

# WEST AFRICAN CULTURAL LANDSCAPE: SETTLEMENT DISTRIBUTION, ENVIRONMENTAL DETERMINISM AND MATERIAL INTERPRETATION OF ZIGAM HILL-TOP SETTLEMENT, NIGERIA.

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## **Abstract**

*Cultural landscape approach is concerned with the constructions and uses of environment around human in the past. This branch of archaeology appreciates the understanding of the features constructed, utilized or modified by man, which in return the remains are found dotted on the part of the earth occupied by human in the past. This paper focuses on reconstructing the cultural landscape of Zigam hilltop site, as to appreciate the relationship between the people that occupied the hilltop site in the past, the features/materials on the hilltop and the environment they occupied in the past, through the extensive survey of the settlement. The paper includes the report of the bearings, positions and proximities of material remains dotted on the landscape of Zigam hilltop settlement. This paper is a product of archaeological survey, oral tradition and written sources which all yielded in documenting the cultural landscape of the Zigam settlement. The paper revealed the evidence of settlement distribution such as collapsed building, granary and house foundations, dyeing complex and cemeteries, among others. Environmental determinism and the materials were interpreted. The paper concludes with the place of hilltop, defensive structures, Tsamia stream, presence of clay mining, fertile land, among many others as factors that might have influence the settlement establishment and the growth in the past.*

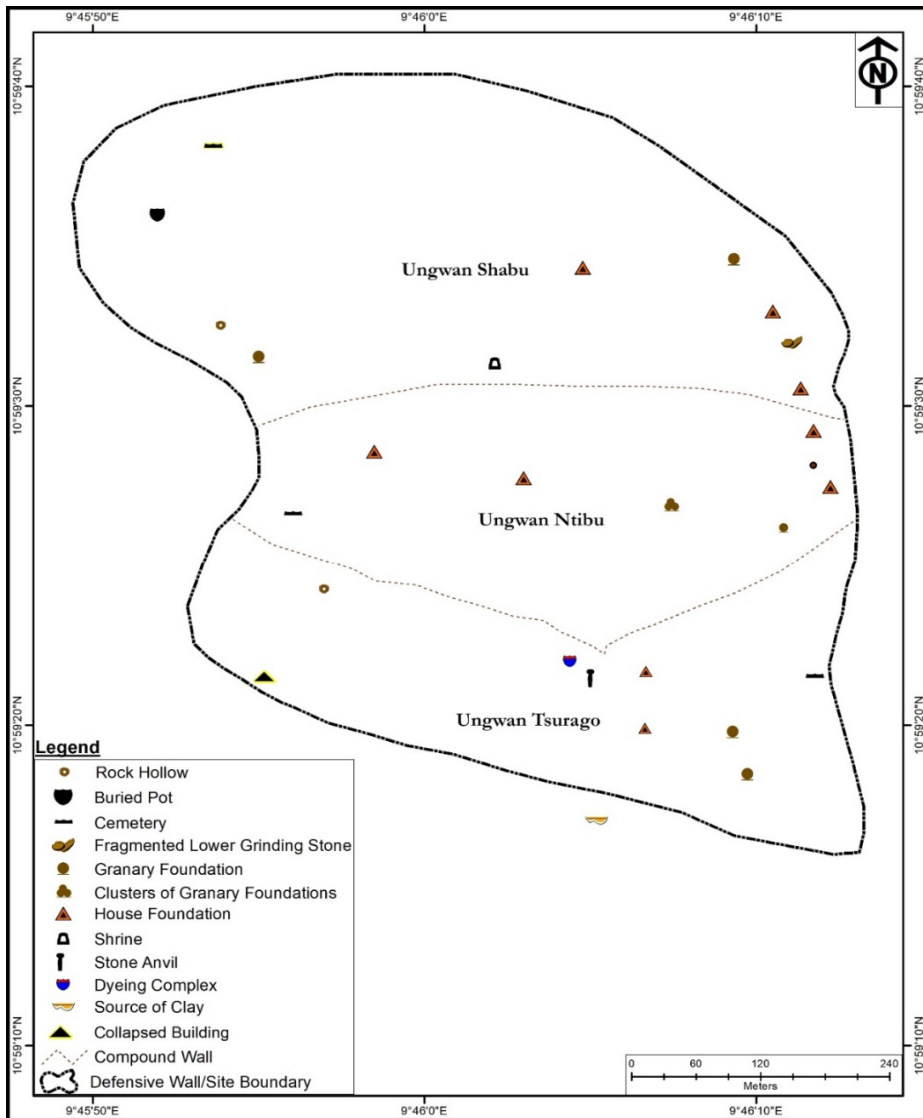
**Keywords:** Cultural-landscape, Zigam, hilltop, material culture, West-Africa.

## **Introduction**

Zigam is recognized as a premier settlement among the settlements in Ganjuwa Local Government Area of Bauchi State in North-eastern Nigeria. The settlement was occupied by the group of people known with Zigamachi language in the past, but in the present, Hausa language is the dominant language for the inhabitants of the settlement (Abdulmalik, Sule and Giade, 2021). Zigam means to live with peace. The settlement is situated on the hilltop and falls between latitude 10° 59'10"N to 10° 59'40"N and longitude: 009° 45' 50"E 009° 46'10"E, It is characterised by three different sections (Ungwani) which were demarcated with compound walls on the same hilltop with flat and partly undulating surface, rock outcrops, short grasses, tall trees such as tamarind, baobab, neem, among other trees on the settlement. The material remains situated on the surface of the hilltop include defensive walls, circular

stone arrangement of different sizes (house and granary foundations), rock hollows, lower grinding stones, cemeteries, stone anvil, dyeing area, ruined building, bones, and scattered potsherds on the surface of the settlement (See Fig 1).

Ganjuwa Local Government Area of Bauchi State is one of the renowned ancient kingdoms in the history of central Bauchi region. The archaeological investigation of the Ganjuwa region is at its nascent phase, as the publications from the preliminary investigation of Kariya-Wuro settlement carried-out by All-sworth Jones between 1981-1983 and a recent paper publication by Abdulmalik et-al. (2021) represent the available literatures from the region. Thus, Zigam settlement is said to be part of the most important and earliest settlements occupied for defensive, religious, economic and habitation purposes in Ganjuwa region. Yet, with this historical relevance of the site, this investigation represents the preliminary research carried out at the site. This paper focused on examining the factors responsible for the establishment of the Zigam settlement and responsible for the development of the settlement. The focus of this paper includes and explanation on how the landscape of the settlement was utilized through the material evidence dotted on the landscape of the settlement. This paper also contributed to the understanding of the functions and uses of the material evidence identified on the surface of the settlement with the aid of oral information and written sources.



**Figure 1:** Zigam Hilltop Site Map  
**Source:** Author’s Field Work, (2020).

**Methods**

Historical and archaeological methods were deployed in the cause of this investigation. Oral information was collected from numerous present inhabitants of Zigam settlement which was used in the interpretation of materials collected on the surface of the settlement. This also assisted in gathering information about the antiquity’s distributions on the surface of the settlement. Relevant literatures on the research region, research methods and theoretical framework were as well consulted for the purpose of this investigation. Archaeological survey, which led to the discovery of materials

on the landscape of Zigam settlement and assisted in defining the natural and cultural factors that supported the establishment of Zigam settlement, was also employed.

### **Theoretical Framework**

Cultural ecology theory is regarded as the suitable framework for this investigation. This theory is considered as an approach for examining the relationships between human groups and their environments, rather than a factual data governing the nature of these relationships (Adams 2015; Steward, 1972). Adams (2015) postulated that ecology is the study of the interactions between the components of the environment in the different habitats on earth. Scholars such as Alabi (2001), Hodder (1982) and Ortner (1984) were also in support of using ecological framework to understand the distribution and diversities of culture in a given society. Cultural ecology is a subfield in anthropology that seeks to understand the operations of culture system in ecologic terms (Hole & Heizer, 1973). The total network of relationship between the sub-system is referred to as the ecological system or ecosystem. The use of cultural ecology in archaeology enables the archaeologist to identify several components of human interactive system and the parts of technology adapted to each (Sharer & Ashmore 2003 cf Odofoin, 2010). Alabi (2001) opined that the problem of human civilization can be understood through their connection and adaptation to their physical environment and Childs (1985) sees cultural ecological framework as an enduring expression to an environment which is giving the incline of inter-relatedness of buildings, instruments of war, tools and aesthetics materials as being component of a functional whole.

The place of cultural ecology in this research work at Zigam addressed the understanding of cultural distribution of material culture on Zigam hilltop and also the relationship between the material culture and the environment where the materials were produced. However, the endowment and affection of the ecology of an area affects the social and cultural components of a society as seen through the ecological and cultural studies of Zigam settlement.

### **Zigam Cultural Landscape**

Zigam hilltop settlement site is measured 428m length, 190m breadth and the site extent is 81,320m<sup>2</sup>. The site is characterized by three different zones (Ungwan Shabbu, Ntibu and Tsurago) demarcated with compound walls on the surface of the hilltop. The first identified demarcated zone on the Zigam hilltop site is known as Ungwan Shabbu, which covered between the northwest and north-eastern part of the hilltop. On this part of the settlement, potsherds were found in abundance, scattered on the surface of the site and samples were collected for further analysis. Another identified find from this part of the settlement were bone remains which were as well collected for further analysis. On this part of the settlement, there was protruded buried pot at the north-western part of the site; cemetery at the north-western part of

the site at a close proximity to the pot; two granary foundations (the first at the north-western part of the site and the second at the north-eastern part); fragmented lower grinding stone at the north-eastern part of the site in close proximity to a house foundation; shrine at the center of the site; two house foundations (first at the north-eastern part of the site and the second at the south-western part; and a rock-hollow with an upper grinding stone at the north-western part of the site, close to the granary foundation.

The second identified section on the hilltop is referred to as Ungwan Ntibu which covered some part of the center and south-western part of the site. At this part of the settlement, potsherds were found in abundance, scattered on the surface of the site and samples were collected for further analysis. Other materials from this part of the site include cemetery which was at the western part and towards the edge of the site; two compound walls that served as the demarcation of the sections both at the north-western and north-eastern parts of the site; three granary foundations: the first and second granary foundations were clustered at the south-eastern part of the site and the third one at the north-eastern part of the site; four granary foundations: first at the north-western part of the site, second at the eastern part of the site, third at the south-eastern part of the site and the fourth at the south-western part of the site, at close proximity with a granary foundation.

The last section on the hilltop is referred to as Ungwan Tsurago, which covered the south-eastern and south-western part of the site. On this part of the settlement potsherds were found in abundance, scattered on the surface of the site and samples were collected for further analysis. Other material from this part of the site include cemetery which was at the south-eastern part of the site; dyeing complex at the south-eastern part of the site at close proximity with the identified stone anvil; two granary foundations: first at the south-eastern part of the site, at close proximity with a house foundation and the second also at the south-eastern part; two house foundations, both at the south-eastern part; rock hollow at the north-eastern part; collapsed building at the south-western part and stone anvil at the south-eastern part.

### **Spatial Distribution and Environmental Determinism**

The identified protruded buried pot at close proximity with the cemetery suggested that probably pottery was used for burial practices as also claimed by oral information collected from the settlers. Cemetery were found generally at the three demarcated zones on the site, and they were all situated at the extreme edges of the three sections on the settlement. This supported the practice of burial of the deceased among the northerners at the extreme edges of their settlements. From the three sections of the settlement, granary foundations were observed at close proximity with most of the house foundations from the settlement. This suggested that probably some of the house foundations might have served the functions of kitchen in the past and in another way, might have served as their habitation rooms in the past. The constructions of granaries at close proximity with their houses might probably

be for easier access to their grains when need arises and might also be for maximum protection and security of their properties/food against theft.

The identified dyeing complex on the part of the settlement situated in proximity with the stone anvil was characterized by a smooth surface and with harsh colour on its surface. The location of the stone anvil suggested that probably the stone was used by dyers in the past, as also claimed by oral tradition among the settlers. Shrine is situated at the center of the Zigam settlement, which was characterized by arrangement of stones in a circular shape, with presence of potsherds having roulette and among the potsherds, there is a unique sherd with representation of animal figure from the identified shrine. The location of the shrine at the center of the settlement supported the practices of the construction of religion houses, sacred buildings, palaces, market spaces and other most important architectures among many ancient communities in Nigeria.

The presence of rock hollow claimed by oral tradition to have served the functions of grinding grains, vegetables and herbs at the settlement, at close proximity with a granary foundation from the first section of the settlement. This suggests probably the easier access of the hollow for grinding of their grains stored at a closer position to the hollow. Also, the presence of fragmented lower grinding stone at the close arena to the identified as house foundations might have suggested the usage for grinding of herbs and vegetables. The other house foundations, collapsed building and other structures on the other part of the settlement, indicates the distributions of their buildings and architectures over the Zigam hilltop settlement. The presence of the defensive structure constructed at the foot of the Zigam hilltop site is a cultural indication of the site extent and boundaries and an indication of mobilization of labour force, division of labour and presence of authority over the settlement.

### **Interpretation and Discussion**

This section is about the interpretation and discussion of the materials situated on the landscape of Zigam settlement. Potsherds were abundant materials on the surface of Zigam settlement and claimed to have old history in human record (Oyinloye, 2019). From oral account, pottery is produced and used for different purposes such as cooking, drinking of water, feeding of their animals, water storage and burial practices. The pottery for burial and storage were produced thicker, compared to other pottery on the settlement. The evidence of pottery with applied decorations of animal figure and roulette at the identified religious location towards the center of the settlement suggests the uses of pottery for adornment and appeasing of their gods in the past. The bank of Tsamia stream at the foot of the hill served as the source of the raw material (clay) for their pottery production and the processes of their production, which include clay mining and its preparations, moulding, surface treatment, drying and firing as it was also observed in many societies in Nigeria (Giade, 2016; Oyinloye, 2019; Sule, 2013).

The potsherds from the research area indicated their level of artistic and innovation of utilizing the environmental resources to depict different patterns of decorations on their pottery. The oral account from the settlers confirmed that the materials rolled on their pottery for decorations were sourced from their environment and the decorations include rouletting, incisions, grooves, appliques, stamping and punching. Another function of pottery among the people of Zigam was as pavement. The oral tradition from the site stated that most potsherds with impressions depicted on them were used as pavement (tiles) in their rooms and kitchen in the past (pers. Comm.). The rationale behind the depiction of the impression on their pottery is to make it rough and to avoid slippery. The closer observations of the pottery in terms of their decorations, heights and thicknesses, suggests that they are closer to that of "So" in Borno State based on the Graham Connah description of "So" pottery in 1981.

From the careful observations of the bones collected on the surface of the site and in relation to the oral information, it is suggested that the bones were animal bones, but the species of animal(s) they belonged to, is yet to be ascertained. Oral information claimed that the earlier inhabitants of the settlement engaged in domestication of plants and animals and that those animals were part of their foods in the past. Much research have shed light on the understanding of the place of bones in archaeological record (such as Aliyu, 1995/2000) which attested that bone is one of the material cultures with very vital importance on the reconstruction of past history. Bone is useful in the reconstruction of the species of animal that existed, diet, inhabitants, season of habitation and past environment occupied by human.

The grinding stones from the settlement were used for grinding grains. From the account of oral narration, the people engaged in farming activities and part of their farm products were grains, which were processed with the aid of grinding stones (pers. Comm.). The oral tradition also supported that the people of the past utilized the grinding stones for grinding concoction and preparation of herbs (pers. Comm.). The upper grinding stone was often used as hammer and as well as file for sharpening of iron implements in the settlement. Women were claimed to be associated with the preparation of food and grinding of grains (pers. Comm.). This supported the practices of social stratification and division of labour among past settlers. The varying degrees of depressions on the surface of the lower grinding stones indicates frequency usage of the spot for grinding.

On the account of cemeteries, the archaeological analysis of burials provides information on how the dead were treated as part of the mortuary ritual, which gives the archaeologist insight into ritual practice, belief, and emotional responses to death. This also speaks more generally about social relationships among the living, including identity, gender, and social rank over time (Abubakar 2016). Burial sites and the study of burials provide insight into the lives of people in the past. From the study of burial sites, archaeologists have been able to contribute to the understanding of burial

remains, age, sex, diet and migrations about many past societies. As a result of the contributions to the discipline, burial sites have always been a source of immense curiosity in the reconstruction of the past societies.

From the Zigam hilltop site, three cemeteries were located within the site: each from the demarcated zone in the settlement. The cemeteries were characterized by presence of graves and stone boulders that served as the head mark around the areas. Oral tradition from the settlement attested that the people of Zigam buried their deceased in a grave and covered them with a pot (pers. Comm.). At a close interval to one of the cemeteries on the settlement, there was an identification of an exposed pot which suggests that probably the location was part of the cemetery and that the pot was used for burial. There were no accounts or traditions of grave goods or sacrifices after death among the people of Zigam. It was narrated that the younger ones were responsible for digging the graves and moving the corpse, while the elders oversaw placing pottery on the corpse, before the younger ones finally cover the corpse and pots with sands (Pers. Comm.).

On the account of defensive structures, Adeyemi and Bappah (2011) and Tijani and Aliyu (2017) noted that historic built environment such as defensive structure delineates sense of place, identity, evolution, ownership and community. The construction of defensive wall in a settlement mostly served as the source of protection to inhabitants of that settlement (Akinade, 2005). The defensive wall at Zigam settlement is an indication of authority of the settlement and ability of law enforcement towards the inhabitants of the settlement. The defensive wall indicates the site boundaries and creates sense of belonging within the settlement. The idea of the defensive wall from the settlement also attested that the area was a historic society, which has caught the attention of many other people or societies. This therefore called for the establishment of defensive wall. The defensive wall was constructed using stones, which are depreciating in the modern day. The wall signifies authority and citizenry among other functions in the settlement.

Architecture is seen as the art of and science of designing and constructing buildings. This is a design and organization of spaces and in its most common form; it is the design of buildings, their interiors and surrounding spaces. This definition created a room for the discussion of both house foundations and remnant of building on the surface of Zigam settlement. Unlike other animals, human thinks while building his environment and these buildings are indications of human reasoning (Roth, 2011). Oral tradition claimed that the people of Zigam have professionals responsible for all their architectures in the settlement. Oral tradition from the settlement claimed that the people of Zigam started the construction of their houses with foundations (stone of various shapes and sizes) and built on it (pers. Comm.). They roofed their houses with detached roof in the earliest time, before the recent past when they started using zinc.

From the site, the identified house foundations were of the same pattern (circular in shape) but different sizes which indicates social

stratification. The clay for their moulding is sourced from Tsamia stream at the foot of the hilltop and this suggests the reconstruction of the relationship between the people and their environment. The indigenous practice of architecture in the settlement was part of their profession and has served as source of income and employment opportunities for the people over time. The presence of the remnant standing of building with pattern of decorations suggests a relationship between the pottery materials and local architecture in relation to artistic nature of the inhabitant of Zigam settlement. Thus, after the buildings and roofing in the settlement, the Zigam people engaged in pottery pavement as part of their walls, tiles and flooring as artistic pattern and to prevent the people and their properties over time. Several house foundations and abundance of potsherds with impressions depicted on them from the site indicates the uses of pavement over time.

Dyeing practice is a well-known craft among the indigenous practices in the northern region of Nigeria. The practice is a process of colouring fibers, yarns or fabrics by using liquid containing colouring matter for imparting a particular hue to substance (Dhuinnshleibh, 2000). In many societies such as Rano, Bunkure and Koffa Mata, dyeing pit is utilized as the container for the practices; while, on an occasional case, there were archaeological evidence of the uses of pottery alongside with constructed pits by the people of Wurma in Katsina for this practice (Oyinloye, 2019). In Zigam settlement, the identified area for the dyeing practice was a big location with abundance of ashes and remnant of dyeing pits on the surface, which indicates that the people of Zigam probably utilized dyeing pits for their practices. Dahiru (1992), Dutsenwai, (2010), Heathcote (1976) and Nasir (1984) agreed on the processes of dyeing practices to be the same from the fabrication of yarn to the finishing stage in many communities in northern Nigeria. Most common differences include gender, containers and preventive items such as hand gloves, among others.

The oral tradition from the site claimed that the people traded the finished products with many communities in the past, including the famous Miya settlement in Bauchi State (pers. Comm.). The practice is well known among the men in the settlement, but the fabrication of wool for the exercise was done by women, which supported the argument of social stratification and suggest that the practice was part of the source of income for the settlement. A stone anvil located at proximity with the dyeing complex on the site with a smooth surface could as well have been used by the dyers from the settlement, as also supported by oral tradition. Fertility of soil, presence of cotton trees and availability of other resources such as water from Tsamia stream supported the claim of the industry in the settlement.

Shrine is a religious house and a sacred location to the people of Zigaam. At the shrine is situated a half pot decorated with applied decorations in form of animal figure. The pot was claimed to have been used for ritual purposes; but no oral account has supported how it was used (pers. Comm.). The shrine is located at the center of the site as it was also found in many

previous archaeological investigations in Nigeria such as Aniakor (1985), Disa and Abdulmalik (2019), Ojo (1967) and Okpoko and Ekechukwu (1999). Granaries are referred to as warehouses where grains are stored or preserved for future use. The numerous numbers of granary foundations on the site are an indication of extensive farming practices. It was narrated that the subsistence economic practices by the early inhabitants of the site is farming and part of what they produced were grains such as millet, maize, guinea-corn, rice, beans and groundnut (pers. Comm.).

### **Conclusion**

From the spatial distributions of material evidence on the surface of Zigam site, one can account for the factors that might have influenced the establishment of the settlement. The presence of Tsamia stream which served as the source of water for the settlement was claimed to have been used for several purposes. This could have been part of the leading factors towards the establishment of the settlement. The presence of hilltop could have also supported the reason for habitation on the settlement in the past since a hilltop assisted the settlement to put the enemy at disadvantage and people of the settlement at advantage. Another factor that might have influenced the Zigam early settlement was the arable land which supported the domestication of varieties of species of plants. There was also evidence of digging of clay for several functions at the site such as, pottery production and building, which were part of the resources of the settlement and could have supported the reasons for habitation. The construction of defensive walls, aside the fact that the settlement is situated on the hill, might have also influenced the growth of the settlement as many people from different part of the region seek protection and occupied the settlement for security purpose. The clear observation of materials on the landscape of the settlement indicated the spatial distributions of past activities and this supported a land use pattern over time.

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