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Echoes from an Abandoned Drum: Ethnoarchaeological Insights into *Cordyla pinnata* and Spiritual Culture in South-eastern Senegal

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ABSTRACT

This study presents an interdisciplinary investigation into a fragmentary wooden drum found in the abandoned village of Sibi Kili, located in the Niokolo Koba National Park in Senegal. Combining ethnobotanical and ethnoarchaeological research, qualitative ethnographic interviews and wood anatomical analyses, the study offers new insights into the material and spiritual culture of Mandinka communities. Drum-related information emerged through open-ended and follow-up conversations during fieldwork in villages near the park. The drum – historically used as a communicative and ritual instrument – was identified through microscopic analysis and ethnographic evidence as being crafted from *Cordyla pinnata*, a culturally significant and increasingly endangered tree species. The study reveals the material's durability, symbolic resonance, and ecological context. More than a musical object, the drum served as a medium of spiritual, social, and political communication, deeply embedded in rites of passage, community mobilisation, and traditional authority. This case highlights the importance of ephemeral artefacts in African archaeology and calls attention to the preservation of wooden cultural materials as repositories of intangible heritage. The findings affirm the value of integrative research approaches for understanding the long-term human-environment interactions and the cultural biographies of objects.

1. Introduction

The archaeology of contemporary societies in the twentieth and twenty-first centuries can manifest itself in a variety of ways. In the context of rural Africa, the study of traditional communities, whose practices and values often have deep historical roots, provides an important venue for such research. Yet, within the historical study of traditional communities, it is possible to observe universal principles that are applicable to human societies across time and space. One such principle is the profound attachment of people to a place tied to their lives. This phenomenon may present itself in various forms, rooted in social practices, material culture, and environmental interaction.

In the context of West African archaeology, a significant focus has been placed on the emergence of powerful kingdoms, the development of extensive long-distance trade networks, and the profound transformations brought about by the trans-Saharan and Atlantic slave trades (Thiaw, 2008; Thiaw, 2013; Nsangou, 2022; Canós-Donnay, 2024). While these studies have deepened our understanding of political and economic change, less attention has been paid to the everyday lives of rural communities outside major centres of power (Dueppen, 2016). Current archaeological research in Senegal has increased our knowledge of the Iron Age and the early historical periods with regard to ethnic and cultural identity (Gokee and Thiaw, 2018). Recent surveys in Niokolo-Koba National Park (NKNP) have documented extensive lithic industries along the Gambia and Niokolo-Koba rivers (Camara *et al.*, 2023; Ndiaye *et al.*, 2023),

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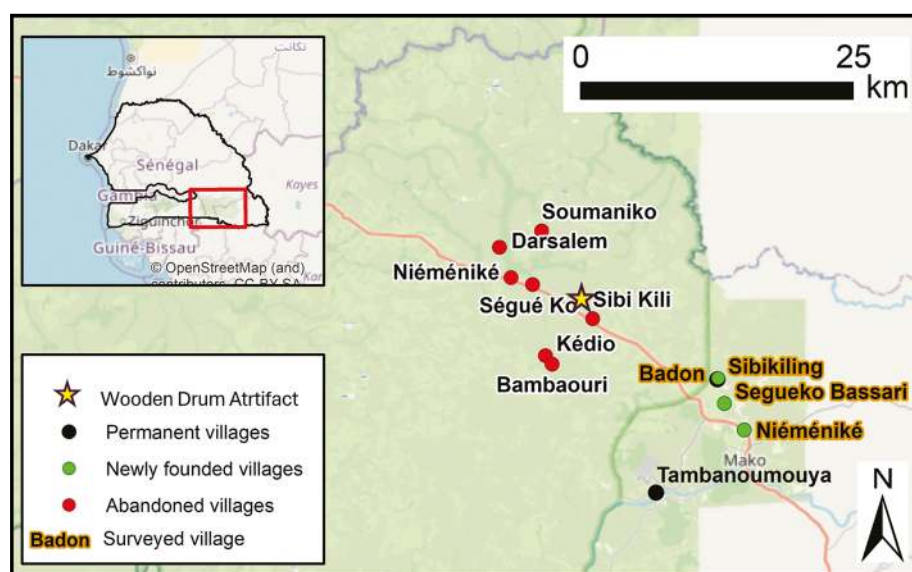


Figure 1. Map showing the location of Senegal and Niokolo Koba National Park, with a detailed view of the abandoned village of Sibi Kili, where the wooden drum artefact was found. Visualisation by J. Bumerl and T. Majerovičová.

and ethnoarchaeological research has focused on the material culture of rural communities, including vernacular architecture and traditional practices among different ethno-linguistic groups (Pelmoine and Mayor, 2020; Debels *et al.*, 2024).

Our interdisciplinary research in the NKNP area has focused on long-term relationships between humans and the surrounding environment, examining how local communities interact with trees and vegetation in both practical and symbolical ways. The project combines methods from ethnoarchaeology, dendrology and ethnobotany (Majerovičová *et al.*, 2022), with recent findings highlighting culturally significant tree species and their uses in local practices (Majerovičová *et al.*, 2025). In addition, the research has also revealed several smaller but meaningful discoveries that shed light on material culture, memory and attachment to place. Among the most remarkable of these is the discovery of a fragmentary wooden drum at the site of the abandoned village of Sibi Kili, located within a protected area of the NKNP (Figure 1). The drum was documented during our first expedition to the site in 2018, approximately 50 years after the village's abandonment.

Across Africa, communities have utilised their knowledge and expertise to establish social norms and devise instruments such as farming tools, utensils, and musical instruments (Richards, 1985; Faye, 2020). In Senegalese societies, the drum has historically played – and continues to play – a crucial role in cultural life. It serves a role both in entertainment (music and dance) and as a medium of communication, particularly before the advent of modern technologies. The drum is intimately linked to rituals, rites of passage, births, fertility, healing, funerals, and various socio-political and religious events (Bokor, 2014; Izu and De Villiers, 2022; Volper, 2023). In the area that today comprises the NKNP and its surroundings, the drum has historically functioned as a medium of communication within and between villages (da Silva, 1991; Camara, 2015; Faho *et al.*, 2024).

Traditional drums are classified according to their size (large, small, long and wide), acoustic resonance, and construction material (calabash, wood, ceramics and metal) (Dieterlen and Ligers, 1963; da Silva, 1991). Our attention focuses on a particular type of large wooden drum, known locally among the Mandinka people as “tantamba” (great drum). The “tantamba” drum is composed of a wooden barrel (“kulugho” in Mandinka language), a drumhead (“gulo”), ropes (“julo”) and vegetable stitches (“kusingho” or “tonto”). The drumhead is typically crafted from the skins of domestic (*e.g.* cow, goat, sheep) or wild animals (*e.g.* antelope, buffalo, zebra, reptile skin) (Smith, 1984; Konin, 2010; Diop *et al.*, 2018). The selection of wood for drum-making reflects both regional ecological conditions and specific material preferences. While species such as *Azelia africana* Sm. ex Pers., *Khaya senegalensis* (Desv.) A.Juss and *Borassus aethiopum* Mart. are commonly used across West Africa due to their availability and desirable physical properties (Diop *et al.*, 2018; Faho *et al.*, 2024), *Cordyla pinnata* (A. Rich.) Milne-Redh. is the preferred choice in the Niokolo-Koba region. This tree is valued for its acoustic properties, termite resistance, and durability. Additional component, such as pegs or stitching materials, are often crafted from strong and flexible woods like *Grewia bicolor* Juss. and *Pterocarpus lucens* Lepr. Ex Guill. & Perr. To prevent cracking during drying, artisans may treat the wood with raw peanut paste or vegetable oil. In response to modernisation and increasing scarcity of traditionally used tree species, some contemporary drum-making practices have begun to incorporate metal parts or alternative materials.

Despite archaeological research in the last decades, direct analyses of wooden objects in West Africa are still rare (Breunig, 1996) due to the specific conditions of their preservation. A marked difference exists between the humid environments of the temperate zone and the arid or tropical zones of Africa, due to contrasting climatic and soil conditions that influence the survival of organic material (Ibrahim *et al.*, 2025). In the temperate zone, wood has been

Figure 2. Discovery of wooden drum fragments in the abandoned village of Sibi Kili (2018). a) Fragments of the drum at the moment of discovery, partially covered by grass; b) preliminary reassembly to access the original shape, with (from left to the right) Bourama Sadiakhou, Waly Bambara, and researcher Idrissa Manka; c) detail of the individual fragments and their possible positioning. Photographs by J. Beneš.



found to be exceptionally well-preserved over millennia in waterlogged or anaerobic conditions, such as those found in peat bogs, lake shores, or floodplains (Schlichterle *et al.*, 2016). The lack of oxygen inhibits microbial and fungal decay, enabling detailed structural and tool-mark analysis of wooden artefacts, from Mesolithic paddles to medieval wells. In contrast, the arid and tropical regions of Africa generally lack such preserving moisture and are often characterised by fluctuating temperatures, desiccation, and intense UV radiation, which degrade organic materials rapidly. Comparable conditions for the preservation of wooden artefacts are less frequent in the African context than in the temperate climate zone, posing an additional challenge for such an analysis. For these reasons, an ethnoarchaeological approach seems particularly important in the context of general knowledge of the material culture of traditional African villages (Ghoneim-Graf, 1978), which can thus be an admittedly indirect but relevant source of knowledge for research on the materiality of the past.

During the 2018 Czech-Senegalese expedition to the NKNP region, we visited both inhabited and abandoned villages, including Sibi Kili abandoned in 1975 due to the park's expansion. During our fieldwork, we met two former residents, Bourama Sadiakhou and Waly Bambara, who had lived in Sibi Kili as children and had been relocated to a newly founded village called Sibikiling, now an autonomous northern neighbourhood of the traditional village of Badon. They guided us through the remains of their former village, showing sacred spaces (“Dialan”), kraals, and traces of dwellings. On the very edge of the abandoned village, they uncovered fragments of a decomposed wooden drum (Figure 2). A small fragment was taken for analyses, with the witnesses consenting after recommending us to leave a traditional offering: a piece of paper bearing a wish, left as a symbolic gesture to appease ancestral spirits and the supernatural realm.

In this study, we use the example of the single find to illustrate its significance to a traditional community and to highlight the value of ethnoarchaeological research.

Therefore, this study aims to:

- 1) characterise the drum's construction and materials;
- 2) explore the social, spiritual and cultural role of the drum within the traditional Mandinka society;
- 3) reflect on the broader significance of wooden artefacts within archaeological research, particularly in African tropical environments where organic materials rarely survive.

2. Materials and methods

2.1 Study area

Niokolo Koba National Park (NKNP), located in south-eastern Senegal, is a UNESCO World Heritage Site renowned for its rich biodiversity and significant conservation efforts. Established in 1954 and expanded in 1969 and 1976, the park encompasses approximately 9,130 square kilometres of diverse ecosystems, including woodland savannahs, semi-arid forests, and extensive gallery forests along the Gambia River (UNESCO World Heritage Centre, 2024; Madsen *et al.*, 1996). The park is home to over 1,500 plant species and serves as a critical refuge for numerous animal species, such as the critically endangered western giant eland, lions, chimpanzees, and various bird species (Horion *et al.*, 2024). Within the park lies the abandoned village of Sibi Kili, where a fragmentary wooden drum was discovered during a field survey in 2018. According to oral tradition, the village was founded in the 13th century by Faring Kipa Sadiakhou, a hunter and healer from Toukoto (in the Mali Empire), during the first major Mandinka migration (Charest, 1969; Lestrangle, 1969; Camara, 2015). He named the village *Sibi Kili* – meaning “one palm tree” in Mandinka – after encountering a single *Borassus aethiopum* Mart. palm while hunting. The settlement was established near a sacred pond that rarely dried up and was used for rituals and sacrifices, and also offered fertile land for cultivation (Charest, 1969; Lestrangle, 1969). As it expanded, the village was fortified to protect against conflict with Fulani groups.

Since 2018, the area around NKNP has been the focus of joint ethnoarchaeological and ethnobotanical research by the Laboratory of Archaeobotany and Paleoecology at the University of South Bohemia and the History Department at Université Cheikh Anta Diop de Dakar. Today, the relocated settlement of Sibikiling, situated nearby, is home to approximately 360 Mandinka residents (20 concessions, 25 households), according to the Senegalese national census from June 2023.

2.2 Archaeological approach to abandoned villages

To further investigate the cultural and environmental contexts of the abandoned villages surrounding NKNP, a multifaceted archaeological approach was employed (Majerovičová *et al.*, 2022). The archaeological study of abandoned traditional African villages often integrates remote sensing, geophysical surveys, and environmental analyses to reconstruct past human activities and settlement patterns. These techniques are invaluable for understanding the spatial organisation of abandoned villages, allowing researchers to infer the function of buildings and the social dynamics of past communities (Reid, 2012; Gokee and Klehm, 2023). Environmental analyses, such as ethnobotany, archaeobotany and sedimentological studies, contribute to the understanding of the ecological context of abandoned settlements. The combination of these methodologies allows for a comprehensive reconstruction of abandoned villages, offering insights into the cultural, economic, and environmental factors that influenced their histories. Such interdisciplinary approaches are essential for preserving and interpreting the archaeological record of human settlement and adaptation across diverse landscapes (French *et al.*, 2009; Mitchell and Lane, 2013; Poledník Mohammadi *et al.*, 2024).

2.3 Wooden artefact analyses

The analysis of wooden artefacts in archaeological contexts requires careful methodological consideration due to the inherent fragility and transience of wood in the taphonomic process. The survival of such materials is primarily dependent on their resistance to decay, as well as a broader set of factors influencing their potential for “archaeologisation” (Beneš, 1989). Given these limitations, a multidisciplinary approach is essential in the study of archaeological wood, incorporating conservation science, microscopy, dendrochronology, and contextual analysis (Newsom, 2022). Preservation of woody artefacts is highly contingent upon environmental conditions (MacLeod, 2025). Microscopic techniques, including digital microscopy, are applied to determine wood species and identify tool marks, allowing for reconstructions of manufacturing processes and usage.

For the specific identification of the drum fragment, the method of xylotomic microscopy was used. The fragment was broken under the stereomicroscope using a razor blade and a scalpel. The created transverse, tangential and radial surfaces of the wood fragment were documented on a Keyence 7000 VHX digital microscope by synthesizing 5–50 partial images, which were composited by Keyence SW into a sharp 3D image. The anatomical structures found were

then identified using the wood anatomical atlas (Neumann *et al.*, 2000), alternatively using the online InsideWood key (Wheeler, 2011) and the LAPE USB reference collection.

2.4 Ethnographic and ethnobotanical observations

Our approach builds on long-term ethnoarchaeological and ethnobotanical research conducted between 2018 and 2025 in seven villages near the NKNP. During this fieldwork, structured interviews were conducted with 63 informants from Mandinka, Fulani, Bassari, and Jakhanke communities focused on plant use and spatial distribution (Majerovičová *et al.*, 2025) and on ritual and traditional beliefs and practices (Manka *et al.*, 2025, submitted). In addition to these interviews, further ethnographic information was collected during repeated visits to local villages through open and semi-structured conversations with community members. The drum-related data were not part of the original ethnobotanical questionnaire. Instead, they emerged through follow-up questions and informal discussion, especially when topics such as sacred trees, rituals, cultural events or village histories arose. These interviews were not designed for quantitative analysis, but provide valuable qualitative insight into the cultural and spiritual significance of drums as expressions of community identity and continuity. This flexible ethnographic approach complements previous quantitative findings and allows a deeper exploration of how material culture, memory, and the environment remain interwoven in displaced communities.

All research activities were conducted with the approval and research permits of the Senegalese Ministry of Environment and Nature Protection and the National Parks Directorate. Interviews were carried out with the free and informed consent of all participants, and ethical considerations were guided by the Code of Ethics of the University of South Bohemia (R432) and the International Society of Ethnobiology (ISE, 2006).

3. Results and discussion

3.1 Wooden drum artefact

The torso of the drum was preserved in the field in four pieces. Two fragments measured between 15 and 25 centimetres in length, while the remaining two pieces exhibited dimensions of approximately 10 by 15 centimetres. The thickness of the preserved wood was measured to be between 8 and 14 millimetres. The artefact’s upper diameter was approximately 40 centimetres, tapering downward. The height of the artefact could not be determined. An important distinguishing feature of a wooden drum is the presence of tension holes, used to fix the wooden pegs that hold the percussion membrane. These holes were clearly visible on the identified drum torso (Figure 3).

The anatomical determination of the wooden fragment was conducted at LAPE USB in 2023. The wood was identified as *Cordyla pinnata* (Figure 4), a species commonly used for drum manufacture, as well as for producing mortars

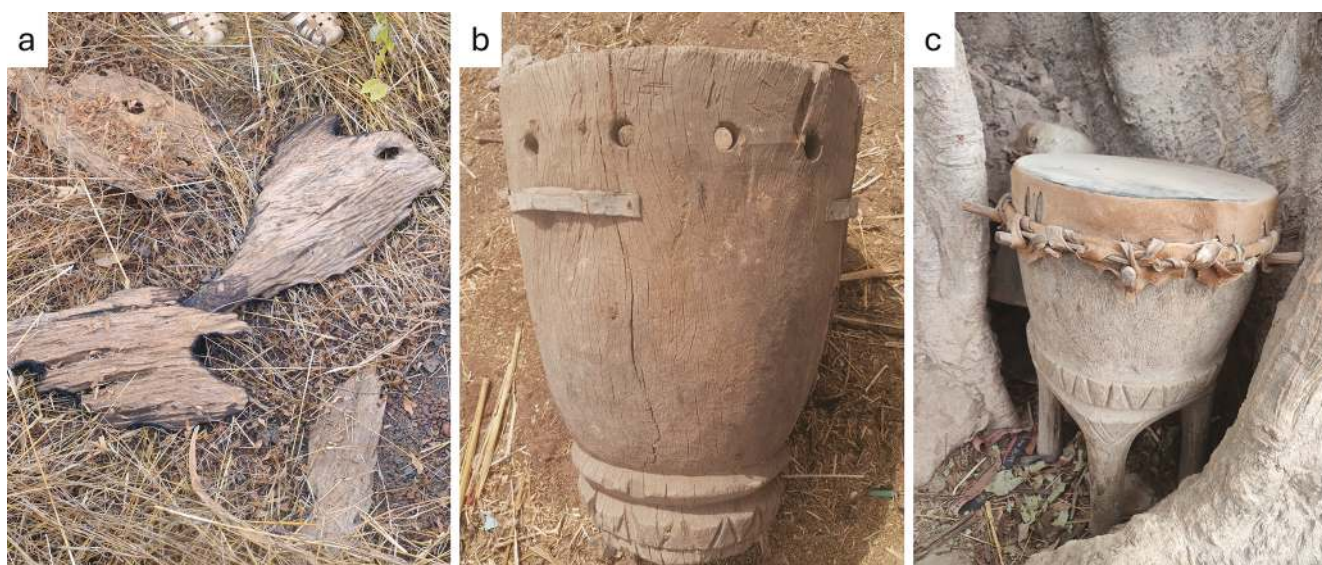


Figure 3. Drum shape and construction features. a) Fragment of the drum torso with visible tension holes, discovered in Sibi Kili in 2018; b) a complete drum showing the use of tension holes for membrane attachment, documented in the village of Dawady; c) an abandoned drum embedded in the adventitious roots of *Ceiba pentandra* in Badon, 2025. Photographs by T. Majerovičová (a), I. Manka (b), and J. Beneš (c).

that share a very similar shape to the mentioned type of drum (Figure 5). The drum's barrel made from *Cordyla pinnata* can be used for about 15–20 years or more before being abandoned. Once the drum is no longer in use, it is traditionally kept by a griot (a hereditary musician and oral historian; see more below), a chief, or occasionally placed in the public space. Importantly, the wood is not repurposed as firewood, as it is considered sacred. The identification of the wood fragment in an archaeological context as drum barrel wood was facilitated by the presence of small holes on the edges, which allowed the drumhead to be attached to the barrel using wooden pegs or stitches. This determination was

further supported by the direct testimony of an informant and an indigenous resident of the abandoned village.

3.2 Beyond the drum: The broader ethnobotanical role of *Cordyla pinnata*

Cordyla pinnata is a large tree typically reaching a height of 15–20 metres (Figure 6a) and belongs to the Fabaceae family. It occurs in Sudano-Guinean savannahs and dry forests (Kerharo and Adam, 1974), where average annual rainfall can exceed 1000 mm. The species is relatively scarce and is known for its diverse uses, including for human consumption, animal fodder, firewood, construction

Figure 4. Microphotographs of the drum wood. Images were taken on a Keyence VHX 7000 digital microscope. a) Transversal section, b) tangential section, c-d) radial section. Different magnifications are indicated by scale bars. Photographs by J. Beneš and I. Manka (a-d).

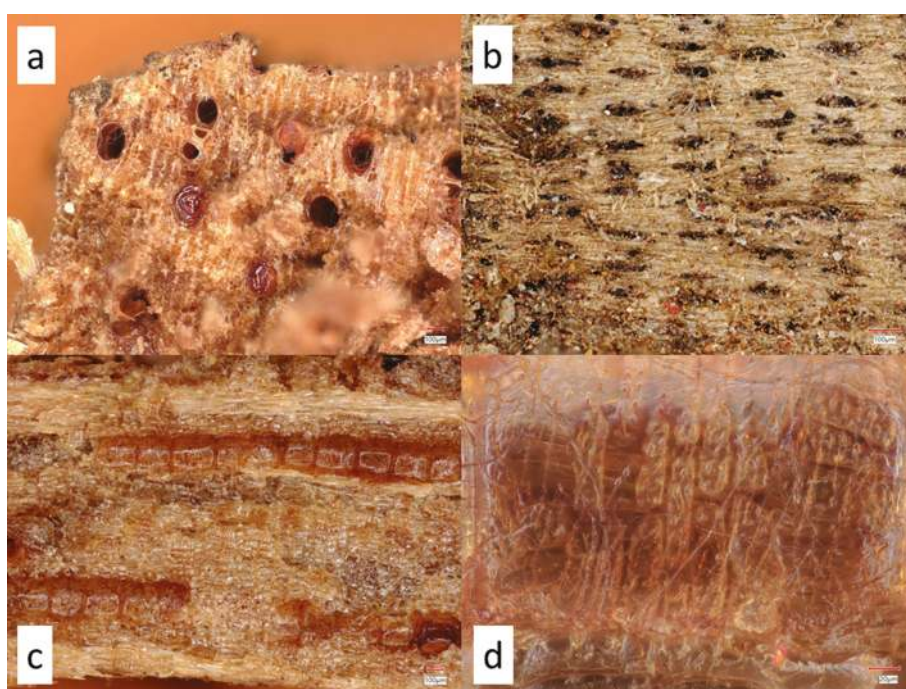




Figure 5. a) Traditional drum used in ritual contexts; b) Inner view of the drum showing a carved sound hole to enhance resonance; c) Newly crafted wooden mortar; d) Well-used mortar in the village of Wassadou, north-west of Niokolo-Koba National Park; e) Two women pounding pearl millet into flour using a mortar crafted from *Cordyla pinnata* and pestles made by *Combretum nigricans* Lepr. ex Guill. & Perr. Photographs by I. Manka (a–d) and J. Beneš (e).

material, crafts, and traditional medicine (Diop *et al.*, 2011; Gning *et al.*, 2013; Diatta *et al.*, 2016; Dieng *et al.*, 2019). Ethnobotanical analyses conducted in the Niokolo-Koba National Park area (Majerovičová *et al.*, 2025) identify *Cordyla pinnata* as one of the ten most frequently mentioned and utilised species collected around villages and in the park, particularly for its edible fruits and usable timber. The fruit is spherical (Figure 6b), sweet in taste (reminiscent of mango) and typically ripens around May to June (Malgras, 1992; Sinjushin, 2018).

This species, often referred to as the wild mango tree, plays a significant role in rural ecosystems, especially during times of food scarcity (Diarra *et al.*, 2016; Dieng *et al.*, 2019). It is worth acknowledging the pivotal role that this species plays in the diet of local populations. The immature green fruits of the plant are harvested, peeled, dried and stored in bags for later use as ingredients, vegetable substitutes, or dietary supplements prior to crop harvest or during food shortages (Diarra *et al.*, 2016; Diatta *et al.*, 2016). In some regions of Senegal, such as Saloum, the fruit is colloquially (in Wolof language) referred to as “yapou saloum” or “Saloum meat” and is commonly sold in the traditional markets (“lumo”) (Ndiaye *et al.*, 2017).

Cordyla pinnata is a landmark plant among the Mandinka (Larrue, 2006). It is often preserved during the clearing

of agricultural land (“kena” in Mandinka language) due to its nutritional, phenological, protective, fertilising and medicinal properties (Larrue, 2006; Diop *et al.*, 2011; Samba, 2012; Diatta *et al.*, 2016). During the rainy season (“samato”), farmers (“senelalu”) harvest the fruits, which are either grilled or consumed fresh to stave off hunger before the next meal. The fresh leaves are used in soups or as cattle fodder (Diarra *et al.*, 2016; Diatta *et al.*, 2016). The bark, roots and leaves of the plant are frequently used in the form of infusions, macerations and decoctions to treat a variety of human and livestock ailments, including, but not limited to, stomach-related illnesses, parasites, anorexia, weight loss, urinary and digestive tract infections, liver disease, oedema and haemorrhoids (Malgras, 1992; Dieng *et al.*, 2016; Dieng *et al.*, 2019). Moreover, according to local knowledge, its leaves and bark are fire-roasted and ground into a powder used in the treatment of skin burns.

The wood is utilised for a variety of applications, including posts, poles, fences, framing, mortars, pestles, drums, tool handles, chairs, beds, wardrobes, doors and other furniture. Given the significance of this plant in terms of its socio-cultural value, it faces considerable threats and pressures from human activity. It has been classified as one of seventeen partially protected species by the Senegalese forestry code since 1998 (MEPN, 1999) and is facing numerous

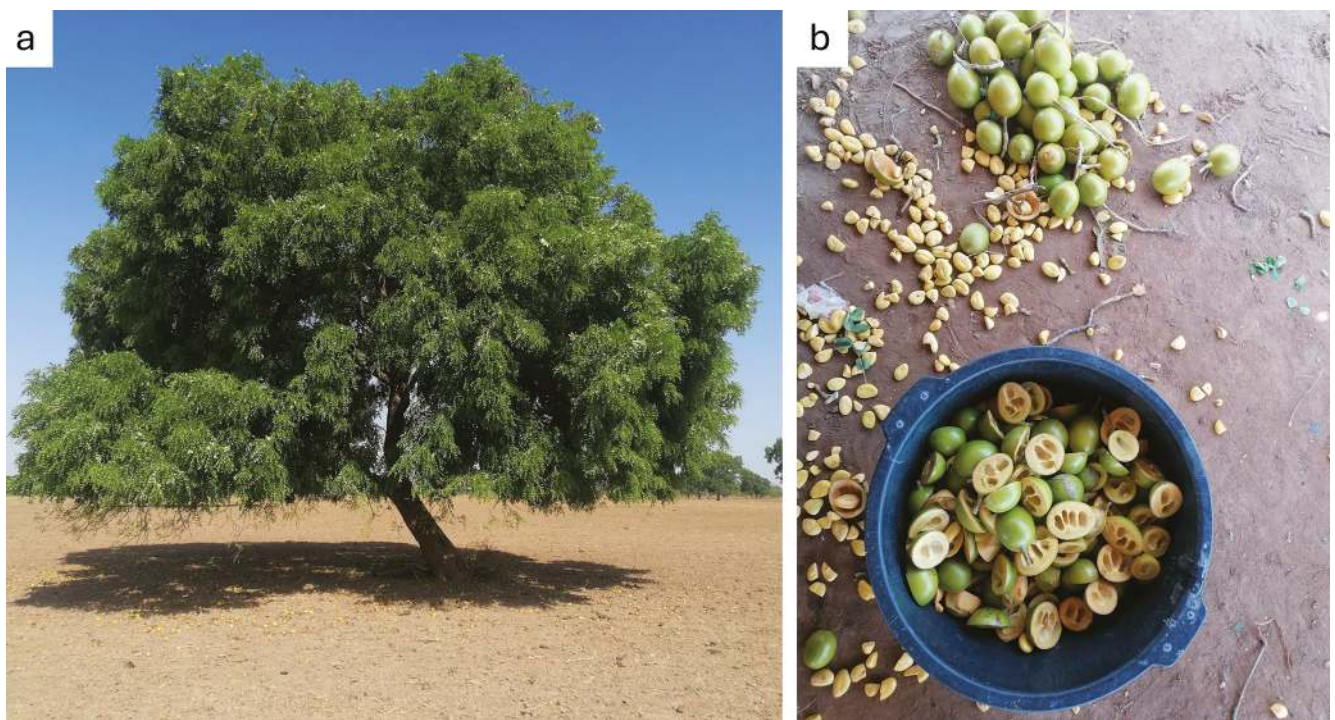


Figure 6. a) *Cordyla pinnata* tree growing in an open field. b) Mature, spherical fruits of *Cordyla pinnata*. Photographs by I. Manka.

threats that are leading to its gradual disappearance (Solly *et al.*, 2020). Furthermore, the superior quality of its wood makes it one of the most widely used and preferred plants for carpentry and construction. Consequently, it is subject to substantial looting and destruction by local populations, often for commercial purposes in other regions (Solly *et al.*, 2020; Balde *et al.*, 2021).

3.3 Cultural and social roles of the drum

3.3.1 Ceremonial and communal functions

The drum was used as a tool for the collective summons of the entire village population. Upon the sound of this instrument being played, all inhabitants would gather in the village square to ascertain the situation (Figure 7). It was typically used to announce the arrival of local authorities, chiefs and rulers (Konin, 2010). This practice entailed the dissemination of information and the mobilisation of the community to extend a warm welcome and deliver ceremonial praises. Upon assuming the role of chief, the significant drum is employed in several key ways. Firstly, it accompanies the chief in a procession, symbolising their enthronement. Secondly, it is used to commemorate the occasion, thus emphasising the significance of the event.

In the event of a death, the village drum is used to announce the news to the community (Konin, 2010; Diop *et al.*, 2018). This approach ensures that individuals residing in neighbouring villages, in rural areas, or working in fields are promptly informed and can attend the funeral. Based on our own ethnographic research, the drum also serves as an acoustic guide when a person becomes disoriented in forested areas. Its rhythmic resonance is deliberately used to

initiate a search and rescue operation, while simultaneously helping the lost individual navigate back to safety. Once the person is found, the drum is again used to inform others of the discovery. Additionally, the drum plays a crucial role in alerting the village to the presence of enemy activity, thereby prompting defensive measures. Thanks to its strong resonant properties, the drum's sound carries over long distances, effectively mobilising nearby residents and assisting coordination during emergencies.

The drum plays a vital role in a variety of important events, including circumcisions, initiation rites, harvest festivals, fertility rituals (for women and for the soil), weddings, masked ceremonies, departures for the hunting season, funerals, fire emergencies and traditional wrestling matches (Dieterlen and Ligers, 1963; Smith, 1984; da Silva, 1991; Camara, 2015). In certain villages, once the date for circumcision has been determined by the village elders, a large drum is beaten in the early morning hours to the east of the village, a little further from the houses or in the sacred forest where the traditional circumcision ceremony is held. The percussive resonance of this drum reverberates profoundly, galvanising and encouraging the initiates, formally marking the beginning of the circumcision ceremony. Following the drum signal, all parents are required to present their children to the individual (“sirffe” or “ghamano” in Mandinka), who performs the operation, otherwise known as the circumcision master. Ethnographic evidence from our fieldwork further highlights the importance of the drum's sound in these ceremonial contexts as a powerful social and symbolic tool.

The practice is also observed among the Bassari during initiation ceremonies known as “Nitie”. These traditional rites mark the transition of young people into adulthood,



Figure 7. a) Designated individuals performing a drum ritual at the base of a sacred tree of *Ceiba pentandra* (L.) Gaertn. in the central square of the traditional village of Bagnonba. b) Participation of women singing and dancing during a drumming ceremony in the village of Djibonker. c–d) Drummer performing during the harvest festival “Nionene” in the village of Tomboroncoto, accompanied by a traditional Mandinka mask known as “sika” made from leaves of *Daniellia oliveri* (Rolfe) Hutch. & Dalziel. In African tradition, a “mask” refers to the wearer, dressed in full-body attire made from organic materials like plant and animal elements, playing a vital role in spiritual, social, and ritual life (Van Beek and Leyten, 2023; Manka *et al.*, 2025, submitted). Photographs by I. Manka.

preparing them for marriage and social responsibilities. In addition to marking life transitions, the drum facilitates communication with the supernatural world, including ancestors, spirits, the deceased, and djinns (“genies”). Its use at funerals serves both to honour the dead and to console the bereaved families. Similar studies in other African countries, notably the Democratic Republic of Congo, Burkina Faso and Côte d’Ivoire, have demonstrated the use of drums across a wide range of events and purposes. These include funerals, weddings, births, the enthronement of chiefs, warnings of enemy attacks, and communication with the inhabitants of neighbouring villages (Zemp, 1976; da Silva, 1991; Konin, 2010; Faho *et al.*, 2024).

During wedding ceremonies and traditional wrestling matches, both the large drum and the small tam-tam are used to inspire and celebrate the new bride or wrestlers (Bonhomme, 2020). According to local tradition, “lamb” (traditional wrestling) is known as the “sport de chez nous” and holds a dominant position within the Senegalese sports scene. The term “lamb” is thought to derive from the Mandinka words “lambo”, “lambuba” or “tantamba”, all referring to a large drum. This linguistic link likely reflects the central role of the drum in organising and energising wrestling events among the Mandinka, Wolof, and Fulani people.

Beyond sporting contexts, drums are also used during collective work sessions. In such cases, a landowner or

traditional chief may request the participation of younger generations in communal labour, offering remuneration either in kind (*e.g.* a bull, ram, billy goat, hearty meal, or local beer, *etc.*) or as a monetary sum. Drumming sessions serve as occasions for gathering, fostering friendship, solidarity and communion among local populations. The rhythms and their corresponding codes reflect distinct cultural and historical influences (McDaniel, 2002). Each event has its own unique code, and only individuals who have been initiated into the tradition are able to interpret the communication signals used to transmit specific messages. To illustrate this point, the rhythm used during a mask unveiling differs markedly from that played during a funeral ceremony or when signalling that someone has wandered off into the forest (da Silva, 1991).

3.3.2 Griots and custodians of memory

The role of the drum in the preservation and safeguarding of history within traditional society is of profound cultural significance. Griots (“dialo” in Mandinka language), belonging to the “Niamakala” cast community, play a central role in this process. Through their vocal performances, accompanied by the resonant percussion of the drum, griots capture the audience’s attention and cultivate a deeper appreciation for communal history. In traditional Mandinka society, drumming is an activity exclusively reserved for griots, who are regarded as the custodians of the memory and history of specific lineages (Niane, 1989; Camara, 2019).



The responsibility of transmitting family histories across generations rests with them. Griots are held in high esteem, and their testimonies are often of considerable importance.

Traditionally, if a noble person (known as a “horo”) plays a percussive instrument in the presence of a “Niamakala” (such as a griot), it is customary for them to pay a fine, either in cash or in-kind, and may include items such as a lump sum, clothing, or footwear. Failure to do so grants the griot the right to claim an item of their choice from the offender’s home. This custom is governed by traditional law. It is a common practice for children and those lacking familiarity with the tradition to be prohibited from making physical contact with the substantial village drum. As evidenced by Smith (1984) among the Bedik, the playing of some specific drums is a matter of mystery or secrecy, and women and the uninitiated are not allowed to see them. This instrument is regarded with profound esteem by the community (Gourlay, 2022), the drum being typically used only on special ceremonial occasions, such as circumcisions, initiation rites, mask performances, and similar events.

The preservation and protection of this traditional instrument is generally the responsibility of griots or customary chiefs. Drums may be kept in culturally meaningful places, including the griot’s home, the traditional chief’s residence, the village square, and sometimes even in sacred forests, for example among the Bassari. In many cases, before playing the drum or during major ceremonial events, drummers or griots are required to perform specific rituals, including offerings, sacrifices and incantations, intended to seek support from the supernatural realm and ensure the success of the occasion. This practice reflects the widespread belief among local populations that drums are closely linked to spirits, ancestors or demons (Izu and De Villiers, 2022). Drummers are frequently designated initiates who possess knowledge that transcends the natural world, sometimes offering predictions or recommending particular rituals (Konin, 2010, Issiaka, 2018, Izu and De Villiers, 2022).

3.3.3 Wood collection and drum making

The collection of wood is undertaken by griots themselves or by other members of the “Niamakala” community. As Camara (2019) asserts, as well as the griots, these individuals include woodcutters (“laobo”), blacksmiths (“noumo”), and shoemakers (“karanke”). In certain cases, this task is also performed by the descendants of captives or “slaves” (“dion”), or by younger individuals not yet fully integrated into the village community. In rural areas, the cutting or carving of the wood for drum-making was traditionally reserved for members of the woodcutter caste, while the actual crafting of the drum was the exclusive responsibility of the griots. It is noteworthy that these two steps are frequently preceded by incantations or prayers. Members of the noble class rarely participated in this process, except for occasional contributions to wood collection. However, it was not uncommon for nobles to provide financial support, offering a lump sum to the drum maker, who sometimes undertook the work pro bono.

In contemporary times, characterised by the spread of modern practices, the craft is increasingly being performed by individuals trained in the art of woodworking, especially in urban areas where drum production has developed into a commercial activity. At the same time, the role of drums in everyday village life appears to be shifting. According to local testimonies, urbanisation, widespread use of mobile phones and digital media, and the influence of monotheistic religions may be contributing to a reduced emphasis on traditional drumming practices in some communities (Faho *et al.*, 2024). In these contexts, there are concerns about the limited interest among younger generations in maintaining drumming traditions, which could pose challenges for the intergenerational transmission of knowledge.

4. Conclusion

The archaeological and ethnographic study of the drum fragment recovered from the abandoned village of Sibi Kili in south-eastern Senegal provides compelling insights into the enduring role of material culture in traditional societies. The discovery and analysis of this wooden artefact demonstrate how tangible objects, even in fragmented form, carry rich social, symbolic, and ecological information. Serving both as a functional object and a cultural symbol, the drum highlights the interconnectedness of musical traditions, social organisation, and spiritual beliefs among the Mandinka and broader Senegalese communities.

Through a multidisciplinary approach that combined ethnoarchaeology, xylotomy, and ethnobotany, the drum fragment was identified as *Cordyla pinnata*, a species notable for its acoustic properties, cultural significance, and ecological vulnerability. The deliberate choice of this wood underscores the depth of local botanical knowledge and the material preferences embedded in cultural memory. The study confirms the hypothesis that the selection of drum-making materials is neither incidental nor arbitrary but is deeply rooted in environmental adaptation and cultural transmission.

The drum’s functions as a medium of communication, a marker of identity, and a vehicle for ceremonial expression reveal its centrality in maintaining the cohesion and continuity of traditional society. Oral traditions, preserved and transmitted through the performances of griots, confirm the drum’s integral role in ritual life, social hierarchy, and historical consciousness. Moreover, the spiritual protocols surrounding the drum’s use and preservation reflect the sacred dimensions ascribed to material culture in Mandinka cosmology.

Finally, this study contributes to broader discussions concerning the ‘archaeologisation’ of perishable materials. It calls for greater attention to wooden artefacts and their interpretive potential within African archaeology. The case of the Sibi Kili drum serves as a rare and instructive example of how ephemeral objects can survive, both physically and culturally, through community memory, spiritual praxis, and

landscape attachment. As such, it demonstrates the value of integrative research methodologies in reconstructing the social lives of things and the enduring agency of cultural materials.

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