ARCHAEOLOGY FOR EDUCATION



Global Connections and Connected Communities in the African Past: Stories from Cowrie Shells

Anne Haour · Abigail Moffett

Published online: 6 September 2023

© The Author(s) 2023

Abstract Through the stories of four people who carried or traded cowrie shells, this article examines the connections between various parts of the world from a thousand years ago to the present. These connections spanned great distances, linking communities in West Africa and the Indian Ocean islands of the Maldives, and they bring to light the vast land and sea links that connected different regions of the African continent to the wider world in this period. We use cowrie shells to explore how objects participate in creating social relations, shaping senses of self and identity. When viewed in relation to the theme of connections, this offers a springboard for thinking about how things and their biographies fit within our lives today.

Résumé À travers les histoires de quatre individus qui transportèrent ou échangèrent des cauris, cet article examine les liens qui ont existé entre différentes parties du monde dans les derniers 1000 ans. Ces connexions ont couvert de grandes distances, reliant des communautés en Afrique de l'Ouest et dans les îles Maldives (Océan Indien), illustrant les liaisons terrestres et maritimes extensives qui ont mis en rapport diverses régions du continent africain avec le reste du monde. L'article utilise les cauris comme exemplaire

pour explorer la façon dont les objets participent à la création de relations sociales, façonnant le sens de soi et l'identité. Considéré en relation avec le thème des connexions, cette question offre un tremplin pour une réflexion sur la façon dont les objets et leurs biographies s'inscrivent dans nos vies aujourd'hui.

Keywords Indian Ocean · Africa · Cowrie shells · Globalization · Burials · Object biographies · Trade

Introduction

We often think of globalization as a modern phenomenon associated with the spread of information and a common culture of things and practices (eating McDonald's or drinking Coca-Cola, praying facing Mecca, wearing blue jeans, speaking Mandarin), and engaging in air transport and internet communications. At this very moment, you are probably wearing, using, or perhaps even eating something from a different part of the world! However, globalization is not a new idea, and the archaeology of connections reveals the story of many different links in the past, for example, between Asia, Africa, northern Europe, and the Middle East.

Archaeology can tell us a lot about how people were connected and how relationships were built between people in the past. We can explore connections through several perspectives, such as "networks," "trade," or "interaction." We can also look at

A. Haour (⊠) · A. Moffett Sainsbury Research Unit for the Arts of Africa, Oceania and the Americas, University of East Anglia, Norwich, UK e-mail: a.haour@uea.ac.uk



them on different levels—from those within a community to those between communities in the same region to those that linked communities over vast distances in globalized networks. Objects help us tell the story of these links. They tell us about different aspects of connections, such as the relationships between the people who exchanged and used objects and ideas. They also inform us about what sort of networks linked people in different regions and what the impact of trade and interaction may have been on past societies.

One approach we can use when examining the archaeology of connections is the concept of biography, which can help us study the story of an object and reveal the networks within which it moved. Many researchers who deal with objects—archaeologists, art historians, anthropologists, and museum specialists-have found this concept useful. It considers the fact that objects have lives; they are created, exchanged, consumed, and, after some time, usually discarded. Exploring the biography of an object means looking at the different stages of the object's life and examining how it was used and valued, and what it meant in that moment in time. For example, a coin you use in a store to pay for something has a different biography than the coin you throw into a well when you make a wish. In the first instance, the coin functions as money in a transaction. In the second, it functions as a good luck charm. Objects, such as coins or other items that are exchanged, do not merely reflect connections between places and people. They also participate in forming those relationships.

Cowry shells, especially ones known as the "money cowrie" and the "ring cowrie," were very important objects of exchange in the pre-modern world. These shells belong to little gastropods of Monetaria moneta and Monetaria annulus, which enjoyed living in shallow warm water and feeding on sea grass and other plants (Fig. 1). The story of these cowries is global. They were keenly sought after by communities in many areas of the world, such as West Africa, China, Bengal, the Americas, and northern Europe. However, the interesting thing is that these small snails were not native to those areas. They were brought in from warmer, tropical waters. Their shells served as money, used as loose currency, or strung together in set numbers. They were also combined with other elements to form charms, added onto textiles and other materials as decorative elements, used



Fig. 1 Cowrie shells: *Monetaria annulus*, known as the "ring cowrie," at left, and *Monetaria moneta*, known as the "money cowrie," at right. Photo by Abigail Moffett

for divination, given as votive offerings, or deposited as grave goods. To achieve these uses, the shells were adapted through different types of processing, the evidence of which we can sometimes see when studying material traces of their biographies on each shell. Cowries offer a good example of an object that can tell a story of connections far into the past and a story of the links between African societies and others worldwide.

Through the biographies of several cowrie shells and their travels, we examine connections between communities, as told by four people who lived and died long ago. Although we do not always know the names of these people or how they felt, we know a little about them through the information provided by archaeology and history. Across oceans and land, we travel alongside several of the cowrie shells they valued. These take us on journeys across the worlds of the Indian Ocean, the Sahara Desert, and the Atlantic.

Story 1: The Indian Ocean Trader

Our first story takes us to the extensive maritime networks of the Indian Ocean world (Beaujard, 2019; Seetah, 2018). People, techniques, religions, and things moved far distances across the Indian Ocean for over 2000 years, facilitated by currents and seasonal monsoon winds. Monsoon winds are seasonal wind systems caused by differences in temperatures between land masses and the ocean. From November to February, cool winds blow from north to south.



From April to September, the wind system changes, and the southwest monsoon winds occur, blowing wind from south to north. Seafarers used these wind systems to travel by boat between different regions of the Indian Ocean, such as from the coastal ports and towns of East Africa to ports in Oman and Yemen (Fig. 2). This resulted in the development of cosmopolitan communities of traders and travelers, who shared in cultural practices such as religion, material culture, and ideas. One researcher has described these networks in this way:

"The mental map that this as a whole expresses is akin to a constellation of brightly shining and distinct ports, towns, and cities, embedded in a country, a kind of hazy nebula, in an otherwise dark background. In the minds of those who lived, worked and travelled within the region, these places were linked by a dense, criss-crossing network of land and sea routes" (Sood, 2011, p. 125).

Historical and archaeological research reveals some of the dynamics of these past connections. Goods like cinnamon and pepper, pearls and precious stones, and metals moved through these networks, and those living in port communities also consumed things from elsewhere, evident in the broken fragments of Chinese- and Indian-made pottery recovered by archaeologists.

Cowries were a part of these networks. The shells were harvested in different places in the Indian Ocean. One such place is the Maldives, off the tip of India, where we know from historical accounts and archaeological research that Monetaria moneta cowries were harvested in large quantities for exchange (Haour & Christie, 2022). Back in the twelfth century CE (Common Era, sometimes also "AD"), communities of people harvested cowries by wading kneedeep into the water at specific tides and collecting them from the underside of rocks. Next, they buried the shells in the sandy beach to kill the animal. After some time, they dug up all the buried shells and washed them, revealing the sparkling white shell of the cowrie (Hogendorn & Johnson, 2003). Once dried, cowries were parceled in woven baskets to be exchanged at the local market. People used intricate terminologies to designate specific quantities. The North African traveler Ibn Battuta, who visited the Maldives in the first half of the fourteenth century, says that in the Maldivian language, 12,000 cowries were called kotta, and 100,000 were called bostú. Visiting merchants arriving with the seasonal monsoon winds bought cowries in exchange for different things, including rice, pots, and glass beads.

These traders then took cowries to other ports, such as those of present-day India and Yemen, where

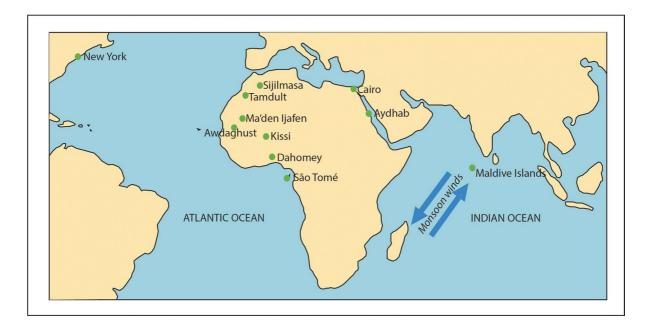


Fig. 2 Map detailing some of the places discussed in this paper. Map prepared by Abigail Moffett



they made their way into the hands of different merchants. One merchant responsible for the trade of cowries and other items was Nahray b Allan, a Jewish trader living in the twelfth century. Nahray b Allan wrote to his family in 1141 from the port town of Aydhab at the border of modern-day Sudan and Egypt (Fig. 2) before setting sail for India on a trading voyage. Aydhab was an important port that linked overland trade routes across North Africa with oceanic routes to India and other regions eastwards (Peacock & Peacock, 2008). Its population included Jewish merchants and Muslim pilgrims, who sailed from Aydhab across the Red Sea to undertake the Haji, the pilgrimage to Islam's holy city of Mecca. In his letter, Nahray b Allan described the goods he had brought on his ship, among which he listed "two bales of cowrie shells" (Goitein, 1973, p. 199 & n. 14). He speculates that it may be best to sell the cowries in Spain, where they would presumably be used as amulets, ornaments, or for eye powder (Goitein, 1973, p. 200 & n. 20).

We can picture a basket of cowrie shells from the Maldives arriving at the port of Aydhab, where it is offloaded from the ship and brought into Nahray b Allan's storehouse. Thinking of the biography of these shells, we see that they have been transformed from things that were once part of living creatures in the warm waters of the Maldives to commodities transacted across long distances. This evidence raises many questions. What did the people harvesting cowries in the Maldives know about the distant lands the shells traveled to? Why did people across the Indian Ocean trade network decide that cowrie shells were valuable and transport them all these distances? How did traders such as Nahray b Allan know how to find trusted partners along the Red Sea coastline? However, the story of our little Maldivian cowrie does not end here...

Story 2: The Trans-Saharan Trader

From the port of Aydhab, many cowries were transported to the great markets of Cairo in Egypt (Fig. 3 in the introduction to this collection). Here, merchants from Spain, North Africa, and even further afield competed to buy goods for resale in new markets. Our bale of Maldivian cowries was bought by a merchant from the western reaches of North Africa,



Fig. 3 Some of the contents of the "lost caravan" of Ma'den Ijafen, now stored at the Cheikh Anta Diop archaeology laboratory in Dakar, Senegal (IFAN, MAU 67-151). At the front are fragments of basket and rope that secured the load, together with several long metal bars. At the back are rows of cowrie shells. Photo by Annalisa Christie, used courtesy of Laboratoire d'Archéologie de l'IFAN Cheikh Anta Diop

who was visiting Cairo to trade and exchange them for gold and other items he had acquired on a recent trip to West Africa. From Cairo, the merchant traveled westwards by camel for over 2 weeks, across the Atlas Mountains, before reaching the famed trading town of Sijilmasa in present-day Morocco (Fig. 2). He entered the grand town through the beautifully carved gates and stopped at the city's main mosque to pray (Messier & Miller, 2015).

Along the way, the merchant stopped off at different markets in trade centers and towns, loaded up his camel caravan with fine silks and cloth made in different parts of Europe, beads of glass made in South Asia, and three bags of long metal rods of brass, a most valuable item of exchange for his trip back to West Africa (MacEachern, 2016). He headed south on a famed route across the Sahara to reach the West African town of Awdaghust (Fig. 2).



This was a long and grueling journey of 1500 km across vast expanses of desert known as the Sahara. The perils of traveling this route were described by different travelers and geographers, such as al-Bakri and Ibn Battuta, writing in the eleventh and fourteenth centuries (Levtzion & Hopkins, 2000). Al Bakri describes the narrowness of the ravines, the camels becoming lame, and the depth and quality of wells on the road from Tamdult to Awdaghust. Ibn Battuta writes about daily life on the caravan: washing clothes in a pool of water on the rocks; the insults traded along the way, which caused one man to lag behind and become lost for good; a man who insisted on playing with snakes until he was bitten. One gets the sense that he wants to make the road familiar to his readers (Forrest & Haour, 2018).

The perils of this journey were partially due to the lack of water and the harsh conditions the traders faced. Not all merchants, or their caravans, made it through the desert. One abandoned caravan in the eleventh century is known as the "Lost Caravan" of Ma'den Ijafen (Christie & Haour, 2018; Monod, 1969). In March 1962, Théodore Monod and his colleagues, following information from antelope hunters, rediscovered the lost caravan buried deep in the sand. The site, which appeared to them as a small mound filled with metal objects and shells, was the last resting place of a caravan that never completed its journey across the Sahara. By carefully examining how all the finds were arranged in the soil, archaeologists could reconstruct how the cargo had been attached to a beast of burden. They found more than 2000 brass bars that had been bundled together into bunches of 200, some wrapped in fiber mats; even fragments of rope survived (Monod, 1969; see Fig. 3 below). In addition, over 3000 cowries were recovered from the site. Most of these shells, like our little shells from the Maldives, were of the species, Monetaria moneta.

We wonder, did our trader and his camels survive, abandoning their goods but carrying on? Did he lose his way or run out of water, and bury his hoard and search for help? And did others find the lost shells and brass rods before the archaeologist Monod did, picking up some of the finds, including our little cowries, and transporting them onwards to West Africa? These are questions for which we have no answers. However, we follow the trail of the cowrie shell to its intended destination in a West African market.

Story 3: Communities in West Africa

Cowries sourced from the Indian Ocean were used in West Africa as early as the seventh century CE. Like those in our lost caravan hoard, the cowries likely originated in the Maldives and made their way into the region via trans-Saharan trade networks. Archaeological evidence indicates that cowries were used in different ways in West Africa; some shells were placed with the dead in burials, for example, in a site called Kissi, located in present-day Burkina Faso (Magnavita, 2015; Fig. 2). There, cowrie shells of the species *Monetaria moneta* were found in two burials, associated with the skull area. The dorsal surface of the shells was pierced with a hole, a modification that was often undertaken so that the shells could more easily be strung or attached to the fabric (Fig. 4).

Although organic materials like cloth did not survive in the Kissi graveyard, the excavators suggested that the position of these cowries and the fact that they were pierced indicate that they were part of the deceased's headpiece (Magnavita, 2009, p. 86). This evidence points toward a change in the biography of these shells, from items of exchange to items of adornment. At Kissi and other sites in West Africa, cowries were sometimes used as personal ornaments, perhaps as part of jewelry along with other glass, stone, and metal beads. A historical source of the tenth century mentions that the people of sub-Saharan Africa "adorn their women with copper rings and put cowrie shells in their hair" (Levtzion & Hopkins, 2000, p. 35).

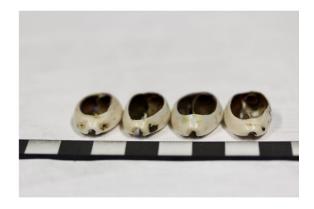


Fig. 4 Pierced cowrie shells (British Museum Africa collections). Photo by Abigail Moffett



In the fifteenth century, a decisive shift occurred in the exchange and use of cowrie shells. European traders began to bring them to West Africa in enormous amounts using new routes on the Atlantic Ocean. Previously cowries had circulated throughout parts of West Africa, but only in small numbers. Portuguese sailors initially reached West African coast in 1471-1472 CE. Thirty to forty years later, cowries were being brought by sea into the European forts in what is now Ghana, and licenses were signed to allow traders to import these shells from Asia (Blake, 1942, p. 107; Ryder, 1959, p. 301, note 4). The account book of a Portuguese ship, which sailed from the African islands of São Tomé to the mouth of the Niger River in the spring of 1522, shows that the ship carried a cargo of cowries. They were used to pay for a range of goods, but in particular to acquire enslaved people to be sent to work on the plantations of São Tomé (Ryder, 1959, p. 301). An anonymous Portuguese pilot writing in about 1540 tells us that the people of São Tomé sold locally produced sugar to visiting ships in exchange for "shells, which in [Italy] are called porcellette [porcelains]-little white ones-... and which are used for money in [Africa]" (Blake, 1942, p. 157).

The shells were adopted at lightning speed by West African consumers, who may have been familiar with them through earlier exchange networks, but never in quantity. Cowries were a dominant import in 1650–1880 and were widely established for commercial and social payments (Ogundiran, 2002). Soon, in a horrendous chapter of world history, cowries became associated with the trans-Atlantic trade in enslaved people.

Some states within West Africa made heavy use of cowries as currency. This was the case in Dahomey, a polity in present-day Republic of Benin, that expanded in the eighteenth century, a period marked by an increase in the trade of enslaved people and cowries. King Guezo of Dahomey, who ruled from 1818 to 1858 CE, famously said he preferred cowries to gold because they could not be counterfeited. And unlike other currencies, such as metals, cloth, tobacco, or liquor, which could be consumed in other ways, cowries had very little other possible use (Hogendorn & Johnson, 2003).

Up to that point, most of the shells concerned were of the *Monetaria moneta* species, originating in the Maldives. But by the early nineteenth century,

cowries were in heavy demand at coastal settlements, from where they were sent inland. Historical sources tell us that, to answer this heavy demand, German traders attempted an experimental introduction of *Monetaria annulus* cowries from the East African coast in 1845; these slightly larger shells were eventually accepted by palm oil traders in West Africa (Hogendorn & Johnson, 2003). In its early years, the trade in these so-called "Zanzibar cowries" was very profitable for the firms shipping them. These firms tried hard to drive their rivals out of business, and considerable secrecy surrounded the trade: in fact, cowries were referred to as "coffee" to confuse competitors (Hogendorn & Johnson, 2003, p. 25).

During the excavation of an eighteenth-century settlement on a small island in a lagoon of southern Benin, fifteen cowries were recovered by archaeologists. The cowries in the upper levels were *Monetaria annulus*, whereas all but one of those in lower levels were *Monetaria moneta*, and no cowries were recovered in the middle layers. This is possibly evidence of changes in supply networks and use by the communities who lived here. Some of the shells were pierced so that they could be strung or sewn onto items, but others were unpierced.

These archaeological examples show how cowrie shells were re-valued in West Africa. Why did they come to take on such strong meanings for communities in the region: was it because they came from far away? Was it their color, shiny appearance, or the fact they resembled an eye? How did they become worked into notions of personal identity, perhaps femininity, and where, how, and why did they start to function as money? Archaeologists puzzle over questions like these for which we do not have hard and fast answers. But this was not the last stop for our little cowrie. In later times, cowries made their way from their home in the Indian Ocean waters across the Atlantic to the Americas.

Story 4: The New York African Burial Ground

In the eighteenth century, the city now known as New York had a community of workers of African origin. In 1741, nearly 2000 of its 10,000 inhabitants were African. They had been kidnapped from many different parts of the African continent, and many had been brought to work in the rapidly growing city of New



York after spending time working on sugar plantations in the Caribbean.

Although historians knew that slavery had been a central part of life in New York for more than 200 years, few other people were aware of this history. This was to change when a startling discovery was made during the construction of a high-rise building in downtown Manhattan in the early 1990s. Skeletons were found buried deep underground, and it was quickly realized that these were the remains of what was known as the "African Burial Ground," where an estimated 15,000 men, women, and children lay buried. The cemetery may have been in use as early as 1650. We know from land grants that Africans lived nearby, and because of its sloping topography and swampy terrain, the site was not ideal for residences or farming, and landowners may have allowed it to be used as a cemetery. The first known record of the burial ground dates to 1712, when a chaplain wrote that Africans were buried there by their peers, with particular rites (Howson et al., 2009, p. 43).

The burial ground had been covered by as much as 25 feet of earth after the cemetery was closed in 1795, so the graves were undamaged. Nobody had anticipated this discovery, and concerns began to be raised. It was important to treat these human remains with respect while at the same time recognizing that their study could offer important information on the lives of the early African community of New York information that could not be found in any other way. Written sources say little about the people buried there. Archaeologists, on the other hand, could uncover individual stories of the deceased by paying careful attention to the bodies and the objects buried within them, focusing on the context of the objects that is, their physical location and their relationship with other finds.

By 1991, the remains of more than 400 people had been removed. One burial, known as "Burial 340," was that of a woman aged between 40 and 65 who had probably died in the eighteenth century. Her teeth had been filed into hourglass and peg shapes. Because diets leave elemental signatures, trace elements, and strontium isotopes in her teeth and low lead levels suggest she was probably of African birth. She was buried with an unused clay pipe, probably of English manufacture. Around her waist was a strand of 112 glass beads, mostly European, one bead of amber, and seven cowries. No other cowries were recovered from

any of the other burials. This is surprising, for as we mentioned above, at the time this cemetery was in use, cowries were widely established for commercial and social payments over much of West Africa, from where some of the deceased had come.

The African Burial Ground was used by thousands of Africans who were among some of the earliest inhabitants of what became New York City. It tells a difficult story about slavery, the contributions of Africans to the building of the USA and the modern world, and the connections between Europe, Africa, and the Americas. The graves also show that early African New Yorkers' identities remained rooted in Africa and became part of new traditions in the Americas. The artifacts buried with the woman in Grave 340 suggest connections to Africa. The researchers comment that "This woman's distinctive African-style adornment seems to be peak her commitment to her cultural ancestry" (Perry et al., 2009, p. 371). Objects that move through networks become bound up in people's sense of self and identity. In this case, for example, we can suggest that waist beads such as those worn by the woman in Burial 340 "were visible to people who lived in emotional and physical proximity to the wearer, such as a husband or a sweetheart, and the women with whom she bathed and groomed" (Bianco et al., 2009, p. 329). The archaeologists' work at the African Burial Ground brought aspects of community and individual identities to light. The objects placed within the graves, such as the cowrie shell in "Burial 340," have biographies, and they were used and valued in different ways over time.

Discussion and Conclusion

The four stories above tell us about the many different networks and connections that linked communities across land and water in the past. We see from the travels of our cowries across the Indian Ocean and all the way to West Africa via the trans-Saharan trade networks through long-distance trade routes that lasted for over a thousand years! Much like today, people in different places had desires for a variety of things; these might be cowrie shells from the Maldives, cloth from India, or porcelain from China. The movement of these objects was accompanied by cultural interactions, the flux of ideas and religions, and



the creation of cosmopolitan spaces such as the trading towns along the shores of the Indian Ocean or the Sahara Desert.

Looking at the biographies of the different cowries, we can see that these shells had different meanings and uses as they moved between places and people. In their initial form in the warm waters of the Indian Ocean, the shells were part of a living animal. Once removed from the ocean and the living animal, the cowrie took on a new form as a shell, becoming something similar to what we may call an object or artifact today. Counted, bundled together in a basket or bale, and sent to a market, the biography of a cowrie changed again. It became a commodity, its use and value tied to exchange. This exchange probably took different forms, from gifts to barter, and the value of the cowries fluctuated depending on the context. For example, we see that the value of cowries changed in the late fifteenth century and again in the nineteenth century, as they came to be imported in large quantities into West Africa. In places, they functioned as a currency, and like all currencies, their value could fluctuate.

The four stories above reveal different stages in the biography of cowries as personal possessions; for example, in their use for adornment in West Africa or New York. In this context, the meaning and value of the cowrie may have been associated with beauty or individual identity or perhaps symbolized a certain status of the wearer or connections to a wider community. Can you think of special items of jewelry or personal items of adornment that work in a similar way? For example, if you are wearing a necklace or earrings, what materials are they made of? Where do they come from? Are these items important to you, and if so, why? Are there certain items that you wear that symbolize a shared identity with other people (for example, a school badge)?

We do not always realize how the objects around us—the cloth we wear, our cell phone, or the car we drive—shape our experience of the world and our identity. The four stories above reveal to us how a small object like a cowrie shell was active in making and shaping many aspects of people's lives in the past, from their identity to the networks and communities in which they participated. The exchange of things, as gifts or in formal transactions, creates relationships between people, from communities of traders to groups of users and wearers of things. In

this way, archaeologists use the movement of objects, and their different biographies, to reveal how objects made connections in past societies and what types of connections. This long-term view helps us appreciate how the circulation of things from faraway places also shapes lives and identities today.

Acknowledgements The authors gratefully acknowledge the funding and support from the British Academy via a Newton International Fellowship (NIFBA19\190822) that granted Abigail Moffett a residency at the University of East Anglia for collaboration with Anne Haour. We thank Ann Stahl, Allison Balabuch, and an anonymous reviewer for their helpful comments on our paper.

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit http://creativecommons.org/licenses/by/4.0/.

References

Beaujard, P. (2019). The worlds of the Indian Ocean: Volume 1, From the fourth millennium BCE to the sixth century CE: A global history. Cambridge University Press.

Bianco, B. A., DeCorse, C. R., & Howson, J. (2009). Beads and other adornment. In W. R. Perry, J. Howson, & B. A. Bianco (Eds.), *The Archaeology of the New York African Burial Ground Part I / The New York African Burial Ground: Unearthing the African presence in colonial New York, Volume 2.* (pp. 321-347). Howard University Press and the United States General Services Administration. https://www.gsa.gov/system/files/Vol2-Part1-TheArchaeologyOfTheNYABG-2_Chapter13-Index.pdf

Blake, J. W. (1942). Europeans in West Africa, 1450-1560.

Documents to illustrate the nature and scope of Portuguese enterprise in West Africa, the abortive attempt of Castilians to create an empire there, and the early English voyages to Barbary and Guinea (Vol. 1). Hakluyt.

Forrest, I., & Haour, A. (2018). Trust in long-distance relationships, 1000–1600 CE. Past & Present, 238(suppl 13), 190–213. https://academic.oup.com/past/article/238/suppl_13/190/5230770

Goitein, S. D. (1973). Letters of medieval Jewish traders. Princeton University Press.



- Christie, A., & Haour, A. (2018). The 'lost caravan' of the Ma'den Ijafen revisited: Re-appraising its cargo of cowries. *Journal of African Archaeology*, 16(2), 125–144.
- Haour, A., & Christie, A. (2022). Archaeological investigations of the Maldives in the medieval Islamic period: Ibn Battuta's Island. Routledge/Taylor & Francis.
- Hogendorn, J., & Johnson, M. (2003). *The shell money of the slave trade*. Cambridge University Press.
- Howson, J., Bianco, B. A., & Barto, S. (2009). Documentary evidence on the origin and use of the African Burial Ground. In W. R. Perry, J. Howson, & B. A. Bianco (Eds.), The Archaeology of the New York African Burial Ground Part I / The New York African Burial Ground: Unearthing the African presence in colonial New York, Vol. 2 (pp. 35–66). Howard University Press and the United States General Services Administration. https://www.gsa.gov/system/files/Vol2-Part1-TheArchaeologyOfTheNYABG-2_Chapter1-3_Part2.pdf
- Levtzion, N., & Hopkins, J. F. P. (2000). Corpus of early Arabic sources for West African history. Cambridge University Press.
- MacEachern, S. (2016). Globalization: Contact between West Africa, North Africa and Europe during the European medieval period. In T. Hodos (Ed.), *The Routledge hand-book of archaeology and globalization* (pp. 114–127). Routledge.
- Magnavita, S. (2009). Sahelian crossroads: Some aspects on the Iron Age sites of Kissi, Burkina Faso. In S. Magnavita, L. Koté, P. Breunig, & O. A. Idé (Eds.), Crossroads/Carrefour Sahel: Cultural and technological developments in first millennium BC/AD West Africa (pp. 79–104). Journal of African Archaeology Monograph Series 2 Africa Magna Verlag.
- Magnavita, S. (2015). 1500 Jahre am Mare de Kissi: Eine Fallstudie zur Besiedlungsgeschichte des Sahel von Burkina Faso. Africa Magna Verlag.
- Messier, R. A., & Miller, J. A. (2015). *The last civilized place:* Sijilmasa and its Saharan destiny. University of Texas Press.
- Monod, T. (1969). Le 'Ma'den Ijâfen': Une épave caravanière ancienne dans la Majâbat al-Koubrâ. In Actes du 1er Colloque International d'Archéologie Africaine (pp. 286–320). Institut National Tchadien des Sciences Humaines, Fort Lamy.
- Ogundiran, A. (2002). Of small things remembered: Beads, cowries, and cultural translations of the Atlantic experience in Yorubaland. *International Journal of African His*torical Studies, 35(2-3), 427–457.
- Peacock, D., & Peacock, A. (2008). The Enigma of 'Aydhab: A medieval Islamic port on the Red Sea coast. *International Journal of Nautical Archaeology*, 37(1), 32–48.
- Perry, W. R., Howson, J., & Bianco, B. A. (2009). Summary and conclusions. In W. R. Perry, J. Howson, & B. A. Bianco (Eds.), The archaeology of the New York African Burial Ground Part I / The New York African Burial Ground: Unearthing the African presence in colonial New York, Vol. 2. (pp. 367–374). Howard University Press and the United States General Services Administration. https://www.gsa.gov/system/files/Vol2-Part1-TheArchaeologyOfTheN YABG-2_Chapter13-Index.pdf

- Ryder, A. F. C. (1959). An early Portuguese trading voyage to the Forcados River. *Journal of the Historical Society of Nigeria*, 1(4), 294–321.
- Seetah, K. (Ed.). (2018). Connecting continents: Archaeology and history in the Indian Ocean world. Ohio University Press.
- Sood, G. D. S. (2011). Circulation and exchange in Islamicate Eurasia: A regional approach to the early modern world. *Past and Present*, 212, 113–162.

"Learn More" Resources

- https://www.indianoceanhistory.org The site is intended for middle and high school teachers and students in world history, geography, and cultures, from 90000 BCE onwards. It includes learning tools, videos, maps, and lesson plans.
- https://www.worldhistory.org/article/1344/the-camel-caravansof-the-ancient-sahara/ n.d A page in the World History Encyclopedia, published by a non-profit organization.
- https://youtu.be/CR7KL6KSlx4 A video that uses a combination of NASA satellite data and models to show how and why the monsoon develops over Asia. It clearly explains and uses a vocabulary suited to general audiences, with visually interesting animations of winds, rainfall, etc.
- https://africankingdoms.co.uk This website offers a suite of resources for teachers planning to teach West African history, aimed primarily at UK primary and secondary school teachers but also useful for teachers from other countries.
- https://www.nps.gov/afbg/index.htm. This website gives practical information on visiting the monument commemorating the African Burial Ground, and has a host of resources on the background of the site and the historical and archaeological work there. It includes a lot of useful illustrations. It also offers a further platform to the full research reports, stored on the General Services Administration website: https://www.gsa.gov/about-us/regions/welcometo-the-northeast-caribbean-region-2/about-region-2/afric an-burial-ground/introduction-to-african-burial-groundfinal-reports. First on the list here is the report for general audiences: The New York African Burial Ground: Unearthing the African Presence in Colonial New York. Howard University Press, in Association with the General Services Administration, 2009. More detailed scientific publications can also be downloaded on the same page. The key volume is Volume II, Part I, of *The Archaeol*ogy of the New York African Burial Ground, edited by Warren R. Perry, Jean Howson, and Barbara A. Bianco. It includes Chapter 2, by Howson, J., Bianco, B. A., and Barto, S., Documentary Evidence on the Origin and Use of the African Burial Ground; Chapter 13, by Bianco, B. A., DeCorse, C. R., and Howson, J., Beads and other Adornment; and Chapter 15, by Perry, W. R., Howson, J. and Bianco, B. A., Summary and Conclusions.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

