A COMPARATIVE ANALYSIS OF EAST AND WEST AFRICAN COTTON CLOTH PRODUCTION FROM THE EARLY MODERN TO THE POST-COLONIAL ERA

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A comparative analysis of East and West African cotton cloth production from the early modern to the post-colonial era[1]

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Abstract

This article examines why "traditional" cotton textiles industries tended to decline in southern and central East Africa during the late-nineteenth and early-twentieth centuries while cloth production persisted in much of northern East Africa and West Africa – where per-capita cloth imports were significantly higher – well into the post-colonial period. Comparative analysis reveals that relatively resilient industries tended to arise and persist where textile traditions were adopted comparatively early, allowing industries and demand for domestic cloth to develop several centuries before global integration and colonization; in areas with relatively dense populations and access to large markets; where centralized states developed and pre-colonial institutions helped encourage industrial growth; where local endowments and geography favored income-enhancing cash-crop cultivation; and where nineteenth- and twentieth-century colonial intervention and fiscal institutions were comparatively less disruptive to existing socio-economic organization.

Keywords: cotton textiles, deindustrialization, East Africa, West Africa

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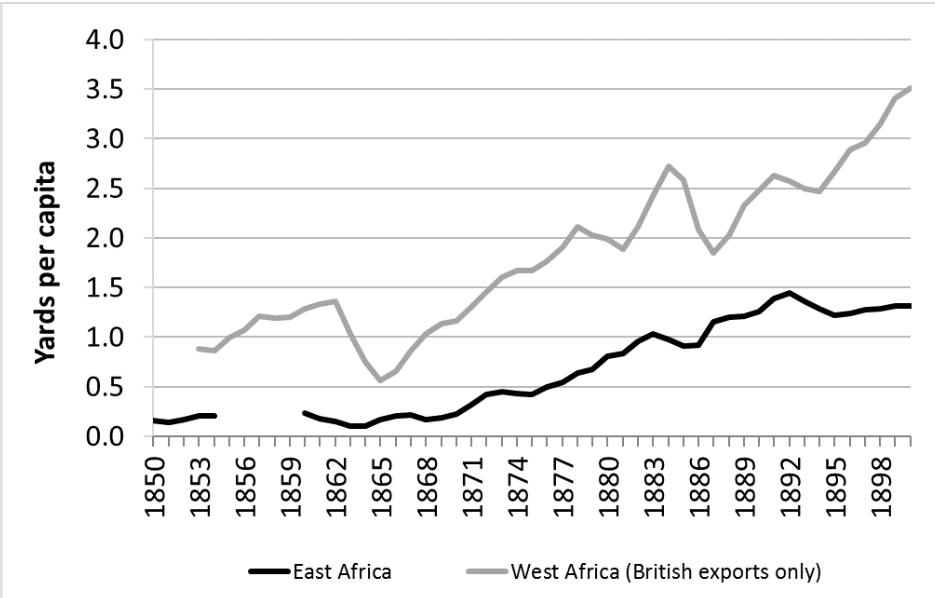
Introduction

During the nineteenth and early twentieth centuries, numerous cotton textile industries in central and southern East Africa withered and virtually disappeared. At nearly the same time, however, textile production in northern East and West Africa experienced stimulus and development.[2] Most deindustrialization theories focus on the destabilizing effects of global forces, especially import competition. But, as Figure 1 illustrates, nineteenth-century per-capita cloth imports into more industrially resilient West Africa from Britain alone *surpassed* East Africa's textile imports from Britain, India, and the United States. What then accounts for differing regional outcomes? This article analyzes secondary literature on the more robust industries of West Africa and northern East Africa to place cases of industrial decline in 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.[3]

Figure 1 Per-capita imports into East and West Africa, 1850-1900



Sources: see Appendix 1. West Africa's imports include only the share exported from Britain. Data reflected in two-year moving averages.

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,

[2] For in-depth case studies of nineteenth- and early twentieth-century cotton textile industries in Malawi and Tanzania, see my recent doctoral thesis: Frederick, 'Deindustrialization in East Africa: textile production in an era of globalization and colonization, c. 1830-1940'. See also Frederick, 'Global and local forces in deindustrialization'.

[3] In the context of this study, central and southern East Africa generally refers 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. Although the names of these regions differed during the nineteenth and twentieth centuries, modern country names are used here for the sake of clarity.

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

As a crucial starting point, I first broadly identify 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 and West African hand-loom industries during the nineteenth and twentieth centuries relative to cases of industrial decline in central and southern East Africa. To make the comparative analysis feasible and coherent, I narrow in on specific case studies. For East Africa, these include the following traditional cloth producing regions: Ufipa in Tanzania (central East Africa), the Lower Shire Valley in Malawi (southern East Africa), along with the Benadir Coast of Somalia and the highlands of Ethiopia (northern East Africa). Analysis of West Africa focuses principally on production centers in modern-day Nigeria, which offers excellent ground for gauging the impact of external forces on domestic cloth production in the West African context. 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.

The relative antiquity of cotton 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.[4] 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 enhance the region's industrial vulnerability in the era of global integration.[5]

[4] Renne notes the importance of "social and ideological factors" underlying cloth production in West Africa. Renne, *Cloth*, p. 132.
[5] Clarence-Smith, 'The expansion', pp. 93-94.

The East-West spread of textile traditions

The earliest establishment of cotton textile production on the continent probably occurred in relatively densely populated northern East Africa by the fourth century.[6] 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 transfer allowed the industry to develop rapidly, with the region soon shipping cloth of renowned quality to Egypt.[7] 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.[8] 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.[9]

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 armour against foreign competition as imports gradually increased from the fifteenth century.[10] 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.[11] 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.[12] The early development of cloth industries in West Africa helped stimulate comparatively high cloth consumption. Consequently, by the nineteenth century, West Africa not only *produced* more cloth than East Africa but also *imported* more cloth per-capita (see Figure 1).[13]

Delayed development south of the Horn

We find a much later genesis of cotton textile production in the interior of southern and central East Africa, 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.[14] In the case of southern East Africa, nineteenth-century ethnologist Heinrich Schurtz postulated that production

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[6] Kriger, 'Mapping', p. 91.
[7] Unlike most of sub-Saharan Africa, the Benadir region utilized productivity-enhancing spinning wheels. Alpers, *East Africa and the Indian Ocean*, p. 81.
[8] Levtzion, *Ancient Ghana and Mali*, pp. 119-120.
[9] Kriger, 'Mapping', pp. 96-98.
[10] Ibid., 99.
[11] Flint, 'Economic change', p. 388; Kriger, 'Mapping', pp. 107-08.
[12] Kriger, 'Textile production and gender', p. 372; Kriger, 'Mapping', pp. 102-104.
[13] Thornton has pointed out that the sub-Saharan African regions that tended to import the most cloth were also those regions with the most developed textile industries. Thornton, *Africa and Africans*, pp. 51-52.
[14] For the comparatively late spread of Islam to the region's interior, see Lapidus, *A history of Islamic societies*, pp. 434-435.

techniques eventually spread inland – probably from Arab settlements in coastal Mozambique – via riverways.[15] Travellers reported production and regional exchange of plain-weave unbleached cloth in the Lower Zambezi River area by the sixteenth century, although textile fragments dating to perhaps the fourteenth or fifteenth centuries have been excavated.[16] 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.[17] 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.[18] Compare, for example, the utilitarian *machila* cloth characteristic of nineteenth-century southern Malawi's Lower Shire Valley (Image 1) with the complexity of nineteenth-century *kente* cloth from the Gold Coast (modern-day Ghana) in Image 2.

Image 1 Mang'anja loom and cloth, 19th c.

Source: National Museum of Scotland

Image 2 Detail of kente cloth, 19th c.

Source: Gilfoy, *Patterns of Life*.

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.[19] The fixed single-heddle loom used throughout southern and central East Africa slowed production.[20] In West Africa, by contrast, a greater variety of looms had

[15] Schurtz, 'Die Geographische Verbreitung der Negertrachten', p. 152.
[16] Davison and Harries, 'Cotton weaving', pp. 175, 178.
[17] Schurtz, 'Die Geographische Verbreitung der Negertrachten', p. 152.
[18] Kriger, 'Mapping', pp. 99-105.
[19] Davison and Harries, 'Cotton weaving', p. 181; Browne, 'Rural industry', p. 34.
[20] Davison and Harries, 'Cotton weaving', p. 189; Ling Roth, *Studies in primitive looms*, pp. 41-44.

developed by the seventeenth century, including multi-heddle and treadle looms, which allow for more efficient weaving of complex patterned cloth.[21]

Compared with southern East Africa, cloth production likely spread even more gradually into the interior of modern-day Tanzania in central East Africa, long secluded from coastal influence due to a lack of riverways. Dating the area's adoption of cotton textile production is difficult since traveller 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 (bark cloth, raffia, and skins) up to turn of the twentieth century.[22] 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.[23] However, by the mid-nineteenth century, central East African producers were creating "somewhat more elaborate cloths," including the patterned weaves of Ufipa in southwestern Tanzania, which enjoyed strong local demand.[24]

Population density and industrial development

West Africa's 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 least the eighth century.[25] 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. Nigeria, in particular, houses three comparatively dense clusters: the Hausa region in the north, Igboland in the southeast, and the Yoruba area in the southwest.[26] 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.[27] 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."[28] As urban centers grew, regional

[21] Kriger, 'Textile production and gender'; Browne, 'Rural industry'.
[22] Clarence-Smith, 'The textile industry', p. 269.
[23] Kjekshus, *Ecology control*, p. 106.
[24] Clarence-Smith, 'The expansion', p. 95 (quote); Boileau and Wallace, 'The Nyasa-Tanganyika Plateau', pp. 601, 613.
[25] Hodder, 'Indigenous cloth trade', p. 204.
[26] Austin, 'Labour-intensity and manufacturing', p. 202 (quote); Flint, 'Economic change', p. 386.
[27] Flint, 'Economic change', p. 388.
[28] Watts, *Silent violence*, pp. 44-45.

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."[29] 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.[30]

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.[31] The cool climate of the Ethiopian plateau generated heavy demand for domestically produced cloth among the region's large population. Consequently, nearly all of Ethiopia's extensive cloth output was consumed within the country.[32] 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.[33] Indeed, the Benadir Coast's textile industry enjoyed a strategic *geographic* position, with coastal access to export markets along the East African seaboard, along with caravan access to large distant interior markets, including southern Ethiopia.[34] The majority of cloth produced in urban Mogadishu, for example, was destined for external consumption.[35]

In the generally sparsely populated areas to the south of the Horn, local endowments were not conducive to proto-industrial divisions of labor,[36] nor did the region's cloth industries, primarily situated in the deep interior, 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 mid-nineteenth 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.[37] 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

[29] Ibid., 61-62.
[30] Lovejoy, 'Plantations', p. 342.
[31] Pankhurst, *Economic history of Ethiopia*, pp. 184-185, 191-192, 204; McCann, *People of the plow*, p. 23; Crummey, 'Abyssinian feudalism', p. 120.
[32] Clarence-Smith, 'The expansion', pp. 92-93.
[33] Alpers, *East Africa and the Indian Ocean*, pp. 80-85; Sheriff, *Slaves*, pp. 71-72.
[34] Abir, 'Southern Ethiopia', pp. 129-132; Clarence-Smith, 'The expansion', p. 92.
[35] Alpers, *East Africa and the Indian Ocean*, p. 80.
[36] Clarence-Smith points to East Africa's generally sparse populations, low agricultural productivity, and low per-capita incomes as deterrents to proto-industrial development. Clarence-Smith, 'The textile industry', p. 265.
[37] Willis, *State*, p. 236n31.

banks of the Shire River.[38] 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 and West Africa. In 1850, Nigeria and Ethiopia contained roughly 12.5 million and 11.3 million inhabitants, respectively.[39] 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.[40] 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 rich areas of West Africa, enhancing local production and consumption capacity.[41]

While the Lower Shire Valley's local markets were comparatively small, the region's river-side location did facilitate external access to Lower Zambezi markets.[42] 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.[43] 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.[44] 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.

The 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

[38] Density estimate derived from historical populations reported in the Frankema-Jerven African Population Database 1850-1960, version 2.0. See Frankema and Jerven, 'Writing history backwards and sideways'. On settlement near the Shire River, see Mandala, *Work*, p. 20.
[39] Frankema and Jerven, 'Writing history backwards and sideways'.
[40] I have argued elsewhere that textile production in the Lower Shire Valley declined during the late-nineteenth century principally as a result of a dramatic shift in the region's factor endowment ratio. The valley's labor supply declined sharply just as local supplies of fertile land began to increase. Mang'anja villagers responded to these altered circumstances by abandoning labor-intensive textile production and expanding cash-crop cultivation. See Frederick, 'Global and local forces in deindustrialization'. For a thorough discussion of ecological and demographic conditions in the region, see Mandala, *Work*.
[41] Flint, 'Economic change', pp. 386, 398.
[42] Alpers, *Ivory*, pp. 25, 55; Mandala, *Work*, p. 48.
[43] For studies on pre-colonial exchange networks in central East Africa, see Gray and Birmingham, eds., *Pre-colonial African trade*.
[44] I am grateful to Ewout Frankema for this insight.

areas that "straddled the ecological frontier" between arid and fertile land.[45] 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.[46]

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.[47] Furthermore, riverways facilitated water transport in much of West Africa, while the region's overland trade, which more commonly utilized pack animals, was more efficient than in East Africa, which depended primarily on human porterage.[48] Importantly, 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."[49] 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.[50]

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.[51] By 1500, the territories loosely comprising modern-day Nigeria constituted a "dynamic area" linked by trade on regional and local levels.[52] The rainforest and coastal zones of southwestern Nigeria, for example, were intimately connected via ancient networks facilitated by an extensive river system.[53] 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.[54]

Local, regional, and long-distance exchange of cotton goods extended beyond the finished material, indicating a significant division of labor in West Africa that was uncommon in central and southern East African textile industries. Already in the fifteenth-century, European observers had noted widespread marketing of industrial inputs in West Africa.[55] Weavers in the Oyo Empire of southwestern Nigeria, for example, purchased yarn from specialized spinners at local markets.[56] Raw cotton was sold at West African markets and even imported from slave

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[45] Lovejoy and Baier, 'Desert-side economy', p. 553. See also Hopkins, *An economic history of West Africa*, pp. 58, 63; Watts, *Silent violence*, p. 65.
[46] Spittler, 'Foreign cloth', p. 72; Candotti, 'Hausa textile industry', p. 193.
[47] Lovejoy and Baier, 'Desert-side economy', p. 557.
[48] Hopkins, *An economic history of West Africa*, pp. 63, 72; Pawełczak, *The state*, p. 36.
[49] Hopkins, *An economic history of West Africa*, pp. 64-65.
[50] Lovejoy and Baier, 'Desert-side economy', pp. 568-569, 579; Watts, *Silent violence*, p. 66.
[51] Kriger, 'Textile production and gender', p. 370; Flint, 'Economic change', p. 388.
[52] Falola and Heaton, *A history of Nigeria*, pp. 37-38.
[53] Chuku, *Igbo women*, p. 68.
[54] Dalrymple-Smith, 'A comparative history', pp. 118, 145, 148; Aronson, 'Patronage and Akwete weaving', pp. 62-63.
[55] Kriger, 'Mapping', p. 99.
[56] Law, *The Oyo Empire*, p. 207.

plantations on the Portuguese-controlled Cape Verde Islands.[57] 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.[58]

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.[59] 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.[60]

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.[61] While Tivland's cloth currency remained principally integrated into inter-regional trade, cloth currency produced in the Gambia was integrated into global-oriented 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.[62] 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.[63]

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.[64] However, in the Ethiopian highlands, raw cotton was often used as

[57] Kriger, 'Mapping', pp. 99, 104.
[58] Roberts, *Two worlds*; Maier, 'Persistence'; Hogendorn, 'Cotton campaign'; Bassett, *Peasant cotton revolution*, pp. 63-85.
[59] Kriger, 'Mapping', p. 96.
[60] Johnson, 'Cloth as money', pp. 195-198.
[61] Dorward, 'Precolonial Tiv trade', pp. 577-584; Johnson, 'Cloth as money', pp. 195-196.
[62] Johnson, 'Cloth as money', pp. 199-200.
[63] Dorward, 'Precolonial Tiv trade', p. 581; Johnson, 'Cloth as money', p. 200.
[64] Pankhurst, 'Primitive money', pp. 233-236.

small change, indicative of the importance of local textile production in the region.[65] 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.[66] 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, this role was filled by machine-made cloth imported into the region via coastal caravans seeking ivory for global markets.[67] 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 institutions

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.[68]

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.[69] 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

[65] Powell-Cotton noted the use of handfuls of cotton as small change in parts of highland Ethiopia. Powell-Cotton, *Sporting*, p. 244.
[66] For domestic cloth currency in southern East Africa, see Davison and Harries, 'Cotton weaving', pp. 187, 189. On imported cloth as currency in the region, see Machado, 'Gujarati Indian merchant networks', pp. 90-95, 102, 109-110, 150, 170, 243.
[67] For discussion of imported cloth currency in nineteenth-century Tanzania, see Sissons, 'Economic prosperity', pp. 42-52; chapter 4 in Frederick, 'Deindustrialization in East Africa'.
[68] Hopkins, *An economic history of West Africa*, p. 62.
[69] Watts, *Silent violence*, pp. 48-49.

estimated at £100,000 in the mid-nineteenth century.[70] The expansion of the caliphate's economy "acted as a focal point for economic development within West Africa as a whole."[71]

The state actively pursued commercial advancement through pro-industry policies.[72] For example, weavers, tailors, dyers, and indigo cultivators were often exempted from taxation.[73] Furthermore, the caliphate used the extensive military capacity and wide "spatial reach" enjoyed by strong states to secure industry-augmenting slave labor.[74] Expansion of slave-based plantations substantially increased agricultural output, including raw cotton, indigo, and food to feed artisans.[75] 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.[76]

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.[77] Overall, however, state-sponsored economic prosperity and industrial expansion seem to have increased consumption opportunities for broad segments of society in the Sokoto Caliphate.[78] 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.[79]

A final crucial advantage of large states was the ability to provide protection, which was particularly crucial amid the ever-present risk of slave raiding.[80] Indeed, while the Sokoto Caliphate was *expanding* its industrial labor force during the nineteenth century, vulnerable decentralized Mang'anja communities in southern East Africa's Lower Shire Valley were aggressively *drained* of labor by raiders seeking slaves for Indian Ocean plantations. 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.[81]

Ufipa, on the other hand, was among the most sophisticated states in pre-colonial Tanzania, established between the sixteenth and early eighteenth centuries and spanning some 25,390

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70 Hopkins, *An economic history of West Africa*, p. 51.
71 Lovejoy, 'Plantations', p. 346.
72 Candotti, 'Hausa textile industry', pp. 198-199.
73 Morel, *Nigeria: its peoples and its problems*, p. 120.
74 Austin, 'Markets', p. 27.
75 Candotti, 'Hausa textile industry', pp. 196-197; Lovejoy, 'Plantations'.
76 Kriger, 'Textile production and gender', p. 374.
77 Austin, 'Markets', p. 29; Hopkins, *An economic history of West Africa*, p. 25; Mahadi and Inikori, 'Population and capitalist development', pp. 71-72.
78 According to Candotti, the expansion of Kano's textile industry was supported "by a large domestic market of ordinary consumers." Kriger notes that Kano products ranged from highly elaborate and expensive robes for elites to low-cost "poor man's" shirts. Candotti, 'Hausa textile industry', p. 198; Kriger, 'Robes of the Sokoto Caliphate', p. 55.
79 Shea, 'Big is sometimes best'; Shea, 'Economies of scale', p. 56.
80 Austin, 'Markets', p. 19.
81 See Frederick, 'Global and local forces in deindustrialization'.

square miles.[82] During the first half of the nineteenth century the centralized state encouraged trade but – unlike the Sokoto Caliphate – did not actively invest in industry.[83] 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 well-developed 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 coast-interior 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.[84] As wealthier groups emerged, demand for more elaborate varieties of domestic cloth developed.[85] However, the magnitude of these industrial benefits was comparatively limited next to the considerable growth experienced in the Sokoto Caliphate.

The impact of global trade

Cash-crop exporting and industrial expansion

Another significant difference between many nineteenth- and early-twentieth-century 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.[86] 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.[87]

Southern Igboland's experience undermines assumptions that African textile industries could only thrive under geographic protection from imports.[88] Rather, coastal access via riverways *enabled* the region's industry-stimulating boom in cash-crop exporting.[89] Igboland's ecology facilitated the transition to palm-oil exporting since palms grew wild, initially demanding only to be collected and processed.[90] 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

[82] Iliffe, *A modern history of Tanganyika*, p. 21; Willis, *State*, pp. 3, 14.
[83] See chapter 5 in Frederick, 'Deindustrialization in East Africa'.
[84] Willis, *State*, p. 174.
[85] Ibid., 156.
[86] Iliffe, *Africans*, p. 221. See also Austin, 'Labour-intensity and manufacturing', pp. 209-210.
[87] Kriger, *Cloth in West African history*, pp. 45-47.
[88] See, for example, Austen, *African economic history*, p. 99.
[89] Lynn, *Commerce*, p. 37.
[90] Chuku, *Igbo women*, pp. 49-50.

of highly disruptive slave raiding experienced in places like Malawi's Lower Shire Valley.[91] 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 household labor.[92] 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.[93] 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 looms to compete with imports on the basis of quality.[94]

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.[95] In southern East Africa's Lower Shire Valley, on the other hand, 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.[96]

The effects of imported manufactures

The case of Nigeria's southern Igboland 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.[97] Rather than signaling deindustrialization, foreign competition often *stimulated* local innovation.[98] For example, alongside distinctive Akwete cloth, Igbo weavers reproduced popular imported patterns, flipping on its head the European strategy of mimicking African cloth noted by Rodney.[99] 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 popular unbleached

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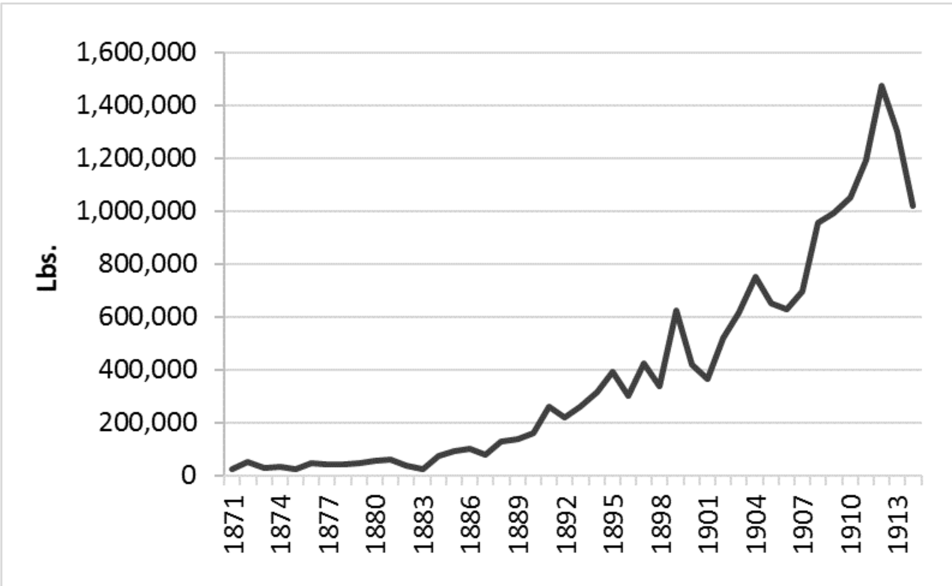
[91] Nwokeji, 'Atlantic Slave Trade', p. 618; Dalrymple-Smith, 'A comparative history', p. 161.
[92] Flint, 'Economic change', p. 386; Austin, 'Cash crops and freedom', p. 18; Dalrymple-Smith, 'A comparative history', pp. 163-165; Kriger, *Cloth in West African history*, p. 51.
[93] Chuku, *Igbo women*, p. 66.
[94] Ibid., 69-70; Kriger, *Cloth in West African history*, pp. 49-51; Austin, 'Labour-intensity and manufacturing', p. 210. For many Akwete women, weaving remained a full-time profession up to at least the late twentieth century. Aronson, 'Patronage and Akwete weaving', p. 65.
[95] See chapter 5 in Frederick, 'Deindustrialization in East Africa'.
[96] See chapter 2 in ibid.
[97] Fage, *A history of Africa*, pp. 272-273; Hopkins, *An economic history of West Africa*, p. 121.
[98] Hodder, 'Indigenous cloth trade', p. 205.
[99] Aronson, 'Patronage and Akwete weaving', p. 66. For imitation of domestic African cloth by foreign producers, see Rodney, *How Europe underdeveloped Africa*, p. 104.

American-made imports intensified. This inspired a "strategic carving out of a new market," as perceptive weavers began turning out unique colored and striped cloth.[100]

In both the Benadir region and Igboland, development of new products was aided by the incorporation of imported yarn.[101] Use of machine-made yarn became common in much of West Africa, and imports into the region increased rapidly during the late-nineteenth century (see Figure 2).[102] Some weavers continued to rely exclusively on hand-spun yarn, particularly in interior regions where imports were more difficult to come by and consequently more expensive.[103] But by the twentieth century, Akwete cloths were made entirely of yarn imported from Europe, which substantially increased industrial productivity while offering a broader range of colors.[104]

Figure 2 Aggregate yarn imports into West Africa from Britain, 1871-1914



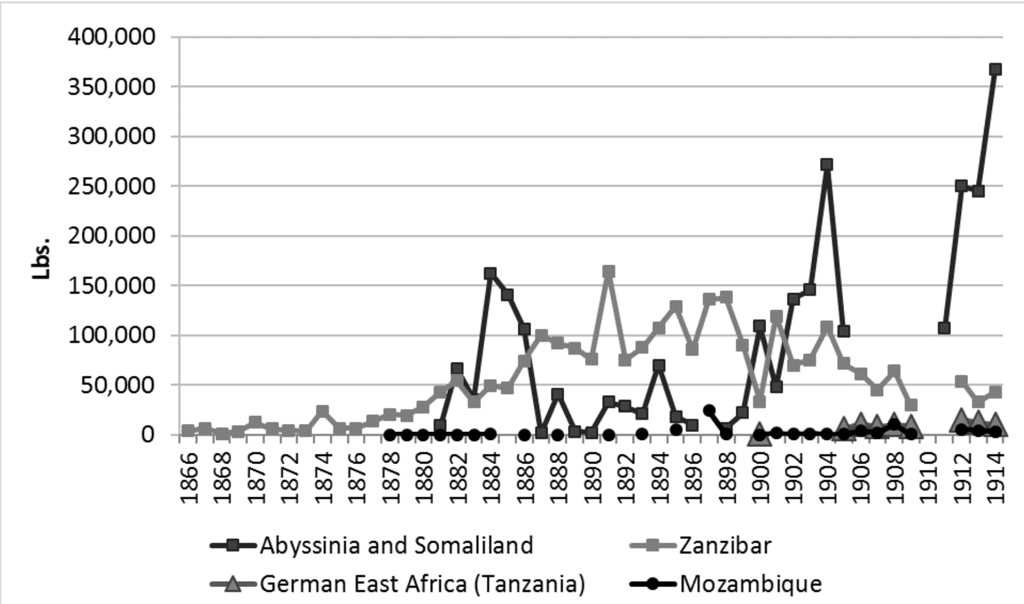
Sources: *Annual statement of the trade of the United Kingdom with foreign countries and British possessions*, various issues (1871-1917), The British Library, London (hereafter BL).

Likewise, northern East African producers imported yarn directly from Bombay and purchased most of the yarn that was imported into Zanzibar (see Figure 3), with more still re-exported from Aden.[105] Imported yarn eased the Benadir region's deft late-nineteenth-century transition

[100] Alpers, *East Africa and the Indian Ocean*, pp. 86-88.
[101] Afigbo and Okeke, *Weaving tradition*, p. 33; Aronson, 'Patronage and Akwete weaving', p. 65; Alpers, *East Africa and the Indian Ocean*, pp. 88, 90.
[102] Austin, 'Labour-intensity and manufacturing', p. 210; Johnson, 'Technology', p. 260.
[103] Renne, *Cloth*, pp. 148-149.
[104] Kriger, *Cloth in West African history*, p. 49.
[105] Clarence-Smith 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. Clarence-Smith, 'The cotton textile industry of sub-Saharan Eastern Africa in the longue durée', p. 8. For Zanzibar's yarn imports and re-exports to northern East Africa, see Portal, 'Report for the year 1891', pp. 18, 32.

to colored cloth production and 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.[106] However, Ethiopian producers remained "supremely resilient, dynamic and adaptable to change," and domestic *shamma* togas – preferred for their finer weave and greater durability – were increasingly produced using a combination of domestic and imported yarns, which helped local producers remain competitive in terms of both aesthetic and price.[107]

Figure 3 Yarn imports into East Africa from Bombay, 1866-1914



Sources: *Report on the external commerce of Bombay*, 1866-1867, BL; *Annual statement of the trade and navigation of the Presidency of Bombay,* various issues (1871-1917), BL.

South of the Horn, on the other hand, yarn imports were nearly non-existent. In the case of Tanzania (German East Africa as of 1885), largescale importation of yarn was simply not feasible 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.[108] Thus, geographic and

[106] For expansion of Ethiopian imports by the turn of the century, see chapter 9 in Pankhurst, *Economic history of Ethiopia*.
[107] Spring and Hudson, *North African textiles*, p. 119; Pankhurst, *Economic history of Ethiopia*, pp. 260-261; 'Report for the year 1905-06 on the trade of Abyssinia', p. 5.
[108] Davison and Harries, 'Cotton weaving', p. 189.

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.

Colonial agendas and local agency

Regional determinants of colonial institutions

A final crucial regional difference is 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, I have illustrated elsewhere that early-twentieth-century colonial hut tax policies in Tanzania ultimately prompted Ufipa's men to seek wage labor opportunities far afield, initiating deindustrialization.[109]

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.[110] 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.[111]

However, by and large, West Africa experienced comparatively less intensive state intervention, which Roberts suggests rested partly in the "more developed precolonial webs of production and exchange" in West versus East Africa.[112] 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.[113] This was largely a result of "an enduring local market [for raw cotton] and a centuries-old consumer preference for local cloth styles."[114]

The failure of "cotton imperialism" in British Nigeria

[109] See chapter 5 in Frederick, 'Deindustrialization in East Africa'.
[110] Frankema and Waijenburg, 'Structural impediments', pp. 914-921.
[111] Skinner, 'Labour migration and its relationship', pp. 385-387. Austin links labor coercion in French colonies to their often "relatively unfavourable environment." Austin, 'Cash crops and freedom', p. 19.
[112] Roberts, *Two worlds*, p. 286.
[113] Ibid., 366-371; Bassett, *Peasant cotton revolution*, pp. 63-85; Maier, 'Persistence'; Hogendorn, 'Cotton campaign'; Beckert, *Empire*, pp. 364-374.
[114] Maier, 'Persistence', p. 73.

During the early twentieth century, the British Cotton Growing Association (BCGA) made concerted efforts to transform northern and southern Nigeria into major markets for British-made cloth and the principal raw cotton suppliers for the Lancashire textile industry.[115] This 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."[116] Moreover, the vast majority of Nigeria's raw cotton was consumed by domestic textile producers, who offered farmers remuneration far above the artificially low BCGA buying price.[117] Furthermore, Nigerian textile producers continued to demand local cotton strains, which farmers could efficiently intercrop with foods, while the BCGA unsuccessfully pushed monocrop variants.[118]

At the same time, other cash crops, like cocoa, palm oil, kola, benniseed (sesame), and groundnuts, offered more attractive global export prices.[119] For example, while the Kano-Lagos railway was built to facilitate the export of northern Nigerian cotton, it was groundnuts that were sent coastward upon completion in 1912, much to the disappointment of the BCGA.[120] 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 local cotton prices well above the set BCGA price.[121] Thus, the Nigerian groundnut boom, aided by the BCGA-lobbied railway construction, ultimately destroyed 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 hand-looms to the power-looms of Lancashire."[122] 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 would become the second largest raw cotton exporter in British Africa, the local cloth industry – and thus the local market for raw cotton – had virtually vanished prior to the colonial period.

Persistence and decline in the colonial and post-colonial eras

[115] Johnson, 'Cotton imperialism', p. 182.
[116] Northern Nigeria Report, 1906-07 cited in ibid., 184.
[117] Hogendorn, 'Cotton campaign', pp. 60, 62, 66.
[118] Vincent, 'Cotton growing in Southern Nigeria', pp. 68-70, 229-230.
[119] Ibid., iv; Hogendorn, *Nigerian groundnut exports*; Dorward, 'An unknown Nigerian export'; Morel, *Nigeria: its peoples and its problems*, pp. 227-228.
[120] Hogendorn, 'Cotton campaign', pp. 63-65.
[121] L.H. Lamb, Director of Northern Nigeria's Department of Agriculture, July 1913 cited in Hogendorn, *Nigerian groundnut exports*, p. 110.
[122] McPhee, *Economic revolution*, p. 44 cited in Johnson, "Cotton imperialism," 184.

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 long-established 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.[123]

Regional patterns of production and exchange continued to persist and evolve during and beyond the colonial period. As of the 1950s, the Tiv were annually weaving not only at least half of their own clothing, but also producing "a great deal more for export."[124] 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.[125] In Igboland, the war reportedly spurred a production boom that generated a "rapid diffusion" of Akwete weaving techniques throughout the southeast.[126]

In northern Nigeria, on the other hand, hand-loom weaving would show greater decline from around the 1920s.[127] Watts suggests that a rise in the price of raw materials dampened industry as exports of cotton increased somewhat – though never dramatically – alongside increased importation of cheap European cloth.[128] However, raw cotton exports from southern Nigeria, though minimal, were generally double those from the north.[129] 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.[130] 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.[131] And while the local market was large, it was also heavily comprised of impoverished former slaves who were beginning to earn wages but still remained "on the

[123] Dorward, 'An unknown Nigerian export', pp. 438-439, 443; Dorward, 'Precolonial Tiv trade', pp. 589-590.
[124] Bohannan and Bohannan, *The Tiv of Central Nigeria*, p. 53.
[125] Renne, *Cloth*, pp. 136, 139-142.
[126] Chuku, 'Women in the economy', p. 44.
[127] 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, although this decline may not be representative of the whole of the former Sokoto Caliphate. 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, *Silent violence*, p. 63; Hill, *Rural Hausa*, pp. 321, 333.
[128] Watts, *Silent violence*, p. 220.
[129] Johnson, 'Cotton imperialism', p. 184.
[130] Some former slaves continued to work in textile production, but alternative options included groundnut cultivation (in lieu of cotton cultivation), porterage, mining, and leatherworking. On cash-earning opportunities for former slaves and slaves seeking to purchase their freedom, see Lovejoy and Hogendorn, *Slow death*, pp. 200, 219-221.
[131] Johnson, 'Calico caravans', p. 116.

low end of the income distribution" and thus did not provide sufficient demand for the more expensive, higher-quality textiles that remained the life-blood of many southern Nigerian producers serving wealthier consumers.[132] 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.[133]

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.[134] 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.[135] 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.[136] 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.[137] In highland Ethiopia, hand-loom weaving persisted through the twentieth century and was reportedly spreading as of the early twenty-first century, with farmers increasingly taking up weaving to generate additional income.[138]

Conclusion

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 northern East and West 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

[132] On incomes, see Lovejoy and Hogendorn, *Slow death*, pp. 223, 228-229.
[133] Spittler, 'Foreign cloth', p. 72.
[134] Johnson, 'Cotton imperialism', p. 186.
[135] Tanganyika Blue Book, 1948, TNA.
[136] Renne, *Cloth*, pp. 143-146; Aronson, 'Patronage and Akwete weaving'; Joseph, 'Nigeria: Tiv weaving cottage industry boosts Benue's economy'; Diogu, 'Functions of cloth'.
[137] Alpers points out, however, that by the 1960s weavers had fallen prey to exploitative merchants who relegated weavers to meagre earnings for their products. Alpers, *East Africa and the Indian Ocean*, pp. 93-95.
[138] Watson and Regassa, 'Konso', pp. 244-245.

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 Africa 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 northern East Africa and West Africa local manufacturers responded to – and even benefitted from – imported manufactures through innovative adaptation. In central and southern East Africa, on the other hand, geographic and demographic conditions had inhibited these industry-stimulating benefits of global trade. A final difference is found in the impact of colonization and metropolitan agendas on textile industries, which depended not only on the relative strength of pre-colonial 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 were strongly mediated by local conditions.

APPENDIX 1

Source list for Figure 1: Per-capita imports into East and West Africa, 1850-1900

(a) Aggregated nineteenth-century East Africa data (1850-1900) comprised of exports from the principle suppliers of cloth to East Africa during the second half of the nineteenth century: Bombay, the United States, and the United Kingdom:

United States share: 1836-1852: shipping records from MH 23, MH 235, MSS 901, and MSS 24 series, Phillips Library, Peabody Essex Museum, Salem, Massachusetts. 1857-1891: '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, Maryland (hereafter NACP). Additionally, single annual data points are derived from: 'Trade of Zanzibar', p. 33; Cheney, 'Trade Report on Zanzibar, June 30th 1883 – June 30th 1884', RG 59, Consular Correspondence, 1785-1906, Despatches for Consular Officers, Volume 3512 (Book 7), NACP; Pratt, 'Zanzibar. Report of Consul Pratt.', p. 841; Cave, 'Report for the year 1897 on the trade and commerce of Zanzibar', p. 5; Mansfield, 'Zanzibar', p. 276.

Bombay share: *Report of the commerce of Bombay*, various issues (1850-1853), The British Library, London (hereafter BL); *Report on the external commerce of Bombay*, various issues (1861-1867), BL; *Annual statement of the trade and navigation of the Presidency of Bombay,* various *issues* (1871-1900), BL. Additionally, Bombay yardage for 1861-1865 is calculated from total Bombay cloth export values to Zanzibar (reported in Sheriff, *Slaves*, 249-252) and corresponding English cloth prices derived from *Annual statement of the trade of the United Kingdom with foreign countries and British possessions*, various issues (1860-1865), BL. English cloth was Bombay's principal cloth export to East Africa until the 1870s.

United Kingdom share: *Annual statement of the trade of the United Kingdom with foreign countries and British possessions*, various issues (1857-1900), BL.

(b) Aggregated nineteenth-century West African data (1854-1900) comprised of British exports to West Africa: *Annual statement of the trade of the United Kingdom with foreign countries and British possessions*, various issues (1857-1900), BL.

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