the era of Atlantic trading, thus providing armor against foreign competition as imports gradually increased from the fifteenth century (Kriger 2005, 99). Foreign producers could not effectively serve the highly specified demands of West African consumers, which could vary considerably, even from village to village, although imported cloth was regularly unraveled and used to embellish domestic textiles (Flint 1974, 388; Kriger 2005, 107-108). Seventeenth-century European merchants reportedly required West African cloth to profitably engage with coastal traders. For example, from 1644 to 1646, as many as 96,000 meters of domestic cloth were exported from the Bight of Benin on Dutch ships alone for trade with the Gold Coast, Gabon, Angola, São Tomé, and even the West Indies and Brazil (Kriger 1993, 372; Kriger 2005, 102-104). The early development of cloth industries in West Africa helped stimulate comparatively high cloth consumption. Consequently, as Thornton (1992, 51-52) has pointed out, major textile producing regions also tended to be significant importers of cloth. Indeed, by the nineteenth century, West Africa not only produced more cloth than East Africa but also imported more cloth per capita (see Fig. 6.1).

Delayed Development South of the Horn

The interior of southern and central East Africa had a much later genesis of cotton textile production, which may have been linked with the relatively limited spread of Islam and Christianity to these regions, at least up to the mid-nineteenth century.³ In the case of southern East Africa, nineteenth-century ethnologist Heinrich Schurtz postulated that production techniques eventually spread inland – probably from Arab settlements in coastal

³ For the comparatively late spread of Islam to the region's interior, see Lapidus (2002, 434-435).

Mozambique – via riverways (Schurtz 1891, 152). Travelers reported production and regional exchange of plain-weave unbleached cloth in the area surrounding the lower portion of the Zambezi River by the sixteenth century, although textile fragments dating to perhaps the fourteenth or fifteenth centuries have been excavated (Davison and Harries 1980, 175, 178). Schurtz believed that southern East Africa's cotton cloth industries were still in a comparatively nascent developmental stage by the nineteenth century since other forms of clothing continued to abound (Schurtz 1891, 152). In many areas, the products and methods of production remained rudimentary up to the nineteenth century compared with the more complex cloth varieties that had developed elsewhere on the continent, especially in West Africa (Kriger 2005, 99-105). Compare, for example, the utilitarian *machila* cloth, characteristic of nineteenth-century southern Malawi's Lower Shire Valley (Fig. 6.2), with the complexity of *kente* cloth produced by the Ewe people of the Gold Coast (modern-day Ghana) during the late-nineteenth or early-twentieth century (Fig. 6.3).

[Figure 6.2 here]

[Figure 6.3 here]

Fig. 6.2 Mang'anja loom and cloth, 19th c. *Source*: © National Museums Scotland.

Fig. 6.3 Ewe *Kente* Cloth, late 19th to early 20th c. *Source*: Brooklyn Museum.

Although intricately patterned cloths were being produced by the nineteenth century in some parts of southern East Africa, the production methods for these finer varieties remained extremely labor intensive, with a single cloth reportedly taking up to nine months to complete, even with the use of imported yarn, while a warp-patterned Gold Coast *kente* cloth could be produced in one week (Davison and Harries 1980, 181; Browne 1983, 34). Technological differences were crucial in this respect. Reliance on the simple horizontal fixed-heddle ground loom throughout southern and central East Africa slowed production, particularly of ornate patterned cloth (Davison and Harries 1980, 189; Ling Roth 1918, 41-44). In West Africa, by contrast, a greater variety of more complex looms had developed over the course of several centuries alongside a simpler vertical mat loom (see Fig. 6.4). These included varieties of narrow-band treadle looms, which speed up pattern weaving through the use of foot pedals to manipulate warp threads, along with much wider vertical cotton looms used primarily by women to produce larger cloths. Looms were often modified to develop new products. In southern Igboland, for example, women employed a

particularly wide vertical loom, supplemented with pattern sticks, to begin producing elaborate brocaded cloth for wealthy consumers during the mid-nineteenth century.⁴ In parts of northern East Africa, weavers made use of treadle looms positioned over shallow pits, which were probably adopted from the Arabian Peninsula, along with spinning wheels to speed up the production of yarn (Ling Roth 1918, 64; Alpers 2009, 81-82). Likewise, the nascent textile industry that rapidly emerged on Zanzibar in the nineteenth century – following the Sultan of Oman's relocation to the island and its rise as a global trade hub – made use of looms transferred from "Arabia" that were particularly well suited for the weaving of patterned cloth (Woolfe 1925).

[Figure 6.4 here]

Fig. 6.4 Varieties of looms in sub-Saharan Africa. *Source*: Reproduction of Ling Roth (1918, Fig. 121), who provides detailed descriptions and illustrations of each loom.

Compared with southern East Africa, cloth production likely spread even more gradually into the interior of what is today Tanzania in central East Africa, long secluded from coastal influence due to limited riverways. Dating the area's adoption of cotton textile production is difficult since traveler accounts remain scarce prior to the nineteenth century, but development likely began relatively late since cotton cloth continued to face "much competition" from alternative garments (e.g., bark cloth, raffia, and skins) up to the turn of the twentieth century (Clarence-Smith 2014, 269). Kjekshus hypothesizes that cotton production was gradually adopted from the coast and "started to blossom" just before the global integration of the region began in the nineteenth century (Kjekshus 1977, 106). However, as Clarence-Smith (2011, 95) notes, East African producers were creating "somewhat more elaborate cloths" by the mid-nineteenth century. These included, for example, the patterned weaves of Ufipa in southwestern Tanzania, which enjoyed strong local demand (Boileau and Wallace 1899, 601, 613).

6.3 Factor Endowments and Industrial Development

In West Africa, earlier exposure to Islam – and thus cotton cloth production – was partly driven by the trade prospects of the comparatively densely populated region. Indeed, Muslim merchants of the trans-Saharan trade network began trading with the region by at

⁴ For West African looms, see Kriger (1993); Kriger (2006, 45-50); Browne (1983); Aronson (1980).

least the eighth century (Hodder 1980, 204). This brings us to a crucial underlying local factor that influenced the relative strength of pre-colonial West African and northern East African textile industries: population density. Thick population clusters and the comparatively fertile environments that supported them provided the necessary ingredients for robust textile industries: labor, raw cotton, and substantial local markets for cloth.

West Africa has been generally "less lightly populated" than most of historically labor-scarce, land-abundant sub-Saharan Africa (Austin 2013, 202). Nigeria, in particular, housed three comparatively dense clusters: the Hausa region in the north, Igboland in the southeast, and the Yoruba area in the southwest. Sophisticated textile industries showing signs of proto-industry emerged here and in much of West Africa, including along the coastal belt and in urbanized inland entrepôts, like Timbuktu. A full-fledged "artisan class" developed in many West African cities, with distinctive spinning, weaving, dyeing, and embroidering professionals. Strong demand allowed many manufacturers to support themselves almost entirely by their trade (Flint 1974, 386, 388). In northern Nigeria, for example, large settlements with full-time craft specialists had emerged before the fifteenth century, "fueled by migration and the efflorescence of trade" (Watts 1983, 44-45). As urban centers grew, regional divisions of labor emerged, and by the early eighteenth century, parts of northern Nigeria supported as many as 300 people per square mile, with industrial centers like Kano and Katsina importing large amounts of grain from rural "breadbaskets" (Watts 1983, 61-62). Northern Nigeria's population would become still denser during the nineteenth century when *jihad* movements led to the mass enslavement and resettlement of people within the newly formed Sokoto Caliphate (Lovejoy 1978, 342).

Diversity of Endowments in East Africa

Turning to northern East Africa, the highlands of Ethiopia are among the most densely populated sub-Saharan African regions, sustained by steady rainfall, various altitudes that support a wide variety of high-yielding crops, including "excellent quality" cotton, and plateaus conducive to intensive plough-based agriculture (Pankhurst 1968, 184-185, 191-192, 204; McCann 1995, 23; Crummey 1980, 120). The cool climate of the Ethiopian plateau generated heavy demand for domestic cloth among the region's large population. Consequently, nearly all of Ethiopia's extensive cloth output was consumed within the country (Clarence-Smith 2011, 92-93).

To the east of Ethiopia, by contrast, coastal Somalia is characterized by a hot climate with irregular rainfall and lower agricultural yields, not conducive to high population densities and expansive local markets. Here, however, demographic and environmental conditions were mitigated via imported slave labor used within cloth-producing households and, eventually, on nineteenth-century cotton and grain plantations established in more fertile inland areas. In the centuries before the expansion of slave plantations, raw cotton was imported from India to feed the region's growing industry, made possible by easy access to Indian Ocean trade networks (Alpers 2009, 80-85; Sheriff 1987, 71-72). Similarly, during Zanzibar's sudden nineteenth-century boom in manufacturing, the island imported substantial amounts of raw cotton from India (see Fig. 3.10). Contrary to globalization-focused deindustrialization theories, these cases illustrate the potential *benefits* of global market integration for domestic textile production. The Benadir Coast's textile industry enjoyed a particularly favorable geographic position, which offered access to both global raw material markets and diverse regional consumer markets. Seaside manufacturers could simultaneously export cloth to markets along the East African seaboard and to distant interior markets, including southern Ethiopia, via caravan networks (Abir 1970, 129-132; Clarence-Smith 2011, 92). Indeed, the majority of cloth produced in urban Mogadishu was destined for external consumption (Alpers 2009, 80).

In the generally sparsely populated areas to the south of the Horn, in contrast, local endowments were not conducive to proto-industrial divisions of labor, nor were most industries well connected to distant markets. Clarence-Smith (2014, 265) points specifically to East Africa's low population density, agricultural productivity, and per capita incomes as deterrents to proto-industrial development. Moreover, the region's cloth industries, primarily situated in the deep interior, did not enjoy fortuitous geographic positioning akin to the Benadir Coast. Consequently, although industries developed, they remained comparatively small in scale. Tanzania's approximately 5.5 million inhabitants in the midnineteenth century were spread across nearly 365,000 miles, an average of about 15 people per square mile. By the 1960s, population density still measured only about 15.2 per square mile in southwestern Tanzania's Ufipa area (Willis 1981, 236n31). Population densities were higher in Malawi, at roughly 47 people per square mile in 1850, with inhabitants of places like the Lower Shire Valley drawn to fertile land along the banks of the Shire River.⁵ However, the total population and thus market size of Malawi, an estimated 2.15 million in 1850, remained relatively small compared with regions in northern East Africa and West Africa. In 1850, Nigeria and Ethiopia contained roughly 12.5 million and 11.3 million inhabitants, respectively (Frankema and Jerven 2014). Furthermore, the population of the Lower Shire Valley was significantly diminished by slave raiding in the mid-nineteenth century, which dramatically altered local industrial production possibilities, as explored in Chapter 2. Interestingly, this occurred at nearly the same time that a rapid decline in the trans-Atlantic slave trade began *augmenting* population densities in the already industrially

⁵ Density estimate derived from historical populations reported in the Frankema-Jerven African Population Database 1850-1960, version 2.0 (Frankema and Jerven 2014). On settlement near the Shire River, see Mandala (1990, 20).

rich areas of West Africa, enhancing local production and consumption capacity (Flint 1974, 386, 398).

While the Lower Shire Valley's local markets were comparatively small, the region's river-side location did facilitate external access to markets in the Lower Zambezi River area (Alpers 1975, 25, 55; Mandala 1990, 48). The scale of this exchange was undoubtedly considerably lower than, for example, the Benadir Coast's ocean-going exchange, but it was probably greater than regional textile exchange in the river-scarce and more lightly populated Tanzanian interior. This is not to say that regional and long-distance trade networks did not develop in Tanzania, but these were constrained by transportation challenges between dispersed, comparatively low-populated communities.⁶ Trade did intensify during the nineteenth century, but principally along global-oriented coast-interior routes rather than via dense, crisscrossing networks, which were characteristic of West Africa and gave early rise to numerous crossroads trading centers in the region.⁷ In general, central and southern East Africa's exchange opportunities were simply much lower in *magnitude* compared with the local and external markets available to producers in sub-Saharan Africa's more robust textile-producing regions, especially, as we will see, in West Africa.

Environmental Roots of West African Exchange Networks

The extensive development of exchange networks throughout West Africa was encouraged not only by early incorporation into the broader trans-Saharan trade system but also by the region's diverse geographic characteristics. Three distinctive ecological zones – desert, savanna and rainforest, ranging from north to south – became closely integrated, forming vast "economic regions [...] sub-divided into areas of localized specialization" based on their highly differentiated productive capacities. Major urbanized economic centers developed in Sahel areas that "straddled the ecological frontier" between arid and fertile land (Lovejoy and Baier 1975, 553; see also Hopkins 1973, 58, 63; Watts 1983, 65). One such city was Kano, the famed center of northern Nigeria's textile industry, which produced indigo-dyed cotton cloth demanded by desert traders like the Tuareg for protection from the harsh Sahara climate (Spittler 2010, 72; Candotti 2010, 193).

A transhumance system diminished the costs of transportation between the desert and savanna zones as desert people regularly travelled south for water and pasture, bringing trade goods along with them (Lovejoy and Baier 1975, 557). Furthermore, riverways facilitated water transport in much of West Africa, while the region's overland

⁶ For studies on pre-colonial exchange networks in central East Africa, see Gray and Birmingham (1970).

⁷ I am grateful to Ewout Frankema for this insight.

trade, which more commonly utilized pack animals, was more efficient than in East Africa, which depended primarily on human porterage until the advent of colonial-railways and motorized transportation as a result of environmental constraints (Hopkins 1973, 63, 72; Pawełczak 2010, 36; Pallaver 2010). Moreover, the prevalence of Islam in West Africa provided a "blueprint" for commercial exchange relations via a shared "code of conduct which made trust and credit possible" (Hopkins 1973, 64-65). Strong connections between ecological zones stimulated the flow of labor and capital, and by the eighteenth century wealthy desert-zone financiers were invested in savanna industry, while poorer immigrants ventured south to labor as textile producers (Lovejoy and Baier 1975, 568-569, 579; Watts 1983, 66).

Regional exchange relations also developed within and between the savanna, rainforest, and coastal zones. For example, cloth produced in northern Nigeria was shipped eastward toward Borno in the Lake Chad area, while Borno-made cloth was, in turn, sent westward to Hausaland and southward to the rainforest areas of southwestern Nigeria (Kriger 1993, 370; Flint 1974, 388). By 1500, the territories loosely comprising modern-day Nigeria constituted a "dynamic area" linked by trade on regional and local levels (Falola and Heaton 2008, 37-38). The rainforest and coastal zones of southwestern Nigeria, for example, were intimately connected via ancient networks facilitated by an extensive river system (Chuku 2005, 68). These well-developed exchange networks within and between zones would become further galvanized with the expansion of slave and commodity trading during the eighteenth and nineteenth centuries, accompanied by increasing exchange of domestic cloth (Dalrymple-Smith 2017, 118, 145, 148; Aronson 1980, 62-63).

Local, regional, and long-distance exchange of cotton goods extended beyond the finished material, indicating a significant division of labor in West Africa uncommon in central and southern East African textile industries (see Chapter 2 and Chapter 5). Already in the fifteenth-century, European observers had noted widespread marketing of industrial inputs in West Africa (Kriger 2005, 99). Weavers in the Oyo Empire of southwestern Nigeria, for example, purchased yarn from specialized spinners at local markets (Law 1977, 207). Raw cotton was sold at West African markets and even imported from slave plantations on the Portuguese-controlled Cape Verde Islands (Kriger 2005, 99, 104). The local and regional marketing of West African raw cotton created secure linkages between domestic manufacturing and cash-crop cotton that would persist well into the twentieth century (Roberts 1996; Maier 1995; Hogendorn 1995; Bassett 2001, 63-85).

6.4 Industry-Stimulating Pre-Colonial Institutions

Cloth currency

As West Africa's regional and long-distance exchange networks developed, so too did industry-stimulating institutions, including the widespread use of domestic cloth currency, which began circulating in parts of West Africa by the eleventh century (Kriger 2005, 96). While a large part of long-distance trade was comprised of high-end finished goods, trade was lubricated by the export of lower-end cloth currency strips, which, alongside other commodity currencies, formed divisible general-purpose money. By the early nineteenth century, the strips were ubiquitous, and the century's intensifying exchange activity further boosted industry in regions specializing in cloth currency production (Johnson 1980, 195-198).

Take, for example, southeastern Nigeria's Tivland, which was traversed by major trade routes linking ecological zones. Alongside finished cloth, Tiv weavers produced and exported long, narrow cloth strips coiled directly off the loom onto a spool. These were then cut to varying lengths based on the monetary unit common in any given locale and combined into whole pieces forming larger denominations (Dorward 1976, 577-584; Johnson 1980, 195-196). While Tivland's cloth currency remained principally integrated into inter-regional trade, cloth currency produced in the Gambia was integrated into globaloriented trade networks. European merchants at the coast accepted interior-produced cloth currency as a form of collateral in exchange for imported rice, which local merchants transported inland to procure groundnuts to subsequently take coastward and exchange for the European-held cloth currency. This cloth-currency collateral system simultaneously stimulated domestic textile production and encouraged farmers to engage in lucrative export-oriented groundnut production, thus increasing incomes and regional demand for manufactures (Johnson 1980, 199-200). In much of West Africa, the use of domestic cloth currency continued to stimulate domestic industry into the colonial era and even circulated in some areas up to the mid-twentieth century (Dorward 1976, 581; Johnson 1980, 200).

Turning to East Africa, we find less deeply ingrained domestic cloth currency institutions in most areas. Cloth currency did circulate in northern East Africa, although it was typically comprised of imported cloth, while domestic salt bars formed the principal commodity currency in Ethiopia for example (Pankhurst 1962, 233-236). However, in the Ethiopian highlands, Powell-Cotton (1902, 244) noted the use of handfuls of raw cotton as small change, indicative of the importance of local textile production in the region. South of the Horn, domestic cloth had formed a currency in the Lower Zambezi region of southern East Africa prior to the introduction of imported cloth. The longevity of the region's domestic cloth currency and the reasons underlying its displacement are unclear and require further investigation, although this may have been linked with eighteenth-century

imperial Portuguese efforts to replace domestic cloth with Indian imports.⁸ In central East Africa, where cloth production and consumption was comparatively late in spreading, pervasive cloth currency institutions seem to have only gained steam during the nineteenth century, with a rise in long-distance coast-interior trading geared toward global exchange. Consequently, the cloth used as currency was not locally made; rather, as detailed in Chapter 4, this role was filled by machine-made cloth imported into the region via coastal caravans seeking ivory for global markets. Thus, the stimulus to local production provided by currency institutions in West Africa was not similarly enjoyed by central East African cloth producers.

Centralized States and Pro-Industry Policies

Another important regional difference with consequences for industrial development was the early development of centralized states in comparatively densely populated West Africa compared with a general absence of strong states in more sparsely populated East Africa, with the exception of Ethiopia's Abyssinian Empire. The growth of cloth industries in decentralized parts of West Africa, like Tivland, and the organic development of industry-boosting cloth currency institutions suggest that a powerful state apparatus was not a necessary pre-condition for industrial expansion. However, the external exchange of goods produced by decentralized societies was undoubtedly aided by the development of centralized states elsewhere in West Africa since state policies tended to encourage regional and long-distance commerce, which could provide substantial tax revenues. Some large states, like Ashanti and Dahomey, even established state trading enterprises and provided backing for long-distance ventures (Hopkins 1973, 62).

The imposition of trade- and industry-oriented policies could significantly boost production both within and beyond centralized states. This was exemplified in the nineteenth century by northern Nigeria's Sokoto Caliphate, which was created via the martial consolidation of Hausa kingdoms and formed an integrated territory ranging 150,000 square miles (Watts 1983, 48-49). The already substantial and long-established trade carried on between ecological zones intensified with the founding of the caliphate, and the annual import-export trade of the city of Kano alone was estimated at £100,000 in the mid-nineteenth century (Hopkins 1973, 51). The expansion of the caliphate's economy "acted as a focal point for economic development within West Africa as a whole" (Lovejoy 1978, 346).

The state actively pursued commercial advancement through pro-industry policies (Candotti 2010, 198-199). For example, weavers, tailors, dyers, and indigo cultivators were

⁸ For domestic cloth currency in southern East Africa, see Davison and Harries (1980, 187, 189). On imported cloth as currency in the region, see Machado (2005, 90-95, 102, 109-110, 150, 170, 243).

often exempted from taxation (Morel 1911, 120). Furthermore, the caliphate used the extensive military capacity and wide "spatial reach" enjoyed by strong states to secure industry-augmenting slave labor (Austin 2004, 27). Expansion of slave-based plantations substantially increased agricultural output, including raw cotton, indigo, and food to feed artisans (Candotti 2010, 196-197; Lovejoy 1978). Imported slaves consisted not only of agricultural laborers but also industrial workers from nearby textile-producing regions, like Nupe in west-central Nigeria, who disseminated a wider array of production techniques to the north (Kriger 1993, 374).

Scholars have noted that the expansion of slave-labor institutions may have dampened the full economic potential of centralized states by simultaneously reducing market demand abroad in besieged regions and depressing the purchasing power of large portions of the local populace (Austin 2004, 29; Hopkins 1973, 25; Mahadi and Inikori 1987, 71-72). Overall, however, state-sponsored economic prosperity and industrial expansion seem to have increased consumption opportunities for broad segments of society in the Sokoto Caliphate. Kriger notes that Kano products included not only highly elaborate and expensive robes for elites but also low-cost "poor man's" shirts (Kriger 1988, 55). According to Candotti, the expansion of Kano's textile industry was, in fact, supported "by a large domestic market of ordinary consumers" (Candotti 2010, 198). Shea has illustrated how rising demand both within and beyond the caliphate prompted the development of economies of scale in Kano's dyeing processes. He also argues that industrial rationalization efforts under the caliphate resulted in higher labor efficiency, training improvements, and reductions in capital expenditures and transportation costs (Shea 2006; 1974, 56).

A final important advantage of large states was the ability to provide protection, which was particularly crucial amid the ever-present risk of slave raiding (Austin 2004, 19). Indeed, while the Sokoto Caliphate was *expanding* its industrial labor force during the nineteenth century, vulnerable decentralized Mang'anja communities in southern East Africa were aggressively *drained* of labor by raiders seeking slaves for Indian Ocean plantations. As Chapter 2 details, labor-intensive textile production consequently faded from the Lower Shire Valley's economy, particularly since, unlike the Sokoto Caliphate, Mang'anja villages had little capacity to subsequently shore up local labor supplies by securing captives.

Ufipa, in contrast, was among the most sophisticated states in pre-colonial Tanzania, established between the sixteenth and early eighteenth centuries and spanning some 25,390 square miles (Iliffe 1979, 21; Willis 1981, 3, 14). As discussed in Chapter 5, during the first half of the nineteenth century the centralized state encouraged trade but – unlike the Sokoto Caliphate – did not actively invest in industry. This likely had much to do with the different evolution of trade orientation in West versus East Africa. By the nineteenth

century, West African merchants and states could gain considerably by investing in welldeveloped regional and long-distance commodity production and exchange networks. But in central East Africa the greatest profits were to be gained from the newly established coastinterior trade system oriented toward global markets. Thus, where Sokoto Caliphate policies aimed to increase industrial output, the pro-trade policies of Ufipa's administration were mainly geared toward attracting passing ivory traders with only limited interest in the region's textile products. Increasing caravan traffic through Ufipa *did* indirectly stimulate domestic industry by enhancing regional wealth (Willis 1981, 174). As wealthier groups emerged, demand for more elaborate varieties of domestic cloth developed (Willis 1981, 156). However, the magnitude of these industrial benefits was comparatively limited next to the considerable growth experienced in the Sokoto Caliphate.

6. Global Trade: Bane or Boon?

Cash Crops and Industrial Expansion

Another significant difference between many nineteenth- and early-twentiethcentury West African economies and their central and southern East African counterparts was the capacity to simultaneously engage in cash-crop exporting while sustaining domestic industries, which was conditioned by local geography and ecology, labor availability and institutions, and the extent of regional demand for domestic cloth. Indeed, Iliffe points out that domestic industry remained most competitive "where cash-crop wealth expanded markets" for high-quality cloth (Iliffe 2007, 221; see also Austin 2013, 209-210). In the case of southeastern Nigeria's Igboland, for example, a globally oriented nineteenth-century palm oil boom invigorated domestic textile production by augmenting regional incomes and demand for both imported and domestic cloth (Kriger 2006, 45-47).

Southern Igboland's experience undermines assumptions that African textile industries could only thrive under geographic protection from imports (see, e.g., Austen 1987, 99). Rather, coastal access via riverways *enabled* the region's industry-stimulating boom in cash-crop exporting (Lynn 1997, 37). Igboland's ecology facilitated the transition to palm-oil exporting since palms grew wild, initially requiring only to be collected and processed (Chuku 2005, 49-50). Although the latter task was labor-intensive, demographic conditions allowed households to effectively cope with additional labor demands. In fact, Igboland emerged from the slave-trade era with the highest population density in the whole of West Africa in spite of supplying a large number of captives to Atlantic markets. This was due in part to extensive migration into Igboland, high regional reproductive rates, and social and legal institutions that discouraged large-scale violence and helped spare the region from the sort of highly disruptive slave raiding experienced in places like Malawi's Lower Shire Valley (Nwokeji 2000, 618; Dalrymple-Smith 2017, 161).

Furthermore, with the ending of the trans-Atlantic slave trade, slaves were increasingly applied to commercial food production in the northern hinterland and to household palm-oil processing, which freed up female labor in southern Igboland (Flint 1974, 386; Austin 2009, 18; Dalrymple-Smith 2017, 163-165; Kriger 2006, 51). This would prove crucial in the expansion of the Igbo textile industry since here, as opposed to East Africa and other parts of West Africa, women were the dominant weavers (Chuku 2005, 66). As demand for domestic cloth grew alongside incomes, the textile industry expanded. Many Igbo women, particularly in the Akwete area, became almost full-time weavers and developed more intricately patterned "Akwete" cloth on wider vertical looms to compete with imports on the basis of quality (Chuku 2005, 69-70; Kriger 2006, 45-51; Austin 2013, 210). For many of the region's women, weaving would remain a full-time profession up to at least the late twentieth century (Aronson 1980, 65).

This outcome was not possible where cash-crop production was ill-favored by geographic and/or demographic conditions. In Ufipa, located deep within the river-scarce central East African interior, isolation from coastal trade depots ultimately contributed to deindustrialization in the early twentieth century. High transportation costs for cash-crop exports prohibited sufficient generation of cash incomes for colonial tax payments at home, leading to mass labor migration to European-owned coastal plantations, which drained industrial labor from the region. In southern East Africa's Lower Shire Valley, in contrast, access to riverways did make profitable cash-crop exporting possible during the mid-nineteenth century. However, a *combination* of cash-crop production and labor-intensive industry proved impossible in the labor-depleted region within the context of altered factor endowments following the extensive slave raids of the 1860s and 1870s (see Chapter 2 and Chapter 5).

The Effects of Imported Manufactures

The southern Igboland case also helps shed light on the impact of machine-made imports on local industries in sub-Saharan Africa. In many places, as cloth imports increased during the second half of the nineteenth century, so too did domestic production, indicating an expansion in the scale and range of cloth goods consumed (Fage 1978, 272-273; Hopkins 1973, 121). Rather than signaling deindustrialization, foreign competition often *stimulated* local innovation (Hodder 1980, 205). For example, Aronson (1980, 66) notes that, alongside distinctive Akwete cloth, Igbo weavers reproduced popular imported patterns, flipping on its head a European strategy of mimicking African cloth highlighted by Rodney (1972, 104). On northern East Africa's Benadir Coast, competition from imports similarly stimulated industrial adaptation and development. By the mid-1890s, the position of the region's traditionally unbleached cloth was eroding in its export markets as competition with unbleached American imports intensified. This inspired a "strategic carving out of a new

market," as perceptive weavers began creating unique colored and striped cloth (Alpers 2009, 86-88).

In both the Benadir region and Igboland, development of new products was aided by the incorporation of imported yarn (Afigbo and Okeke 1985, 33; Aronson 1980, 65; Alpers 2009, 88, 90). Use of machine-made yarn became common in much of West Africa, and imports into the region increased rapidly during the late nineteenth century, as Fig. 6.5 illustrates (Austin 2013, 210; Johnson 1978, 260). Some weavers continued to rely exclusively on hand-spun yarn, particularly in interior regions where imports were more difficult to obtain and were consequently more expensive (Renne 1995, 148-149). By the twentieth century, Akwete cloths produced in southern Igboland, located near the coast, were made entirely of yarn imported from Europe, which substantially increased industrial productivity while offering a broader range of colors (Kriger 2006, 49).

[Figure 6.5 here]

Fig. 6.5 Yarn imports into West Africa from the United Kingdom, 1871-1914. *Sources*: United Kingdom annual trade reports (Great Britain 1871, 1876-1916).

Likewise, northern East African producers imported yarn directly from Bombay – and occasionally from Britain⁹ – with still more re-exported to the region from Aden. Clarence-Smith (2010, 8) suggests, for example, that much of the 2.5 million pounds of yarn imported into Aden from India in 1894 was re-exported to the Benadir Coast. Zanzibar also imported substantial quantities of both yarn from the 1870s onward (see Fig. 6.6), part of which was re-exported northward in the early 1890s (Portal 1892, 18, 32). Imported yarn eased the Benadir region's deft late-nineteenth-century transition to colored cloth production, boosted Ethiopia's textile industry. By the late nineteenth century, cloth imports entered land-locked Ethiopia in increasing quantities, ramping up after the opening of the Ethio-Djibouti railway in 1901.¹⁰ However, as Spring and Hudson (1995, 119) note, Ethiopian producers have long been "supremely resilient, dynamic and adaptable to change." By the early twentieth century, domestic *shamma* togas – preferred for their finer weave and greater durability – were increasingly produced using not only locally grown raw cotton but also cheaper imported yarns, which helped local producers remain competitive (Pankhurst

⁹ The majority of yarn exported directly to East Africa came from Bombay, although the United Kingdom exported significant quantities to Abyssinia and Somaliland from 1883-1894 and 1911-1915. See Bombay Presidency (1867, 1871-1917) and Great Britain (1886-1896, 1916).

¹⁰ For expansion of Ethiopian imports by the turn of the century, see chapter 9 in Pankhurst (1968).

1968, 260-261; Great Britain 1907, 5). In Zanzibar, too, imports provided artisans with industrial inputs to both produce cloth locally and transform imported cloth into fashionable garments to suit local tastes by, for example, weaving and attaching colorful border pieces to plain cloth (Prestholdt 2008, 70-71).

[Figure 6.6 here]

Fig. 6.6 Yarn imports into East Africa from Bombay and the United Kingdom, 1866-1914. *Sources*: Bombay annual trade reports (Bombay Presidency 1867, 1871-1917); United Kingdom annual trade reports (Great Britain 1886-1896, 1916). *Note*: Zanzibar and Abyssinia & Somaliland data reflected as three-year moving averages. Zanzibar's imports include both yarn and smaller amounts of sewing thread (see Fig. 3.11 in Chapter 3 for relative shares).

In contrast, yarn imports were nearly non-existent on the central and southern East African mainland. In the case of Tanzania (German East Africa as of 1885), largescale importation of yarn was simply unfeasible for textile centers situated in the deep interior, most of which could only be reached via human porters. Based on figures of yarn imported via Mozambique's ports, the use of imported yarn likewise remained comparatively minimal in southern East Africa. In any case, higher imports into the region would have had little impact on the Mang'anja weaving industry in the Lower Shire Valley, which was already thrown into disarray by the 1860s. While yarn imports might have theoretically sped up part of the production process, the labor-intensive nature of weaving on the single-heddle ground loom made the industry impracticable in the post-slave-raid era, which saw significant labor depletion in the region (Davison and Harries 1980, 189). Thus, geographic and demographic conditions prohibited producers in places like Tanzania's Ufipa and Malawi's Lower Shire Valley from reaping industry-stimulating benefits associated with nineteenth- and twentieth-century global trade intensification.

6.6 Colonial Rule: Regional Factors and Local Agency

A final crucial regional difference can be found in the relative impact of colonization on domestic industries in East versus West Africa, which depended on the particular colonial institutions that were imposed and on the strength of pre-colonial industries and domestic demand. Indeed, it was early-twentieth-century colonial hut tax policies in Ufipa that ultimately prompted the region's men to seek wage labor opportunities far afield, initiating deindustrialization.

Hut taxes like those imposed in German East Africa were common in most of East Africa's settler-oriented colonies, simultaneously providing a source of revenue for the colonial state and labor for European plantations in the sparsely populated region. Northern East Africa, by contrast, remained relatively free from colonial intervention. And in the already commercially developed West African colonies, trade duties provided the bulk of colonial revenue, while the absence of European plantations diminished interest in coercively generating a wage labor force. Direct taxes consequently remained comparatively limited and peasant cash-crop production more widespread in West Africa (Frankema and van Waijenburg 2012, 914-921). Although, the West African experience was not entirely uniform. In the land-locked French West African colony of Burkina Faso, for example, which had few cash-crop opportunities, we do find a case of coercion-driven labor migration and deindustrialization that resembles the experience of Ufipa (Skinner 1960, 385-387). The greater prevalence of coercive labor measures in French colonies, Austin (2009, 19) points out, was likely linked to their often "relatively unfavourable environment" compared with other parts of West Africa.

By and large, however, West Africa experienced comparatively less intensive state intervention, which Roberts (1996, 286) suggests rested partly in the "more developed precolonial webs of production and exchange" in West versus much of East Africa. Indeed, when colonial administrations – be they French, German, or British – attempted to actively dislodge West African cotton cloth industries in an effort to secure African cotton for European looms, they typically proved unsuccessful (see, e.g., Roberts 1996, 366-371; Bassett 2001, 63-85; Maier 1995; Hogendorn 1995; Beckert 2014, 364-374). This was largely a result of "an enduring local market [for raw cotton] and a centuries-old consumer preference for local cloth styles" (Maier 1995, 73).

The Failure of "Cotton Imperialism" in British Nigeria

During the early twentieth century, the British Cotton Growing Association (BCGA) made concerted efforts to transform northern and southern Nigeria into not only major markets for British-made cloth but also the principal raw cotton suppliers for the Lancashire textile industry (Johnson 1974, 182). This, however, did not go as planned. For one, British exports were simply not competitive with local textiles. It was reported that "no native [...] will take the English material if he can possibly get the latter" (Northern Nigeria Report for 1906-07 quoted in Johnson 1974, 184). Moreover, much of Nigeria's raw cotton was consumed by domestic textile producers, who offered farmers remuneration far above the artificially low BCGA buying price (Hogendorn 1995, 60, 62, 66). Furthermore, Nigerian textile producers continued to demand local cotton strains, which farmers could efficiently intercrop with foods, while the BCGA unsuccessfully pushed monocrop variants (Vincent 1976, 68-70, 229-230).

At the same time, other cash crops, like cocoa, palm oil, kola, benniseed (sesame), and groundnuts, offered more attractive global export prices (Vincent 1976, iv; Hogendorn 1978; Dorward 1975; Morel 1911, 227-228). For example, while the Kano-Lagos railway was built to facilitate the export of northern Nigerian raw cotton, it was groundnuts that were sent coastward upon completion in 1912, much to the disappointment of the BCGA (Hogendorn 1995, 63-65). And as had occurred with the nineteenth-century palm oil boom in Igboland, when farmers' incomes rose through groundnut exporting, so too did consumption of locally woven cloth "in preference to the cheaper but less durable Lancashire cloth," which consequently further drove up local raw cotton prices well above the set BCGA price (Director of Northern Nigeria's Department of Agriculture, July 1913, quoted by Hogendorn 1978, 110). Thus, the Nigerian groundnut boom, aided by the BCGA-lobbied railway construction, ultimately dashed BCGA hopes of both a source of raw cotton and a large export market for British cloth.

After decades of propaganda, railroad construction, experimentation with new cotton strains, and the introduction of ginneries, the chief barrier to raw cotton exporting would continue to be the inability to "divert the supply of cotton from the Nigerian handlooms to the power-looms of Lancashire" (McPhee 1926, 44 cited in Johnson 1974, 184). Things played out very differently in British colonies *without* domestic cotton textile industries. In Uganda, which ultimately became the largest raw cotton exporter in British Africa, no cotton textile industry had ever existed. In the Lower Shire Valley, which was situated in British-held Malawi and also became an exporter of raw cotton, the local cloth industry – and thus the local market for raw cotton – had virtually vanished prior to the colonial period.

6.7 Persistence and Decline in the Twentieth Century

Colonization altered many aspects of social and economic life in Nigeria, but in the midst of these changes, resilient local producers adapted and derived strength from longestablished demand patterns, especially in southern Nigeria. For example, in 1913, British officials targeted cloth currency institutions in Tivland, collecting large quantities of cloth strips as tax payments, which were then exported out of the region. The Tiv economy's cloth currency conventions were undermined by this rapid withdrawal, which was followed by colonial demands that taxes be paid in official coin currency. However, the sudden removal of much Tiv cloth had created a bullish market for domestic textiles, which consequently increased local demand for raw cotton and thwarted BCGA hopes of securing the region's cotton (Dorward 1975, 438-439, 443; 1976, 589-590).

Regional patterns of production and exchange continued to persist and evolve during and beyond the colonial period. As of the 1950s, the Tiv in southeastern Nigeria were annually weaving not only at least half of their own clothing, but also producing "a great deal more for export" (Bohannan and Bohannan 1969, 53). Motor transport allowed Bùnú weavers in southwestern Nigeria to send increasing amounts of cloth to Igboland by the 1930s, which continued up to the start of the Nigerian Civil War in 1967 when trade with the secessionist southeast rapidly halted (Renne 1995, 136, 139-142). In Igboland, the war reportedly spurred a production boom that generated a "rapid diffusion" of Akwete weaving techniques throughout the southeast (Chuku 1995, 44).

In northern Nigeria, on the other hand, hand-loom weaving would show greater decline from around the 1920s. In Katsina Province, for example, 1,282 weavers were active in Yandaka District alone in 1909. By 1931, only 244 weavers were found across six districts surveyed in Katsina. However, even as of the early 1970s, women in some Katsina area villages were still spinning cotton into thread to sell to weavers outside of their non-weaving villages (Watts 1983, 63; Hill 1972, 321, 333). Watts (1983, 220) suggests that a rise in the price of raw materials had dampened the textile industry as exports of raw cotton increased somewhat – though never dramatically – alongside increased importation of cheap European cloth. However, raw cotton exports from southern Nigeria, though minimal, were generally double those from the north (Johnson 1974, 184).

Rather, a decline in northern textile output was likely tied to region-specific adjustment challenges. The heavily slave-dependent northern Nigerian economy faced waning slave-labor institutions during the colonial period and a population that could increasingly choose to abandon textile-related labor in favor of other employment opportunities. While some former slaves continued to work in textile production, others pursued groundnut cultivation (in lieu of cotton cultivation), porterage, mining, or leatherworking.¹¹ Furthermore, the decline of the trans-Saharan caravan trade by the start of the 1920s must have diminished long-established external markets for northern Nigeria's cloth (Johnson 1976, 116). And while the local market was large, it was also heavily comprised of impoverished former slaves who were beginning to earn wages but remained "on the low end of the income distribution" (Lovejoy and Hogendorn 1993, 223, 228-229); thus, they likely did not provide significant demand for the more expensive, higher-quality textiles that remained the life-blood of many southern Nigerian producers serving wealthier consumers. However, Kano's ancient weaving and dyeing industry did not simply evaporate, and its trade relations with desert people remained intact, if diminished. Even today, Tuareg people continue to wear the region's characteristic indigo veils (Spittler 2010, 72).

¹¹ On cash-earning opportunities for former slaves and slaves seeking to purchase their freedom, see Lovejoy and Hogendorn (1993, 200, 219-221).

Generally speaking, textile production continued in much of Nigeria well into the post-colonial era. Imports from Japan and India would ultimately claim a large relative share of the expanding Nigerian textile market, but locally made cloth retained a strong foothold. When the Federation of British Industry surveyed the Nigerian cloth industry in the mid-1960s, it was estimated that 50,000,000 square yards of cloth were annually woven on Nigerian hand-looms, comprising 13 percent of all cloth consumed in Nigeria (Johnson 1974, 186). As a comparative reference point, the output of Nigerian handlooms thus exceeded all machine-made cloth annually imported into Tanzania at mid-century by roughly 9.5 million yards (Tanganyika Territory 1948). Weaving would eventually decline in places like Bùnú, which remained tied to hand-spun yarn, but production continues to thrive and supplement household incomes in places like Tivland and Igboland to the present day, bolstered by persistent demand for domestic cloth with deeply ingrained cultural value (Renne 1995, 143-146; Aronson 1980; Joseph 2009; Diogu 2014).

Likewise, on the Benadir Coast, upwards of 1,000 households were reportedly weaving in the 1950s to feed the "constant demand" for Benadir cloth in neighboring countries. The industry would only substantially fade from the coastline with the violent social and economic upheaval brought by the onset of civil war in the late 1980s, although Alpers (2009, 93-95) points out that by the 1960s weavers had fallen prey to exploitative merchants who paid meagre sums for the handcraft products. In highland Ethiopia, hand-loom weaving persisted through the twentieth century and was reportedly spreading as of the early twenty-first century, with farmers taking up weaving to generate additional income (Watson and Regassa 2003, 244-245). On Zanzibar, in contrast, the weaving industry that had arisen during the island's nineteenth-century stint as East Africa's premier global trading hub, would ultimately wane in conjunction with the island's decline as a trading powerhouse, which provides a striking counter-example for the purported role of globalization in driving industrial decline in the Global South. Rather than undermining local industry, global trade was, in fact, a vital ingredient for the island's burgeoning industry.

6.8 The Centrality of Local Conditions

While dynamic textile industries continued to survive and even thrive in West Africa and northern East Africa beyond the colonial period, industries in southern and central East Africa collapsed during the late nineteenth and early twentieth centuries. As this regional comparative analysis has illustrated, these very different industrial outcomes were conditioned by underlying regional variables that affected the robustness of industry prior to the nineteenth century and influenced industrial resiliency in confrontation with global forces from the nineteenth century onward. Cotton cloth traditions developed comparatively early in both West Africa and northern East Africa, affording local producers ample time to develop and secure strong local, regional, and long-distance market niches prior to the rise in global trade integration and colonization. Relatively dense populations and extensive long-distance trade networks provided large markets for textiles, encouraging professional specialization. Furthermore, centralized states proliferated in comparatively densely populated West Africa and encouraged trade and industry, as did the development of domestic cloth currency institutions. In the more sparsely peopled regions of southern and central East Africa, large industry-stimulating centralized states generally did not emerge, local markets were smaller, regional exchange more limited, and industrial production less specialized.

The better-developed industries of northern East and West Africa would prove more durable during the increasingly globally oriented nineteenth and twentieth centuries. In West Africa, local geography, ecology, and demographics allowed textile producers to benefit from enhanced demand as incomes increased with cash-crop exporting. And in both West Africa and northern East Africa local manufacturers responded to – and even benefitted from – imported manufactures through innovative adaptation. In the interior of central and southern East Africa, in contrast, geographic and demographic conditions had inhibited these industry-stimulating benefits of global trade. During the nineteenth century, Zanzibar enjoyed some of the advantages that helped fortify industries in northern East and West Africa, but the Zanzibari weaving industry was still in the early stages of development when global trade shifted to mainland ports, throwing the island's economy into decline.

A final regional difference is found in the impact of colonization and metropolitan agendas on textile industries, which depended not only on the relative strength of precolonial industries but also on the particular colonial institutions that were imposed in different regions. Where more densely populated and commercially developed West African peasant colonies were subject to indirect rule, thinly populated East African settler colonies often faced coercive labor institutions that undermined pre-colonial production systems. While global trade and colonization certainly affected sub-Saharan African textile industries, the nature and consequences of these forces, we have seen, were strongly mediated by local conditions.

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Chapter 7: Conclusion: Global-Local Interactions and Industry in Sub-Saharan Africa

7.1 Bringing Local Factors to the Fore

This book has offered an in-depth comparative study of the decline or, in some cases, resilience of handicraft textile production in late pre-colonial and colonial-era sub-Saharan Africa, focusing on cases of industrial decline in southern and central East Africa (specifically, Malawi and Tanzania) with a comparative eye toward more resilient industries in northern East Africa and West Africa (especially Somalia, Ethiopia, and Nigeria). The comparative geographic and temporal approach taken in this study reveals how and why deindustrialization progressed in certain parts of sub-Saharan Africa at different times, thus bringing to light crucial causal mechanisms that varied across space and time.

The central aim has been to uncover when and why East Africa's handicraft cloth industries declined. Most deindustrialization theories focus principally on external factors, especially global market forces – including competition from manufactured imports and diversion of labor from industry to more profitable raw materials exporting – as the ultimate causes of industrial decline in the global "periphery." With respect to sub-Saharan Africa, much emphasis has been placed on the purportedly deindustrializing impact of machinemade cloth imports from the eighteenth century onward. However, competition from imported cloth does not satisfactorily explain the decline of East African cloth industries during the nineteenth and early twentieth centuries. Fresh quantitative data reveal comparatively *higher* per capita import levels in both northern East Africa and West Africa, where handicraft textile industries continued to thrive long after production in central and southern East Africa withered.

Through comparative analysis, this book offers an alternative perspective, arguing that *local structural pre-conditions* took the lead in guiding industrial outcomes. The demographic, environmental, geographic, and institutional makeup of a given locale moderated the local industrial consequences of time-dependent external forces – which could precipitate structural change and deindustrialization (as in southern and central East Africa) or not (as in northern East and West Africa) – as the continent was increasingly integrated into global markets and the European colonial system during the nineteenth and twentieth centuries. Local conditions, however, could change over time, as a result of both internal and external developments, thus affecting a given locale's relative vulnerability to the potentially deindustrializing impact of external forces.

Chapter 2 examined the deindustrialization of southern Malawi's Lower Shire Valley during the second half of the nineteenth century. Cloth was produced in the valley from at

least the sixteenth century, but by the 1860s, production and regional export of cloth rapidly declined and failed to regain footing. Here, cloth imports did not cause industrial decline – for import levels would only rise significantly after local cloth manufacturing had virtually disappeared – nor did strong global terms of trade for tropical products motivate producers to reallocate labor from domestic industry to export-oriented raw materials production. Industrial labor was reallocated from industry to cash-crop production of sesame oilseeds. However, this reallocation occurred when terms of trade for sesame oilseeds had declined and stagnated, suggesting that enhanced global market opportunities did not prompt this transition. Rather, the valley's deindustrialization and subsequent shift to cash-crop cultivation were stimulated by local factor endowment changes precipitated by both global and local forces. First, local labor supplies declined sharply in the 1860s due to slave raiding – stimulated by global demand for plantation-produced products – and famine. Soon after, local supplies of fertile land increased substantially due to spontaneous local environmental change, which Mandala (1990) has highlighted as a major driver of local production choices in the region. The altered ratio of local factor endowments (land relative to labor) significantly affected labor allocation in the region, as villagers permanently abandoned labor-intensive cloth production in favor of far less labor-dependent cash-crop cultivation. Conversely, in more labor-abundant regions, like West Africa, cloth production continued to thrive *alongside* cash-crop exports.

Chapters 3 and 4 detailed East Africa's largely Zanzibar-centered nineteenth-century global trade and traced the first major growth in imports of machine-made cloth into the region. These chapters explore how East African demand for imported cloth developed over the course of the nineteenth century and illustrate the comparatively limited extent to which foreign imports reached the deep interior of the mainland through the century. Chapter 3 illustrated how the scale and composition of nineteenth-century cloth imports were strongly influenced by activity on Zanzibar and the East African coast, although the nature of that activity changed over time. Between the 1830s and 1860s, a rapid rise in imports of cloth into Zanzibar, East Africa's principal global trade hub, was driven in large part by the hyper-competitive practices of opposing foreign trading groups operating on the island. Thereafter, import levels were increasingly conditioned by production and demand patterns on Zanzibar, the East African coast and in the coastal hinterland. From the 1870s, the export value of goods produced by coastal and near-coast groups shot up and their consumption of imports grew apace as imports of British- and especially Indian-made cloth rapidly increased. Meanwhile, a textile industry emerged on Zanzibar during the nineteenth century, simultaneous with the island's rise to prominence as a global trading center, suggesting that rather than condemning industry, global trade integration provided stimulus for artisans, who benefited from rising local demand and access to imported industrial inputs.

The value of Zanzibar's ivory exports – principally derived from the deep interior of what is today Tanzania and beyond – also increased substantially in the second half of the nineteenth century as ivory prices rose precipitously on the island. Terms of trade for East African ivory consequently improved relative to imported cloth. Crucially, however, as Chapter 4 has argued, the benefits of terms-of-trade improvements were not commensurately shared with the deep interior regions from which most ivory came. Cloth imports increased dramatically in price as they moved farther into the interior. This was a result of high transportation and transaction costs and relatively limited stocks of imported cloth in most of the deep interior, where imported cloth was consequently used as a valuable commodity currency. Tellingly, the most popular imported cloth currency in the interior - American-made unbleached merekani - was imported into East Africa in comparatively low and steady amounts through the century. While imported cloth prices remained high in the interior, ivory prices were remarkably low (relative to coast prices) but increased substantially as the ivory moved coastward and finally surged when sold on Zanzibar to global buyers. Interior groups that were heavily engaged in coast-interior caravan activities were better positioned than other interior people to benefit from global improvements in ivory terms of trade. Imported cloth was consequently comparatively more attainable for Wanyamwezi people, for example, who organized caravans and increasingly worked as wage porters. However, a decline in textile production in Unyamwezi was less a consequence of increasing availability of imported cloth and more a result of the ever-increasing large-scale withdrawal of male labor from the region for porterage work.

Chapter 5 explored industrial decline in Ufipa, situated in the Rukwa region of what would become German East Africa in 1885 (principally comprised of modern-day mainland Tanzania), where industry flourished through the nineteenth century, only declining when the German colonial reach extended to the interior-situated region during the early years of the twentieth century. The imposition of colonial tax policies, partly geared toward accruing a wage labor force for the colony's coastal plantations, fundamentally altered Ufipa's labor supply. In the previously non-monetized Rukwa region, where economic activity was traditionally based on barter exchange, rupees could not be obtained in sufficient quantities at home. A lack of mechanized transportation to the geographically isolated interior region diminished possibilities for profitable export-oriented cash-crop production, while limited local wage-labor opportunities left few alternative options. Consequently, colonial taxation generated a rapid exodus of male labor from the region. Crucially, the majority of cloth imported into Tanzania during the period of Ufipa's deindustrialization was flimsy, unbleached material, which was a poor substitute for Ufipa's durable, patterned cloth. Demand for the local product persisted even as a drain in male labor significantly diminished industrial output. Ultimately, however, an ongoing withdrawal of young men from the region undermined the reproduction of cloth-making skills in Ufipa, causing the industry to fade into obscurity in the long-run.

Chapter 6 placed the preceding case studies of southern and central East Africa in comparative perspective by engaging existing studies on the more resilient handicraft textile industries of northern East and West Africa to pinpoint the most significant regional factors that influenced differing industrial outcomes in East and West Africa during the nineteenth and twentieth centuries. While each case is unique, certain broad patterns emerge.

First, the relatively more robust textile industries of northern East Africa and West Africa developed many centuries earlier than the ultimately more fragile industries of southern and central East Africa. A longer history of textile production enabled these regions to develop production techniques, specialized products, and substantial market niches long before cloth imports showed a significant uptick in the nineteenth and twentieth centuries. Second, regions with particularly strong handicraft textile industries tended to have comparatively dense populations, which offered both large sources of industrial labor and substantial local and regional markets for domestic cloth. Beyond its own relatively dense population, Nigeria's extensive engagement in long-distance trade – conditioned by regional geography that encouraged inter-zone exchange – provided a large outlet for the region's textile products. Northern East Africa's Mogadishu also enjoyed substantial export markets facilitated by its seaside location. Markets for domestic textiles in central and southern East Africa were, by contrast, comparatively small, and long-distance exchange was often constrained by local geography.

Third, textile industries were strongest in regions, like West Africa, that developed industry-stimulating pre-colonial institutions, including pro-trade state policies and domestic cloth currency conventions. The fourth factor – the ability to profitably export cash crops – impacted the capacity of industries to weather and even benefit from increasing global integration during the nineteenth and twentieth centuries. In southern Nigeria, for example, domestic textile production experienced a boost as incomes rose with rising palm-oil exports, a benefit not available to landlocked Ufipa in Tanzania. The final crucial regional factor identified in this comparative analysis lies in the relative intensity of colonial intervention in local economies, which derived largely from pre-existing local conditions. In West African colonies, which experienced greater autonomy than much of the East, domestic textile producers effectively thwarted colonial efforts to divert raw cotton from local looms to European factories. Likewise, northern East Africa was relatively unfettered by colonial intervention. In German East Africa, in contrast, colonial policy prompted a deindustrializing exodus of male labor in Ufipa, with similar labor-depleting effects noted elsewhere in the colony. The Lower Shire Valley's deindustrialization, however, occurred prior to the foundation of British colonial Nyasaland (modern-day Malawi).

7.2 Determinants of Industrial Outcomes

This book has explored the numerous local and external factors, addressed in the introduction and modeled in Fig. 1.4, that interacted to influence local-level production possibilities and labor allocation choices. Local structural conditions influenced the degree to which industries continued to thrive in confrontation with time-dependent external forces, which could, in turn, affect local conditions. The dynamic relationship among and between these factors is illustrated in Fig. 7.1.

[Figure 7.1 Here]

Fig. 7.1 Local and external determinants of industrial outcomes. *Note*: Dashed lines indicate a mediating effect

Local Structural Conditions

In the cases examined here, numerous local structural conditions interacted in a complex dance of mutual influence. To begin with, *geographic location* played a central role in influencing an array of local conditions, affecting local *environmental conditions* – quality and quantity of arable land, rainfall levels, etc. – which influenced regional capacities to cultivate raw cotton along with vital food crops and possible exportable cash crops. Environmental conditions also helped determine the local range of possible agricultural systems and the length of the agricultural season, thus affecting the amount of time that people in a given region could feasibly devote to industrial production. Further, local environmental characteristics influenced the size and density of the local *population*, which directly impacted the size of the local market for cloth and the extent of the local labor *force*. Taken together, a region's environmental and demographic makeup directly impacted local production possibilities. This proved crucial in the case of the Lower Shire Valley, for example, where altered local factor endowments and a lengthened agricultural season raised the opportunity cost of cloth production. Furthermore, factor endowments (i.e., labor and land, determined by population and environment) influenced the development of local *institutions* – including socio-political organization (e.g., small chiefdoms versus large states) and local labor institutions (e.g., gender divisions of labor, coercive/slave labor systems, etc.) – which, in turn, affected production possibilities.

The local geographic character of a given region also affected the extent of the local market for cloth given that geography influenced the intensity of regional trade networks, while climate and altitude determined the amount of clothing required for basic subsistence. Ethiopia, for example, consumed large amounts of cloth in the relatively cool highlands, while northern Nigerian producers enjoyed extensive demand from Saharan groups to the north, who required much cloth to protect themselves from the harsh desert environment. Market demand was also influenced by local labor institutions. In northern Nigeria, for instance, slave labor institutions likely diminished the purchasing power of segments of the population, who consequently could not afford the higher-quality variants of domestic cloth that, in the case of southern Nigeria, helped sustain the local industry in the face of import competition. Pre-colonial currency institutions also affected cloth industries. In West Africa, the use of domestic cloth currency helped support local producers specializing in cloth-strip currency. In East Africa, imported cloth as valuable currency helped retain market space for domestic cloth as a consumption good.

Alongside economic institutions, local cultural institutions influenced market demand, particularly where religious custom necessitated extensive cloth consumption. This was the case in much of northern East Africa and West Africa and along the East African coastline. Furthermore, unique, culturally ingrained qualitative consumption preferences dictated market demand and often helped domestic producers withstand competition from foreign imports, as was the case in much of West Africa and northern East Africa and – at least up to the early twentieth century – in East Africa's Ufipa.

Time-Dependent External Forces

Existing local structural conditions interacted with external forces that arose during the nineteenth and twentieth centuries and thus mediated the impact of global processes on local industry (represented by dashed lines in Figure 7.1). Local labor institutions in Nigeria, for example, helped ensure that domestic cloth prices remained competitive with imported cloth, even as industrial development and declining oceanic transportation costs led to a decline in prices for machine-made imported cloth. Geographic location also helped determine the scale of imports in various regions since the distance of a given region to the coast, and the nature of the terrain lying between, influenced transportation costs. Imported cloth was consequently extremely expensive and comparatively limited in much of the land-locked interior of East Africa. So, too, however, was industry-stimulating yarn, which weavers in more accessible locales used to speed up production and increase output. As global demand for raw materials increased in the industrializing world and terms of trade for tropical primary products consequently improved during the nineteenth century, *global market forces* could encourage a rise in export-oriented agricultural production, thus affecting local labor allocation choices. However, this was not necessarily the principal cause of a transition to cash-crop production. In the Lower Shire Valley, for example, cash-crop cultivation did arise during the last quarter of the nineteenth century, as cloth production was abandoned. However, this was primarily a result of altered local factor endowments rather than enticing terms of trade for sesame oilseeds. Furthermore, the relationship between cash-crop production and industry depended fundamentally on local conditions. In southern Nigeria's Igboland, for example, global market forces helped bolster the domestic textile industry by increasing local incomes through cash-crop cultivation, which stimulated a growth in demand for domestic cloth. This dynamic was facilitated by the ease with which Igboland adopted palm-oil exporting – conditioned by demographic and environmental factors – and the relatively high prices for the oil that could be obtained because of the region's geographically unfettered access to export markets.

At the same time, external forces could also have a transformative impact on local structural conditions. For example, global demand for slave labor and/or slave-produced commodities could lead to diminished populations, thus depleting the local labor supply and simultaneously shrinking the domestic market for cloth, as occurred in the Lower Shire Valley during the 1860s and 1870s. With the coming of colonial rule to sub-Saharan Africa by the end of the nineteenth century, the *metropolitan agenda* – partly influenced by global demand for primary products and the local factor endowments of a particular colony – was reflected in the imposition of *colonial institutions* that could lead to a number of local-level changes that indirectly influenced labor allocation. In colonial Nigeria, for instance, the metropolitan anti-slavery agenda led to alterations of local labor institutions, which affected the slave-dependent cloth industry in northern Nigeria. And colonial fiscal policy in German East Africa led to shifts in Ufipa's local labor supply in terms of quantity and composition. However, this outcome was influenced by the region's geographic position, which diminished the possibility of earning sufficient income from local cash-crop production. In fact, the region had become more economically isolated as caravan traffic dwindled with the late-nineteenth-century decline in caravan-based ivory trading and the development of colonial-era railways. Had the central rail line not bypassed Ufipa, the outcome may have been different. In northern Nigeria, for example, the colonial construction of the Kano-Lagos railway, intended to funnel the region's cotton to British looms, ultimately generated a groundnut export boom instead, which boosted demand for the region's cotton cloth. The metropolitan agenda could also mediate global market forces, as occurred throughout Nigeria, where the British Cotton Growing Association set cotton buying prices at levels far below the natural market price, which effectively encouraged local cotton growers to sell their crops to domestic cloth producers who offered higher prices than European buyers.

In short, studies of East and West African handicraft textile industries have illustrated that regional industrial outcomes differed substantially during the nineteenth and early twentieth centuries as the continent became increasingly integrated into the global economy. Rather than uncovering some mono-causal factor, like global market forces or competition from imports, which are often pointed to as ultimate causes of deindustrialization in the global periphery, comparative analysis reveals that industrial outcomes depended upon diverse combinations of local structural factors that influenced the existing strength of textile industries and their relative capacity to successfully confront external forces during the nineteenth and twentieth centuries.

7.3 African Industrial Pathways: Past, Present, Future

While this study has focused on handicraft production, its comparative findings help enrich recent debates on potential labor-intensive pathways to modern industrial development (i.e., based on inanimate energy sources) in sub-Saharan Africa. Although traditional handicraft manufacturing and modern mechanized production constitute very different industrial modes, highlighting the salient local structural conditions that influenced differing industrial trajectories and labor allocation choices in nineteenth- and earlytwentieth-century Africa draws attention to certain long-held path dependencies, some of which may be in the process of breaking down.

Up to at least the mid-twentieth century, sub-Saharan Africa was generally laborscarce and land-abundant, albeit to a relatively less extreme degree in West Africa compared with most of East Africa. Consequently, as Austin, Frankema, and Jerven (2017) have noted, while highly differentiated seasonality could support dynamic *handicraft* industries, the continent's factor endowments were, by and large, ill-suited to prompt a labor-intensive route to modern industrialization – pioneered by labor-abundant, land-scarce East Asia and conditioned by low relative wage costs – nor was capital accumulation sufficient to stimulate a capital-intensive route to mechanized industry. Most entrepreneurs and colonial states in Africa pursued profitable land-extensive ventures rather than funneling labor or capital into the development of modern industry. Post-colonial governments attempted to boost industry through import-substitution industrialization schemes with moderate success during the 1960s and 1970s. However, state-led industrial initiatives halted with the introduction of structural adjustment programs in the 1980s and 1990s, and African countries were rapidly opened up to foreign imports in accordance with the neoliberal policy prescriptions of the "Washington Consensus."

These dynamics help account for the failure of nineteenth- and twentieth-century African economies to experience significant and sustained modern textile manufacturing growth in spite of centuries-old production traditions. However, Africa is in a state of flux. Populations began to increase significantly from the mid-twentieth century onward – thus gradually pushing down real wages - while the labor force has become increasingly educated, generating some of the fundamental pre-conditions for labor-intensive industrialization (Austin 2013, 213-214). The historically land-abundant continent is projected to become increasingly labor-abundant as the twenty-first century progresses, which Frankema and van Waijenburg (2018) suggest will likely augment the urban labor force and expand domestic market integration, thus engendering significant economic expansion over the coming half-century. Furthermore, while global market competition remains strong, African export possibilities have expanded with the easing of import restrictions in developed countries on textiles produced in Africa. The early twenty-first century saw the dismantling of the restrictive Multi Fibre Agreement in 2005 – which had limited textile exports from developing countries since the mid-1970s - along with the implementation of the Everything But Arms program of the EU and the African Growth and Opportunity Act of the United States, which allow for duty-free imports of textiles produced in Africa.

As the continent's population continues to expand, labor-intensive development of African textile industries may become increasingly feasible. Some of the region-specific industrial outcomes and significant local structural conditions identified in this book may again play a role in influencing industrial trajectories. For one, the successful maintenance of regional demand for culturally distinct handicraft textiles in Ethiopia and much of West Africa – relative to central and southern East Africa – may provide a valuable ready-made consumer niche should these industries pursue greater mechanization. Second, countries with the highest population densities will be more likely to develop global wage advantages and attract foreign direct investment to manufacturing, as in the case of Ethiopia, where foreign-owned export-oriented yarn factories have recently been established (Austin, Frankema, and Jerven 2017, 27). Third, given the intense competition from other emerging economies in the twenty-first-century global marketplace, the size of the domestic market will likely again figure heavily in the industrial potential of a given country. Larger countries like Nigeria and Ethiopia, with extensive and comparatively well-integrated internal markets, will be better poised to expand manufacturing on the basis of domestic demand than much smaller countries, like Malawi.

At the same time, however, many of the local structural dynamics that influenced nineteenth- and early-twentieth-century industrial outcomes are changing. For one, with a five-fold expansion of Tanzania's population projected by 2100, the geographically large but

historically labor-scarce country will likely join the ranks of historically more densely populated Nigeria and Ethiopia, offering expansive domestic market access and a potential pathway to labor-intensive modern textile manufacturing over a century after the virtual disappearance of the country's handicraft traditions (United Nations 2015, 4). Of equal importance, as African populations continue to expand relative to land, an increasing share of the population is being released from agricultural labor tasks. Thus, the strong seasonal nature of handicraft industry (determined by the rhythm of agricultural schedules), which traditionally limited annual industrial output and may have dis-incentivized productivity growth, is progressively vanishing. At the same time, yarn input limitations, historically caused by dependence on raw cotton yields, have been increasingly mitigated through the proliferation of machine-produced yarn imports and, more recently, the adoption of synthetic thread. And, importantly, the *availability* of these inputs in regions distant from coastal ports has increased substantially with the expansion in mechanized transportation in sub-Saharan Africa over the past century, as have opportunities for regional market integration. This is of particular importance for regions, like Tanzania, where comparatively dispersed settlement patterns moderated the scale of regional exchange up to the twentieth century.

Mechanized transportation, increasing input supply availability, and a booming population will not automatically generate industrial growth in sub-Saharan Africa. Crucially, just as the existence of centralized states and industry-stimulating pre-colonial institutions helped boost handicraft industries during the nineteenth century, the successful development of modern manufacturing will rely heavily on state policies that provide the necessary tools to underpin industrial expansion, including local access to affordable energy sources (Austin, Frankema, and Jerven 2017, 28). Furthermore, trade policies will require careful crafting to confront rising global competition. While this book has illustrated that competition from imports did not destroy handicraft industries during the pre-colonial and colonial eras, the global market place has changed dramatically over the past half-century. With the twentieth-century rise of East Asian manufacturing dominance and growth in global consumption, African markets are increasingly flooded with imported cloth, including vast quantities of cheap second-hand clothing (mitumba) discarded by consumers in developed countries. However, just as in preceding centuries, how these and future global processes impact local economies and industrial development will ultimately be guided by (currently shifting) local structural conditions and attendant local responses in the decades and centuries to come.

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Figures

See text for sources and notes See end of document for map figures

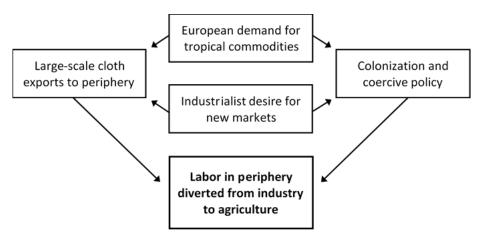


Fig. 1.1 Dependency school deindustrialization model

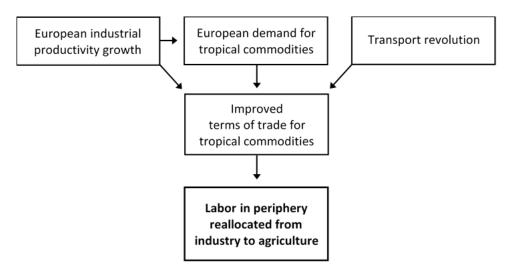


Fig. 1.2 Market-oriented deindustrialization model

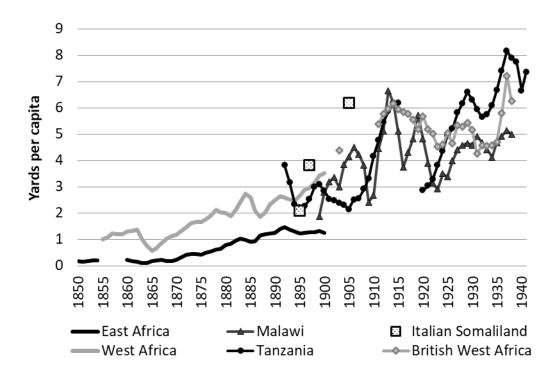


Fig. 1.3 Per capita cloth imports into East and West Africa, 1850-1941

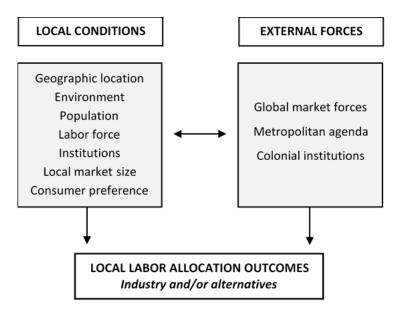


Fig. 1.4 Location-centered model for production outcomes

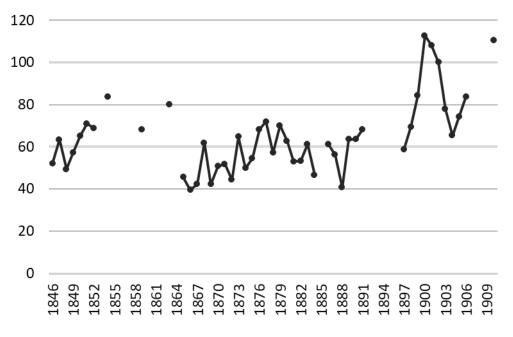
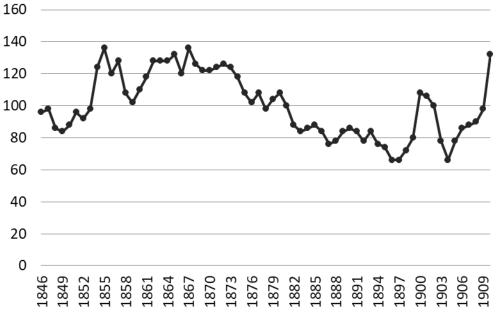
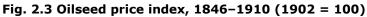


Figure 2.2 Terms of trade for oilseeds, 1846–1910 (1902 = 100)





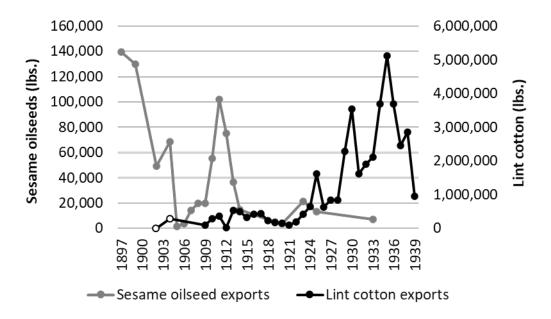


Figure 2.4 Villager-grown sesame oilseed and lint cotton exports, 1897–1939

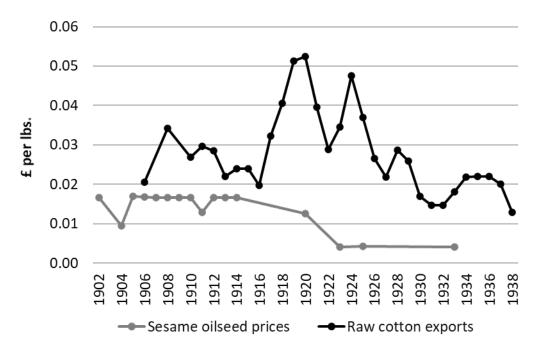


Fig. 2.5 Unit prices of sesame oilseeds and raw cotton, 1902–1938

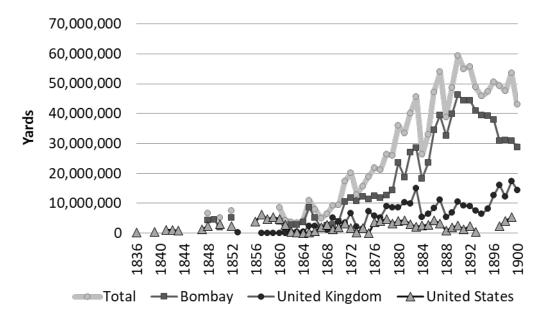


Fig. 3.2 Cloth exports to East Africa from the United Kingdom, United States, and Bombay, 1836-1900

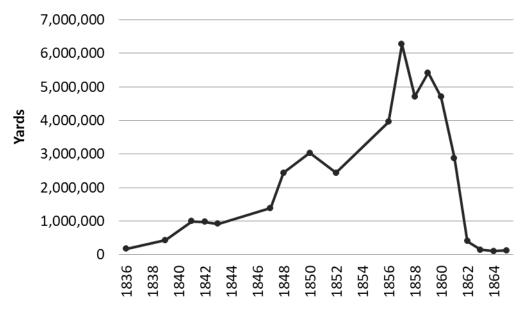


Fig. 3.3 Exports of merekani from the United States to Zanzibar, 1836-1865

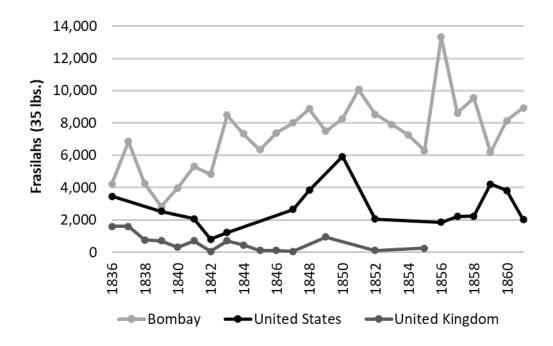


Fig. 3.4 Ivory exports from East Africa to Bombay, the United States, and the United Kingdom, 1836-1861

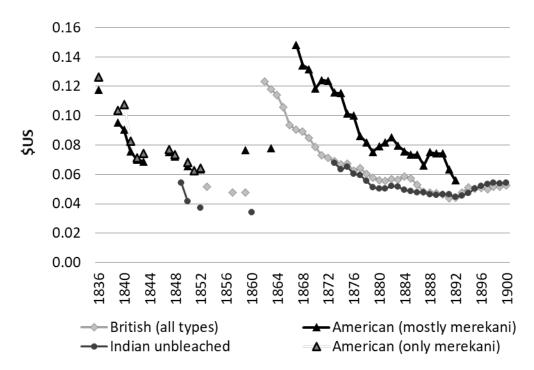


Fig. 3.5 Unit price per yard of unbleached cloth in Zanzibar, 1836-1900

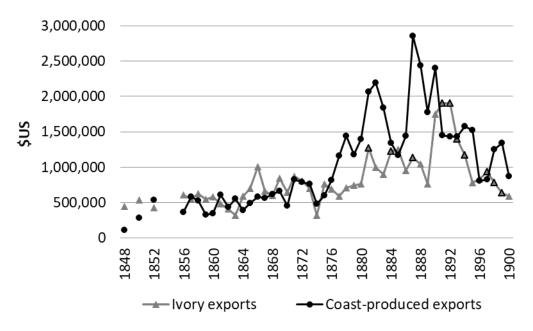


Fig. 3.6 Coast-produced exports and ivory exports from East Africa, 1848-1900

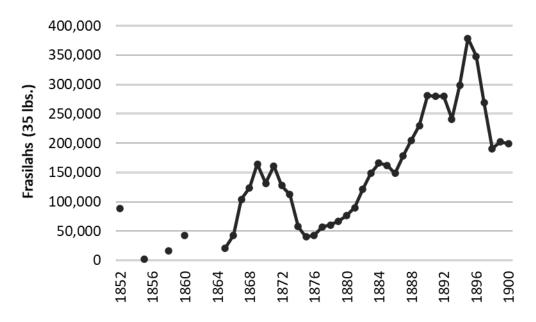


Fig. 3.7 Zanzibar's clove exports to Bombay and the United Kingdom, 1852-1900

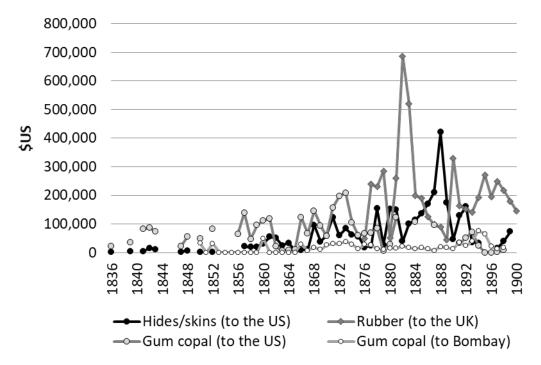


Fig. 3.8 Re-exports of hides, skins, rubber, and gum copal from Zanzibar to the United States, United Kingdom, and Bombay, 1836-1900

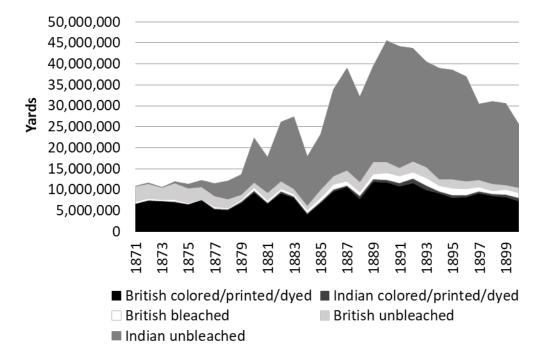


Fig. 3.9 Composition of Bombay exports of cloth to East Africa, 1871-1900

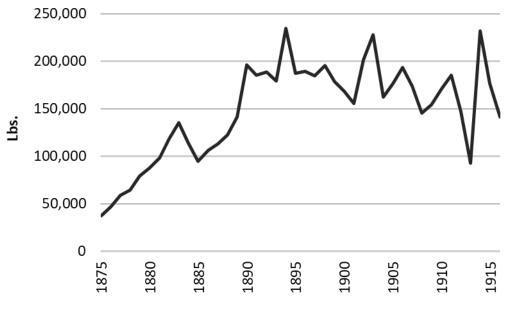


Fig. 3.10 Raw cotton exports from Bombay to Zanzibar, 1875-1916

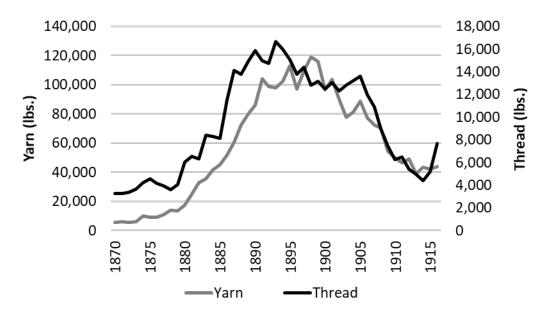


Fig. 3.11 Twist, yarn and sewing thread exported from Bombay to Zanzibar, 1870-1916

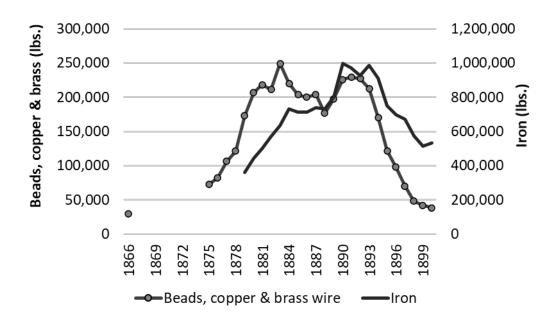


Fig. 4.2 Beads and metals exported from Bombay to East Africa, 1866-1900

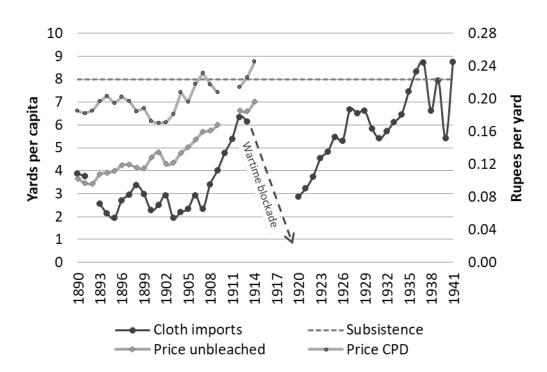


Fig. 5.2 Cotton cloth prices and per-capita imports into German East Africa/British Tanganyika, 1890-1941

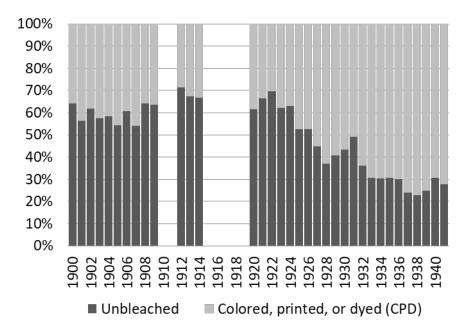


Fig. 5.3 Composition of cotton cloth imports (quantity), German East Africa/British Tanganyika, 1900-1941

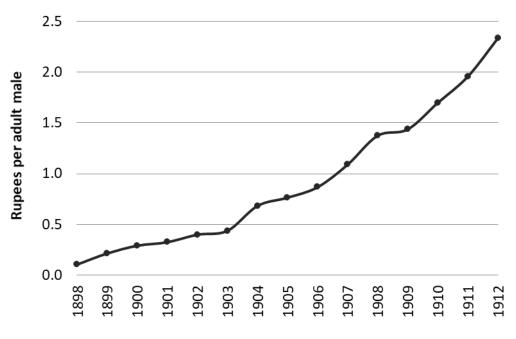


Fig. 5.4 Taxes collected per adult male, German East Africa, 1898-1912

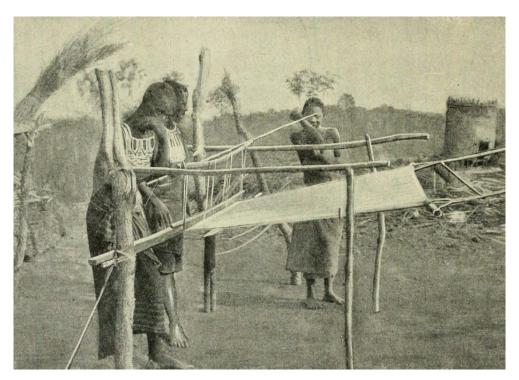


Fig. 5.5 Young weavers in the Rukwa region, c. 1908



Fig. 5.6 Women wearing seketa cloth, c. 1914

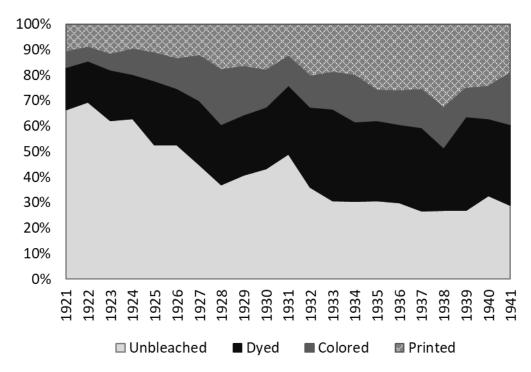


Fig. 5.7 Shares of cotton cloth imports by type, British Tanganyika, 1921-1941

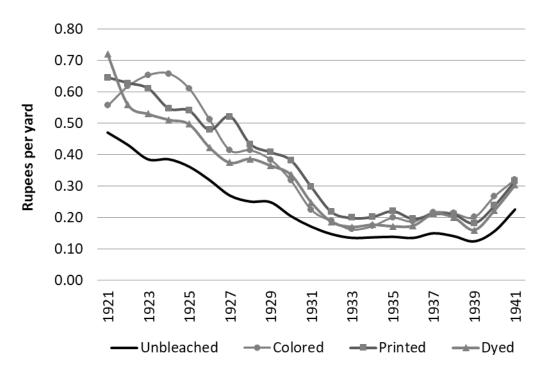


Fig. 5.8 Prices of cloth imports by type, British Tanganyika, 1921-1941

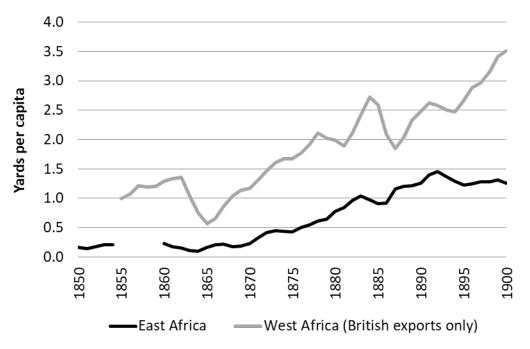


Fig. 6.1 Per-capita imports into East and West Africa, 1850-1900



Fig. 6.2 Mang'anja loom and cloth, 19th c.



Fig. 6.3 Ewe kente cloth, late 19th to early 20th c.

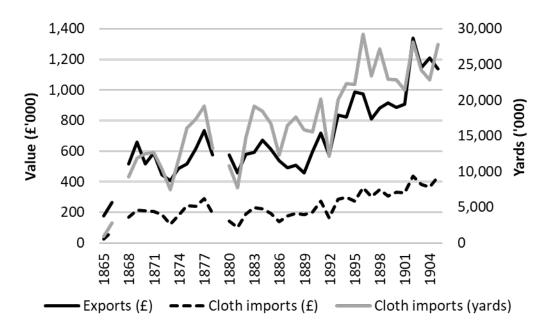


Fig. 6.5 Cloth imports (quantity and value) and total exports (value), Lagos Colony, 1865-1905

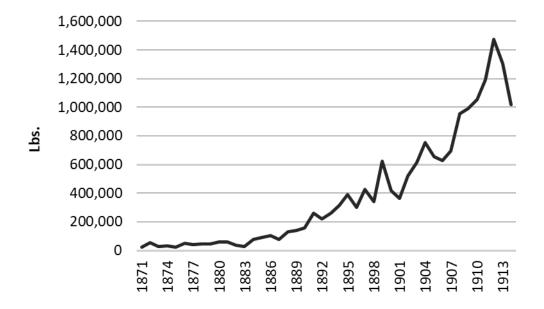


Fig. 6.6 Aggregate yarn imports into West Africa from Britain, 1871-1914

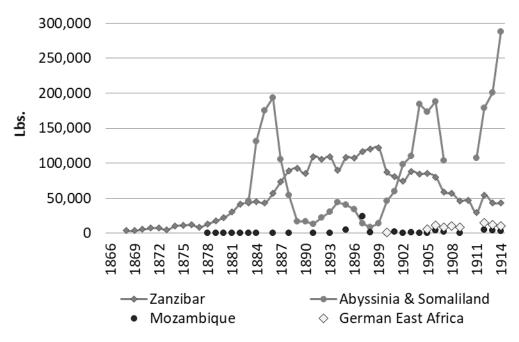


Fig. 6.7 Yarn and thread imports into East Africa, 1866-1914

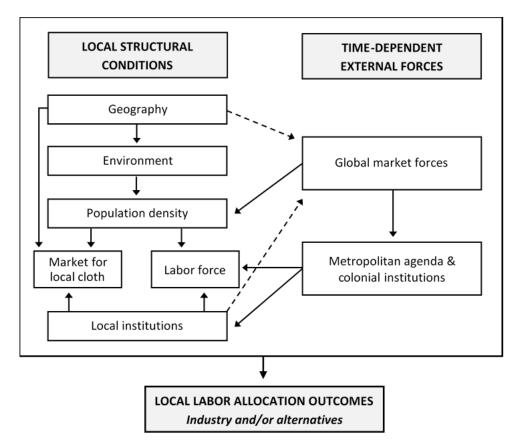


Fig. 7.1 Local and external determinants of industrial outcomes

Tables

See text for sources and notes

_	Zanzibar	Muscat	Mocha	Aden
1836	99	-	-	-
1839	81	80*	90	-
1841	64	71	71	-
1842	56	75*	71*	-
1843	58	69	72*	-
1847	60	65	70*	-
1848	57	59*	65*	59
1850	53	57	60	58
1852	50	58	-	58

Table 3.1 Average price per bale of *merekani* cloth

Table 4.1 Ivory prices per *frasilah*, coast vs. interior

	Interior market	Zanzibar	% increase
1859	\$3.20	\$52.50	1540%
1876	\$12.46	\$89.65*	620%

 Table 4.2 Estimated porterage wage burden per *frasilah* of ivory (expressed in yards)

	lvory price (interior)	lvory price (Zanzibar)	Coastal profit	Porter wage	Wage burden
1859	44	722	678	10 ²	1.5 %
1876	140	964 ¹	824	30 ³	3.6 %

Cash price:	Cash price:	<i>Seketa</i> cash	<i>Seketa</i> barter
<i>seketa</i> cloth	imported cloth	price premium	price premium
Rupees/yard	Rupees/yard	<i>seketa</i> cash price vs.	3.6 yards <i>seketa</i> cloth =
	(incl. transport cost)	import cash price	4 yards imported cloth
0.56 – 0.83	0.315	77 – 166%	11%

Table 5.1 Cash and barter price premium of seketa vs. unbleached imports

Maps below, in order of appearance:

- Fig. 1.5 Map of case-study and comparison regions, c. 1914
- Fig. 2.1 Map of the Lower Shire Valley and surrounding areas
- Fig. 3.1 The central East African coast and interior in the nineteenth century
- Fig. 4.1 Cloth production in German East Africa in the late nineteenth century
- Fig. 5.1 Ufipa in Bismarckburg District, German East Africa, c. 1914
- Fig. 6.4 Varieties of looms in sub-Saharan Africa

