



Meaning of the great mosque of Djenné: (A nonverbal communication approach)

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Abstract

Djenné was founded between 800 and 1250 CE, and since the 13th century, it has been regarded as a major hub for study, trade, and Islam. In 1988, UNESCO recognized the mosque, which is situated in the town of Djenné, Mali, as a World Heritage Site. Since it became a political symbol for both the locals and the French colonial master who took over Mali in 1892, the Great Mosque is regarded as one of the town's most significant structures. In sub-Saharan Africa, the Great Mosque of Djenné is perhaps the most famous architectural structure, thought to be the largest mud structure still standing in the world. Even though the mosque was in ruins for a large portion of the 19th century, the locals are proud of and protective of their mosque, and it has long been a central part of their shared identity as Djenné. Following its restoration, the French praised it as a prime example of the "Sudanese style, which has gained immense popularity throughout the sub-Saharan region and has evolved into a timeless African vernacular mosque design." Investigating the Great Mosque of Djenné's significance in terms of its materials, design, shape, function, and sociocultural sources of wellbeing is the goal of this study.

1.0 Introduction

One of the most well-known sites in Mali and Africa is the Great Mosque of Djenné. It is regarded by many architects as one of the best buildings ever built in the Sudano-Sahelian architectural style. The mosque is situated in Djenné, Mali's town center. According to researchers, the first mosque was built on the property toward the end of the 13th century CE or soon after. Following his conversion to Islam, King Konkonboro determined that his palace should become the local mosque. A second mosque was built by Seku Ahmadu, founder of the Massina Empire [URL1 & URL2]. The current building is primarily constructed of banco material, which has endured a test of time since its initial construction was completed in 1907 (Farrier 2010). Even though the Great Mosque's architectural features are shared by many mosques across the Islamic world, it exhibits distinctive aesthetic qualities, extensive use and upkeep of robust local materials, and intriguing interpretation and meaning attachment by the Djenné community. For these reasons, the mosque was included in the designation of the town and four nearby archaeological sites as a serial property of world heritage by UNESCO in 1988 (Farrier 2010 & Rapoport 1977). The mosque's history and its unbreakable bond with the local environment are demonstrated by its use of indigenous materials, expression of vernacular architectural forms, and adaptation to the hot heat of West Africa are expressions of its legacy and its inextricable connection to the local environment. Earthen buildings, such as this one, are found throughout the region and can be sustained for centuries if properly and regularly maintained. Apotsos (2011), affirms that because of the iniquitousness of its mud brick materials, the Djenné Mosque is less burdened by the stresses of time and environment so long as the community continues to care for it. Through a variety of culturally relevant semiotic clues, the transient character of the building materials used to construct Djenné Mosque serves to bind the community to the structure. To increase the mosque's significance, specialized social activity patterns, folklore, and well-celebrated seasonal maintenance have grown up around it. Involving the entire community in the upkeep process fosters communal cohesion and improves ties to the

mosque. These are significant indications of what this structure means to the community (Apotsos, 2011). The purpose of this research therefore is to examine the Great Mosque of Djenné's significance in relation to its materials, form, function, and sociocultural sources of well-being.

2.0 Methodology

This study uses a semiotic technique to examine the Djenné Mosque case from a communication perspective. These factors are taken into consideration when studying the mosque:

1. The fundamental building materials, which are both locally produced and culturally ingrained;
2. The mosque's design, which encompasses the concepts for the form, layout, arrangement of functions, elevations, and details; and
3. Socio-cultural, economic characteristics of the people and the seasonal, annual, and weekly activities associated with the mosque.

Having investigated all these factors, numerous cues are perceived that indicate the meaning of the Great Mosque of Djenné to its community.

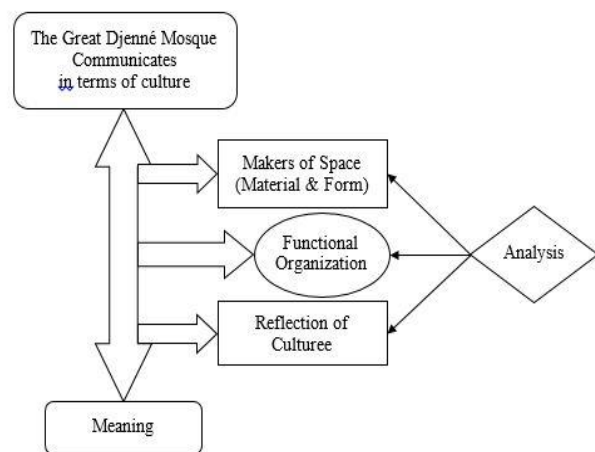


Figure 1. Diagram of the method

3.0 Context of Djenné Town

Archaeologists and researchers consider Djenné to be one of the longest inhabited cities in West Africa with its founding on the Niger River dating to the first century CE. Due to its advantageous location and fertile land bordering on riverine, savannah, and desert biomes the town was characterized early on as an agricultural and food production center. Besides Fulani (cattle herders) and Bamanan (farmers), the Marka/Songhai (urban traders) and the Bozo (fishermen and masons) also made Djenné their home; therefore, Djenné soon developed into a commercial center and became an important station along the historical trans-Saharan overland trade route. The history of the medieval African empires of Ghana, Mali, and Songhai were significantly influenced by Djenné, which was a major hub of activity for all of West Africa. Descendants of these societies remain among the city's population of more than 12,000. Now, the only monumental building that can be referred to as the old town is former Grandeur, this also was considered by UNESCO as the world monument. Buildings in Djenné are characterized by two-story mud buildings with impressive decorated façade, these building have attracted worldwide admiration of tourists and architects and visitors. The great mosque is the biggest mud brick building in the world, measuring 75 m by 75 m.



Figure 1. a. Map of Africa and Mali

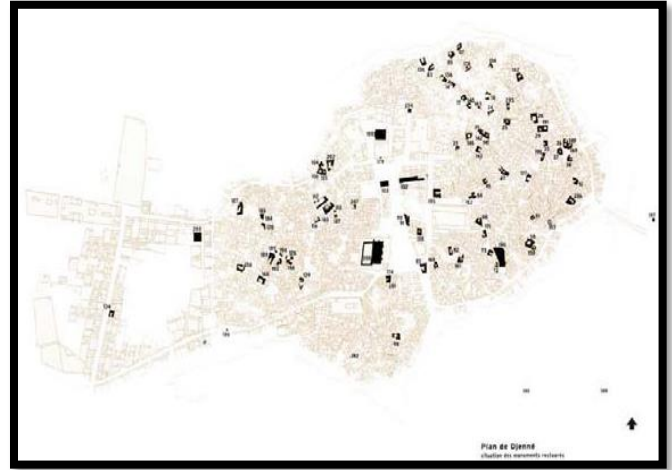


Figure 2. b. Map of Djenné (Chabbi-Chemrouk, 2007)

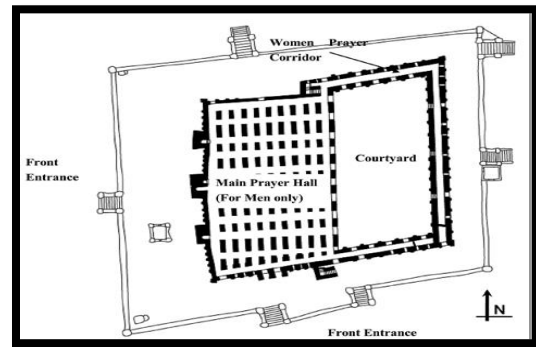


Figure 3. a. Floor plan of the mosque (Maas & Mommersteeg, 1992)



Figure 4.b. postcard of the mosque following its reconstruction in 1906-07 (Marchand, 2015)

3.1 Materials and Their Significance

Some buildings and urban layouts have been integral to many environmental causes of events throughout the history of architecture. Vitruvius, the Roman architect, claimed that architecture is made up of three elements: delight (beauty), firmness (structure), and commodity (function) in the first century CE. This question, "what type of dwelling do we need and what shape it supposed to take," has been around since the 1st century BCE (Douglas & Isherwood, 1979; Venturi, Brown, & Izanour 1996).

The aforementioned phrase implies that architecture is more than just creating structures that shield people from environmental elements and enable them to do their daily domestic tasks. According to Vitruvius, the key feature of architectural void is its aesthetically pleasant effects, which would satisfy our full engagement with it. According to Gawne and Snodin (2004), architecture has long been a means of expressing humankind's profound thoughts. According to the author, "we all feel connected to certain buildings on a more personal level because of their meaning and what they say to us" (Venturi, Brown, & Izanour 1996). Prussin claims that the mud used in West African building has a macabre appearance "like Mother Earth in other cultures, it is the source of well-being, of fertility, and of the continuity of life (Gawne & Snodin 2004). It is abode of the ancestors and past, which validate the existence of the present and the anticipation of the future. Thus, all things formed and shaped from the earth carry inherent in them expressive quality and a symbolic message".

The majority of residents in Djenné rely on agriculture as their primary source of income; in fact, many credit grain harvests with their survival. The future would be bleak if crops failed during any season. As a result, agricultural labor and its accomplishments have an unparalleled significance. Earth fertility is somehow connected to people's entire ceremonial and ritual behaviour

(Gawne & Snodin 2004). The Djenné Mosque, which is situated in the town of Djenné, Mali, and is regarded as the world's largest mud brick freestanding mosque, was constructed using mud in one form or another over more than five hundred years (Drewall, 2005).

The Djennenneke concept's various material and functional attributes not only elevated the region's holiness but also, at a more fundamental level, recalled the significance of Djenné's unique mythology, which has long been emerging from their social, political, and cultural fusion. However, these orders present certain issues regarding the mosque's long-term connection with its communities. Nonetheless, the mosque's mud material character must be maintained since society must imitate its existence (Prussin, 1982).

3.2 Space Organization (Function)

Mud bricks joined with mud mortar were used to construct the rectangular platform on which the Great Mosque of Djenné is situated. The building envelope is 16 to 24 inches thick; this extra thickness acts as insulation from the sun's heat and safely transfers the structure's weight to the ground. Mud is an excellent insulating substance since it gradually warms the walls during the day as a result of the heat it receives from the outside and cools them down at night. Three thousand worshippers can be accommodated in the main prayer hall, which has ninety wooden columns supporting the roof and the magnificent hall. The Djenné Mosque's strong mud brick walls help to maintain the worshippers' internal thermal comfort all day long. Interestingly, there are roof vents with ceramic covers that are utilized to ventilate the mosque's interior at night. These caps are made by women. In order to minimize stress caused by the year-round extremes in temperature and humidity, Djenné Masons additionally used palm wood into the mosque elevation. This wood serves as scaffolding for the building's annual maintenance. In order to communicate with nearby buildings

using semiotic codes, the mosque's main facade is similar to that of the surrounding houses. However, the mosque features three enormous towers, each of which has an ostrich egg at the top, which Djennenke believes represents fertility and purity (Drewal, 2005). (URL 3)

The Djenné Mosque's architecture is not just about aesthetics and place making; it also has long-term significance for the community. Knowing the culture and legacy to which the architecture belonged is also crucial if we are to understand the architecture of the entire region and area more thoroughly. Nevertheless, despite its prescribed rituals, the mosque demonstrates Islam's plurality. In order to gain legitimacy and acceptance in the eyes of the entire Ummah and community, modern mosques continue to imitate either vernacular or historic forms, even though modernism and nationalism design ideals gave rise to new mosque styles (Verkaak, 2013).(URL4)

Various mud building types may be found in North Africa, particularly in Sudan. Muslim Arab traders brought these building construction ideas to the sub-Saharan West Africa region. It includes the use of a hypostyle hall with a tower and buttressed wall to create a vernacular reminiscent of both traditional rural homes and monumental structures. Even though the mosque is much older, it still incorporates older African symbolism, such as the fertility symbols of the ancestor pillar, which have been there since 1907. The same architectural motif appears timeless in a new mud mosque in Yaana, Niger. (URL 5)

Traditional architecture, according to Amos Rapoport, is a product of traditional culture, needs, resources, and user order. Consequently, the result is that self-conscious forms change into eternal shapes that can be adjusted to the surroundings and temperature; with some personal modification, they become more intricate. According to Glassie (1995), people can achieve the attractive and

pleasant architecture described by contemporary psychologists if they are able to create and utilize their own vernacular architecture. Amos Rapoport's conclusion is genuinely valid for the Djenné Great Mosque. Taking into account the materials used in its construction and the fact that it has survived for more than 500 years, it is evident that if we rely on the inexpensive, readily available, and locally abundant materials, we will undoubtedly achieve beauty and celebrate our significance. Because of its vernacular materials and design, the Djenné Mosque is revered by its community and is regarded as a part of the world's cultural legacy.

3.3 Annual Maintenance

The Djenné Mosque needs to be renovated every year to prevent erosion from the Sahelian sun, autumn rains, and the dominant winter wind, which break down the organic material that holds the plaster and bricks together. Traditionally, mosque upkeep was done in March or April, during the dry season, when masons would be less busy.(URL 8). The work of the entire Djenné community, who actively participate in the mosque reconstruction through an extraordinary yearly ritual, is responsible for the great mosque's longevity over the years. Although there is food and music throughout the occasion, its primary goal is to repair the mosque's damaged areas (URL 9). Djenné, according to a documentary in the Adobe Towns series, is a town made completely of mud. In Africa, mud is not only the most valuable building material, but it is also a key component of ancestor worship (Glassie, 1995). To avoid the clay drying up due to the rising temperatures, the renovation work must be finished by nine in the morning. However, it starts early. Comprising clay, rice bundles, and cow dung, banco is a traditional building material. The smallest person's role is to mix banco with water to make the paste pliable. Using their faith in God and the gri-gri (magic angels) they believe will safeguard them from mishaps, the volunteers scale tremendous heights

like spiders. The mosque itself is regarded as the lifeblood of the town and is lavishly and selflessly maintained, while the girls are responsible for continuing to supply water and for the communal work on the House of God.

Since every single person—young people, girls, and little boys—participates in and celebrates the mosque's yearly maintenance, all of these actually hint at the significance of the huge mosque to its community.



Figure 4: Boy squadrons carrying baskets of mud to re-clay the mosque (source: Trevor Marchand, *The Mosques of Djenné*)

4.0 Results and Discussions

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Individuals appear to respond to an environment in a way that reflects the meanings they associate with it. In this manner, it is possible to understand that people assess their surroundings emotionally rather than deeply, which is impacted by ideas and imagery (Rapoport, 1977). Emotions are evoked by material items, which also serve as a backdrop for additional sensory impressions that are then incorporated into the material. Affective pictures play a crucial role in decision-making when it comes to the environment; the same is true of the

Djenné Great Mosque, which has a message for its community. But when it is recognized that the idea of function and its significance have transcended beyond simply being a place of worship, objects acquire their significance. It becomes immediately apparent that meaning is essential to comprehending how the environment functions when taking into account the hidden features of a building's function (Rapoport, 1990).

4.1 Communication System between the Environment and the Building with Society

Although the science of architecture directly affects our daily systems, the significance and values ascribed to any structure, item, location, or environment are seen as integral to the continuity of culture and history and the well-being of society. A building can symbolize the socio-cultural values, heritage, and beliefs of any society in addition to providing space for basic amenities. This is one way that architecture can convey meaning through cultural symbolization; therefore, architecture should be provided for relative meaning (Boğaç, 2009).

As stated by Lang “the information obtained from the environment has symbolic properties that give it meaning, ambient qualities that evokes emotional responses, and motivational messages that stimulate needs. An individual also assigns value and aesthetic properties to it. Because humans need to experience the environment as a pattern of meaningful relationships, past experiences form the basis for understanding new”. This may suggest that humans use the built environment as a means of conveying various meanings in order to win others' respect and fulfill their desires. According to Lang (1987), the environment would actually change information from its purpose to its symbol in this way. As users come to understand that a thing's meaning is more significant than its function, its meaning becomes more significant over time. What first comes to mind when thinking about function is how the structure or surroundings of an object operate; the meaning would be more significant or have greater

validity when its potential functional element is understood to be highly significant. According to Venturi, Brown, and Izanour (1996), this is consequently related to the usage of commodities, all tangible goods, and social standing. This suggests that the Djenné great mosque is not just a symbol for the Djenné community but also acts as a marker for Mali and all of Africa. Because it is now seen as a source of continuity and well-being for its adherents, rather than just a mosque that offers a place for worship. In conclusion, this subtopic means that buildings communicate with us in terms of the built environment, while communication is the method that people speak to one another in order to share information.

4.2 *The Djenné Mosque as a Cultural Source*

UNESCO recommended Djenné, which is home to four global cultural heritage monuments in Mali, because it is an authentic city retreat with iconic architecture. For the locals, Djenné is seen as an apparent cultural landscape rather than just an ancient dwelling. Although the founders of Mali alluded to it as evidence of the country's democratic origin, Djenné is seen by all Mali leaders as having political relevance. It's interesting to note that, despite the fact that many Muslims today reside there, it started out as a non-Islamic society. Over time, Djenné residents' cultural legacy has undergone significant alteration (Verkaak, 2013). The earliest known city in sub-Saharan Africa, Djenné, is situated on the Bani River. From the 14th to the 16th century CE, it was a thriving metropolis and a key trans-Saharan trading hub. Students from all around sub-Saharan West Africa travel to the Djenné Great Mosque, one of the most renowned centers for Islamic knowledge, to learn about Islam. The Monday market is situated next to the large mosque, which was constructed in 1907 by architect Ismaïla Traoré, the head of the Djenné Masons Guild. Although Djenné is not a well-known town in the world, it has become a destination for tourists who

want to see historic structures. Despite the fact that many tourists visit Djenné each year, high-quality hotel accommodations are still a problem (URL7).

4.3 *Connection to Monday Market*

The market gets its name from the fact that it happens on Mondays. The market is held in a large open space in front of the Djenné mosque, which causes the mosque area to transform into a bustling bazaar. Thousands of vendors and customers arrive from both close and far locations, and many of these vendors adhere to the market's timetable. The majority of traders arrive in Djenné either late on Sunday night or early on Monday morning. The mosque plaza would be crowded with merchants bringing anything from spices to calabashes to fabric in the late morning or early morning (Glassie, 1995).



Figure 5: In front of it stands Djenné's Great Mosque, a community focal point in terms of architecture, culture, and religion is The Monday market

5.0 *Conclusions*

Regarding the meaning in architecture, Glassie said, "Meaning is a difficult concept, for it means too much. Meaning being in the correspondence of sensate form to invisible idea logically links intention and response, then expands through private association to join all thing is with all it can be in the minds of its creators and perceivers. Finally, meaning carries through the shared

experience of form and idea to philosophical bedrock. Most crucially, meaning is that which joins people through things, transforming forms in to values, values in to forms. Understanding values is the purpose of the study Glassie (1995), these imply that the responses of perceivers and receivers shape and determine the meaning and ultimate value of our case study of the Djenné Great Mosque as an architectural icon and artifact of the Djenné community's culture. These include, first and foremost, the Mali government, tourists, and the entire Djenné population, who own such a famous building. Everything must be accepted by social communication and interaction in order to have any real significance. This is peculiar to a given cultural context, though, and might be seen as a shared understanding of moral principles, religious beliefs, and philosophical ideas.

Because the Djenné are primarily farmers and attribute their good fortune, continuity, and well-being to soil fertility, the Djenné mosque's significance when viewed in terms of materiality is that mud, which was used to construct it, is one of the most important building materials for both the Djenné and all of West Africa. Earth also plays a significant role in ancestor worship. Mud is therefore a material that holds great significance for the Djenné people, as evidenced by their adaptation of it in the construction of all buildings. In fact, the Djenné have become famous for their mud houses, and UNESCO has designated them as one of the world heritage sites that need to be preserved.

The great mosque in Djenné is regarded as a local Djenné achievement because of the politics involved, the design, the technology, and the grandeur of the building. When examining the mosque's meaning in terms of its space organization and function, we noticed that the community has greatly adapted its form and concept of the court yard as a timeless design. The mosque's current design style is known as the

Sudanese style, and practically all of the town's residential buildings are constructed in this manner. In order to create a new Neo-Sudanese architectural style, the French colonial government appropriated the Sudanese architecture, specifically the Djenné mosque, and used it as a template for administrative buildings throughout the "Soudan français" and even in France.

Aside from agriculture, the majority of the population depends on the Monday market for their livelihood, and it draws traders from all over Africa. The cultural and historical significance of the Djenné mosque to its community is incalculable, not only to the Djenné people but to all of Africa. The yearly maintenance festival is another fascinating event that involves the active participation of the entire community in order to preserve their mosque, which they view as the heart of the town and which needs to be cared for with bountiful selflessness. Lastly, it is essential that we draw that conclusion from all of the literature that we have read. Since the Djenné Mosque is a global heritage site that needs to be protected for the sake of all people, not only Malian people, it holds immense significance and has come to represent Mali as a country.

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Declaration of Competing Interest

The authors declare that they have no known competing interests.

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