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A PRELIMINARY ARCHEOLOGICAL INVESTIGATION OF KETARE ABANDONED SETTLEMENT OF KANKARA LOCAL GOVERNMENT AREA OF KATSINA STATE

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ABSTRACT

The paper is a preliminary archaeological investigation of Old Ketare, an abandoned settlement in Kankara Local Government of Katsina State, Nigeria. With the recent interest in reviving this historically rich and cultural environment, this paper explores the oral tradition and various archeological strategies, particularly survey, typological classification, and material analysis. The use of systematic investigation helped the study to discuss in detail the settlement patterns, subsistence activities, and various ways the environment is been lived in. The study was able to utilise archeological findings to provide foundational knowledge about the various cultural practices and daily activities in the Old Ketare. This gives a baseline for subsequent research about the archeological and historical heritage of Old Ketare in Kankara Local Government of Katsina State. The discussions from this paper revealed the site to be left open for further

Introduction

Ketare is a known abandoned settlement for about 234 years and its located at Kankara Local Government Area of Katsina State, Nigeria. The area is located on a plain land with approximately 3955sq km and lies between Latitude 11^0 51' 14.3" North and Longitude 007^0 32' 27" East with elevation of 653meters above the sea level. The town is bounded by Gidan-Azo Community to the North, Kafarda Village to the West, Drikaniya Village to the South, Barau (Health Center) to the East respectively as shown in Figure 1, 2, and 3.

However, archaeology is a well known sector in giving solution to site problem or giving ways to

archaeological investigation during excavation since this is the first time archaeological research has been conducted on the site.

Key Words: Preliminary Investigation, Archeological Site, Ketare, Abandoned Settlement and Cultural Reconstruction.

Iive with it (McCoy, 2022). Archaeologist study human pre-history and history from the development of the first stone tools at LomeKwi in East Africa 3.3. million years ago up till recent decades (Goudie, 2018). Archaeology is particularly important for learning about pre-historic societies for whom there may be no written records to study. Pre-historic includes over 99% of the human past, from the Palaeolithic until the advent of literacy societies across the world (Holder & Jamieson, 2003). Archaeology reconnaissance help in locating, investigating, and mapping evidence about historical sites (Uzuegbu & Ibeanu 2018). This is a systematic attempt to evaluate or identify archaeological site. this method usually provides data concerning the range (in size and internal arrangement) of a site as well as the total number and spatial distribution of artifacts, ecofact and features within a site and to also formulate hypothesis that can be tested through surface survey and excavation (Sharer & Ashmore, 2003). According to Andah & Okpoko (1994) because of the important of the site for archaeological investigation, archaeological prospects for location associated with the evidence of early human's activities either with the use of scientific or non-scientific method. These were done by the researcher with the intention of watching the site and also identify the archaeological finds and features that are valuable on the site under study.

Problem Statement

This has resulted in the condition where ketare settlement is under threat of farming activities and constructions. Not only this, there have not been any previous archaeological research work carried out over the settlement to document the history of Ketare and failure to make proper research by archaeologist in documenting the historical origin of this people. This is in particular to the threat of their farming and construction activities as it will tarnish the basic archaeological features needed in re-constructing the history of Ketare.

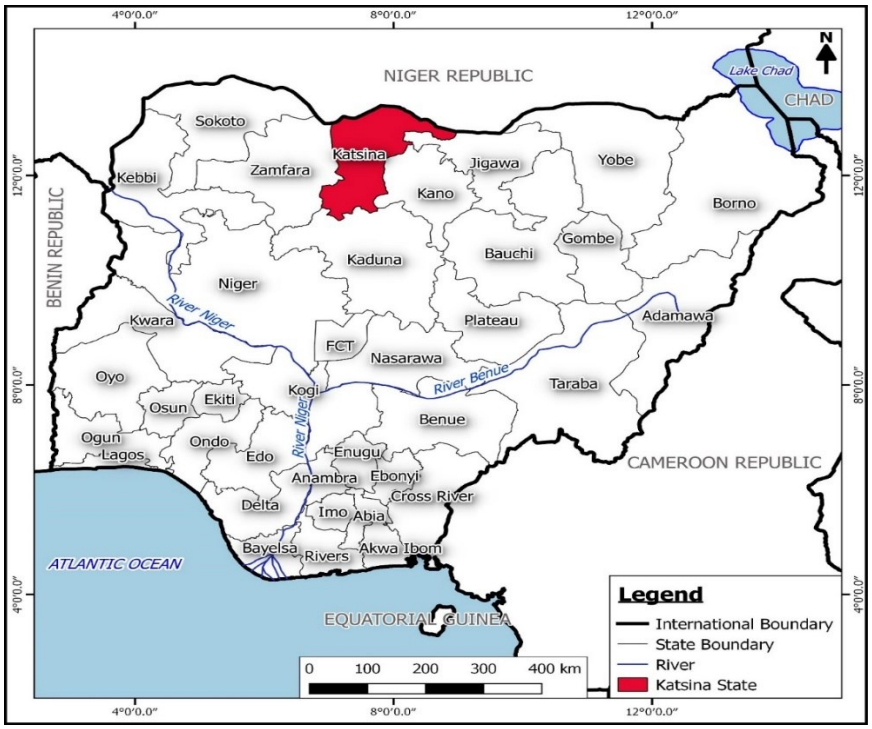

Figure 1: Katsina Statein Nigeria

Source: Map Gallery, Geography Department ABU Zaria

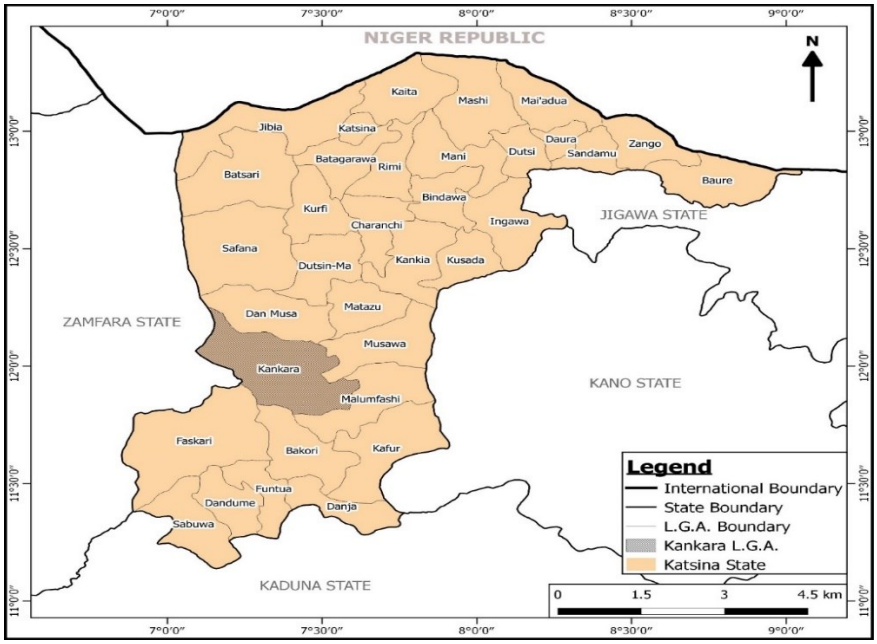

Figure 2: Kankara L.G.A. in Katsina State

Source: Map Gallery, Geography Department ABU Zaria

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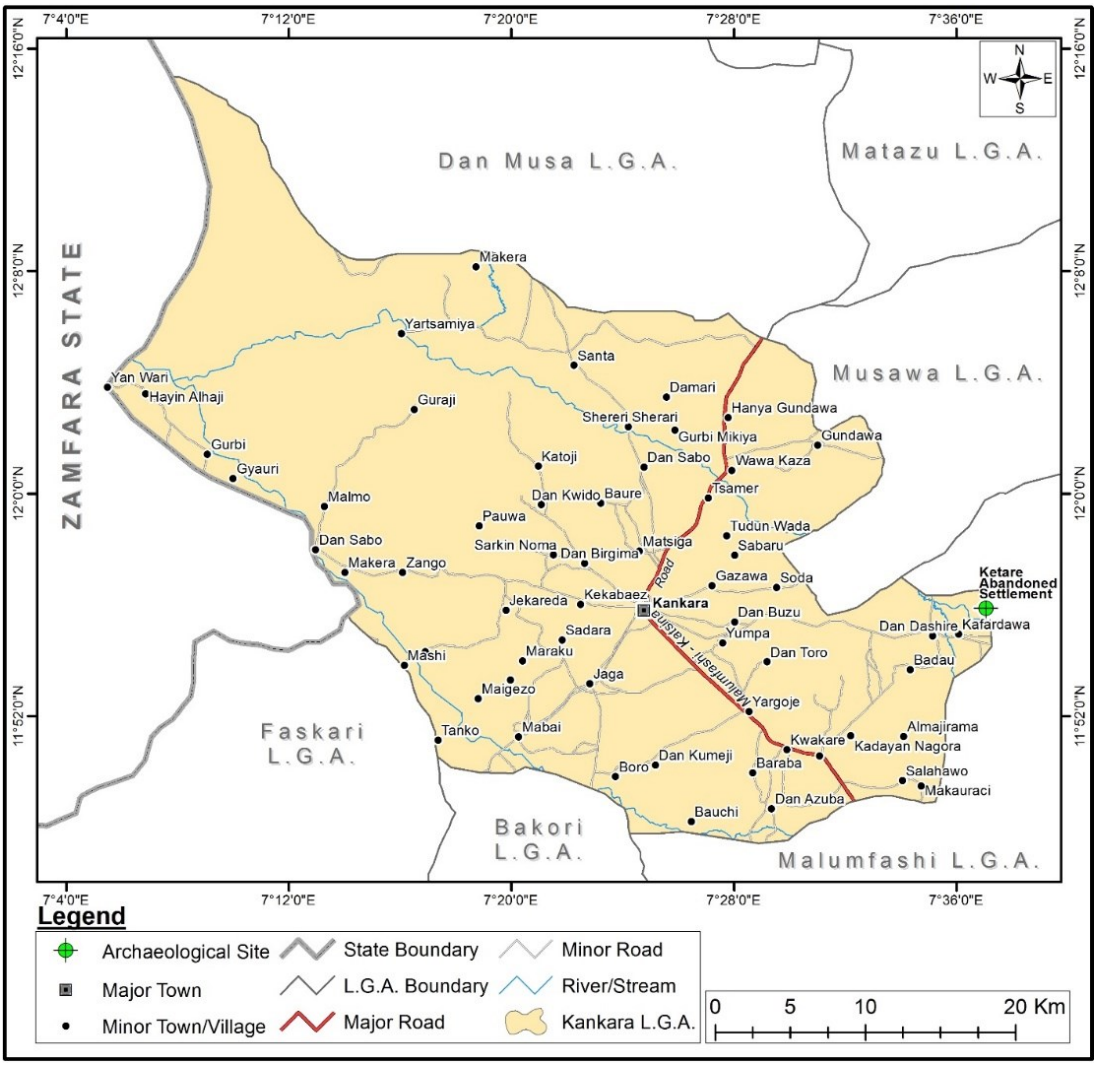

Figure 3: Ketare Abandoned Settlement in Kankara L.G.A.
Source: Map Gallery, Geography Department ABU Zaria

Environmental Background and Subsistence Strategies

The climate of Ketare fall within the tropical continental climate with annual rainfall figure ranging from 1000mm (Edokpa *et al.,* 2023). However, the Ketare climate varies according to month and season. The maximum temperature rises gradually from January and attain it highest mean value in August and rises to its peak in October (Abubakar *et al.,* 2024), the mean minimum temperature is during December to January.

In addition, the geology of Ketare is described to be composed of high-grade metamorphosed genesis inter- spread by Mata sediment of main quartzite, and schist

in the Western boundary oriented East to South direction of lowlands called "Fadama" are for special importance they are fairly rich in persists in dry season many parts of the fadama therefore used for the cultivation of tomatoes, pepper, onion and vegetable. Soil is the outer of the earth crust which support plants and animal to survive (Kutílek, 2015). The ketare soil can be classified as a sandy, loamy and clay, the color of most tropical soil dark brown to light brown as its changes from tropical forest area to the savannah Sahel area. Both rock and soil are very important to archaeology as well as its significance in relation to farming as a subsistence practice dominant (Brown & Walsh 2017). Their soil at the settlement such as sand, loamy and clay soils were used for the constructions of buildings and also the geology of the settlement aid the uses of hollows for grinding activities at the settlement.

The Vegetation of this area belongs to the Northern guinea savannah (Abdulazeez *et al.,* 2019). It is wood land characterized by trees such as baobab trees (*Andansoniadigitata*), Shea butter (*Butryosperumparkii*), oil palm (*Elaeisguineensis*) and mango tree (*mangiferaindica*) among others in which the last appear to be the commonest. Their vegetation at the settlement provided them with trees used for roofing of their buildings and wood carving among others.

This resulted to their mode of settlement as nucleated in nature, whereby houses are built with local bricks made of mud and dried grasses. Some houses are roofed with thatched while others are roofed with modern zinc. The houses are rectangular in shapes in the present day but said to be circled in the past. They chose this pattern of the settlement because of the nature of their environment and made them adaptable (Usman, Pers. Comm. 2018).

Plate 1: Geology of the Settlement
Source: Author 2018

Methodology

The Ketare abandoned settlement is on plain land surface of the earth, the settlement was occupied by the inhabitant of Ketare settlement in the past, it

was characterized by the presence of *Baobab tree, tamarin trees, mango tree, short grasses,* among others. On the abandoned settlement, there were presences of material cultures such as dye pits, collapsed buildings, pond, well, and entrance of ancient building. Also, at the settlement, abundance of potsherds is found scattered everywhere at the abandoned settlement and were collected as surface collections.

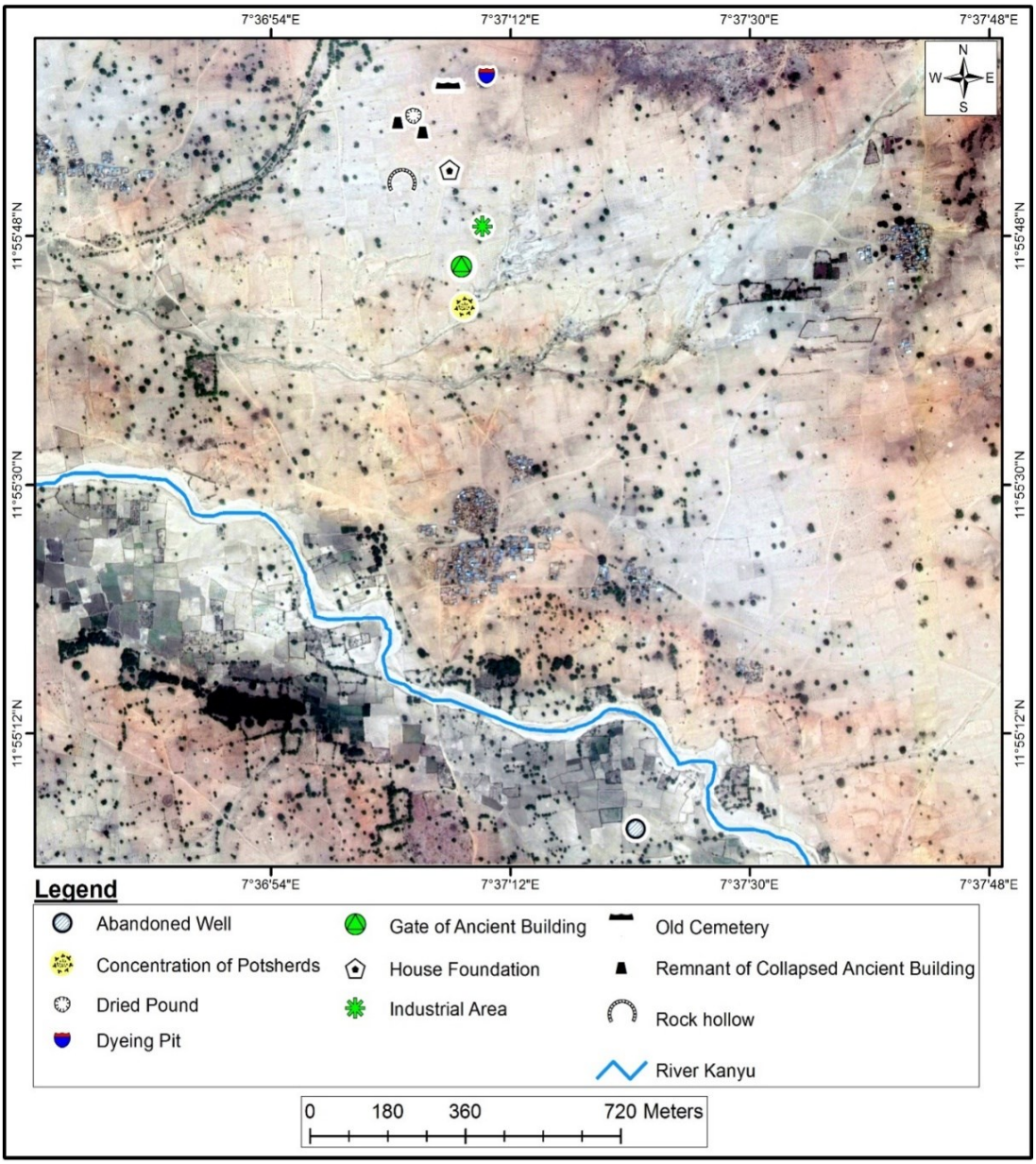

Figure 4: Archaeological Features in Ketare Abandoned Settlement
Source: Modified from the Administrative Kankara Local Government Area

Archaeological Reconnaissance and Survey at Ketare Settlement

The type of reconnaissance adopted for this research work was ground reconnaissance through foot walking on the settlement and this led to the discovery of material evidence of the past, both finds and features were found accordingly and documented.

Dye Pits: A dyeing pit was identified at the Western part of the datum point on the settlement. This dyeing pit was found aside from the dyeing area. The pit was a little bit open which was 10cm in depth and has 3.45M in diameter. The dye pit lies between Lat 11^0 55^1 59.6^{11} N and Long 007^0 57^1 10.2^{11} E with an Elevation of 579m above the sea level.

Plate 5: Dye Pit
Source: Author 2018

Abandoned Well: At the abandoned settlement, an abandoned well was found which was probably used as source of water in the past. The well was 6.23M in diameter and was found at the North Eastern part of the Datum point. This lies between Lat 11^0 55^1 05.1^{11} N and Long 007^0 37^1 21.4^{11} E with an Elevation of 578m above the sea level.

Plate 6: Abandoned Well
Source: Author 2018

Rock hollow: This was identified at the Northern part of the Datum point, the rock has an hollow which was a little bit deep and probably used for grinding of grains in the past. This rock hollow lies between Lat 11^0 55^1 51.9^{11} N and Long 007^0 37^1 03.8^{11} E with an Elevation of 582m above the sea level.

Plate 7: Rock Hollow
Source: Author 2018

Remnant of Collapsed Ancient Building

This is an ancient collapsed building at the settlement, the building probably served as a big room in the past because f its look and was rectangular in shape (has length and breath) the length of the collapsed building was 2.45M length and 1.34M breath and 1.67M height. The building lies between Lat 11^0 55^1 55.5^{11} N and Long 007^0 37^1 05.4^{11} E with an Elevation of 567m above the sea level.

Plate 8: Remnant of Collapsed Building
Source: Author 2018

Remnant of Collapsed Building B

There was also an identification of another collapsed building at the settlement. The collapsed building was at the Northern part of the Datum point and has length of 0.89M and 37cm on breath. The collapsed building lies between Lat 11^0 55^1 56.2^{11} N and Long 007^0 37^1 03.8^{11} E with an Elevation of 559m above the sea level.

Plate 9: Collapsed Building B
Source: Author 2018

House Foundation: This was found at the Eastern part of the site, the foundation was rectangular in shape and has 16cm breath, 25cm length. The foundation lies between Lat 11^0 55^1 52.8^{11} N and Long 007^0 37^1 07.4^{11} E with an Elevation of 572m above the sea level.

Plate 10: House Foundation
Source: Author 2018

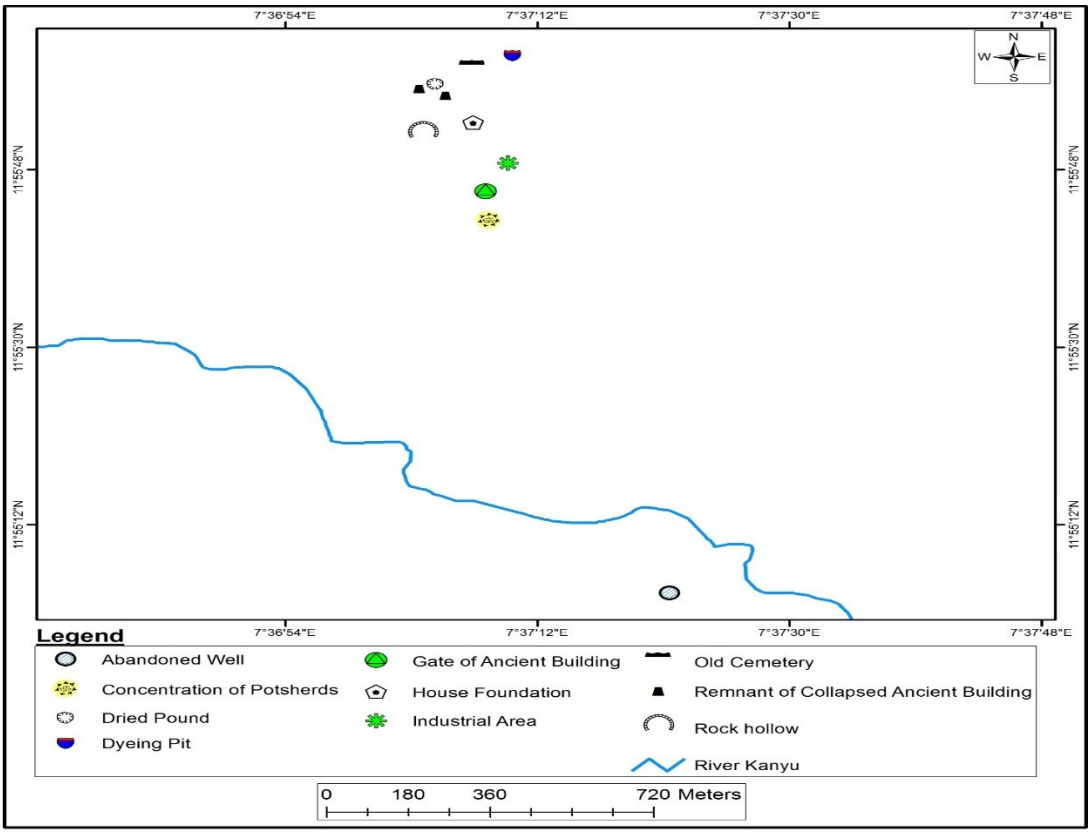

Figure 4: Archaeological Features in Ketare Abandoned Settlement
Source: Modified from the Administrative Kankara Local Government Area

Results and Discussion

At a basic level of analysis, artifacts found area cleaned, catalogued and compared to publish collections. This comparison process often involves classifying them typologically and identifying others sites with similar artefact assemblages. (Sinclair, 2016). Classification and analysis in archaeology, which usually serve as the basic mode to create cultural order from apparent and natural material by dividing a mass of undifferentiated data into groups most especially into smaller unit for effective study and understanding (Rice 1987), classification and analysis of material collected from Ketare abandoned settlement was based on potsherds collected from the site.

Below is the table, representing the summary of finds and features identified at the settlement.

Table 1: Showing the summary of finds and features.

S/N	FINDS AND FEATURES	QUANTNTY	PERCENTAGE %
A	FINDS		
1.	Potsherds	54	100%
	TOTAL	54	100 %
B	FEATURES		
2.	House foundation	1	
3.	Rock Hollow	1	
5.	Abandoned Well	1	
6.	Dye pits	38	
	TOTAL	42	100

Pottery Classification and Analysis

Pottery is often the most abundant type of artifact within an archaeological assemblage because of its roles in the study of archaeology of an area. It easily broken, does not decay, could be recycled and always available on the site. In this respect, it is very useful for archaeological research because it presents us with a significant sample of material that provides information about how people from all levels of society must have lied in the past.

A total number of fifty (54) potsherds were collected from Ketare abandoned settlement site, pottery classification and analysis is done base on the following ways:

1. Classification based on vessel part
2. Classification based on paste characteristics
3. Classification based on rim form

4. Classification based on surface finish
5. Classification based on decorative motif

Classification Based on Vessel Part

Vessel parts refer to the different sections that make up a pot, although some pots are made up of handles, other with stands. The general assumption is that vessel is made of at least a minimum of (4) four part (Martino, 2020). These are:

1. RIM: this can be referred to as the end point or the entrance of the vessel, which constitute 59.26% of the total potsherds.
2. NECK: this is part between the rim and body, which constitute 5.56% of the total potsherds.
3. BODY: the point of vertical tangency, which constitute 31.48% of the total potsherds
4. BASE: the inflation point or the seat of the vessel, which constitute 1.85% of the total potsherds
5. HANDLE: this is the part used for moving or carrying of a vessel, which constitute 1.85% of the total potsherds

The table below show the summary of vessel collected at the site, in terms of quantity and the percentages.

1. Classification Based on Vessel Part

Table 2: Showing the summary of vessel part.

S/N	VESSEL PART	QUANTITY	PERCENTAGE %
1.	Rim	32	59.26%
2.	Neck	3	5.56%
3.	Body	17	31.48%
4.	Base	1	1.85%
5.	Handle	1	1.85%
	Total	50	100%

Classification Based on Paste Characteristics.

A paste characteristic simply means a mixtures or combination of raw materials that make up the pottery. It deal the majorly with surface texture of the pottery. Paste characteristics of potsherds collected from Ketare abandoned settlement is based on visual inspection on the pottery.38.89% are brownish, 20.37% are blackish, and the

remaining 40.74% are redish. The potsherds are made up of sands, laterite and mice; this was achieved by breaking small edge of some of the samples.
The table below shows the summary of paste characteristics on potsherds collected at the site, in terms of quantity and their percentages.

Classification Based on Paste Characteristics.

Table 3: Showing the summary of paste characteristics.

S/N	PASTE	QUANTITY	PERCENTAGE %
1	Brownish	21	38.89%
2	Blackish	11	20.37%
3	Reddish	22	40.74%
	TOTAL	50	100%

Classification Based on Surface Finish

According to Dymańska *et al.* (2022), surface finish is the smoothness given to vessel that is achieved by polishing using pebbles blunt sticks or stone when the paste is still at leather hard stage. The potsherd may be eroded as a result of long usage, improper handling and weathering activities, difficult for one to identify its original surface treatment including the decoration and applied part on them.

In relation to the above, a total number of 54 potsherds were collected randomly from the site; the determination of surface finish was done by the use of hand to check the smoothness of the surface of each potsherd which is grouped as follow:

I. BURNISHED DECORATED: the pot are smooth with decorative pattern on them and it constitute (8) eight in number, constitute 14.81% of the total potsherds
II. BURNISHED UNDECORATED: potsherds with smooth surface and without decoration pattern on them. It constitutes (31) in number and constitute 57.41% of total potsherds.
III. UNBURNISHED DECORATED: potsherds with rough surface and decorative motif on them, which is (4) in number and constitute 7.41% of the total potsherds.
IV. UNBURNISHED UNDECORATED: potsherds with rough surface and without decorative motif on them, which are (11) in number and constitute 20.37% of the total potsherds.

The table below shows a classification and analysis based on surface finish of the potsherds collected in terms of quantity and percentages.

2. Classification Based on Surface Finish

Table 4: Showing the summary of surface finish.

S/N	SURFACE FINISH	QUANTITY	PERCENTAGE %
1.	Burnished Decorated	8	14.81%
2.	Burnished Undecorated	31	57.41
3.	Unburnished Decorated	4	7.41%
4.	Unburnished Undecorated	11	20.37
	TOTAL	54	100%

Classification Based on Rim Form

Rim form refers to different shapes in different sizes of pot entrance, in which determination of the shapes and size of a particular pot wares might have different purposes such as domestics, ceremonial or rituals purpose. A total number of thirty one (31) are rim form out of fifty four (54) potsherds that was collected; the classification of rim form is as follows:

Pot form

FORM 1: Rim form found under these category are three (3) in number and constitute 15% of the total rim form identified, The type of the lip found here are straight with flat lips. (See Fig 9).

FORM 2: the form identified under this category is everted with round lip. The number of the potsherds under this category is seen (15) and constitute 75% of the total rim form, (See. Fig 10).

RIM FORM 3: the form identified under this category is inverted with flat lip. The number of potsherds under this category is two (2) and constitute 10% of the total rim form. (See. Fig 11).

1. Classification Based on Rim Form

Table 5: Showing the summary of rim form.

S/N	POT FORMS	QUANTITY	PERCENTAGE %
1.	Straight with flat lip	3	15%
2.	Everted with round lip	15	75%
3.	Inverted with flat lip	2	10%
4.	TOTAL	20	100%

Bowl Form

FORM 1: Rim form found under these categories are three (3) in number and constitute 25% of the total rim form identified. The type of the lip found here are straight with tapered lips. (See Fig 12).

FORM 2: the form identified under this category is everted with the curvature and flat lip. The number of the potsherds under this category is seen (7) and constitute 58.33% of the total rim form, (See. Fig 13).

RIM FORM 3: the form identified under this category is inverted with flat lip. The number of potsherds under this category is two (2) and constitute 16.67% of the total rim form. (See. Fig 14).

The table showed below: indicate the rim form of potsherds collected with their quantity and percentages;

1. Classification Based on Rim Form

Table 6: Showing the summary of rim form.

S/N	POT FORMS	QUANTITY	PERCENTAGE %
1.	Straight with flat lip	3	25%
2.	Everted with round lip	7	58.33%
3.	Inverted with flat lip	2	16.67%
4.	TOTAL	20	100%

The table showed below: indicate the rim form of potsherds collected with their quantity and percentages;

Classification Based on Decorative Motif

Decorative motif are described as marks, lines or geometric shapes made on a pottery such as lozenges, incisions, grooves, stamping or notching, when they are at leather hard stage. This is done by incised or scratched using wood, stone, finger nails or any other tools that can be an impression on the pottery. From the collected potsherds at the abandoned settlement of Ketare, only (8) out of (54) potsherds were decorated. Further study of the potsherds indicates that some were single while others were multiple decorated.

Motif 1: the motif under this category fall under the multiple decorated motif, it was characterized by Wavy line incision. The number of potsherd under this category was six (6) potsherds (see. Fig).

Motif 2: the motif found under this category falls under the multiple decorative motifs. It was characterized by Punching line. The number of the potsherds under this category was a single potsherd. (See. Fig).

Motif 3: the motif found under this category falls under single decorative motifs. It was characterized by Horizontal grooves decoration. The number of potsherds under this category was a single potsherd. (See. Fig).

The table 7 below shows the decorative motif as well as quantity with their percentage.

2. Classification Based on Decorative Motif

Table 7: Showing the summary of decorative motif.

S/N	DECORATIVE MOTIF	QUANTITY	PERCENTAGE %
1.	Punching	1	12.5%
2.	Grooes	1	12.5%
3.	Incision	6	17%
	TOTAL	8	100%

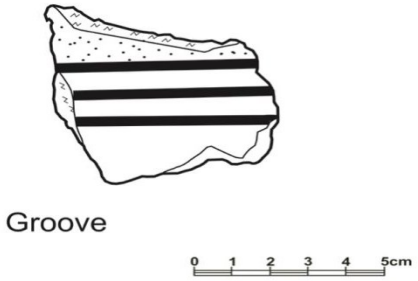

Figure 5
Source: Author 2018

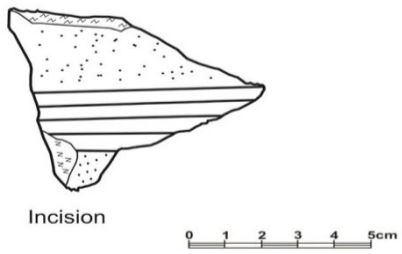

Figure 6
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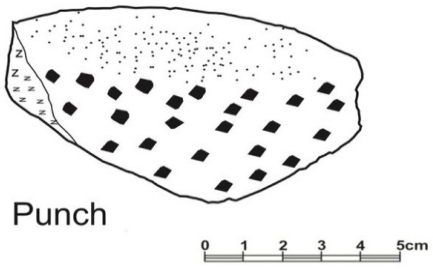

Figure 7
Source: Author 2018

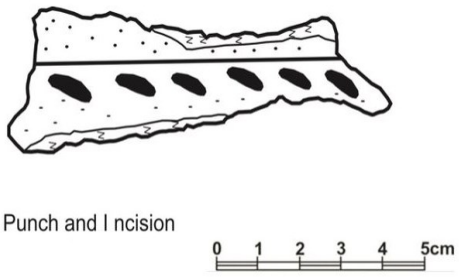

Figure 8
Source: Author 2018

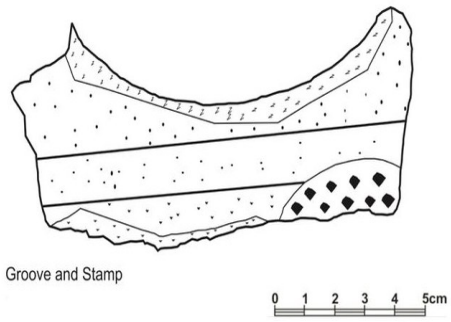

Figure 9
Source: Author 2018

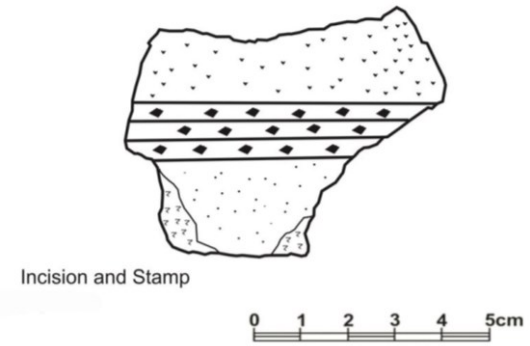

Figure 10
Source: Author 2018

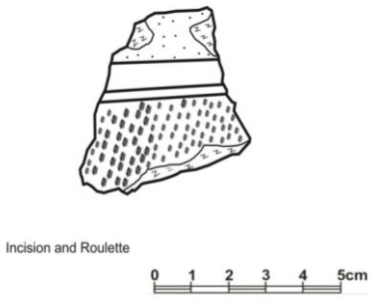

Figure 11
Source: Author 2018

Figure 12: Bowl form 1
Source: Author 2018

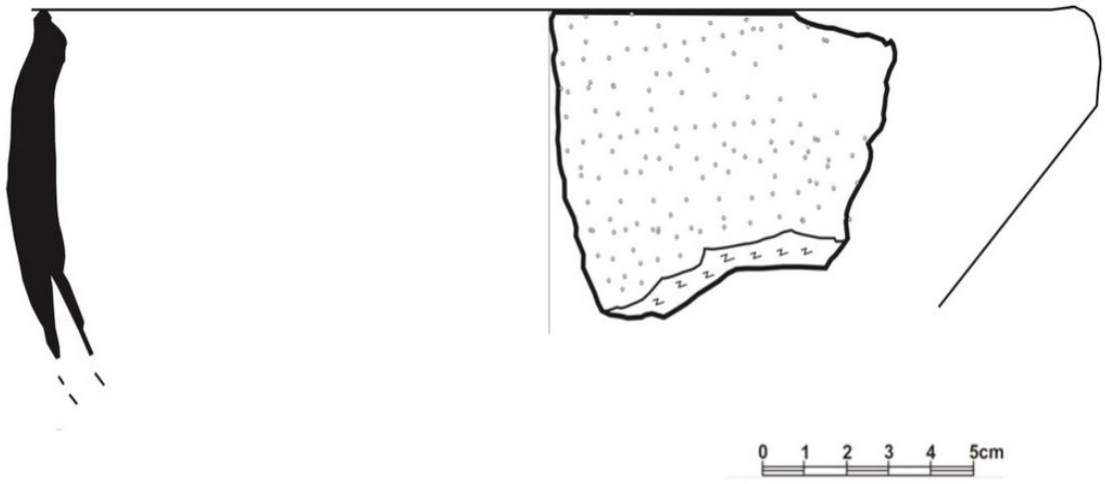

Figure 13: Bowl Form 2
Source: Author 2018

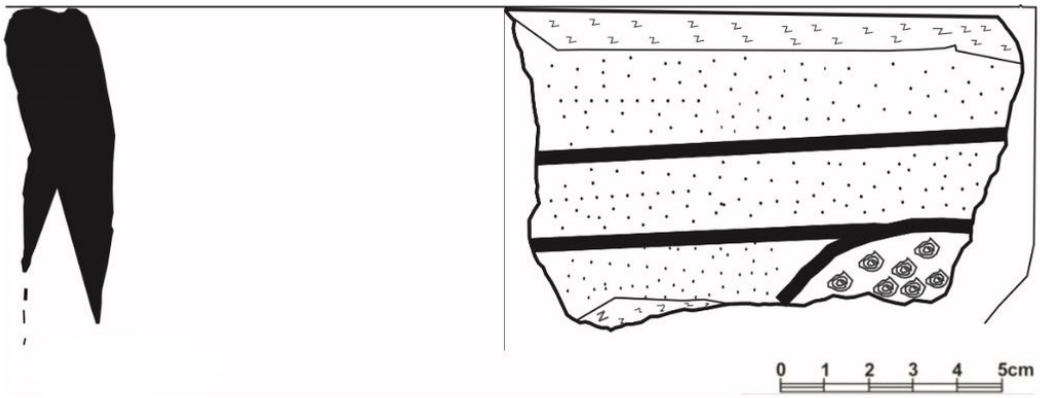

Figure 14: Bowl Form 3
Source: Author 2018

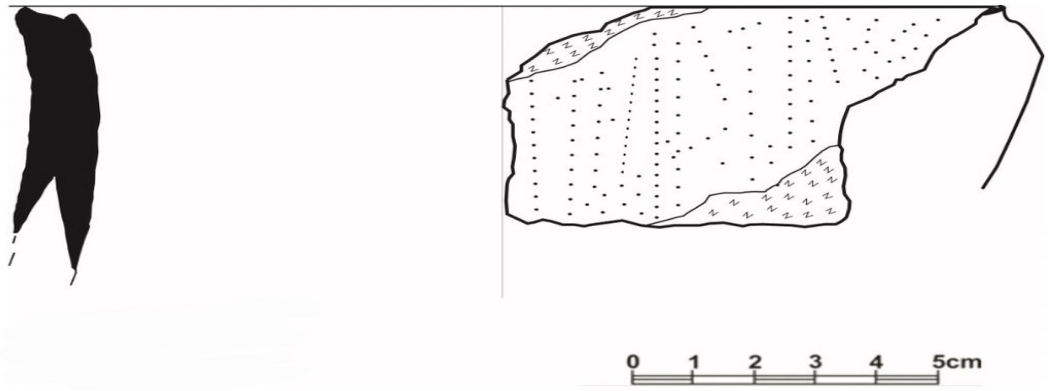

Figure 15: Pot Form 1
Source: Author 2018

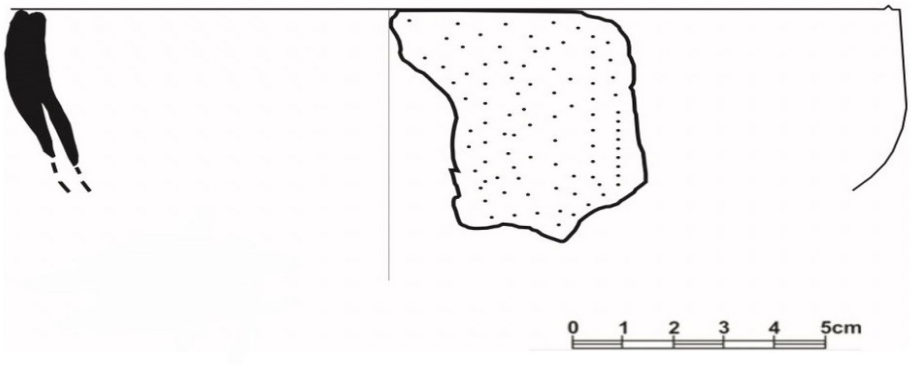

Figure 16: Pot Form 2
Source: Author 2018

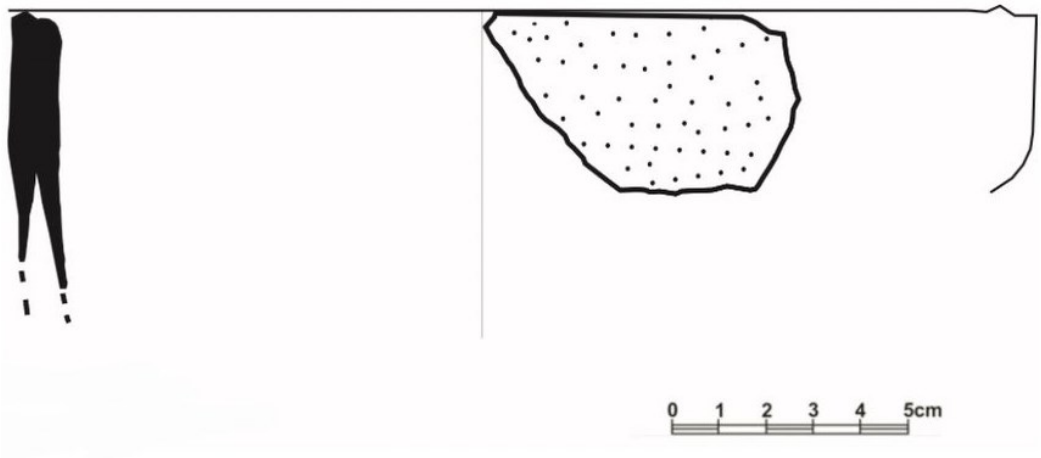

Figure 17: Pot Form 3
Source: Author 2018

Collapse Building

A collapse building is a part of house or structure that is very important aspect of man existence. The main objective is to provide shelter as one of man's basic needs. The house foundation were in form of bricks put together in other to bring out a house structure. According to oral informant there are courtyards which surround the individuals' rooms. The present-day farmers use the abandoned house foundation as farm boundaries. (Mal HaliruPer's personal communication, 2018).

Pottery

From the analysis of potsherds, it can be deduced that the past inhabitant of ketare abandoned settlement had a settled and aesthetic life. The corn cob and corn husks roulette found on the potsherds suggest the practice of agriculture in the past. The pots might have also been used for different purposes such as domestic, ceremonial, ritual among others.

Dye Pit

The dye pits were popularly called marina according to oral informant, the dye pits were used for dyeing of clothes, and they serve as an industrial site. (Abdul Salam, personal communication, 2018).

Conclusion

In conclusion, the basic aim of this research was a preliminary investigation of the Ketare abandoned settlement in Kankara Local Government, Katsina State. With the

paper's exploration of both the cultural and historical heritage of the environment, the present threat the site is undergoing as a result of both natural (erosion) and human (farming) agents, and the attempt to reconstruct through the aid of oral tradition, careful observation and collection of cultural materials such as potsherds and documentation of features. Others in this paper include classification, analysis, and interpretation of findings and features towards establishing the fact that there was occupation of different human activities at Ketare abandoned settlement in the past. However, this paper plays a foundational role in ensuring subsequent publications can explore more on the archaeological site.

Recommendations

1. The Government should impose laws to forbid the vandalization of cultural materials and unwarranted use of land until the land has been evaluated by professional archaeologists.
2. A general public archaeological awareness campaign on the protection, preservation and conservation of archaeological sites should be encouraged and promoted. This is desirable of study as lack of awareness has led to the destruction of several cultural materials.
3. Several measures should be taken in addressing the state of cultural heritage reviewing the mode of studying indigenous past should be geared towards realizing high measures of public awareness on the usefulness of history and the importance of archaeological remains to socio-economic and political well-being. This can be achieved by teaching subjects like history and elementary archaeology in primary and secondary schools.

References

Abdulazeez, A., Ibrahim, A., Suleiman, U. A., & Garba, R. U. L. (2019). Federal University, Dutsin-Ma (FUDMA), Katsina State, Nigeria.

Abdul MutalibSalisu (2014) *An Archaeological Reconnaissance of Duya Abandoned Settlement Site in Sabuwa Local Government Area of Katsina State*

Abubakar, K., Abaje, I. B., & Tukur, R. U. (2024). Rainfall and Temperature Dynamics in the Context of Climate Change in the Sudan Savanna Ecological Zone Of Katsina State, Nigeria. *FUDMA Journal of Earth and Environmental Sciences*, *1*(02), 82-98.

Andah, B.W. Okpoko, A.I. (1994); *Practicing Archaeology in Africa.* Ibadan. Wisdom publishers Limited.

Brown, A. G., & Walsh, K. (2017). Societal stability and environmental change: examining the archaeology-soil erosion paradox. *Geoarchaeology*, *32*(1), 23-35.

Dymańska, J., Cetwińska, A., & Manasterski, D. (2022). Different Vessel Surface Polishing Methods and Mutual Effects of their Applications. *EXARC Journal*, (EXARC Journal Issue 2022/3).

E-ISSN 3026-8982 P-ISSN 3027-2904

Edokpa, D. O., Ede, P. N., Diagi, B. E., & Ajiere, S. I. (2023). Rainfall and temperature variations in a dry tropical environment of Nigeria. *Journal of Atmospheric Science Research| Volume*, *6*(02).

Goudie, A. S. (2018). *Human impact on the natural environment: Past, present and future*. John Wiley & Sons.

Holder, N., & Jamieson, D. (2003). The prehistory of the City of London: Myths and methodologies. Archaeological journal (London), 160, 23-43.

Kutílek, M., Nielsen, D. R., Kutílek, M., & Nielsen, D. R. (2015). *Soil is the skin of the planet earth* (pp. 13-19). Springer Netherlands.

Martino, S. (2020). Vessel forms and functions. *An educator's handbook for teaching about the ancient world*, *1*, 193-195.

McCoy, M. D. (2020). The site problem: A critical review of the site concept in archaeology in the digital age. *Journal of Field Archaeology*, *45*(sup1), S18-S26.

Sharer, R. J. & Ashmore, W. (2003). Archaeology Discovering Our Past – Third Edition. New York: McGraw-Hill. https://lontar.ui.ac.id/detail?id=89854&lokasi=lokal

Uzuegbu, J. O., & Ibeanu, A. M. ARCHAEOLOGICAL RECONNAISSANCE OF OKE-OTU ABANDONED SETTLEMENT IN KABBA, KOGI STATE, NIGERIA. *nsukka journal of the humanities*, 77.

E-ISSN 3026-8982 P-ISSN 3027-2904