

Colleen E. Kriger
Department of History
University of North Carolina at Greensboro
colleen.kriger@uncg.edu

***'Guinea Cloth': Production and Consumption of Cotton Textiles in West Africa
before and during the Atlantic Slave Trade¹***

'Guinea cloth' is a term conventionally used in reference to plain white, loom-patterned, or piece-dyed cotton textiles that were important commodities in the "hidden half" of the Atlantic slave trade.² Known also by various names given to different types of these cloths – names such as *brawles*, *capperees*, *chelloes*, *hussanees*, and *pautkas* – they were woven in India and shipped to Europe to be re-exported by slave traders to Africa's Guinea Coast and to the West Indies.³ Then, with the development of industrial production of cotton textiles in Europe, 'Guinea cloths' were made there in imitation of the Indian goods. Thus the history of Guinea cloth is a centuries-long and far-reaching one, spanning the rise of Atlantic commerce, its transformation into a trade in slaves from Africa to the Americas, and the transition to industrialized textile manufacture in Europe. A neglected part of this history took place in West Africa, where cotton was grown, spun, and woven well before direct trade with Europeans opened up. When this new era of international trade began, merchants hoping to purchase slaves learned very quickly that the key to success on the Guinea Coast was knowing what particular types of goods would sell in which specific ports. In other words, the tastes and preferences of West African consumers conditioned and mediated the many individual commercial transactions that made up the Guinea trade. I argue that one reason Indian-made Guinea cloth was so popular was because it was welcomed as a supplement to local production, being similar to much of the cloth commonly made and worn on the Guinea Coast and in its hinterlands, that is, white and indigo blue cottons that were woven on West African

¹ Not to be quoted or cited without permission of the author.

² J.S. Hogendorn and H.A. Gemery, "The 'Hidden Half' of the Anglo-African Trade in the Eighteenth Century: The Significance of Marion Johnson's Statistical Research" in *West African Economic and Social History: Studies in Memory of Marion Johnson*, David Henige and T. C. McCaskie, eds. (Madison: University of Wisconsin African Studies Program, 1990). The 'hidden half' refers to the commodities Europeans exchanged for slaves, ivory, pepper, and other African trade goods.

³ J. Irwin and P.R. Schwartz, *Studies in Indo-European Textile History* (Ahmedabad: Calico Museum of Textiles, 1966).

looms.

This paper is based on my forthcoming book⁴ and my continuing research project on the history of textile manufacture and consumption in West Africa. I present here an overview of the present state of knowledge about this history, focusing on cotton and the African-made versions of Guinea cloth. Major issues I summarize are: the early evidence of cotton in sub-Saharan West Africa; likely routes by which knowledge of cotton and its cultivation entered the region; the most important areas of cotton textile production and their general time periods; textile technologies and the transfer of them to new locales; and how textile consumption patterns shaped regional and international trade. As is often the case with research on the economic and cultural history of pre-colonial Africa (pre-20th century), I have had to grapple with methodological problems having to do with a very sparse, fragmentary, and uneven body of evidence. Even so, my findings show that textile artisans played a more active role in the economic and cultural history of West Africa than has been acknowledged and that they made significant contributions to commerce along the Guinea Coast prior to the 19th century.

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It is not known when domesticated cotton first arrived in West Africa. There are relatively early archaeological specimens of cotton textiles in Nubia (the tropical Nile valley), and it is likely that both the cotton and the fabrics were produced there. Most of these specimens, which came from burial remains, date to the 1st to 7th centuries CE, but as yet there is no convincing evidence that Nubia was a center from which cotton was dispersed to societies in sub-Saharan West Africa. Regarding West African dress in general, the early evidence for it is not very informative. Terracotta sculptures unearthed in the plateau region of what is now Nigeria, dating from 500 BCE to 200 CE, include figures wearing garments, but what those garments were made of or where they might have been from is frustratingly unclear. No textile remains or spindle whorls have been found in any of these Nigerian sites, leaving still unanswered the question of cotton's

⁴ C. Kriger, *Cloth in West African History* (Lanham, Maryland: AltaMira Press, expected publication March 2006). It synthesizes my own research and the work of many other scholars in various disciplines. The foreword, written by archaeologist Graham Connah, calls for Africanist archaeologists to begin paying more attention to retrieving evidence of cotton cultivation and textile manufacture.

antiquity in West Africa.⁵ Direct evidence of cotton shows up in the archaeological record starting in the 10th century CE. Recent archaeological work yielded over 500 cotton seeds and over 1000 seed fragments at the site of Dia, in the upper Niger region. Some seeds, along with several small spindle whorls (similar to those designed specifically for spinning cotton) were found at levels dating to the last century of the first millennium, which makes them the oldest cotton remains found in West Africa. The majority of seeds and spindle whorls appear later, at levels that date between 1000 and 1600.⁶ At Ogo, a site further west in the Senegal River valley, grains of cotton pollen along with spindle whorls and disc-shaped whorls for making twine were found at levels dating to the 11th century. Other types of spindle whorls, in the form of recycled pottery sherds, were found with materials from the Daima III period (700 to 1200 CE) near Lake Chad, but in this case there was no indication of what type of fiber was spun. All of this evidence fits well alongside geographic accounts written in Arabic, which mention cotton clothing being worn in West African towns from at least the 11th century onward. One such account, compiled in 1068, described the weaving of cotton cloth in Takrur (astride the Senegal River), with many houses reportedly having their own "cotton tree."⁷ So although the precise origins of cotton in Africa are elusive, it appears that a variety of Old World cotton was being cultivated (probably as a perennial) in sub-Saharan West Africa by the second millennium.

It is likely that early cotton production was concentrated in two separate areas of the West African interior. Linguistic evidence suggests that the knowledge and cultivation of cotton was disseminated and encouraged along trade routes, by Muslims who spoke Africanized dialects of Arabic. Preliminary analyses of my lexical database show a clear distribution pattern, which consists of two separate and unbroken areas of shared linguistic forms.⁸ One cluster of forms covers a wide swath of territory including

⁵ The textiles unearthed at Igbo-Ukwu, dating to the ninth century, were made of bast fibers, and were used as protective coverings for copper artifacts, not as clothing. Thurstan Shaw, *Igbo-Ukwu. An account of archaeological discoveries in eastern Nigeria* (Evanston, Ill: Northwestern University Press, 1972).

⁶ Shawn Murray, "Medieval Cotton and Wheat Finds in the Middle Niger Delta (Mali)," poster presented at the 4th *International Workshop of African Archaeobotany* in Groningen, The Netherlands, 30 June - 2 July 2003. I thank Shawn Murray for sharing her research findings with me, and I thank Dr. Kevin MacDonald for informing me about them.

⁷ N. Levtzion and J.F.P. Hopkins, transl. and eds. *Corpus of early Arabic sources for West African history* (Cambridge: Cambridge University Press, 1981), 78, 475. The editors erroneously interpret this as a reference to a species of silk-cotton tree (*Bombax*), whose fibers are not suitable for spinning.

⁸ At present, this database includes the generic words for 'cotton' from 126 West African languages, gathered from dictionaries, word-lists, and botanical sources.

the upper Niger, Gambia, and Senegal watersheds, and contiguous areas of the Sahel, all of them apparently related to the word *kútan*, which comes from the dialects of Arabic spoken in Mauretania and northern Mali. The other cluster of forms surrounds Lake Chad, stretching from the Hausa kingdoms up into the Air Massif in the Sahara, and eastward into what is now Chad, all of these apparently related to the word *gótun*, which comes from a dialect of Arabic spoken in the Wadai region. This distribution pattern correlates with what we know from other lines of historical evidence. For example, Islam was first embraced by West African rulers in these same two geographical areas, and they also line up with Watson's "routes of crop diffusion" before 1500.⁹ By at least the 14th century, these regions had both become known as areas of cotton textile manufacture, where narrow strips of cloth were woven on a type of counterbalanced treadle loom that was originally from Asia.

Much of what we know of the history of cotton textile manufacture in West Africa comes from the archaeological record and geographical accounts written in Arabic. A spectacular trove of textiles was found preserved in a series of burial caves located in the remote Bandiagara escarpment, near the upper Niger basin, most of them made from narrow cotton strips woven on a treadle loom. Those that are attributed to the Tellem, who preceded the current inhabitants of Bandiagara, range in date from the 11th to the 15th centuries. Almost three quarters of the cotton cloths were dated to the first two centuries of this period, and they include rectangular wrappers or mantles as well as tailored tunics. Some of the fabrics are plain, while many others have loom-produced patterns of checks or stripes made with threads dyed blue, presumably indigo.¹⁰ Taken together, they indicate the considerable extent to which cotton textiles were manufactured and traded in West Africa during the first half of the second millennium. Other indicators are the small ceramic whorls that characterize spindles for spinning cotton, which were found to be well represented at numerous archaeological sites from the 14th century onward in what is now Mauretania, Senegal, Guinea, Mali, and northern Ghana.¹¹ Arabic sources tell us that cotton cloth also circulated as a currency during this time. One such currency in Takrur was described in the 11th century as cloth that was four spans square,

⁹ Andrew Watson, *Agricultural innovation in the early Islamic world* (Cambridge: Cambridge University Press, 1983), 79.

¹⁰ Rita Bolland, *Tellem Textiles: Archaeological finds from burial caves in Mali's Bandiagara Cliff* (Leiden: Rijksmuseum voor Volkenkunde, 1991).

¹¹ Musée National des Arts d'Afrique et d'Océanie, *Vallées du Niger* (Paris: Réunion des Musées Nationaux, 1993).

made of fine, locally woven cotton. Another account from the first half of the 14th century mentioned a cotton strip cloth circulating as currency in Kanem, near Lake Chad, which was measured out in units of length. These early cloth currencies may have been similar to the ones we know about from later descriptions and examples, which were exchanged in units sufficient to make a particular item of clothing. The most famous cloth currency was the *litham*, or veil, worn by Berber men of the Sahel and the Sahara. I argue in my book that the role of cotton cloth strips as currency, which would call for a certain amount of uniformity over time and space, helps to explain the relative conservatism of this particular weaving technology and the features of its products.

Textile manufacturing in West Africa was both supplemented and stimulated by imports from the trans-Saharan trade. Many of these imports were not unlike the fabrics made locally. The latter were made primarily of cotton, bast fiber, or occasionally wool,¹² as were the textiles carried into sub-Saharan Africa from at least the 11th century onward. Silks and fancy brocades were the main novelties. Tangible examples of imports can be seen among the cloths from the Bandiagara necropolis, which included fragments of woolen textiles that had probably been manufactured in North Africa on Berber looms. Garments of all sorts, especially shirts, robes, veils, and turbans, also made their way into markets all across the sub-Saharan Sahel and savanna belt to clothe a growing population of Muslim elites. Urban tailors, some of them Quranic scholars and their students, fashioned their own West African versions of these imports, coining various vernacular names for them depending on the cloth, color, and cut of the garment. Cotton textile manufacture continued to thrive alongside this international textile trade. Leo Africanus's early 15th-century description characterized West Africa as a place that was abounding in cotton, with some of the raw fiber being exported north across the Sahara.¹³

Another important textile producing area was taking shape before the 15th century in the lower Niger region, though in this case relying on a very different textile technology. The loom stood vertically, and the shedding device had to be operated with the hands rather than the feet. While this feature slowed down the production process, it was compensated for by the loom's flexibility, which allowed for experimentation with different fabric structures and embellishments. It is most likely an indigenous loom that

¹² One 12th century account noted that a type of woolen cloth made near Lake Chad was made of camel hair, not sheep's wool. Levtzion and Hopkins, *Corpus of early Arabic sources*, 120.

¹³ Leo Africanus, *The History and Description of Africa and of the notable things therein contained* (New York: B. Franklin, 1963. Reprint of 1896 edition), Vol. III, 822-31.

was created originally for weaving raphia, then modified for working with continuous threads of handspun bast and cotton. Here, too, the time of cotton's arrival is not known. There were Old World varieties grown, but the lexical terminology does not appear to be related to languages spoken by people to the north. What archaeological evidence there is for textiles in this area is provocative but inconclusive. Excavations in Benin City, near the royal palace, yielded some rare and intriguing fragments of cloth dating to the 13th century. Microscopic analyses revealed that the fibers of some of the fragments had convolutions and other features associated with cotton, but the condition of the samples prevented a definitive identification.¹⁴ Other aspects of the cloths point to indigenous, rather than foreign, manufacture, such as the variety of fabric structures and diversity of types and weights of yarn elements. These features are consonant with cloth woven on the vertical loom. In my view, it is the presence of flat, raphia-like fibers in some of the samples that speak most strongly to a West African provenance. In any case, by the time European navigators and merchants began to frequent this part of the Guinea Coast in the 1490s, the Benin area was noted as a place where cotton cloths could be purchased at inland markets. In the year 1505, for example, one Portuguese merchant stationed at the trading post of Ughoton purchased over 1800 locally woven cotton cloths, using them to clothe slaves, make ship's awnings, and exchange for gold on the Gold Coast.¹⁵

Textiles made up the largest category of commodities that were used to make purchases on the Guinea Coast. Trade on the west coast of Africa has been described as one where cheap overseas products were exchanged for gold, ivory, pepper, and slaves.¹⁶ It was much more complex than that, of course, and written records of it are filled with complaints about how erratic and intricate trading operations and relations could be. European merchants had to be constantly aware of how well or how poorly their own products were competing against those of their rivals, and also of what sorts of gifts might have the greatest leverage for sealing agreements with particular West African kings and officials. And the range of overseas commodities they needed to trade with was large, with changes in demand occurring over time and from port to port. Dutch and

¹⁴ Graham Connah, *The Archaeology of Benin* (Oxford: Clarendon Press, 1975), 236-37.

¹⁵ A.F.C. Ryder, *Benin and the Europeans, 1485-1897* (New York: Humanities Press, 1969). Referred to as 'Gwatto' in European accounts, the similarity of the Edo name *Ughoton* to the word 'cotton' has not attracted comment.

¹⁶ One recent source states, for example, that overseas textiles were "supplied at a cheaper rate than indigenous textile producers in Africa could offer." Robin Law, ed. *The Operation of the Slave Trade in Africa* (London: Pickering and Chatto, 2003), xviii.

English accounts from the seventeenth century, for example, specify by name the seemingly innumerable types of textiles their ships carried to the Guinea Coast, most of them coming from European and Indian manufacturers. But as was the case with the trans-Saharan textile trade, closer examination of imports in the coastal trade reveals a relatively coherent set of consumer preferences. Some products were singled out and appreciated as unusual textiles that were not available in nearby workshops, such as the vividly colored woolen yardage that came from European looms. Others, however, were very much like textiles woven in West Africa, in terms of their fiber content, color, and pattern. Cottons from overseas were usually plain, dyed, or loom-patterned stripes and checks, as were the standard versions of locally woven cotton cloth.

Textile manufacture in West Africa was further supplemented and stimulated by this new era of international trade on the coast. The Bight of Benin was one of several areas where cloth was imported *and* where West African weavers produced cotton cloth for export. References to this export trade in the written sources are very difficult to interpret, since they are few and only in passing, but when they do mention numbers they are in the thousands. Indirect evidence suggests they were woven on the vertical loom. A common feature of vertical-loom cloth was its woven breadth, with several separate units having to be sewn together to make a wrapper or mantle. When European merchants began handling large numbers of them in the seventeenth century, 'Benin cloths' were classified according to the number of individual breadths there were per entire wrapper. A mid-17th century description mentioned two main products of looms traded on the Bight of Benin: one, a wrapper made from three breadths of cloth; the other, a wrapper made from four breadths of cotton dyed indigo blue or patterned with indigo stripes. The popular three-breadth served as an accounting term – *dreibants* – that the Dutch used to calculate their purchases. Textiles coming into the ports of Arbo and Lagos were bulked and sorted to be shipped to ready markets on the Gold Coast, the Gabon estuary, Angola, the island of São Tomé, and as far away as the West Indies and Brazil. Several descriptions specify the regional market preferences that structured this trade: striped cloths were exchanged for gold on the Gold Coast, while indigo-blue cloths were most desired in Gabon and Angola in exchange for ivory and slaves.¹⁷

¹⁷ Adam Jones, trans. and ed., *West Africa in the mid-seventeenth century: An Anonymous Dutch Manuscript* (Atlanta, Ga: African Studies Association Press, 1995); Ryder, *Benin and the Europeans*; John Adams, *Sketches taken during ten voyages to Africa between the years 1786 and 1800* (New York: Johnson

Elsewhere on the Guinea Coast, the textile exports were products of the treadle loom. Along the upper coast, for example, they included cottons made of narrow strips woven as far inland as the Niger bend, as well as the famous cotton cloth that was manufactured in the Cape Verde Islands from the 16th through the 18th centuries.¹⁸ Supplies of the latter product, which was distinguished by elaborate loom-produced patterns, gave Portuguese and Luso-African merchants in particular a much-needed advantage during the pivotal early period in Atlantic trade. Exploiting the pre-existing textile technology of the mainland, cotton and indigo plantations were established on the islands to supply small workshops of skilled slaves, who spun, wove, and dyed under merchant supervision. Manufacture and trade of Cape Verde cloths generated competition in mainland towns as well. Plain cotton cloths were woven to be traded to other locales such as Cacheu, where they were dyed with indigo that came from the Senegambia region further up the coast.¹⁹ Still other types of textiles – plain wrappers made of cotton strip cloth – were purchased by Dutch and German traders along what came to be known as the Ivory Coast. They were called *quaqua* cloths, and were probably manufactured much further inland. Both of these exports, the loom-patterned Cape Verde products and the plain *quaqua* cloths, were very much in demand at the strategically important trading forts on the Gold Coast.²⁰

The precise role of locally-made cloth in the 'hidden half' of the Guinea trade cannot be quantified, primarily because of the lack of documentation. That is especially so in the case of the work of *lançados*, merchants of mixed Portuguese and African ancestry, who were major suppliers of African-made cloth in and around the island bases of the Cape Verdes and São Tomé. We find only fleeting references to *lançados* and their trading operations in the written sources. Much of the documentation that does exist is limited to requests for supplies of overseas goods from Europe and India that were needed by European company merchants. From what scant references there are to African cloth, it appears that there was a range in the prices of local textiles such that

Reprint, 1970. Reprint of 1822 edition), 24-25.

¹⁸ António Carreira, *Panaria Cabo-Verdiano-Guineense* (Lisboa: Museu de Etnologia Ultramar, 1968).

¹⁹ Brooks briefly mentions the importance of this textile and indigo trade, but was hampered by the lack of documentation of it. George Brooks, *Eurafricans in Western Africa: Commerce, Social Status, Gender, and Religious Observance from the sixteenth to the eighteenth century* (Athens, Ohio: Ohio University Press, 2003), 62-63.

²⁰ Adam Jones, trans. and ed., *German Sources for West African History, 1599-1669* (Wiesbaden: Franz Steiner, 1983), 64-65; Louis Jadin, *L'ancien Congo et l'Angola, 1639-1655* (Brussels: Institut Historique Belge de Rome, 1975), Vol. I, 292.

some were cheaper than the foreign imports. There are other indications that trading cloth made in West Africa could be more profitable. On the Gold Coast, for example, the ratio of cost to sale price of overseas imports was quoted as 1/1.75 in 1645 and 1/1.95 in 1819. By comparison, the ratios quoted for local cloth were considerably higher. For Benin cloth in 1698, the ratio was 1/3 and for Cape Verde cloth in the mid-1700s it was 1/3.3 to 1/4.²¹ In short, a canny and well-connected merchant could realize very high profits if he understood what kinds of textiles to purchase in which ports, and where on the coast those particular textiles were most desired. Seen in this context, the reference to a São Tomé vessel carrying a cargo of 10,000 Benin cloths in 1816 suggests that the trade in local textiles might have been much more significant than has heretofore been acknowledged, particularly among non-European merchants.

Cotton cultivation and textile manufacture in West Africa must have expanded into new areas during the era of the Guinea trade, but evidence for tracing this history is almost impossible to come by. Perhaps most striking is what did not happen – there was relatively little change in spinning and weaving technology, as the hand-held spindle continued to be used for making cotton yarns and weavers used the same two types of loom to produce the characteristically narrow breadths of West African cotton fabric. Oral traditions and linguistic data indicate that export production in the lower Niger region prompted the transfer of vertical loom weaving into communities further and further inland, while inter-regional trade in the West African interior and the export of textiles on the upper Guinea Coast led to the establishment of more and larger workshops of treadle-loom weaving. As yet, though, there is no evidence of merchant-organized putting-out production prior to the 19th century in any place other than the Cape Verde Islands. Hence we can infer that expanding the volume of textile production had to have been achieved mainly by expanding the workforce and by exploiting the labor of slaves and family members. One major change that did occur during this time was the introduction and acclimatization of longer-staple New World cottons. They were appreciated for the quality of fiber they could provide, expressions of which we see in the vernacular names given to them in languages such as Hausa.²² They offered some

²¹ Lars Sundström, *The Exchange Economy of Pre-colonial Tropical Africa* (New York: St. Martin's Press, 1974. Reprint of *The Trade of Guinea*, 1965), 173.

²² For example, *G. hirsutum* was called *la'bai* in the Kano and Daura dialects, and *'yar tabshi* in Kano and western Hausa dialects, both names referring to its fibers – “soft” and “fleecy” compared to the “strong” or “hard” Old World cotton. J.M. Dalziel, *The Useful Plants of Western Tropical Africa* (London: Crown

significant advantages to highly skilled workers. Spinners, for example, could make finer and more tightly spun warp threads with these cottons, and they could also work faster by spinning directly from the boll. Such improvements in yarn quality led to refinements of African-made Guinea cloth. The boom in cotton textile manufacture in the 19th-century Sokoto Caliphate and the renown of its export products relied on specialized threads and the weaving of higher-density fabrics, made possible in part by these new varieties of long-staple cotton (see Table of Cloth Densities below).²³

Table of Cloth Densities

| | Average # Warp | Average # Weft | Warp Range | Weft Range | Average Square cm |
|---------------------------------------|-------------------|-------------------|---------------|---------------|----------------------|
| Upper Niger Region | | | | | |
| Bandiagara | | | | | |
| Cave A, 11-12 th C. | 9 | 9.4 | 7-16 | 7-16 | 18.4 |
| Cave C, 11-12 th C. | 11.2 | 11 | 8-16 | 8-17 | 22.2 |
| Cave Z, 12 th C. | 11.6 | 11 | 9-15 | 9-15 | 22.6 |
| Cave F, 15-16 th C. | 10.4 | 10.5 | 9-12 | 8-14 | 20.9 |
| Cave H, 17-18 th C. | 10 | 9.7 | 9-12 | 8-13 | 19.7 |
| Segu area, late 19 th C. | 15.8 | 11 | 10-24 | 7-15 | 26.8 |
| Lower Niger Region | | | | | |
| Sokoto Caliphate, 19 th C. | | | | | |
| Tailored garments | 21.5 | 14 | 11-33 | 8-23 | 35.5 |
| Wrappers, treadle loom | 25.4 | 14.8 | 14-31 | 9-21 | 40.2 |
| Wrappers, vertical loom | 19.4 | 9 | 9-40 | 6-14 | 28.4 |
| N. Nigeria, 20 th C. | | | | | |
| Tailored garments | 11.5 | 9.7 | 9-22 | 7-21 | 28.4 |
| Wrappers, treadle loom | 12 | 8.2 | 7-18 | 6-11 | 20.2 |
| Wrappers, vertical loom | 12.2 | 7 | 8-18 | 5-12 | 19.2 |

* * *

'Guinea cloth' was a major global product. Seen in its historical entirety, however, West Africa was not simply a passive receiver of it in the coastal trade with Europeans. Cultivation of cotton, and the manufacture of plain and loom-patterned cotton textiles, were established in West Africa by at least the 11th century. Expansion of cotton production was furthered by the economic growth generated by trans-Saharan trade and the increasing influence of Islam between the 11th and 15th centuries. Hence there were markets and tastes for cotton cloth already well in place when the first Portuguese explorers arrived on the Guinea Coast. What came to be known as 'Guinea cloth' had firm historical roots in West Africa

Agents, 1937), 123-24.

²³ Data in the Table are discussed in C. Kriger, "Textile Production and Gender in the Sokoto Caliphate" *Journal of African History* 34 (1993):361-401.