

# “Reimagining Sacred Space: The Repurposing of Beer Bottles in Mosque Architecture and Symbolism in Ghana”

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## Introduction

Before Muslim traders and clerics arrived in northern Ghana, including the Wa area, the local inhabitants followed a pluralistic belief system (Wilks, 1989; Goody, 1954). Their social and political system revolved around various spirits of natural phenomena, ancestral veneration, and communal and individual deities such as earth gods, river gods, and dwarfs (Insoll, 2016; Saako *et al.*, 2014; Daanaa, 1992). Despite the widespread conversion to Islam and the adoption of new cultural practices and doctrines based on Islamic jurisprudence or *sharia* that govern all aspects of Muslim lives (Insoll, 2003; Levtzion & Pouwels, 2000), the indigenous religious system continues to exert a profound influence on the lives of the people and society (Tonah, 2006). One significant impact of Islam in northern Ghana was its close association with urban centers and, more specifically, with the ruling class (Levtzion & Pouwels, 2000; Goody, 1954). Chiefs in the various kingdoms such as Gonja, Dagbon, Mamprugu, and Wa, played intermediary roles and became agents of Islamic influence in the region and other parts of Ghana (Weiss, 2008).

In the Waala State, mosques were built in the Sudanic style for the five daily and Friday congregational worship in Wa and other towns and villages under its control (Saako, 2023; Nuolabong, 2013). Stevens (1968) states that the “Waala imamate sanctioned all the mosques built outside Wa” (p. 40). A Lobi man who converted to Islam after encountering Allah during his hunting expedition constructed Nyouli-Paani Mosque, located on the outskirts of the Wa municipality. “The plan of the mosque was revealed to him. He, thus, built the mosque based on the revealed plan of Allah” (p. 42). The mosque made many of the Lobi ethnolinguistic groups embrace Islam. According to a congregant, “the Nyoule-paani Mosque has undergone renovations since its construction and is only used for the five daily prayers. It also functions as a Qur’anic school [also known in Ghana as Mankranta or Zongo education] for children, where they learn the recitation of the Qur’an and receive basic Islamic education” (*Personal Communication, August 21, 2021*). This study examines the

unconventional integration of beer bottles into the architectural features of the Nyoule-Paani Mosque and explores whether syncretism emerges as a consequence of this process or it represents a form of material and symbolic adaptation.

It may be argued that cultural syncretism and religious syncretism are deeply intertwined, particularly in Africa, as culture and religion are inherently interconnected systems that continually influence and shape each other. In many African societies, traditional beliefs, practices, and social customs coexist and merge with introduced religious frameworks, resulting in hybrid cultural-religious identities. This blending often occurs through historical processes such as trade, migration, colonization, and local reinterpretation, which facilitate the integration of diverse cultural elements into religious practices and vice versa (Gyekye, 1997). Before Gyekye, Mbiti (1969) explored how indigenous African religions coexist and interact with Christianity and Islam, often leading to syncretic practices. For example, indigenous rituals and symbols may be incorporated into Islamic or Christian worship, creating a unique expression of faith that reflects local histories, social realities, and cultural values. Such syncretism demonstrates that religion in Africa is not merely a set of doctrinal beliefs, but a dynamic cultural phenomenon that adapts and evolves through ongoing interactions with indigenous traditions. Consequently, understanding African religious landscapes requires recognizing how cultural and religious elements are mutually constitutive, reinforcing notions of identity, social cohesion, and resilience within diverse communities. To advance this argument, the paper is structured into seven major interconnected sections: Problem Statement, Objectives and Questions, Theoretical Framework, Delineation of Key Terms; Methodology, Analysis, and Conclusion.

## Problem Statement

The research problem this article addresses is twofold. Firstly, the presence of beer bottles on the top of the Nyoule-Paani Mosque presents an intriguing challenge to conventional understandings of Islamic religious practices and architectural norms. Islamic doctrine requires mosques to have specific architectural features and prohibits the consumption and association with intoxicants. The Qur'an (2:219, 5:90-91) and the Hadith (Sahih Bukhari 7:83; Sunan Abi Dawud 36:4769) explicitly forbid the consumption of intoxicants and associate them with disbelief, and emphasize the importance of adhering to traditional Islamic practices, including architectural features for mosques. The Hadith further emphasizes the importance of maintaining a clean and pure environment for prayer and worship. From this perspective, the use of beer bottles as part of the mosque architectural features or decorative motifs is seen as contrary to Islamic teachings, which prohibit the consumption of alcohol:

“They ask you about wine and gambling. Say, ‘In them is great sin and [yet, some] benefit for people. But their sin is greater than their benefit’” (Qur’an 2:219, *Surah Al-Baqarah*) and “O you who have believed, indeed, intoxicants, gambling, [sacrificing on] stone altars [to other than Allah], and divining arrows are, but defilement from the work of Satan, so avoid it that you may be successful” (Qur’an 5:90-91, *Surah Al-Mā'idah*).

Hassan (2013) affirms that the Islamic concept of *Khair* influences social and cultural norms, including the prohibition of intoxicants and the importance of maintaining a clean and pure environment. Yet, the Nyoule-Paani Mosque exhibits a distinctive integration of beer bottles as decorative and symbolic elements. Secondly, how the phenomenon raises critical questions about the processes of religious adaptation, cultural negotiation, and material symbolism within local contexts where Islamic practices intersect with indigenous traditions (Bay, 2011; Tschumi, 2009). Understanding how such artefacts function within the religious landscape is essential for exploring the fluidity of religious expression and the influence of historical trade routes, cultural exchanges, and local socio-political factors on Islamic architecture and ritual.

## Objectives and Questions

This article seeks to investigate the significance of beer bottles in the architectural elements of the Nyoule-Paani Mosque; to explore the processes and cultural negotiations involved in utilizing beer bottles within Islamic architectural practices in Ghana; and to assess whether there are broader social, historical, and intercultural contexts that influence the use of these bottles. In order to achieve these objectives, we pose the following questions: what meanings do beer bottles hold within the architectural elements of the Nyoule-Paani Mosque, and how do they challenge or reinforce traditional Islamic iconography? How do community members perceive and interpret the incorporation of beer bottles into the Mosque’s architecture? In what ways does the use of beer bottles reflect broader historical and intercultural exchanges, and influence the social and religious identity of the community?

The study’s significance lies in its contribution to understanding the intersection of cultural traditions and religious practices in West Africa, offering insights into how faith and heritage coexist and shape community identity (Peel, 2016; Insoll, 2003). The study stresses how indigenous material culture influences Islamic expression and architectural identity. It offers insights into cultural syncretism, local adaptation, and community perceptions, enriching broader discussions on cultural diversity within Islamic contexts. Also, it provides valuable documentation of unique architectural features, informing preservation efforts and fostering greater appreciation of the dynamic cultural landscapes shaping religious spaces in the region.

## Conceptual Framework and Literature Review

The article establishes a theoretical framework that synthesizes Pye's (1971) notion of syncretism as a "coexistence of elements of diverse origin interacting ambiguously" (p. 21) and Law *et al.*'s (2014) idea, which suggests that "syncretism is a more or less messy process that combines or perhaps secures the temporary coexistence of practices and doctrines from a variety of dissimilar backgrounds" (p. 176). Consequently, "the final affirmation turns into a variation of elements that fit together after all" (p. 178).

Pye (1971) further opines that coexistence retains the visibility of the origin of different practices or elements. In other words, religious syncretism is blending two or more religious belief systems into a new one from unrelated traditions. Gilson (1973) expands on Pye's ideas, asserting that religious syncretism is "[...] merging or coexistence of different religious beliefs, practices, and doctrines. It often manifests when adherents integrate elements from multiple religions, creating new religious expressions or practices that reflect a combination of beliefs" (p. 28). The key notions in Gilson's position relevant to this article are the "manifestation of religious expressions or practices that reflect a combination of beliefs."

Other scholars who contributed to the ideas of syncretism include Lambropoulos (2001), and Ferdinando (1995). Lambropoulos notes that syncretism is "neither good nor bad" (p. 40). Ferdinando (1995) states that "syncretism is elusive and can refer to the substitution or modification of the central elements of religion by practices introduced from elsewhere" (p. 22). This aligns with Pye's concept concerning "ambiguity of interactivity of elements of diverse origin."

In Ghana, this phenomenon is evident in how traditional African religions or indigenous beliefs are integrated with Christianity, such as the veneration of Catholic saints, or with Islamic practices. For instance, some churches in Ghana incorporate traditional elements like drumming or ancestral reverence into Christian worship, exemplified by the use of symbols like the "akuma" (sword) in church settings or performing libations to ancestors on significant occasions.

Hiskett (1984) notes that Muslims of northern Ghana "consulted with both shrine priests and Muslim Imams, requiring the traditional ritual from the former and Muslim prayers from the latter" (p. 121). Trimingham (1966) describes this as "*spiritual dualism*" (p. 67), while Goody (1968) explains it as a "mix" religion (p. 204). The Muslims in Wa adopted local customs, facilitating the integration of Islam with indigenous culture. This syncretism extends to mosque architecture, where cultural forms blend with Islamic principles.

An equally important concept in the article is "cultural syncretism." This refers to the blending and fusion of different cultural elements, such as customs, traditions, languages, and social practices, resulting in a new,

hybrid culture. This process often occurs through interaction, trade, colonization, or migration, leading to the emergence of shared cultural identities that incorporate diverse influences (Kraidy, 2005). In terms of scope, cultural syncretism encompasses broader social and cultural elements; religious syncretism is confined to religious beliefs and practices. This explains that cultural syncretism manifests in language, music, dress, and social customs; whereas religious syncretism appears in worship practices, rituals, and theological beliefs. Also, cultural syncretism shapes societal identity and preserves cultural heritage, but religious syncretism impacts spiritual beliefs and devotional customs. As previously discussed, these concepts are closely linked, particularly within the African context.

In the Nyoule-Paani Mosque, it can be argued that unconventional materials like recycled glass and beer bottles are used in the walls and on the roof of the mosque's architecture because of their greater durability compared to traditional pots. However, the widespread presence of beer bottles, indicating alcohol consumption, may influence their preference over traditional pots. This has been corroborated by some respondents featured in the analysis section. Also, in this section, we examined both Pye (1971) and Law *et al.*'s (2014) perspectives in relation to the Nyoule-Paani Mosque. The views of Gilson (1973) and Lambropoulos (2001) and the idea of "cultural syncretism" are also taken into account.

### Delineation of Key Terms

We would like to clarify some of the key concepts that are central to this study to enhance the comprehension of the argument whenever they are referenced. These include, local architectural adaptation, sacred space, repurposing, material culture, and religious symbolism.

*Local architectural adaptation:* This refers to the process by which architectural designs and building techniques evolve in response to local environmental conditions, cultural practices, available materials, and social needs. The approach ensures that structures are sustainable, functional, and culturally relevant within their specific context (Oliver & Atthea, 2004). This may be said about the Nyoule-Paani Mosque. In many regions, particularly in Africa, traditional architecture demonstrates a profound understanding of local climate and resources, resulting in innovative and culturally significant buildings. For example, in West Africa, the use of mud bricks and thatched roofs is a direct adaptation to the hot, dry climate, providing natural cooling and insulation. Similarly, the design of courtyard houses in North Africa reflects social and environmental considerations, such as privacy and shade, which are crucial in arid environments (Elshaer & Abbas, 2017). These adaptations highlight the importance of integrating local knowledge into architectural practices to create sustainable and culturally meaningful structures.

*Sacred space:* Physical locations that hold spiritual, religious, or cultural significance for a particular community or group represent a sacred space. These spaces are often considered to be imbued with divine presence, spiritual power, or historical importance, making them central to religious practices, rituals, and communal identity. A mosque such as the Nyoule-Paani Mosque fits this delineation. The concept emphasizes that certain sites transcend their physical attributes to become symbols of faith, memory, and cultural identity (Tuan, 1977). For example, in many African societies, sites such as shrines, certain mountains, or specific trees are regarded as sacred spaces where rituals are performed, ancestors are venerated, and spiritual encounters occur (Odora-Hoppers, 2014; Eliade, 1957).

*Repurposing:* This refers to the process of taking an existing object, resource, or idea and modifying or adapting it for a new use or purpose. This practice is common in various fields, including sustainability, technology and art. For example, in sustainability, repurposing involves transforming waste materials into new products (Snyder & Moore, 2018). Lyle (1994) emphasizes that repurposing encourages innovative reuse of materials to minimise waste. This could be said about the beer bottles embedded in the Nyoule-Paani Mosque.

*Material culture:* Material culture signifies the physical objects, artefacts, and tangible items that are produced, used, and valued within a society. These objects, ranging from tools, clothing, and artwork to architecture, serve as expressions of cultural identity, social structures, technological advancement, and historical continuity (Miller, 2005). Material culture provides insights into the values, beliefs, and practices of a community, often reflecting cultural meanings and social relationships embedded in physical forms (Deetz, 1996). Although the beer bottles were not manufactured in Nyoule-Paani, they are valued and actively used by the people, reflecting their practices.

*Religious symbolism:* This is about the use of symbols to represent spiritual beliefs, divine principles, or sacred truths within a particular faith. These symbols serve as tangible representations that convey complex theological concepts, moral values, and cultural identities, often facilitating a deeper spiritual connection among followers. For example, in Christianity, the cross symbolizes sacrifice and redemption, while in Islam, the crescent moon and star are often associated with faith and guidance. In Hinduism, the Om represents the ultimate reality and spiritual consciousness (Smith, 2009). Symbols can take various forms, including objects, gestures, rituals, colours, and even specific patterns, each carrying profound spiritual significance and cultural meaning. They often function as visual language that transcends verbal communication, enabling believers to express and experience their faith more vividly and collectively (Taylor, 2012). In African religious contexts, symbols such as masks, totems, and ancestral figures embody spiritual forces, expressing the community's connection with the divine and ancestral spirits (Mbiti,

1969). Therefore, placing beer bottles on top of the Nyoule-Paani Mosque contradicts the traditional understanding of religious symbolism.

## Methodology

Employing a qualitative ethnographic approach, the study used a dual framework, integrating both *emic* and *etic* perspectives to analyze the cultural significance and perceptions of the use of beer bottles in the Nyoule-Paani Mosque.

The emic approach involves understanding the practice from within the Nyoule-Paani community, stressing the insider's worldview. Hence, interviews were conducted with mosque officials, mosque affiliates or congregants, local community members, all directly associated with the mosque; and market or worship visitors, especially on market days when different people visit to worship. These respondents' perspectives explore the beliefs, values, and cultural customs of the local Muslim community concerning the incorporation of beer bottles into architectural elements or decorative designs.

On the other hand, the etic approach offers an external, analytical viewpoint, examining the practice through standardized criteria and comparative frameworks. Hence, religious tourists and cultural tourists were interviewed. Architectural and anthropological analyses were employed, with etic analysis grounded in architectural and anthropological frameworks. Specifically, field observations and photographic documentation were also conducted to examine the structural features and decorative motifs of the Nyoule-Paani Mosque with other key regional mosques, which are characterized by traditional ceramic pots and wooden elements.

Regarding integration and critical reflection, both the emic and etic approaches possess their own inherent strengths and limitations (Headland *et al.*, 1990; Pike, 1967). The emic perspective provides an in-depth understanding of how community members interpret and assign meaning to their material culture (Headland *et al.*, 1990; Geertz, 1973; Pike, 1967), emphasizing cultural relativism and insider knowledge. However, it may overlook broader normative standards or external evaluations. The etic approach facilitates cross-cultural comparisons and normative assessments, but risks imposing external judgments that may not align with local perceptions (Headland *et al.*, 1990; Harris, 1976).

This study recognizes that a holistic understanding of the use of beer bottles in the Nyoule-Paani Mosque requires integrating both perspectives. By combining these methods, the research aims to offer a nuanced analysis, acknowledging that the community's material choices are shaped by a complex interplay of cultural identity, religious beliefs, and aesthetic considerations, which may differ from external assessments based on Islamic law. Employing both emic and etic approaches allows for a comprehensive and balanced analysis of the practice at Nyoule-Paani

Mosque. This dual methodology facilitates understanding of internal cultural meanings alongside external normative evaluations, ultimately contributing to a richer, more contextualized interpretation of material culture and religious architecture in the region.

## Analysis

The analysis is organized under the following major sub-headings: History and Architectural Features of Nyoule-Paani Earthen Mosque, Sudanic-Style mosques in the Region, Reimagining Sacred Space, Repurposing of Beer Bottles and Material, and Cultural, Local Architectural Adaptations and Symbolism. This structure aims to provide a thorough understanding of the topic.

### History and Architectural Features of Nyoule-Paani Mosque:

The Nyoule-Paani Mosque has a rich history of divine guidance. As narrated by the Mosque's Imam and briefly presented here, "the structure was built by a local hunter who claimed to have received a spiritual revelation, which led him to construct the mosque."

During a hunting expedition, he received a divine message from Allah, which included the blueprint for building the mosque". As a new convert to Islam, he mobilised his household to construct the mosque primarily for his family's use. After its completion, he became the mosque's Imam and began preaching the Islamic faith to his people (*Personal Communication, July 2, 2021*) (Fig. 1).

Using their experience with traditional mud flat-roofed homes, the Lobi people, who traditionally reside in large compound houses, drew upon their expertise to construct the mosque, taking advantage of a design that was both familiar and culturally grounded (Saako, 2023).

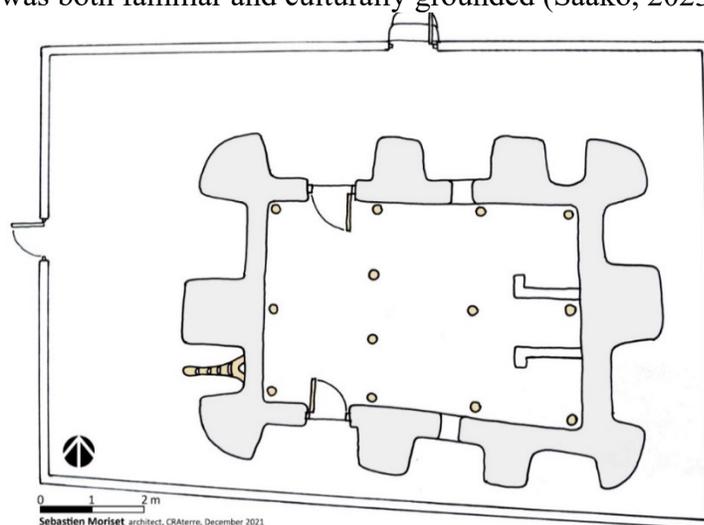


Figure 1: *The Ground Plan of Nyoule-Paani Mosque (Morisette, 2021).*

The Nyoule-Paani Earthen Mosque exhibits notable architectural features characteristic of Sudanic-style mosques in northern Ghana, details of which is in the next section. It is primarily built with sun-dried

earthen bricks and has a flat roof supported by wooden posts approximately 15cm in diameter (Morisette, 2021). The structure includes a *mihrab*, indicating the Qibla, minarets, and a prayer hall (Figure 1), with no internal earthen pillars supporting the roof, an uncommon feature among regional mosques (Saako, 2023; Apostos, 2017; Gruner, 1990). Instead, the roof relies on wooden poles and protruding buttress walls placed at intervals for structural reinforcement. The mosque has four doors for worshippers and an opening below the parapet wall, facilitating water drainage during rainy seasons. Surrounding the mosque is a small apron wall designed to prevent erosion and provide additional space for worshippers. The interior is an open prayer hall without segmentation for men and women, aligning with local practices (Morisette, 2021). The flat roof is coated with cement to ensure impermeability and is used for drying food crops. Uniquely, the mosque's top features beer bottles (Figures 2 & 3) and metal bowls on the *mihrab* and minarets, "contrasting with other mosques such as Laribanga, Bole, Maluwe, Banda Nkwanta, Dondoli, Nakore and Wechiau, that typically use ceramic pots or ostrich shells" (Saako, 2023, p. 15; Insoll, 2003).

The Imam of the Nyoule-Paani Mosque states that the Mosque has undergone renovations over the years, resulting in changes to its infrastructure and the incorporation of non-traditional building materials such as cement, iron rods, and beer bottles. He explains: "Recognising the mosque's declining condition and its important role within the community, a benefactor from Sawla in the Savannah Region, located approximately 100km from Nyoule-Paani, initiated repairs to preserve it" (*Personal Communication, July 2, 2021*). For an individual indirectly connected to the mosque and coming from a relatively "culturally-diluted" urban area, offering to restore the mosque could influence changes in its infrastructure, as it might be a case of "a beggar having no choice."



Figure 2: Nyoule-Paani Mosque (Morisette, 2021).



Figure 3: *The arrows show beer bottles (Morisette, 2021).*

Historically, the trans-Saharan trade routes facilitated extensive intercultural exchanges between North Africa, West Africa, and beyond. Mande Muslim traders, who traversed these routes,

played a significant role in introducing Islamic practices and architectural styles into the region. These traders carried with them not only religious beliefs, but also material culture, including architectural motifs, construction techniques, and decorative elements that influenced local building traditions. As a result, many West African mosques, particularly in Ghana, exhibit features such as buttress walls, wooden poles, and decorative ceramics that reflect this intercultural dialogue (Prussin, 1970).

In the Nyoule-Paani Mosque, the integration of beer bottles into architectural features such as the *mihrab* and minarets represents a modern, locally sourced material that adaptively blends contemporary influences with traditional Islamic architecture within a sacred space; while traditional mosques rely on ceramic tiles, carved wood, and mud-brick constructions. These bottles are often remnants of imported, mostly, alcoholic beverages brought into the community through trade and social interactions, symbolizing the ongoing exchange between local populations and external influences. The beer bottles' transformation from discarded objects into integral components of religious architecture embodies a form of bricolage, where local artisans creatively repurpose available materials to express cultural identity. The use of beer bottles also exemplifies how material culture can serve as a powerful symbol of hybrid identity, reflecting the complex interplay between indigenous cultural elements and Islamic architectural forms; and highlights a unique process of cultural negotiation and adaptation that is deeply rooted in historical, social, and economic contexts.

Symbolically, on the one hand, the bottles challenge orthodox Islamic prohibitions against alcohol by incorporating a product associated with consumption into sacred architecture. On the other hand, their presence signifies resilience and adaptability, reflecting the community's ability to negotiate religious orthodoxy, while maintaining cultural continuity

whereas traditional religious symbols are reinterpreted through local materials and practices, creating a new, context-specific expression of faith. The visual and material qualities of beer bottles, colors, shapes, and reflective surfaces, contribute to their symbolic power. Their vibrant hues and shiny surfaces create striking visual contrasts with the earth-toned walls and natural materials typical of regional mosque architecture. This contrast emphasizes the blending of different cultural worlds and signifies a local reinterpretation of Islamic sacred space that is inclusive of indigenous social realities. The bottles also function as a testament to the community's engagement with global trade networks, stressing how local practices are shaped by broader economic and cultural flows.

A congregant asserts that “the indigenous construction techniques and locally sourced materials used in the construction of the Nyoule-Paani Mosque stands as a tangible expression of religious devotion and communal heritage” (*Personal Communication, August 21, 2021*). This highlights the passing down of traditional knowledge and symbolizes a continuity of Islamic practice within the cultural landscape (Saako, 2024); and suggests that the Mosque embodies a profound historical connection to the community's spiritual identity. As Apostos (2017) and Headland *et al.* (1990) state, the mosque exemplifies Sudanic architectural traditions, characterized by earthen-brick walls, vaulted flat roofs, and decorative elements. Its design aligns with regional patterns of Islamic architecture, emphasizing practicality and adaptation to the local climate and resources. The structural features reflect broader historical processes of Islamization across West Africa, illustrating intercultural exchanges and regional architectural typologies that have evolved over centuries.

### Sudanic-Style Mosques in the Region:

The Sudanic-style mosques of northern Ghana represent a significant architectural tradition within West African Islamic culture. Found in eight notable locations within the former kingdoms of Gonja and Waala, these structures, with their distinctive design elements, embody regional identity, cultural significance and historical connectivity.

The towns hosting these mosques, Laribanga (or Larabanga), Bole, Maluwe, Banda Nkwanta (former Gonja Kingdom), and Dondoli, Nakore, Wechiau and Nyoule-Paani (former Waala Kingdom), share a rich history of trade and scholarship (Saako, 2023; Insoll, 2003; Buah, 1986). In the past, these towns maintained strong links to prominent trading centers such as Jenne (Mali), Bobo-Dioulasso (Burkina Faso), and Kong (Ivory Coast). They also served as renowned centers for Islamic scholarship, fostering religious learning and cultural exchange. According to Leub (2020), “the architectural style termed ‘Sudanic’ emerged from this historical context, depicting a specific West African Islamic architectural idiom that gained recognition from the early 20th century onwards” (p. 43).

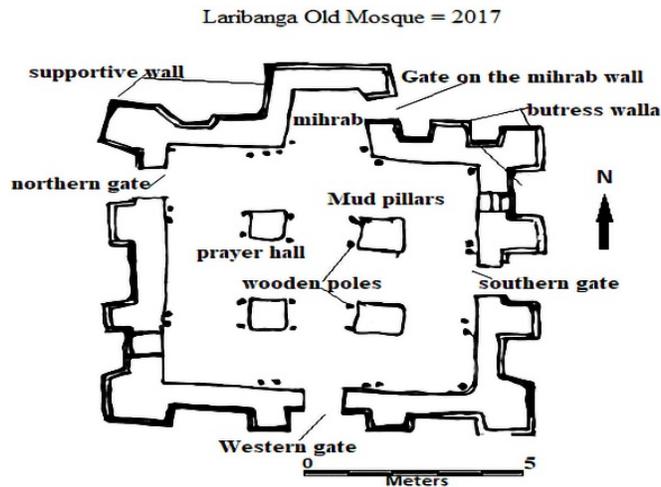


Figure 4: *The Ground Plan of Laribanga Mosque (Saako, 2023).*

The Sudanic-style mosques are primarily rectangular structures with flat earthen roofs supported by timber-frame frameworks consisting of wooden posts and earthen pillars (Saako, 2023; Olympio *et al.*, 2004).

Common features include:

1. Most mosques feature four or six earthen pillars for support, with the exception of Dondoli, which has only two earthen pillars (Saako, 2023), and Nyoule-Paani Mosque, which employs wooden poles instead of earthen pillars.
2. “Wooden poles projecting from the structures serve as roof supports and likely function as scaffolding during repairs” (Saako & Guri, 2024, p. 22). Roof access is typically via an internal earthen staircase; a feature not present in Nyoule-Paani Mosque.
3. “Decorative motifs, such as minarets and *mihirabs*, often incorporate ceramic pots and are topped with crescent and star symbols, representing Islamic identity. Buttresses tend to be irregularly shaped, enhancing the distinctive appearance of these mosques” (Saako & Guri, 2024, p. 22).
4. The Nyoule-Paani Mosque exhibits unique variations, notably lacking earthen pillars and projecting wooden poles. Similarly, the Wechiau Mosque, situated among a comparable ethnic group, shares several features with other regional mosques (Saako & Guri, 2024, pp. 22-23).

The Sudanic-style mosques exemplify cultural adaptation through their architectural form and construction methods, which harmonize Islamic religious requirements with local building traditions (Pradines, 2022; Insoll, 2003). The use of earthen architecture, a traditional technique in the Sahel and West African regions, demonstrates adaptation to ecological conditions, primarily the hot and dry climate, while also reflecting cultural identity (Pradines, 2022; Adu-Gyamfi, 2006). Figures 4, 5 and 6, below, show diagrams of typical Sudanic-style mosques illustrating structural elements, minarets, and decorative motifs.

Furthermore, the aesthetic features, such as decorative motifs and structural forms, incorporate indigenous artistic elements, creating a sense of cultural continuity and local ownership of Islamic practices. This adaptation fosters social cohesion, as the mosque serves not only as a religious space, but also as a symbol of regional identity and cultural resilience (Pradines, 2022; Prussin, 1986).

From these historical accounts of Sudanic-Style mosques in the region, it is evident that the features of an established mosque's architecture are well-defined and widely accepted. However, the Nyoule-Paani Mosque deviates significantly from these norms, particularly with its unconventional adornment of beer bottles atop its structure, thereby raising questions about the mosque's intended design and purpose.

In addition to the Nyoule-Paani Mosque, which is the main subject of this study, the Laribanga Mosque is briefly examined because of its prominent recognition and importance in the region and West Africa (Saako, 2023). It is the oldest in Ghana, possibly in all of West Africa, and also serves as an example of Sudanic-style mosques in this article.

The Laribanga Mosque lacks specific historical records or inscriptions indicating its exact date of construction. Local villagers believe it was built in the 17th century A.D., coinciding with the arrival of Yidan Braimah, who settled in Larabanga to recite Qur'anic verses (Saako, 2023). The mosque's imposing height of over ten meters, supported by robust piers and buttresses,

makes it a dominant feature in the village landscape. Its thick, square-shaped walls give it a solid, fortress-like appearance, contrasting with the fragile nature of the raw earth bricks used in its construction. This style reflects influences from the ancient empires of Western Sudan. The World Monuments Fund (WMF) lists the Larabanga Mosque as one of the 100

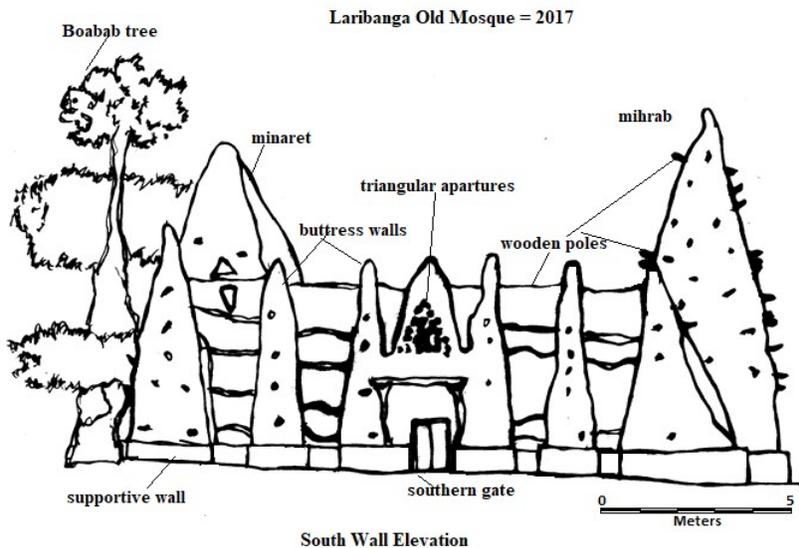


Figure 5: *South Elevation of Laribanga Mosque (Saako, 2023).*

most endangered sites.<sup>1</sup> Notable features include two pyramidal towers, the minaret and the *mihrab*, and twenty-one irregularly shaped buttresses that decorate its elevations. The roof comprises a mass of earth supported by closely packed bush poles of various diameters, covered with smaller



Figure 6: *Sketch of Laribanga Mosque (Saako, 2023).*

branches or twigs to prevent mud leakage. Four heavy mud columns, along with wooden posts and horizontal beams (Figures 4, 5 & 6), reinforce the structure. The Laribanga Mosque belongs to the Sudano-Sahelian

architectural tradition, common in Burkina Faso and the Ivory Coast, characterized by a fusion of local techniques and specific religious architectural principles (Saako, 2023; Olympio *et al.*, 2004). Restorations have preserved the structure of the mosque, allowing the walls and decorative details to evolve. Wind and rain have shaped natural forms on the walls, contributing to its unique character. This ongoing transformation since construction makes the mosque particularly distinctive (Ibid).

A member of the local community mentioned that local people whitewash the external surfaces of this mosque, generally once a year, especially during Ramadan or Muharram, reflecting ongoing maintenance and religious customs. The ground bases, approximately three feet high, are painted black using bitumen, locally called “coal tar” (a petroleum by-product), believed to prevent humidity and mud intrusion. According to the respondent, “[...] community members see this as a practical measure to protect the structural integrity of the buildings, especially during the rainy season.” This occurred after cement was applied to the walls during a reconstruction in the 1970s, spearheaded by the then Ministry of Tourism, presumably in an effort to strengthen them. However, the mixture permitted moisture to seep into the ancient wooden beams, leading to a termite infestation. Subsequently, a storm toppled the weakened minaret. Today, the mosque is largely maintained by the local community (*Personal Communication, August 23, 2021; Saako, 2023*). This clearly illustrates how local communities are often “invaded” by individuals and donor organizations who believe they are offering a

service, but in reality, they end up jeopardizing the peoples' well-being and time-honoured traditions.

Locally, these mosques are viewed as authentic expressions of regional Islamic identity. They embody collective memories, traditional building practices, and religious customs, serving as tangible symbols of community heritage and continuity. From an external academic standpoint, Sudanic-style mosques are recognized as a distinct category within West African Islamic architecture (Gbormittah, 2024; Pradines, 2022). Their incorporation of earthen materials, decorative motifs, and structural elements such as projecting wooden poles and irregular buttresses sets them apart from other Islamic architectural styles. The distribution across eight locations suggests a historical dissemination of Islamic influence and regional adaptation, demonstrating both cultural identity and architectural ingenuity (Pradines, 2022; Saako, 2023).

### Reimagining Sacred Space:

As previously observed, syncretism is a somewhat disorderly process that entails the merging or possibly the temporary coexistence of practices and doctrines originating from diverse and unrelated sources (Law *et al.*, 2014). In this instance, the Muslims of Nyuole-Paani combined two variant elements, such as the beer bottles and the mosque, which is a more complex process to understand from an etic perspective. "Muslims outside the Nyuole-Paani community have different views regarding these beer bottles as part of the mosque's architectural or decorative features" as indicated by one of the respondents, a religious tourist (*Personal Communication, February 2, 2022*). But from the emic perspective, it is assumed they are aware of the difference, but decided to plant them together, which may not be temporary as suggested by a local community member (*Personal Communication, August 23, 2021*). Lambropoulos (2001) notes that syncretism is neither inherently beneficial nor damaging. In this case, the beer bottles become part of the mosque's architectural or decorative features that make it unique from the rest of the Sudanic-style mosques that have ceramic pots on top of the *mihrab* and minaret (Saako, 2024). Religiously, the mosque functions as a sacred space where divine presence and community worship are emphasized. The central prayer hall stresses communal worship, a fundamental aspect of Islamic practice (Pradines, 2022; Insoll, 2003).

It is important to recognize that sacred spaces go beyond their physical form to serve as powerful symbols of faith, tradition, and cultural heritage. These sites are often believed to embody divine presence, spiritual energy, or historical significance, making them focal points for religious ceremonies, rituals, and community bonds. Examples include the Nyuole-Paani Mosque. Similarly, religious symbols play a vital role in defining spiritual identity, shaping moral behavior, and strengthening community ties. These symbols can appear in many forms; objects, gestures, rituals,

colors, or patterns, each carrying deep spiritual and cultural significance. Therefore, placing beer bottles on top of the Nyuole-Paani Mosque can be viewed as a form of syncretism.

This discussion can be expanded to include cultural and religious syncretism. Cultural syncretism informs hybrid cultures by mixing customs, language, traditions, and social practices, shaping music, dress, and societal norms whereas religious syncretism involves merging or coexisting different beliefs, rituals, and doctrines, with followers adopting elements from multiple faiths to create new practices. Although cultural syncretism shapes societal identity and preserve heritage and religious syncretism influences spiritual life, both are interconnected, especially in the African context. An example is placing beer bottles at Nyuole-Paani Mosque, symbolizing the fusion of cultural and religious elements into a shared tradition.

### Repurposing Beer Bottles and Material Culture:

The presence of beer bottles at Nyuole-Paani Mosque underscores the significance of material culture in the community. Lambropoulos (2001)'s perspective that syncretism is "Neither Good Nor Bad" provides a nuanced understanding of how material objects can be interpreted. For instance, in the case of the Nyuole-Paani Mosque, a religious tourist believes that the "beer bottles are incorporated into the mosque from elsewhere, which are foreign to Islamic norms and practices" (*Personal Communication, February 2, 2022*). It is evident that the delineations of syncretism are interchangeable. Deetz (1996) emphasizes that material culture offers a window into the values, beliefs, and social dynamics of a society, often reflecting deeper cultural meanings through physical artifacts. In this context, consumption of beer by the local people exemplifies a typical aspect of their material culture, illustrating how everyday practices are embodied in tangible objects such as beer bottles. A cultural tourist indicates that "the widespread presence of beer bottles and their prominent display on the mosque's roof indicates that many worshippers are consuming alcohol and are unafraid to showcase this, whether positively or negatively" (*Personal Communication, April 20, 2022*). Since architectural design and appearance are integral to religious expression, such alterations may symbolize a merging of faiths. Therefore, the presence of beer bottles atop the Nyuole-Paani Mosque can be seen as an act of syncretism.

While the bottles may have practical functions, their frequent handling, implying consumption of their contents and their visibility, indicates a blending of Islam with traditional African religious practices or Christianity, especially Catholicism. This fusion is evident not only in the architecture itself, but also in the symbolic significance attributed to these elements. The heuristic of availability suggests that

the prevalence of a resource in a given environment influences cultural preferences and technological development, as societies tend to prioritise and innovate around readily available materials (Tversky & Kahneman, 1973, p. 12).

### Cultural vis-à-vis Local Architectural Adaptations and Symbolism:

As noticed earlier in this article, local architectural adaptation involves tailoring building designs and construction methods to fit the unique environmental, cultural, material, and social contexts of a place. It is about creating structures that are sustainable, practical, and meaningful within their community. This concept also encompasses transforming existing objects, resources, or ideas to serve new functions. As Lyle (1994) emphasizes, “this practice promotes creative reuse of materials to reduce waste” (p. 42), such as repurposing beer bottles in Nyuole-Paani, for example. Nonetheless, Pye (1971) contends that this method could involve diverse components blending in confusing and uncertain ways. From this perspective, the use of beer bottles as part of the mosque architectural features or decorative motifs is seen as contrary to Islamic teachings, which prohibit the consumption of alcohol (see the Surahs quoted earlier).

In terms of architectural symbolism, the architectural elements of Sudanic-style mosques hold significant symbolic meaning. The use of earth-colored earthen walls symbolizes humility and the connection to the land, aligning with Islamic principles of modesty. The geometric motifs and decorative patterns often found on walls and facades represent divine order (Wilks, 1988). The minarets, although modest in this context, symbolize the Islamic call to prayer and spiritual elevation. The orientation of mosques towards Mecca aligns with Islamic practice, reinforcing religious identity and unity (Insoll, 1999, 2003). The integration of local artistic motifs also underscores a blending of Islamic religious symbolism with indigenous cultural expressions (Gbormittah, 2024; Kuehn, 2012). The architecture and spatial organization reinforce religious teachings, social cohesion, and spiritual practices specific to the local Islamic community, according to a religious tourist (*Personal Communication, February 2, 2022*).

The indigenous people such as the Imam, local community members and mosque affiliates interpret the architectural symbolism as a reflection of spiritual beliefs and cultural values. Elements like the mosque’s shape, decorations, and orientation relate to spiritual protection, divine favor and ancestral reverence. For instance, the Imam of the Nyuole-Paani Mosque stated that “[...] the design choices are seen as conveying religious messages and affirming community identity” (*Personal Communication, July 2, 2021*).

## Conclusions

The Nyoule-Paani Mosque exemplifies processes of cultural syncretism and resilience, demonstrating how local interpretations and innovative material adaptations, such as the incorporation of beer bottles, can challenge conventional notions of Islamic architecture and iconography. These practices reveal a nuanced engagement with religious doctrine, underscoring themes of cultural resilience, hybrid identities, and intercultural exchange, which are often shaped by historical trade routes and indigenous craftsmanship. The use of unconventional materials within the mosque underscores the dynamic and adaptable nature of religious expression in Ghana, emphasizing the significance of community agency and ongoing cultural negotiations. Recognizing indigenous perspectives is essential to understanding these complex phenomena, as they illustrate how religious spaces are continually reshaped by social, cultural, and material influences. In the end, the mosque stands as a testament to the creative resilience of local communities in negotiating religious identity within broader intercultural and historical contexts. The research aimed to explore the processes and cultural negotiations involved in the utilization of beer bottles within Islamic architectural practices in Ghana and to assess the influence of broader social, historical, and intercultural factors on these practices. Employing both emic and etic perspectives facilitated a comprehensive understanding of the Nyoule-Paani Mosque and Sudanic-style mosques, stressing their roles as sacred spaces and symbols of cultural continuity and adaptation. For local community members, beer bottles serve as symbolic artefacts that encapsulate local adaptations, acts of resistance, and cultural negotiations within Islamic practice, mediating the relationship between religious identity, social change, and everyday life.

## Notes

1. <https://yen.com.gh/139079-larabanga-mosque-historic-facts-photos-ghanas-oldest-mosque-pop%20up.html>

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