The settlement of Ilorin, Kwara State, Nigeria: an archaeological and ethnohistorical investigation

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Abstract

This doctoral research is the first archaeological and ethnohistorical investigation of the historically significant city of Ilorin, Kwara State, northern Yorùbáland, Nigeria. Ilorin is known for its intricate craft production, such as pottery, textile and red stone beads underpinning status, but also for being the seat of war and jihadist reform by the 19th century. Furthermore, Ilorin is largely known through oral traditional and written sources, which are mainly linked to the socio-political development of the Oyo empire (16th to 19th centuries CE). However, very little is known of the deep time history of the area prior to the 19th century. As such, this research focuses on the past settlement of Okesuna Ilorin, whose period of abandonment was situated in the early 19th century and at which the presence of archaeological remains, including potsherd pavements, had been previously reported. The research presents the results of archaeological surveys, excavations and finds analysis, with an emphasis on pottery. These data are integrated with data collected from oral tradition, field observations, and historical sources. The present doctoral research, which involved the investigation of ten units of various sizes, seven of which were excavated, documented a diverse suite of material culture, including abundant ceramics of various types, potsherd pavements, lithics, faunal and human remains, shell, and metal. Five radiocarbon dates from three of the excavated units span the 1st millennium CE to the early 2nd millennium CE. This thesis thereby adds valuable new archaeological data to improve understanding of Yorùbáland, demonstrating substantial extension in the time depth of Ilorin occupation. The work also shows that ceramics recovered feature decorations common in well-known centres of Yorùbáland such as Ile-Ife and Old Oyo. This work has therefore provided insights into the processes of regional socio-political developments within the Yorùbá region prior to the 19th century.

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Acknowledgements

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Chapter 1: Introduction

1.1. Introduction

This chapter sets out the background to the study as well as the study area and presents the thesis research questions and objectives. The theoretical frameworks upon which the research draws are situated, and the thesis structure is outlined.

1.2. Introduction to the study

This thesis provides an account of the first systematic archaeological research in the historically significant city of Ilorin, northern Yorùbáland, Nigeria, West Africa (Figures 1.1 and 1. 3). It aims to fill the gap of the unwritten past of the Ilorin area, by investigating local and regional socio-political developments prior to the 19th century through archaeological material remains. This project was motivated by the lack of systematic archaeological investigation of the Ilorin area, despite the city being well-known in the history of Yorùbáland (Figure 1.2) and West Africa more widely by the 19th century.

Although Ilorin is one of the best documented cities in West Africa in historical terms, that history is based on oral tradition and written sources (Akinjogbin 1980; Danmole 1980; Duff et al. 1965; Elphinstone 1921; Hermon-Hodge 1929; Hogben and Kirk-Greene 1966; Jimba 1981; Jimoh 1994; Johnson 1921; Law 1977; Lloyd 1971; O'Hear 1983; Omoiya 2013; Smith 1986). Occupation of the area has been suggested through these sources to be situated around the 17th century or later.

Generally, Ilorin historical accounts straddle narratives of migration, settlement-formation, alliance-building, conflict, regional and long-distance trade networks and craft specialisation, many of which connect developments in Ilorin to the wider Yorùbá regions (Akinjogbin 1971, 1980; Akintoye 2010; Bascom 1969; Danmole 1980; Duff et al. 1965; Elphinstone 1921; Forde 1962; Hermon-Hodge 1929; Hogben and Kirk-Greene 1966; Jimba 1981; Jimoh 1994; Johnson 1921; Law 1977; Lloyd 1971; O'Hear 1983; Omoiya 2013; Smith 1986; Usman 2012; Usman and Falola 2019; Willett 1960b). With regards to its connection to the wider Yorùbá region, the socio-political processes that marked the Ilorin area by the 19th century had become most pronounced through its relationship with the Oyo empire around the late 18th century. The Oyo empire, whose capital, the Old Oyo kingdom is located close to Ilorin (approximately 40 miles northwest), was reported to have been in existence between the late 16th and the early 19th century, involving the inclusion of several communities (Akinjogbin 1971, 1980; Akintoye 2010; Bascom 1969; Johnson 1921; Law 1977; Lloyd 1971; Smith 1986; Willett 1960b).

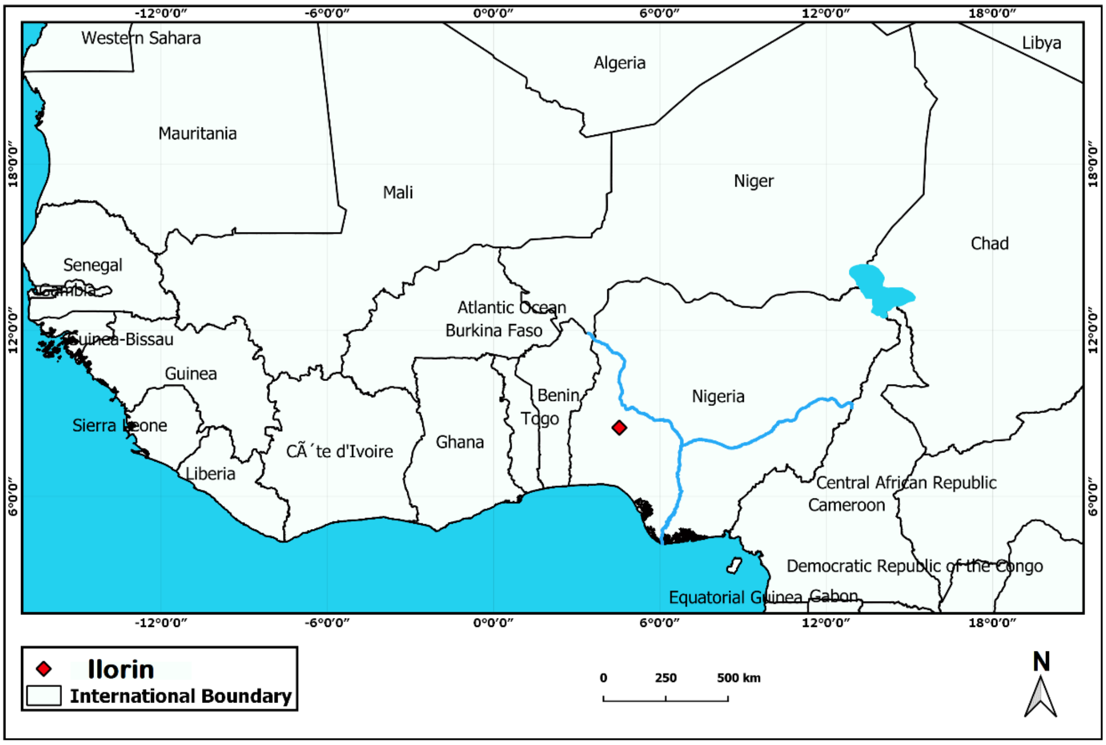


Figure 1.1. West Africa showing location of Ilorin in Nigeria (map by Macham Mangut and Bolaji Owoseni 2022).

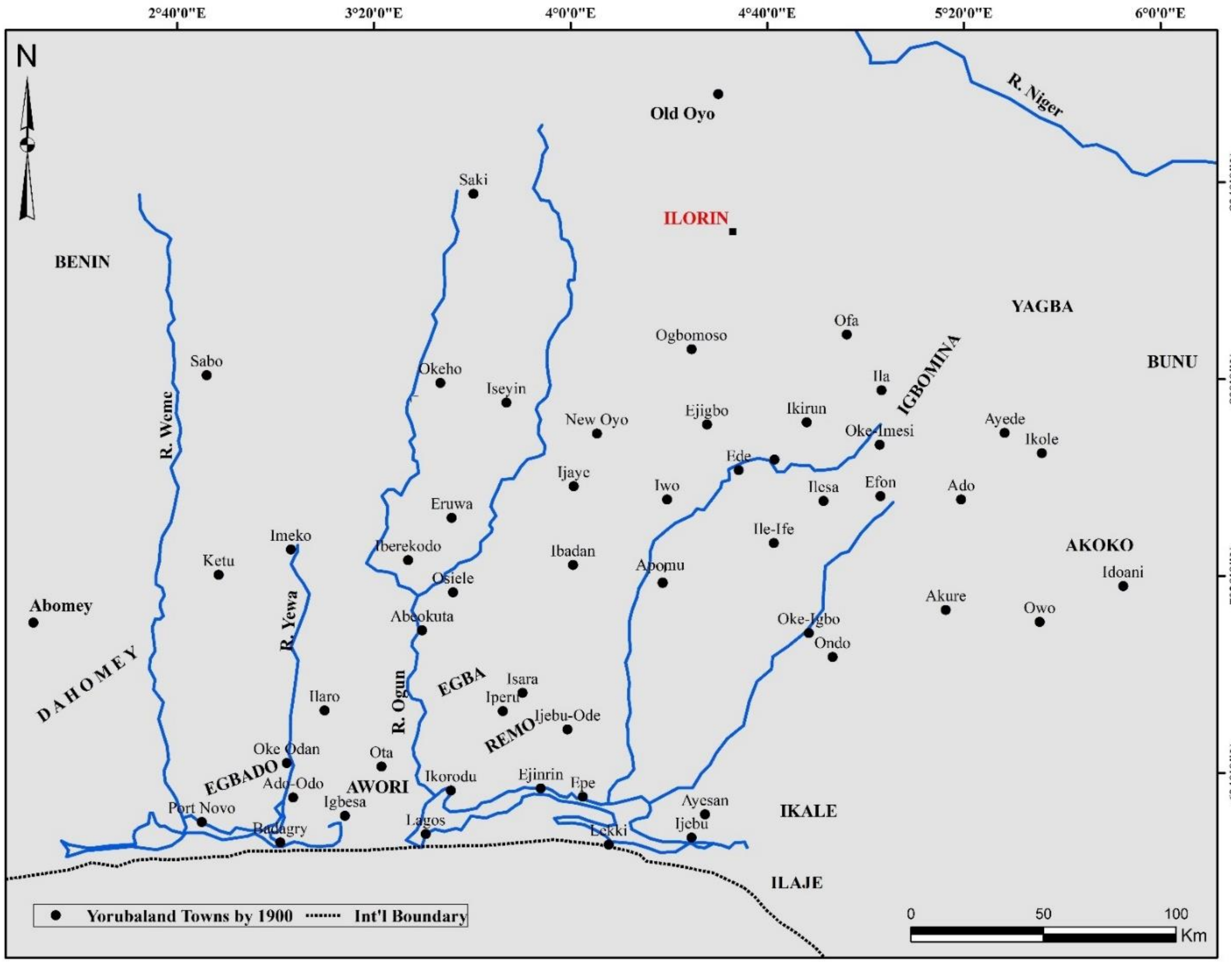


Figure 1.2. Map of Yorùbáland by the 19th century (adapted from Peel 2000: 36).

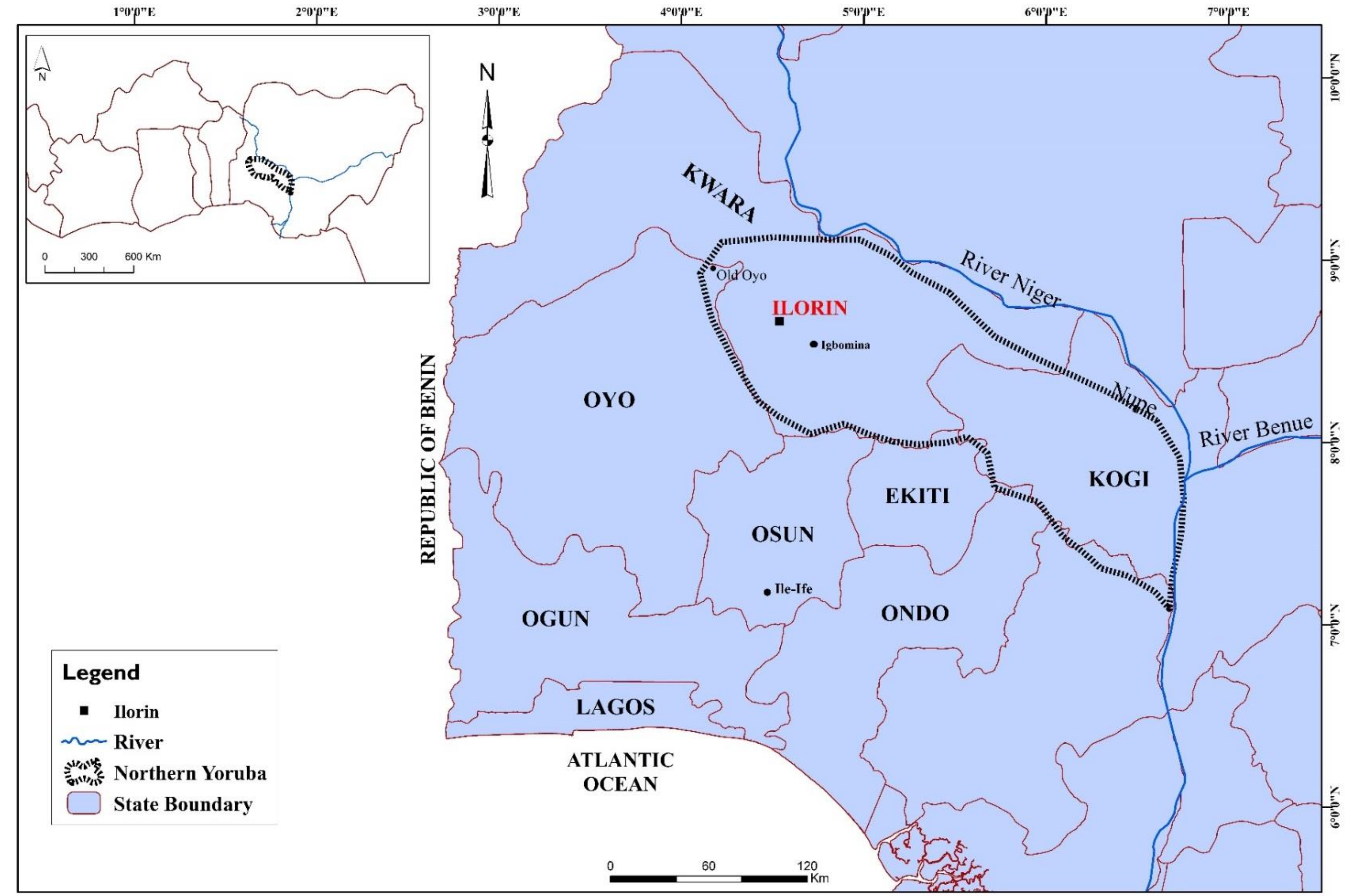


Figure 1.3. Nigeria showing Ilorin in Northern Yorùbáland.

By the late 19th...

and has been the subject of scholarly concern (Danmole 2012; Elphinstone 1921; Jimba 1981; Omoiya 2013; Otukoko 2014). For instance, Jimba (1981:1) posited, “there is no doubt that the origin of Ilorin as a collective settlement or single town is shrouded in a deep and, as yet an insolvable uncertainty when viewed from a historical perspective. For, in Ilorin today, there are historical conjectures, claims and counterclaims which are still controversial and inconclusive, as to the authentic origin and foundation of the ancient town.”

Archaeology and ethnography have been under-utilised as sources for the history of Ilorin, especially compared with what research has been carried out in neighbouring areas in the Yorùbá and Edo regions, such as Old Oyo, Ile-Ife, Benin, Igbominaland, Ede-Ile, Ilare-Ijesa, as well as further afield in Savè and Dendi, both areas of the present-day Benin Republic (Agbaje-Williams 1987; Aleru 1993, 1998, 2006; Champion et al. 2018; Connah 1975; Eyo 1969, 1974; Garlake 1974, 1977; Haour et al. 2018; Gurstelle et al. 2015; Haour 2018; Khalaf and Haour 2013; Ogundiran 2002a, 2002b, 2003, 2005; Ogundiran and Agbaje-Williams 2017; Soper and Darling 1980; Usman 1998, 2012; Willett 1960a, 1960b, 1973) (Figure 1.4).

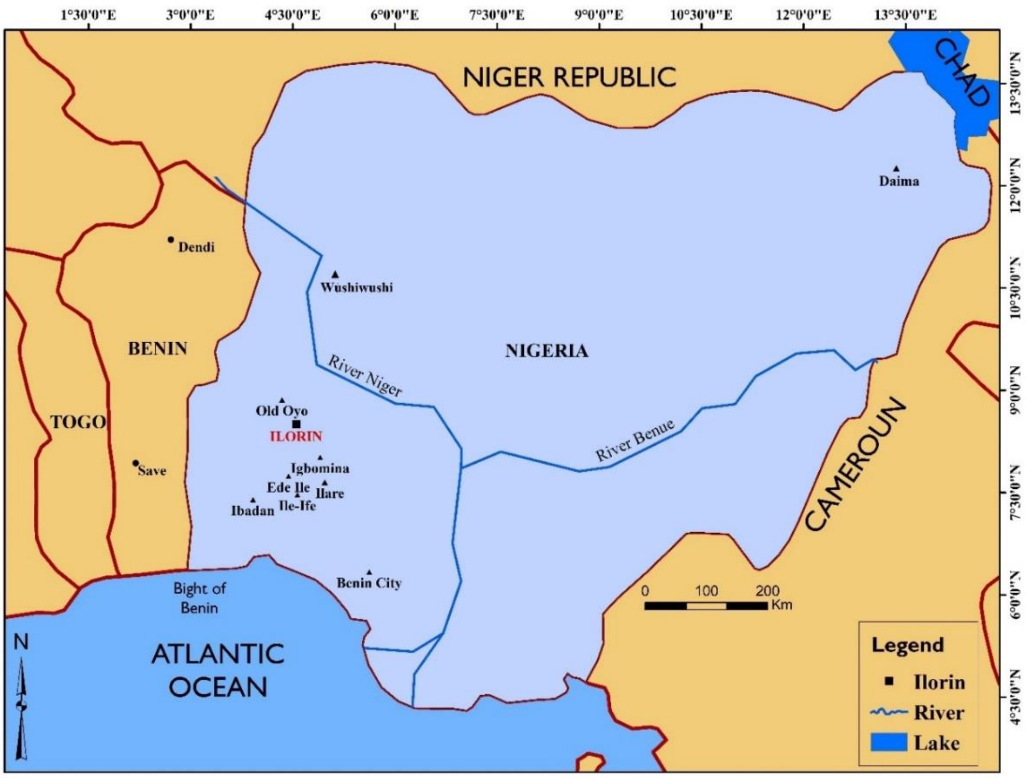


Figure 1.4. Ilorin and other places mentioned in the text.

A brief overview of findings from these other regions will illustrate the potential of archaeology and ethnography for improving our understanding. Three areas are briefly considered here: the two well-known urban centres of Ile-Ife, central Yorùbáland (Osun State), Old Oyo in northern Yorùbáland (between Oyo and Kwara State) and other northern parts of present-day Yorùbáland, namely Kogi and Kwara States.

In Ile-Ife, archaeological excavations have suggested that early occupation of the area was as early as the 1st millennium CE (Akintoye 2010; Babalola 2011, 2016; Eyo 1970, 1974; Garlake 1974, 1977; Ozanne 1969; Willett 1960a, 1970). By the 2nd millennium CE, ethnohistorical sources claim that Ile-Ife was regarded as the birthplace of an ideology of divine kingship and a royal palace culture that was subsequently emulated throughout the region (Ifemesia 1965: Ogundiran 2020a). This period which falls between the 11th and 15th century CE was known as the Classical period in Yorùbáland. The archaeology of Ile-Ife is characterised by distinctive material culture which includes an elaborate series of concentric city walls, pottery, microlithic tools, bronze, ironwork, stone sculptures, terracottas, potsherd pavements, ceramic tiles, glass beads and copper alloy sculptures (Aderibigbe 1965; Babalola 2011, 2016; Eyo 1970, 1974; Garlake 1974, 1977; Monroe 2018; Roth 2022; Willett 1959, 1960a, 1967, 1970).

Archaeological investigations conducted in Old Oyo since the 1950s have revealed expansive wall systems, microlithic tools, pottery, beads, grinding hollows, potsherd pavements, market area and assumed burial grounds of past kings (*Alaafin)* (Agbaje-Williams 1983, 1987, 1989; Folorunso et al. 2006; Ogundiran 2009; 2012; Soper 1992; Soper and Darling 1980; Usman 2012, Usman and Falola 2019; Willett 1960b, 1973) dating occupation to the 11th century or earlier. As mentioned above, and as will be developed in Chapter 2, historical sources suggest that developments in Old Oyo are closely linked to those in Ilorin, and archaeologists have contributed to this debate through ethnohistorical and ethnoarchaeological studies. A comparison of pottery from Old Oyo and Ilorin ethnographic pottery has led to the suggestion of transfer of people and potting knowledge to Ilorin from Old Oyo after the collapse of the latter in the early 19th century (O'Hear 1983; Willett 1960b, 1973).

In the northern areas of Yorùbáland, excavated sites include Iffe-Ijumu (i.e., Itaakpa, and Oluwaju rockshelters and Addo ironworking site) in present-day Kogi State and Obo Aiyegunle in Kwara State (Allsworth-Jones et al. 2012; Aremu 1991, 2004; Oyelaran 1998). In Itaakpa, Iffe-Ijumu (Figure 1.6), archaeological investigation revealed a settlement occupation containing pottery, iron and lithic, and human remains which have been dated to 2210±80BP years (Oyelaran 1998). Based on the material evidence from this site, it was suggested that human settlement dates back to 300 BC, and that by the beginning of the 1st millennium CE, iron-producing agricultural communities were occupying northern Yorùbáland (Obayemi 1976; Oyelaran 1998; Usman 2012).

In the Igbominaland area of Kwara State, material objects produced from excavations at Ila-Iyara, Oba-Isin, and Ipo include pottery, animal bones, shells, iron objects, slag, soap stones, tobacco-pipe, cowries, grinding stones, ground stone axe, stone pellets and lithics, beads, fragments of bead polishers, potsherd pavements, iron smelting furnaces, tuyères and grinding hollows (Aleru 1993, 1998, 2006; Obayemi 1976; Usman 1998, 2012). Radiocarbon dates from some of the sites such as Oba-Isin and Ila-Iyara situate the sites to the 13th century CE.

Therefore, based on data drawn from archaeology and associated disciplines, it appears that by 1000 CE, various communities had developed in the area now known as Yorùbáland (Obayemi 1976; Ogundiran 2020a; Usman 2012; Usman and Falola 2019). Archaeological research has shown how important archaeological data are at refining the picture provided by historical data and offering evidence of past ways of life and material culture.

As well as being motivated by the need to address the gap in archaeological coverage, the present doctoral research was further inspired by the growing trend in regional interaction studies in archaeological investigations of the Yorùbá-Edo regions (Aleru 2006; Gurstelle et al. 2015; Haour 2013; Monroe 2018; Obayemi 1976; Ogundiran 2002b; Usman 1998, 2012). Past archaeological approaches to studying early human occupation in these regions have primarily focused on large urban complexes such as Ile-Ife, Old Oyo, Benin, Owo, and Ilesa (Connah 1975; Eyo 1974; Garlake 1977; Obayemi 1976; Soper and Darling 1980; Usman 2012; Willett 1960a, 1960b; 1973). These studies were prompted by the overt display of power as revealed in historical literature, especially in the form of monumental architecture and artistic works, as well as in rituals and performative activities that reflect political and religious ideals (Aremu et al. 2013; Babalola 2016; Chouin and Ogunfolakan 2015; Lasisi 2017; Lasisi and Aremu 2016). Current archaeological investigations are however gradually moving away from a sole focus on these early large urban areas to consider frontier areas.

In Yorùbáland and elsewhere in West Africa, examples of the frontier areas investigated include Ilare-Ijesa, Oshogbo and Ede-Ile all in present-day Osun State, southwestern Yorùbáland; Igbominaland (Ipo, Isin, Ila-Iyara) Kwara State, northern Yorùbáland, and Savè in central Benin Republic (Aleru 1993, 1998, 2000a, 2006; Gurstelle et al. 2015; Ogundiran 2000; Usman et al. 2005; Usman 1998, 2012). Gurstelle et al. (2015) pointed out that this shift is rooted in the understanding of settlement variables in the Yorùbáland region specifically, and in West Africa more generally, and what the characteristics of their variability are in connection with the various forms of regional interactions (economy, politics, religion, and military), which can be recognised in the archaeological evidence. Ilorin, sitting at an important historic frontier area in Yorùbáland with far-flung connections to the wider Yorùbáland and the north of the River Niger, is an ideal case study for these questions.

As such, the overarching aim of this study is to demonstrate what material culture evidence, particularly archaeological ceramics, can contribute to the understanding of the longer-term occupation of the Ilorin area, which is described in the written records as having been characterised by long-standing population movements, and being closely linked with Old Oyo. This doctoral work relies on the information drawn from data recovered from surveys and excavations as well as oral tradition (Appendix 1), ethnographic data collection, and written sources.

1.3. Background to the research area

To understand Ilorin's deep-time cultural-historical processes, an archaeological study was undertaken in the Okesuna area of Ilorin, one of the early quarters of the present-day city (Figure 1.5). Okesuna was chosen because of the evidence of archaeological remains, such as large quantities of pottery of various shapes and decorative styles, potsherd pavements, grinding stones, bone scatters, iron tools and rock outcrops marked by grinding hollows. The area also gained recognition in the early 19th century due to its contributions to the emergence of Islamic practices in the larger Ilorin area and to the collapse of the Oyo empire. Due to a series of internal and external conflicts with the larger Ilorin authorities, Okesuna settlement was destroyed by the early 19th century, and its surviving inhabitants dispersed to other parts in Ilorin and beyond (Akintoye 2010; Hermon-Hodge 1929; Hogben and Kirk-Greene 1966; Jimoh 1994; Johnson 1921).

This researcher came to know about the archaeological potential of the Okesuna area in 2016 through a colleague and historian, Mr Ismail Otukoko, as a lecturer in archaeology at the Kwara State University, Malete, Kwara State. Interest in the site was spurred by the numerous significant visible archaeological remains. This also coincided with the recent establishment of an archaeological unit at the Kwara State University.

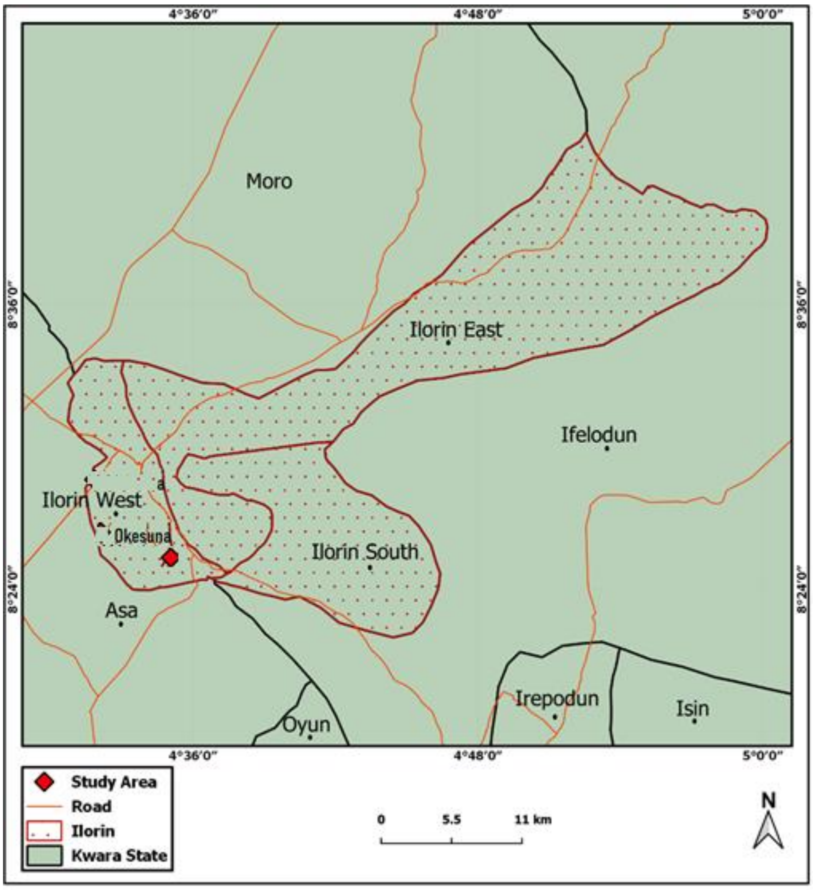


Figure 1.5. Location of Okesuna in Ilorin (Image prepared by Macham Mangut based on Owoseni fieldwork data 2020).

While limited survey work, including surface collections of pottery and studies of potsherd pavements, had been carried out on some of the sites in Ilorin, most of which concentrated in the Okesuna area (Otukoko 2014) and while the Kwara State University archaeology students' annual field school was undertaken on one of those sites, these activities were inadequate to place Ilorin in a chronological or regional framework. The present doctoral research, which commenced in 2019, set out to fill the gap.

Okesuna literally means 'Hill of Prophetic traditions'; the name is derived from the Yorùbá word '*Oke'* meaning uphill or raised ground, and the Arabic word 'Sunnah', i.e., traditions of the Prophet (Aliyu 2015; Jimoh 1994). Okesuna Ilorin is located on the southern end of present-day Ilorin around a rock outcrop and is associated with the present-day Institute of Technology of Kwara State Polytechnic, near University of Ilorin's former Mini-Campus (Jimoh 1994: 52; Onikoko 1992: 2). Okesuna was known as a significant centre of Islamic practices in Yorùbáland at the end of the 18th century (Akintoye 2010; Aliyu 2015; Danmole 1980; Hogben and Kirk-Greene 1966; Jimoh 1994; Johnson 1921; Law 1977; Onikoko 1992). In addition, the settlement alongside the larger Ilorin contributed to the processes that led to the fall of the Oyo empire and the rise of a Fulani emirate system in Ilorin in the 19th century (Akintoye 2010; Jimoh 1994; Law 1977; Smith 1986).

Okesuna was reported to have been destroyed and abandoned in the 19th century after a prolonged political tussle with the emerging Ilorin emirate (Hogben and Kirk-Greene 1966; Jimoh 1994; Johnson 1921; Law 1977) (see Chapter 2 for more details). By the 20th century, the area had become subsumed within the city of Ilorin such that various structural developments such as schools, hospitals, residential houses, market complexes and roads were established. These developments, coupled with subsequent natural phenomena such as erosion, have had a negative impact on the archaeological landscape over the years.

Despite these negative factors, a few locations within Okesuna still retain traces of past human occupation. These places include sites known today as Kwara State College of Education, Ilorin, Government-Day Secondary School, Odo Okun, Adewole Residential Estate, Okesuna hill and Apata Suna hill (Chapters 3 and 4). A further site, identified through oral information during the doctoral fieldwork, is the Sheikh Abdulkadir College. These various sites, which were all surveyed archaeologically, form the focus of the present thesis (Chapter 3); one of them, the Kwara State College of Education, was investigated through several test pits (Chapter 4) that provided the bulk of the data discussed here (Chapters 5 and 6).

The diagnostic pottery and potsherd pavements visible at Okesuna Ilorin settlement presented further interest. Pavements have been described as paved ways, floors or courtyards made from potsherds, stones, pebbles, or cobbles to create floor surfaces that can be flat-laid, or edge laid in pattern (Garlake 1974, 1977; Nzewunwa 1989; Willett 1960b). Their study has provided significant insight into past technologies and innovations, spatial distribution, and functions. Generally, potsherd pavements are regarded as evidence of significant historical phenomena associated with architectural features such as houses, temples/shrines, roads, and courtyards (Agbaje-Williams 1995; Babalola 2021; Champion et al. 2018; Chouin and Ogunfolakan 2015; Connah 1981; Garlake 1974, 1977; Haour 2013; Khalaf and

Haour 2013; Lasisi 2021; N'Dah & Mardjoua 2018; Nixon 2018; Nzewunwa 1989; Ogundiran 2000, 2002a, 2002b; Ogunfolakan 2009; Roth et al. 2021; Roth 2022). Early evidence of these architectural features was recorded at Jenné-jeno and Dia (Mali), Ulaira (now under Kanji Lake, Nigeria), and Daima (Borno, Nigeria) from about the mid-1st millennium CE onwards (Connah 1976, 1981; McIntosh 1981: Nzewunwa 1989).

Within Yorùbáland, potsherd pavements are most fully reported in the Ile-Ife area, and its surrounding towns (Eyo 1974; Garlake 1974, 1977; Ogundiran 2000, 2002a, 2002b; Ogunfolakan 1994, 2009; Willett 1960a, 1960b, 1967, 1970). Their extensive occurrence in Ile-Ife inspired Ekpo Eyo (1974) to use them as the basis for a classification of Yorùbáland cultural phases into pre-pavement, pavement, and post pavement periods. Dates for potsherd pavement sites in Yorùbáland such as Ile-Ife, Benin and Old Oyo cluster around the 12th and the 15th centuries (i.e., Agbaje-Williams 1983; Connah 1975; Eyo 1974; Garlake 1974, 1977; Obayemi 1976; Ogundiran 2000, 2002b; Ogunfolakan 2009; Willett 1960a, 1960b, 1970).

Other areas where potsherd pavements have been reported include Ilare-Ijesa, Ila-Orogun, Itagunmodi (Osun State), Igbominaland (Kwara State), Ibadan (Oyo State), Ijebu-Ode (Ogun State), Wushiwushi (Kaduna Valley in Niger State), and Daima (Borno State), all in Nigeria; at the Sao mounds sites and at Amkunchu (Chad Republic); in Dendi and at Savè (Benin Republic); and in Togo (Adekola 2019; Agbaje-Williams 1995; Aguigah 1992; Aiyedun and Shaw 1989; Aleru 1998; Fagg and Willett 1960; Gurstelle et al. 2015; Haour 2013; Khalaf and Haour 2013; Lasisi 2021; N'Dah & Mardjoua 2018; Nixon 2018; Nzewunwa 1989; Ogundiran 2000, 2002a, 2002b; Orijemie and Ogiogwa 2016; Usman 2012).

Other interesting aspects of the Ile-Ife type potsherd pavements is their association with buried pots (Eyo 1974; Fagg 1953; Garlake 1974, 1977; Ogundiran 2000, 2002b; Ogunfolakan 1994; Willett 1970). Based this discovery, Ogundiran (2000) then proposed a classification scheme for Yoruba potsherd pavements and grouped them into two types; pavements with buried pot association, and those without buried pot association. This is to establish the functional-cultural contexts of such association in Ile-Ife. Ogundiran (2000) further stated that for a better understanding of pot-potsherd pavements, that identification of pot type (jar, bowl, flask) and positioning (capsized or upright) are pertinent. Other information should include the spatial relationships, physical characteristics (decorations, paste, and color); and the artifacts associated with the buried pot(s) and the pavements (Ogundiran 2000). This, he claimed would help to differentiate potsherd pavements that served utilitarian domestic architectural purposes from those that functioned in religious and ritual contexts.

Based on their distribution mainly within areas known as ancient urban centres in Yorùbáland, these potsherd pavements have been understood to be urban markers in pre-colonial Yorùbáland. Agbaje-Williams (1995: 28) identifies the construction of pavements as a marker of the zenith of Yorùbá culture because it is an involved and time-consuming activity, which marks a level of sophistication in the culture concerned. He further suggested that it is possible that potsherd pavements were constructed to limit soil erosion. The oral tradition in Ile-Ife connects the emergence of potsherd pavements in Yorùbáland to an Ile-Ife female queen known as Luwo, who commanded her people to construct this feature to avoid her robe getting dirty from the mud (Ogunfolakan 2009). It has been suggested that potsherd pavements are likely indicators of strong political influence in the past (Agbaje-Williams 1995).

1.4. Research questions and objectives

With a broader view to elucidating the social-political processes that accounted for the material culture record of Ilorin at a regional scale, this doctoral research set out to investigate several specific questions:

- Can the nature and scope of intra- and/or inter-cultural interactions between Ilorin and her neighbours be inferred from the archaeological and ethnohistorical data?
- What information can be established on past socio-political, cultural, and economic processes as well as the chronology of early human occupation in Yorùbáland through archaeological pottery typology and radiocarbon dating at Ilorin?

- What additional information can be obtained on the nature and composition of the distribution of surface material culture and features, in particular potsherd pavements at the Okesuna site in Ilorin?
- How does the study and interpretation of the archaeological material culture from Ilorin, especially pottery, complement or/challenge the current picture derived from research elsewhere in Yorùbáland, especially given the increasing focus on frontier areas rather than the well-known urban centres?

To this end, the archaeological work centred around the following objectives:

- To conduct a systematic surface survey of previously known and newly identified sites, documenting artefact scatters and features, to create a comprehensive record of surface archaeology, including potsherd pavements.
- To carry out archaeological excavations to enable the recovery of archaeological remains from securely stratified contexts, including samples for radiometric dating, and to examine the stratigraphic sequence.
- To define the first typology of archaeology ceramics of the Ilorin area, based on stratified finds.
- To compare the Ilorin assemblage, in particular pottery, with that of neighbouring areas in Yorùbáland and beyond, and with present-day ceramic production in Ilorin.

1.5. Theoretical framework

To understand the settlement of Ilorin and pertinent socio-political developments within the cultural historical context of the Yorùbá region prior to the 19th century, this thesis draws on several sets of theoretical thinking. Frontier theories and peer-polity interactions both offer productive routes into the question of Ilorin's relations with its neighbours, while the material culture that forms evidence for such relations, and that emerges from the archaeological work, is approached via the lens of the *chaîne opératoire*.

Igor Kopytoff's (1987) African Internal Frontier thesis will be considered for this study, as it pertains to demographic shift and far-reaching socio-political development on frontiers. Kopytoff suggested that the history of the African continent was marked by frequent fissions and movements of groups as people left their communities to create a new life elsewhere. New social groups emerged following the reorganisation of the political order which took place due to the successive immigration of various populations, and such processes of ethnogenesis occurred at local or internal frontiers, within and among communities of people of different origins.

One key feature in Kopytoff's model is the notion that frontiers have to be socially produced by the metropoles, and that internal frontiers emerge in politically unrestricted areas, where intruding settlers act and create new societies on their own, some of which might lead to the emergence of new polities and identities. This theory has influenced many African archaeologists (Aleru 2006; Barros 2012; Haour 2013; MacEachern 2001; McIntosh 1999; Ogundiran 2002b, 2012, Robertshaw 1994; Usman 2012), including those researching the Yorùbáland region, in thinking about mechanisms and processes of socio-political developments in frontiers of centres and how these processes are reflected in the material record through space and time, especially in the period prior to the 19th century when historical records are scarce.

Indeed, the history of present-day Yorùbá society is, in common with that of many other groups, characterised by population movements of many kinds and scales, undertaken for political, economic, or religious reasons or simply for personal adventure. In line with this, migration is an important part of Ilorin history, and people trace their origins to different cultural backgrounds, with the migration of various Yorùbá and non-Yorùbá groups under various circumstances. It is expected that this would have ramifications for the process of community formation, development of polity and attendant social relations in the town, especially in terms of material-cultural implications in the archaeological record.

Similar to the concept of the African Frontier thesis is James Scott's idea of the 'zomia'. Scott (2009) argued that the inhabitants of a zomia may consist of runaway, fugitive, or shatter, marooned communities who have been fleeing the oppression of state authorities in terms of slavery, conscription, taxes, corvée labour, epidemics, and warfare. He proposed that such people's ways of life and social practices were structured to build resistance against any form of state infiltration, development, or power. While Scott's study was concerned with the diverse groups of peoples who lived in an extensive very high-altitude frontier zone of Southeast Asia, a collaborative research network 'Medieval zomias: alternative global histories' (Oxford 2019-2020) allowed me to explore its applicability to the region of Ilorin which, as mentioned above, was marked by multiple migrations (Owoseni forthcoming). As such, it is hoped that a consideration of these theories of African Frontiers and zomia would help to answer questions on whether early Ilorin area can be considered a frontier or a zomia.

Another concept considered in this thesis is the model of peer-polity interaction, proposed by Renfrew and Cherry (1986). As in the case of Kopytoff's frontier model, the peer-polity interaction model examines issues of regional interactions and change, but it is grounded in the understanding that societies or polities can interact and share similar features but also be autonomous from one another, rather than experience relations of dominance and subordination. Although over time, one unit may become dominant over the others, the earlier phases are characterised by relative equality. The concept of peer-polity interaction is intended to designate the full range of interchange taking place including imitation and emulation, competition, warfare, and the exchange of material goods and of information between autonomous social political units situated within a single geographical region, or in some cases more widely. Renfrew and Cherry (1986: 1-2) posited that these social-political units, though they may share common features or cultures, are often fiercely independent and competitive and do not exist in isolation.

Indeed, the idea of the Yorùbá community of practice developed recently by Ogundiran (2020a) draws on many themes which cross-cut those raised by Renfrew and Cherry and Kopytoff. In understanding the concept of the Yorùbá community of practice, Ogundiran (2020a: 7, 108) advances the idea of the *ebi* fraternity, an idiom of filial relationship that he suggests has its root in the ideology of the House society characterised by formalised political institutions headed by a priest-chieftain, which he suggests may date back to what he terms an 'early formative period' in the 1st millennium CE. In line with Ogundiran's assertion, Obayemi (1976) had earlier proposed that it appears that during this period, sometime between 500 and 800 CE at Ile-Ife, political institutions regarded as village complexes began to form loose associations or confederacies. These loose associations or confederacies are headed by village heads or priest-chieftain serving on their administrative and religious council (Olomola 1992; Usman and Falola 2019).

As such, Ogundiran (2020a: 108) refutes the general opinion of scholars that Ile-Ife was the original place of departure for the Yorùbá people, or key to the development of significant socio-political processes within the Yorùbá region. He argues that the kingdoms and city-states that populated the Yorùbá community of practice were not a loose formation of polities with a shared loyalty, nor were they brought under a single government in one historical event (Ogundiran 2020a: 109-110). Evidence of the diverse skills and specialisations of Ile-Ife type of copper alloy, sculptures, iron products, terracotta, architectural innovations (especially the use of potsherd pavement and ceramic discs) were a result of input from diverse groups and cultural identities from different part of the surrounding regions (Ogundiran 2020a) (Figure 1.6). As such, the Ile-Ife confederacy and by extension many areas of Yorùbáland at this period were loose political institutions with no centralised government, powerful king, or urban capital, which suggest an early stage of socio-political development (Usman and Falola 2019).

This early formative period sets the pace for an understanding of later historical processes. The so-called 'Classical' period of Yorùbáland, which spanned the 11th to 15th centuries, was characterised by the emergence of a centralised political system, the development of crowns and shell beads, and the production of stone figurines, life-size naturalistic terracotta sculptures, glass beads and potsherd pavements (Agbaje-Williams 1983; Eyo 1974; Garlake 1974, 1977; Obayemi 1976; Ogundiran 2000, 2002b; Ogunfolakan 2009; Willet 1960a, 1970). Ogundiran (2020a) proposed that the Yorùbá community of practice of this Classical period had its root in the early formative period, and can be understood and conceptualised based on this ideology. This suggests that the area known today as Ilorin might have formed part of an early autonomous socio-political unit in Yorùbáland, contributing to the development of the later Ile-Ife regional network due to its proximity to the larger River Niger area.

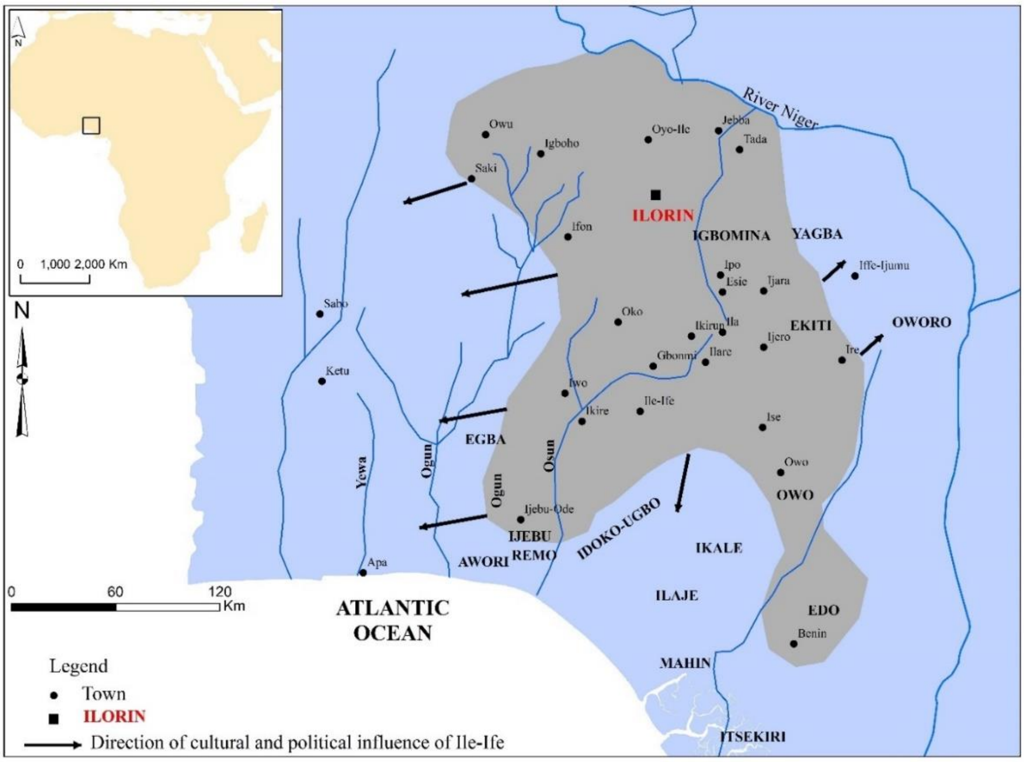


Figure 1.6. Ile-Ife empire by the mid-14th century including areas mentioned in text. (Redrawn from Ogundiran 2020a: 113).

In approaching the material culture that can form evidence for such relations and ‘community of practice’, and that emerges from the archaeological work, I apply the principle of the *chaîne opératoire* (also known as operational or technical processes). Initially advanced by André Leroi-Gourhan (1964), the concept was further promoted by other researchers such as Cresswell (1982, 1990), Dobres (2009), Dobres and Hoffman (1994), Gosselain (1999, 2000, 2009, 2018), Lemonnier (1976, 1993), and Sillar and Tite (2000). This concept is considered here since a major part of this doctoral work is the analysis of the archaeological ceramic assemblage of the Okesuna quarter of Ilorin, which considered stylistic, morphological and technological approaches.

The *chaîne opératoire* has been described as the different stages of production from the acquisition of raw material to the final product. The notion here is that manufacturers make certain choices in the production processes which are driven by the technological culture within their social groups, and are reflected in the raw materials, tools and techniques used (Dobres 2009; Roger 2012; Sillar and Tite

2000). By identifying the most frequently recurring of these choices made throughout the technical sequence, the archaeologist is then provided with insights into the characteristics of the technical traditions of the social group under study, through variations in their material culture attributes (Sillar and Tite 2000). This approach differs from some typological approaches which concentrate on the finished product and not the entire process, and it has been useful in understanding the role of human choices or behaviours providing insights into socio-technical systems, gender and technology (e.g., Lemonnier 1993; Pfaffenberger 1992).

This approach has been applied to the study of various types of material culture, such as metal and lithics, but has been most especially deployed in the study of ceramics, from both archaeological and ethnographic contexts. The concept, methods and applications have evolved progressively over many years and are widely used in the study of archaeological ceramics (Dobres 2010; Dobres and Hoffman 1994; Gosselain 2009; Haour 2003). The idea here is that, by dividing the operational sequence of ceramic production into separate stages, archaeologists can consider the technical choices or patterns of behaviour of the potters at each stage (Sillar and Tite 2000). This approach marks a shift in archaeological ceramic studies towards more social approaches (Pikirayi 1999, 2007), complementing studies that formulated typologies based on style and form, generally reflecting cultural-historical frameworks (Willey and Sabloff 1980), or those that viewed ceramics styles as communication tools serving as a mirror of identity and carrying information about social groups and boundaries (Hegmon 1992; Wiessner 1989).

New approaches to the application of the *chaîne opératoire* concept have emerged which have led to diverse discourses about archaeological ceramic technology. These include ethnoarchaeological studies (David and Kramer 2001; Hegmon 2000; Longacre et al. 1991; Roux 2003; Stark 2003), the social dynamics of technology and anthropology (Gosselain 1998; Killick 2004; Stark 1998), significance of ceramic material analysis to technology (Berg 2008), linking ceramic technology to manufacture techniques (Dobres 2010; Gosselain 1992; Rice 1987; Rye 1981; Stark et al. 2000; Van der Leeuw 1976), and ceramic production and manufacture (Croucher and Wynne-Jones 2006; Livingstone 2000).

Although the early trend in Yorùbá archaeological ceramic studies mainly applied the typological systematic approach (Agbaje-Williams 1995; Eyo 1974; Garlake 1974, 1977; Ogunfolakan 2009; Ogundiran 2000, 2002a, 2002b; Shaw 1978; Willett 1960b), this is however changing, as archaeologists attempt to approach ceramic studies holistically with the application of decoration, morphology, and technological analysis (e.g., Aleru 2000b; 2006; Babalola 2016; Ige et al. 2009). The present doctoral research places itself within this more recent vein of study and the concept of *chaîne opératoire* is useful in this regard.

1.6. Thesis Structure

The thesis is structured into seven chapters with relevant raw data provided in appendices. The present chapter has introduced the doctoral project, setting out the background to the research and highlighting its aims and objectives as well as the theoretical frameworks examined.

Chapter Two sets out the geographical and historical background of Ilorin. The first section outlines the area’s geographical setting, discussing location, climate, soil and vegetation. The second part of the chapter provides an overview of the historical sources relating to Ilorin history and the challenges in reaching back to periods beyond the past two or three centuries. This is then followed by the general historical background of Ilorin which discusses the area’s traditions of origin, migration history, and political and socio-economic history.

Chapter Three presents the archaeological survey carried out within the Okesuna Ilorin area. This presents the objectives and methodology employed in the survey work, and discusses the sites recorded.

Chapter Four outlines the excavations carried out within Okesuna Ilorin. The units excavated are presented in turn, discussing reasons for their excavation, and presenting the stratigraphy, material culture and radiocarbon dates resulting from this work.

Chapter Five presents the ceramic assemblage from excavation and surface collection, focusing on decoration, morphology and technological attributes to provide a systematic description of the material.

Chapter Six discusses the analysis of other finds resulting from the work. These include beads, metal tools, lithics, utilised sherds, a pot stand and unidentified materials. The faunal remains, which include shell and animal bone and teeth, are also discussed.

Chapter Seven concludes the thesis by summarising and synthesising the main results and addressing its contribution to our understanding of the archaeology and history of the Ilorin area, of Yorùbáland, and of West Africa more broadly. Finally, it outlines future research directions in the archaeology of the Ilorin area and northern Yorùbáland more widely.

Chapter 2: Ilorin: Geographical and Historical background

2.1. Introduction.

This chapter sets out the geographical and historical background of the city of Ilorin, outlining the area’s environmental settings such as location, climate and rainfall, geology and drainage, soil and vegetation within the context of the wider region of northern Yorùbáland. The second aspect which is the historical background of the area entails an overview of Ilorin within the context of regional socio-political formations up to the 19^{th} century. This entails a review of its traditions of origin, migration history, political and socio-economic history, as derived from written and oral traditional sources. Finally, previous archaeological research in the larger Yorùbá area is discussed.

2.2. Geographical background

2.2.1. Location

Ilorin, currently the capital of Kwara State, Nigeria forms part of the larger Ilorin Emirate system which took root in the 19^{th} century. The city is situated in the centre of the Emirate in the northcentral zone of present-day Nigeria (Danmole 1980; Hermon-Hodge 1929). Ilorin was also part of precolonial northern Yorùbáland within the Ekun Osi region of the Oyo empire (Hermon-Hodge 1929; Johnson 1921; Law 1977; Usman 2012) (Figure 2.1).

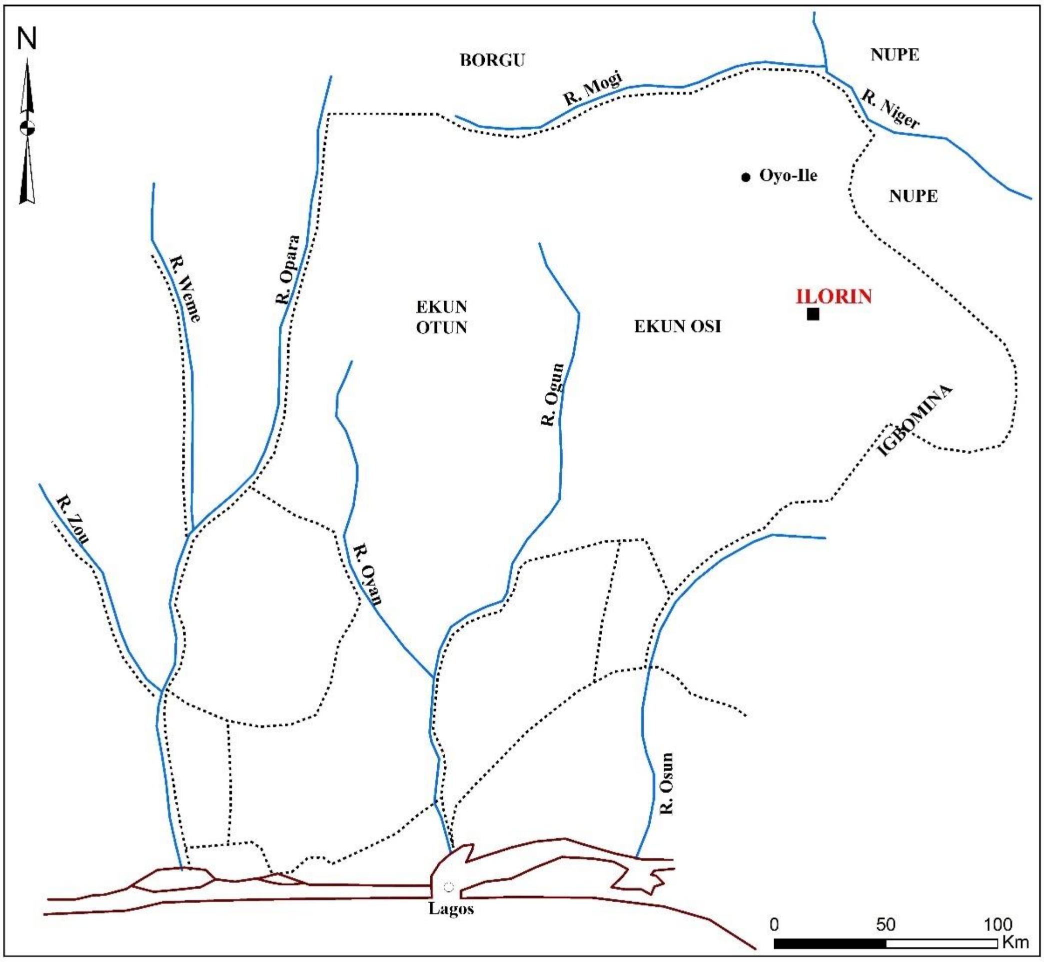


Figure 2.1. Ilorin and other areas of northern Yorùbáland in the 1800s.

Located at latitude 8^0 24'North and 8^0 36' North and longitude 4^0 10'East and 4^0 36^0 East, Ilorin, which occupies an area of c. $100km^2$, is built on low hills in the environmental zone between the deciduous woodland of the south and dry open savanna of the north, towards the River Niger (Ajadi et al 2011; Jimoh 2003).

The advantages which Ilorin's location conferred to the settlement's social development through time up to the 19th century and onwards cannot be overemphasised. Indeed, its location has been regarded as one of the significant factors that contributed to its growth and prosperity prior to the 19th century and onwards. Ilorin's location within the same ecological zone as Old Oyo and close to Niger River crossing places is argued to have contributed immensely to its development as a significant entrepot situated on major trade routes, and benefitting from trade, migration, and diverse cultural exchanges stretching both northwards and southwards to trans-Saharan trade and trans-Atlantic networks (Danmole 1980;

Faluyi 1995; O'Hear 1983; Ojo 1966). Kuba (2009) has suggested that since the political centres of the Oyo empire, (of which the area known today as Ilorin forms a part), were quite close to the River Niger, they were likely important beneficiaries of the Niger trade even prior to the establishment of Islam in the area.

Additionally, early European accounts also attest to these facts. William Clarke, an American evangelist, declared during his travels in Yorùbáland between 1854 and 1858 that Ilorin is "one of the greatest entrepots of central Africa and the commercial emporium of all the southern Sudan and of this part of the western coast" (Atanda 1972). Another European traveller, Gerhard Rohlfs, extensively discussed the role of Ilorin's international trade. According to him, Ilorin was the "last town on the way to the coast where goods from Hausa, i.e., Tripoli, Tunis, and Egypt arrived. The Hausa bring burnouses, red tarbushes, natron from Lake Chad, essences, silks of special design, and other articles, in exchange for which they get all the European products imported by the English from the coast… The main articles which the Hausa obtain in the Ilorin market are [Cowrie] shells, then gunpowder and guns, as well as brandy which is sold in quantity here" (Veer and O'Hear 1994: 258).

By the mid-19th century, the size and frequency of caravans of people and goods crossing the River Niger to and from Ilorin were significant, continuing after colonial takeover by the British in 1900 (O'Hear 1983). Therefore, Ilorin's location apparently contributed to its emergence as part of a regional economic, cultural, social, and political network that connected it to the larger Yorùbáland area, most especially the Old Oyo region, up to the early 19th century. By the early 20th century, motor roads are reported to radiate to major important cities from Ilorin: south-west to Ogbomoso, New Oyo, Ibadan and Lagos; northwest to Igbeti; northeast to Jebba and north and south to Ondo state (Hermon-Hodge 1929).

2.2.2. Climate and rainfall

The climate of Ilorin is marked by both wet and dry seasons, in common with other areas of northern Yorùbáland. According to Usman (2012), the rainy season for northern Yorùbáland can be subdivided into two periods of heavy and light rain, the heavy rains occurring from April through to July, and the light rains from

August through to October. This rainy season is marked by average temperatures of 25ºC to 30ºC and annual precipitation of 1000 mm to 1500 mm. The dry season, commencing in late October and finishing in late March, is characterised by mean temperatures of 33ºC to 34ºC (Ajadi et al. 2011).

Relative humidity at Ilorin in the wet season is between 75% to 80% while in the dry season it is about 65% (Ajadi et al. 2011). Certain economic activities in Ilorin and northern Yorùbáland more generally were determined by the climatic conditions. For instance, hunting was mainly carried out in February, the reaping of cotton started in January, while other crops were also cultivated depending on the suitable time of the month, and weeding was carried out continuously throughout the rainy season (Hermon-Hodge 1929: 240).

2.2.3. Geology and drainage

The general geology of the area of northern Yorùbáland is the Precambrian basement rock and as such the Ilorin area belongs to this geologic complex rock of southwestern Nigeria occurring east of the West African Craton (Obini and Omietimi 2020; Usman 2012) (Figure 2.2). Northern Yorùbáland is made up of plains and hills with elevations ranging from 305 m to 915 m (Buchanan and Pugh 1958). In or near the towns where some of these hills occur, mostly as inselbergs or rocky outcrops, they are used by women for drying and grinding corn, cassava or other farm products. During his journey in northern Yorùbáland in the 19th century, Clapperton observed women grinding corn in rock hollows on top of hills (Bruce-Lockhart and Lovejoy 2005). The elevation on the western end of the Ilorin area varies from 273 m to 333 m above sea level while the elevation of the eastern end, varies from 273 m to 364 m, and the highest point, known as *Sobi* hill, has an elevation of 394 m above sea level (Ajadi et al. 2011). Today, some of these hills in Ilorin are in use for other functions including religious purposes.

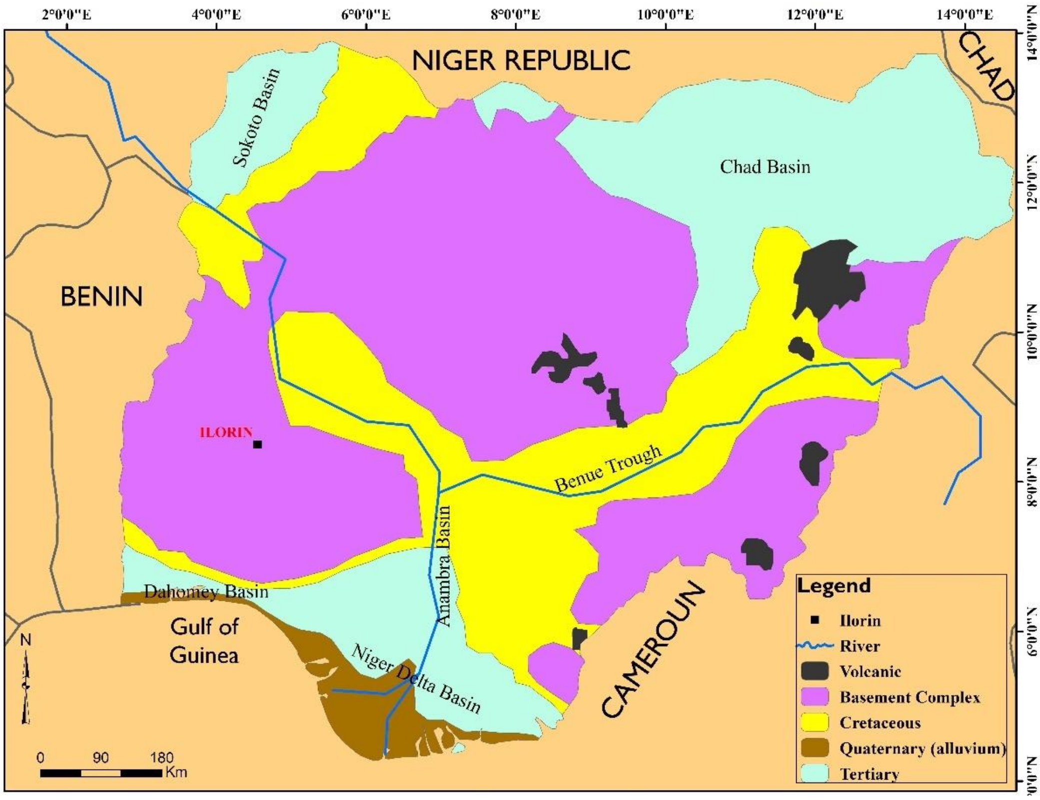


Figure 2.2. Geological Map of Nigeria, with Ilorin highlighted.

The northern Yorùbáland area is crossed by both perennial and seasonal rivers. These include Oyun, Asa, Imoru, Osin, Oyi, Awere, Oro, Mimi, Awan and a host of others (Usman 2012). These rivers flow into the Niger River, the main and only navigable river in the area. Ilorin is mainly drained by the Asa River which flows in a south-north direction and is a tributary of Awan River which flows into the River Niger west of Jebba (Elphinstone 1921; Hermon-Hodge 1929). The tributaries of the Asa River include the Aluko, Amule, Alalubosa, Osere, Foma streams and the Okun rivers (Ajadi et al. 2011; Kolawole et al. 2011). The Okun River flows through the Okesuna Ilorin area on the southern end.

2.2.4. Soil and Vegetation

The soils of Ilorin are reported to be easy to farm and are mainly loamy with sodium (Ajadi et al. 2011) which many have accounted for the cultivation of various kinds of crops and plants in the vicinity up to the 19th century. According to Hermon-Hodge (1929), the Ilorin farmer must be considered very successful in supplying the food requirements of the larger area and he reported the cultivation of crops such as yam, cassava, maize, vegetables, guinea corn, sweet potatoes, kola nuts, groundnut, palm oil and cotton, some of which were also produced for export to other regions in the south and north. Both the climate and soil of Ilorin support the growth of cereal crops (Ajadi et al. 2011).

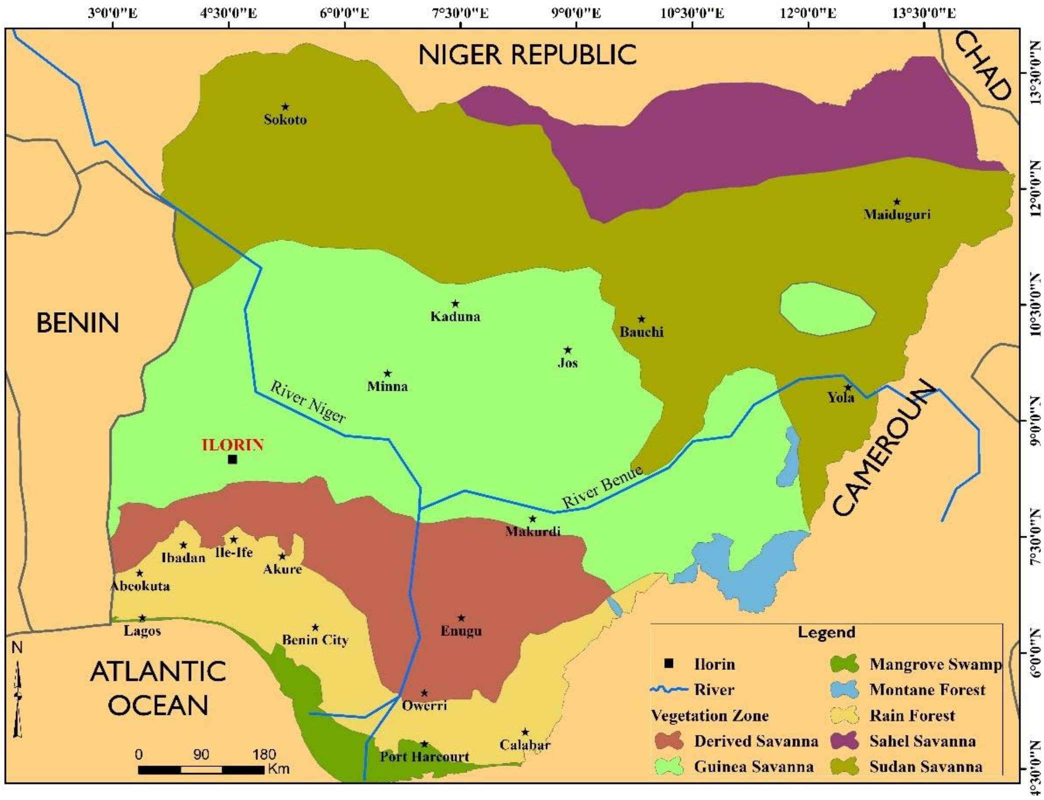


Figure 2.3. Vegetation of Nigeria showing Ilorin.

Some of the soils are clayey, and the abundance of these raw materials contributed to the development of the pottery-making industry in Ilorin by the 19th century (Anifowose 1984; O’Hear 1983; Willett 1960b), an industry that was reported to have been in existence in the area prior to this time (O’Hear 1983; Raji et al. 2013; Usman 2012). Of the potters in Ilorin in the 19th century, Gerhard Rohlfs pointed out that “they are almost as good as the people of Keffi-abd-es-Senga, who know the art of bronzing pots” (Veer and O’Hear 1994: 259).

Due to its location within the guinea savannah region, Ilorin’s vegetation is dominated by the derived savanna type and as such comprises tall grasses interspersed with scattered trees and shrubs (Ajadi et al. 2011) (Figure 2.3). Grasses in the area include spear grass, elephant grass and goat weed to a height of 3.5m. Economic trees and shrubs include shea butter (*Vitellaria paradoxa*), acacia (*Acacia* sp.), and locust bean (*Parkia clappertoniana*), palm tree (*Elaeis guineensis*), baobab (*Adansonia digitata),* bamboo (*Oxytenanthera abyssinica*), balsam (*Daniellia oliveri*), mahogany (*Khaya senegalensis*), teak (*Ficus vogelii*) and silk cotton (*Typha australis*) (Ajadi et al. 2011; Hermon-Hodge 1929; Otukoko 2014; Usman 2012). As pointed out by Usman (2012), the present-day vegetation of the area is a result of human activity including land cultivation, cattle grazing, and annual bush burning.

Northern Yorùbáland is also known for its abundant game resources: red monkey (*Erythrocebus patas*), giant rat (*Cricetomys gambianus*), grasscutter cane rat (*Thryonomys swinderianus*), waterbuck (*Kobus defassa*), roan antelope (*Hippotragus equinus*), warthog (*Phacochoerus aethiopicus*), spotted hyena (*Crocuta Crocuta*), wild dog (*Lycaon pictus*) and bushbuck (*Tragelaphus scriptus*) (Usman 2012). Indeed, it has been reported that another factor contributing to the early occupation of the Ilorin area was the abundant resources for hunting (Hermon-Hodge 1929; Hogben and Kirk-Greene 1966; Johnson 1921; Lloyd 1971). It was assumed that a part of the Ilorin area known in the past as *Oko Erin*, meaning "hunting site of elephant", was named after an elephant that was killed there (Hermon-Hodge 1929: 63; Hogben and Kirk-Greene 1966: 285).

Generally, the occupation of the diverse people in Ilorin has been attributed to the conducive geographical environment for various economic activities such as hunting, farming and subsequently induced permanent residency (Danmole 1980; Hogben and Kirk-Greene 1966; Johnson 1921; O'Hear 1983; Otukoko 2014; Usman 2012). The openness of the area would have contributed to free and constant communication of people, goods, ideas and facilities. Ilorin's fertile and well-watered landscape would have favoured farming activities. Furthermore, trade and associated businesses, craft production and Islamic evangelism were also facilitated through a series of migration and contacts within the area (Danmole 1980; Duff et al. 1965; Hermon-Hodge 1929; Jimoh 1994; Omoiya 2013). These social activities associated with the development of markets, craft specialisations, cultural affinities and ideologies dictated the settlement pattern of the area up to the 19th century (Jimoh 1994; Omoiya 2013; Sulu 1953).

2.3. Historical background

Ilorin's historical background will be examined within the context of traditions of origin, migration history and its connection to the larger Yorùbáland area, in particular the Old Oyo region, located 60 km northwest of Ilorin today (see Chapter 1). This is to examine the historically informed assumption that Ilorin was an Oyo provincial town prior to the early 19th century (see Chapter 1). This section firstly outlines the various sources of Ilorin history after which the challenges of understanding unwritten Ilorin’s history are discussed. This is then followed by an assessment of the various myths surrounding Ilorin traditions of origin. The peopling of Ilorin will then be discussed within the two chronological frameworks presented by Elphinstone (1921), which defines the periods prior to the 19th century as the pre-Fulani phase of Ilorin or the rise of the Yorùbá nations, and the early 19th century period as that of the rise of the Fulani dynasty. The place of the Okesuna area in Ilorin history is then highlighted.

2.3.1. Sources for Ilorin history

As earlier pointed out, Ilorin historical epistemologies are largely based on oral traditions and written sources. Generally, these sources include 19th century writers and European travellers such as Hugh Clapperton and Richard Lander, William Clarke, and Gerhard Rohlfs (Atanda 1972; Bruce-Lockhart and Lovejoy 2005; Hogben and Kirk-Greene 1966; Law 1977; Smith 1976; Smith 1986; Veer and O’Hear 1994), colonial officers such as Kenneth. V. Elphinstone (Elphinstone 1921; Hermon-Hodge 1929), Arabic sources (attributed to one Ikokoro), and other historical works by local and other historians and anthropologists (Danmole 1980, 1984; Forde 1962; Jimba 1981; Jimoh 1994; Johnson 1921; Lloyd 1971; O’Hear 1983; Smith 1986; Sulu 1953). The significance of these sources lies in the fact that they outline various accounts of political, social and economic developments that occurred in Ilorin mainly by the 19th century onwards. Unfortunately, historical accounts of Ilorin prior to the 19th century are fragmentary and relatively uninformative (Danmole 1984; Elphinstone 1921; Hermon-Hodge 1929; Jimoh

1994; Johnson 1921; Lloyd 1971; Otukoko 2014; Sulu 1953). This fragmentary information on the period prior to the 19th century alludes to the migration history of early settlers, the settlement formation into four semi-independent communities, their contribution to the fall of the Oyo empire, internal crisis prior to the formation of Ilorin, and the processes that led to the emergence of the Ilorin Emirate.

The lack of adequate historical accounts for the period prior to the 19th century has been acknowledged by many scholars (Elphinstone 1921: 11; Hermon-Hodge 1929: 63; Hogben and Kirk-Greene 1966: 283) and has raised a few controversies pertaining to the settlement history of Ilorin during this time (Danmole 1984; Ha'ad 2015; Omoiya 2013; Otukoko 2014). However, these historical accounts which are classified under oral traditional and written accounts will now be examined to gain insights into settlement socio-political history of Ilorin. This is not to say that there is no overlap between these two sources of Ilorin history as both still contain reflections of the recorders' viewpoints.

2.3.2. Historical accounts

While most accounts on the early history of Ilorin are already in written forms, these accounts rely to a degree on oral traditions. In addition, a range of sources, discuss the 19th century, but one must differentiate between those which are based on first hand observations (e.g., Hughes Clapperton, Richard Lander, Scott Macfie, Gerhard Rohlfs, William Clark and Ajayi Crowther) and later secondary and colonial accounts (e.g., Danmole 1980; Elphinstone 1921; Forde 1962; Hermon-Hodge 1929; Hogben and Kirk-Greene 1966; Johnson 1921; Law 1977; Lloyd 1971; O'Hear 1983; Smith 1986; Sulu 1953).

2.3.2.1. Ilorin history based on first hand observations

The earliest mention of Ilorin has been attributed to the European travellers, Hugh Clapperton and Richard Lander (Smith 1986). These travellers mentioned Ilorin in the early 19th century during their exploration of the River Niger from the Guinea coast through Yorùbáland to Sokoto between 1825 and 1827 (Akinjogbin 1980; Bruce-Lockhart and Lovejoy 2005; Smith 1986). Although they did not visit Ilorin, their accounts were connected to the political crises between Old Oyo and Ilorin and other dissented settlements within Yorùbáland, and later in 1830, following Clapperton's death, when Lander visited Old Oyo alone. This period coincided with the rise of the Fulani dynasty in Ilorin which is discussed later in this chapter. Other European and American travellers who visited and wrote the history of the area in the 19th century include Revs. T. J. Bowen, W. H. Clarke, Campbell, Mischlich, P. W. Dwyer, and Gerhard Rohlfs (Atanda 1972; Danmole 1980; O'Hear 1983; Veer and O'Hear 1994).

During his visit to Yorùbáland between 1854 and 1858, William. H. Clarke provided a description of the settlement characteristics of Ilorin, which include the settlement pattern and architecture (for instance, the city gates and the rectangular mud houses with thatch). As previously mentioned, Clarke pointed out the extent of Ilorin's trade networks, identifying it as one of the greatest entrepots of central Africa (Atanda 1972). Some nine years, after Clarke's visit, Gerhard Rohlfs visited Ilorin between 1865 and 1867, during his tour of Yorùbáland and West Africa (Veer and O'Hear 1994). His report provided more comprehensive details of the city's settlement pattern and activities. Echoing Clarke, Rohlfs remarked on the highly prosperous trade and craft centres of Ilorin and mentioned that the "Ilorin people are very skilful in all crafts" be it leatherwork, woven mats, shoemaking, pottery production and cheese production (Veer and O'Hear 1994). He observed that the Ilorin city wall, which was still standing at the time, was poorly maintained and that the city was almost round or rather polygonal in shape (Veer and O'Hear 1994). Rohlfs further provided information on the settlement population which he claimed to be made up of 60,000 to 70,000 residents not counting the temporary settlers such as traders or carriers of merchandise (Veer and O'Hear 1994). It should be noted that these accounts were focused on the general happenings within Ilorin during the times of these visits.

2.3.2.2. Ilorin history based on later secondary and colonial accounts

The available local historians' accounts (i.e., Ikokoro 1912; Sulu 1953) mainly focused on the 19th century period of Ilorin history, although referring scantily to the earlier settlement in the area. Their accounts contain some valuable information on the political and social situations of the area prior to the 19th century. The information includes the activities of the early settlers of the region, their migration routes, and their possible attraction to Ilorin. Ikokoro's (1912) account is claimed to be the most widely referenced source on the history of Ilorin as his historical account was one of the earliest from the area (Danmole 1980, 1984; Otukoko 2014). Although known as the Abū Ikokoro *Talif* and written originally in the Arabic language (as the author was a local Islamic scholar and historian), this account was later translated into English and published as a *New Arabic History of Ilorin* (Danmole 1980, 1984). Though Ikokoro's major interest was in the political development of the Ilorin emirate in the 19th century, as a prelude his account, provided information on the early settlers of Ilorin.

Sulu's (1953) account is also valuable as it briefly described the history of the foundation of Ilorin in relation to the migration of the early settlers, the formation of Ilorin polity and the various developments in the area up to the early 19th century. Regarding the Okesuna Ilorin area, the focus of the present doctoral work, his account mentioned the area as an early settlement and that their leader was Solagberu, an Islamic cleric and migrant (Sulu 1953). Although some account (Jimoh 1994) suggested that Solagberu was the founder of the site, it is clear from Sulu's (1953) narrative that Okesuna was already in existence before his arrival. According to Sulu (1953:1) "In due course, Mallam Solagberu arrives in Ilorin, and he put up at Okesuna." Additionally, oral information from Ilorin supported the fact that there were existing occupations, even of some Islamic clerics before the arrival of Solagberu (Appendix 1). However, it is generally established that his arrival laid the foundation for the emergence of Islamic religion in the area and the larger Ilorin.

British colonial resident officers' accounts (Duff et al. 1965; Elphinstone 1921; Hogben and Kirk-Greene 1966; Hermon-Hodge 1929) provide expanded versions of available information on the early history of the Ilorin. Their accounts which were obtained either from early writings, oral history, and personal observations, described some aspects of the people's settlement history, and events that led to the rise of the Fulani dynasty in the 19th century as well as the developments to which they bore witness.

Other important accounts here are those written by various writers of Yorùbá history since the 19th century. One of the most important early accounts is Samuel Johnson's *History of the Yorùbás,* first published in 1921. Others include Forde

(1962), Akinjogbin (1971, 1980), Lloyd (1971), Morton-William (1976), Obayemi (1976), Law (1977), Smith (1986) and Akintoye (2010). Their accounts mainly focus on the socio-political and economic developments within Yorùbáland, with emphasis on the Oyo empire. Their works also parovide clues to the possible influence of the Old Oyo kingdom on its outlying regions including Ilorin and vice -versa. For example, Forde (1962) suggests that the Yorùbá community in Ilorin is culturally connected to Old Oyo, and as a result adopted similar ways of life in architecture, religion, dress, and economic activities. These accounts also emphasise mainly the possible economic interactions of Old Oyo with its surrounding area, pointing out the various trade routes that served as trade links between Ilorin and Old Oyo. The trade routes that converge in Ilorin to various directions include Ijebu-Ode, Abeokuta, Ijaye, Eruwa, Iseyin, new Oyo and Ogbomoso, the southwestern region of Nigeria during these periods (Akinjogbin 1980; Law 1977; O'Hear 1983). Trade routes heading, northwards from Ilorin to the Niger River crossing areas such as Jebba were said to have been available, linking Old Oyo to other commercial centres in and across the Yorùbá borders (Danmole 1980; Johnson 1921; Law 1977).

Old Oyo was a major Yorùbá kingdom located in the northcentral part of present-day Nigeria which developed into a major urban complex between the 12th and 15th centuries (Ajayi 1974; Akinjogbin 1980; Jimoh 1921; Johnson 1921; Law 1977; Morton-William 1976; Smith 1986; Usman 2012). By the 17th century, the Old Oyo kingdom became the capital of its empire, the Oyo empire which rose to become one of the largest empires ever in the history of the tropical forests and grasslands of West Africa south of the Niger (Akinjogbin 1980; Akintoye 2010; Law 1977; Smith 1986). Old Oyo's expansion was said to have engulfed a large portion of the Yorùbáland (including Ilorin) and non-Yorùbáland such as the Nupe, Bariba, and Dahomey in the wake of its territorial expansion between the 17th and 18th centuries (Akinjogbin 1980; Jimoh 1994; Johnson 1921; Law 1977; Lloyd 1971; Omoiya 2013; Smith 1986; Usman 2012; Willett 1973) – and eventually the establishment of an avenue of control as far as the coast which enabled it to derive advantage from the Atlantic slave trade (Peel 2000: 512). By the 18th century, Old Oyo was still the major power in southern Nigeria – wealthier, stronger and territorially very much larger than any other Yorùbá area such as Ile-Ife, Ekiti, Ijebu, and Ondo – before its eventual collapse and abandonment in 1837 (Ajayi 1974; Akinjogbin 1980; Akintoye 2010; Law 1977; Smith 1986).

Other sources of Ilorin history include recent research works of historians (i.e., Danmole 1980; Jimba 1981; Jimoh 1994; O'Hear 1983; Omoiya 2013) and other historically related disciplines such as archaeology and anthropology (Allsworth-Jones 1996; Beier 1980; Fatunsin 1992; Usman 2012; Willett 1960b, 1973). The recent research works by historians on Ilorin allude to the fact that prior to and since the 19th century, Ilorin's geographical location was one major advantage (Danmole 1980; Jimoh 1994; O'Hear 1983; Omoiya 2013; Reichmuth 1995). Ilorin's location between the north of the River Niger, and south toward the coast, stimulated the migration of diverse cultural groups such as the Yorùbá, Hausa, Fulani, and Kanuri with their associated professions, ideas, religion and culture. For instance, O'Hear's (1983) work on the economic history of Ilorin in the 19th and 20th centuries alludes to the fact that various professional migrants from these cultural groups settled in Ilorin. O'Hear (1983) states that some of these professionals include hunters, farmers, potters, blacksmiths, cloth weavers, pottery makers, bead makers, wood carvers, rope makers and traders which echoes Hermon Hodge's (1929) description of the human economic composition of Ilorin. Omoiya's (2013) work affirms the above and points out that their migration into Ilorin must have begun by the 17th century or earlier. Omoiya (2013) asserts that as early as this period, Hausa migrants brought articles such as cows, hides and skin and slaves, among other goods, for exchange with items such as Kola nut, palm oil, textile materials and salt.

Jimoh's (1994) account provides a general historical background of Ilorin from the period of its association with Old Oyo. His account outlined general and specific developments in various significant settlements within Ilorin including the Okesuna area where he touched on the settlement's developments to its abandonment in the early 19th century. However, no aspects of the settlement's cultural history were mentioned. Danmole's (1980) work was basically on the development of Islam within the area during the Fulani emirate period of the 19th century and the processes that led to the development prior to this time. It has been argued that several political, and economic alliances between the elites of Ilorin (including Solagberu, the assumed founder of Okesuna area) and the trading centres to the north of River Niger and south to the coast prior to and during the 19th century, may have resulted from their interest in certain trade items such as slaves and other exotic goods for example horses, cowrie shell and lantana beads (Danmole 1980; Johnson 1921; Law 1977; O'Hear 1983, 1997; Omoiya 2013; Veer and O'Hear 1994).

Research works by anthropologists and archaeologists working on Old Oyo, Ile-Ife, and their hinterlands, some of which include Igbomina, Ilare-Ijesa and Ipapo-Ile (Agbaje-Williams 1989; Aleru 1993, 1998, 2000a, 2000b, 2006; Fatunsin 1992; Ogundiran 2000; Ogundiran and Agbaje-Williams 2017; Usman 2012; Willett 1960a, 1960b; 1973) reveal the trajectories and processes of social complexities within Yorùbáland prior to the 19th century, and how these processes transformed the various settlements which were studied. These sources are integral to this study as they set the groundwork for the archaeological study of Ilorin. These studies provide relevant information for the understanding of the possible socio-political relationship which Ilorin may have shared with the wider region of the Yorùbáland. For instance, Willett's (1960b; 1973) archaeological investigations of Old Oyo pottery and ethnographic studies of Ilorin modern-day pottery which suggest, that the pottery industry of Old Oyo was transferred to Ilorin after the collapse of the former in the early 19th century is an example that calls for the need to carry out archaeological studies for the Ilorin area. Willett's (1960b) assertion was based on the similarity between modern Ilorin's black and red pottery and potters' marks, and the archaeological assemblages excavated from Old Oyo, which were radiocarbon-dated to between the 13th and 19th centuries, from charcoal sample. Although this could be true for the present-day Ilorin pottery industry, the same cannot be said of the period prior to the 19th century at Okesuna Ilorin. This is based on the oral information obtained from Ilorin which indicates that the occupation that produced the archaeological remains including the pottery tradition at Okesuna Ilorin is unconnected to the present-day potters of Ilorin. In addition, the stylistic pattern of potsherd pavements at the site which is edge-laid is different from those found at Old Oyo site which is flat-laid. Generally, archaeological investigation of Yorùbá hinterlands has revealed various clues on their possible interactions with the larger centres.

2.4. Challenges of Ilorin prehistorical epistemology

Several reasons have been postulated for the lack of adequate historical accounts of Ilorin and northern Yorùbáland more generally, prior to the 19th century. Ilorin's location at the extreme northern end of the Yorùbá region contributed to its neglect as the region was regarded as unaffected by the regional Yorùbá socio-political processes that gave rise to large state polities such as Old Oyo by the 15th century (Elphinstone 1921; Obayemi 1976; Usman 2012). As a result, it was pointed out that northern Yorùbáland hinterlands and how they are connected to the large centres are less understood (Morton-Williams 1976; Obayemi 1976; Usman 2005, 2012). Obayemi (1976) stated that it was not until the fall of Old Oyo that the socio-political and economic significance of Old Oyo's outlying regions to the development of the Oyo empire came to be known. Old Oyo's relationship with other inland neighbours to the north such as the Nupe and Bariba groups is equally poorly defined (Ajayi 1974; Morton-William 1967; Smith 1986). In addition, the lack of written sources, as well as scarce archaeological evidence, also account for these shortcomings (Usman 2012).

Early archaeological studies were only concerned with large centres, mostly capitals of states and city-states such as Old Oyo and Ife, Benin, at the expense of smaller ones (Ogundiran 2002b; Usman 2012). These ancient centres are characterised by enormous palace complexes and/or expansive earthwork systems, monumental structures, magnificent artworks, exotic materials, powerful political institutions, and well-organised war machines (Obayemi 1976: 208; Usman 2012). This is coupled with the fact that these large centres organised and integrated corporate groups, towns, and villages into a network of regional hierarchies (Chouin 2013; Connah 1975; Darling 1984; Ifemesia 1965; Obayemi 1976: Soper and Darling 1980; Usman 2012). However, recent archaeological research works now focus on examining states and their peripheries (Aleru 2006; Gurstelle et al. 2015; Ogundiran 2000, 2002a; Ogundiran and Agbaje-Williams 2017; Usman 1998, 2003, 2005, 2012). Northern Yorùbá and their neighbours are gradually catching up and are being given attention by scholars engaging in the research on Yorùbá history, heritage, and culture (Usman 2005, 2012).

2.5. Ilorin traditions of origin

To understand the early human occupation of Ilorin, various versions or myths on the traditions of origin of the area emerged. These versions include the Old Oyo origin myth, the Hausa origin myth and the use of etymology. This section gives a breakdown of the various traditions.

2.5.1. Old Oyo origin myth

This origin myth is associated with the general traditions of the Yorùbá. According to Johnson (1921), the Yorùbá traditions are shrouded in obscurity. As earlier mentioned, the Ilorin Yorùbás claimed to have migrated from Old Oyo. As a result, they traced their descent to the first king of the Old Oyo kingdom known as Oranyan (Hermon-Hodge 1929: 36; Hogben and Kirk-Greene 1966: 284; Jimoh 1994: 21).

Oral traditions claim that Oranyan migrated with his father, known as Oduduwa, and his followers, from Mecca or, in some other accounts, Egypt to Ile-Ife (where they settled and established the nucleus of what is now the Yorùbá group) after his grandfather Lamurudu was killed in religious strife (Hermon-Hodge 1929: 36; Hogben and Kirk-Greene 1966: 284; Jimoh 1994: 21; Johnson 1921: 2-6). Whatever the route of migration, the fact remains that the origin of the Yorùbá kingdom was subject to migration. As rightly pointed out by Kopytoff (1987), the waves of human migration constitute a major feature of many African societies.

From Ile-Ife, Oranyan and his followers were said to have migrated via the west bank of the Niger to Old Oyo where he established the town (Hermon-Hodge 1929: 36; Jimoh 1994:19). The discovery of the Old Oyo kingdom site by *Oranyan* was made possible through his consultation with, and assistance from, the king of Bariba in the Nupe country along with the west bank of the Niger (Smith 1986). It was claimed that the Bariba king advised Oranyan that by fixing a charm on the neck of a guiding serpent, and wherever the serpent halted, at a hill (called *Ajaka*), would be the location where he should build his new kingdom (Smith 1986).

2.5.2. The Hausa origin myth

The second version of the Ilorin tradition emerged from the wider Hausa states networks linking the origin of Ilorin to the Bayajidda story of the creation of the Hausa states (Ifemesia 1965: 91-92). Insoll (2003: 289) pointed out that the Hausa are one of the dominant ethnic groups in the central Sudan and beyond and their identity are mainly known through their language. The history of Hausaland is also known mainly through the rich text of the Kano chronicle (Gronenborn 2011: 41-43).

This Hausa origin version for Ilorin migration indicates that at a time in the distant past, there was one Bayajidda who fled Baghdad through Kanem–Bornu, which was already an important state in the Chad Basin. From Kanem-Bornu, Bayajidda moved westward to a town whose people were deprived of water from a well by a sacred snake called Sarki and whose queen was known as Daura. Before reaching the unnamed town, it was stated that Bayajidda met some blacksmiths at Gaya, near Kano, who made him a knife. On getting to the unnamed town, Bayajidda killed the snake and in gratitude and admiration, Daura, the queen of the place, married him and also gave him a *Gwari* concubine. By Daura, Bayajidda had a son called Bawo who later had seven sons who became the eponymous founders of the Hausa states, the *Hausa Bakwai*. These were Biram and Daura, Katsina and Zaria, Kano and Rano, and Gobir (Ifemesia 1965: 91-92).

In addition to the Hausa Bakwai, tradition also tells of the *Banza Bakwai*, the false seven children produced by Bayajidda's concubine: Zamfara, Kebbi, Gwari, Yauri, Nupe, Ilorin (Yorùbá), and Kwararafa (Jukun) (Ifemesia 1965: 91-92). These false seven were not among the original Hausa states but had subsequently come under the expanding influence of the Hausa people and of Islam. Ifemesia (1965: 92) argues that the very existence of this Banza Bakwai tradition indicates an early attempt to explain the diffusion of the Hausa language and culture in many parts of what is now called northern Nigeria. Such traditional accounts have received considerable scrutiny by historians, particularly concerning their accuracy as it relates to early time periods. These oral traditions involving faraway influences, and the possible distortions that they may reflect – due to feedback from extraneous sources such as written documents or the influence of Christianity or Islam – have been well discussed (see Haour 2011; Henige 1982; Gronenborn 2011; Insoll 2003).

Henige (1982: 404) pointed out that although these traditions might have been created several centuries ago, they were strengthened and transformed into historical traditions more recently, in other to suit the diffusionist speculations of colonial administrators. Although various socio-political complexities have been in existence for the Hausa area for several centuries ago (Haour 2011; Kuba 2011), early history of the area were noted to be less documented both archaeologically and historically, and not until the end of the 15th century with the emergence of Islam did written records of the area began to materialise (Gronenborn 2011: 41).

In the context of the Ilorin area, the Hausa identity in Ilorin has been documented historically in relation to their interregional trade networks, migration and settlement by the 18th century. The Hausa-Ilorin origin myth must have been propagated with the emergence of Islam vis-à-vis the establishment of the Fulani dynasty in Ilorin under the Gwandu and Sokoto Caliphate in the early 19th century to maintain the socio-political connections between the two areas. I argue therefore, that this tradition of origin cannot be said of the early period of Ilorin and traces of the traditions may be difficult to locate archaeologically due to various environmental changes such as climate change and human induced impacts, which Ilorin had experience over space and time.

Johnson (1921: 3) asserts that Lamurudu's offspring consists of Oduduwa, the ancestor of the Yorùbá as well as the kings of Gogobiri and the Kukawa which are two groups in Hausaland – thereby making a case for the connections between both Yorùbá and Hausa groups. However, a survey of the historical veracity of this tradition is beyond the scope of this thesis but in any case, this work will shed light on much earlier periods and the archaeology is not able to identify specific groups in the material record anyway.

2.5.3. The etymology of Ilorin

The etymology of Ilorin, just like the other traditions of its origin, has also given rise to controversy (Jimoh 1994; Otukoko 2014). As a result, various versions and counter-versions have been postulated for the naming of the area (Jimoh 1994; Otukoko 2014; Sulu 1953). There are two current explanations for the name Ilorin. One is that it means *ilo irin* ‘the sharpening of iron’ from the lateritic rock found by *Ojo* the assumed first Yorùbá settler, where iron implements were said to have been sharpened (Hermon-Hodge 1929; Hogben and Kirk-Greene 1966: 284-285). This view has however been criticised. One of the reasons was that Ilorin was not a stone-less area that would have warranted the use of only the lateritic rock for sharpening iron implements (Otukoko 2014, 2018). Otukoko (2018: 55) also submits that the lateritic rock which was claimed to have been the centre of early attraction to Ilorin does not appear to have been used for iron sharpening as postulated in historical records.

For his part, Johnson (1921: 117) posits that “some certain districts are rich in ores, its iron production gave its name to the city of Ilorin”, from “*Ilo irin*” iron grinding. However, no evidence of iron smelting has yet been discovered in Ilorin, although archaeological investigations have revealed iron working evidence at some neighbouring areas of Ilorin such as Obo-Aiyegunle, Kwara State. Obo-Aiyegunle is located about 110km northwest of Ilorin with iron smelting furnaces dated to the 9th century CE as well as brass casting dating from the 16th century (Aremu 1991). In addition, Iffe-Ijumu area (i.e., Itaakpa rockshelter), in Kogi state, Nigeria located about 218km northwest of Ilorin, has yielded substantial quantities of iron slags and tuyeres and iron arrowheads (Oyelaran 1998). As a matter of fact, there is no account yet known that asserts that any of the early settlers named the site “Ilorin” because of the presence of lateritic rock or due to evidence of iron working.

Another source is *Ilu erin, ‘*town of Elephant’ (Hermon-Hodge 1929; Hogben and Kirk-Greene 1966: 284-285). An elephant was said to have been killed in c. 1824 during the reign of the first Emir of Ilorin, Oba Abdulsalam, at the outskirts of Ilorin, at a place called *Oko erin* (Jimoh 1994: 18-26). However, the elephant killing myth has been the subject of debate as an incidence of killing an elephant is said to be considered an insufficient reason for naming the city. As a result of the ongoing debate on the explanation to the naming of Ilorin, Otukoko (2018) pointed out that while some sources have situated Ilorin to a period in the 17th century or earlier, others have proposed that Ilorin was a recently formed town. Going against the latter proposition, Otukoko (2018) was of the view that the naming of the town Ilorin probably belonged to an earlier unknown period before the arrival of the first Yorùbá migrant, Ojo and stated that his period probably might have been the iron using phase of the settlement. Otukoko (2018) further posits that during this earlier unknown period, Ilorin could have been occupied by people who were engaged in iron prospecting and iron production activities rather than iron using, from where the name Ilorin could have been derived.

As mentioned earlier, all these views were based on speculation that lacks grounding in archaeological and ethnographic findings. On this basis and as rightly pointed out by Smith (1986), the best hope of throwing light upon the earliest times of the Yorùbá as well as Ilorin seems to lie now with archaeology.

2.6. The peopling of Ilorin

Certain historical accounts have situated Ilorin settlement periods within two timelines which are the Pre-Fulani dynasty period and the Fulani dynasty period (Elphinstone 1921; Hermon-Hodge 1929). The pre-Fulani period which is less represented in written sources has been regarded as the historical period of Ilorin up to the 19th century. This is understood to be when some of Ilorin's neighbouring Yorùbá settlements were believed to have developed into large urban centres. The Fulani period, which is more comprehensively documented, is regarded as the emergence of the Fulani hegemony in Ilorin in the 19th century (Elphinstone 1921; Hermon-Hodge 1929). This section will discuss the peopling of Ilorin in the context of these two periods.

2.6.1. The Pre-Fulani Ilorin dynasty period (prior to the 19th century)

According to oral traditional sources, the present-day city of Ilorin was believed to have been founded by a Bariba settler but was assumed to have been built and developed by subsequent Yorùbá migrants in the 17th century (Jimoh 1994). The first Yorùbá migrant to Ilorin known as *Ojo,* an itinerant hunter from Gambe, a town near Old Oyo, was said to have met the Bariba settler at a site of a laterite rock which is now referred to as Bariba quarters in Ilorin (Hermon-Hodge 1929; Hogben and Kirk-Greene 1966; Jimba 1994; Sulu 1953). Based on the presence of the rock, Ojo was said to have settled at the site for the purpose of sharpening his hunting iron tools (Hermon-Hodge 1929; Hogben and Kirk-Greene 1966; Jimoh 1994; Sulu 1953). However, history was silent about the Bariba settler as to what became of him (Jimoh 1994).

Subsequently, another hunter known as Eminla joined Ojo in Ilorin, and other Yorùbá migrants from Old Oyo and its metropolitan areas moved to the area for various economic reasons such as hunting, farming and trading and eventually settled down (Danmole 1980; Forde 1962: 73; Hodge and Kirk-Greene 1966; Jimoh 1994; Sulu 1953; Usman 2012). As a result of their migration, the Yorùbá migrants were thereafter referred to as *Ilorin Yorùbá* (Forde 1962: 73; Hogben and Kirk-Greene 1966: 284; Jimoh 1994: 9; Usman 2012).

Based on the presence of a Bariba settler in Ilorin's oral traditions, it has been argued that this phenomenon is not unusual as many Yorùbá settlements' traditions of origin, most especially those located around the northern Yorùbá region such as Ogbomoso and Old Oyo, speak of similar connections with non-Yorùbá speaking people such as the Baribas and Nupes with whom they share a similar geographical context (Forde 1962; Jimoh 1994; Johnson 1921; Law 1977; Usman 2012). In fact, the question on the connection of the Yorùbá to neighbouring groups especially the Nupe and Bariba have recently received revived interest (Ogundiran 2020a). However, despite the assumed date for the beginning of the human occupation in the area, the migration periods of the early settlers in Ilorin are masked with uncertainty. Aside from the 17th century date assigned (Jimba 1981; Jimoh 1994), other dates, ranging from the 15th to the 18th centuries, were reported to have been assigned to the beginning of Ilorin (Otukoko 2014).

History has it that, by the beginning of the 18th century, one Laderin arrived in Ilorin from Old Oyo to mark the beginning of the establishment of the Oyo empire's political authority in the area (Hogben and Kirk-Greene 1966: 285; Jimoh 1994: 27; Johnson 1921: 199). Although it is not known for how long, or to what extent, the King of Old Oyo exercised suzerainty over Ilorin, the connection seems to have been a loose one (Forde 1962; Hermon-Hodge 1929). However, the Old Oyo influence extended to the wider region of Yorùbáland by the 18th century (Obayemi 1976; Usman 2012, 2019). Laderin was said to have been the first political leader

(*Ajele)* of Ilorin, a position held by Laderin's generations up to his great-grandson, known as Afonja (Duff et al. 1965; Johnson 1921; Law 1977; Smith 1986). Generally, the Old Oyo *Ajeles'* role was to monitor social and political activities within their designated towns including securing tributes and taxes for the capital (Johnson 1921; Law 1977; Ojo 1966; Smith 1986). By implication, Ilorin was assumed to have become one of the provincial towns of the Oyo empire by this period.

Although Laderin's political period appears to have been insignificant in Ilorin history, the period of his residency in Ilorin marks important socio-political events within the Oyo empire as the first half of the 18th century was described as Old Oyo's golden age of imperial conquest (Smith 1986). It was during this period that Old Oyo succeeded in imposing its authority as far as the kingdom of Dahomey (present-day Republic of Benin), inland from Allada, and the coastal area, west to the country of the Popo, and northeastwards to the capital (Smith 1986: 42-44).

After the settlement of the Yorùbá in Ilorin, other groups such as the Hausa, Fulani, Kanuri, Agadez, Bariba, Nupe, Malian, Dendi and the Western Sudani were reported to have arrived in the area (Danmole 1980; Jimoh 1994; Johnson 1921; Law 1977; Lloyd 1971; Omoiya 2013; Otukoko 2014; Reichmuth 1995; Sulu 1953). Though the periods of their migration are unknown, oral historical accounts points to as early as the 17th century (Danmole 1980; Jimoh 1994; Omoiya 2013). This assertion was based on the massive trade interactions between Old Oyo and its neighbours to the north which would have encouraged the infiltration of various groups into the surrounding region of Old Oyo including Ilorin (Jimoh 1994; Law 1977; Morton-Williams 1976; Omoiya 2013). It was reported that trade routes from Old Oyo via Nupe and Borgu to the Niger joined up, at least in the early 19th century, at the market town of *Kulfo,* in northern *Nupe*, and that from Kulfo, trade routes led on to Hausa land and Bornu in the north (Law 1977).

Historical accounts further suggest that Old Oyo may have participated in the famous trade route linking Hausaland via Borgu to Gonja and the Volta basin which is especially known for its lucrative kola nut trade (Johnson 1921; Kuba 2009; Law 1977; Smith 1986). This trade route was said to have been labelled in the early 19th century as "one of the most beaten roads of Africa", where huge trading caravans with more than 1000 people could be observed (Kuba 2009: 137). In addition, Kuba (2009: 140) mentioned that Joseph Dupuis, a British envoy in Kumasi who gained much information about West Africa trading networks from his Wangara informants stated in 1828 that, "besides the Niger, many large navigable streams intersect the land, and constant and free communication by water exists between its chief cities and those of Bornu, Yorùbá, Benin, Fulani and Marroa". This suggests that the trading networks of the Old Oyo kingdom across the Niger, prior to the 19th century trickled down to other areas within the peripherals of the River Niger such as the Ilorin area.

With regards to Ilorin history by the 19th century, the initial settlers were said to have been divided into four scattered settlements which were made up of the Idi-Ape-Yorùbá settlement, Gambari-Hausa settlement, Olufadi-Fulani settlement, and the Okesuna mixed-Islamic settlement (Jimoh 1994; Sulu 1953). The Yorùbá settlements are referred to as the community of the early Yorùbá settlers of Ilorin from the Old Oyo area and were referred to as traditionalists whose head was Afonja (Akintoye 2010; Forde 1962; Johnson 1921; Law 1977).

Afonja was an important entity in the history of Old Oyo and Ilorin by the late 18th century. It was said that he was probably a descendant of Laderin (Johnson 1921), the first head of Ilorin during the Old Oyo period. However, Afonja became a powerful military head of the Oyo empire and Yorùbáland, who resided in Ilorin and engaged in various military expeditions for Old Oyo and later Ilorin (Johnson 1921; Law 1977). Eventually, Afonja fell out with the King of Old Oyo and obtained independence for Ilorin with the help of his cohorts, the Fulani, headed by Alimi and Solagberu, which led to the collapse of the Oyo empire in the early 19th century. Afterwards, due to power tussle that ensued between Afonja and his cohorts in Ilorin, he was killed in the early 19th century (Johnson 1921; Law 1977).

The Gambari-Hausa communities of Ilorin were those linked to Hausaland trade across the Niger to Hausa lands such as Borno and the Sahara while the Fulani-Onifadi settlement were the pastoralists (Hermon-Hodge 1929; Jimoh 1994; O'Hear 1983; Omoiya 2013; Smith 1986). The Okesuna mixed Islamic settlement was made up of people of diverse cultures who came together mainly due to similar

Islamic practices and engaged in various forms of economic activities such as trade in slaves (Danmole 1980; Jimoh 1994).

By the early 19th century, the arrival and intervention of Shehu Alimi (the progenitor of the Fulani dynasty in Ilorin) was said to have led to the conglomeration of these scattered settlements into a centralised polity (Jimoh 1994; Sulu 1953). Of all these settlements, only the Okesuna settlement was occupied by the most diverse set of people and the only settlement later destroyed and abandoned as a result of internal struggles between the settlement and the ruling Fulani dynasty in the 19th century (Jimoh 1994).

2.6.2. The Ilorin Fulani period in the 19th century and the place of Okesuna

This period commenced the reign of the Fulani in Ilorin after the death of other major actors such as Afonja and Solagberu (Elphinstone 1921; Hermon-Hodge 1929; Hogben and Kirk-Greene 1966; Jimoh 1994; Johnson 1921; Law 1977; Lloyd 1971). There was a change of political powers in Ilorin during this period, and Ilorin came under the Islamic emirate system of Sokoto and Gwandu Caliphate in the north. Certainly, some significant events were recorded during this period such as the regional trading activities and networks and craft production processes which the Old Oyo kingdom was known for, were taken over by Ilorin, making it an important regional centre between the savannah and forest regions by the 19th century (Johnson 1921; Law 1977; O'Hear 1983; Smith 1986). Trade in slaves, natron, horses, agricultural produce and the various production of crafts such as lantana stone beads, pottery and textiles changed the course of the socio-political development of Ilorin (Danmole 1980; Hermon-Hodge 1929; O'Hear 1983). Islam also became intensively propagated and became the state religion, thereby attracting an influx of people into the territory who were willing to accept the religion and establish themselves within the area (Aliyu 2015; Danmole 1980; Jimoh 1994; Johnson 1921; Law 1977; Lloyd 1971). Another important aspect of development during this period was the erection of the city walls and engagement in a series of wars for territorial expansion which was eventually terminated by the intervention of the British in 1900 (Johnson 1921; Jimoh 1994; Veer and O'Hear 1994).

With regards to the Okesuna Ilorin area, an oral historical account indicates that it must have been occupied as early as the 17th century (Jimoh 1994). Historical accounts point out that the settlement began near a small hill in the area which Solagberu, the assumed founder, named Okesuna "meaning the hill of the faithful" (Aliyu 2015; Akintoye 2010; Jimoh 1994). This original settlement later expanded, as the population increased, towards the surrounding plains (Onikoko 1992). This population increase was said to have resulted from the settlement's participation in various warfare activities, slaving raiding, and Islamic-related activities before and after the fall of Old Oyo which resulted in Ilorin's independence from the empire (Danmole 1980; Lloyd 1971; O'Hear 1997).

After the fall of Old Oyo and the death of Afonja the leader of the Yorùbá settlement, internal crises erupted within Ilorin which resulted in the murder of Solagberu and the eventual destruction of the Okesuna area (Duff et al. 1965; Elphinstone 1921; Hermon-Hodge 1929; Hogben and Kirk-Greene 1966; Jimoh 1994; Johnson 1921; Law 1977; Lloyd 1971). While some of the remnants of the Okesuna settlement migrated to Ogbomoso, a town on the southern part of Ilorin, others were reported to have been resettled at various places such as *Oke-Imale* with quarters known as *Oloke Ide*, *Oke–Aluko*, *Idiagbede*, *Popo Giwa*, and *Omoda* in Ilorin (Jimoh 1994).

As a result of the disintegration and eventual fall of the Old Oyo kingdom, there was more migration of people towards the south to neighbouring settlements such as Igbominaland, Ilorin, Ede-Ile and even Savè in central Benin Republic (Gurstelle et al. 2015; Ogundiran 2012; Usman 1998, 2012). Archaeological investigations of some of these settlements have revealed that these areas witnessed large settlement populations and aggregation (Gurstelle et al. 2015; Ogundiran and Agbaje-Williams 2017; Usman 1998, 2012). It was pointed out that these developments were accompanied by changes in the frequency and distribution of types of ceramics, mainly of the Old Oyo decorated sherds; planting of the baobab tree, the use of horses in such places as Ede-Ile (Ogundiran 2012) and the evidence of warfare activities and rituals in Igbomina (Usman 1998). However, despite the diverse nature of the Okesuna Ilorin population in the historical record which indicates a possibility of the area generating various features of material culture, no corresponding material life of the settlement is documented.

2.7. Previous archaeological research in the larger Yorùbá area.

Archaeological attention in Yorùbá area first focused on Ile-Ife, about 170km south of the Old Oyo area. This resulted from early discoveries of significant, bronze and terracotta art objects in the early 20th century by Leo Frobenius, a German anthropologist. As a result of the discovery of these materials, Ile-Ife became one of the most researched areas in Nigeria until recently. In the Yorùbá traditions, Ile-Ife is regarded as the centre of the earliest stage in the development of the Yorùbá culture, birthplace of an ideology of divine kingship and a royal palace culture that was emulated subsequently throughout the Yorùbá cultural sphere (Ifemesia 1965: 48; Ogundiran 2020a).

As a result, the area is the most revered metropolitan area connected with the origin of most Yorùbá social groups which extends to different parts of present-day Nigeria and neighbouring countries such as Benin Republic and Togo. There has been a significant amount of archaeological work in Yorùbáland since the 1940s, and work by archaeologists such as Frank Willet (1960a, 1973) and Ekpo Eyo (1974) have yielded data on Ile-Ife cultural developments that serve as a yardstick for the classification of Yorùbá cultural developments into pre-pavement, pavement and post-pavement periods. Oral sources and excavations have revealed that Ile-Ife was occupied as early as the late 1st millennium CE and was characterised by the various material culture which includes elaborate series of concentric city walls, pottery, microlithic tools, bronze, ironwork, stone sculptures, terracotta, potsherd pavements, ceramic tiles, glass beads, and copper alloy sculptures (Akintoye 2010; Babalola 2011, 2016; Eyo 1970, 1974; Fagg and Willett 1960; Garlake 1974, 1977; Monroe 2018; Ogundiran 2020a; Usman 2012; Willett 1960a, 1960b; 1970). Based on these materials and established classification by Frank Willett (1960b, 1973) and Ekpo Eyo (1974), Ogundiran (2020a) later expanded the cultural historical development of Ile-Ife for the Yorùbá area into eight, naming them the pre-Archaic, Archaic, Early Formative, Late Formative, Classical, Intermediate, Restoration, and Atlantic (Table 2.1).

Periods	Approx. Years (circa)	Major Characteristics and Events
Pre-Archaic	2500-300 BC	The proto-Yoruboid evolved as a territorial language and cultural group around the Niger-Benue Confluence
Archaic	300 BC-300 CE	Era of intense drought, southward migration from the ancestral Yoruboid homeland; and splitting of proto-Yoruboid into three daughter language groups-proto-Igala, proto-Ìtsekírì, and proto-Yorùbá-by AD 300
Early Formative	250 – 750 CE	Stable annual rainfall returned; rapid population growth and expansion; proliferation of Yorùbá dialect branching; emergence of a full-fledged House society with formalised political institutions headed by priest-chieftain; development of iron using communities and large compact villages in Yorùbáland. Evidence of these was found in the relics of pottery and microlithic tools associated with pre-pavements 13 clustered villages which were reported to have been in existence prior to 800 CE (Ozanne 1969; Obayemi 1976).
Late Formative	650 – 1050 CE	Social networks (i.e. associated with migration of people from Ile-Ife to other areas of Yorùbáland) and regional trade intensified; naturalistic sculptures, especially in stonework, developed, representing ancestral figures (Willett 1967), communal ancestors, and cultural heroes; emergence of mega-House polities characterised by large village complexes and incipient towns with embarkments, populated by corporate groups of diverse familial backgrounds, federation of mega-House polities headed by an elected titular leader likely proliferated; emergence of divine kingship institution and ideology toward the end of the period.
Classical	1000 – 1420 CE	Commercial and knowledge capital revolution, intensification of regional and interregional trade; primary glass production began in Ile-Ife and intensified throughout this period; major innovations in effective technology, especially in three-dimensional art-terracotta and later brass; emergence and proliferation of sprawling urban polities; architectural features such as potsherd pavements were common regionally (associated with large centres such as Old Oyo, and Benin, and the two major types of potsherd pavements pattern are the flat laid and the edge laid. The edge laid pattern is the most widespread, associated with floors, courtyards, and shrines and was used for preventing erosion, architectural purposes and the protection of pots of traditional medicine embedded in the centre of the compound (Willett 1960a; Eyo 1974; Garlake 1974,1977; Ogundiran 2002a,b; Ogunfolakan 2009; Usman 2012; Eyo 1974; Garlake 1977). The beginning of the pavement period in Ile-Ife has been attributed to an Ile-Ife queen known as *Luwo* (Ogunfolakan 1994). Luwo was said to have asked that land of Ile-Ife be paved to avoid her falling or her robe from becoming soiled; royal divine kings became the preferred model of governance throughout the regions; codifications of the Yorùbá community of practice as a networked regional system; major changes in worldview and cosmogony; the rise of the Ile-Ife empire with a vast network of client states and colonies.

Periods	Approx. Years (circa)	Major Characteristics and Events
Intermediate	1400 – 1570 CE	Regional instability due to hemispherical ecological crisis and subcontinental political turbulence; a period of intense dry conditions characterised by recurrent multiyear droughts; collapse of regional economy; external aggression by Nupe militarists; many prominent Yorùbá polities collapsed; the end of Ile-Ife political empire; Benin, a former client state of Ile-Ife established political autonomy and embarked on its own expansion northward. Early stages of Atlantic commercial exchanges began in the Bight of Benin with the arrival of Portuguese traders, soon followed by the Dutch and English.
Restoration	1570 – 1650 CE	A period of renewal and regeneration marked by rebuilding of old kingdoms and foundation of new ones; political landscape was transformed by warrior-kings and militaristic states such as Ilesa, Old Oyo, and Benin.
Atlantic	1630 – 1840 CE	Era of merchant capital revolution and the Atlantic slave trade; monetised economy took hold; Oyo became the dominant political power in the region; proliferation of centralised polities and frontier towns/market centres; incorporation into the Atlantic economy with new forms of global commodity exchange and consumption practices; intensification in everyday commodity production and craft specialisation (e.g., cotton cultivation, cloth making, and dye manufacture); expansion in itinerant trading; socio-political instability beginning in the early 19th century caused by the impacts of the Atlantic slave trade, inequality, elite factional conflicts, underclass rebellion, and the jihad.

Table 2.1. Periodisation of Yorùbá Cultural History (Source. Ogundiran 2020a: 7).

Ile-Ife's material ties have also been discovered within some non-Yorùbá territories such as those towards the Niger river area and even the coastal regions of Dahomey now the Benin Republic (Obayemi 1976: 234). This is evident from the presence of a group of bronze figures located in Nupe villages along the Niger at Jebba, Tada and Giragi that belong to the Yorùbá-Ile-Ife and Edo bronzework tradition (Obayemi 1976: 234). In addition, excavations at the Savè area of central Republic of Benin reveal the introduction of non-local artefacts such as beads, potsherds decorated with carved wooden roulette impressions, and the construction of the *Ogu Tani* monolith. The *Ogu Tani* monolith, like the *Opa Oranmiyan* in Ile-Ife, was used in rites designed to renew the monarchy's power (Gurstelle et al. 2015).

In terms of pottery, the most significant work carried out was by Garlake (1974, 1977) at Obalara's Land and Woye Asiri. The Ile-Ife ceramic sphere is characterised by embossed geometric, circular stylus impressions, stamped geometric motifs, wavy dragged combs, and red slipping (Babalola 2016; Eyo 1984; Garlake 1977; Ogundiran 2000). These decorations are associated with various forms of pottery many of which are unique to the Ile-Ife area and have occurred in many areas of Yorùbáland. Garlake's (1977) analysis of Ile-Ife ceramics revealed 10 vessel types of different variants which included bowls, jars, pots and lids. The Ile-Ife ceramic complex have been reported to have dominated at Ile-Ife, Owo, and Benin areas to the south (Ogundiran 2002a).

Another clearly recognisable stage in the early history of the Yorùbá was the emergence of the Old Oyo kingdom in northern Yorùbáland, located about 20 miles from Ilorin (Smith 1986). Archaeological investigations, conducted at Old Oyo since the 1950s have revealed expansive wall systems, microlithic tools, pottery, beads, grinding hollows, potsherd pavements, and market area (Agbaje-Williams 1986; Soper and Darling 1980; Willett 1960b, 1973). The total length of surveyed walls built over the course of the 16th through to the late 18th centuries is about 70 km (Soper and Darling 1980; Soper 1992). Ogundiran (2012) pointed out that at its peak, in the mid-18th century, the imperial capital covered an area of more than 5,000 hectares, with diameters of 10 km north-south and 6 km east-west. The population size of the area in the 18th century was estimated to be between 60,000 and 140,000 people (Agbaje-Williams 1983). On the basis of these finds, and the radiocarbon dates from charcoal samples from Old Oyo, the ancient settlement was divided into three phases which are 1) the period from the 9th to the 13th centuries marked the earliest phase of the Oyo- Yorùbá culture; 2) the intermediate cultural level from the 13th to 15th centuries and, 3) the later period from the 16th to early 19th centuries (Agbaje-Williams 1983).

As far as Old Oyo ceramics are concerned, archaeological investigation in the area has recognised two cultural complexes which are the Diogun wares and Mejiro wares. Diogun wares were marked by sandy paste, fawn/grey-brown colour, and complex flute and decorations which include brush-marking or broom marking incisions, rock-comb impressions, impressed arcs, twisted cord roulettes and angular punctate (Agbaje-Williams 1983, 1986; Willett 1959, 1960b, 1973).

Figure 2.4. Examples of Old Oyo Diogun wares (Willett 1960b: 63).

The Mejiro pottery is characterised by fine grey/black wares and decorations of carved rouletting, snail-shell markings, maize cob rouletting, and dot punctate (Willett 1960b, 1973). Other wares associated with the Mejiro period occur in different shades of grey, brown and black, and consist of open bowls and round bottomed carinated bowls. The vessels have a very smooth texture, a hard paste and a burnished-basted surface and markers' mark found inside some of the *isaasun* lids, while others, such as unburnished jars, have a rough texture and a coarse paste (Willett 1960b).

Figure 2.5. Examples of Old Oyo Mejiro wares (Willett 1960b: 64).

Incisions, twisted cord rouletting and comb stamping are found on both Diogun and Mejiro pottery (Figures 2.4 and 2.5), which has been suggested by Agbaje-Williams that both cultural phases overlap due to the presence of some similar pottery decorations (Usman 2012). The Mejiro phase is said to have been in existence up to the abandonment to the Old Oyo kingdom in the early 19th century.

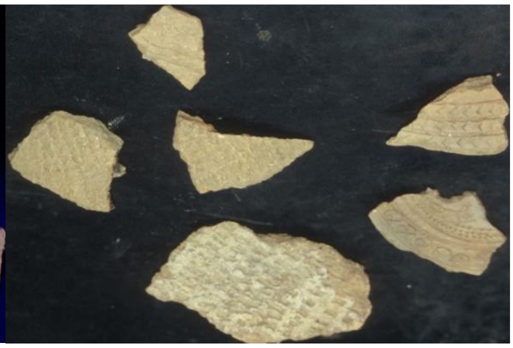
Oral historical and archaeological investigations reveal that northern Yorùbáland was a hub of various human occupation and material culture developments before the intrusion of the Oyo empire in the late 16th and early 17th centuries, associated with the later cultural period of Oyo (Aleru 2006; Usman 2012). As a result of Old Oyo's incursion into many of these areas such as Igbomina area, Old Oyo's cultural influences appear in some material culture, for example, ceramic styles (Aleru 2006; Usman 1998, 2012) (Figure 2.6). Other areas outside Yorùbáland where the influence of the Oyo empire and its pottery tradition was evident include southwestern Cameroon (Mercader et al. 2006) and Savè in Central Benin (Gurstelle et al. 2015).

Other areas within northern Yorùbáland where archaeological investigation has been carried out include Iffe-Ijumu (i.e., Itaakpa, and Oluwaju rockshelters, Addo ironworking site), and Obo Aiyegunle (Aremu 1991, 2004; Oyelaran 1998) at present-day Kogi, and Kwara States respectively (Figure 2.7). Archaeological investigation at Itaakpa and the Oluwaju rockshelters was carried out with the aim of establishing a chronological framework and cultural sequence for the area. The intention was to attempt to establish the extent to which there was continuity and discontinuity of occupation (Oyelaran 1998). Iffe-Ijumu was significant because it was assumed to have served as a dispersal point for some of the major groups and polities of Nigeria (Oyelaran 1998). Excavation of this site revealed a settlement occupation containing pottery, iron and lithic, and human remains which have been dated to 2210±80BP (Oyelaran 1998). Based on these investigations, it was suggested that iron producing agricultural communities were occupying northern Yorùbáland by the 9th century CE (Obayemi 1976; Shaw 1976; Usman 2012). A continuous stratified sequence of occupation from that time onwards, extending into 18th century CE was reported (Oyelaran 1998).

In contrast to earlier studies, archaeological investigation at Igbominaland in northern Yorùbáland, Kwara State was centred on charting regional networks in commodities such as pottery, as well as the nature of material life on the frontiers of the Oyo empire (Monroe 2018; Usman 2012) (Table 2.2). Igbomina was located within a frontier zone between Old Oyo's southern peripheries and was engulfed in Old Oyo's political orbit in the 15th century (Aleru 1993, 1998, 2006; Usman 1998, 2012). By the 16th century, following Old Oyo's intrusion into the region, sites across Igbomina witnessed an increase in overall size as well as settlement hierarchy, and they were dominated by Old Oyo style ceramics (Monroe 2018; Usman 1998, 2012). Other material objects discovered were animal bones, shells, iron objects, slag, tobacco-pipe, cowries, grinding stones, ground stone axe, stone pellets, and unutilised lithics (Usman 2012).

Archaeological evidence for an early socio-political formation that predated the hegemonic political development of Old Oyo has been suggested for the ancient settlements of Oba-Isin in the Igbomina area (Aleru 2000, 2006; Obayemi 1976; Usman 2012). Oral tradition and archaeological evidence from Oba-Isin have been used to postulate the possibility that the settlement was a centre of an early Yorùbá civilisation, similar in some respects to Ile-Ife (Aleru 2006; Obayemi 1976; Usman 2012). For instance, archaeological surveys at Oba-Isin reveal material items such as beads, fragments of a bead polisher, potsherd pavements, iron smelting furnaces, tuyeres, iron slag, and ceramics as well as grinding hollows. With evidence of stone bead manufacture in the form of complete and fragmentary stone beads and stone bead polisher (Obayemi 1976), the bead-making site was dated to the 13th century, while the iron working site was dated to 640±140 BP (Aleru 2006). The archaeological remains from Oba-Isin indicate that the site was a prominent socio-political centre in north-central Yorùbáland and that it is possible that Oba-Isin owed its development to the large-scale production of iron and a well-organised redistribution network between the savannah and the forest zones (Usman 2012).

Archaeological investigations at the Ila-Iyara, Igbomina area of Osun state were centred on understanding the cultural and historical trajectories and processes of socio-political formation and interactions in northern Yorùbáland before the 19th century (Usman 2012; Usman et al. 2005). Excavation at Ila-Iyara has revealed evidence of pottery, with similar decorative attributes to Ife and Old Oyo pottery, animal bones, shell, quartz, beads, iron slag, iron pieces, tuyères, quartz bangle, cowries, fishing weight, metal points and unutilised lithic debris. The presence of slag and tuyere in the excavation further suggests the engagement of the inhabitants of Ila-Yara in iron working. Radiocarbon dates obtained from charcoal samples from the site were 375±40 B.P, calibrated from CE 1442 to 1531, corroborating the tradition on the foundation of Ila-Yara dated to the 13th century (Usman et al. 2005; Usman 2012). Based on these information, Usman (2012) pointed out that the northeastern Yorùbáland were occupied before the arrival of Ile-Ife and Old Oyo migrants. As such, the picture painted by archaeology about these areas is that the initial peopling of these areas were not groups from Ile-Ife or Old Oyo (Usman 2012).

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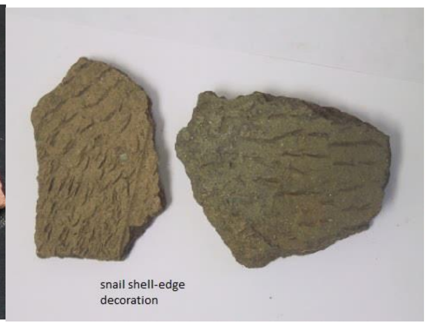
 

e. f

Figure 2.6a-f. Old Oyo style potsherds from Igbominaland, northern Yorùbáland (Photo: Usman 2019).

Regarding the Igbomina pottery, based on surface treatments of ceramic, pottery found in archaeological sites such as Ila-Iyara, Ipo and Isin shared some of the Yorùbá pottery type found at Ile-Ife, Old Oyo, and Benin (Usman 2012). According to Aleru (1998, 2006) and Usman (1998, 2012), the presence of these pottery styles reflects the migration of people from Ile-Ife and Old Oyo, trade, or other forms of social relations.

Place/site, C14/TL Dates, Lab	2-sigma Calibration (Age range)	Cultural Period
Itaakpa, Iffe-Ijumu (Oyelaran 1998) 2210±80 (Oxa-1150)	435-45 BC	Archaic (500 B.C-600 CE)
Oluwaju, Iffe-Ijumu (Oyelaran 1998) 1840±125	95 BC-434 CE	
Addo, Iffe-Ijumu (Oyelaran 1998) 1110±80	694- 1148 CE	Formative (600-1000 CE)
Esie, Igbomina (Stevens, Jr. 1978) 890±75YBP, 770±70YBP	965-1250 CE	Classical (1000-1400 CE)
Obagbo, Igbomina-Isin (Aleru 2006) 640±140YBP	1290-1450 CE	
Olupefon, Igbomina-Ipo (Usman) 510±80YBP (Beta-88413)	1293-1615 CE	Intermediate (1400-1600 CE)
Gbagede, Igbomina-Ipo 495±45 YBP, 320±60YBP (Usman) (A-13053, Beta-88414)	1324-1350 CE, 1390-1481 CE, 1441-1667 CE	
Apateki, Igbomina-Ipo 470±50 YBP (Usman) (Beta-215512)	1400-1490 CE	
Ila-Iyara, Igbomina-Ila 375±40 YBP, 380±60 YBP, 480±50 YBP (Usman) (A-13054, Beta-202610, Beta-202611)	1442-1531 CE 1430-1650 CE 1400-1490 CE	
Ikotun, Igbomina-Ilere 405±100 YBP (Usman) (A-13056)	1386-1671 CE	
Igbo-ejimogun, Igbomina-Ilere 310±50 YBP (Usman) (A-13025)	1460-1663 CE	
Esie (Mound 2), Igbomina (Kola Adekola) 520±50 YBP (Usman) (Beta-299369)	1320-1350 CE 1390-1450 CE	
Obaloyan II, Igbomina-Ipo 290±60 YBP (Usman) (Beta-88415)	1454-1946 CE	Atlantic (1600-1800 CE)
Okegi, Igbomina-Ipo 40±60 YBP (Usman) (Beta-88416)	1680-1745 CE 1805-1935 CE	
Ikotun, Igbomina-Ilere 170±40 YBP (Usman) (Beta-13055)	1656-1709 CE	
Ofaro I, Igbomina-Ilere 220±70 YBP (Usman) (Beta 88412)	1491-1951 CE	
Aun I, Igbomina-Esisa 170±45 YBP (Usman) (A-13050)	1655-1712 CE 1716-1887 CE	
Ajagun, Igbomina-Esisa 200±40 YBP (Usman) (A-13049)	1640-1698 CE 1724-1814 CE	

Table 2.2. Distribution of Radiocarbon and TL Dates at some sites in northern Yorùbáland (Source: Usman 2012: 72).

Archaeological investigation at Ede-Ile, a 17th century settlement located in Upper Osun, southwestern Nigeria, reveals that Ede-Ile was probably the first successful Old Oyo colony established in a foreign territory (Ogundiran 2012). Ede-Ile was strategically placed to control the commercial traffic that linked central Yorùbáland to the coast (Ogundiran 2012; Ogundiran and Agbaje-Williams 2017). Like Old Oyo, the site was surrounded by a bank-and-ditch defence, which symbolically recalled the metropolitan capital itself. Yet, this was not the only material reference to Old Oyo identified at Ede-Ile (Ogundiran 2012). Ogundiran's (2012) research at Ede-Ile suggests that Old Oyo imperial agents used material culture to forge an Old Oyo identity as a way of maintaining internal coherence in the area.

This material culture includes the planting of baobab trees (a savanna feature), the use of horses, and the dominance of Old Oyo ceramics (Ogundiran 2012; Ogundiran and Agbaje-Williams 2017) (Figures 2.8, 2.9 & 2.10). Other items found at Ede-Ile include cowries, tobacco pipes, ceramics including bowls and jars, clay tobacco pipes, oil lamps, spindle whorls, and animal bones of both domesticated and wild species (Monroe 2018; Ogundiran 2012).

Figure 2.7. Map of Nigeria showing Ilorin and other important sites mentioned in the text.

Figure 2.8. A baobab tree from Ede-Ile suggests a past political alliance with the Old Oyo Kingdom (source: Ogundiran 2012).

Figure 2.9. Horses remains from Ede Ile, Southwestern Nigeria (adapted from Ogundiran 2012).

Figure 2.10. Examples of Old Oyo ceramic styles from Ede Ile, central Yorùbáland (Photo: Ogundiran 2019).

2.8. Conclusion

This chapter has provided the geographical and historical background of Ilorin. An account of the environmental conditions of Ilorin in relation to the wider context of northern Yorùbáland was provided, discussing location, climate, geology and drainage, soil and vegetation. The significance of each geographical feature of Ilorin was discussed and their roles in the emergence and establishment of the Ilorin socio-political landscape as a regional trading network and major craft industries by the 19^{th} century were emphasised.

Furthermore, the historical background of Ilorin was discussed with a general overview of the Ilorin history based on first hand observation and later secondary and colonial accounts. The challenges of Ilorin prehistory were also discussed for an understanding of the lack of adequate information of the area prior to the 19^{th} century. The various versions of Ilorin's myth surrounding its traditions of origin, the peopling of Ilorin up to the 19^{th} century and the place of Okesuna in Ilorin history were then outlined. In the final section, review was made of archaeological data pertaining to the Yorùbá area prior to the present work. Building on this, the next chapter will present the survey activities that were conducted by the author to begin to approach the archaeological landscape of Ilorin.

Chapter 3: Archaeological survey and mapping of the sites of the Okesuna Ilorin area

3.1. Introduction

This chapter reports on the archaeological survey and mapping which was conducted from January to March and in June 2020 in Okesuna area of Ilorin (Okesuna was an early quarter within the area known today as Ilorin), and which was the first comprehensive archaeological survey carried out in the location. The chapter begins with a discussion on the background of the survey, highlighting the strategies and limitations. An overview of the surveyed sites and their data collection techniques, as well as the results of the survey, are given. The chapter closes with a concluding remark.

The archaeological survey was carried out to investigate more fully previously known archaeological sites and identify new ones, detailing the spatial distributions of material remains and features for further investigation. This was done through field walking, opportunistic survey and detailed mapping using a Global Positioning System (GPS). An archaeological site has been defined as a place where artefacts and features of a specific human activity located within a spatially constrained area are found in the landscape (Drewett 2011: 3-4). In addition to this, Khalaf (2016: 93) pointed out that some key indicators of identifying an archaeological site include the presence of more than one pottery sherd even if the distribution was dispersed, identification of mound sites even if deflated and eroded and cultivated sites with evidence of material remains. For the West Africa region, many early sites have been identified based on the nature of their spatial and temporal formations. For instance, in the northeastern part of Nigeria, Connah (1981) identified six types of archaeological sites which include settlement mounds, mounds with occupation materials, flat settlement sites, quarry sites, burial sites and neolithic/stone age sites. Similar types of archaeological sites have been reported for other areas in Nigeria including present-day Yorùbáland. On the other hand, artefacts are regarded as portable material objects associated with archaeological sites or features while features are immovable material finds, created or modified by humans (Giade 2016: 125). Examples of artefacts include pottery, and lithics while features include past cultural trees, rock hollows and potsherd pavements.

The survey focused on areas of concentrated past human activities such as ceramic scatters, potsherd pavements and other associated material finds. Surface collections of pottery were also carried out within one of the sites. This collection was restricted to pottery as it was presumed that artefacts from the ground surface of the built-up environment of the area might have become mixed up with more recent materials. In addition, the survey benefited from oral data from the descendants of the Okesuna Ilorin area, potters from Ilorin and other informants relevant to the study. The use of oral data in the research was an attempt to understand other aspects of the history of Okesuna, and the archaeological processes.

3.2. Background to the fieldwork survey: Strategy, methodology and limitations

Before the fieldwork survey commenced on 10th January 2020, an excavation permit was requested and obtained from Nigeria's National Commission for Monuments and Museums (NCMM), Abuja. The excavation permits also required that the State chapter of the National Commission for Monuments and Museums located in Ilorin be informed of the research for awareness and to offer support during the research process. Some sites were previously known as the researcher had visited and/or participated in annual students' archaeological fieldwork as a lecturer of archaeology in the Kwara State University, Malete Ilorin prior to the commencement of the doctoral studies.

Indeed, the present doctoral fieldwork also coincided with the annual Kwara State University students' archaeological fieldwork which usually takes place in one of the sites investigated. This site is within college grounds and permission is usually arranged through the college management before the commencement of the fieldwork. Therefore, with the assistance of the lead team member of the students' fieldwork, Professor Jonathan Aleru, and based on the researcher's past relationship as a member of the students' archaeological team prior to this study, permission was granted to carry out this research on the site. This was also the case for other sites where survey investigation was conducted with the exception of one site where no one was available to talk to and only partial work could be conducted.

The archaeological survey was conducted with the assistance of four or five research assistants from the University of Ibadan, archaeology unit team members and student volunteers from Kwara State University, Malete, with four local field assistants at various stages of the fieldwork. The survey was also supported by members of the National Commission for Museums and Monuments, Ilorin, Kwara State, and many people of Ilorin including those encountered within the sites investigated.

In Nigeria, under the National Commission for Museums and Monuments Act (N.C.M.M) 1979, provision of legislations has been made to curb and control export of antiquities and excavations of cultural sites which requires that a permit (which was also secured before the commencement of the doctoral fieldwork) be issued by the Commission before any research activity is done (Filane 2003; Shyllon 1996). This Act was a build-up of the legal frameworks of earlier Ordinance Acts such as 1924 ordinance cultural heritage legislation, Antiquity Act 1953 and Antiquities Act 1974 to prohibit unauthorised exploitation of cultural heritage/archaeological sites, monuments and Nigeria's objects of arts (Filane 2003; Shyllon 1996).

Due to the built-up nature of the surveyed sites, the Global Positioning System (GPS) was relied on to record waypoints (i.e., coordinates, and elevations) indicating sites, artefacts and features. The results from the GPS were then combined with the use of the Google Map application to produce digitised maps for the research area. This was aimed at producing a georeferenced distribution of locations of archaeological artefacts and features in relation to the sites surveyed as pointed out through oral historical accounts. GPS was used in conjunction with more traditional cartographic implements such as a compass, ranging pole and measuring tapes during survey. The GPS was mainly handled by a research assistant who happens to own the system and waypoints of recorded items were saved into the GPS and manually on a fieldwork note which was taken by this researcher. The compass and the directional arrows were also used for obtaining the direction of the features to the north as well as to indicate the direction respectively. To be as systematic as possible, the strategy adopted was to establish a reference point(s) from where the team would take-off to other sites intended for a survey.

The archaeological survey research encountered some challenges involving human-induced, and naturally occurring impacts on the environment, limited and/or lack of access to some of the sites, and religious-related constraints. Based on the current nature of the Ilorin landscape, various socio-economic transformations over the years have contributed largely to the destruction of the material cultural remains in the area. These developments are in the form of built structures such as roads, schools, residential areas, hospitals, and shops (Figures 3.1, 3.5, 3.6 &3.7). Furthermore, cultivation of the land area and human traffic have also contributed to the material culture loss in the area. Some parts of the Okesuna Ilorin area had also undergone series of re-occupations by the 20th century, even after the assumed period of destruction of the area in the early 19th century. During, and even prior to, this doctoral fieldwork, various projects such as the grading of roads and construction of buildings were witnessed by this researcher attesting to a massive loss of material culture evidence.

It is a common challenging phenomenon, as many archaeological sites within built-up areas result in the loss of valuable material information on evidence of past social complexity. This issue has been pointed out in many archaeological contexts within Yorùbáland (Babalola 2016; Ogunfolakan 2009). This is unlike the situation encountered in most areas of the savanna where abandoned settlements sites are large open spaces, less densely populated or settlement mounds with relatively little disturbance recorded for the archaeological work. Such sites have been reported for areas such as Chad, Borno and even Benin Republic (Connah 1976; Giade 2016; Haour 2018). These abandoned archaeological sites offer opportunities for more systematic surveys such as transect or quadrant surveys, which are not possible in built-up areas.

Figure 3.1. Construction activities in some part of the investigated area of Okesuna Ilorin, where traces of destroyed archaeological materials were observed.

Naturally induced environmental impacts such as erosion compounded the negative impacts of human activities on archaeological materials. Evidence of small gullies on roadways exposing material remains caused by erosion were noticeable in some of the surveyed sites. While some of the materials have been lost through this phenomenon, one positive result was that the exposure caused by erosion facilitated the discovery of artefacts otherwise buried underground and invisible to the researcher. The fieldwork also coincided with the time when schools in Ilorin were in session, as some of the areas investigated were located within school grounds. This resulted in the restrictions of movement in and out of some of the sites and it was only one of these school grounds for which full access was granted.

Furthermore, the religious sensitivity of some of the sites associated with the Okesuna Ilorin area was another aspect the research team had to navigate during the survey exercise. Some of the sites were attached to significant Islamic history of Okesuna and the larger Ilorin area and as such, various precautions were taken to enable access to such sites where possible. For instance, at every visit to such sites, when accessible, participating members of the research team included indigenous Muslim participants to speak on our behalf during each visit. This was particularly the case for survey activities associated with some rock sites attached to the Okesuna Ilorin settlement as one is known for attracting a daily convergence of various Islamic sects for the performance of their religious obligations (see Figures 3.30 & 3.31). Due to the busy religious nature of the site, the site was visited on three different occasions by the research team to document as much relevant information as possible for the research.

Throughout the survey exercise, the researcher and her team made sure that the purpose of the survey was clearly communicated to those involved, to ensure adequate awareness of the research purposes. In fact, this strategy was very useful in providing closure for the research team on any concern that might arise during the survey periods. For instance, there were occasions in which some of the people encountered expressed concern, at the sighting of a camera, as they thought the research team might take their photographs for social media purposes without their permission. Assuring them that their privacy would be respected during the survey process, paved the way for accessing some of the sites to conduct the survey.

3.3. The surveyed sites of the Okesuna Ilorin area

As mentioned earlier, archaeological surveys were carried out initially on known sites of archaeological and historical importance. This was followed by an attempt by the research team to identify further sites with archaeological potential. In all, six sites were surveyed, of which five were previously known. These archaeological sites were composed of four plains and two intervening hilltops. The identification of a new archaeological site indicates that there exist more past sites in the area which are overlain by present-day Ilorin. The archaeological survey, however, only covered an area of 2.5 by 1.7km square (Figure 3.2). As earlier pointed out, this was associated with the challenges encountered during the survey most especially the built-up nature of the site. Though oral histories (Jimoh 1994; Johnson 1921) of the Okesuna Ilorin area attest to the fact that it was a very large settlement in the past. While Figure 3.2 presents the digitised map of the surveyed sites, the names and coordinates of the sites are presented in Table 3.1. The characteristics of each site and their associated survey activities are discussed below.

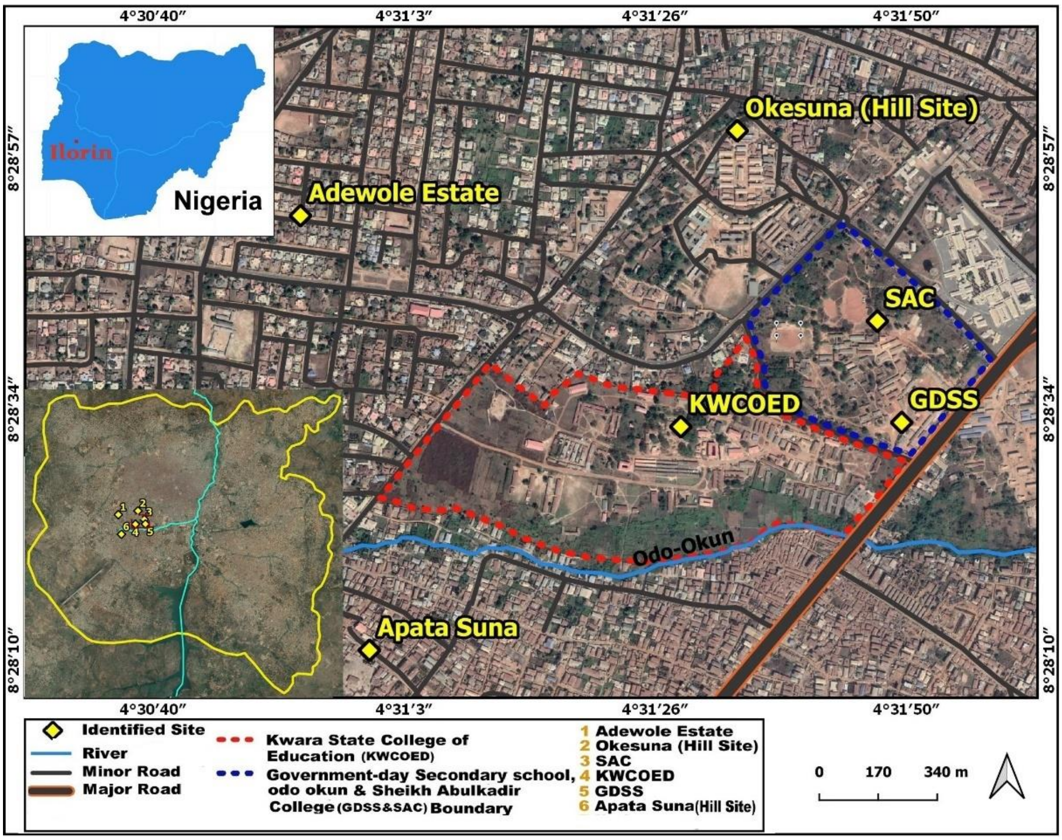


Figure 3.2. Map of sites surveyed within the Okesuna Ilorin area, approximately 2.5 by 1.7km or 4.25km square (Image prepared by Macham Mangut based on Owoseni field data 2020).

SITES SURVEYED					
S/No	***Latitude***	***Longitude***	***Name***	***Feature***	***Remark***
1	$8^0$28’31.98” N	$4^0$31’28.77” E	Kwara State College of Education (KWCOED)	School buildings, trees (Appendix 2), potsherds, potsherd pavements, granitic outcrops etc	Known site located on flat land area
2	$8^0$28’51.66” N	$4^0$30’53.32” E	Adewole Estate	Modern day buildings, patches of potsherd pavements, embedded potsherds in soil matrix	Known site located on flat land area
3	$8^0$28’11.12” N	$4^0$30’59.75” E	Apata Suna rock site	Granitic outcrop and rock hollows. Modern day buildings	Known rock site
4	$8^0$28’41.83” N	$4^0$31’47.08” E	Abdulkadir College (SAC)	School buildings, buried potsherds	New site
5	$8^0$28’41.83” N	$4^0$31’47.08” E	Government Day School Ilorin (GDSS)	School building	Site previously known for evidence of potsherd pavements.
6	$8^0$28’59.58” N	$4^0$31’34.02” E	Okesuna hill site	Granitic outcrop and rock hollows. Modern day building	Known rock site

Table 3.1. Surveyed sites of Okesuna Ilorin, their coordinates and features (Table prepared based on Owoseni field data 2020).

3.3.1. Kwara State College of Education, Ilorin site

The first site was the Kwara State College of Education (KWCOED) (Figures 3.2, 3.3 & 3.4. Table 3.1 for coordinates). The site was already known for its significant and abundant archaeological remains. Due to the richness of the archaeological evidence on its landscape, Kwara State College of Education site has also been the focus of the annual students' archaeological training. The open nature of the college grounds, when so much around it is built up, (see Figures 3.2, 3.3 & 3.4) make it a placed conducive to archaeological surveys and excavations.

Presently occupied by the college, the site is bound to the northeast by Government-Day School, Ilorin; south by a river known as *Odo Okun* (Okun River), west by Adewole residential estate, and east by the major federal road leading from Ilorin through Ibadan to Lagos (see Figure 3.2 and Table 3.1), (Jimoh 1994; Onikoko 1992). Prior to the establishment of the college on the site, it was reported that the grounds were previously occupied by two institutions; the Federal Government school College and a School of Nursing before the location was eventually ceded to the college in 1974. Although Okesuna Ilorin was reportedly abandoned after its destruction in the early 19th century by the emerging Ilorin emirate, oral information gathered from an informant, who is also a descendant of Okesuna Ilorin quarter indicates that some smaller compounds within the quarter, including his ancestral home, were not abandoned until the 20th century. The presence of a large baobab (*Adansonia digitata*) tree within the college site was further attested to as evidence of past settlement by the informant (Figures 3.3 & 3.9 and Table 3.3). Cultural trees such as baobab (*Adansonia digitata),* and tamarind trees *(Tamarindus indica)* are regarded as past markers suggesting abandoned settlements in West Africa including the Yorùbá region. (Bascom 1969; Darling 2008; Ogundiran 2002a). This is due to their longer lifecycle spanning after the collapse of most archaeological sites.

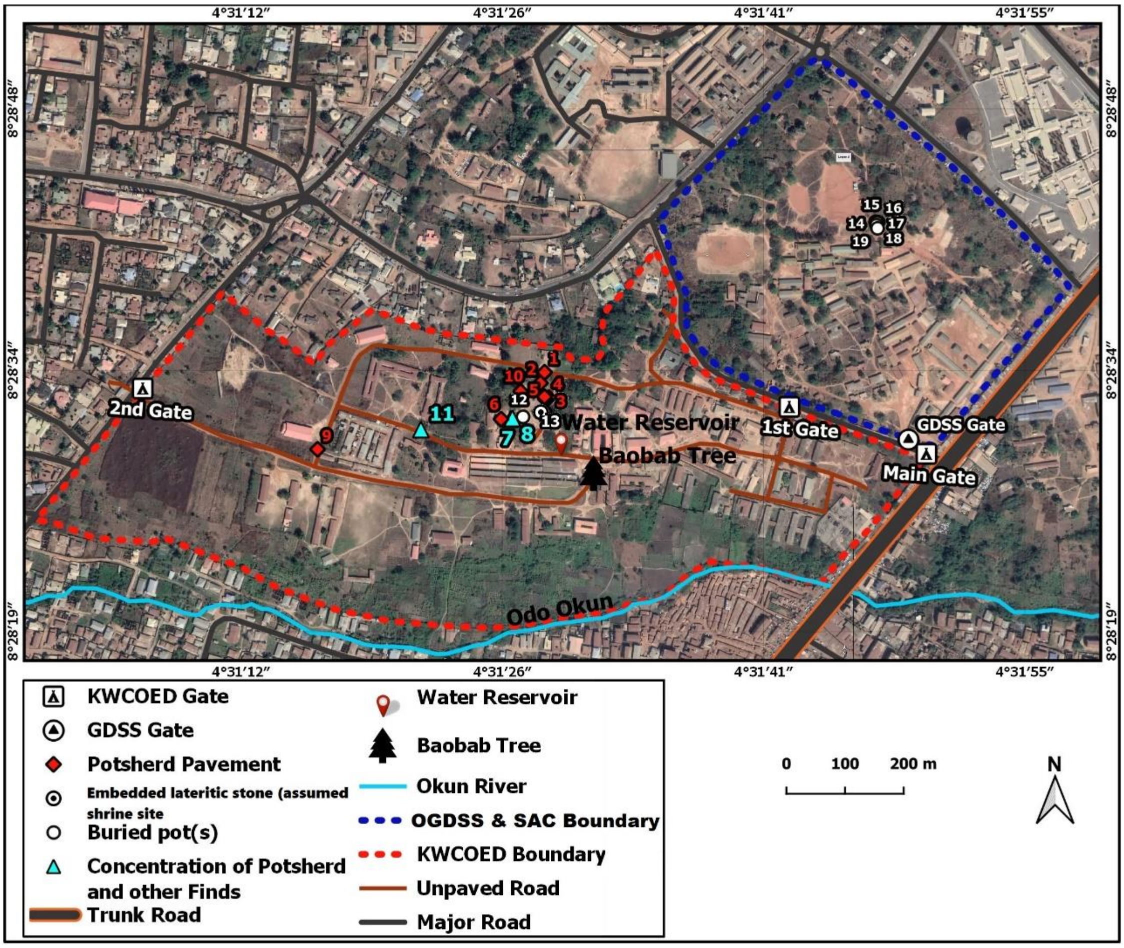


Figure 3.3. Map showing the spatial distribution of artefacts and features within Kwara State College of Education (KWCOED) and Sheikh Abdulkadir College (SAC), Ilorin grounds (Image prepared by Macham Mangut based on Owoseni field data 2020).

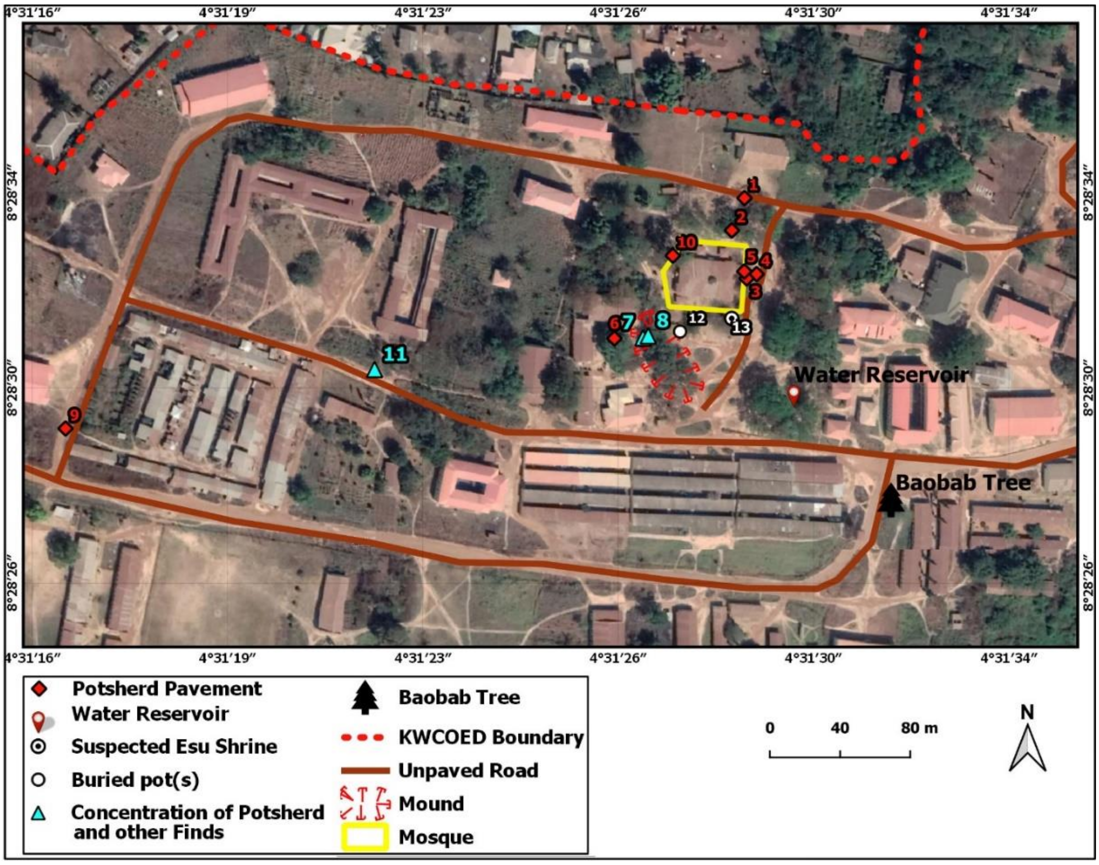


Figure 3.4. Site map showing a closer view of artefacts and features distribution within Kwara State College of Education (KWCOED) grounds (Image prepared by Macham Mangut based on Owoseni field data 2020).

Figure 3.5. The main gate (see Figure 3.3) on the road (Education Road) leading to the Kwara State College of Education first gate (see Figure 3.3) and other connecting areas of Ilorin. The College is on the left side of the road (Photo: Teni Omoh 2020).

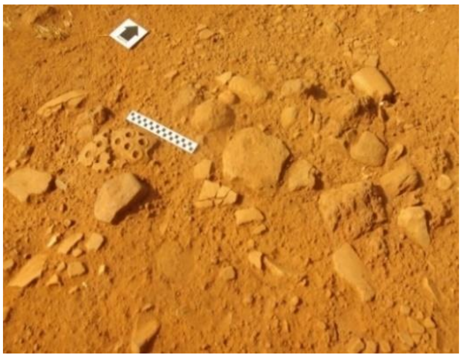
Figure 3.6. The first Gate entrance of the Kwara State College of Education used as primary baseline for the survey (see Figure 3.3 and Table 3.3 for location) (Photo: Teni Omoh 2020).

Since the survey commenced within the Kwara State College of Education grounds, the survey team members, many of whom were new to the site, were first shown round to identify archaeological materials and briefed on what the survey was designed to achieve. Following this exercise, survey commenced from the first gate of the college grounds using it as the primary baseline (Figures 3.3 & 3.6, Table 3.3) with the use of the GPS. The survey activities moved from the gate along a main unpaved road inside the college in the northwest direction towards a central mosque (Figures 3.4 & 3.7, Table 3.1).

The central mosque area, located at the centre of the college site was the main focal point of the investigation and has been the usual starting point of the Kwara State University archaeological students' fieldwork. This is due to the rich nature of archaeological materials remains in the surrounding landscape, most especially pottery and potsherd pavements. Other find spots near the mosque were identified and recorded. For instance, evidence of pottery remains in association with broken grinding stones, and fragmented bones, southwest of the central mosque, were observed at a slightly elevated potsherd pavements area assumed probably to be a small mound (Figures 3.3, 3.4 & 3.8a-c, Table 3.2 for coordinates).

Figure 3.7. The central mosque with evidence of visible archaeological materials (See Figure 3.4 and Table 3.1 for its the location and coordinate (Photo: Emmanuel Adeara 2020).

a



b. c.

Figure 3.8a-c. a. The elevated area southwest of the mosque where potsherds and associated material remains (b and c) were noted on the ground surface (Figure 3.8a marked as mound on Figure 3.4 and Figure 3.8b-c marked as 7 & 8 on Figures 3.3 & 3.4) (Photo: Macham Mangut 2020).

Figure 3.9. A baobab tree *(Adansonia digitata)* located within the College of Education grounds, possible indicator of past human habitation (see also Figures 3.3, 3.4 and Table 3.3) (Photo: Yusufu Iyanda 2020).

Around the central mosque, the team concentrated on recording evidence of pottery remains, potsherd pavements and associated material evidence for further investigation. Apart from pottery clusters with or without other material remains such as lithics and the remains of animal bones (Figure 3.8bc, 3.11, 3.12 & 3.13), GPS recordings were also taken of singular embedded surface potsherds relevant to the study (Figures 3.10 & 3.11). Oral information gathered during the survey even suggested possible functions of some of the material deposits recorded. For instance, it was suggested that the lateritic stone associated with a cluster of potsherds (Figures 3.12 & 3.13) might have been used as part of a ritual context ascribed to the *Esu* deity due to the appearance of assumed dried palm oil on the stone surface. Apart from the estimated diameter of the lateritic stone, which measured 25cm, no other analysis was done as the stone unfortunately went missing during the field research.

Figure 3.10. Embedded potsherd remains left for further investigation during surface collections (marked 12 on Figures 3.3 & 3.4) (Photo: Jamiu Amuda 2020).

Figure 3.11. Embedded potsherd remains from Kwara State College of Education Ilorin site recorded during survey (marked 11 on Figures 3.3 & 3.4) (Photo: Emmanuel Adeara 2020).

Figure 3.12. Mapping of a cluster of embedded potsherds and lateritic stone (lithic) located south of the central mosque during surveys (marked 13 on Figures 3.3 & 3.4, Table 3.2 for location) (Photo: Jamiu Amuda 2020).

Figure 3.13. Closer view of Figure 3.12 showing a cluster of potsherds and embedded lateritic stone (Photo: Jamiu Amuda 2020).

Apart from pottery, the study of potsherd pavements (Figures 3.14 - 3.18) formed a significant part of this research in terms of examining the nature of their technological developments and chronology. This is with a view to considering certain aspects of their characteristics, useful for understanding their contributions to the past social organisation of the Okesuna Ilorin area within the wider region. Some of the characteristics include the study of their architectural attributes, associated material culture (mainly pottery), distribution, and orientations.

GPS recordings and photographs were taken of all potsherd pavements identified during the survey (Table 3.2) some of which were in very close proximity and as such, a single GPS recording was taken for the group. Some areas of potsherd pavements were then selected for further study and possible conservation. These were then labelled accordingly (Table 3.2) with some being earmarked for further study as discussed in Chapter 4.

Figure 3.14. An example of one of the potsherd pavements noted near the mosque (marked 5 on Figures 3.3 & 3.4).

a. b.

Figure 3.15a-b. Potsherd pavements on the unpaved road between the college hall (visible in photo) and the central mosque located to the south (not visible here). b. Closer view of the potsherd pavements (marked as 1 on Figures 3.3 & 3.4).

Measurements of the length and breadth of each potsherd pavements identified were taken at the areas of highest concentration (Table 3.2). Other aspects of the architecture studied include evidence of material inclusions and direction of orientation. In terms of inclusion, the potsherd pavements located on the elevated area southwest of the central mosque area provided a unique form of information (Figure 3.16). The outline of a buried pot was observed within the pavement. The potsherd pavement was then recorded and marked for further investigation.

The orientation of the potsherds making up the pavements was also studied, examining the direction of spread or arrangement of potsherd pavements on the ground surface. The study was informed by earlier studies of potsherd pavements carried out in the Kainji Dam and northeast Osun areas of Nigeria by Nzewunwa (1989) and Ogunfolakan (2009) respectively. In their study of potsherd pavements of these sites, they pointed out that different orientation of potsherd making up the pavement implies that several people were working at the site at the same time, facing in different directions (Nzewunwa 1989; Ogunfolakan 2009). The orientation of the potsherd pavements at Kwara State College of Education Ilorin was carried out with the use of visual observations, a compass and the directional arrow, and showed that the potsherd pavements point in two directions: east-west and southeast-northwest (Figures 3.17 & 3.18). This suggests that the construction of the potsherd pavements at Okesuna Ilorin was carried out by artisans facing in different directions. Oral information from Ilorin further corroborated this hypothesis for the Okesuna Ilorin potsherd pavements.

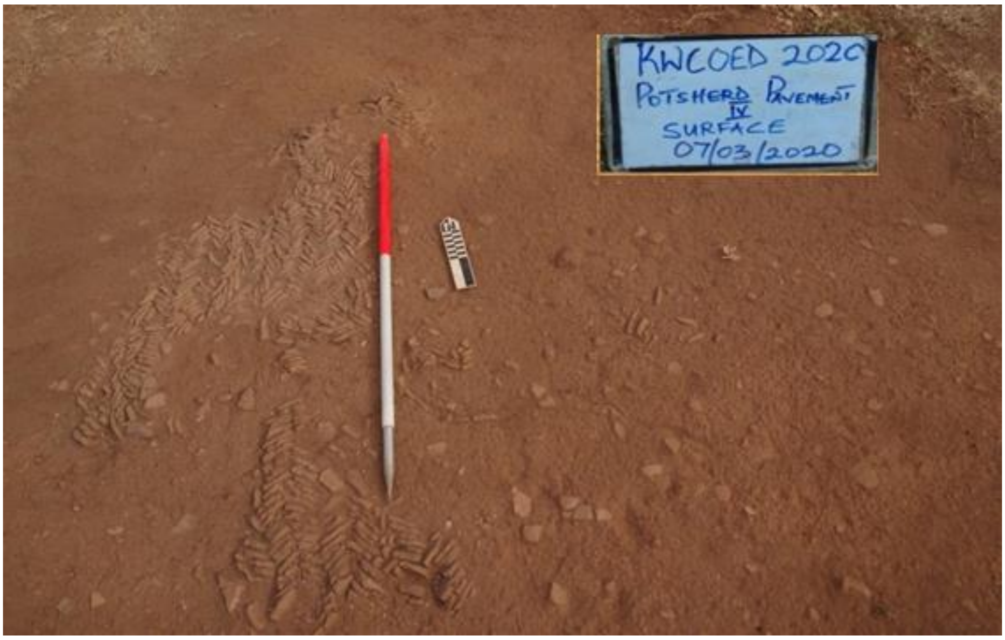


Figure 3.16. Potsherd pavements showing evidence of the thin outline of a buried pot. The longer ruler and the black arrow pointing east are placed beside part of the pot outline. Ranging pole length=1m (the potsherd pavement marked 6 on Figures 3.3 & 3.4).

Figure 3.17. Potsherd pavement is oriented in an eastwest direction (marked 5 on Figures 3.3 & 3.4) (Photo: David Okanlawon 2020).

Figure 3.18. Potsherd pavement is oriented in southeast - northwest (marked 10 on Figures 3.3 & 3.4) (Photo: Jacob James 2020).

After the survey of the areas around the central mosque was completed, the team then moved towards the second gate of the college grounds (Figure 3.20), located on the southwest of the mosque (see Figure 3.3 and Table 3.3 for location), taking GPS recordings of significant features found along the route. Other significant features that were taken into consideration, while using the GPS tool apart from the central mosque, and the main road gate include the college fence, water reservoir, and the *Okun* river which flows south of the college (Figures 3.3, 3.4, 3.19 & 3.20 and Table 3.3).

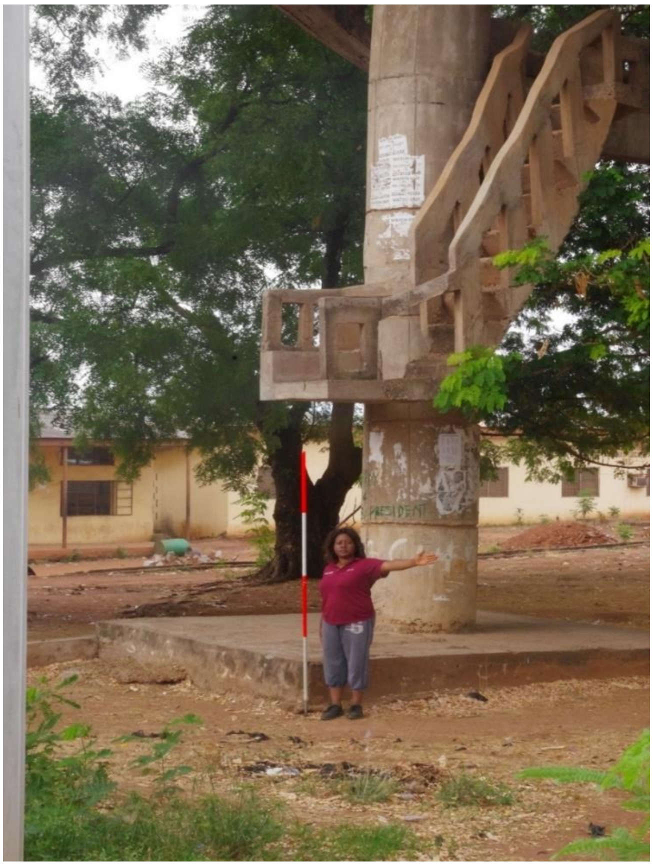


Figure 3.19. The researcher during the surveys of a concrete water reservoir at Kwara State College of Education grounds Ilorin (see Figures 3.3 &3.4 and Table 3.3 for concrete water reservoir location and coordinates) (Photo: Emmanuel Adeara 2020).

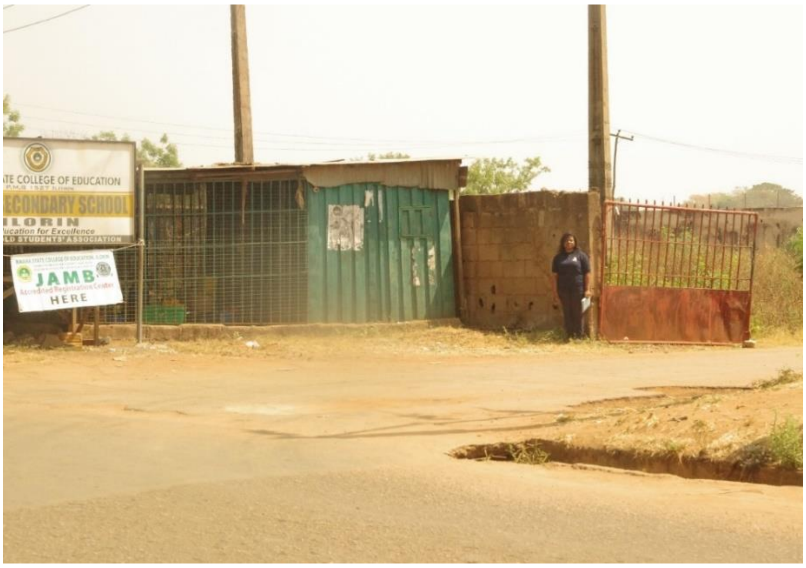


Figure 3.20. The researcher at the College's second gate during the surveying process (see Figure 3.3 and Table 3.2 for its location on the map and the coordinates respectively) (Photo: David Okanlawon 2020).

Other cultural markers recorded for this site were important economic and cultural trees such as the baobab (*Adansonia digitata*), Igi Odan (*Terminalia avicennioides)* and the oil palm (*Elaeis guineensis)* (Figures 3.9, 3.21 & 3.22, Appendix 2). The identification of the trees was carried out through a combination of the researcher's prior knowledge, information provided by field assistants, and members of the local community. The baobab tree (see Figures 3.3. 3.4 & 3.9 and Table 3.3) was not discovered until June 2020, when it came up during oral data collection with one of the descendants of the Okesuna area. The researcher and her assistant were allowed limited time within the college grounds due to the lockdown occasioned by the Covid-19 pandemic, only photographs of the tree were taken, and the coordinates were later determined using Google Earth.

The presence of these trees in archaeological contexts indicate evidence of past human settlements. Trees such as *Igi Odan* (*Terminalia avicennioides)* and baobab (*Adansonia digitata*) are cultural markers of past human occupation, some of which indicate residence of important people or families. Information gathered from an informant in Ilorin, (Alhaji *Kamoru Abdulraham*, head of *Odo Okun* compound, pers. comm. 2020) revealed that his family compound referred to as *Ajia,* in the past, was located around the baobab tree within the college grounds. Baobab trees are widely found within many archaeological contexts of West Africa such as Ede-Ile (Ogundiran 2012, see Figure 2.8).

Figure 3.21. Igi Odan (*Terminalia avicennioides)* tree; an indication of past human settlement. (Photo: Bolu Ajayi 2020).

Figure 3.22. Oil palm (*Elaeis guineensis*) within the Kwara State College of Education grounds. (Photo: Bolu Ajayi 2020).

While a more opportunistic survey and GPS recordings were only carried out for other parts of the college grounds with no surface collection, a systematic pottery surface collection was conducted on the land area south of the central mosque (Figure 3.23). This area south of the central mosque was selected for pottery surface collection because of its more open space with evidence of visible pottery materials which led to identifying the area for excavation activities. Pottery surface collection was informed also by previous report on (Otukoko 2014) and personal observations of the distribution of pottery scatters across the college grounds.

A datum point was established at the base of a coastal coral tree (*Erythrina caffra*). The tree is located approximately 24m east of the college central mosque which served as a temporary benchmark (see Table 3.3 for coordinates). The primary baseline was then measured from the base of the tree to 22m north using a compass, ranging poles, measuring tapes, and pegs to demarcate 2m intervals along the line (Figure 3.23). In order to ensure accuracy of measurement, a secondary baseline was also established from the base of the tree to about 90m west, where the tree obstructed the line of sight along the primary baseline.

As a result, a gridded area was established, measuring 30m southwards from the datum tree and 82m westwards. As previously mentioned, only pottery was considered for surface collection. Other materials such as lithics, and potsherds (Figures 3.11 & 3.12) that were still embedded within the surface soil matrix were not collected as surface finds but considered for further analysis. The purpose of the surface collection was to obtain a database for a comparative analysis with materials retrieved from excavation contexts.

Figure 3.23. The team members gridding the area of the mound as part of the larger survey exercise on the southern end of the Kwara State College of Education central mosque for further investigation (Photo: Jamiu Amuda 2020).

Sn/feature	***Latitude***	***Longitude***	***Name***	***Length and breadth***	***Location***	***Other remarks***
1	8°28'33.60"N	4°31'28.83"E	Potsherd pavement	0.89m x 0.43m	28.5m north of central mosque area. Located on the untarred road between the mosque and the College Community Multi-purpose hall and 15m south of the latter	
2	8°28'32.98"N	4°31'28.54"E	Potsherd pavement	3.85m x 1.45m	25m south of feature 1. Located in front of the central mosque.	
3	8°28'32.02"N	4°31'28.77"E	Potsherd pavement	0.85m x 0.5m	4.7m east of the central mosque	
4	8°28'32.10"N	4°31'28.95"E	Potsherd pavement	3.77m x 0.97m	5.3m east of Feature 3.	Feature 4 potsherd pavements are three patches of potsherd pavement in close proximity. It is assumed the patches must have been a continuous band linked together in the past but were discontinued as a result of human interference. These patches were taken and mapped as one potsherd pavement
5	8°28'32.15"N	4°31'28.73"E	Potsherd pavement	1.13m x 0.7m	5.4m north of Feature 3	
6	8°28'30.91"N	4°31'26.33"E	Potsherd pavement (with a buried pot)	2m x 1.5m	70m southwest of Feature 5	
7	8°28'30.93"N	4°31'26.86"E	Concentration of potsherds	Nil	200m southwest of feature 8	
8	8°28'30.96"N	4°31'26.95"E	Concentration of Potsherds	Nil	40m northwest of feature 6	
9	8°28'29.25"N	4°31'16.22"E	Potsherd pavement	Nil	1.3km northwest of the central mosque	
10	8°28'32.34"N	4°31'27.26"E	Potsherd pavement	0.7m x 0.4m		
11	8°28'30.34"N	4°31'21.91"E	Concentration of potsherds	3.4m x 1.2m		
12	8°28'31.04"N	4°31'27.54"E	Buried broken potsherds	Nil		
13	8°28'31.28"N	4°31'28.49"E	Assumed shrine site (i.e. *Esu)*	Nil		

Table 3.2. Coordinates of GPS recorded artefacts and features within the Kwara State College of Education site (see feature number marked on Figure 3.3) in estimating surface area, measurements were taken from the point of greatest concentration of sherds.

S/No	Latitude	Longitude	Name
1	8°28'29.00"N	4°31'49.78"E	Main Gate
2	8°28'31.59"N	4°31'42.22"E	1st Gate
3	8°28'32.60"N	4°31'6.58"E	2nd Gate
4	8°28'501"N	4°31'49.49"E	Concrete water reservoir tank
5	8°28'27.94"N	4°31'31.43"E	Baobab tree
6	8°28'521"N	4°31'486"E	Coastal Coral tree

Table 3.3. Coordinates of major features recorded Kwara State College of Education (KWCOED), Ilorin.

Based on the material remains identified within the Kwara State College of Education site grounds, the area was then selected for excavation. Using the site as the base site (Table 3.4) for other survey areas, reconnaissance proceeded to the other sites beginning with the Adewole residential estate site. Apart from the Government-day Secondary School and Sheikh Abdulkadir College which are easily trekkable, other areas including the Adewole estate site were reached with the aid of a vehicle.

S/No	Location	Distance of Site to Kwara State College of Education, Ilorin	Remark
1	Government Day Secondary School, Odo-Okun	0.5km northeast of KWCOED	No evidence of potsherd pavements detected as of 2020. It was last detected in 2013
2	Sheikh Abdulkadir College,	0.65km northeast of KWCOED	Buried pot remains
3	Adewole Estate,	1.3km northwest of KWCOED	Visible evidence of potsherd pavements
4	Apata Suna	1.1km southeast	Rock site with rock hollows, buildings
5	Okesuna hill site	0.8km northeast	Rock site with rock hollows, buildings.

Table 3.4. Distance of surveyed sites to Kwara State College of Education (KWCOED), Ilorin.

3.3.2. Adewole Residential Estate Site

The Adewole site was visited due to the previously reported evidence of potsherd pavements at a spot within the site by Otukoko (2014) (Figure 3.2 and Tables 3.1 & 3.4). This is located in one of the estate streets known as Ogaminana. The intention of the opportunistic survey of the site was to identify the possibility of discovering further archaeological remains. Though few traces of potsherds were observed within a shallow gully around the potsherd pavement, probably exposed by erosion, no other significant material evidence was found. As a result, the activity was limited to mapping using a GPS (Figure 3.24). Although a GPS recording of the Adewole Estate potsherd pavement had previously been documented (Otukoko 2014), another GPS recording was taken to ensure consistency in all the GPS recordings taken for the research.

Figure 3.24: Adewole Estate potsherd pavement site at Ogaminana street. The red arrow pointing to the potsherd pavement (see Figure 3.2, Table 3.1).

3.3.3. Government Day School, Odo Okun Ilorin site

Government-Day School Odo-Okun site (see Figures 3.2, 3.3, 3.25 and Table 3.1 and 3.4) was visited as it had initially been reported as a site with potsherd pavements. The team proceeded first to the location of the potsherd pavement. Unfortunately, the reported location was occupied by a metallic structure, and no traces of the potsherd pavement were found. Further survey attempts in the school ground yielded no appreciable result.

Moreover, the school grounds are highly disturbed and not conducive to an intensive survey as it is fully occupied with school buildings. Based on the oral and ethnohistorical accounts of the site as part of the larger Okesuna Ilorin area, as well as the previous report of evidence of archaeological remains, the site was also mapped using the GPS (Figures 3.2 & 3.3).

Figure 3.25. The Government-Day Secondary School, Ilorin located northeast of Kwara State College of Education (Photo: Macham Mangut 2020).

3.3.4. Sheikh Abdulkadir College Ilorin site

Of all the sites surveyed, Sheikh Abdulkadir college was the only one that was not previously known for its evidence of material remains (Figures 3.2, 3.26, Tables 3.1 & 3.4). During survey of the Government-Day Secondary School site, a staff member informed the researcher of the possible existence of material evidence within the grounds of the Sheikh Abdulkadir College grounds. Six separate locations featuring buried pottery were identified by the team within proximity to one another (marked as 14, 15, 16, 17, 18 and 19 on Figure 3.3, Figures 3.27 & 3.

28), and their coordinates were recorded (Table 3.5). A further survey of the area for possible excavation however yielded no positive result.

Figure 3.26. The Sheikh Abdulkadir College, the new site that was included in the fieldwork survey.

Figure 3.27. Embedded potsherds at Sheikh Abdulkadir College (marked as 15 on Figure 3.3) (Photo: Macham Mangut 2020).

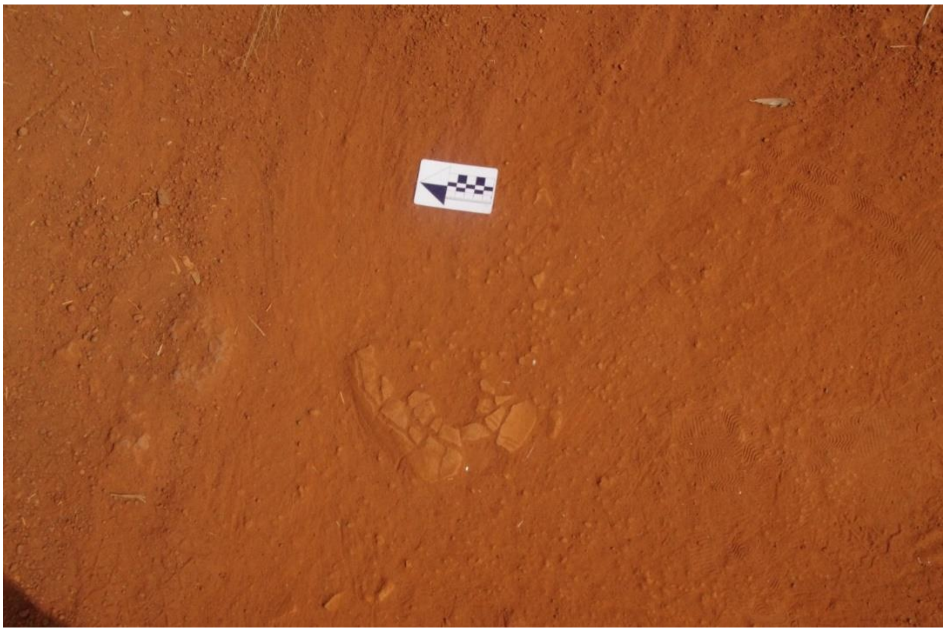


Figure 3.28. Embedded potsherds at Sheikh Abdulkadir College (marked as 19 on Figure 3.3) (Photo: Macham Mangut 2020).

Sn	*Latitude*	*Longitude*	*Features*	*Legend*
1	8°28'41.69"N	4°31'47.05"E	Buried Pot	14
2	8°28'41.79"N	4°31'46.97"E	Buried Pot	15
3	8°28'41.78"N	4°31'47.13"E	Buried Pot	16
4	8°28'41.74"N	4°31'47.06"E	Buried Pot	17
5	8°28'41.60"N	4°31'47.02"E	Buried Pot	18
6	8°28'41.43"N	4°31'47.09"E	Buried Pot	19

Table 3.5. Coordinates of GPS recorded artefacts and features within the Kwara State College of Education and Sheikh Abdulkadir College.

3.3.5. Apata Suna rock site

Located on the southern end of the Kwara State College of Education grounds, across the *Okun* River (*Odo Okun)*, the *Apata Suna* rock site was the next focus of survey and had also previously been reported as part of the Okesuna landscape (Figure 3.2). The granitic rocky site is situated along an area known as Olorunsogo and it is an elevated site with a mosque constructed on top of the rock, enclosed by a fenced wall (Figure 3.29). In front of the rock site are some buildings, one of which was reported to be a church. Though the enclosed compound of the rock site was inaccessible as no one was around to explain anything or to grant permission, however, some part of the rock landscape could be accessed.

Evidence of rock hollows were noted, and the GPS recording of the site and photographs were taken. Additional oral accounts gathered during the survey revealed that the site was also known by the name of *Ajia* rock site and that it is associated with the past settlement around the large Baobab tree within the Kwara State College of Education grounds also referred to as *Ajia* (see Figure 3.9). According to the informant, the *Ajia* settlement was part of an older settlement compound in Ilorin known as *Ajia Opele* whose ancestors were reported to have moved into Ilorin (and settled at a point in time in Okesuna) in the early 19th century. It was further gathered through oral information from another informant that, prior to the emergence of the Okesuna Ilorin area, the rock site was occupied by a settlement referred as *Mongan.* However, the reason for the abandonment of the *Mongan* settlement is not known.

Figure 3.29. Apata Suna rock site with a mosque on top of the hill and a brick fenced wall and other buildings (see Figure 3.2 and Table 3.1 for location and coordinates of the site respectively) (Photo: Macham Mangut 2020).

3.3.6. The Okesuna hill site

The Okesuna rock area (Figures 3.2 & 3.31) features numerous rock hollows varying in size and depth (Figure 3.32) is a site well known for its busy religious nature, but an attempt was made to obtain as much information as possible. The research team first walked around the base of the rock site to observe valuable material evidence. Only one eroded potsherd was observed but was not collected.

Figure 3.30. The Okesuna rock site with a building on top of the hill (see Figure 3.2 and Table 3.1 for location and coordinates respectively) (Photo: Emmanuel Adeara 2020).

Figure 3.31. Evidence of rock hollows on the Okesuna rock site (Photo: Emmanuel Adeara 2020).

GPS recording of the site was taken including photographs of parts of the rock hollows. Although the functions of the rock hollows of the Okesuna hill site is unknown, their formations were however claimed to be associated with the establishment of Islam in the area. Oral information pointed out that the hollows were formed from footprints of Alimi, an Islamic cleric and the progenitor of the Fulani dynasty in Ilorin in the 19^{th} century. Apart from these rock sites of Okesuna, rock hollows have been reported in other part of Ilorin, some have been associated with bead making in the past (Otukoko 2014). In Yorùbáland, rock hollows have been reported for such sites as the Old Oyo (Folorunso et al. 2006; Soper 1992; Willett 1960b) and Igbomina (Usman 2012). Rock hollows have been generally associated with activities including food processing, agriculture, iron working, and bead making (Folorunso et al. 2006; Soper 1992; Usman 2003, 2012; Willett 1960b). Since no other features or artefacts were recovered from the Okesuna hill site, it was only documented as part of the larger Okesuna Ilorin landscape.

This rock area is mainly occupied by a state-owned institution known as the Institute of College of Technology, Ilorin while the remaining portion is mainly used by various Islamic groups for their religious activities. The remaining surrounding areas of the rock sites are made up of other structures such as shops and residential buildings.

3.4. Results of fieldwork survey activities

The archaeological survey recorded six sites, five of which were previously known, and one newly identified. Four of the sites occupied flatland area while two were rock sites. Although one of the previously known sites, Kwara State College of Education grounds became the main subject of detailed investigation, the remaining five sites yielded significant information for the understanding of the cultural landscape of the Okesuna area.

The GPS recordings also created a dataset of information on the spatial distributions of the sites, artefacts and features investigated. Although many of the sites surveyed have lost their original names over time, the names by which the sites are known today are those used to identify them during the survey. The survey also shows that while some of the sites still yielded evidence of previously reported artefacts and features, some others had become damaged over time. However, the survey yielded newly identified evidence of human activity such as pottery, potsherd pavements, bone remains and lithics. The evidence was discovered from sites located on flatland, especially the Kwara State College of Education site, while the major feature of the rock sites was the evidence of various sizes of rock hollows.

Surface pottery was collected within the Kwara State College of Education grounds yielding an assemblage of 787 potsherds for further analysis. The choice of sampling area was restricted by the scarcity of open land spaces within the college grounds and the decision to collect samples was informed by the fact that the area was already earmarked for further excavation. The survey identified nine potsherd pavement locations, eight of which were recorded within the Kwara State College of Education, and the remaining one in the Adewole Estate. The potsherd pavements were all constructed in the herringbone pattern and made up of only potsherds of relatively thick sizes constructed in different orientations.

In the end, the archaeological survey of the Okesuna quarter recorded three types of archaeological evidence: sites, features and artefacts. For the Okesuna area, potsherd pavements, trees, rock sites with rock hollows, and several embedded materials on the ground surface can be classified as major features produced during the survey. Archaeological artefacts recovered were mainly pottery remains while traces of other materials such as lithics, and animal bones which were seen embedded within the soil matrix, were studied as part of the further investigation of the site in Chapter Four.

3.5. Conclusion

The goal of the fieldwork survey conducted as part of the present doctoral research was to enhance existing knowledge of the Okesuna Ilorin area by conducting a further archaeological survey of these sites, artefacts and features as well as identifying new sites for further investigation. The survey fulfilled the above aim significantly.

Although five of the six sites were known already, the present research work improved on previous knowledge by creating a systematic and georeferenced record. The GPS was well employed with the use of foot walking to capture as much information as possible on the archaeological evidence on the ground surface. Further highlights of the archaeological surveys include the identification of the new site of Sheikh

Abdulkadir College where few finds of buried pottery were recovered. The recovery of this archaeological site begs a question about the degree of the area extent and land use pattern of the Okesuna Ilorin area in the past. Though the Kwara State College of Education site was well known for its abundant archaeological remains, the archaeological surveys conducted as part of this research yielded further evidence of past artefacts and features, particularly pottery and potsherd pavements, that better informed the excavation process. Although the Adewole Estate potsherd pavement site could not be explored extensively due to the built-up nature of the area, the survey however revealed further evidence of potsherds near the potsherd pavements probably exposed by erosion, indicating other evidence for the archaeology of the site.

The survey also revealed the state of the archaeological landscape of the Okesuna area, as the entire area has undergone a series of restructuring due to natural and human impacts over the years. These various restructuring activities have affected the available evidence to a large extent and resulted in the loss of information relating to the past society. However, the available materials evidence discovered during this survey activity provided significant datasets for understanding some aspects of past human behaviours of the Okesuna Ilorin area.

Chapter 4: The Archaeological Excavations

4.1. Introduction

This chapter describes the archaeological excavations carried out between January 16 and March 21, 2020, within the grounds of Kwara State College of Education, Ilorin, which occupies the former Okesuna Ilorin landscape as stated in Chapter 3. This chapter outlines the methodology for excavation, and processes of recovery and recording. The chapter then discusses the results of the excavations, including the description of the units, their locations and relative position as well as material composition, stratigraphic information and radiocarbon dating results. The artefacts recovered will be discussed in Chapters 5 and 6.

4.2. Methodological overview

Prior to excavation, the surface of the area to be investigated was prepared using clearing equipment such as cutlasses, brooms, brushes and rakes to reveal any surface materials or features. This was carried out by this researcher and members of her team. The team members include the four-research assistants from University of Ibadan, four field assistants drawn from members of the college as well as student volunteers from Kwara State University, Malete. Excavation activities was conducted between Monday and Saturday from 9 am to 5 pm with an hour break for lunch.

Following the clearing exercises, a datum point was selected, and the areas gridded using pegs, strings and line level. The built-up nature of the college (Figure 4.1) would not allow a singular grid, so each area of excavation was gridded separately (Figures 4.2 & 4.3). Although an initial datum point was selected to establish the major gridlines, other datum points were established during the excavation work, due to the distance between some of the units and the obstructions presented by buildings and trees. Excavations were carried out mostly by measured horizontal spit levels of 10cm in depth and occasionally by visible changes in depositional contexts.

The excavations were conducted with the use of trowels and, in some cases, mattocks to break through hard lateritic deposits. Where possible, hard deposits were dampened to soften them either using a spritzer bottle or by hand directly from a bucket. This was then left to dry up before proceeding with excavation to better safeguard material remains from breaking up. Deposits were removed from the units' using trowels or a spade, plastic packers and buckets. Apart from rare exceptions, which will be mentioned at appropriate points in the text, all sediment was sieved through a 5 mm mesh. The soil colour for each of the contexts was determined using a Munsell colour chart. The opening and closing of each of the context was photographed and detailed descriptions were documented on a Level Record Form. Although evidence of charcoal deposits was also included in the LRF form, charcoal samples were collected for each level for further analysis which were documented in a Charcoal Sample Form (CSF) (see Appendix 3). All excavations proceeded to sterile.

All artefacts retrieved from excavations were bagged and labelled by spit level except in few cases where cultural deposits were encountered from unique contexts for further analysis. These contexts are distinguished by isolated changes in material remains or soil colour and texture. Potsherds were bagged together using cotton bags, ziploc bags and other nylon bags. Broken potsherd remains from the same assemblage were bagged and labelled separately for refitting when possible.

Lithics, shell, faunal remains, metal fragment and two fragments of beads were also bagged and labelled separately. Charcoal samples were collected using a trowel and placed in ziploc bags, usually wrapped in foil, and labelled. Stratigraphic profiles/layers of each unit were drawn, photographed, and described using a Munsell colour chart with the aid of physical observations based on their soil texture, colour, composition, compactness and cultural components. Human remains encountered during excavations were carefully packed by experienced research assistants into paper wrappers and plastic containers.

All potsherds retrieved from the excavations (including surface collections) were washed in the final four to five weeks of the excavation. This was carried out by the researcher and four to six members of the research team and dried at the College. These were then re-bagged and transported to the researcher's accommodation/office space in Ilorin for further analysis. No sorting or analysis was conducted at the field site, to ensure adequate monitoring of the finds by the researcher. Soil samples were taken from stratigraphic layers of each unit for future chemical and/or pollen analysis. These samples were taken from the northern walls of each unit and bagged in small plastic bags and labelled.

A large chunk of sediment was taken from within a buried pot associated with a potsherd pavement (see Chapter 3, Figure 3.16) and this will be discussed further in this chapter. The sediment was taken due to evidence of fragmentary bone remains along with broken small potsherds and rootlets. This was done with the aim of future sediment analysis to potentially provide information on any food contents within the sediment.

After soil samples were taken, all units were backfilled. Materials were then analysed at the researcher's temporal accommodation in Ilorin and then taken and stored at the researcher's home in Ibadan, Oyo State, Nigeria. This was pending the period of the completion of the PhD for proper arrangement of storage space most likely in collaboration with the Department of Archaeology and Anthropology, University of Ibadan. The materials could not be curated in any institution in Ilorin or nearby Ibadan in Nigeria because of the following factors.

- The incidence of Covid-19 which occasioned lockdowns and ongoing strike action between the Nigerian Government and Federal Universities, resulting in the closure of many institutions in Nigeria including those with storage facilities for archaeological materials.
- The Ilorin Museum, on the other hand, do not have any storage space to accommodate them and have never dealt with archaeological material remains of this nature.
- Unfortunately, the Kwara State University where the researcher is a lecturer does not have a storage facility for archaeological materials.

Selected samples of artefact classes were then exported on a clearance permit by the National Commission of Museum and Monument Ilorin, Nigeria to the UK for further scientific analysis. These samples include selected pottery remains (i.e., a partially completed vessels, decorated potsherds, handles and a lid), utilised sherds, metal objects, animal bones and teeth, perforated tooth, shell, beads, assumed pot stand and some three pieces of unidentified objects.

4.3. Excavation Results

Following the surveys, described in Chapter 3, ten units of various sizes were investigated (Table 4.1). Six of the units (Table 4.1, S. No 1-6) were located on surface areas where potsherd remains, stone and bone fragments were visible while the remaining four units (Table 4.1, S. No 7-10) were carried out in connection with potsherd pavements. Seven of the ten units were systematically excavated (see Table 4.1. S. No 1-7) and made up a total area of 25.5m^2. One of the excavated units was located near the Kwara State University student training excavation (which is independent from the present work) (see Figure 4.2). However, the student training excavations will not be discussed further here.

The remaining three units associated with potsherd pavements (see Table 4.1. S. No 8 -10) were limited to surface cleaning and clearance. The reasons for this will be discussed in more detail later in this chapter, but essentially, this was to investigate the social processes that produced the Okesuna Ilorin potsherd pavements on a regional scale. In addition, this study was for the promotion of archaeological heritage in the area.

Since the Central Mosque within the College grounds was the major reference point of the investigations (see Chapter 3), these were sited on all four cardinal points of the mosque. Seven of the units (see Table 4.1, S. No 1-6, 10 and Figure 4.2) were located at the southern end while the remaining three units associated with potsherd pavements (see Table 4.1, S. No 7-9) were located on the eastern, western and northern ends of the mosque. The total area within which the excavations were sited was roughly 110m by 100m square (Figure 4.2).

KWCOED: Systematically excavated units					
S.No	Unit	Area Dimension (m^2)	Depth (m)	Volume (m^3)	Location to the central Mosque.
1	Test Pit 1	2m x 4m	Varying depth ranging between 0.85, 1.69, 1.90 & 3.4m)	18.04	South
2	Test Pit 3	1.5m x 2m	1.2	3.6	South
3	Test Pit 4	1m x 1.5m	0.7	1.05	South
4	Test Pit 5	2m x 2m	0.6	2.4	Southwestern
5	Test Pit 6	2m x 2m	0.35	1.4	Southwestern
6	Test Pit 7	2m x 2m	Varying depth 1.2 and 1.65	7.8	Southeastern
7	Test pit PPII	1m x 1m	1.1	1.1	West
Total		**25.5m^2**		**35.39m^3**	
KWCOED: Unsystematically excavated potsherd pavement units					
8	PPI	3m x 1m	0.5	1.5	North
9	PPIII	Nil	Nil	Nil	East
10	PPIV	0.471	0.33	0.155	Southwest

Table 4.1. Dimensions and locations of excavated systematic and unsystematic units within the Kwara State College of Education site (KWCOED). See Figure 4.2 for their locations on map.

Figure 4.1. Site map of excavation area within the Kwara State College of Education. Detail location of the test pits is shown in Figure 4.2 (Image drawn by Macham Mangut based on Owoseni field data 2020).

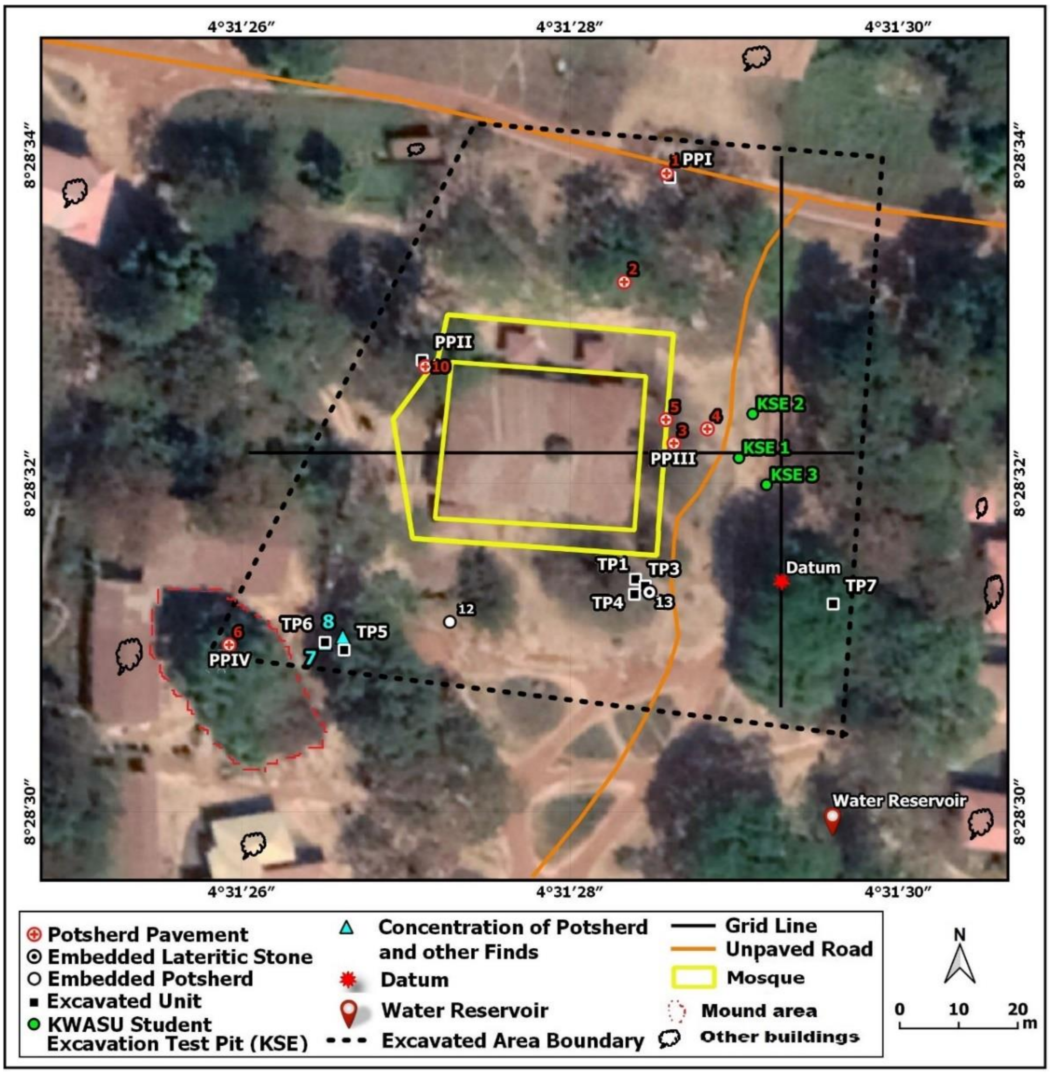


Figure 4.2. Site map of excavated area showing the test pits excavated within the area covered (110m by 100m) as part of the present doctoral research are indicated by white squares (Image drawn by Macham Mangut based on Owoseni field data 2020).

The chapter will now discuss each of the units in turn. As mentioned above, the ten units were excavated in order to fulfil particular aims, with four of them investigating pottery pavements. Of the remaining six, two (Test Pits 1 and 7) yielded interesting complex and deep stratigraphies while some, Test Pits 4 and 6, yielded scarce results.

4.4. Test Pit 1

4.4.1. Unit location

The unit was a 2m x 4m square trench, located approximately about 5.5 m south of the Central Mosque within the college grounds (see Figure 4.3). The area was selected due to:

- The evidence of a slightly elevated mound which was assumed to contain remains of past activities.
- The surface area showed evidence of potsherds, lithics, and ash.
- The presence of *Terminalia avicennioides* (Yorùbá: Igi-Odan) trees, which are known in Yorùbáland and many areas of West Africa as an indicator of past domestic/settlement contexts (Darling 2008; Ogundiran 2012: 235-236).

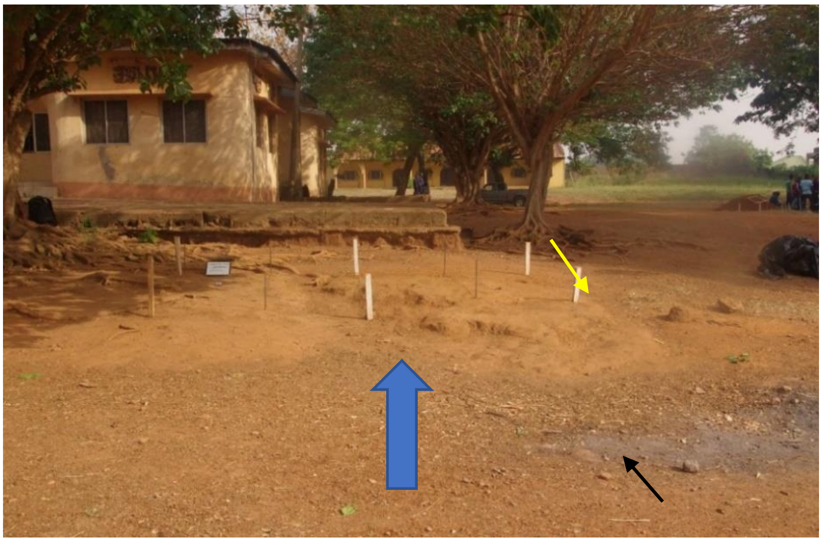


Figure 4.3. Location of Test Pit 1 (indicated by blue arrow) behind the Central Mosque. See also the small yellow and black arrows pointing to location of Test Pits 3 & 4 respectively (Photo: Teni Omoh 2020).

4.4.2. Stratigraphic description

The unit measured 2m x 4m and was excavated to varying depths and a total of 18.04m^3 was investigated. The unit was divided into four equal squares of 2m x 1m which were excavated in sequence. The unit produced 14 stratigraphic layers, determined by characteristic changes in soil colour and texture, together with associated material remains on wall(s) profile. On the other hand, 17 contexts were produced from the unit which were determined by a combination of the changes in stratigraphic characteristics and associated material deposits. The stratigraphic layers and associated contexts are presented in Table 4.2 and Figures 4.4 & 4.5.

S. layers	Stratigraphic descriptions	Contexts	Context descriptions	Artefacts
1	This layer consisted of reddish brown poorly sorted, very coarse gravelly lateritic sand, Munsell 5YR 4/3. The deposit was about 18cm from the ground surface at the deepest level and extended to all parts of the unit and was characterised by root/rootlet activity, and ash.	1	Same as S. Layer 1, with pottery, shell, bone, charcoal	Pottery, shell, bone
2	This layer consisted of yellowish red moderated sorted, very coarse lateritic sand with stone inclusions, Munsell 5YR, CHR 4/6. It was located about 18cm below the ground surface to a depth of about 40cm extending from the northern wall to the southern wall with the except the western wall. The layer was characterised by root/rootlet activity which resulted in small holes on the wall profile and ash.	2	Same as S. Layer 2 with pottery, bone, teeth, shell, lithics, charcoal	Potsherds, bone, teeth, shell, lithics
3	Pink poorly sorted, very coarse silty lateritic sand, Munsell 5YR CHR 7/3. Located about 18cm below the surface to a depth of 36cm and formed a lense on the northern wall. The layer was below layers 1 and 2 and was characterised by rootlet, and ash.	3	Same as S. Layer 3 with pottery, shell, bone and charcoal	Pottery, shell, bone
4	Light red poorly sorted gravelly lateritic sand, Munsell 2.5YR CHR 6/8, the layer extended to all parts of the unit except for the western wall. The depth varied between 16cm and about 60cm below the ground surface and as deep as 150cm and was characterised by root/rootlets.	4	Same as S. Layer 4. This layer yielded a significant amount of ashy deposit in a clayey mud pit (probably part of a hearth) which extended down to Context 6 to a depth of 1.22m at the northern end **(**Figures 4.4, 4.5 & 4.6)**.** The deposit yielded potsherds, bone, shell, utilised sherds, pot stand, perforated tooth, lithics, and charcoal.	Pottery, bone, shell, utilised sherd, pot stand, perforated tooth, lithic
5	This layer was reddish brown poorly sorted, very coarse humic lateritic sand, Munsell 5YR CHR 4/3. Located on all sides of the unit at varying depths between 20cm and 55cm below ground surface. The layer contained root and rootlet, and ash.	5	Same as S. Layer 5 with pottery, bone, shell, metal object and charcoal.	Pottery, bone, shell, metal
6	The layer was light reddish brown poorly sorted very coarse, gravelly lateritic sand, Munsell 5YR, CHR 6/4. Located on the northern wall and was about 70cm to 150cm below ground surface. Other characteristics included root and rootlet, and ash.	6	Same as S. Layer 6. Ashy clayey mud pit from Context 4 (Figure 4.6) with pottery, bone, teeth and shell. A Charcoal sample with reference number 15 was collected at Context 6 for dating to give an insight into the later occupation/use of the site	Pottery, bone, teeth shell.

S. layers	Stratigraphic descriptions	Contexts	Context descriptions	Artefacts
7	Stratigraphic layer 7 is divided into two: Layers 7a and 7b with their corresponding Context7a and 7b due to slight differences in the stratigraphy and content. However, 7a will be discussed in this column. Light reddish brown poorly sorted very coarse lateritic sand with stone inclusions, Munsell 2.5YR CHR 6/4. Extended from northern to eastern wall from a depth of 80cm to 170cm. Very few potsherds and ash lense on wall profile.	7a	Same as S. Layer 7a. Context7a less deep than 7b and characterised by a smaller number of potsherds and ash than Context7b.	Potsherds, shell, bone, lithics, and metal objects.
7	7b: Light reddish brown poorly sorted very coarse lateritic sand with stone inclusions, Munsell 2.5YR CHR 6/4. Only on southern wall from a depth of 80cm to 320cm below the ground surface. A few small holes assumed to be produced by root/rootlet actions. Associated with a relatively large multi-decorated pot remains on wall profile (see Chapter 5, Figures 5.28e &5.30). More ash lenses, potsherds, and rootlets than 7a.	7b	Same as S. Layer 7b. One significant occurrence of this Context is its association with very thick mud rubble (Context7b) encountered at a depth of 2m below the ground surface with varying thickness between 20cm and 65cm across the unit with a few potsherds (Figure 4.7**).** The thick mud rubble cut across Contexts 10 and 12. The thick mud rubble is presumably part of past mud wall architecture.	A large partial pot remains, potsherds, shell, bone, tooth, lithics, and metal objects.
8	This layer is reddish brown poorly sorted, very coarse lateritic sand, Munsell 5YR, CHR 5/4. Located on the northern and the western walls and was between depths of 10cm and 1.02m below the ground surface. It contained ash, specks of charcoal, roots, and rootlets.	8	Same as S. Layer 8 with pottery, bone, and shell.	Pottery, bone, and shell.
9	The layer was grey moderately fine sand-ash with stone inclusions, Munsell 5YR, CHR 6/1. Located on the northern wall between a depth of about 1.5m to 1.95m below the ground surface, the layer contained ash deposit.	9	Same as S. Layer 9 with pottery, shell, lithics, bone.	Pottery, shell, lithics, bone.
10	Red moderately sorted coarse lateritic sand, Munsell 2.5YR, CHR 5/8. Located on the western wall about 1.25m to 3m below the ground surface and in the middle of layer 15. Contained ash layers, concretion and rootlets.	10	Same as S. Layer 10 with pottery, lithics, shell, bone, tooth, and charcoal.	Pottery, lithics, shell, bone, tooth
11	Yellowish red poorly sorted, gravelly lateritic sand, Munsell 2.5YR CHR 6/8. Located on the eastern wall and was about 60cm to 1.2m below the ground surface, the layer consisted of ash deposits.	11	Same as S. Layer 11 with pottery, shell, bone, charcoal	Pottery, shell, bone
12	Associated with Context 16 (Unexcavated presumed sterile)		Context 12 is an assumed circular storage cavity on the upper part of the eastern wall of “unexcavated presume sterile” area (Context 16) within the unit (Figures 4.4, 4.7 & 4.8). The cavity was about 30cm in diameter and did not open to the other end of the bulk. Rootlets found around the cavity. Ash and charcoal specks retrieved from the cavity.	Charcoal speck, rootlets

S. layers	Stratigraphic descriptions	Contexts	Context descriptions	Artefacts
13	Reddish brown moderately sorted medium grained lateritic sand with charcoal speck, Munsell 5YR, CHR 5/4. Located on the northern wall about 1m below the ground surface and above layer 9, and was characterised by ash, and charcoal.	13	Same as S. Layer 13 with pottery, bone, shell, charcoal	Pottery, bone, shell.
14	Light reddish brown, poorly sorted coarse-grained lateritic sand, Munsell 5YR CHR 6/3. Located on the northern and southern walls below layers 1 to 3. The layer was about 12cm below ground level and are characterised by roots, rootlets, ash and charcoal.	14	Same as S. Layer 14 with pottery, bone, shell, charcoal	Pottery, bone, charcoal, shell.
15	15a: Light red moderately sorted coarse and hard lateritic sand covered with ash layers, Munsell 2.5YR 6/8. Located on the northern wall at a depth of about 30cm below the ground surface and down to lowest part of the unit's cultural deposit. This layer contained a few potsherds. A charcoal sample with reference number 35 was collected at a depth between 3.04m and 3.14m to give an insight into the beginning or earliest occupation/use of the site	15a	Same as Layer 15a. Ash layered deposit formed on surface on the northern wall (see Figures 4.4 & 4.5). Context 15a beside an assumed circular storage cavity (Context 12) and unexcavated presumed sterile' (Context 16) and on the north-eastern corner of the unit. An almost complete pot (see Chapter 5, Figure 5.28d & 5.29) was recovered from the context at a depth of 2.9m with other potsherds, bone, shell, utilised sherds, lithic and charcoal	Almost complete pot, Potsherds, bone, shell, utilised sherds, lithic.
15	15b: Light red moderately sorted coarse and hard lateritic sand, Munsell 2.5YR 6/8. Located on all sides of the unit and situated at a depth of about 30cm below the ground surface and down to lowest part of the unit's cultural deposit. This layer contained a potsherds, holes and rootlet actions.	15b	Same as Layer 15b. Larger than Context 15a with few ash lenses. This layer extended down to the unit at a depth of 3.2m. Plenty of potsherds and roots with shell, bone and lithics	Potsherds, shell, bone, lithics
16	Reddish Brown hard laterite (Unexcavated presumed sterile) sand	16	Context 16 is unexcavated presumed sterile. Reddish brown, hard lateritic soil. May be associated with past architecture.	Nil

Table 4.2. Description of stratigraphic layers and contexts of Test Pit 1 (see Figure 4.6).

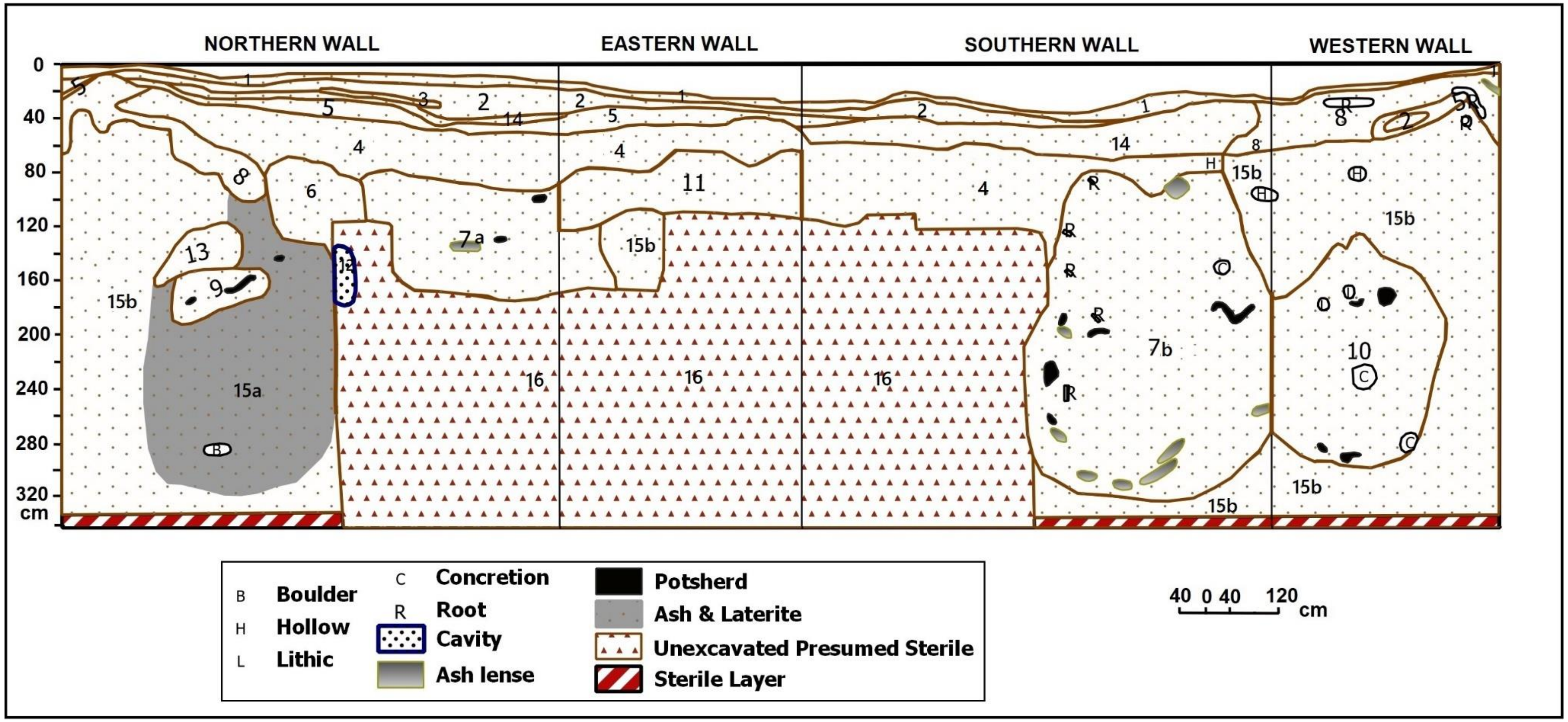


Figure 4.4. Stratigraphic profile of Test Pit 1. The numbers show the stratigraphic layers/contexts. (Drawn by Segun Moyib & Bolaji Owoseni. Digitised by Macham Mangut and modified by Bolaji Owoseni).

Figure 4.5. Test Pit 1 unit at completion at a depth of 3.40m. Image taken facing north. Note the blue arrow pointing to the ashy layer at Layer 15 (Context 15a), the red arrow pointing to the ashy area of layer 10 (Context 10) and the yellow arrow pointing to the cavity (Context 12). Ranging poles used are 1m and 2ms in length (Photo: Emmanuel Adeara 2020).

4.4.3. Interpretation

Generally, this unit produced a complex sequence of 14 stratigraphic layers within which 17 contexts were identified. Of these contexts, four unique ones were identified: 4 (ashy clayey mud deposits assumed to have been part of hearth), 7b (wall rubble context), 12 (assumed storage cavity) and 16 (unexcavated presumed sterile). The depositional sequence and the abundant and varied nature of the materials recovered indicated that occupation was intensive, most especially pottery, to a depth of 3.2m of the excavated unit.

Contrary to the above occurrence, was the eastern end of the unit (which formed about a quarter of the unit) which was less deep terminating at varying depths of 85cm and 1.69m, with relatively few material remains compared to the larger part (Figures 4.4 & 4.5). The association of this eastern end of the unit with the assumed circular storage cavity (Context 12) associated with Context 16 (unexcavated presumed sterile) makes it appear to have been a part of a past architectural remains, later dug over for use as a refuse dump. Concerning the cavity (Figure 4.8), the assumption that it must have been used for storage was informed by oral information from Ilorin, and ethnographic observations of similar cavities (but of varying shapes, sizes and depth) in a partially mud-walled house in Ilorin (Figure 4.9). Oral information on such cavities reveal that they served either as storage for small objects or as a shelf to place a lamp for house lighting in the past.

Context 4/6 which is an ashy clayey mud pit featuring a relatively high volume of ashy deposits associated with potsherds, bone, shell and charcoal, was encountered at a depth of 59cm, next to a large root which penetrated from the northern end to the southern end of the unit to a depth of c. 1.2m (Figure 4.6). It was not clear whether the ash was as a result of firing activities associated with domestic contexts or commercial activities such as those from cooking, dying or pottery production. However, oral information from one of the descendants of Okesuna Ilorin posited that various craft production activities which yielded huge amount of ash, such as pottery making, shea butter production, locust bean production and probably dyeing and soap making were carried out in the area. The presence of the ash fill containing charcoal and potsherds is also assumed as a hearth as context of similar nature with soft and ashy filling was reported for Tin Tin Kanza at Birnin Lafiya, Dendi in northern Benin Republic (Champion et al. 2018: 340). Although ash deposits were found in many parts of the excavation unit, this was the largest.

In Yorùbáland and beyond, evidence of ash features has been recovered through archaeological investigations in association with other material culture that have provided insights into the nature of past settlement sites. Archaeological and ethnoarchaeological research on soap and dye making in Ijaye Yorùbáland has demonstrated the connections of dye making craft with evidence of ash remains (Folorunso 2002). However, unlike the case of Ijaye where excavations of a mound 2 TP 1 covering an area of $22m^2$ recovered about 14 pots (most of which were whole pots) with ash deposits arranged in such a way that it was interpreted as a dye making workshop (Folorunso 2002: 131), for Context 4/6 of Test Pit 1 unit, no whole pots were recovered in association with the ash deposit except broken sherds. Elsewhere in Birnin Lafiya, Dendi in northern Benin, evidence of extensive ash features below the surface of a large settlement mound known as *Tombo* was suggested as possibly being burials (N'Dah and Mardjoua 2018). The various evidence of ash deposits indicates that its production can be formed from various social, cultural and economic activities.

The potsherds found in association with the ashy deposits could have been associated with the production processes of some of the crafts carried out by the people. Bivalves (shell) have also occurred in archaeological contexts such as the Igbomina area of Kwara State (Usman 2012). Oral historical sources from Ilorin have pointed out that the presence of bivalves (shell) in the deposits could indicate a source of diet and were associated with the production of shea butter, locust bean and pottery. Due to the combination of the various features found within this layer, a charcoal sample, numbered 15 associated with Context 4/6 (Table 4.2 & Figure 4.4) was collected and dated to obtain insight into the later occupation and use of the unit (see Table 4.9 and discussion later in the chapter, Appendix 4).

At a depth of 2m, a layer of thick mud rubble was encountered (Context 7b) (Figure 4.7). The soil characteristics (i.e., thickness, colour and texture), its distribution across the unit and evidence of a few associated pottery fragments within the thick mud rubble, suggested its possibility of being part of a wall from a past architectural structure. Underneath the thick mud rubble, at a depth of between 3.04m and 3.14m, a charcoal sample, numbered 35 was taken for radiocarbon dating (see Table 4.9 and discussion later in the chapter).

Figure 4.6. The ashy clayey mud pit/remains of Test Pit 1 Context 4/6 (Photo: Emmanuel Adeara 2020).

Figure 4.7. Test Pit 1 showing Context 12 (circular cavity), Context 16 (Unexcavated presumed sterile) and Context 7b (where the black arrow points to the thick mud rubble), Ranging pole length = 2m (Photo: David Okanlawon 2020).

Figure 4.8. Closer view of the cavity (Context 12), diameter: 30cm (Photo: David Okanlawon 2020).

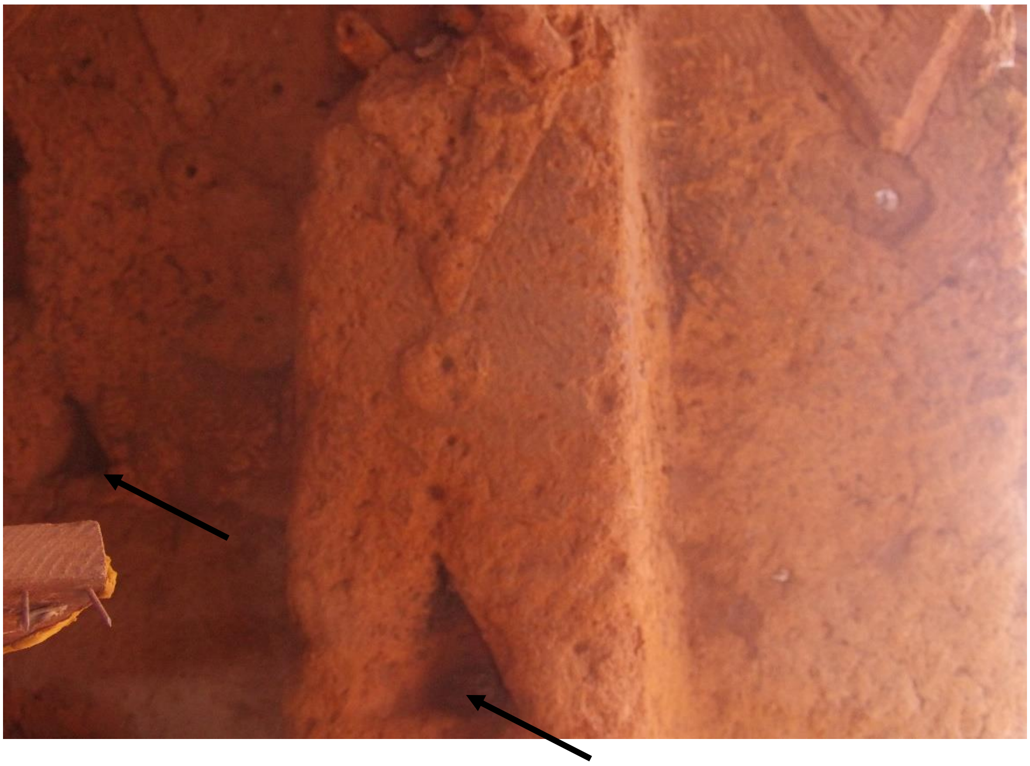


Figure 4.9. Mud wall showing cavity (indicated by black arrows) in a present-day house in Ilorin.

4.5. Test Pit 3

4.5.1. Unit location

This unit was located about 50cm northeast from the southern edge of Test Pit 1 behind the central mosque (Figure 4.2). The unit was selected due to the presence of surface material remains such as a large lateritic stone and potsherds. Another factor which guided the selection of this location for excavation was its proximity to Test Pit 1, offering the potential to explore similarities and differences in the material culture patterns of each unit and their relationship with other units investigated. Oral information suggested that the lateritic stone might have formed part of a traditional (*Esu*) shrine due to evidence of what may have been palm oil (Figures 4.10 & 4.11) (Prof. Jonathan Aleru pers. comm. 2020). This was informed by the similar evidence of such shrine during his archaeological investigation in Igbominaland (Aleru 2006: 95).

Figure 4.10. Test Pit 3 showing the distribution of material deposits on the upper layer of the unit. The lateritic stone was assumed to have been associated with ritual context (Esu worship) in Yorùbáland (see also Chapter 3, marked 13 on Figures 3.3 & 3.4, and Table 3.2) (Photo: David Okanlawon 2020).

4.5.2. Stratigraphic description

Test Pit 3 was a 2m by 1.5m unit excavated to a depth of 1.2m, with cultural deposits terminating at 90cm (Figures 4. 11, 4.12 & 4.13). The unit was placed in the northeast-northwest-southeast-southwest orientation, chosen due to the arrangement of surface material remains. Initially, the unit was 2m by 1m in size before it was extended northeast by 50cm after a significant amount of material deposits were encountered in the northeastern wall 10cm below the ground surface (Figure 4.11). There are 13 stratigraphic layers and 14 contexts recognised in the final stratigraphy. The stratigraphic descriptions of the unit are presented in Table 4.3 and Figure 4.12.

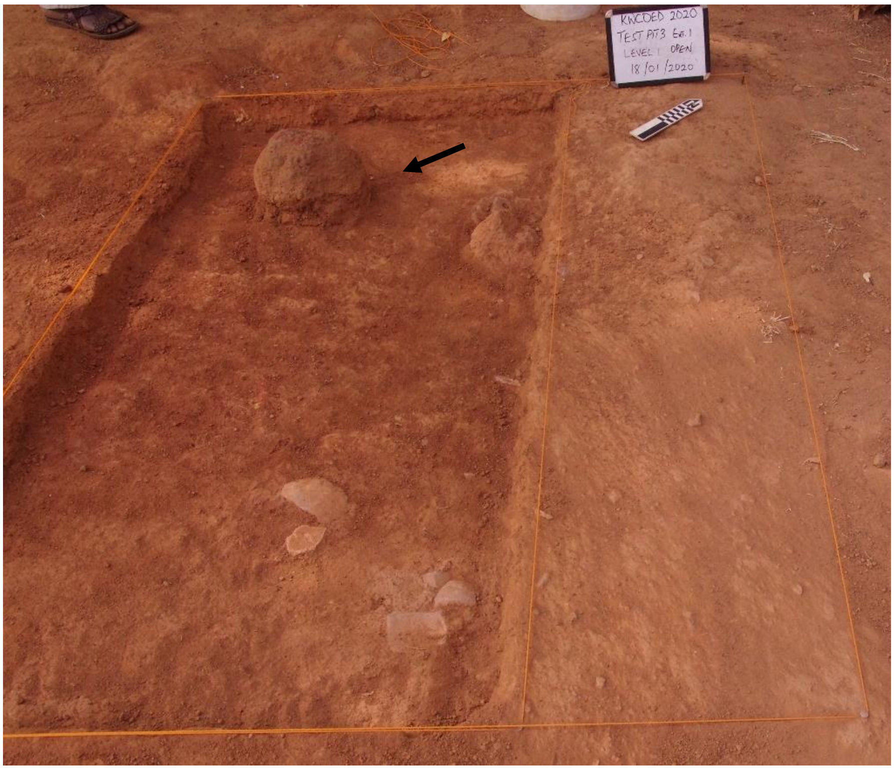


Figure 4.11. Context 1 of Test Pit 3 Unit before its extension by 0.5m northeast. The black arrow points to a lateritic stone assumed to have formed part of a ritual context (Photo: David Okanlawon 2020).

S. layers	Stratigraphic descriptions	Contexts	Context descriptions	Artefacts
1	Very poorly sorted gravelly silty lateritic sand, strong brown, Munsell 7.5 YR 5/6. This layer is the uppermost of the unit from the ground surface to a depth of about 30cm at the lowest point. The layer contained traces of ash, charcoal and rootlets.	1	Same as Layer 1. Cultural materials mainly consisted of pottery. One large lateritic stone of 25cm in diameter embedded within the soil. Other material finds include other lithics, bone shell and charcoal.	Pottery, bone, lithic, shell.
2	Moderately sorted, slightly coarse grained silty-lateritic sand, brown, Munsell 7.5 YR 5/4. This layer was found only on the northeast wall and extended to about 80cm across its surface and between 10cm and 30cm depth below the ground surface consisting of rootlets.	2	Same as Layer 2 with pottery, bone, lithic, metallic object, shell	Pottery, bone, tooth, lithic, metal object, shell.
3	Moderately sorted coarse grained lateritic sand, strong brown Munsell 7.5 YR 5/8. This layer extended across the north-western to north-eastern wall at a length of about 1.15m and between 20cm and 40cm below the ground surface.	3	Same as Layer 3 with pottery, bone, lithic, shell and charcoal	Pottery, bone, lithic, shell.
4	Moderately sorted coarse grained lateritic sand, light red, Munsell 2.5 YR 6/8. The deposit was recovered at the northwest and north-east wall at about 10cm to 20cm depth below the ground surface. The layer consisted of materials such as rootlets	4	Same as Layer 4. The deposit consisted of materials such as bone, shell, lithic and charcoal.	Pottery, bone, lithic, object, shell.
5	Poorly sorted, very coarse grained, gravelly lateritic sand, light red, Munsell 2.5 YR 6/6. The layer was on the north-western and north-eastern wall at about 30cm to 42cm below the ground surface. Potsherds were found on wall profile with rootlet activities.	5	Same as Layer 5 with pottery, lithic, bone, shell	Pottery, lithic, bone, shell.
6	Poorly sorted very coarse grained, lateritic sand, reddish brown Munsell 5 YR 5/4. This was the lowest layer of the unit which extended across the wall profile of the unit from about 42cm to 90cm below the ground surface to sterile.	6	Same as Layer 6 with a few potsherds, charcoal, ash. characterised this layer.	Pottery
7	Poorly sorted coarse-grained, lateritic sand, strong brown, Munsell 7.5 YR 4/6. Located on the north-eastern and south-eastern wall at about 10cm to 54cm below the ground surface with ash and potsherds on its wall.	7	Same as Layer 7 with pottery, shell, bone, lithic and charcoal	Pottery, shell, bone, lithic.
8	Layer 8 is divided into two: 8a and 8b which are two smaller circular pits, which are both moderately sorted, slightly coarse-grained lateritic sand, and brown, Munsell 7.5 YR 5/4. 8a is located on the northeastern end and extended from a depth of 30cm to 90cm below the surface with ash lenses and rootlets (Figures 4.12 & 4.14).	8a	Same as Layer 8a. Context 8a is a small circular pit overlain by Context 7. Located at the north-eastern corner of the unit containing pottery, ash, bone, shell, lithics and charcoal. It is about 84cm in diameter (Figures 4.12 & 4.14) with a depth between 30cm and 90cm below the surface. Similar to Context 8b in shape and content connected to Contexts 5 and 7 through an ash lense.	Pottery, lithic, bone, shell.

S. layers	Stratigraphic descriptions	Contexts	Context descriptions	Artefacts
8	Same stratigraphic as Layer 8a in soil texture and colour. Layer located on the northwestern corner of the unit and extended from a depth of 38cm to 80cm the below surface with an ash lense and a lithic (Figures 4.12 & 4.14).	8b	Same as S. Layer 8b. Context 8b is the smaller of the two circular pits under Context 8. 8b was also filled with potsherds, bone, shell, ash, charcoal, and lithics from a depth of 38cm to 80cm. Diameter of Context 8b is 56cm. Context 8a was similar to 8b as both are circular small pits within the unit at close proximity within the unit containing similar deposits but less deep than 8a (Figures 4.12 & 4.14).	Pottery, lithics, bone, shell
9	Moderately sorted coarse grained lateritic sand, yellowish red Munsell 5 YR 5/8. Situated on the south-eastern wall about 24cm to 34cm below the surface.	9	Same as Layer 9 with pottery, lithics and charcoal.	Pottery, lithics.
10	Poorly sorted verse coarse grained humic lateritic sand, strong brown 7.5 YR 4/6. Depth between 46cm to 62cm below the ground surface. Located on the southwestern wall with rootlet activities.	10	Same as Layer 10 with pottery, lithic, bone and charcoal.	Pottery, lithic, bone, shell.
11	Very poorly sorted gravelly lateritic sand, reddish yellow, 5YR 6/8. Located on the southwestern wall with evidence of rootlet activities. Depth between 44cm and 75cm.	11	Same as Layer 11 with pottery, lithics, bone, shell and charcoal.	Pottery, lithic, bone, shell.
12	Moderately sorted coarse grained lateritic sand, yellowish red 5YR 5/6. The layer extended from the north-western wall to the south-eastern wall from 2cm to 64cm below the ground surface. It contained holes produced from root activities, and ash.	12	Same as Layer 12 with material deposits including pottery, lithics, shell, bone and charcoal.	Pottery, lithic, shell and bone.
13	Moderately sorted coarse-grained silty-sand, light red 2.5 YR 6/8. The layer formed a small lens on the southwestern wall within Context 12. Depth between 24cm and 35cm below the ground surface.	13	Same as Layer 13 with pottery, bone and shell.	Pottery, shell, bone.

Table 4.3. Description of stratigraphic layers and contexts of Test Pit 3 (see Figures 4.12, 4.13 & 4.14).

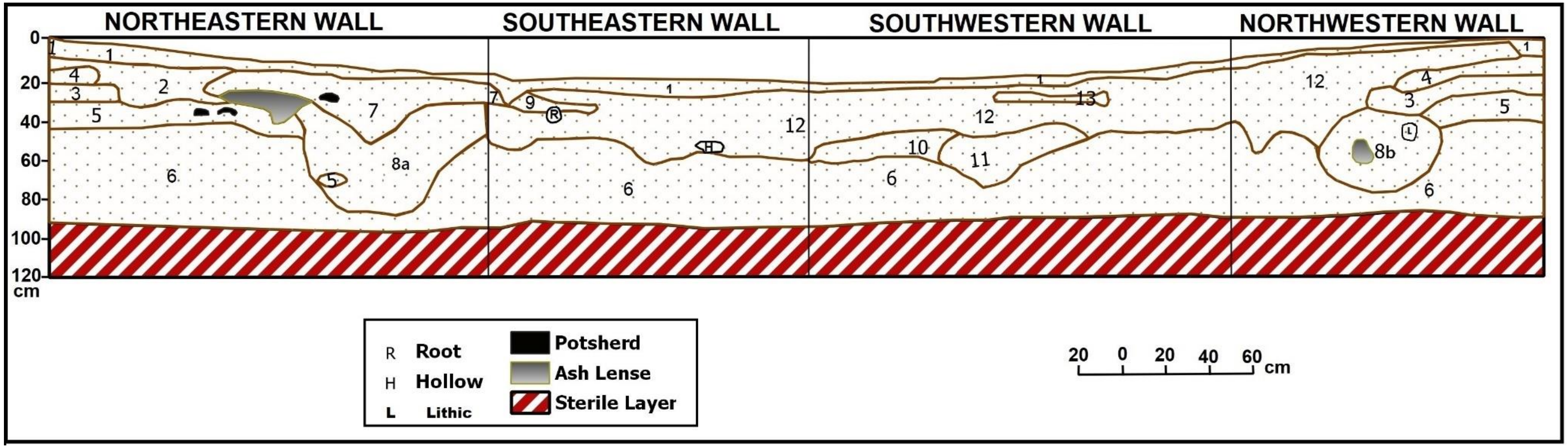


Figure 4.12. Stratigraphic profile of Test Pit 3 (Drawn by Segun Moyib assisted by Bolaji Owoseni and digitised by Macham Mangut).

Figure 4.13. Test Pit 3 at completion of work. (Photo: James Jacob 2020).

4.5.3. Interpretation

The unit produced 13 stratigraphic layers, and 14 contexts, all of which yielded various material deposits particularly pottery (Table 4.3 & Figure 4.12). Materials retrieved from Context 1 consisted of pottery and a few lithics such as a lateritic stone (see Figures 4.10 & 4.11), grinding stones and hammerstones. Based on the nature of the embedded lateritic stone on the uppermost layer (Figures 4.10 & 4.11) which appeared to have dried oil (probably palm oil) on its surface and the associated potsherd remains, oral information obtained from Ilorin implied that this might have been part of a ritual for the worship of the *Esu* deity known among the Yorùbá ethnic group. The context also showed a few traces of ash near and around the cluster of potsherds and the lateritic stone and could have been produced in relation to the activities in the surrounding area. In addition, shell, bone, and charcoal fragments were found within this context.

Contexts 8a and 8b were significant as they were associated with two small pits within the unit which were located towards the northwestern end and northeastern/southeastern end of the unit (Table 4.3, Figures 4.12 & 4.14). The pits occupied similar positions in the stratigraphy and were excavated from the same departure point. Materials retrieved from these two small pits consisted of potsherds, lithics, ash, charcoal specks and bone fragments (Table 4.3 & Figure 4.14). Given that Contexts 8a and 8b had similar stratigraphies and contents, they are likely related contexts and might have been dug and used at the same period. Context 6 situated between the two Contexts and across the unit was then dug to sterile to a depth of 90cm where a few potsherds were recovered with evidence of ash, and rootlets while the sterile was excavated to a depth of 1.2m. Though the unit was near Test Pit 1, and some similar contents were retrieved, the relationship between the units is unclear at this stage and will be explored in Chapter 5.

Figure 4.14. The two small fills; Contexts 8a (black arrow) and 8b (white arrow) associated with Test Pit 3 (Photo: Emmanuel Adeara 2020).

4.6. Test Pit 4

4.6.1. Unit location

The unit was located about 2.5m south of Test Pit 3 and about 3 m southwest of Test Pit 1 (see Figures 4.2 and 4.3). It was selected for excavation due to evidence of ash and potsherds found on its surface, a few lithics around the unit and its nearness to Test Pits 1 and 3 (see Figures 4.2, 4.3 & 4.15). It was thought that excavation of the unit would allow for an assessment and comparison with the other two units Test Pits 1 and 3.

Figure 4.15. Ground surface of Test Pit 4 (Photo: David Okanlawon 2020).

4.6.2. Stratigraphic description

The unit was a 1m by 1.5m and was excavated to a depth of 70cm, with sterile reached at 55cm. Artefacts were generally scarce throughout the deposits and most were recovered from the upper contexts. Charcoal was extremely scarce with just a tiny piece recovered in association with the uppermost layer of the unit. The unit yielded 11 stratigraphic layers and 11 corresponding contexts, detailed below in Table 4.4 and Figure 4.15.

S. layers	Stratigraphic descriptions	Contexts	Context descriptions	Artefacts
1	Moderately sorted coarse grained, lateritic sand, reddish brown, Munsell 5YR 6/8. This layer extended from the northern wall to the western wall and to a depth of 20cm below the ground surface. The deposits contained ash, hammerstones and very few potsherds.	1	Same as Layer 1 with pottery, lithic, shell, animal bone, ash and charcoal.	Pottery, lithic, shell, animal bone.
2	Moderately sorted, medium grained lateritic sand, light red, Munsell 2.5 YR 6/8. This layer was between 5cm and 30cm below the datum. Contained a few potsherds.	2	Same as Layer 2 with some pottery.	Pottery.
3	Moderately sorted, medium grained humic sand, brown, Munsell 7.5 YR 5/3. Located on the northern wall from the ground surface to a depth of 15cm. A speck of charcoal was found on its profile.	3	Same as Layer 3 with some pottery.	Pottery.
4	Poorly sorted very coarse-grained gravelly sand. Strong brown, Munsell 7.5YR 5/6. The layer extended from the north to south wall at a depth of about 10cm to 45cm below the ground surface.	4	Same as Layer 4 with some pottery.	Pottery.
5	Poorly sorted grained gravelly lateritic sand, reddish yellow, Munsell 5YR 6/8. The layer is located from the north wall at about 10cm to 35cm below surface. Lithic and a potsherd formed part of its profile.	5	Same as Layer 5 with a few pottery.	Pottery.
6	Very poorly sorted, very coarse grained gravelly lateritic sand, red, Munsell 2.5 YR 5/8. The layer of the unit occurred throughout the wall profile from about 10cm to 58cm below ground surface. The layer contained a lithic and evidence of a hole probably made by a root or animal activities, however, no root stump or rootlet was associated with this layer.	6	Same as Layer 6 with some pottery.	Pottery.
7	Moderately sorted fine grained lateritic sand, reddish yellow, Munsell 5 YR 7/8. Located on the southern wall about 40cm to 55cm below the ground surface. No material remains were found at this level.	7	Same as Layer 7.	None.
8	Poorly sorted, medium grained humic sand, strong brown, Munsell 7.5 YR 5/4, from surface level to a depth of 50cm, occurred on the southern and western wall profile and linked to stratigraphic layer 2 by a potsherd.	8	Same as Layer 8 with pottery.	Pottery.
9	Moderately sorted, medium grained lateritic sand. Brown, Munsell 7.5 YR 5/4. Occurred on eastern, and southern wall profile. Layer was about 25cm to 58cm below the ground surface.	9	Same as Layer 9 with rootlets.	None.
10	Poorly sorted, very coarse-grained lateritic sand. Light red, Munsell 2.5YR 6/8. The layer was part of the lowest of the unit in association with layer 11. The layer occurred throughout the unit. No material remains were retrieved.	10	Same as Layer 10 with rootlets.	None.
11	Moderately sorted medium grained sand, reddish yellow, Munsell 5YR 6/8. Located on the southern and wall of the unit.	11	Same as Layer 11.	None.

Table 4.4. Description of stratigraphic layers and contexts of Test Pit 4 (see Figure 4.16).

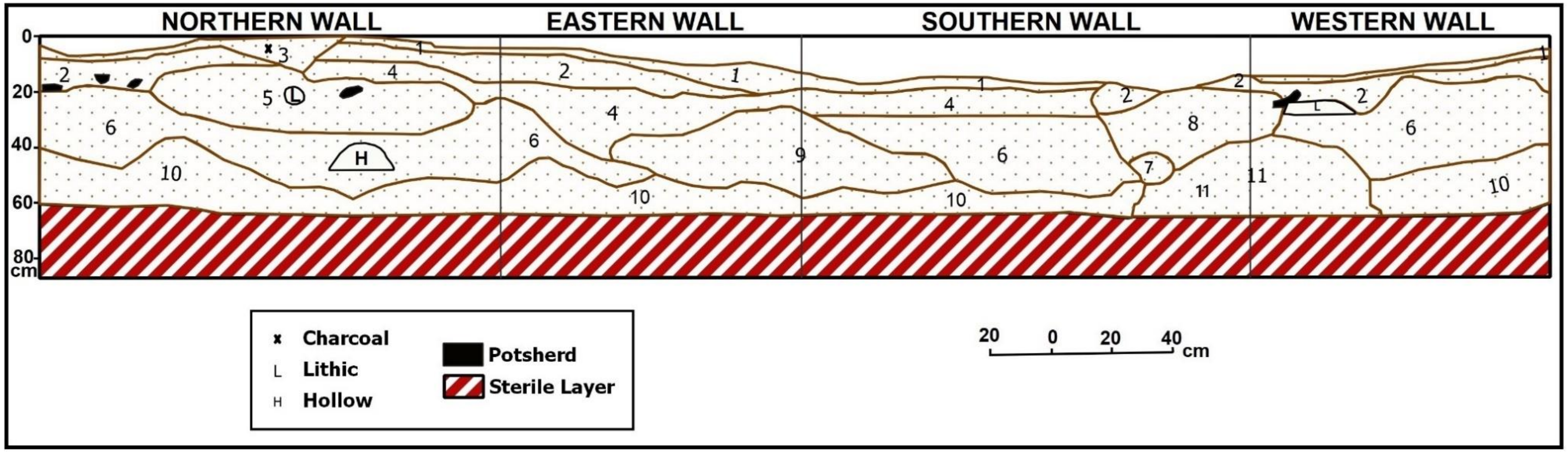


Figure 4.16. Stratigraphic profile of Test Pit 4 (Drawn by Macham Mangut based on Owoseni field data 2020).

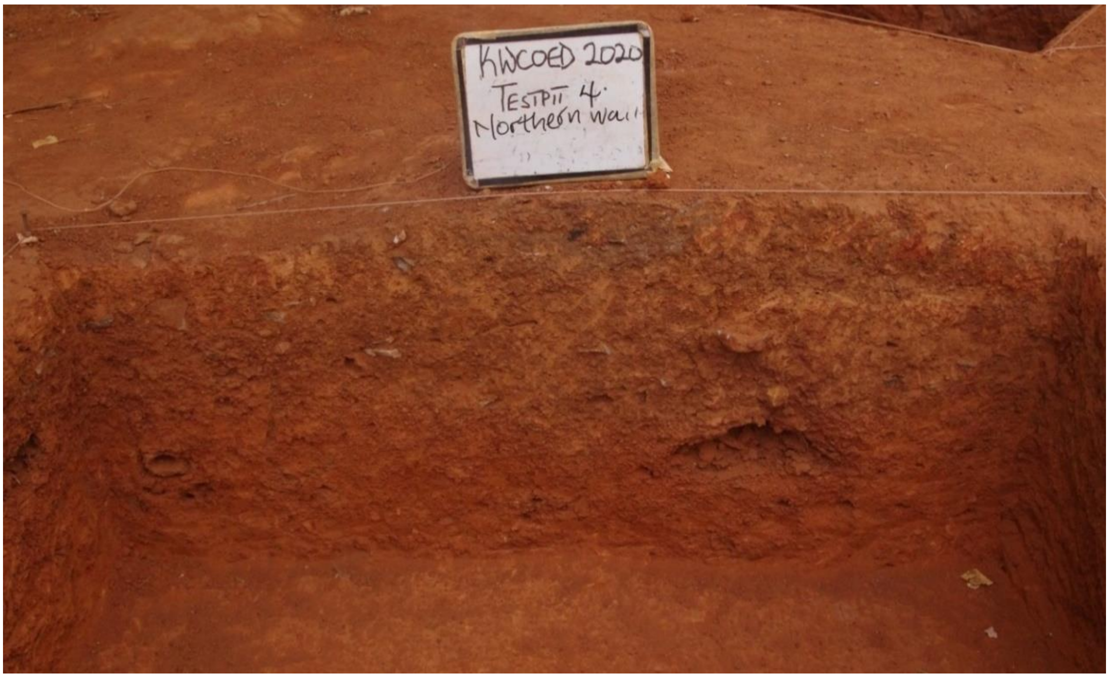


Figure 4.17. Northern wall of Test Pit 4 at completion of work (Photo: James Jacobs 2020).

4.6.3. Interpretation

Eleven stratigraphic layers and contexts were obtained for the unit (Table 4.4 & Figures 4.16 & 4.17). The depth of the cultural deposits was very shallow as materials were not recovered below 55cm depth and were scarce throughout (Table 4.4). The cultural deposits were found mainly concentrated at the uppermost layer of the unit at 25cm to 35cm depth across the unit with just a few finds beyond that to a depth of 55cm. The material finds consisted of a few pottery fragments, lithics, shell and animal bone fragments. Some of the contexts underlying this, also produced very few potsherds, after which no other items were recovered except for Layer 6 with evidence of a lithic on the wall (Table 4.4). Other than in Context 1 which extended to a depth of 20cm, no ash deposits were observed in other parts of the unit. This fragmentary nature of finds from the unit implied a low density of occupation despite its nearness to Test Pits 1 and 3. Due to the less informative nature of the unit and fragmentary material finds, it was difficult to ascertain the relationship between the unit and Test Pits 1 and 3.

4.7. Test Pit 5

4.7.1. Unit location

The unit was located on an elevated area (see area marked as mound in Figure 4.2) approximately 45.5m southwest of Test Pit 1 (Figures 4.2 & 4.18). It was situated 2m east from two large *Parkia biglobosa* (English-locust beans; Yorùbá- *Igi Ori*) trees. Approximately 17m west from the pit, on an elevated area, were some potsherd pavements. The elevated area has a steep end which faces towards the east of Test Pit 1 and at the foot of the steep end are large pockets of granitic rocks (see Figure 4.18). The unit was established in this location due to the concentration of material surface deposits of pottery, faunal remains and lithics around the area (Figure 4.19). Generally, the soil nature of the elevated area is compact and lateritic.

Figure 4.18. The red arrow pointing to the elevated area where Test Pit 5 was situated between the two big *Parkia biglobosa*. The black arrow shows the location of Test Pit 1 (Photo: Jamiu Amuda 2020).

Figure 4.19. Surface view of Test Pit 5 (marked 8 on Figures 3.3 & 3.4) (Photo: Teni Omoh 2020).

4.7.2 Stratigraphic description

The unit was 2m x 2m in size and was excavated to a depth of 64cm with sterile reached at 35cm (Figure 4.20). The main concentration of cultural deposits was at the uppermost layer after which they decreased significantly down the profile. The unit produced six stratigraphic layers and seven contexts of which Contexts 1 and 2 were the most significant. However, detailed stratigraphic descriptions and contexts of the unit are provided in Table 4.5 and Figure 4.20.

S. layer	Stratigraphic description	Contexts	Context descriptions	Artefacts
1	Poorly sorted, medium grained gravelly sand, reddish brown, Munsell 5 YR 5/4. This layer was from the surface to a depth of about 5cm and 15cm below the ground surface extending from the northern wall to the western wall of the unit.	1	Same as Layer 1. Context contained most concentration of finds on the units including pottery, shell, roots and a bead.	Pottery, bead, shell, bone.
2	Moderately sorted, medium grained, brown, Munsell 7.5 YR 5/4. This layer was also from the ground surface to a depth of about 40cm and extended from the northern wall to the southern wall.	2	Same as S. layer 2. A base sherd (Context 2) was encountered almost at the centre of the unit in association with a few charcoal samples (Figure 4. 20). Base potsherd was in an upright position.	Pottery, lithic, shell, bone.
3	Poorly sorted, coarse grained sandy ash, reddish grey, Munsell 2.5YR 6/1. Located on the northern wall and the western wall about 10cm to 45cm below the ground surface.	3	Same as Layer 3 with pottery, shell, bone.	Pottery, shell, bone.
4	Poorly sorted coarse grained gravelly lateritic sand, red, Munsell 2.5 YR 5/8. The layer occurred across the northern to the western corner of the unit and was between 8cm and 40cm below the ground surface.	4	Same as Layer 4 with pottery, shell, bone.	Pottery, shell, bone.
5	Poorly sorted very coarse grained, gravelly lateritic sand, dark red, Munsell 2.5YR 3/6. The layer extended from the north to the south of the unit and was about 22cm and 40cm below the ground surface.	5	Same as Layer 5 with pottery, shell, bone.	Pottery, shell, bone.
6	Very poorly sorted, very coarse grained gravelled lateritic sand, red, Munsell 2.5 YR 4/6. This was the lowest layer of the unit and was located on the south and western wall of the unit at a depth of 40cm and 45cm below the surface.	6	Same as Layer 6 with pottery, shell, bone.	Pottery, shell, bone.
7	Unexcavated presumed sterile.	7	Unexcavated presumed sterile, depth between 22cm and 45cm.	None.

Table 4.5. Description of stratigraphic layers and contexts of Test Pit 5 (see Figure 4.19).

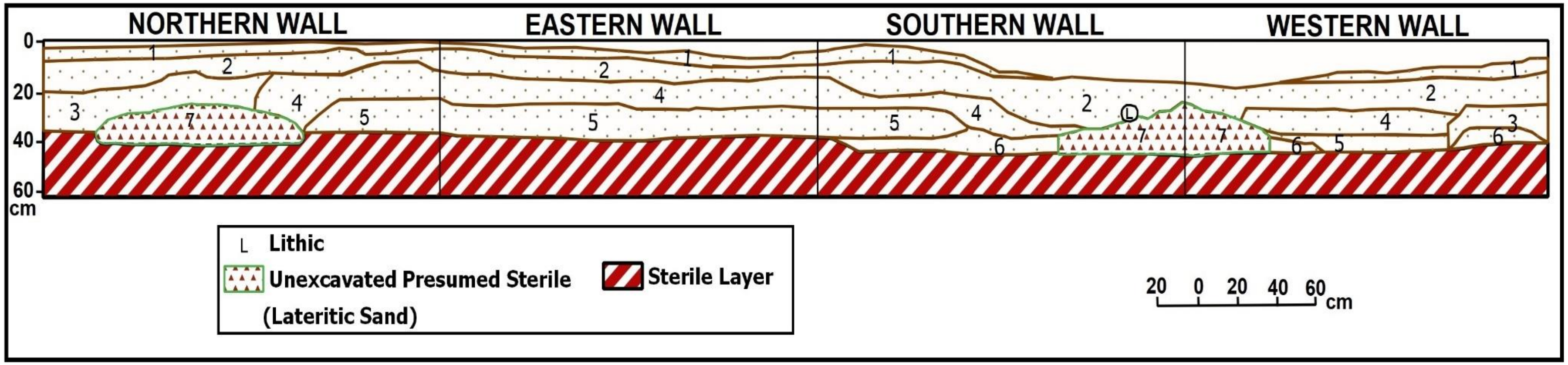


Figure 4.20. Stratigraphic profile of Test Pit 5 (Drawn by Macham Mangut based on Owoseni field data 2020).

4.7.3. Interpretation

The occupation of this unit was shallow, and cultural deposits were concentrated from the ground surface to a depth of 25cm, in Contexts 1 and 2. Cultural deposits within these two contexts consisted of pottery, shell and animal bone fragments (Figures 4.19, 4.20 and Table 4.5). A small bead was also found at Context 1, possibly deposited in more recent times (see Chapter 6). A base potsherd (Context 2) was encountered (Figure 4.21) at a depth of about 20cm in association with fragmented bone, shell and charcoal. The nature of the clustered cultural deposits around the unit and the elevated area (Figure 4.19), suggests that the unit may have been associated with a domestic context.

Oral accounts revealed that the area was allocated in the past to people affected by infectious diseases and that only two households occupied the elevated landscape in the past. Although the archaeological investigation of the elevated area yielded evidence of cultural materials such as pottery, broken grinding stones, fragmented bones and potsherd pavements, it was difficult to substantiate, the oral tradition of the use of the elevated area as a space for managing infectious diseases from the archaeological data. However, Ogundiran (2020b) argued, citing the case of the Old Oyo kingdom by Samuel Johnson, a past Yorùbá writer in the early 20th century, that Yorùbá communities in the past were conscious of infectious diseases. He further argued that they had managed them through physically distancing the sick from the healthy by placing them in the sacred groves that became spaces for healing, recovering, and caring for the sick. Sacred groves were places full of medicines. According to Ogundiran (2020b: 501), Yorùbá rural and urban planning was designed with inbuilt mechanisms that allowed the management of disease.

Figure 4.21. Closer view of the base sherd (Context 2) from Test Pit 5 (Photo: Bolu Ajayi 2020).

4.8. Test Pit 6

4.8.1. Unit location

The unit was located at 1.5 m northwest of Test Pit 5 on the elevated area. The unit was selected for excavation due to the dense concentration of potsherds, lithics, animal bones, shell and other material deposits on its surface (Figure 4.22) as well as its proximity to Test Pit 5 (Figure 4.2), which would offer an opportunity to explore change and continuity in material culture composition and stratigraphic sequence of the two units in relation to other units investigated within the site.

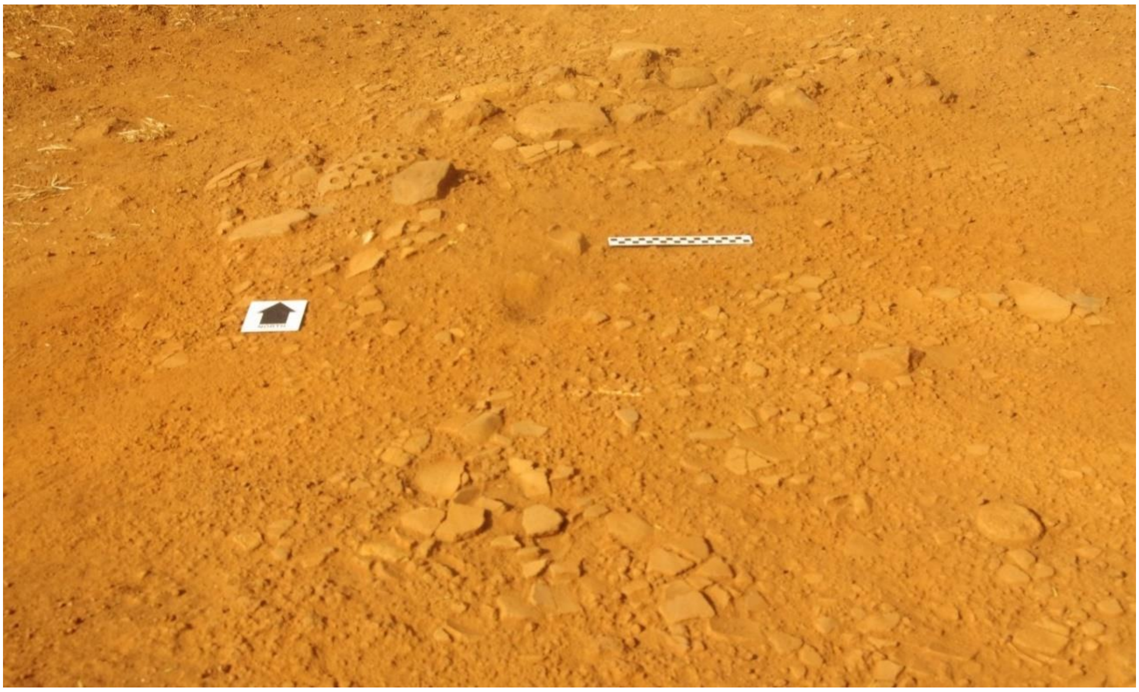


Figure 4.22. Ground Surface of Test Pit 6 prior to excavation (Photo: Macham Mangut 2020).

4.8.2. Stratigraphic description

The 2m x 2m unit was excavated to a depth of 35cm while the cultural deposit terminated at a depth of 33cm towards the northeastern corner (Figure 4.24). No charcoal was retrieved. The excavation produced three stratigraphic layers and contexts each of which are described below in Table 4. 6 and Figure 4.23.

S. layers	Stratigraphic descriptions	Contexts	Context descriptions	Artefacts
1	Moderately sorted, medium grained gravelly sand, yellowish red, Munsell 5 YR 5/6. This layer is the uppermost part of the unit to a depth of 16cm. The layer contained roots and rootlets.	1	Same with S. Layer 1 with abundant material deposit of pottery and lithics. Evidence of bone fragments shell and metal objects.	Pottery, bone, shell, lithics, metal objects.
2	Lateritic sand, strong brown, Munsell 7.5 YR 5/3. This layer is about 5cm to 30cm below the ground surface. Except for the eastern wall, the layer extended to other parts of the unit. The layer consisted of roots and rootlets.	2	Same with S. Layer 2 with pottery, bone, shell, lithics.	Pottery, bone, shell, lithic.
3	This layer is between 5cm and 30cm below the ground surface. Except for the western wall, the layer extended to other parts of the unit.	3	Same as S. layer 3 with a few pottery fragments.	Pottery.

Table 4.6. Description of Stratigraphic layers and contexts of Test Pit 6 (see Figure 4.22).

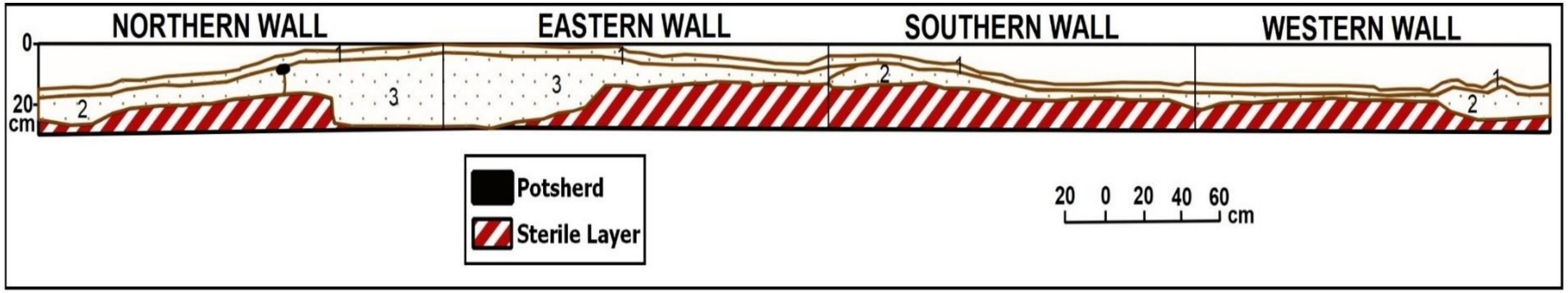


Figure 4.23. Stratigraphic profile of Test Pit 6 (Drawn by Macham Mangut based on Owoseni field data 2020).

Figure 4.24. Test Pit 6 at completion (Photo: Bolu Ajayi 2020).

4.8.3. Interpretation

This unit produced three stratigraphic layers and contexts (Table 4.6 & Figure 4.23). Deposits were shallow with material deposits concentrated on the uppermost layer to a depth of 15cm. After this depth, cultural materials diminished across the unit towards the northeastern corner and reached sterile at 33cm (Figure 4.24). Finds from the unit included pottery, lithics, metal objects, shell and bone fragments. However, just like Test Pit 4, occupation of this unit was not dense. Based on the concentration of cultural deposits on the first context of the unit, their arrangement, and proximity to Test Pit 5 and a potsherd pavement, it is likely the unit provides evidence of a domestic context.

4.9. Test Pit 7

4.9.1. Unit location

The unit was located 32m east of Test Pit 1 near a coastal coral tree (Figure 4.2). The unit was selected for various reasons which included:

- Material deposits of a few potsherds were found on the surface of the area.
- Its location to Test Pit 1 and to the units excavated by the Kwara State University students' archaeology about 17m north (see Figure 4.2) which were conducted during the period of the doctoral excavations.
- To create an arbitrary linear sequence of units across the site to investigate their inter-site relationships (see Figure 4.2).

4.9.2. Stratigraphic description

The unit measured 2m x 2m and excavation reached a depth of 1.65m where about three-quarters of the unit reached sterile. Therefore, the 2m x 2m unit was reduced to 1m x 1m towards the northwestern corner of the unit and excavation continued to sterile at a depth of 2.85m (Figure 4.26). The unit produced 13 stratigraphic layers and 13 contexts, three were most significant. A detailed description of the stratigraphies and contexts is described below in Table 4.7, Figure 4.25.

S.layer	Stratigraphic descriptions	Contexts	Context descriptions	Artefacts
1	Moderately sorted fine grained silty sand, strong brown, Munsell 7.5 YR 5/6. This was the uppermost layer of the unit between 0cm and 25cm from the ground surface. The layer extended from the northern to the western wall of the unit. The deposits consisted of root/ rootlet actions. Charcoal was also found at this layer, and this was the case throughout the unit profile.	1	Same with S. Layer 1 with pottery, a bead and animal bone.	Pottery, bone, bead.
2	Moderately sorted medium grained sand, strong brown Munsell 7.5 YR 5/6. This layer was between 10cm below the ground surface and about 85cm extending from the northern to the eastern wall of the unit. Evidence of concretions, charcoal and rootlet activities.	2	Same as S. Layer 2. The deposits consisted of potsherds, ash lense, roots, bone, shell, lithics, charcoal. The noteworthy feature was the discovery of human remains cutting mainly across Contexts 2 and 5 but also 3,4 & 9). Two human skeletons (Figures 4.27abc) were identified in extended, semi-supine (hand across the body) position facing sidewards. One skeleton was positioned to the west facing north while the other head was positioned to the east facing south. No grave goods were found in association with the remains. However, materials such as pottery, ash and charcoal were found around the burial Context and beneath. A charcoal sample was taken for dating.	Pottery, bone shell, lithics.
3	Moderately sorted fine grained silty sand, light reddish brown Munsell 2.5 YR 6/4. This layer was located at the north and west wall between 20cm and 95cm below ground surface. The layer deposit contained ash, and charcoal.	3	Same as S. Layer 3 with pottery, shell and bone and forms part of the larger burial Context 2/5.	Pottery, shell, bone.
4	Moderately sorted fine grained silty sand, reddish yellow Munsell 7.5 YR 7/8. This layer was located on the north wall at a depth of 22cm to around 50cm below the ground surface. The layer was characterised by root activities.	4	Same as S. Layer 4 with pottery and bone and forms part of the larger burial Context 2/5.	Pottery, bone.
5	Moderately sorted, fine grained silty sand, pink Munsell 7.6 YR 7/3. This layer occurred from the north to the south wall except for the western profile. It was at a depth of 35cm to 80cm below ground surface. The layer contained root and ash.	5	Same as S. Layer 5 with pottery, shell, bone. Associated with burial context (Context 2).	Pottery, shell, bone.
6	Moderately sorted, medium grained gravelly silty sand, reddish yellow Munsell 7.5 YR 7/6. This layer extended down the profile of the unit a depth of 60cm to 2.7m below the ground surface and is underlain by part of Layer 13. It was located on the northern and western wall of the unit. The layer contained a lot of charcoal specks, and ash.	6	Same as S. Layer 6. Context 6 consisted of pottery, ash, charcoal specks. In addition, the Context yielded a potsherd embedded circular hard-clay mound (Figure 4.28). No other materials were associated with the mound except potsherds. Significantly, the Context witnessed a gradual decrease in material deposits towards the northwestern end of the unit as well as the sterility of about three-quarters of the unit. This Context is associated with Context 12/13.	Pottery, bone, shell.
7	Poorly sorted, gravelly lateritic sand, strong brown Munsell 7.5 YR 5/6. It was about 75cm to 1.16m below the ground surface and occurred on the northern and eastern wall.	7	Same as S. Layer 7 with pottery and bone.	Pottery, bone.

8	Well, sorted, fine grained lateritic sand, reddish yellow Munsell 7.5 YR 7/8. This layer extended from the northern wall to the western wall and was from a depth of 60cm to 1.60m below ground surface.	8	Same as S. Layer 8 with pottery, bone, lithics.	Pottery, bone, lithics.
9	Moderately sorted, medium grained humic sand, brown Munsell 7.5 YR 4/4. This layer was located about 10cm beneath the ground surface between the north and the eastern wall. The deposit was characterised by potsherds, charcoal specks and rootlet activities.	9	Same as S. Layer 9 with pottery and bone and forms part of the larger burial Context. 2/5.	Pottery, bone.
10	Poorly sorted very coarse grained gravelly silty sand, pink Munsell 7.5 YR 7/3. Located on the western wall and was at a depth of 50cm below the surface. The layer contained rootlets and ash	10	Same as S. Layer 10 with pottery, bone and shell.	Pottery, bone, shell.
11	Poorly sorted very coarse grained, lateritic sand, reddish yellow, 5YR 6/8. This layer was located on the northern wall and about 40cm below ground surface.	11	Same as S. Layer 11 with bone, pottery, shell.	Bone, pottery, shell.
12	Moderately sorted coarse grained lateritic sand, yellowish red, Munsell 5 YR 5/8. Located on the north end of the unit at a depth of about 1.7m below ground surface. The layer is characterised by rootlets, charcoal and ash.	12	Same as S. Layer 12 with bone, pottery, shell. This Context is associated with Context 6/13 where there was a decrease in material deposit to the northwestern end of the unit at the depth of 1.69m.	Potsherd, bone and shell.
13	Well sorted fine grained lateritic sand, strong brown Munsell 7.5 YR 5/6. Located on the northern and western end of the unit from a depth of about 70cm and 2.2m respectively and terminated at a depth of 2.85m.	13	Same as S. Layer 13 with pottery, shell, bone, lithics, charcoal. Context 13 is the lowest cultural context of the unit. From a depth of 1.65m below ground surface, concentration of material deposits was found at the northwestern corner of the unit which terminated at 2.85m. Charcoal sample S. No 59 was selected for radiocarbon dating.	Pottery, shell, bone, lithics.
-	-	14	Unexcavated presumed sterile.	None

Table 4.7. Description of Stratigraphic layers and contexts of Test Pit 7 (see Figure 4.25).

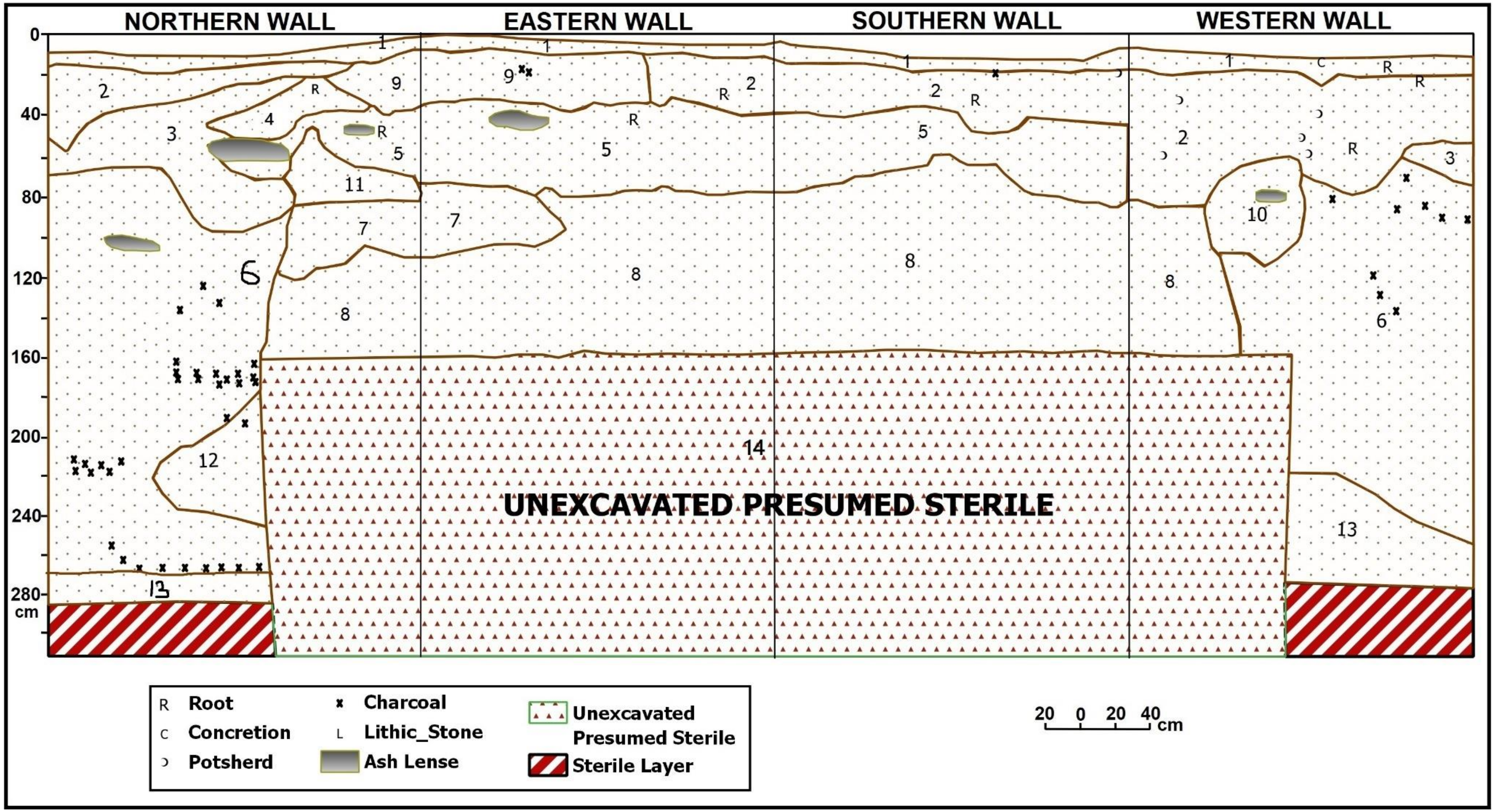


Figure 4.25. Stratigraphic profile of Test Pit 7 (Drawn by Macham Mangut based on Owoseni field data 2020).

Figure 4.26. Test Pit 7 at completion (Photo: David Okanlawon 2020).

4.9.3. Interpretation

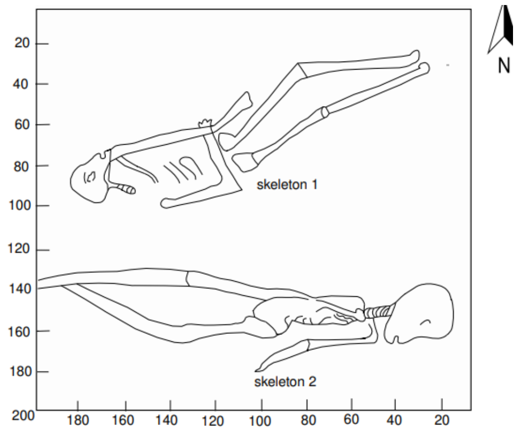
This complex unit revealed significant information for the understanding of the site. It produced 13 stratigraphic layers and 14 contexts of which three were noted as significant. The main burial contexts (Context 2/5) produced two complete skeletal remains in poor state of preservation (Figure 4.27a/b/c). One of the remains was situated on the northern corner of the unit while the other was found on the southern end of the unit at between 30cm and 1.2m apart. The remains were positioned in such a way that the heads of both, were in opposite directions to each other, of with one towards the west facing north while the other was towards the east facing south. This is not consistent with religious practices where burials are placed in a tomb with the head facing towards the east. There were no associated grave goods but evidence of ash, potsherds, bone fragments and charcoal which could not be related to the burial. The relationship between the burial is also uncertain and there were no stratigraphic connections between the burials and the unit. However, the presence of both burials within the same context in the unit and in a similar state of preservation suggested that they might have been deposited at the same period**.** This discovery raised questions on such issues as the past burial and belief practices of the people who lived within the grounds of the present-day college and land use within the area. Though the burials were in their primary context, the remains disintegrated during retrieval, probably as a result of the long-term impact of environmental conditions. Charcoal samples collected around this context are discussed later in the chapter.

Underneath Context 2/5 was a hard small circular clayey mound-like feature encountered and designated context 6 (Figure 4.28). Context 6 was observed to be of rough irregular surface and plastered with potsherds cluster. Except for potsherd pavements, report of similar potsherd covered mound-like features are uncertain in Yorùbáland, however, this has been reported elsewhere in West Africa. Archaeological work at Birnin Lafiya in Dendi revealed evidence of potsherd covered features associated with structural architectural remains (Nixon 2018). For instance, one of such evidence was found in association with well-preserved architectural remains referred to as Trench 3/10 structural complex. This was characterised by the presence of a large cluster of potsherds and a potsherd covered steps about 25cm in height with a curve section (Nixon 2018: 119). Recent archaeological investigation at Igbo-Ukwu, southeastern Nigeria, revealed similar finds of two potsherd clusters in an excavated unit with varying depth of 30cm and *c.*40cm, and returned a radiocarbon date of 978-1151 cal. CE from a wood charcoal sample (Daraojimba et al. 2022). In the case of the Okesuna Ilorin complex, though Context 6 (potsherd plastered clayey mound-like feature) was recovered underneath the burial context, it may not be connected to the burial event, and as such, the function of this feature remains unknown. Immediately below Context 10, a gradual change in soil texture accompanied by a reduction in material culture towards the northwestern end of the unit was observed.

At a depth of 1.65m, three-quarters of the unit became sterile, and artefacts were only retrieved from the northwestern corner to a depth of 2.85m. As in the case of Test Pit 1, Test Pit 7 is a complex unit which shows clear stratigraphic evidence of the occurrence of different occupation events which took place within the site in the distant past. These occupation events speak to various cultural phases that reflect changes in the land use pattern of the site at any given time.

a

b



c

Figure 4.27a-b. The burial context (2/5) in Test Pit 7. Photos taken facing north (Photo: David Okanlawon 2020). Figure 4.27c. Line drawing illustrating the burial context (drawn by Manon Diaz 2023).

Figure 4.28. Embedded pottery mound-like clay feature (Photo: David Okanlawon 2020).

Moving on to the discussion on the potsherd pavements enquiries, the following would begin with a discussion on the one systematic potsherd pavement (PPII) and the other three aimed at improving the understanding of the pavements.

4.10. Test Pit PPII

4.10.1. Unit location

This unit was located on a potsherd pavement located about 3m away from the western edge of the Central Mosque (marked as PPII on Figure 4.2, Figure 4.29). The unit was also approximately 51m north of Test Pits 5 and 6. The unit was selected for excavation to understand more about the potsherd pavements of the Okesuna area in relation to the wider region. In Yorùbáland, and elsewhere in West Africa, excavations underneath or beside potsherd pavements have been carried out by archaeologists at places such as Ile-

Ife, southwestern Yorùbáland, Ilare-Ijesa, Southern Yorùbáland, and Dendi in Northern Benin (see Garlake 1974; 1977; Khalaf & Haour 2013; Nixon 2018; Ogundiran 2000) many of which revealed continuous evidence of cultural materials.

Figure 4.29. Test Pit PPII prior to excavation (Photo: James Jacob 2020).

4.10.2. Stratigraphic description

This unit measured 1m x 1m and was excavated to a depth of 1.1m after reaching sterile at 93.4cm (Figure 4.31). Excavation of the unit was carried out after the surface potsherd pavements were removed for further study. No further potsherd pavement was encountered after the surface area. The excavation yielded 7 stratigraphic layers and 7 contexts. Charcoal was recovered throughout the cultural deposits. The description of the stratigraphy is detailed in Table 4.8 and Figure 4.30.

S. layers	Descriptions	Contexts	Context descriptions	Artefacts
1	Very poorly sorted, coarse, grained gravelly sand, brown, Munsell 7.5 YR 4/3. This layer was the uppermost layer of the unit and was from the ground surface and 18cm deep. The layer was characterised by evidence of small burrows, rootlet activities and potsherds.	1	Same as Layer 1 with evidence of pottery, bone, charcoal.	Pottery, bone.
2	Moderately sorted, medium grained sand, brown Munsell 7.5 YR 4/4. This layer was 5cm to 55cm below the ground surface and was characterised by rootlet activities, charcoal, and potsherds. This layer occurred on all sides of the unit.	2	Same as Layer 2 with pottery, bone and charcoal.	Pottery and bone.
3	Moderately sorted, medium grained lateritic sand, reddish yellow Munsell 5YR 6/6. This layer was 36cm to 90cm below the ground surface and extended throughout the unit walls. The layer was characterised by roots, numerous lenses of ash, charcoal and pottery.	3	Same as Layer 3 with pottery, lithic and animal bone.	Pottery, lithic, bone.
4	Poorly sorted coarse-grained lateritic sand, red Munsell 10 YR 5/8. This was the last layer of the unit together with layer 5. It was located from the northern, eastern and southern walls. It was 70cm below ground surface and excavated to sterile at 1.1m.	4	Same as layer 4 with pottery and bone fragments.	Pottery, bone.
5	Moderately sorted, medium grained silty-sand, reddish yellow Munsell 7.5 YR 6/6. This layer was located about 70cm to sterile level at 1.1m below the ground surface extending from the north to the west end of the unit. The layer is overlain by layer 3 and is on the east, south and west walls with ash lense. A charcoal sample S. No 65 was taken from this layer (which also was connected to Layers 3 & 4) which is the lowest level of cultural deposit of the potsherd pavement unit for dating.	5	Same as Layer 5 with Pottery, shell and bone.	Pottery, shell, bone.
6	Moderately sorted, medium grained lateritic sand, light reddish brown, Munsell 2.5 YR 6/4. This layer is located on the east and southern wall about 55cm to 65cm below ground surface. It overlaid layers 3, 4 and 5 is located on its eastern end.	6	Same as Layer 6 with pottery, lithic, shell, bone.	Pottery, lithic, shell, bone.
7	Poorly sorted, very coarse-grained gravelly sand, brown, Munsell 7.4 YR 4/4. This layer was located on the eastern end of layer 6 and spread from the east to the southern wall. It was about 22cm to 50cm below the ground surface and is characterised by evidence of potsherd, rootlets and insect activities.	7	Same as Layer 7 with pottery, and bone.	Pottery, bone.

Table 4.8. Description of the stratigraphic layers and contexts of Test Pit PII (see Figure 4.30).

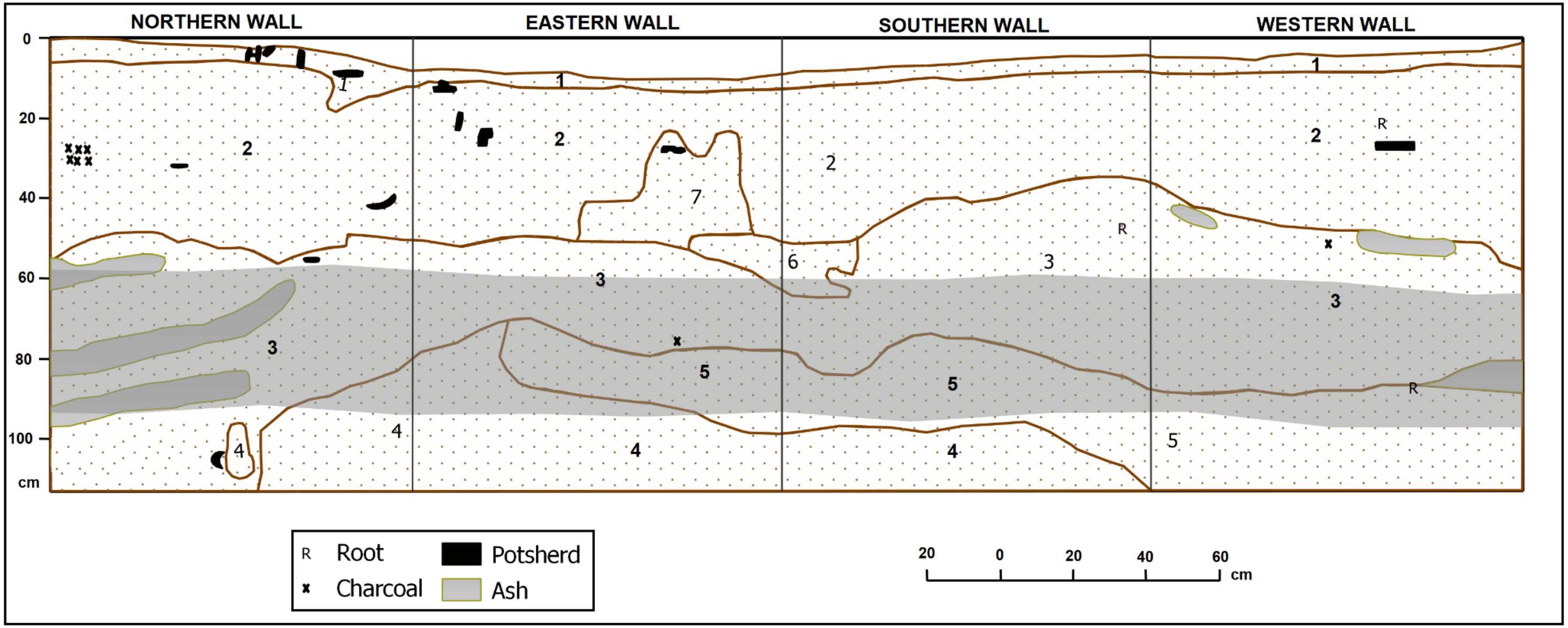


Figure 4.30. Stratigraphy profile of Test Pit PII. (Image produced by Macham Mangut based on Owoseni field data 2020).

Figure 4.31. Test Pit PPII at completion of work. Note the clear discontinuities of grey and grey whitish ash layers (on the east and west walls) in the stratigraphy (see Figure 4.30) (Photo: James Jacob 2020).

4.10.3. Interpretation

This unit yielded 7 stratigraphic layers and 7 corresponding contexts to a depth of 90cm of cultural deposits and sterile was encountered at 1.1m after the removal of the potsherd pavements on the ground surface (Figure 4.30). Cultural materials retrieved throughout the sequences included pottery, shell, bone fragments, charcoal and ash. The recovery of these cultural materials indicated that the site was in use prior to the construction of the potsherd pavements and there was evidence of several clear discontinuities in the unit. Radiocarbon date (Table 4.9, Appendix 4) collected from charcoal samples, numbered 65 from the lowest cultural depth of the unit will be discussed later in this chapter.

4.11. Potsherd pavement PP I

4.11.1. Unit description and results

This unit was a 3m x 1m located on a grassy slope formed by the ground in front of the College Community Hall at the edge of the untarred road separating the college community hall and the central mosque (Figure 4.32). The aim of investigating this unit was to determine whether potsherd pavements lay buried, beyond those that were visible on the ground surface.

Due to the presence of a potsherd pavement (Feature 1) (see Figure 4.32) identified on the untarred road, it was hypothesised that similar pavements might continue below the steep ground northwards, hence the choice of the location of PPI for excavation, about 65cm north of the potsherd pavements. Hence, excavation was carried out to a depth of 50cm and revealed the existence of buried potsherd pavements thereby succeeding in meeting its aim (Figure 4.33).

Figure 4.32. Potsherd pavement (Feature 1) identified by the blue-black arrow on the untarred road while the steep area excavated (PP1) in front of the community hall is indicated by the orange arrow. The Community Hall is seen in the background (Photo: Amuda Jamiu 2020).

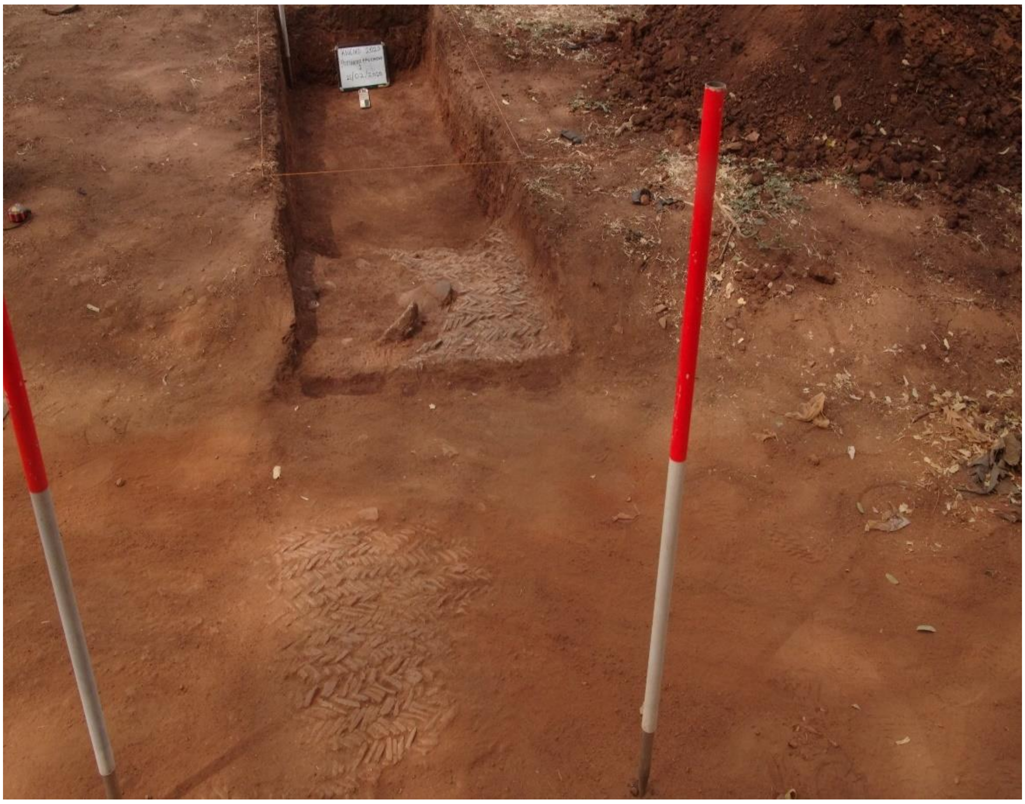


Figure 4.33. Excavated PP1, located in front of potsherd pavements (Feature 1) visible on the surface of the untarred road. The pavement was at roughly the same level with visible one on the road surface, north is towards the white board (Photo: Emmanuel Adeara 2020).

At 40cm below the soil surface from the north wall, the excavation revealed remains of potsherd pavements at about 2m from the northern wall of the pit. This was at a depth of 15cm below the ground surface at the southern wall. On seeing that the potsherd pavement was well exposed, excavation was stopped at a depth of 50cm from the north corner. The length of the exposed potsherd pavement was measured to about 90cm (Figures 4.33 & 4.34). The actual width of the excavated potsherd pavements remains could not be determined as part of the exposed pavements has been destroyed prior to the excavation while it continued into the eastern section. A broken potsherd and broken grinding stone were found in association with the pavements (Figure 4.34). As previously mentioned, the cultural deposit from this unit was not sieved as was the case with other excavated units as the primary aim was to expose potsherd pavements underneath the ground surface.

Figure 4.34. Closer view of potsherd pavement PPI with the embedded broken grinding stone and potsherd (Photo: Emmanuel Adeara 2020).

This investigation revealed that within the college grounds (and as mentioned in Chapter 3 about other sites such as the Adewole residential estate site) and presumably elsewhere in Okesuna Ilorin, potsherd pavements still survive, buried in certain locations, and that while a greater portion of them have been destroyed through various cultural and natural interference such as construction, cultivation, erosion, and human traffic, others lie intact beneath the ground surface.

4.12. Potsherd Pavements III (PPIII)

4.12.1. Unit description and results

The potsherd pavements were located 4m east of the central mosque between two cultural trees of *Terminalia avicennioides* (Igi Odan) and about 27m north of PPI (Figure 4.35). Although several patches of potsherd pavements were visible around the central mosque area, the eastern end evidenced greater areas of pavements at its surface. One such large size potsherd pavement was PPIII which was earmarked for further investigation. An area of 2m x 1m was demarcated with the use of iron rods and ribbons (Figure 4.35). Here, the focus was to extract a large portion of the potsherd pavement from the ground without removing the potsherds singularly in order to retain a large chunk of the original potsherd pavements. The aim was to maintain and preserve the potsherd pavements of the area in their original state for the promotion of the archaeological heritage studies of the site. With the use of plaster of Paris (POP) and water, it was possible to remove a large portion of the potsherd pavement and to place it in a wooden box (Figure 4.36).

Figure 4.35. Potsherd pavement PPIII prior to extraction (Photo: David Okanlawon 2020).

Figure 4.36. Potsherd pavement PPIII during extraction (Photo: David Okanlawon 2020).

4.13. Potsherd Pavements IV (PPIV)

4.13.1. Unit description and result

The potsherd pavement is situated on the elevated area on which Test Pits 5 and 6 were located (Figure 4.37). The outline of a pot was identified, sealed within the potsherd pavement's matrix (Figure 4.37), with the working assumption that a significant amount of the vessel remains might be embedded it. Without disturbing the whole matrix, excavation was limited to the buried pot area and was undertaken to extract the remaining pieces of the vessel for reconstruction (Figure 4.38). The potsherd pavement was scraped to expose the sediment within the vessel which was then removed to reveal a rimless vessel and other material deposits including fragmented potsherds, bone, rootlets and charcoal samples. At a depth of about 27cm below the surface, the excavation revealed that the base of the pot was also missing.

The investigation further revealed that the pot was buried in an upright position with the upper part facing up as the circumference of the upper part of the pot is smaller than the lower portion (Figure 4.39). The diameter was measured to about 30cm and a height of 18cm. The potsherd remains were then carefully removed to observe other aspects such as decoration which is twisted cord roulette. No further analysis was done of the pottery. This evidence associated with potsherd pavement (PPIV) is similar to the case of Ile-Ife, where Garlake (1974) observed that (1) the base of the pot was removed before burial, and (2) that the pot was buried immediately prior to the laying of the potsherd pavement. Furthermore, Ogundiran (2002b) pointed out that the upright-position of buried pot without base but with the lip flush with the surface of the potsherd pavement is an attribute of the Ile-Ife pot-potsherd pavement types. At Ilorin, at a school known as Ilorin Comprehensive High School located 1.5km south-east of Kwara State College of Education, a potsherd pavement associated with a buried pot was previously reported (Otukoko 2014). The school was reported to be outside the area of Okesuna Ilorin in the past (Otukoko 2014; Alhaji Abdulrahman pers. comm. 2020; Alhaji Olokode Solagberu pers. comm. 2020). This evidence from the Okesuna Ilorin area and elsewhere in Ilorin indicates that the production and use of the potsherd pavements were more widespread than currently known.

Potsherd pavements with pottery features have been primarily associated with religious functions in Ile-Ife and this cultural practice is now documented to be present in other parts of Yorùbáland, such as Ilare-Ijesa, southern Igbominaland and Ibadan (Ogundiran 2000; Ogunfolakan 2009; Orijemie and Ogiogwa 2016). Ethnographic information and archaeological investigation of potsherd pavements in Ile-Ife and its metropolis have revealed that although the use of potsherd pavements is no longer practiced in Yorùbáland, the practice of burying pots containing protective medicine at the centre of a courtyard, the frontage of a house, or in a ritual grove still continues (Garlake 1974; Ogundiran 2000; Ogunfolakan 1994). Garlake (1974, 1977) and Ogundiran (2002b) further suggests that these pots were used as libation receptacles and as containers of buried medicinal potions.

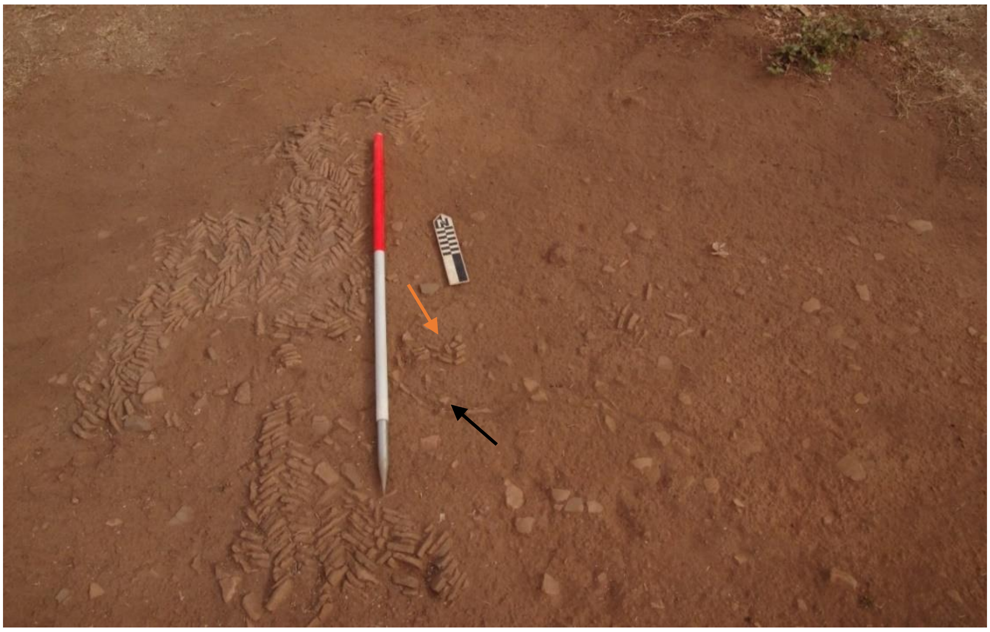


Figure 4.37. Potsherd pavement PPIV at surface level. Black arrows pointing to the visible outline of the pot remains, orange arrow pointing to potsherd pavement remains sealing the pot on the ground surface. Ranging pole length is 1m (Photo: Macham Mangut).

Figure 4.38. Removal of sediment from potsherd pavements PPIV (Photo: David Okanlawon 2020).

Figure 4.39. Reconstructed pot remains from potsherd pavement PPIV (Photo: David Okanlawon 2020).

4.14. Radiocarbon dates

Five radiocarbon dates were produced from charcoal samples obtained from three excavation units, two samples each from Test Pits 1 and 7 and one from PPII. Charcoal samples were taken from these three units due to the significance of their stratigraphies and associated material artefacts such as pottery, aiming to provide insight into the chronological sequence of the site. Table 4.9 presents the results of the radiocarbon dates, and this is followed by further discussion on the results (see also Appendix 4).

Unit/Context	Dated sample	Sample Number	Context description	Depth (cm)	Lab no	BP Date	Calibrated date
Test Pit 1 Context 4/6	Charcoal	15	Numerous potsherds and ash	99-116	Beta-587516	1270 ± 30 bp	Cal AD 663 to 866 (Cal BP 1287 to 1084)
Test Pit 1 Context 12	Charcoal	35	Lowest level of cultural deposit	304-314	Beta-587517	1220 ± 30 bp	Cal AD 686 to 888 (Cal BP 1264 to 1062)
Test Pit 7 Contexts 2/5	Charcoal	47	Burial context	49	Beta-587518	1460 ± 30 bp	Cal AD 564 to 650 (Cal BP 1386 to 1300)
Test Pit 7 Context 13	Charcoal	59	Lowest level of cultural deposit at the northwestern corner of the unit	275	Beta-587519	1260 ± 30 bp	Cal AD 668 to 874 (Cal BP 1282 to 1076)
Test Pit PPII Contexts 3/4/5	Charcoal	65	Lowest level of cultural deposit	80-90	Beta 587520	940 ± 30 bp	Cal AD 1028 to 1172 (Cal BP 922-778)

Table 4. 9. Radiocarbon dates obtained from selected excavated units from the Kwara State College of Education site, Okesuna Ilorin. The material dated was, in all cases, charcoal.

As indicated in Table 4.9, two radiocarbon dates from charcoal samples were obtained from Test Pit 1: Contexts 4/6 & 12. The selection of charcoal samples from these contexts was informed by their significant stratigraphies and the content of materials such as numerous pottery and ash deposits (Table 4.2, Figures 4.4 & 4.5). This is the same for the other excavated units Test Pits 7 and PPII, where charcoal samples were recovered from dated contexts. The samples were selected from these contexts to gain insight into the early occupations of the site prior to the historical period documented for Ilorin. Charcoal samples from both contexts 4/6 and 12 of Test Pit 1 yielded dates between the 7th and the 9th centuries CE.

Two charcoal samples were collected from two contexts in Test Pit 7: the burial context (Context 2/5) associated with an upper layer of the unit which overlaid the two human remains (see Figure 4.27a/b/c) and the lowest layer of cultural deposits (Figures 4.25 & 4.26). The burial context returned dates between the 6th and 7th centuries CE while the lower context yielded a date between the 7th and 9th centuries CE. The fifth date obtained from the lowest material deposit of Test Pit PPII fell within the 11th and 12th centuries CE (see Table 4.9).

It can be seen from the foregoing, that the oldest date from the three units came from the burial context of Test Pit 7 even though it was from an upper context (Table 4.9 & Figure 4.27a/b/c). This information poses many questions concerning the occupational sequence of the unit area as it usually expected that dates from lower contexts would be older. However, based on the nature of Test Pit 7, some possible explanations can be proffered for this anomaly between the two dates obtained for the unit.

Firstly, considering that the burial was found within stratified undisturbed contexts, in a poor state of preservation and without any evidence of later intrusion, it is possible that the dates obtained for the burial context (Context 2/5) were directly associated with its associated materials, thereby predating the lower context (Context 13) where the more recent date was obtained. However, at the present state of our knowledge, this does not translate to any direct association with the burial remains. In addition, the positioning of the burials clearly established that the remains were pre-Islamic in nature attesting to the possibility of the context date being authentic. Secondly, since the lower context of Test Pit 7 (Context 13) where the more recent date was obtained was restricted to the northwestern corner of the unit (Figure 4.26) at a depth of 1.69m to 2.85m below the surface, it is possible that this was part of another, later occupation that was formed after the burial. However, these two dates were still within close time periods. Analysis of the associated material remains particularly pottery in succeeding Chapter, will hopefully provide insight into the chronological sequence of the unit.

The three dates from the lower context of Test Pits 1 and 7, which fall within the 7th and the 9th centuries CE, indicate that the units were used during the same period. Despite the complex nature of Test Pit 1 and its indication of a multi-use of occupation, the two dates obtained for the unit falling within the same period indicates that the area was continuously occupied for over two centuries. These four dates from Test Pits 1 and 7 are significant for the area as they signify that the earliest occupation of Ilorin occurred as far back as later or mid-1st millennium CE.

Furthermore, the single radiocarbon date obtained from Test Pit PPII, which produced a date between the 11th and the 12th centuries CE, related to the period prior to the construction of potsherd pavements in Ilorin. This implies that the construction of the potsherd pavements postdates the 12th century. However, the potsherd pavements at Okesuna Ilorin will be better understood in the light of the study of the pottery recovered from the potsherd pavement excavations and the surface area (Chapter 5). These will help to provide insights into the construction and development of Ilorin potsherd pavements as well as information on the area's social and political interconnections.

4.15. Conclusion

This chapter discusses the archaeological excavation activities carried out between January and March 2020 within Kwara State College of Education, occupying the past Okesuna settlement site of Ilorin. The chapter described the methodology and procedures carried out during the excavation processes. The results of excavations were highlighted and a detailed description of the excavation units, stratigraphic information as well as interpretations of each unit were discussed. Ten units were investigated of which seven were systematically excavated. One excavation was carried out on potsherd pavements, and six excavations consisted of those associated with evidence of material culture deposits, particularly pottery. The remaining three were associated with potsherd pavements and studied unsystematically for the purpose of providing a better understanding of potsherd pavement traditions and the promotion of archaeological studies.

The excavations yielded notable finds and contexts such as a storage cavity, thick mud rubble and presumed clayey mud pit (probably part of a hearth) remains with large amounts of ashy deposits, pottery, bones and teeth from Test Pit 1; burials and embedded potsherd clay feature from Test Pit 7, and embedded pottery associated with PPIV. Interestingly, many of these have been reported in several archaeological sites in Yorùbáland and more widely in West Africa.

The five radiocarbon dates from three excavated units revealed significant information about the site as it situates Okesuna Ilorin area within the 1st millennium to the early 2nd millennium CE. The dates greatly extend the length of occupation in the area suggested by historical records, which has been speculated to be around three centuries ago. It also establishes that the Ilorin area has been occupied or contemporaneous to many large cities in Yorùbáland history such as Ile-Ife and Old Oyo. The pottery and other material culture recovered from the excavations and limited surface collections will be discussed in Chapters 5 and 6, providing further information on the nature of this occupation.

Chapter 5: The pottery

5.1. Introduction

This chapter reports on the analysis of the assemblage of 17385 ceramic items recovered from the work at Kwara State College, Okesuna Ilorin in 2020. The assemblage consisted of pottery from surface collections and excavations, including materials drawn from the potsherd pavement unit (Test Pit PII). The corpus contained body and rim sherds, near complete vessels, bases, handles and one lid, as well as included utilised sherds and a presumed pot stand.

This chapter begins with a brief introduction to the objectives of this study, after which the previous limited work done on local pottery will be discussed. The next section highlights the methodology used for the analysis of the Ilorin ceramic assemblage, followed by a presentation of the analysis conducted. Then, an ethnographic parallel for the Okesuna ceramic assemblage is discussed. Lastly, the Okesuna Ilorin ceramic assemblage is compared with other assemblages within the wider region. Key here are assemblages from other parts of Yorùbáland such as Old Oyo, Ile-Ife, and elsewhere in West Africa.

5.2. Objectives and previous work on Ilorin pottery

The present attribute-based analysis aimed to elucidate decorations, morphology and technology. Attributes recorded included decorations, surface finish and thickness for body, rim, and lid pottery. In addition, in the case of rim pottery; rim diameter, rim angle, rim type, paste colour, lip shape, core, non-plastic inclusion, the position of decoration and surface finish were recorded. This methodology drew from various established and conventional works on pottery from Yorùbáland and beyond (Agbaje-Williams 1986, 1991; Babalola 2016; Garlake 1974, 1977; Haour et al. 2010; Haour et al. 2018; McIntosh 1995; Ogundiran 2020a; Rice, 1987; Soper 1985; Soper and Darling 1980; Willett 1959, 1960b, 1973).

The present pottery analysis represents the first detailed analysis of an archaeological ceramic assemblage from excavated contexts at Ilorin; no archaeological ceramics data existed for the area prior to this work. As such, particular attention was paid to conducting a thorough description of the entire assemblage that could serve as a basis for future studies and provide a significant contribution to knowledge for the Ilorin area.

On the other hand, the question of Ilorin ethnographic pottery traditions has attracted a range of scholarly attention. Pottery production was one of the major industries in the area by the 19th century, and it has been suggested that the collapse of the Oyo empire, Ilorin's abundant clay resources and its position on major trade routes linking the savannah, the River Niger and the forest regions, enhanced its role as a pottery-producing centre (O'Hear 1983). Ilorin's ethnographic large-scale pottery industries from the 19th century onwards is well documented in the historical traditions of Yorùbáland (Beier 1980; Fatunsin 1992; Hermon-Hodge 1929; Leith-Ross 1970; O'Hear 1983; 1986b).

O'Hear (1983) pointed out that pottery production and trade were major economic activities in Ilorin in the 19th century and that Ilorin pottery is widely distributed within and outside Ilorin and as far as Liberia. With about 500 pottery-makers estimated in Ilorin in the early 20th century, Hermon-Hodge (1929) pointed out that the Ilorin pottery industry was active before the Fulani conquest of the early 19th century. Hermon-Hodge (1929) further pointed out that the first potters were reported to have come from a nearby town, Shao, located northwest of Ilorin. It should be noted that to date, the important centre of pottery production in Ilorin is identified as Okelele in the northwestern part of the city.

In addition, ethnoarchaeological studies of Yorùbá pottery have relied on Ilorin ethnographic pottery traditions to draw inferences on culture change and continuity for the period prior to the 19th century (Agbaje-Williams 1987; Ajekigbe 1998; Aleru 2006; Allsworth-Jones 2006; Anifowose 1984; Fatunsin 1992; Ogundiran 2000; Usman 2012; Willett 1960b). Willett's (1960b) archaeological work on Old Oyo pottery recovered both red and black wares of open bowls and carinated bowls with everted rims (*ìsaasun*), concave-centred lids and a central knob containing makers' marks on the interior. Based on these findings of the Old Oyo archaeological pottery and ethnographic Ilorin pottery, he concluded the Ilorin pottery tradition was derived from the Old Oyo area and suggested that after the collapse of Old Oyo in the early 19th century, its potters migrated with their pottery tradition to Ilorin.

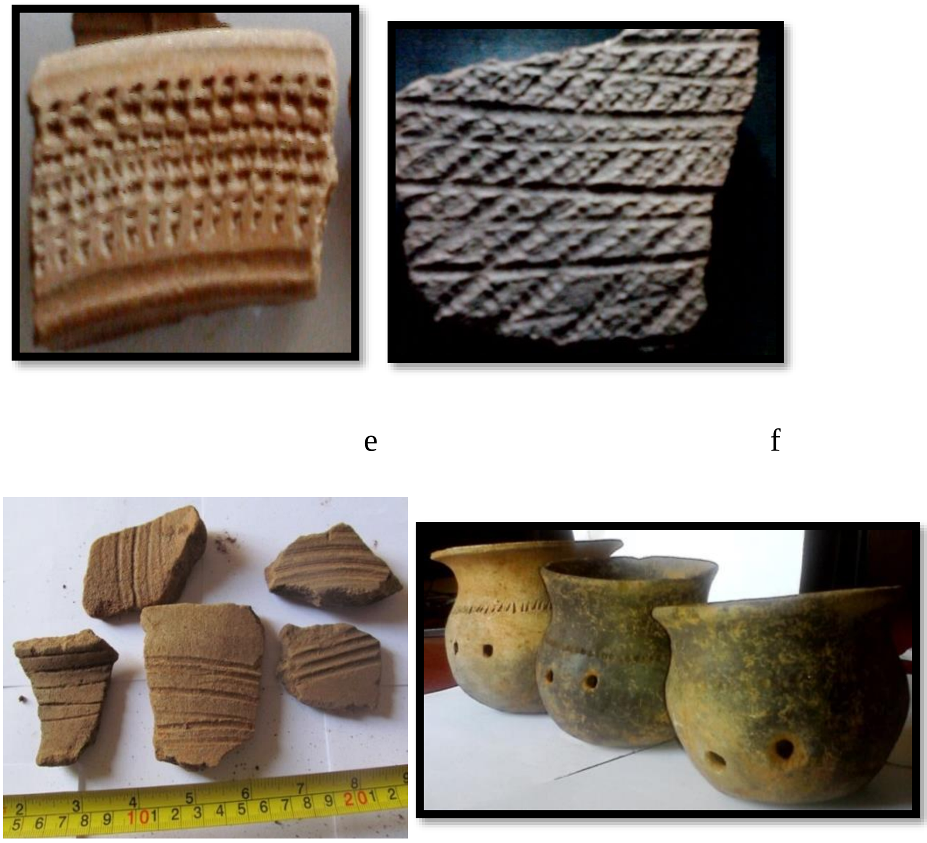
Prior to this doctoral research, a very preliminary account of surface archaeological materials from Ilorin had been undertaken by historian Otukoko (Otukoko 2014). His major focus was the pottery pavements that occurred on the site and some of the decoration styles noted on the surface pottery he collected during his survey of the Kwara State College of Education site in Ilorin. Otukoko (2014) reported some of the decorations he identified as twisted string roulette, carved wooden roulette, maize cob roulette, incisions (including wavy, zigzag, brush or broom-markings), scallops, punctation, groove, snail shell markings, and wiping or striation (Figure 5.1a-h). However, he failed to provide information about the numbers of sherds or precise provenance and did not supply a full description of the physical attributes of the potsherds, his work only provided sparse insights into the local pottery traditions.

a

b

c

d



e f

g h

Figure 5.1a-h. Samples of pottery collected from the Kwara State College of Education site by Otukoko (2014) (Photo: Otukoko 2017).

5.3. Methodology

This section highlights the procedures taken throughout the stages of the pottery analyses conducted as part of this doctoral research. First, the pre-analysis stage, which includes refitting and sorting, is discussed. This is followed by the description of the pottery analyses and documentation techniques.

5.3.1. Pre-analyses of the pottery collections

5.3.1.1. Refitting

As mentioned in Chapter Four, all pottery collected was transported to the field base for analysis. In addition to fragmentary materials, comprising handles, a lid and bases and body sherds, the ceramic assemblage, which amounted to a total number of 17385 items (Table 5.1), included a considerable number of large sherds including half vessel with intact rim and/or base and an almost complete vessel. As such, it was decided to begin analysis with a programme of refitting, with the hope of identifying refittable groups of sherds to offer a better understanding of shape and decoration techniques.

The pottery recovered from surface collections and the 1m x 1m excavated potsherd pavements unit (Test Pit PII) was spread out at once on a tabletop and separated by context, since the quantity of pottery from these contexts was manageable within the table space available. The refitting of pottery from the remaining test pits was carried out on a context-by-context basis given the very large numbers of potsherds and constraints of space, time and manpower.

Pottery items were placed with their outer face up and those of similar colour, texture or other distinguished features were grouped together irrespective of whether they were rims or body sherds. In cases where pottery from a context was not treated all together due to space constraints, groups of pottery separated for refitting from a context were considered to ascertain that no important potsherd of the same group was left behind. At the conclusion of this stage, refits were glued with UHU and Paraloid 72 adhesives and labelled accordingly using their unit/context and a unique identifying number.

5.3.1.2. Sorting and recording procedures

After the refitting stage, the pottery was sorted. Sherds that fit within a 3cm x 3cm square were separated from the total assemblage, counted, recorded, and then discarded. This offered an objective means of reducing the number of materials for study while incurring minimal loss of information given that analysis of variables such as temper, and in particular decoration, can be very unreliable on such small items.

The next stage was to classify the remaining pottery into categories based on the part of a vessel which they represented. Rim sherds were then further sorted, and those with < 5cm lip lengths were counted, recorded, bagged, while those ≥ 5cm, considered sufficient to reconstruct diameter and angle, were retained for further analysis. A single lid was recovered. This came from surface collection and the categorisation as a lid is due to a single boss or knob decoration in its centre (Figure 5.37). Base sherds which retained a significant amount of the body sherds, were classified and retained as body sherds, those which also included parts of the rim and body were categorised as rims, while the rest were categorised as base sherds. Further analysis of base sherds was restricted to recording of the numbers, noting the main base categories, sample photographs and illustrations. Handles were also counted, recorded, and photographed. Utilised sherds and pot stands were analysed as part of small finds, to be discussed in Chapter Six. All attributes used in the analyses were coded with unique identification numbers and are presented in Tables below and Appendix 5.

At the conclusion of this sorting phase, a total of 6175 pottery items were retained which issued from surface collections (both surface scatters and the surface of potsherd pavements) and the excavated units (Table 5.1). Based on the small assemblage size, stratigraphy, recovered finds and their position within the site, it was then decided to exclude two units from the detailed analysis; Test Pits 4 and 6. As such the grand total of the assemblage subjected to further analyses totalled 5833 items (Table 5.2) of which 5760 sherds were composed of body and rim sherd items (Tables 5.3 & 5.4). After these analyses, selected samples of analysed pottery and small finds were brought to the UK on a temporary export permit obtained from the National Commission for Museums and Monuments, Ilorin branch.

S/N	**Contexts**	**Potsherds retained**	**Potsherds discarded**	**Total**
1	SURFACE	328	456	784
2	PP II SURFACE	500	2	502
3	TP1	2667	5530	8197
4	TP3	404	428	832
5	TP4	97	129	226
6	TP5	808	1673	2481
7	TP6	245	748	993
8	TP7	1022	2026	3048
9	PP II	104	218	322
TOTAL		**6175**	**11210**	**17385**

Table 5.1. Pottery recovered from the archaeological investigation in Kwara State College of Education, Okesuna Ilorin.

S/N	Contexts	Body Sherds	Rim sherds	Near complete vessel	Lid	Handle	Base	Total
1	Surface	309	18	0	1	0	0	328
2	PPII Surface	497	3	0	0	0	0	500
3	TP I	2381	253	1	0	1	31	2667
4	TP3	344	37	0	0	0	23	404
5	TP5	749	47	0	0	1	11	808
6	TP7	973	44	0	0	1	4	1022
7	PP II	91	13	0	0	0	0	104
TOTAL	**TOTAL**	**5344**	**415**	**1**	**1**	**3**	**69**	**5833**
% Total	**%**	**91.62**	**7.11**	**0.02**	**0.02**	**0.05**	**1.18**	**100**

Table 5.2. Pottery parts by context analysed.

5.4. Descriptions and analyses of the assemblage

The pottery parts retained for further analyses include body, rim (including a near complete vessel), lid, handle, and base sherds. As can be seen in Table 5.2, body sherds constituted the largest part of the assemblage, followed by rims. These pottery assemblages will be described first followed by a discussion of bases, handles, and the lid.

5.4.1. Analyses of body and rim parts based on surface decoration

Body and rim sherds were firstly split into decorated and undecorated sherds (Table 5.3). Burnished or slipped sherds without additional decoration(s) were classified under surface finish category. Although, the analyses of body sherds and rim sherds were carried out separately, attributes such as thickness and decoration, which were examined consistently across those categories, will be discussed together to provide an idea of variability across the units (Appendices 5, 6, and 7).

As can be seen in Tables 5.3 and 5.4, undecorated pottery constituted the highest number of sherds in the assemblage with a total of 3823 (66.4 %) while pottery with one or more decorations accounted for a total of 1937 (33.6%). A summary of the entire assemblage analysed, showing decorations noted, is presented in Table 5.4. Codes associated with decorations as seen in Table 5.4 are the unique identification numbers assigned to each decoration as presented in Appendix 5. Since there is a high incidence of multiple decorated potsherds, multiple decorations analysis is based on the number of individual occurrences of each decoration with one or more decorations on the pottery items.

Contexts	**Undecorated body sherds**	**Decorated body sherds**	**Undecorated rim sherds**	**Decorated rim sherds**	**Total**
SURFACE	215	94	11	7	327
PP II SURFACE	464	33	2	1	500
TP1	1486	895	55	199	2635
TP3	232	112	14	23	381
TP5	535	214	27	20	796
TP7	690	283	17	27	1017
PP II	69	22	6	7	104
TOTAL	**3691**	**1653**	**132**	**284**	**5760**
% TOTAL	**64.08**	**28.70**	**2.29**	**4.93**	**100**

Table 5.3. Distribution of analysed body and rim parts.

SN	Decoration codes	Motif	Surface	PII Surface	PII	TP1	TP3	TP5	TP7	Total	%
1	0	Undecorated	226	466	75	1541	246	562	707	3823	66.37
2	1	Striation	15	2	3	222	28	48	70	388	6.73
3	2	Single groove	1	0	0	7	1	4	1	14	0.24
4	3	Boss	0	0	0	3	0	0	0	3	0.05
5	4	Angular punctuate	2	0	1	38	3	11	15	70	1.21
6	5	Line dragged comb	9	0	2	19	3	10	0	43	0.74
7	6	Raised angular punctuate	1	0	0	41	2	1	5	50	0.86
8	7	Twisted cord roulette	21	21	8	16	2	39	59	166	2.88
9	8	Wavy dragged comb	17	0	3	230	19	20	46	335	5.81
10	9	Multiple groove	2	0	0	30	3	1	1	37	0.64
11	10	Dot punctate	0	0	0	1	0	1	1	3	0.05
12	11	Perforation	0	0	6	42	13	13	18	92	1.59
13	12	Geometric motif	1	0	0	13	0	0	0	14	0.24
14	13	Incision	2	1	0	1	0	3	0	7	0.12
15	14	Channel	0	0	0	6	1	0	0	7	0.12
16	15	Incised burnished	0	0	0	0	0	0	0	0	0
17	16	Stamp/stab	2	0	0	5	0	1	0	8	0.13
18	17	Slip	0	0	0	7	1	0	15	23	0.39
19	18	Burnish/Basting	0	0	0	16	4	0	9	29	0.50
20	19	Burnish only	0	0	0	0	0	1	1	2	0.03
21	1,2	Striation, single groove	0	0	0	2	0	1	0	3	0.05
22	1,3	Striation, boss	1	0	0	6	0	0	1	8	0.14
23	1,4	Striation, angular punctate	0	0	0	13	0	0	1	14	0.24
24	1,5	Striation, line dragged comb	0	0	0	2	0	4	4	10	0.17
25	1,6	Striation, raised angular punctate	1	0	0	11	1	0	4	17	0.29
26	1,7	Striation, twisted cord roulette	0	0	0	1	0	0	0	1	0.02
27	1,8	Striation, wavy dragged comb	5	0	2	124	12	17	19	179	3.10

SN	Decoration codes	Motif	Surface	PII Surface	PII	TP1	TP3	TP5	TP7	Total	%
28	1,10	Striation, dot punctate	0	0	0	0	0	1	0	1	0.02
29	1,11	Striation, perforation	0	0	0	5	0	0	0	5	0.08
30	1,13	Striation, incision	0	0	0	1	0	0	0	1	0.02
31	1,14	Striation, channel	0	0	0	2	0	0	0	2	0.03
32	1,16	Striation, stamp/stab	0	0	0	1	0	1	0	2	0.03
33	1,17	Striation, slip	0	0	0	2	0	0	0	2	0.03
34	1,18	Striation, burnish/basting	0	0	0	4	1	0	3	8	0.13
35	1,19	Striation, burnish	0	0	0	1	0	0	0	1	0.02
36	2,3	Singe groove, boss	0	0	0	1	0	0	0	1	0.02
37	2,4	Single groove, angular punctate	0	0	0	0	3	0	0	3	0.05
38	2, 7	Single groove, twisted cord roulette	1	0	0	7	12	6	2	28	0.48
39	2,8	Single groove, wavy dragged comb	0	0	0	0	0	1	1	2	0.04
40	2,13	Single groove, incision	1	0	0	0	0	0	0	1	0.02
41	3,4	Boss, angular punctate	0	0	0	1	0	1	0	2	0.04
42	3,6	Boss, raised angular punctate	0	0	0	1	0	0	0	1	0.02
43	3,7	Boss, twisted cord roulette	0	0	0	1	0	0	0	1	0.02
44	3,8	Boss, wavy dragged comb	0	0	0	4	3	0	0	7	0.12
45	3,9	Boss, multiple groove	0	0	0	1	0	0	0	1	0.02
46	3,12	Boss, geometric motif	0	0	0	0	2	0	1	3	0.05
47	3,18	Boss, burnish/basting	0	0	0	1	0	0	1	2	0.04
48	4,5	Angular punctate, line dragged comb	0	0	0	4	1	0	0	5	0.08
49	4,6	Angular punctate, raised angular punctate	0	0	0	0	0	0	2	2	0.04
50	4,7	Angular punctate, twisted cord roulette	0	0	0	0	0	0	1	1	0.02
51	4,8	Angular punctate, wavy dragged comb	0	0	2	18	0	0	2	22	0.38
52	4,9	Angular punctate, multiple groove	0	0	0	5	0	1	0	6	0.10
53	4,11	Angular punctate, perforation	1	0	0	3	0	0	0	4	0.06
54	4,12	Angular punctate, geometric motif	0	0	0	1	0	0	0	1	0.02
55	4,18	Angular punctate, burnished/basted	0	0	1	15	2	1	6	25	0.43
56	4,19	Angular punctate, burnished	0	0	0	1	0	0	0	1	0.02
57	5,6	Line dragged comb, raised angular punctate	0	0	0	3	0	0	0	3	0.05
58	5,8	Line dragged comb, wavy dragged comb	0	0	0	5	0	2	0	7	0.12

SN	Decoration codes	Motif	Surface	PII Surface	PII	TP1	TP3	TP5	TP7	Total	%
59	6,7	Raised banded punctate, twisted cord roulette	0	0	0	6	0	0	0	6	0.10
60	6,8	Raised banded punctate, wavy dragged comb	0	0	0	19	4	1	2	26	0.45
61	6,9	Raised banded punctate, multiple groove	0	0	0	6	0	0	0	6	0.10
62	6,16	Raised banded punctate, stamp/stab	0	0	0	1	0	0	0	1	0.02
63	6,18	Raised banded punctate, burnish/basted	0	0	0	0	0	1	0	1	0.02
64	7,9	Twisted cord roulette, multiple groove	14	10	0	0	3	39	7	73	1.26
65	7,13	Twisted cord roulette, incision	0	0	0	0	0	1	0	1	0.02
66	7,17	Twisted cord roulette, slip	0	0	0	1	0	0	1	2	0.04
67	7,18	Twisted cord roulette, burnish/basted.	0	0	0	1	0	0	3	4	0.06
68	8, 9	Wavy dragged comb, multiple groove	0	0	0	7	0	0	1	8	0.14
69	8, 11	Wavy dragged comb, perforation	0	0	0	9	0	0	1	10	0.17
70	8,12	Wavy dragged comb, geometric motif	0	0	0	2	0	1	0	3	0.05
71	8,13	Wavy dragged comb, incision	1	0	0	4	0	0	0	5	0.08
72	8,14	Wavy dragged comb, channel	0	0	0	2	0	0	0	2	0.04
73	8,18	Wavy dragged comb, burnish/basted	0	0	0	18	1	0	2	21	0.36
74	8,19	Wavy dragged comb, burnish	0	0	0	1	0	0	0	1	0.02
75	9,11	Multiple grooves, perforation	0	0	0	6	0	0	0	6	0.10
76	10, 12	Dot punctate, geometric motif	0	0	0	2	0	0	0	2	0.04
77	10, 18	Dot punctate, burnish/basted.	0	0	0	1	0	0	0	1	0.02
78	1,3,8	Striation, boss, wavy dragged comb	0	0	0	7	0	1	0	8	0.14
79	1,4, 18	Striation, angular punctate, burnished/basted	0	0	0	2	1	0	0	3	0.05
80	1, 5, 18	Striation, line dragged comb, burnished/basted	0	0	0	1	0	0	0	1	0.02
81	1, 6, 7	Striation, raised banded punctate, twisted cord roulette	0	0	0	1	0	0	0	1	0.02
82	1, 6, 8	Striation, raised banded punctate, wavy dragged comb.	0	0	0	1	0	0	0	1	0.02
83	1, 6, 9	Striation, raised angular punctate, multiple groove	0	0	0	1	0	0	0	1	0.02
84	1, 8, 9	Striation, wavy dragged comb, multiple groove	0	0	0	2	0	0	0	2	0.04
85	1, 8, 11	Striation, wavy dragged comb, perforation	0	0	1	0	0	0	0	1	0.02
86	1, 8, 17	Striation, wavy dragged comb, slip	0	0	0	2	0	0	0	2	0.04
87	1, 8, 18	Striation, wavy dragged comb, burnished/basted	0	0	0	2	1	0	0	3	0.05
88	1, 14, 19	Striation, geometric motif, burnished	0	0	0	1	0	0	0	1	0.02
89	1, 3, 5, 8	Striation, boss, line dragged comb, wavy dragged comb	0	0	0	0	0	0	1	1	0.02

SN	Decoration codes	Motif	Surfa ce	PII Surfa ce	PII	TP1	TP3	TP5	TP7	Total	%
90	1, 3, 4, 8, 11	Striation, boss, angular punctate, wavy dragged comb, perforation	0	0	0	1	0	0	0	1	0.02
91	2, 6, 8	Single groove, raised banded punctate, wavy dragged comb	0	0	0	2	2	0	0	4	0.06
92	2, 7, 18	Single groove, twisted cord roulette, burnished/basted	0	0	0	0	0	0	1	1	0.02
93	3, 6, 7	Boss, raised banded punctate, twisted cord roulette	0	0	0	2	0	0	0	2	0.04
94	3, 6, 8	Boss, raised banded punctate, wavy dragged comb	0	0	0	3	0	0	0	3	0.05
95	3, 8, 9	Boss, wavy dragged comb, multiple groove	0	0	0	1	0	0	0	1	0.02
96	3, 6, 11	Boss, raised banded punctate, perforation	0	0	0	2	0	0	0	2	0.04
97	3, 12, 18	Boss, geometric motif, burnished/basted	0	0	0	1	0	0	0	1	0.02
98	3, 15, 18	Boss, incised burnish, burnished/basted	0	0	0	1	0	1	0	2	0.04
99	3, 4, 5, 8	Boss, angular punctate, line dragged comb, wavy dragged comb	0	0	0	1	0	0	0	1	0.02
100	3, 4, 8, 9	Boss, angular punctate, wavy dragged comb, multiple groove	0	0	0	1	0	0	0	1	0.02
101	3, 5, 6, 17	Boss, line dragged comb, raised banded punctate, slip	0	0	0	1	0	0	0	1	0.02
102	4, 7, 18	Angular punctate, twisted cord roulette, burnish/basted	0	0	0	1	0	0	0	1	0.02
103	4, 8, 17	Angular punctate, wavy dragged comb, slip	0	0	0	1	0	0	0	1	0.02
104	4, 10, 17	Angular punctate, dot punctate, slip	0	0	0	1	0	0	0	1	0.02
105	4, 13, 18	Incision, burnish/basted	0	0	0	0	1	0	0	1	0.02
106	4, 8, 18	Angular punctate, wavy dragged comb, burnished/basted	0	0	0	9	2	0	0	11	0.19
107	4, 8, 19	Angular punctate, wavy dragged comb, burnished.	0	0	0	2	0	0	0	2	0.04
108	4,15, 18	Angular punctate, incised burnish, burnished/basted	0	0	0	0	0	0	1	1	0.02
109	4,8,15,18	Angular punctate, wavy dragged comb, incised burnish, burnished/basted	0	0	0	1	0	0	0	1	0.02
110	5, 6,8	Line dragged comb, raised angular punctate, wavy dragged comb	0	0	0	1	0	0	0	1	0.02
111	5,7, 9	Line dragged comb, twisted cord roulette, multiple groove	1	0	0	0	0	0	0	1	0.02
112	5, 8, 17	Line dragged comb, wavy dragged comb, slip	0	0	0	1	0	0	0	1	0.02
113	5, 8, 18	Line dragged comb, wavy dragged comb, burnished/basted	0	0	0	1	0	0	1	2	0.04
114	5, 11, 12	Line drag comb, perforation, geometric motif	0	0	0	1	0	0	0	1	0.02
115	6, 7, 17	Raised banded punctate, twisted cord roulette, slip	0	0	0	1	0	0	0	1	0.02
116	6, 7, 18	Raised banded punctate, twisted cord roulette, burnished/basted	0	0	0	2	0	0	0	2	0.04
117	6, 8, 11	Raised angular punctate, wavy dragged comb, perforation	0	0	0	0	1	0	0	1	0.02
118	6, 9, 17	Raised angular punctate, multiple grooves, slip	0	0	0	1	0	0	0	1	0.02
119	7, 9,16	Twisted cord roulette, multiple grooves, stab	2	0	0	0	0	0	0	2	0.04
120	7, 10, 17	Twisted cord roulette, dot punctate, slip	0	0	0	1	0	0	0	1	0.04

SN	Decoration codes	Motif	Surfa ce	PII Surfa ce	PII	TP1	TP3	TP5	TP7	Total	%
121	8, 9, 11	Wavy dragged comb, multiple grooves, perforation	0	0	0	1	1	0	0	2	0.04
122	8, 13, 18	Wavy dragged comb, incision, burnished/basted	0	0	0	1	1	0	0	2	0.04
123	8, 15, 19	Wavy dragged comb, incised burnish, burnished/basted	0	0	0	2	0	0	0	2	0.04
	Total		327	500	104	2635	381	796	1017	5760	
	% Total		5.70	8.67	1.80	45.78	6.61	13.80	17.64	100	100

Table 5.4. Distribution of analysed single and multiple decorations across units (see Appendices 5, 6 and 7).

In the following pages, the various categories of decorations encountered will be discussed in turn: incisions/grooving, stamping and stabbing impressions, perforations, rouletting, applied decorations and incised burnished. The distribution of single and multiple decorations under each category are presented individually and this will be in tables. Multiple decorations are presented based on the number of individual occurrences of each decoration with one or more decorations on pottery items.

5.4.1.1. Incised/grooves

Incised/grooves decorations are the most dominant decoration category occurring between 14.67 - 22% across units. Eight variants were identified in the assemblages: incision, single groove, multiple grooves, wavy dragged comb, line dragged comb, geometric lines, channel and striation. These decorations occurred singly or in combination with one or more decorations (Table 5.4).

Incision is produced by dragging one or more pointed tools such as a knife edge or comb across the surface of the pottery, producing sufficient pressure to cut it (Rice 1987: 155; Rye 1981: 90; Willett 1967). The cross-section of the incision may provide evidence for the nature of the tool used (Rice 1987). All incisions can be made by either a single implement or a series of implements. In the latter case they can result in comb patterns with close and parallel lines that may be straight or wavy, or in geometric patterns with crossing lines.

Channels/grooves involves single or multiple, usually parallel lines. Unlike incisions, which are narrow and typically have a cross section in the shape of a V, grooves and channels are wider and typically have a cross section in the shape of a U. Striation for its part is produced by drawing or scraping a toothed or serrated hard-edged tool such as a shell or chipped stone, or in some cases, a piece of leather, leaf, or cloth across the surface of soft or leather-hard clay to create an overall effect of parallel scoring or a shallow depressed line (Rice 1987: 155). Striation produces grit dragged marks or lines that generally cannot be erased by later finishing (Rye 1981: 90). While Table 5.4 presents all decorations, Table 5.5 and Figure 5.2 focus on the distribution of single and multiple decorations under this category. Figure 5.3a-o present examples of decoration under this category.

Decoration	Single decoration	% Single decoration	Multiple decoration	%Multiple decoration	Total number of decoration occurrences	% Total
Striation	388	45.9	282	33.4	670	39.6
Single groove	14	1.7	43	5.1	57	3.0
Line dragged comb	43	5.1	35	4.2	78	5.0
Wavy dragged comb	335	39.7	348	41.2	683	40.4
Multiple groove	37	4.7	111	13.2	151	9.0
Geometric lines	14	1.4	10	1.2	22	1.3
Incision	7	0.8	10	1.2	17	1.0
Channel	7	0.7	5	0.5	11	0.7
Total	845	100%	844	100%	1689	100

Table 5.5. Distribution of single and multiple decorations within the incision and grooving category.

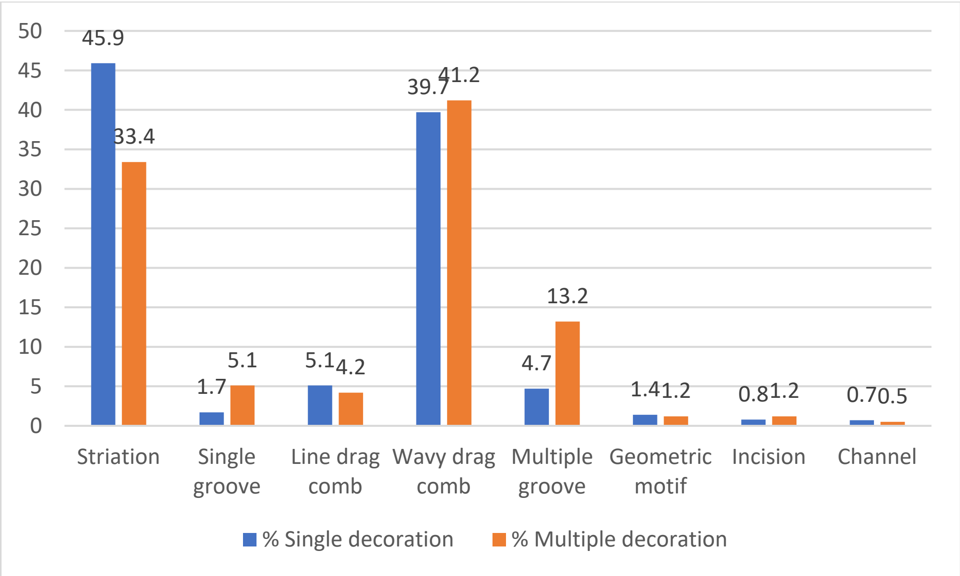


Figure 5.2 Distribution of major single and multiple decorations within the incision and grooving category.

From the above Tables (5.4, 5.5) and Figure 5.2, striation is the most frequently occurring single decoration followed by wavy dragged comb throughout the whole assemblage. Other decorations such as geometric motif, incision and channel occurred in negligible numbers (1.5 - 2%). Wavy dragged comb and striation were also the most common occurring decoration in terms of sherds with multiple decoration for the whole assemblage. As can be seen in Table 5.4, they frequently occurred together, but also in combination with a range of other decorations.

In absolute numbers, these decorations occurred most in Test Pit 1, (unsurprisingly since it was the largest unit excavated) followed by Test Pits 7, 5, 3, surface collections and least for PPII. Despite this, there is variation in the decoration frequency across the units as seen in Table 5.4. Although striation and wavy dragged comb occurred in all the units', the latter was absent in the pavements surface (PPII) pottery assemblage. Across the units, striation occurred more than wavy dragged comb as single decoration while the inverse was the case for Test Pit 1 and surface collections. Under the multiple or combined category, striation occurred more than wavy dragged comb except for Test Pit 1, 3 and PPII unit. Multiple decorations of striation and wavy dragged comb were absent in the pavements surface (PPII) pottery assemblage.

a Striation Test Pit 1 Context 9

b Incision Test Pit 3 Context 6

c Single groove from PPII Surface

d	Multiple groove Test Pit 1 Context 7b	
e	Variants of wavy dragged comb Test Pit 1 Context 15b	
f	Variants of wavy dragged comb Test Pit 1 Context 7b	
g	Line dragged comb Test Pit 5 Context 6	
h	Line dragged comb Test Pit 7 Context 13	

i	Geometric motif Test Pit 1 Context 14	
j	Geometric motif Test Pit 1 Context 13	
k	Incision Test Pit 5 Context 4	
l	Channel Test Pit 3 Context 8	

m Wavy dragged + bosses+ indented on lip
Test Pit 3
Context 1

n Wavy dragged comb + angular punctate + geometric lines + bosses
Test Pit 1
context 7b

o Line dragged comb + raised angular punctate + boss
Test Pit 1
Context 15a

Figure 5.3a-o. Illustrative examples of sherds featuring single and multiple decorations within the incision and grooving category.

5.4.1.2. Stamping and Stabbing

This category of decoration is infrequent accounting for between 1.41% and 3.5% of the total assemblage (Table 5.4). Stamping decoration is achieved when a tool is pressed into plastic or, more, commonly, leather-hard clay, leaving a negative of it. Three varieties of stamping decoration were identified: angular punctate, stab impression, and dot punctate. Table 5.6 and Figure 5.4 presents the distribution of single and multiple decorations within this category.

Decoration	**Single decoration**	**% Single decoration**	**Multiple decoration**	**%Multiple decoration**	**Total number of decoration occurrences**	**% Total**
Angular punctate	70	86.42	109	91	179	89.05
Stab impression	8	9.88	4	3	12	5.97
Dot punctate	3	3.70	7	6	10	4.98
Total	**81**	**100**	**120**	**100**	**201**	**100**

Table 5.6. Distribution of single and multiple decorations within the stamping and stabbing category.

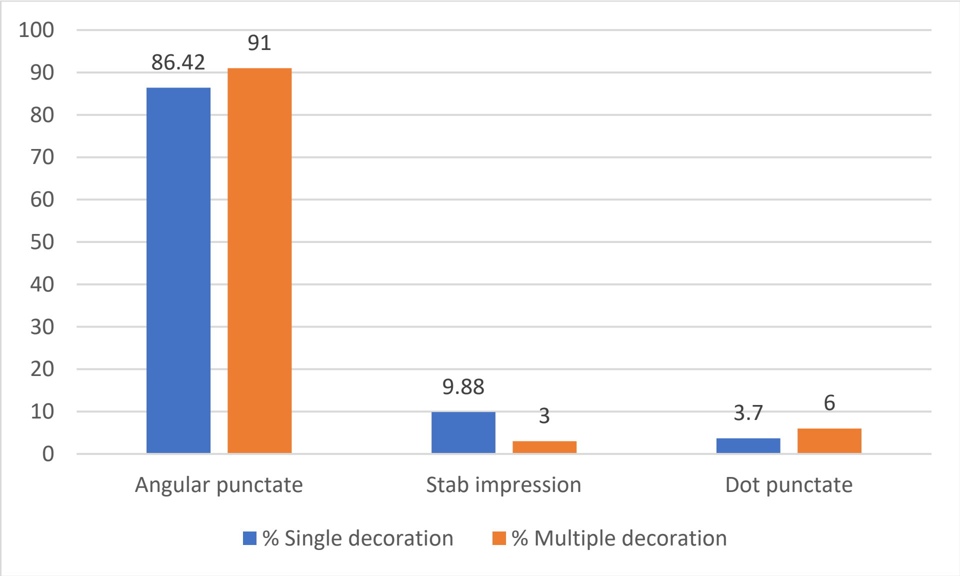


Figure 5.4. Distribution of major single and multiple decorations within the stamping and stabbing category.

Under this category, angular punctate decoration occurred the most frequently, accounting for 1.2 – 2% followed by stab impression and dot punctate (Tables 5.4 & 5.6 & Figure 5.4). Across the units, stamping/stabbing decoration were absent in PPII, and Test Pit 3 and dot punctuate did not occur in Test Pit 3, surface and PPII. Figure 5.5a-f present illustrations of sherds recorded under this category.

a	Angular punctate Test Pit 1 Context 6	
b	Stab impression Test Pit 1 Context 2	

c	Stab impresion Surface	
d	Dot punctate Test Pit 1 Context 7a	
e	Dot punctate +geometric motif Test Pit 1 Context 7b	

f	Angular punctate +geometric motif Test Pit 1 Context 10	

Figure 5.5.a-f. Illustrative examples of sherds featuring single and multiple decorations within the stamping and stabbing category.

5.4.1.3. Perforation

Perforation was one of the least common categories of decorations within the assemblage, amounting to a total of between 1.6 and 2% for both single and multiple decoration. When combined, perforation featured other decorations such as striation, angular punctate, wavy dragged comb, multiple grooves, boss and line dragged comb. Within units, it occurred least in Test pit PPII and surface collections (Table 5.4).

Perforations are either carried out prior to or after firing the vessel and may serve as decoration for utilitarian function to serve as a colander or a sieve for example. Perforated pots are also used for smoking meat and sometimes used for rituals (Willett 1960b). Table 5.7 and Figure 5.6 shows its distribution as single and in combination with other decorations. Illustrations of single and multiple perforation decoration are presented in Figure 5.7a-c.

Decoration	Single decoration	% Single decoration	Multiple decoration	%Multiple decoration	Total number of decoration occurrences	% Total
Perforation	92	73.6	33	26.4	125	100

Table 5.7. Distribution of Single and multiple decoration within the perforation category.

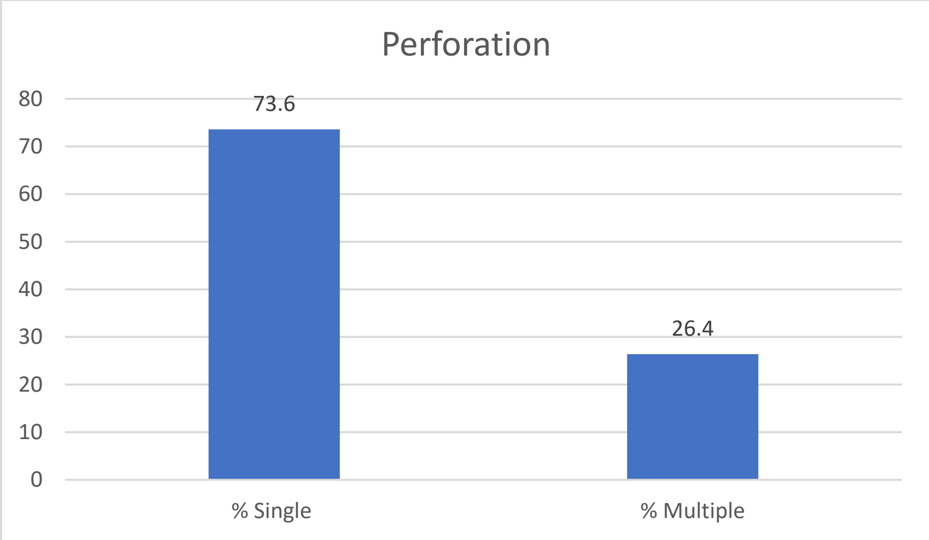


Figure 5.6. Distribution of single and multiple decorations within the perforation category.

A	Perforation Test Pit 1 Context 12b	
B	Perforation with incision on lip Test Pit 1 Context 15b	

c	Perforation, line dragged comb with geometric motif Test Pit 1 Context 7b	

Figure 5.7a-c. Illustrative examples of sherds featuring single and multiple decorations under the perforation category

5.4.1.4. Rouletting

Roulette decoration is the second most common category consisting of between 2.88% - 5% across the units. As seen from Table 5.4, single roulette decoration was most common in Test Pit 7 followed by Test Pit 5, Surface and PPII surface while it occurred least in Test Pits 1, PPII and 3. Under the multiple decoration category, the most common is the twisted cord roulette which occurred most with multiple grooves in Test Pit 5 followed by Surface, PPII surface, Test Pits 7 and 3 and was absent in PPII and Test Pit 1. Roulette decoration is made by rolling a roughly cylindrical or round object over the surface of a wet clay pot to leave a continuous band of impression that repeats themselves at each revolution (see Haour et al. 2010; Rye 1981: 92; Soper 1985: 30). Only one type of rouletting, which is the twisted cord roulette (TCR), occurred within the Okesuna Ilorin assemblage, both as single and combined decorations (Table 5.4). According to Soper (1985), twisted cord roulette is made from a round-sectioned strand formed of fibres of various kinds. In northern Yorùbáland where Ilorin is situated, Soper (1985: 35) reports that a piece of cloth is used which gives a similar coarse effect.

While twisted cord roulette appeared as single decoration on 166 sherds, it was combined with some other decorations on 129 sherds. Of these, multiple groove decoration was the most common combination with 73 occurrences followed by line dragged comb, striation, angular punctate, raised banded punctate, incision, boss, stab, burnished and basted, and slip (Table 5.4). Across the unit, twisted cord roulette is the most dominant decoration for surface collections and Test Pit PPII, occurring mostly for the pavements (PPII) surface sherds either as single or with other decorations

(Table 5.4). The distribution of twisted cord rouletted sherds is given in Table 5.8 and Figure 5.8, while illustrations of these decorations are presented in Figure 5.9a-c.

Decoration	Single decoration	% Single decoration	Multiple decoration	%Multiple decoration	Total number of decoration occurrences	% Total
Twisted cord roulette	166	56.27	129	43.73	295	100

Table 5.8. Distribution of single and multiple twisted cord roulette decorations within the whole assemblage.

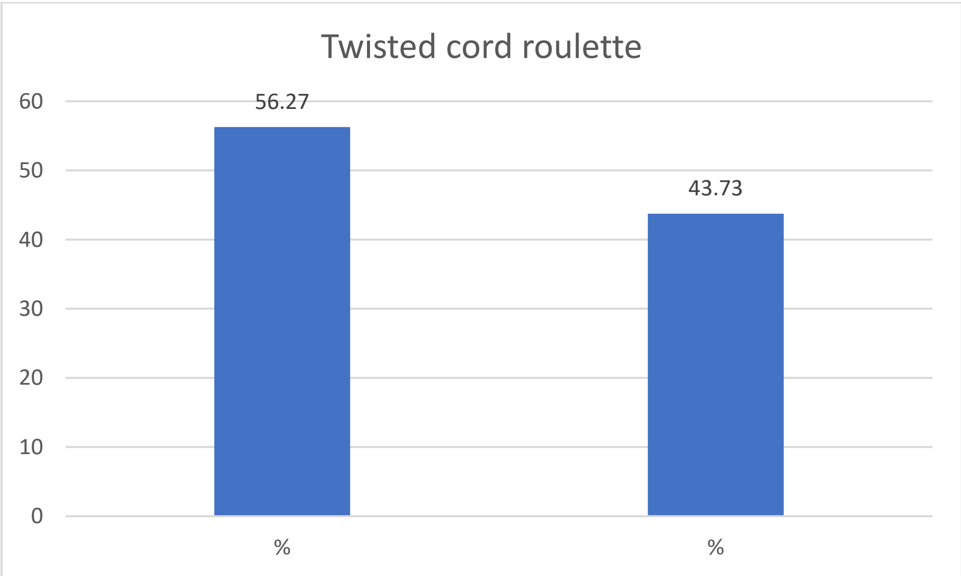


Figure 5.8. Distribution of single and multiple decorations of twisted cord roulette in the Okesuna Ilorin pottery.

a Twisted cord roulette decoration PPII Surface

b	Twisted cord roulette + burnish/basted bowl sherd Test Pit 7 Context 8	
c	Twisted cord roulette + groove PPII surface	

Figure 5.9a-c. Illustrative examples of sherds featuring single and multiple decorations under the roulette category.

5.4.1.5. Applied decorations

This category constituted between 1.39% – 2.5% across the unit for the total assemblage. Applied decorations are produced by the addition of extra clay on the body of the pot before firing, and mainly consist of bosses and raised banded punctate. Bosses are usually rounded, flattened or in other designs. Their occurrence as a single decoration was very rare, they were much more commonly combined with some other decorations, most especially striation (Table 5.4). Raised banded punctate on the other hand. commonly occurred in orderly horizontal bands, usually on the neck and shoulder of pot vessels. Table 5.4 shows the distribution of the decorations across units. Table 5.9 and Figure 5.10 show the distribution between single and multiple occurrences of applied decorations for the whole assemblage while Figure 5.11a-e presents illustrative examples of sherds recorded under this category.

Decoration	Single decoration	% Single decoration	Multiple decoration	%Multiple decoration	Total number of decoration occurrences	% Total
Boss	3	5.66	54	38.85	57	29.69
Raised banded punctate	50	94.34	85	61.15	135	70.31
Total	**53**	**100**	**139**	**100**	**192**	**100**

Table 5.9. Distribution of single and multiple decorations within the applied decorations category

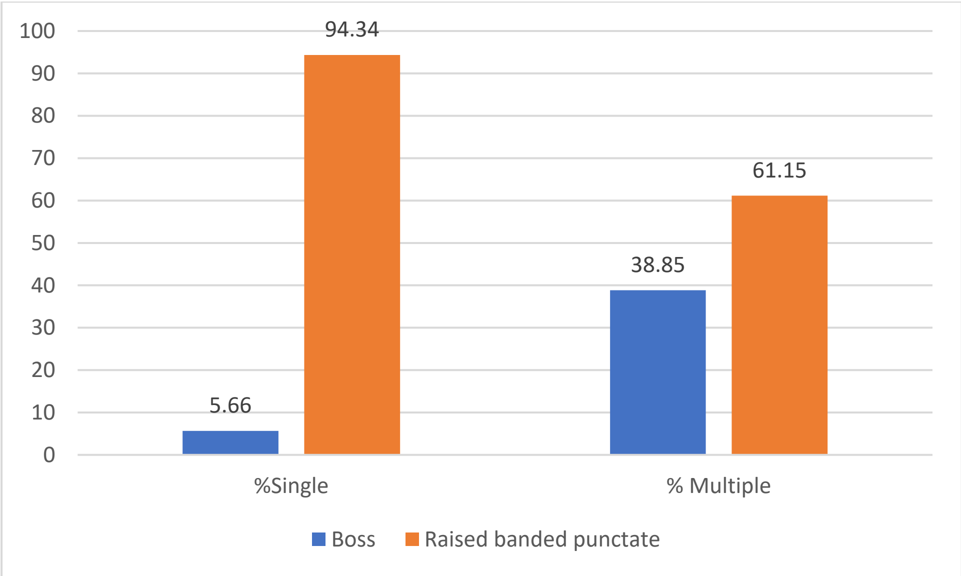


Figure 5.10. Distribution of single and multiple decorations within the applied decorations category.

a	Boss + burnish/basted Test Pit 1 Context 15b	

b Raised banded punctate
Test Pit 1 Context 15b

c Raised banded punctate + impressed boss + other
Test Pit 1 Context 7a

d Boss +striation Test Pit 1 Context 7a

e Raised banded punctate/boss + other Test Pit 1 Context 7a

Figure 5.11a-e. Illustrative examples of sherds featuring single and multiple decorations under the applied decorations category.

5.4.1.6. Incised Burnished

This decoration was the least common and never occurred as a single decoration. It featured on just six sherds associated with burnished and/or basted finish, thus accounting for 1% of the total assemblage across units.

Incised burnishing involves the creation of a design by juxtaposing burnished (lustrous) and unburnished (matte) areas (Rice 1987: 153). A fine, smooth small pebble was probably used to produce or draw some intertwined lines or other forms of decorations (Anifowose 1984). In the case of the Okesuna Ilorin assemblage, incised burnishing was found in the interior of the sherds, occurring with decorations such as boss, angular punctate and wavy dragged comb (Table 5.4). Distributions of this decoration are presented in Table 5.10 and Figure 5.12 and their illustrations are presented in Figure 5.13a-b.

Decoration	**Single decoration**	**% Single decoration**	**Multiple decoration**	**%Multiple decoration**	**Total number of decoration occurrences**	**% Total**
Incised burnished	0	0	6	100	6	100

Table 5.10: Distribution of single and multiple decorations within the incised category.

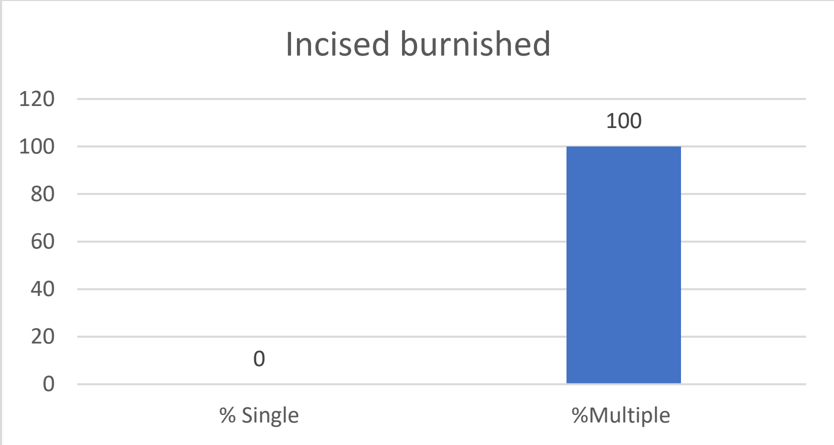


Figure 5.12. Distribution of incised burnished decoration for the Okesuna Ilorin pottery.

a	Incised burnished decoration in the interior of the sherds Test Pit 5 Context 5	
b	Incised burnished decoration in the interior Test Pit 1 Context 7a	

Figure 5.13a-b. Illustrative examples of sherds featuring single and multiple decorations under the incised burnished category.

5.5. Surface finish

The three categories of surface finish identified in the pottery assemblage include burnishing/basting, burnishing alone and slipping. Occurrences were, however, infrequent, making up between 0.9% and 2% of the total assemblage; the most common was burnishing/basting followed by slipping and burnishing alone.

5.5.1. Burnishing/Basting

These two types of surface finishing usually go hand in hand, although in some cases, burnishing may occur alone. Burnishing is produced by rubbing a smooth, hard object such as a pebble or the back of a spoon on the surface of vessels thereby achieving a compact, non-porous and smooth surface prior to firing (Beier 1980: 49; Fatunsin 1992; Rice 1987: 155). Based on current practices, this is usually done on bowls or pitchers to reduce their porosity. Rims of vessels are also burnished in some cases. Burnished pots are also usually made more lustrous by undergoing basting (Anifowose 1984; Beier 1980; Fatunsin 1992).

Basting on the other hand, produces a distinctive black, shiny effect to the surface of a burnished vessel. It is generally applied to vessels to seal the pores and give them a shiny finish and is produced by dipping a burnished hot pot into a mixture prepared from certain vegetable materials (Anifowose 1984; Beier 1980: 50-51; Fatunsin 1992: 41; Ogundiran 2002b). These vegetable materials are prepared from barks and leaves of vegetables which include *Parkia clappertoniana* (locust beans), *Bridelia ferruginea*, *Afzelia africana, Phyllanthus floribundus* and from *cassia.*

In this category, 29 items featured only burnishing/basting while 93 items combined this with other decorations such as boss, wavy dragged comb, twisted cord roulette, incision, striation, or angular punctate (Table 5.4). The combination of burnished/basted finish with angular punctate decoration occurred most in the assemblage, followed by wavy dragged comb (Table 5.4). Figure 5.14a-d presents illustrations of these decorations while Table 5.10 and Figure 5.16 show the distribution across the assemblage.

a	Burnished/basted surface finish Test Pit 1 Context 15a	
b	Burnished Test Pit 1 Context 8	
c	Burnish/Basted + punctate Test pit 1 Context 15a	

d	Burnish/basted + wavy dragged comb Test Pit 3 Context 8a	

Figure 5.14a-d. Burnishing/basting decorations.

5.5.2. Slipping

Slipping is the process of coating a pot surface with a fluid suspension of clay in water. The solution is made up of clay minerals (Rice 2005; Rye 1981: 41) and can easily be identified either by visual observation or by cutting out a fresh cross-section of the sherd profile. According to Rice (2005: 150-151) and Rye (1981: 41), the three primary techniques for applying slip include dipping, which involves immersing a vessel in a container filled with slip suspension, producing a uniform coating; pouring, which involves emptying a slip from a container over or into the vessel to coat the interior of the vessel; a technique is also used for vessels that are too large to be dipped; namely wiping, which involves wiping the surface of vessel with a sponge, cloth or ball of grass soaked in slip. The wiping technique was observed in one of the Ilorin potting centres, *Ebu Dada,* during fieldwork in 2020 and was reported as the technique most commonly used in Ilorin potting centres to date. In the past however, various methods might have been used.

In terms of colour, red and reddish-brown slip were noted in the assemblage. Table 5.11 and Figure 5.15 show the distribution of the surface finish for the assemblage and Figure 5.16a-c illustrates some instances of slip.

Decoration	Single decoration	% Single decoration	Multiple decoration	%Multiple decoration	Total number of decoration occurrences	% Total
Slip	23	42.60	13	8.18	36	21.43
Burnish/basting	29	53.70	93	85.46	122	72.62
Burnish	2	3.70	8	6.36	10	5.95
Total	54	100	114	100	168	100

Table 5.11. Table showing distribution of surface finish on pottery assemblage.

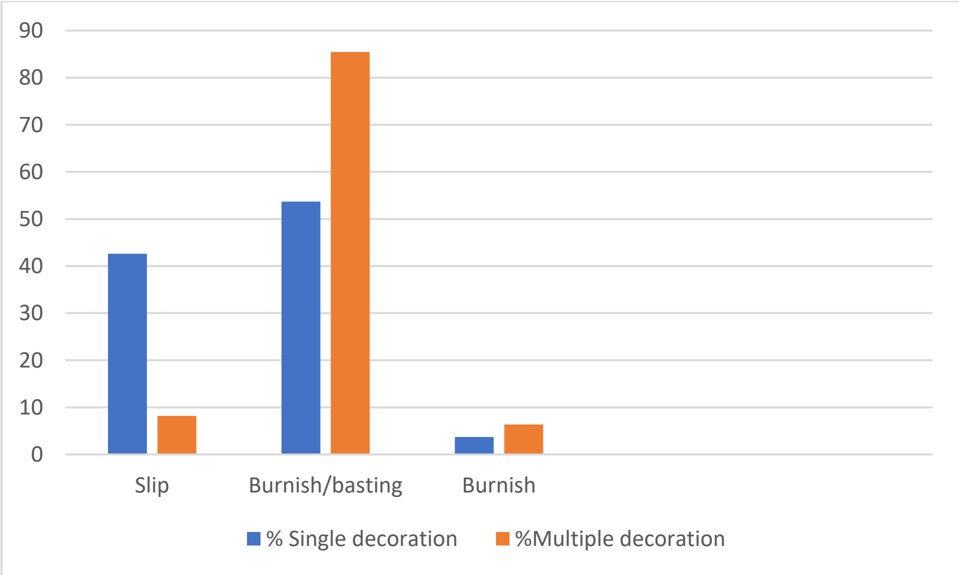


Figure 5.15. Distribution of surface finish across units.

a Red slip

b Red slip on part of bodysherd

c Reddish brown slip

Figure 5.16a-c. Slipped sherds.

5.6. Wall Thickness

Analysis of wall thickness was carried out on the entire pottery assemblage (5760 items), using a digital vernier calliper taking measurements in millimetres. Wall thickness ranges and their corresponding codes are presented in Table 5.12 and the distributions of wall thickness is presented in Table 5.13 and Figure 5.17.

Wall thickness size	Description	Code
0.1-5.4mm	Thin	1
5.5-10.4mm	Moderately thin	2
10.5- 15.4mm	Medium	3
15.5-20.4mm	Moderately thick	4
20.5mm above	Thick	5

Table 5.12. Wall thickness variables and corresponding codes used in the final analysis.

	Thin	Moderately thin	Medium	Moderately thick	Thick	Total	%Total
Test pit 1	15	652	1462	435	71	2635	45.75
Test pit 3	0	84	228	61	8	381	6.62
Test pit 5	0	204	442	123	27	796	13.80
Test pit 7	2	335	541	123	16	1017	17.66
Surface	0	37	207	72	11	327	5.68
Test pit PP II	0	52	299	186	67	604	10.49
Total	17	1364	3179	1000	200	5760	100
% Total	0.29	23.68	55.20	17.36	3.47	100	

Table 5:13. Distribution of wall thickness across units.

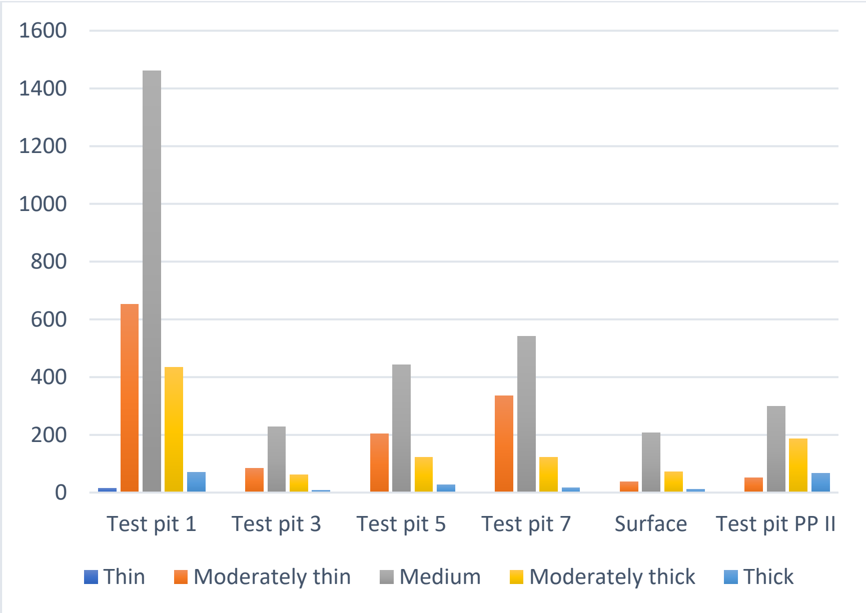


Figure 5.17. Distribution of pottery wall thickness across units.

5.7. Comparative analysis of surface decoration, surface finish and wall thickness across units.

Test Pit 1 yielded the greatest number of ceramics due to the greater volume of the unit and as such, it also produced the most variety in decorations. This was followed by Test Pits 7, 5, PPII surface, 3, while surface collections and PPII featured the smallest range (Table 5.3). From the total of 5760 items analysed, 66.37% were undecorated (Tables 5.3 & 5.4). Single decorations accounted for 21.95% of occurrences while surface finish items (without decorations) constituted less than 1% (0.94%). The remaining 10.74% featured items with multiple decorations and surface finish.

In terms of decoration, incision/grooves were the most dominant decoration class for both single and multiple categories constituting between 14.67 and 22% of the total assemblage, followed by roulette, applied decorations, stamping, perforations and incised burnish. Striation was the most common decoration occurring singly, followed by wavy dragged comb. However, when combined with other decorations, wavy dragged comb was the most frequently occurring, followed by twisted cord roulette, angular punctate, raised banded punctate, and perforation while the least decorations being dot punctate and incised burnish (Table 5.4**)**.

Across units, a combination of both single and multiple categories of striation and wavy dragged comb decorations, covered over 60% within this class, and featured most in Test Pit 1 (Table 5.4). This was then followed by Test Pits 7, 5, 3, surface and PPII unit (Table 5.4). Interestingly, these decorations appeared most around the dated Contexts 4/6 and 2/5 of the Test Pits 1 and 7 respectively (See Table 4. 9**)**. On the other hand, the combination of single and multiple decorations (mainly twisted cord roulette and multiple grooves which is the most common multiple decoration) under the twisted cord roulette category dominated Test Pit 5, followed by Test Pits 7, 1, Surface and PPII surface (pavement sherds) and least common in Test Pits 3 and PPII excavated units (Table 5.4). Indeed, the combination of twisted cord roulette and multiple grooves were absent in Test Pit 1 and PPII unit (Table 5.4). Since twisted cord roulette is most common for PII Surface (potsherd pavement sherds) and Test Pit 5 (include the buried pot associated with PPIV which has only the twisted cord decoration, see chapter Four), it is hypothesised that PII Surface (potsherd pavement sherds) and Test Pit 5 are both contemporaneous. This hypothesis could also be plausible, considering that the area of Test Pit 5 also has potsherd pavements on the ground surface.

In terms of surface finish, burnish/basting was the most common for the single and combined (with decorations) categories for the whole assemblage. This was followed by slipping and then burnishing. While this holds true for Test Pit 1 under the single category, slip was the most common for Test Pit 7. Therefore, considering these decorations in relation to the five radiocarbon dates (see Chapter 4, Table 4.9, Appendix 4) obtained for Test Pits 1, 7 and PPII, Test Pit 1 produced dates of Cal AD 663 to 866 and Cal AD 686 to 888 from Contexts 4/6 and 12, and Test Pit 7 produced dates of Cal AD 564 to 650 and Cal AD 668 to 874 from Contexts 2/5 and 13 respectively. These four dates were in association with pottery dominated by striation and wavy dragged comb. The potsherd pavement (PPII) unit produced a date of Cal AD 1028 to 1172 at the lowest cultural layer associated with Contexts 3/4/5. These dates in combination with the decorations suggest that striation and wavy dragged comb were the dominant decorations within the Okesuna Ilorin area by the 7^{th} century or earlier and that by the 12^{th} century, towards the beginning of the potsherd pavement periods, there was a change to the dominant use of the twisted cord roulette pottery.

Although Test Pit 5 was not dated, since twisted cord roulette is the dominant decoration for the unit, it is possible that the unit and its surrounding occupation (as there is evidence of potsherd pavements near the unit including evidence of twisted cord roulette on the buried pot recovered from potsherd pavement PPIV) falls within the same period of the potsherd pavement PPII constructions. It is important to note that since maize cob roulette, which is evidence of the 16^{th} century Atlantic contact in West Africa, was absent in the ceramic assemblage, it can be suggested that the beginning of the potsherd pavements period in Ilorin was prior to the 16^{th} century. Similar method of analysing ceramics from potsherd pavements matrix to determine site chronology was reported for archaeological investigations at Ile-Ife, Ajaba and Ilare-Ijesa potsherd pavements sites, southwestern Nigeria (Ogundiran 2000, 2002b; Ogunfolakan 2009; Willett 1967).

In terms of wall thickness, the most common category was medium thick pottery representing over half of the total assemblage with a total of 55.21% (Table 5.13). This was followed by moderately thin, moderately thick, thick and thin categories (Table 5.13 & Figure 5.17). Thin-walled pottery, which appeared only in Test Pits 1 and 7, accounted for less than 1% of the assemblage. Unsurprisingly, Test Pits 1 and 7 show the greatest variability in wall thickness, with all categories represented, while surface collection items show the least variation (Table 5.13 & Figure 5.17).

5.8. Rim analysis

Eight variables (Appendix 5) were further analysed in the case of the 416 (415 and 1 near intact vessel) rim assemblage; rim diameter, rim type/form, lip shape, paste colour, core, non-plastic inclusions (NPI), decorative motifs and finally the position of decorations or of surface finish (Appendices 5 and 6). These analyses were intended to explore the forms and, shapes present and gain insights into the technical processes associated with the Okesuna Ilorin pottery assemblage.

5.8.1. Recorded variables

5.8.1.1. Rim diameter

Rim diameter is measured by placing the arc of the lip of the rim sherd against a calibrated diameter chart (Rice 2005: 223). In the case of the Okesuna Ilorin assemblage, this variable was only read on rims with a lip > 5cm, considered to be the minimum required to take a reliable reading. Diameter ranges were created for the purpose of classification and coding. Table 5.14 presents the codes and rim diameter ranges used in the analysis while Table 5.15 and Figure 5.18 present the distribution across units (see also Appendices 5 and 6).

Code	**Rim diameter range (cm)**	**Description**
1	5-20	Small range
2	21-30	Medium range
3	31-45	Large range

Table 5.14. Codes and description of rim diameter range used in Okesuna Ilorin pottery assemblage.

	5-20cm	**21-30cm**	**31-45cm**	**Total**	**% Total**
Test Pit 1	109	109	36	254	61.06
Test Pit 3	12	20	5	37	8.89
Test Pit 5	29	16	2	47	11.30
Test Pit 7	17	24	3	44	10.58
Test Pit PII	5	10	1	16	3.85
Surface	13	5	0	18	4.32
Total	**185**	**184**	**47**	**416**	**100**
% Total	**44.47**	**44.23**	**11.30**	**100**	

Table 5.15. Distribution of rim diameter ranges across the assemblage.

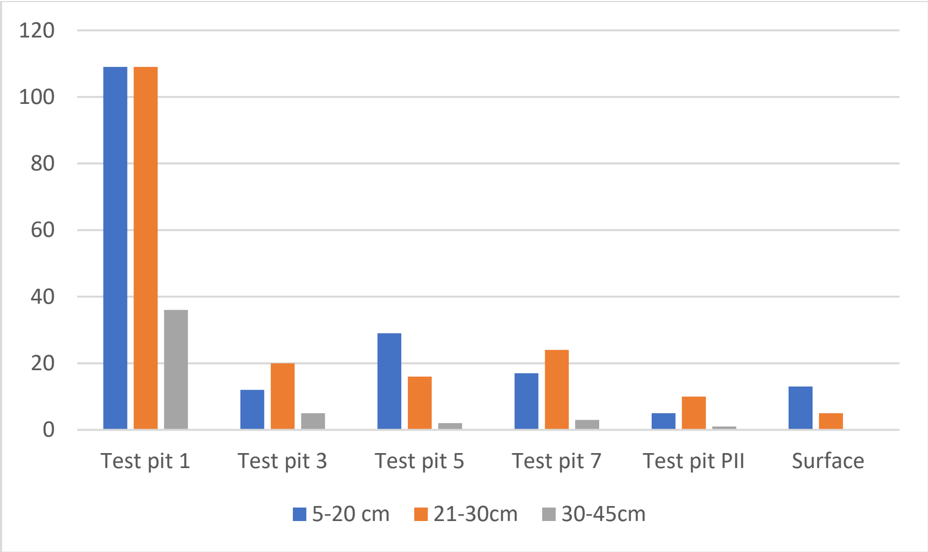


Figure 5.18. Distribution of diameter ranges of Okesuna Ilorin rims.

5.8.1.2. Rim angle

The angle of the rim sherds was measured to determine the degree of how open or closed the vessel was. The template used for rim angle was modelled after McIntosh (1995: 170) and is presented in Table 5.16, while the descriptions and the analysed data are shown in Table 5.17 and Figure 5.19.

Code	**Description**	**Degree of angle**
1	Tightly closed	0^0 and 45^0
2	Closed	45^0 and 85^0
3	Vertical	85^0 and 95^0
4	Open	95^0 and 130^0
5	Wide open	130^0 and 170^0
6	Potlid	170^0 and 180^0

Table 5.16. Rim angle codes and descriptions modelled after McIntosh (1995: 170).

	Tightly closed	Closed	Vertical	Open	Widely Open	Potlid	Total	%Total
Test Pit 1	0	17	41	120	76	0	254	61
Test Pit 3	0	0	15	16	6	0	37	9
Test Pit 5	0	0	15	24	8	0	47	11
Test Pit 7	0	23	18	2	1	0	44	11
Test Pit PII	1	3	6	5	3	0	18	4
Surface	0	0	7	5	4	0	16	4
Total	**1**	**43**	**102**	**172**	**98**	**0**	**416**	**100**
%Total	**0.2**	**10.3**	**24.5**	**41.3**	**23.7**	**0**	**100**	

Table 5.17. Distribution of rim angles.

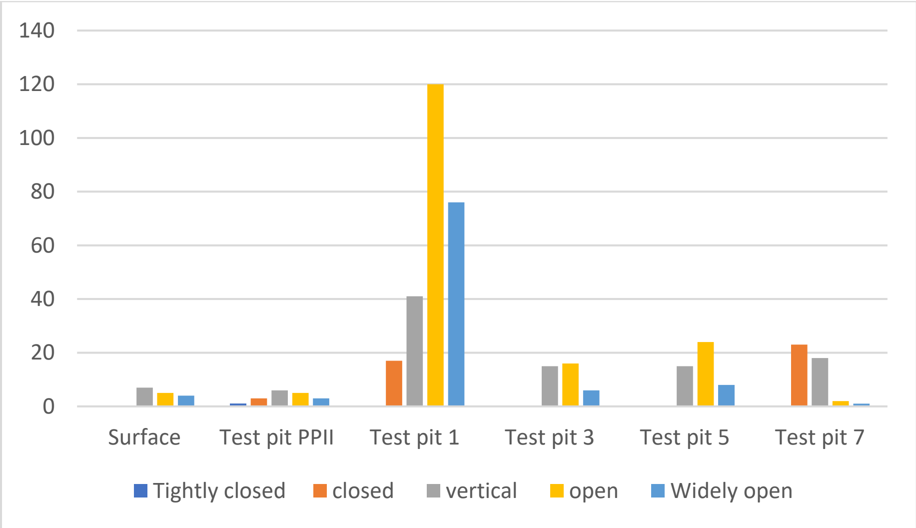


Figure 5.19 Distribution of rim angles across units.

5.8.1.3. Lip shape

The lip is a component of the rim, which is described as “the edge or margin of the mouth of the vessel” (Rice 2005: 214). Four lip shapes were identified in the assemblage (Tables 5.18 and 5.19, and Figure 5.20).

Code	Description
1	Rounded
2	Flattened
3	Tapered
4	Indented

Table 5.18. Codes used in the analysis and description of rim lip shapes.

	Rounded	Flattened	Tapered	Indented	Total	% Total
Surface	6	1	3	8	18	4.33
Test pit 1	121	23	57	53	254	61.06
Test pit 3	16	7	7	7	37	8.89
Test pit 5	8	0	11	28	47	11.30
Test pit 7	10	3	9	22	44	10.58
Test pit PPII	5	3	5	3	16	3.84
Total	**166**	**37**	**92**	**121**	**416**	**100**
% Total	**40.0**	**8.9**	**22.0**	**29.1**	**100**	

Table 5.19. Lip shape distributions across units.

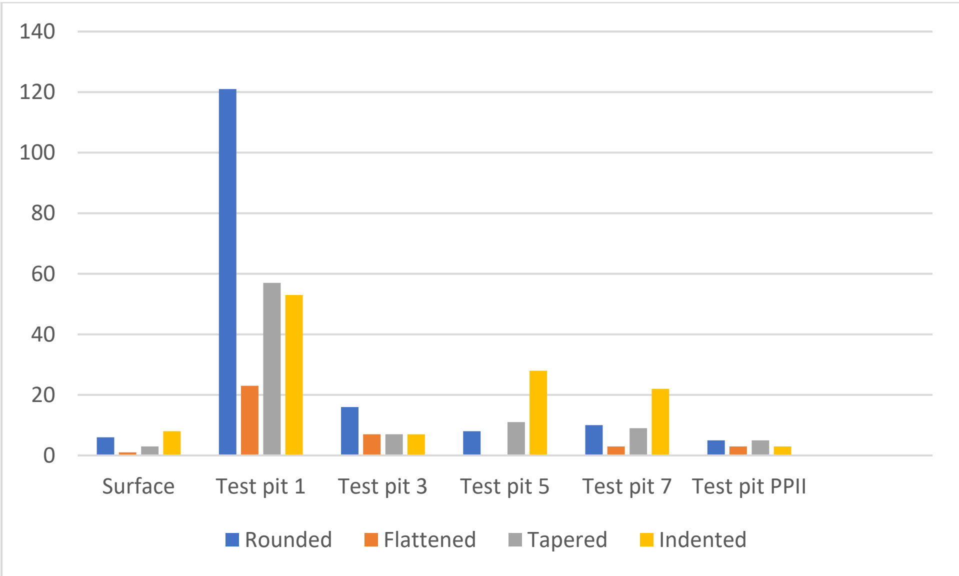


Figure 5.20. Distribution of major lip shapes.

The analyses reveal that rounded lip shapes occurred most frequently in the assemblage, consisting of 40% of the total assemblage. This is followed by indented and tapered lips. Flattened lips were rare overall, accounting for less than 9% of the total number (Table 5.19). Though rounded lips were most common throughout, there were variations in their frequency across units.

5.8.1.4. Rim type

Rim type refers to the rim profile, defined as the "shape of the rim in radial section" (McIntosh 1995: 141). The various rim types identified were divided into groups and are presented with their codes in Table 5.20.

A criterion for classifying everted rims was their length, which was measured from the lip to the juncture where it joined with the shoulder or body of the vessel based on

Shephard's point of inflection (Shepard 1980) (Figure 5.21). Four major types of rims were identified within this assemblage. These are simple rims, thickened rims, carinated rims and everted rims. It was further necessary to categorise everted rim type into short, medium and long, based on Babalola (2016: 139) (Table 5.20). The rim types (Table 5.21, Figure 5.22) were also analysed with their associated variations in lip shapes to fully understand rim forms, shapes and functions.

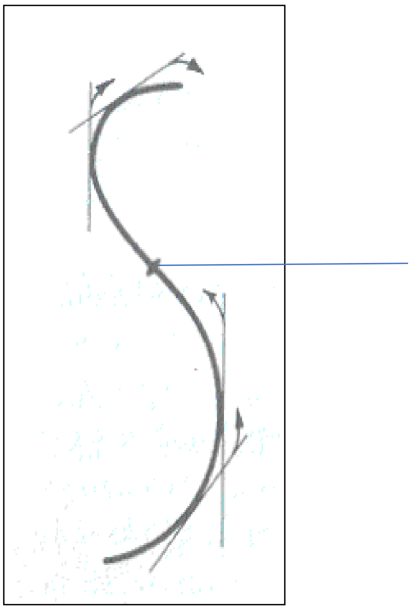


Figure 5.21. Points of inflection (the blue line points to the join between shoulder and body). Source: Shepard (1980 [1956]: Fig. 19).

Code	Rim types	Description
1	Simple	Shallow vessels with wide mouth or largely vertical profile. The rim is mostly non-distinguishable from the rest of the body and usually has an even thickness. Mostly, these rims have a rounded lip, but it can also be indented, flat, or tapered. This category of rim type does not show substantial inflection off the body of the vessel.
2	Thickened	Restricted or unrestricted vessels. These are rims in which the end nearest to the lip is thicker.
3	Carinated	Usually restricted vessel. The lip can be rounded, tapered, or, at times, bevelled. There is a rapid change in angle both inside and outside. These changes separate carinated from other rim forms.
4	Short everted	Shallow vessels with wide mouth and/or restricted neck. The length of the rim is 2cm or less.
5	Medium everted	Same as 4 but with rim length of between >2cm and 4cm
6	Long everted	Same as 4 and 5. The distinguishing element is the length of the rim, which is >4cm

Table 5.20. Summary of codes and description of rim types recognised from the assemblage (adapted from Babalola 2016).

	Simple	Thickened	Carinated	Short everted	Medium everted	Long everted	Total	%Total
Test Pit 1	45	10	51	77	44	27	254	61
Test Pit 3	13	1	8	9	5	1	37	9
Test Pit 5	11	0	1	18	5	12	47	11
Test Pit 7	5	2	15	0	12	10	44	11
Test Pit PPII	2	4	4	2	2	2	16	4
Surface	11	0	1	1	4	1	18	4
Total	**87**	**17**	**80**	**107**	**72**	**53**	**416**	**100**
% Total	**21**	**4**	**19**	**26**	**17**	**13**	**100**	

Table 5.21. Distribution of rim types within the assemblage.

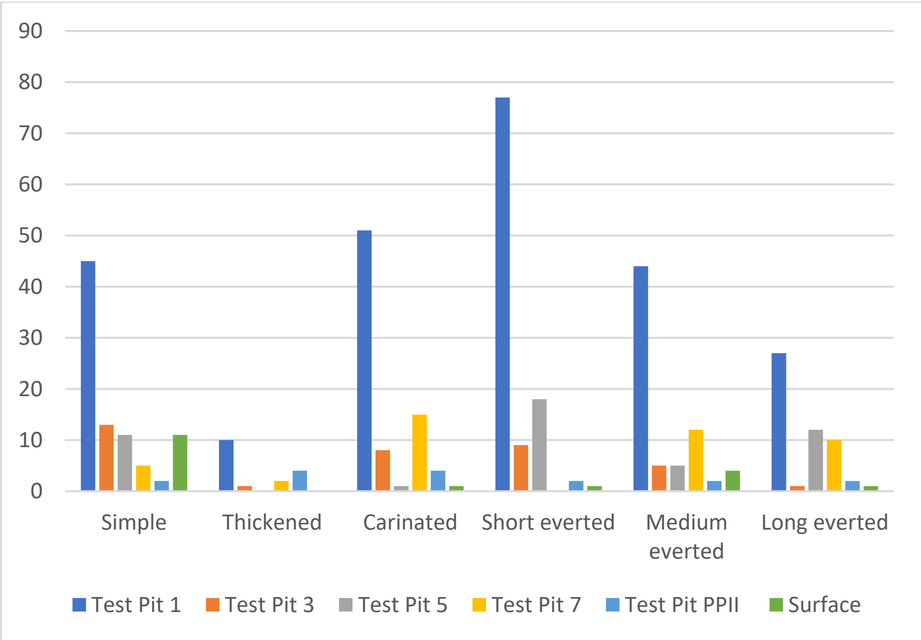
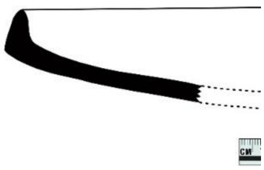
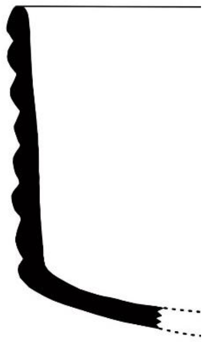
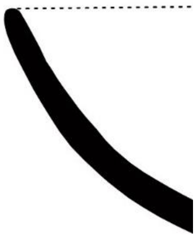
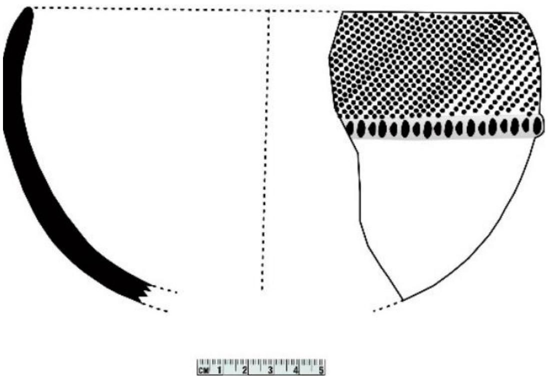


Figure 5.22. Distribution of rim types across units.

5.8.1.4.1. Simple Rim

Based on the above analysis of rims, samples of simple rim subtypes within the assemblage are presented in Figure 5.23a-g. Subtypes identified within the simple rim category are those with round, tapered and indented lips while simple rims with flat lip are absent (See Appendix 5) for the analysis table for rim analysis showing codes of lip shapes associated with rim types).

a	Variant of simple vertical rim with rounded lip	
b	Variant of simple vertical rim with rounded lip	
c	Simple vertical rim with indented lip	
d	Simple open rim with rounded lip	
e	Variant of simple closed rim with tapered rim	

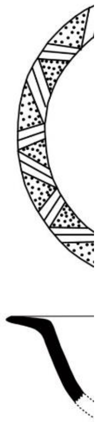
f	Variant of simple closed rim with tapered lip	
g	Simple open rim with out-turned rounded lip (circular punctate with dragged comb on interior surface of lip.	

Figure 5.23a-g. Simple rims.

5.8.1.4.2. Thickened rims

Examples of thickened rim subtypes within the assemblage are shown in Figure 5.24a-b. Subtypes identified within the category include rounded and flat lips (See Appendix 5 for the analysis table for rim analysis showing codes of lip shapes associated with rim types).

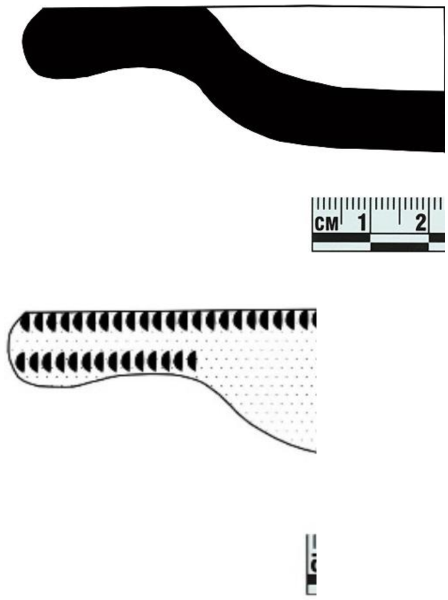
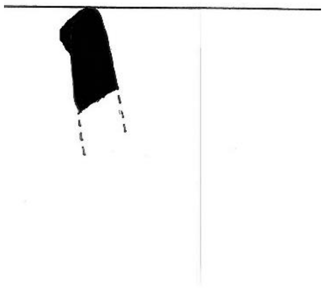
a	Open thickened rim with rounded lip	
b	Thickened open rim with flattened lip	

Figure 5.24a-b Thickened rims.

It should be noted that Figure 5.24a present a unique type of thickened rim of which only one was identified in the assemblage. It is a short rim with a prominent thickened out neck. The rim diameter is measured 14cm and falls within the medium wall (10.5 -15.4mm) thickness range. Surface finish for the entire surface is burnished/basted and the lip area is decorated with angular punctuate.

5.8.1.4.3. Carinated rims

Carinated rims identified were associated with rounded and tapered lips and their angle was either open or wide rim. Rounded lips were the dominant shape. Figure 5.25a-c present illustrations of the rim type.

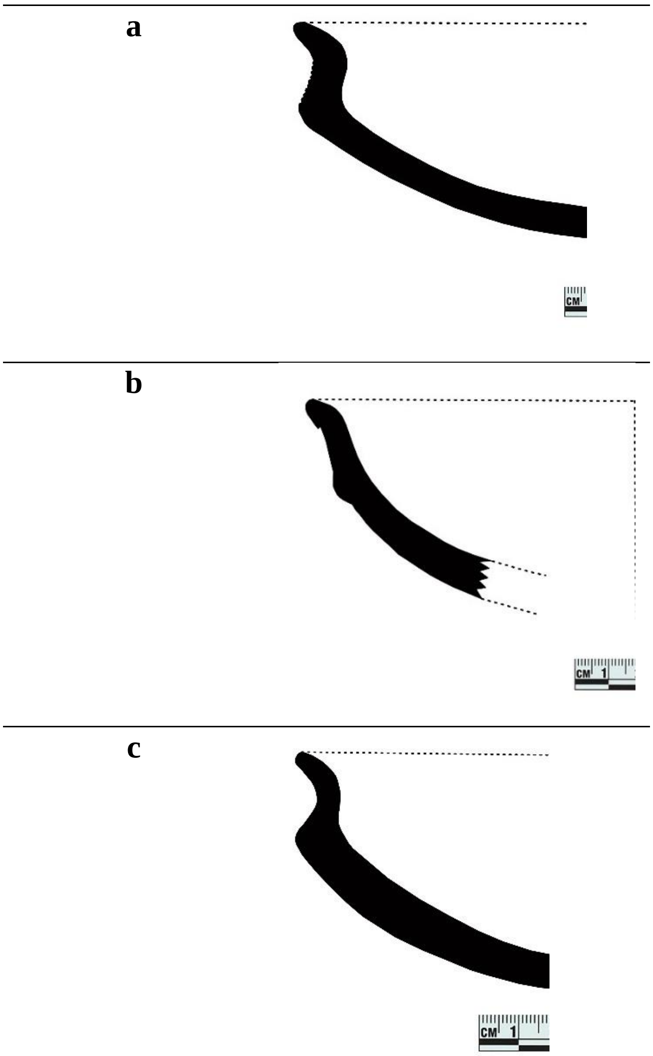


Figure 5.25a-c. Carinated rims.

5.8.1.4.4. Everted rims

Everted rims here have been classified into short, medium and long. Figure 5.26a-c, 5.27a-d, 5.28a-e) illustrate these types.

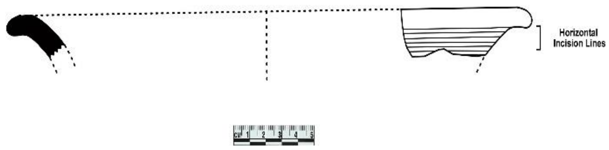
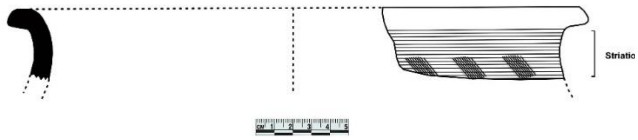
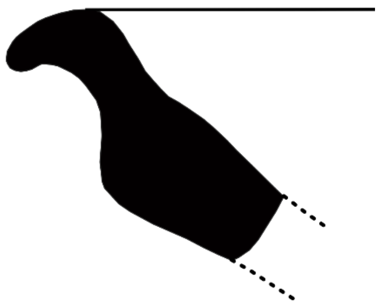
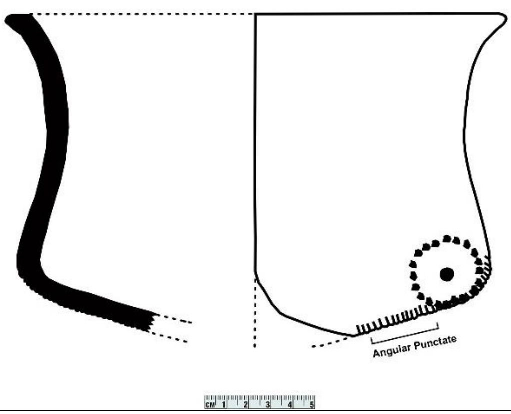
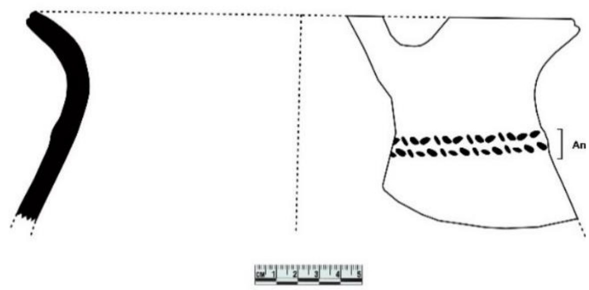
a	Short-everted rim rounded lip + incision	
b	short- everted rim with tapered lip + striation	
c	Short-everted rim with rounded lip	

Figure 5.26a-c. Short everted rims.

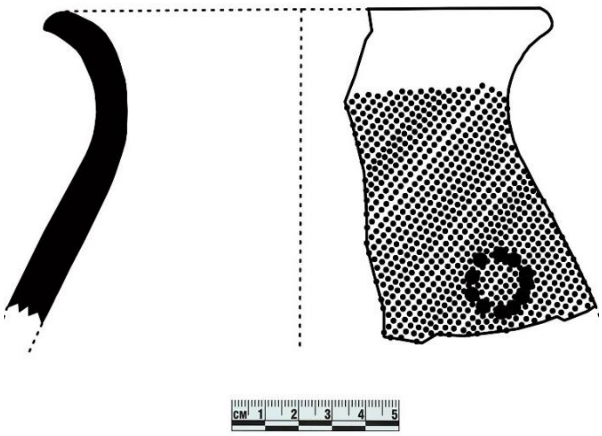
a Medium everted rim with flattened lip



b Medium everted rim with indented lip



c Medium everted rim with rounded lip



d Medium everted rim with tapered lip

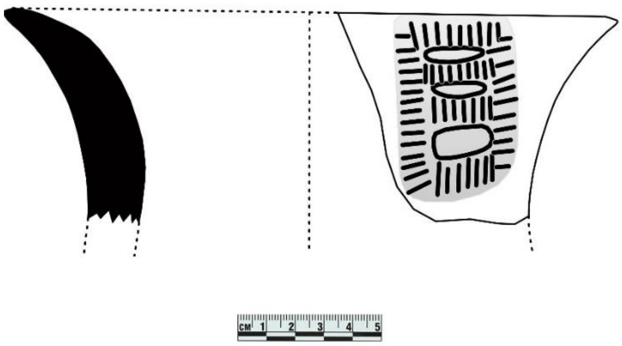
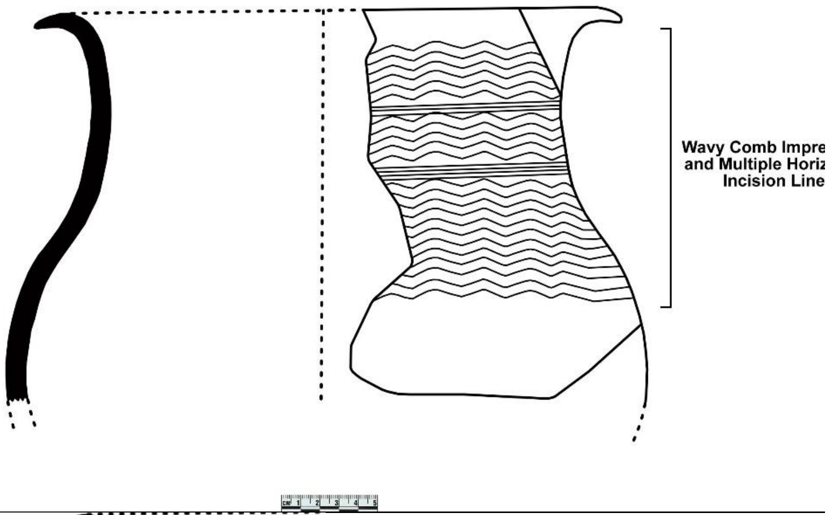
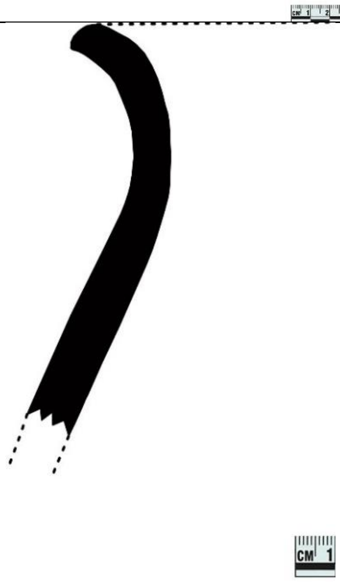
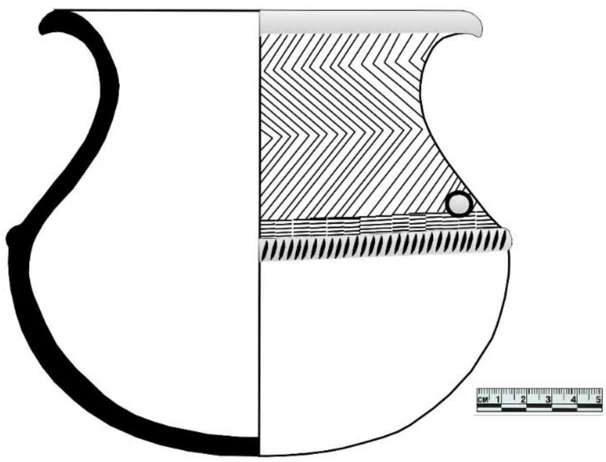


Figure 5.27a-d. Medium everted rims.

a	Long everted rim with indented lip	
b	Long everted rim with tapered lip	
c	Long everted with rounded lip	

d Long everted rim with tapered lip (near complete pot found in Test Pit 1 Context 15a See Figure 5.31.



e Long everted rim and tapered lip Test pit 1 Context 7b See Figures 5.4o and 5.32.

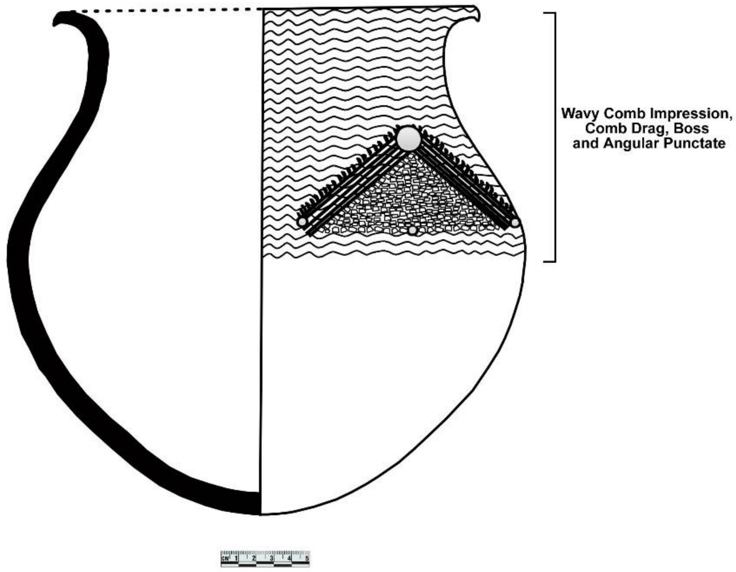


Figure 5.28a-e. Long everted rims.

Although there are several unique sherds within the long-everted rim category, two instances of this type of rim stand out as they occur on near complete vessels (Figure 5.28de). Figure 5.28d is characterised by a burnished interior tapered lip with a measurement of 19cm in height and 14.5cm rim diameter. Decorations on the pot include boss, raised banded punctate and line dragged comb (Figure 5.29). The other is a partial pot presented in Figure 5.28e. It also features multiple decorations (Figure 5.30, see also Figure 5.3o).

Figure 5.29. A near complete pot from Test Pit 1 Context 15a.

Figure 5.30. Partial long everted pot Test Pit 1 Context 7b.

5.9. Positions of decorations on rim pottery

The following codes were used in describing the positioning of decorations: undecorated (code 0), lip (1), rim (2), rim and shoulder (3), rim, shoulder, and body (4), shoulder and body (5), body (6), interior (7), neck (8), shoulder (9), base (10), or handle (11).

	0	1	2	3	4	5	6	8	9	10	11	2,6	2,11	1,8	4,6	8,9	3,8
Surface	11	0	5	0	0	0	1	1	0	0	0	0	0	0	0	0	0
PPII	8	0	2	0	0	0	0	4	0	0	0	1	1	0	0	0	0
1	55	11	21	11	12	4	7	58	6	7	2	3	0	0	1	22	5
3	13	0	1	4	2	0	3	7	1	0	0	0	0	0	1	5	0
5	31	0	2	1	0	0	3	7	1	0	1	0	0	0	0	0	1
7	18	0	7	2	1	0	4	8	2	1	0	0	0	1	0	0	0
Total	136	11	38	18	15	4	18	85	10	8	3	4	1	1	2	27	6
Total %	**32.7**	**2.64**	**9.14**	**4.33**	**3.61**	**0.96**	**4.33**	**20.43**	**2.4**	**1.92**	**0.72**	**0.96**	**0.24**	**0.24**	**0.48**	**6.5**	**1.44**

Table 5.22. Positions of decorations on rim sherds.

	2,3,8	3,9	6,8	1,4	1,10	6,10	2,9	3,6	2,8	1,2	4,9	8,10	2,3	2,5	1,6	5,8	Total	%Total
Surface	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	4.3
PPII	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	3.85
1	0	4	4	3	1	1	1	4	2	1	1	2	2	1	1	1	254	61.06
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	8.89
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47	11.3
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44	10.6
Total	1	4	4	3	1	1	1	4	2	1	1	2	2	1	1	1	416	100
Total %	**0.24**	**0.96**	**0.96**	**0.72**	**0.24**	**0.24**	**0.24**	**0.96**	**0.48**	**0.24**	**0.24**	**0.48**	**0.48**	**0.24**	**0.24**	**0.24**	**100**	

Table 5.22. Positions of decorations on rim sherds (cont'd).

Although, as can be seen from the Table 5. 22, 32.7% of the rims were undecorated, however, decoration most frequently occurred on vessel necks, with a total of 20.43%. This is closely followed by rim (9.24%), then the combination of neck and shoulder (6.5%). The least common positions were those involving combinations such as on rim and handle or on lip and neck.

5.10. Paste colour

Paste colour was determined by visual observation and where possible further assessed after any fresh break. Three colour categories were identified (Tables 5.23 & 5.24).

Code	Paste colour
1	Orange
2	Brown
3	Black/grey

Table 5.23. Codes used for analysis of paste colour.

	Orange	Brown	Black/Grey	Total	%Total
Surface	0	4	14	18	4.33
Test pit 1	8	103	143	254	61.06
Test pit 3	1	21	15	37	8.89
Test pit 5	2	11	34	47	11.30
Test pit 7	0	29	15	44	10.58
Test pit PPII	0	10	6	16	3.84
Total	**11**	**178**	**227**	**416**	**100**
% Total	**2.64**	**42.79**	**54.57**	**100**	

Table 5.24. Distribution of paste colour across units.

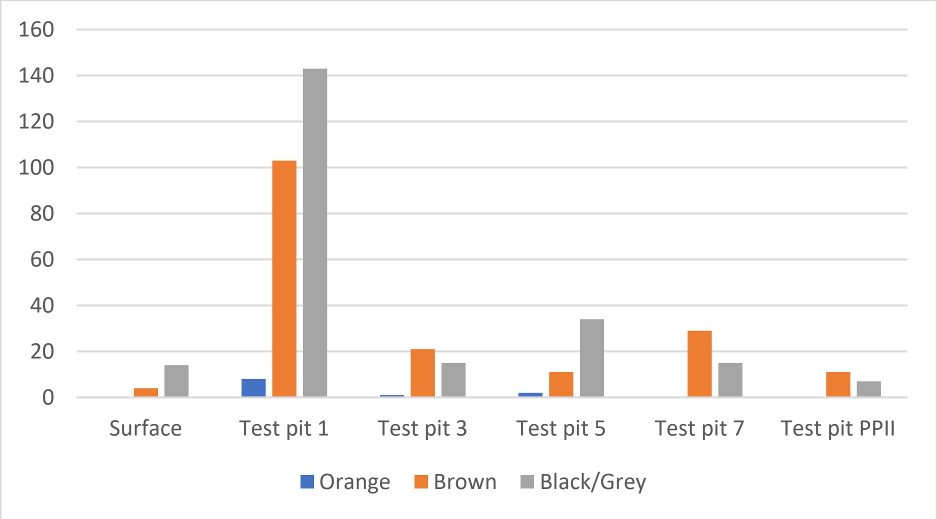


Figure 5.31. Distribution of paste colour across units.

The above Table 5.24 and Figure 5.31 shows that black/grey colour was the most frequent, followed by brown and orange for the whole assemblage. There are, however, variations across units. While the black/grey and brown colours were the most variable, orange paste colour was the least.

5.11. Core

Core types found in vessels are determined by the effect of temperature, atmosphere in the firing structure, iron compound and the presence or absence of organic matter in the clays. Following Rye (1981), Table 5.13 presents the different forms of oxidation recorded within the pottery assemblage and their description, while Table 5.14 and Figure 5.32 present the distribution of core analysis on rim across the Okesuna Ilorin units.

Code	Core	Description
0	Fully oxidised	Well-fired, core completely turns orange/brown/red.
1	Exterior oxidation only	In the process of oxidation, half exterior oxidized and half interior unoxidized.
2	Interior oxidation only	Reverse of 1.
3	Black sandwiched	Black core line at the centre of the section of a sherd.
4	Black/Grey throughout	Poorly (reduced) fired, no evidence of oxidation.
5	Sandwiched oxidation	Oxidized layer lies in the middle of the section in varying thickness.

Table 5.25. Codes and description of firing core types. Adapted from (Rye 1981: 116).

	Fully oxidised	**Exterior oxidation**	**Interior oxidation**	**Black sandwiched**	**Black/grey throughout**	**Sandwiched oxidation**	**Total**	**%Total**
Surface	1	2	0	0	7	8	18	4.33
Test pit 1	49	31	14	18	126	16	254	61.06
Test pit 3	13	2	3	0	17	2	37	8.89
Test pit 5	11	1	0	7	18	10	47	11.30
Test pit 7	21	3	4	5	11	0	44	10.58
Test pit PPII	6	1	0	6	3	0	16	3.84
Total	**101**	**40**	**21**	**36**	**182**	**36**	**416**	**100**
% Total	**24.28**	**9.62**	**5.05**	**8.65**	**43.75**	**8.65**	**100**	

Table 5.26. Distribution of core types across units.

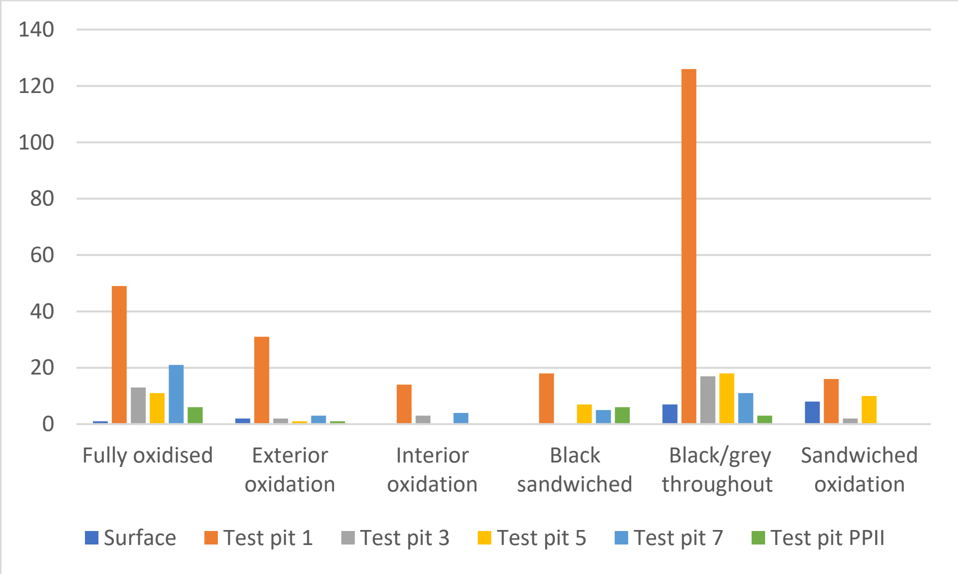


Figure 5.32. Distribution of core types across units.

As seen in Table 5.26 and Figure 5.32, black/grey core type were the most common, accounting for almost half of the rim assemblage, and fully oxidised cores were the second most common. The least common core type was the interior oxidation only (Table 5.26).

From this analysis, some information can be inferred on the past firing practices. According to Rice (1987), Rye (1981), Heather and Miller (2007) & Orton & Hughes (2013), Brown/Red/Orange/White/Buff are the core colours produced in clay fabric when clay is heated in an oxygen rich firing atmosphere if it is rich in iron compounds. This could also occur when pots are fired at a low temperature and may occur in firing structures at a controlled temperature where fuel addition and draft manipulation are easily managed (Heather and Miller 2007). Pots with black or dark grey cores are associated with an open firing structure, where there is no excess oxygen (a reducing environment), or the duration of the firing is insufficient such that the carbon content in the clay fabric when incompletely burnt, becomes visible as a smudge in the final fired fabric (Rye 1981). Orton and Hughes (2013: 173) pointed out that firing pottery in a reducing atmosphere may also be to deliberately make some pots non-porous, due to their intended functions. For instance, this may be to strengthen the body of some thinner vessels.

Although the percentage variations between the black/grey and brown core types are minimal, in relation to past firing practices, the high frequency of black/grey core types in the assemblage suggests that the past people of this area used open firing structures.

This could also suggest their preference, functions and durability for the pottery used. In present-day Ilorin, the open firing technique is widely used among the potters and most of the pottery produced is of the black/grey core type. However, the application of further analytical techniques such as petrography would be useful in understanding the pattern of past firing practices among the Okesuna Ilorin people.

5.12. Non-Plastic Inclusions (NPIs)

NPIs are materials present in clay that do not shrink or deform as the clay dries or is fired (Rice 2005: 408). They can be non-organic or organic materials either naturally present or intentionally added by the potters as temper in order to "modify the original clay's workability, drying, firing, and use-related properties" (Rice 2005: 408). For this current assemblage, the NPIs were identified through visual inspection of fresh break, aided using spanner. Although an attempt at categorisation of rim items was made based on the visual observations of NPI, it is acknowledged that more detailed information on inclusions could be gained from the use of other techniques such as a magnifying lens, particle size analysis and petrography.

However, NPIs identified in the Okesuna Ilorin rim assemblage include quartz, sand, and grog (crushed pottery). While grog must be added intentionally by the potter, other elements may occur naturally in clay. Table 5.27 presents assigned code numbers used for the identification of the presence and absence of NPIs while Table 5.28 and Figure 5.33 present the distribution of observable NPIs in the rim assemblage.

Codes	Non-Plastic Inclusion	Description
0	Absence of NPI	None
1	Quartz	Crushed quartz, which appears chunky and angular.
2	Sand	Sand usually appears round and ranges from medium to fine grain.
3	Grog	Ground potsherds, which appear in distinctive colours in the paste. The colour ranges from orangish-red to black.

Table 5.27. Codes and description of Non plastic inclusion (adapted from Babalola 2016 :143).

Contexts	None	Quartz	Sand	Grog	Total	%Total
Surface	7	9	2	0	18	4.33
Test pit 1	17	133	95	9	254	61.06
Test pit 3	1	24	11	1	37	8.89
Test pit 5	3	44	0	0	47	11.30
Test pit 7	10	13	21	0	44	10.58
Test pit PPII	8	7	0	1	16	3.84
Total	**46**	**230**	**129**	**11**	**416**	**100**
% Total	**11.06**	**55.29**	**31.01**	**2.64**	**100**	

Table 5.28. Distribution of NPIs across units.

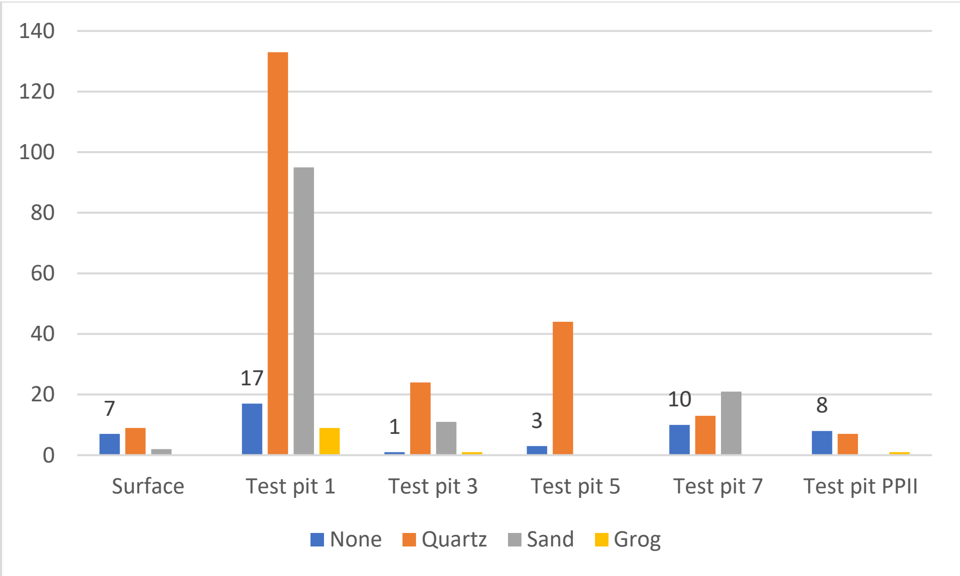


Figure 5.33. Distribution of non-plastic inclusion across units.

From the above tables and chart, the distribution of non-plastic inclusions is highly variable across units. While all non-plastic inclusions were represented in Test Pits 1 and 3, other units had less or no representation of some of the inclusions. Non-plastic inclusions across unit were highly variable with quartz inclusions occurring most commonly, and present in all units. This was followed by sand and grog for the whole assemblage and particularly for Test Pit 1, Test Pit 3, and Surface.

Sand inclusion was missing in Test Pits 5 and PPII while grog was absent in Surface, Test Pits 5 and 7. Although, sand and grog were recorded as absent in some of the units, this inclusion might apparently be present. Sand is a naturally occurring feature in pottery and its absence or presence in pottery may not be easily detected visually. The presence of grog can also be very difficult to observe physically. According to Rye (1981: 20) and Rice (2005: 409), grog inclusion can be identified as artificial additive, such as tempers. Due to the rough angular nature of quartz, its presence can be detected more easily. It is important to note that non-plastic inclusions were absent in some pottery items across units.

5.13. Bases

Sixty-nine base sherds were identified in the assemblage from four units: Test pits 1, 3, 5 and 7 (Table 5.2). They can be categorised into two major groups: round and flat. Round bases were either round or concave, while flat bases were either completely flat, convex or included a foot stand. Figure 5.34a-b presents samples of round base sherds while Figure 5.35a-c presents samples of flat bases.

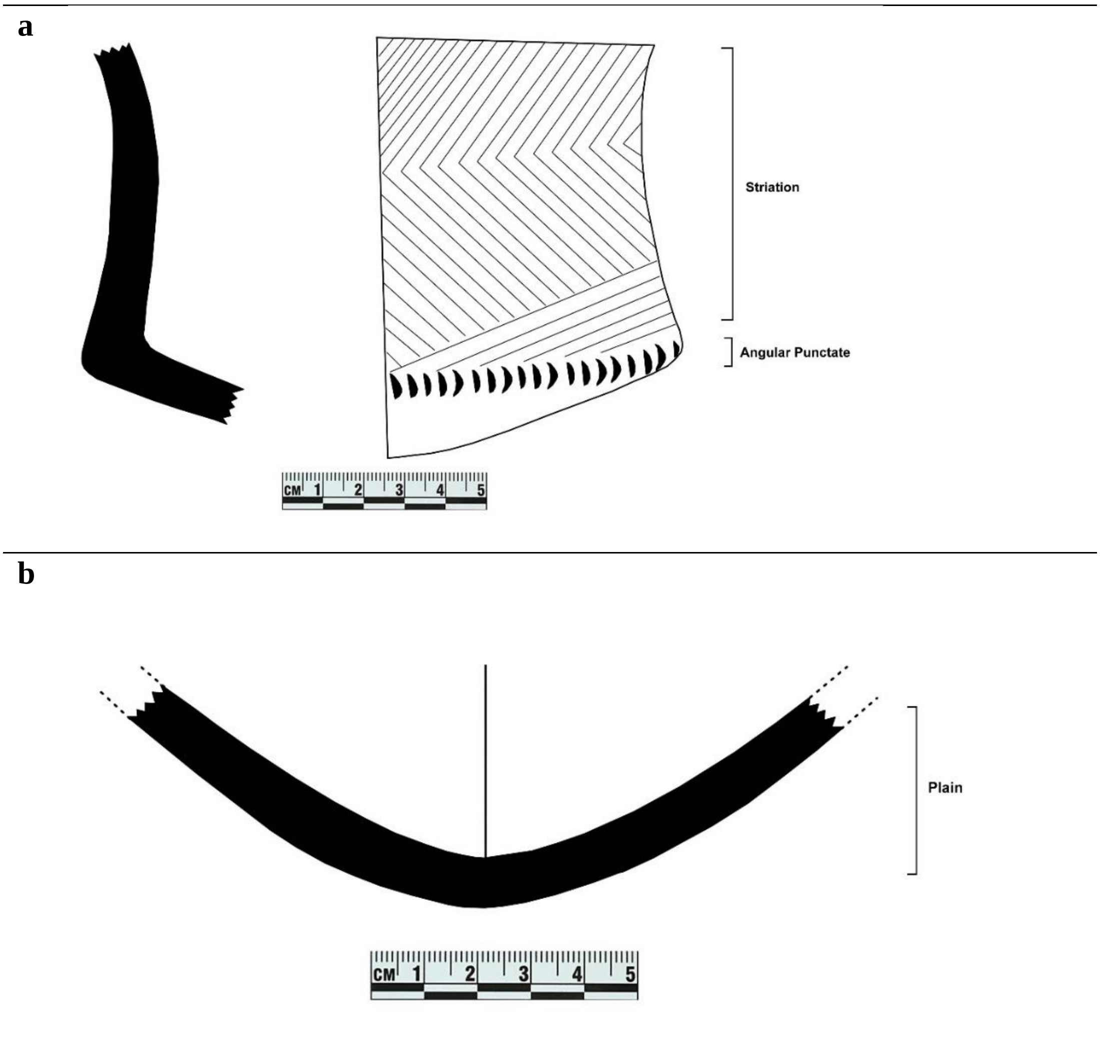
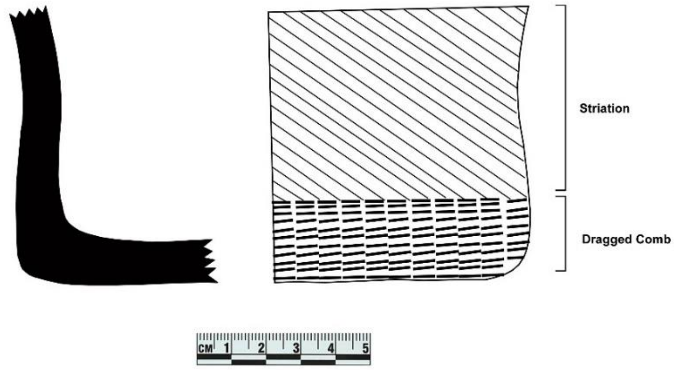


Figure 5. 34a-b. Round base sherds.

a Flat base sherd with foot stand or convex shape

b Flat base



c Flat base

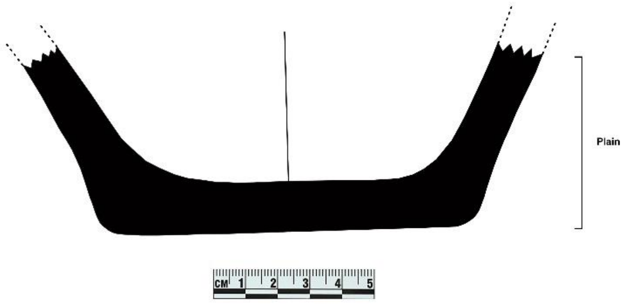


Figure 5. 35a-c. Flat base sherds.

5.14. Handles

In addition to handles found in association with some rim sherds, three (n=3) broken handles were recovered from the excavation (Table 5.2, Figure 5.36a-c). These handles measured between 4cm and 8cm in length and between 2cm and 3cm in thickness. They are brown to grey in colour and their shapes range from semi-circular to hourglass, characterised by rough to rounded edges. These handles are presented in Figure 5.36a-c.

a

b

c

Figure 5.36a-c. Handles recovered from excavation.

5.15. Lid

A single lid sherd was recovered, and it was from surface collection. It was burnished/basted and with a boss on its interior and incision on its exterior. Similar objects have been reported from archaeological contexts at Ile-Ife (Garlake 1977) and Ilare-Ijesa (Ogundiran 2002b) and Keffi, Bauchi State, Nigeria (Sule 2013). Generally, this type of lid is common in the ethnographic record of many Yorùbáland areas, and they are mostly found with bowl lids (Fatunsin 1992).

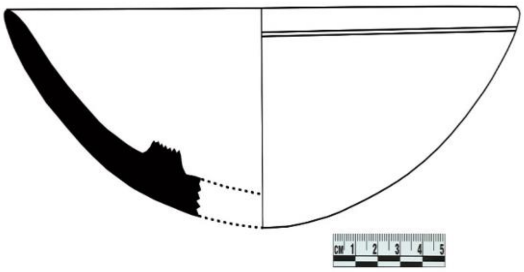


Figure 5.37. Pot lid with boss interior and incision exterior decoration.

5.16. Comparative analysis of rim forms across excavated units

A brief comparison of the characteristics of rim forms in this assemblage across units will be shown here in this section to provide insights into the expected nature and functions of the pottery. In terms of rim diameter, small ranges (5cm - 20cm) and medium ranges (21cm - 30cm) are highly variable while large ranges (31cm - 40cm) are the least variable across units. 44.47% of the total rim assemblage made up the small range diameter category while the medium range consisted of 44.23%. The remaining 11.3% consisted of large range category (Table 5.15). For Test Pit 1, small and medium ranges are equally common. In Test Pit 5 and surface collections, they mostly featured small rim diameters and Test Pits 3, 7 and PPII featured medium range diameter the most. Generally, across units, large range featured least.

Based on the analysed data on rim angle and lip shape across units (Tables 5.17, 5.19 and 5.21), it can be said that open, short-everted rims with rounded lips were the most commonly occurring forms at 26% and 42% across units. This was followed by vertical or straight necked, simple rims, with indented lips, and wide open, carinated rims, with tapered lips. Tightly closed and closed rims were the least common appearing only in one (Test Pit PII) and three units (Test Pits 1, 7 and PPII) respectively (Table 5.17). Open, short-everted rims with rounded lips were the most common in Test Pits 1 and 3 and open mouthed short, everted rims but with indented lips featured most in Test Pit 5. Short-everted rims were absent in Test Pit 7 and flattened lips were absent in Test Pit 5. Apart from the fact that thickened rims were the least common, they were also absent from the surface and Test Pit 5 (Table 5.17). Based on the large rim sherds recovered that retained a significant part of their body, including a near complete vessel (Figure 5.29), it can be suggested that most everted rim sherds were associated with a globular body in the assemblage. Additionally, significant amounts of small rim sherds with major parts of the body, provided more detailed information for identification of vessel forms when compared with archaeological and ethnographic sources.

In terms of position of decorations on rim sherds, apart from the 32.7% of undecorated rims, the most common position of decorations on rims was the neck region with a total of 20.4% followed by rim, shoulder with base, and body (Table 5.22).

Black/grey colour dominated the paste colour spectrum accounting for over half of the rim assemblage at 54.6% followed by brown and orange (Table 5.24 and Figure 5.31). These black/grey rims also occurred most in Test Pits 1, 5 and surface. However, orange was absent in surface, PPII and Test Pit 7. Rim sherds with black/grey core were the most frequent among the ceramic assemblage followed by fully oxidised rims. This was also the pattern for Test Pits 1, 3 and 5, while the least represented were rims with oxidised interior. Only black/grey core, fully oxidised core and exterior oxidation core appeared in all the units, while the remaining core categories occurred in varying degrees or were absent within the units (Table 5.26).

In summary, the most commonly occurring variables within the rim assemblage are those within the small diameter range, open, shorted everted and rounded lips. This is followed by rims within the medium diameter range, vertical or straight necked, simple rims, with indented lips, and wide open, carinated rims, with tapered lips. Black/grey rims were the most common followed by brown coloured rims. A further comparison of these assemblages with ethnographic parallels and materials recovered archaeologically across the wider region will now be carried out to gain better insight into the nature and functions of the Okesuna archaeological ceramic assemblage.

5.17. Ethnographic parallels for the archaeological pottery assemblage

In order to draw inferences for an understanding of change and continuity in Ilorin pottery traditions, as well as vessel functions of the archaeological assemblage, this section will consider ethnographic works on Ilorin and Yorùbáland pottery traditions (Fatunsin 1992; O'Hear 1983) as well as observations by the author as seen in Figure 5.38.

Figure 5.38. Contemporary production of wares in Ilorin. Note the production of burnishing of vessels using pebbles by the potters, the already burnished pots on the floor, and the author holding a burnished basted pot (Photo: Olaitan Gold 2020).

Information and inspiration were sought from present-day Ilorin potters to provide context for the archaeological materials, even though there are no clear cultural connections. The archaeological pottery assemblage, which was sizeable, obtained from stratified contexts and included large sherds, provided valuable information on the past material culture of the Okesuna part of Ilorin. Although oral information suggested that the past people of the Okesuna Ilorin settlement were craft specialists in pottery making, no evidence of potting workshop was recovered.

The most notable difference between the archaeological and ethnographic ceramics relates to decorations. Present-day Ilorin potters, on seeing some of the archaeological pottery, generally observed that most of the techniques noted belong to the remote past and that many of the tools used then were no longer available or in existence. Wavy dragged comb, line dragged comb, striation, channel, applied decorations, geometric motifs, and punctate, especially in combined forms, were absent in the present-day Ilorin pottery production. Although applied decorations involving bosses and raised banded decorations were observed in a potting centre in Ilorin (Figure 5.39), it was made clear that they were produced by the potters on special demand due to their function mainly associated with ceremonies or ritual. As such, the applied bosses/raised banded decorations from the archaeological assemblage, observed by the potters were referred to as ritual pottery.

Figure 5.39. Applied decoration on present-day pottery in Ilorin (Photo: Olaitan Gold 2020).

Although ethnographic sources of Ilorin pottery indicated that it was hardly decorated, however, twisted cord roulette was mainly produced when decorated. However, an attempt to identify twisted cord roulette decoration was difficult as an Ilorin potter claimed that maize cob (which was shown to this researcher) (Figure 5.40) was used in the production of roulette which appeared like twisted cord roulette on pots observed in the field (Figure 5.41). Some other decorations such as groove, incision and, perforation similar to those found in the archaeological ceramics were still present in Ilorin pottery.

The incised burnished decorations featuring parallel lines noted in the archaeological ceramics assemblage were also present in Ilorin ethnographic production. While those associated with the archaeological materials were of parallel lines on the interior of burnished/basted sherds (Figure 5.13ab), those on present-day Ilorin burnished/basted (generally referred to as Ilorin black earthen wares) pottery were of varieties of incised patterns on the interior and exterior parts of the vessels (Figure 5.42ab). Incised burnished decorations are made using the same fine, smooth small pebbles that are used for burnishing to produce or draw intertwined lines or other forms of decoration inside or outside the body of a bowl, rim or even a lid (Anifowose 1984).

Figure 5.40. Maize cob used to produce roulette decoration (Photo: Olaitan Gold 2020).

Figure 5.41. Roulette decoration in Ilorin. While informants suggested this decoration was made using a maize cob, the decoration rather appears to be twisted cord roulette (Photo: Olaitan Gold 2020).

a. b.

Figure 5.42ab. Contemporary wares with incised burnished decoration (Photo: Olaitan Gold 2020).

Additionally, burnished/basted and slip materials from survey and excavations were similar to the black and red wares common to modern-day Ilorin pottery tradition (Anifowose 1984; Fatunsin 1992; O'Hear 1983). These types of ware materials have been reported for many parts of present-day Yorùbáland (Fatunsin 1992) and have also occurred in various archaeological records of the region. These include archaeological sites at Ile-Ife, Ilare-Ijesa and Igbominaland area (Aleru 2006; Garlake 1974, 1977; Ogundiran 2002b; Usman 2012). Burnishing is carried out with the use of pebbles (Figure 5.43) and done before firing, while basting is carried out after firing and is carried out by dipping hot ceramic bowls in a solution of dry locust beans (Anifowose 1984; Beier 1980; Fatunsin 1992), (Figures 5.44 and 5.45).

Figure 5.43. Pebbles used for burnishing locally (Yorùbá name: *aare*) (Photo: Olaitan Gold 2020).

Figure 5.44. Dry locust beans leaves used for the production of basting solution (Photo: Olaitan Gold 2020).

Figure 5.45. Burnished/basted pots in present-day Ilorin. Note the presence of incised decorations in the interior of the pots (Photo: Olaitan Gold 2020).

The notable difference in the archaeological burnished materials and the ethnographic ones is the presence of complex decorations on the archaeological materials such as wavy dragged comb, angular punctate and twisted cord roulettes. In fact, it was gathered through oral information from Ilorin, that generally, the decoration from the archaeological assemblage belonged to the remote past.

Ilorin has been known for pottery production since the early 19th century (O’Hear 1983). As pointed out by O’Hear (1986b: 175), the potters of Ilorin divide their products into 'red' (local name; *pupa*) and 'black' (local name; *dudu*) wares. The red wares include, for example, large vessels for the storage of water and other items (*amu* and large *koko*). Today, some pots and plates (*awo*) are made of red ware. The black wares are produced by a process of sealing the pottery layer after firing with a brown liquor made from the pods of the locust beans trees (*Parkia biglobosa*) giving them the blackish colouration (Leith-Ross 1970: 13, 182-8; Macfie 1913 in O’Hear 1986b: 175). Since *Lantana* beads were reported to have been produced in Ilorin till the early 20th century (O’Hear 1983: 114-116, 1986a), it may be that part of the slip used as emulsion for pottery production during this time were obtained from powdered lantana stone left over by the bead makers.

The black and red ware traditions as well as lantana bead production in Ilorin were reported to have been derived from the Old Oyo area prior to or after the fall of the latter in the 19th century (O’Hear 1983: 100-101; 1986: 36). While the black ware is still produced using locust bean pod in Ilorin today, the red wares are no longer produced from the remains of Lantana beads, but from a mixture of other red coloured mineral items bought by the potters. It should also be noted that, while a small number of slipped pottery items were recovered in the archaeological assemblage, no evidence of the lantana beads was recovered.

In terms of rim forms in the archaeological assemblage, the abundance of partially large rims allowed identification of varieties of forms, some of which shows similarities to those in the ethnographic records. However, some variants in the archaeological assemblage are not observed in present-day Ilorin. For instance, some flat bowl rims recovered in the archaeological assemblage were different from those observed in present-day pottery. Although this result may be due to the limited number of pottery workshops visited due to time constraints and minimal information obtained from potters during the fieldwork which was not enough to ascertain whether similar types of bowls are still produced elsewhere in Ilorin. However, these changes might have been due to changes in function or taste over time.

Generally, burnished/basted pottery includes a range of forms such as shallow food bowls, wide brimmed cooking pots, bowl plates and lids in Ilorin and Yorùbáland and these are used for cooking, serving, and storing items (Anifowose 1984; Beier 1980; Fatunsin 1992; O'Hear 1983). Particularly in Ilorin, most of these black wares are flat wares. Since many of the burnished/basted rims from excavation units were identifiable due to the significant portion of remains left behind, it can be said categorically that the archaeological burnished/basted pottery items were made up of food bowls, cooking pots, bowl plates and a lid. Though few slipped items were recovered from the site, these items reveal more evidence of decoration on them unlike that of present-day Ilorin. Although the major common denominators between the two are the evidence of grooving and roulette, archaeological slip items are associated with other decorations such as striation, wavy and line dragged comb.

Slip treatment in Ilorin (Figure 5.46) is applied on both decorated (i.e., maize cob roulette) or undecorated vessels and can be applied on the neck, shoulder and base of vessels before firing (Anifowose 1984). Slipped pottery or red ware in Ilorin are usually bowls, small pots, or bigger vessels used for domestic and commercial purposes such as storage, serving and cooking (Figure 5.47). Decorations were also mostly found on the neck followed by rim, and shoulder of the archaeological assemblage. Although the frequency of the decorations on neck, rim and shoulder could not be measured ethnographically, this is an occurrence that continues today in Yorùbáland.

Figure 5.46. Slipping solution in present-day Ilorin (Photo: Olaitan Gold 2020).

Figure 5.47. Slip on pot vessels in Ilorin (Photo: Olaitan Gold 2020).

The presence in the archaeological assemblage of a significant number of large sherds, and a near-complete vessel allow inferences to be made about the possible functions of vessels when compared with ethnographic vessels. In an ethnoarchaeological study of Ilorin pottery, Anifowose (1984) identified two major forms, pots and bowls, further sub-divided into sub-groups. Pots were divided into dyeing pots, pap pots, cooking pots, river pots/water fetching pots, pitchers, water coolers, perforated pots, and ritual pots, while bowls included soup bowls, food plates, and frying bowls. Some of the pots with domestic functions have diameters ranging between 4cm and 18cm (Anifowose 1984) and some could be larger. However, some of these vessel types in Ilorin are less or no longer produced; this is the case, for example, for water coolers and certain ritual pots (O'Hear 1983).

In terms of vessel form, similar open, short-everted rims with rounded/tapered lips, which are the most frequent rim forms in the archaeological assemblage, are associated with the ethnographic record of Ilorin and Yorùbáland area (Anifowose 1984; Fatunsin 1992). These categories fell into the pots used for domestic and/or ceremonial functions such as cooking, serving food, medicinal use or storage. These range from small to medium sized pots mostly medium in thickness and small in diameter (5cm - 20cm range) and in most cases associated with a variety of decoration. Similar types identified in the ethnographic record include cooking pots or bowls, water pots, pitchers and dyeing pots (Anifowose 1984; Fatunsin 1992). Vertical, simple rims with thin or moderately thick walls recovered are similar to bowls or small and medium-sized pots found in Ilorin or Yorùbáland today and used for ritual pots, food serving plates, and storage (Anifowose 1984).

Perforated rim, similar to those found in the archaeological assemblage are associated with meat roasting, drying plant seeds, and processing locust bean seeds for sale (Anifowose 1984; Willett 1960b). Carinated bowls are widely reported in Yorùbáland even Ilorin and are used for serving such as soup bowls. Vessels with indented lips, the second most common lip shape in the archaeological pottery assemblage, are not commonly recorded in the ethnographic record but have occurred in many archaeological sites such as Ile-Ife (Garlake 1977; Ogundiran 2002b). Thick wall sherds, although rare in the archaeological assemblage, are present. Thick-walled sherds have been associated with the storage of water or grain or for dyeing or other industrial purposes (Anifowose 1984; Fatunsin 1992; O'Hear 1983).

Oral information from Ilorin concerning the single open thickened small rim from excavated context (Figure 5.24a) indicates that this was part of a broken clay lamp locally known as '*Atupa*' or *Filitia*. Lids with a boss on the interior of sherds are common in Yorùbá ethnographic pottery tradition and are usually associated with bowls used for cooking or ritual purposes (Fatunsin 1992; Ogundiran 2002b). The three handles issued from excavations were fragmented and were not attached to any potsherd, so cannot be connected to a particular pot type but are globally similar to those associated with cooking bowls in Ilorin (Figure 5.48) and elsewhere.

Figure 5.48. Contemporary pot with handle from Ilorin (Photo: Olaitan Gold 2020).

5.18. Comparative analyses of Okesuna Ilorin pottery assemblage within the wider regional context

5.18.1. Decoration and vessel forms

The assemblage from Okesuna Ilorin can be compared with other established archaeological ceramic assemblages from the Yorùbáland region, in particular, the Old Oyo and Ile-Ife ceramic complexes. In addition, attempt would be made to compare Okesuna Ilorin materials with those which falls within similar timeframe, or older. For instance, ceramic information from sites such as Itaakpa, Iffe-Ijumu which dates to beginning of the 1st millennium BC (Allsworth-Jones et al. 2012; Obayemi 1976, 1980; Oyelaran 1998) and Iwo Eleru dated to the mid-2nd millennium BC (Shaw and Daniels 1984). Data from earlier surface collections of pottery at Okesuna Ilorin (Otukoko 2014) will also be considered.

Archaeological work in the Yorùbá-Edo region has identified the existence of two major ceramic spheres – the Oyo sphere and the Ife spheres (Agbaje-Williams 1983; Eyo 1974; Garlake 1977; Willett 1967). The Oyo ceramic complex was recognised at Old Oyo (*Oyo-Ile*), Igboho, Ipapo Ile, Koso, and Ilorin areas in the north while the Ile-Ife ceramic complex predominated at Ile-Ife, Owo, and Benin city areas to the south (Ogundiran 2001) (Figures 5.49, 5.50 & 5.51). These two complexes have been relatively well defined, mainly for the 2nd millennium CE, as Yorùbá pottery sequence for the 1st millennium CE is poorly known. However, comparison of Okesuna Ilorin assemblage with these from these two complexes will be based on attribute similarities and differences in decorations, morphology and technology.

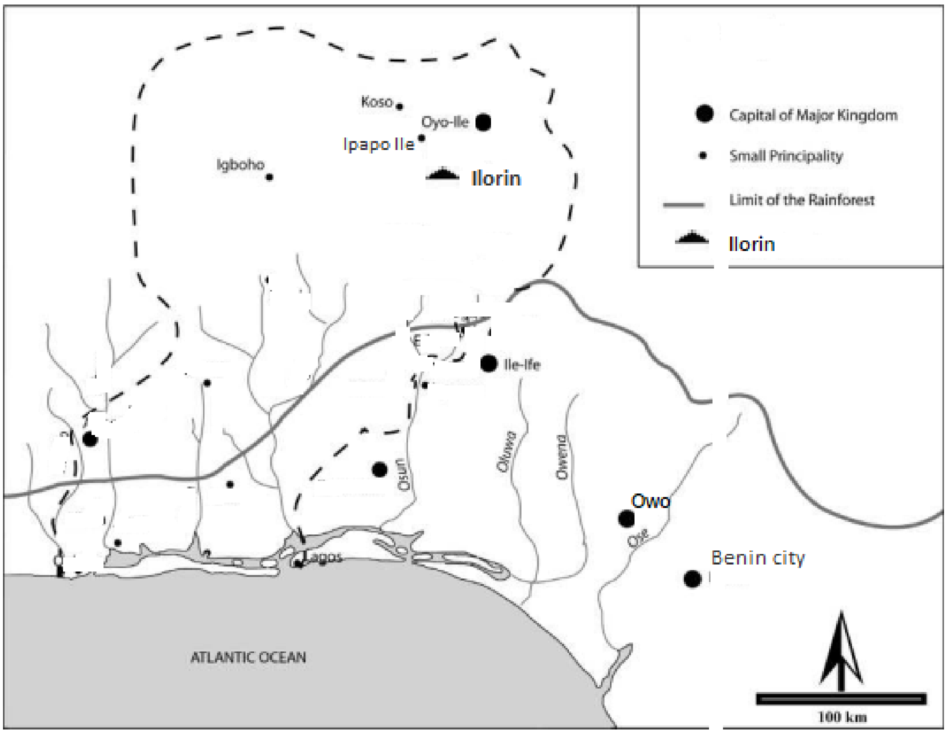


Figure 5.49. Ilorin and some of the locations mention in the text (Adapted from Ogundiran 2012).

The Old Oyo ceramic complex has been divided into two broad types of wares: Diogun and Mejiro. Diogun wares were characterised by sandy paste, a fawn/ grey-brown colour, with surface decorations which included brush-marking or broom marking incisions, rock-comb impression, impressed arcs, twisted cord roulette, and angular punctate (Agbaje-Williams 1983, 1987; Willett 1960b). Mejiro pottery for its part is characterised by fine grey/black ware and decoration of carved rouletting, snail-shell markings, maize cob rouletting and dot punctate (Willett 1960b, 1973). Other wares associated with the Mejiro period occur in different shades of grey, brown and black, and consist of open bowls and round-bottomed carinated bowls which have a very smooth texture, a hard paste and a burnished-basted surface. Makers' marks are found inside some of the lids of the bowls (Yorùbá name for bowl: *isaasun)*, while others, such as unburnished jars, have a rough texture, and a coarse paste (Willett 1960b). Incisions, twisted cord rouletting and comb stamping are found on both Diogun and Mejiro pottery (Agbaje-Williams 1983; Soper 1985). Based on the occurrence of several similar decorations such as the twisted cord roulette found within the Diogun and Mejiro complexes, Agbaje-Williams (1983) believed that the Diogun and Mejiro complexes reflect a continuum of occupation till the collapse of the Old Oyo in the 19th century.

In terms of chronology, excavations at the Old Oyo site in the early 1970s produced two radiocarbon dates for its ceramic phases, 1100 ± 110 CE and 1300 ± 80 CE (Folorunso et al. 2006). Subsequently, dates issued from the archaeological work by Agbaje-Williams (1983) yielded four further radiocarbon dates: 765 ± 90 CE, and 790 ± 90 CE (1.12,353), 1050 ± 80 CE and 1140 ± 80 CE (Folorunso et al. 2006). Between 2002 and 2006, Folorunso and their colleagues conducted archaeological work in the outer wall of the Old Oyo site and this work resulted in two radiocarbon dates which calibrate to CE 1403 and 1513 – 1593 (Folorunso et al. 2006).

The second well-defined ceramic sphere is that of Ile-Ife. Embossed geometric, circular stylus impressions, stamped geometric motif, wavy dragged comb, and red slipping are reported (Babalola 2016; Eyo 1974; Garlake 1977; Ogundiran 2001). In terms of chronology, the earliest date obtained for the Ile-Ife area is issued from a site associated with pottery known as Orun Oba Ado dating to between 560 CE to 990 CE (Shaw 1978), however these pottery characteristics such as decorations or morphology is not known. As such, pottery attributes within the Yorùbáland for the 1st millennium CE is poorly known. As discussed above (see especially Chapter 2), other dates associated with Ile-Ife lie between CE 1100 and 1450, relating to the period referred to as the classical period of Ile-Ife characterised by terracotta sculptures, naturalistic bronzes and potsherd pavements. Garlake's (1974, 1977) analysis of the pottery excavated at Obalara's Land and Woye Asiri in Ile-Ife, the most comprehensive for the area, has provided the basis for our understanding of the Ile-Ife ceramic sphere by the 2nd millennium CE.

Based on these diagnostic attributes of both Old Oyo and Ile-Ife ceramic complexes, a comparative analysis with the major ceramic decorations in Okesuna Ilorin is provided in Table 5.29. It can be seen that the decorations recorded at Okesuna Ilorin share similarities with both of these ceramic complexes.

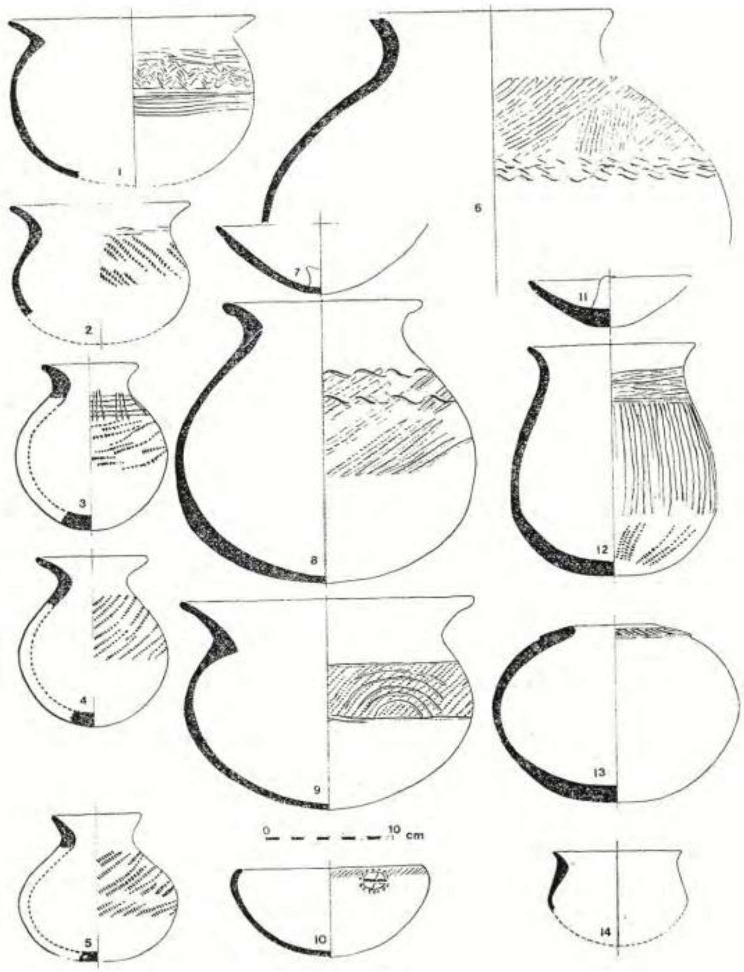
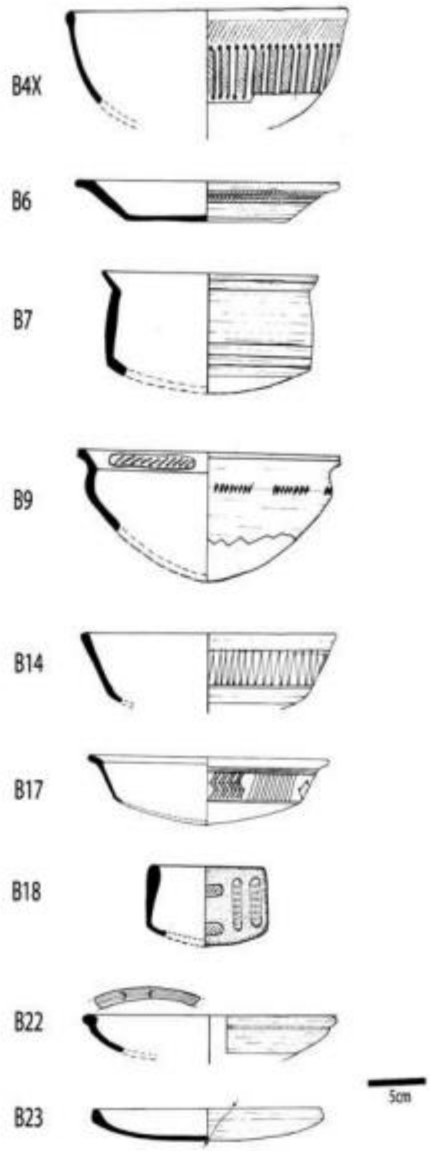


Figure 5.50. Ile Ife pottery types and their variants (Source: Garlake 1977: 78).



B4X: Serving bowls (*awo*) with nodular, slightly everted rims, flared-to-vertical body profile, and round base. The decorations forms are wide ranging but are predominantly of carved roulettes, incisions, and dot-punctates. The surface and paste fabric are mainly gray to dark gray; with burnished exterior and a gritty paste.

B6: Shallow serving bowls (*awo*) with everted rim, angular body profile, and flat base. Rouletted and incised geometric motifs, with burnished dark-gray exterior fabric and grayish fine paste, are predominant.

B7: Cooking bowl – *isaasun* – with flared, everted rim (sometimes fluted), vertical body profile, and round base. It tends to be well burnished, often with dark-gray to black exterior, and light-gray to dark-gray paste. The form is sparsely decorated. Such few decorations tend to consist of bands of incisions, and combinations of incisions and dot punctuates in geometric patterns.

B9: Cooking bowls – *isaasun* (for soup/stew) – with everted, often fluted, rims; carinated shoulders, and round body/base. This form exhibits decorations that range from rouletted to stamped and incised geometrics. The paste fabric is fine with lots of mineral temper and different shades of brown, gray, and black. The surface fabric is generally burnished and smooth.

B14: Serving bowls with outwardly slanted body and round base. Both the rim and body are continuous, but there is often a sharp discontinuity between the body and the base. This form is generally deep, and mainly has carved rouletted and incised decorations; with gray to dark-gray fabrics; and, for the most part, burnished exterior.

B16: A rare bowl form with very restricted orifice, in-turned, slanted and horizontal rim, shouldered, with round body and base. The fabric is dark gray, burnished and fine with occasional quartzite temper. The function is unknown but it was likely used for storing valuables, given its restricted orifice, 4–6 cm in diameter.

B17: Another variety of cooking bowl – *isaasun* – with everted, often fluted rims, slanted body profile, and round base (there is a sharp discontinuity between the body and the base). The predominant decoration motifs include lattices of geometric lines with dot-punctates, other carved rouletted motifs, and incisions. The fabric is generally grayish to black, burnished exterior, and fine paste with mineral inclusions.

B18: An assortment of serving bowls with both pronounced and slightly in-curving body wall profile, often with thick rounded rim, and with round base. This form tends to be deep, and there is a sharp discontinuity between the body wall and the base. It is mostly plain but has occasional incised, stamped motifs, and carved motifs. It is generally burnished with a dark-gray exterior fabric and light-gray paste.

B22: A shallow serving bowl with a rounded and slightly everted rim, as well as a vertical body profile that is continuous with a round-to-flat base. This form mostly bears bands of incisions, carved roulettes, and stamped geometric motifs.

The fabric varies between shades of gray and black, and has smooth/burnished exterior, and gritty paste.

B23: Serving bowl, mostly shallow, with vertical body wall profile and flat-to-round base, often with thin rim. This form is undecorated but has occasional occurrence of incisions and brushmarks. The fabric generally has exterior gray color and reddish brown paste.

Figure 5.51. Old Oyo ceramic complex diagnostic bowls and narratives (Source: Ogundiran 2012: 231-233).

	Okesuna Ilorin						Old Oyo	Ile-Ife
	Surface	PPII	TPI	TP3	TP5	TP7		
Striation	X	X	X	X	X	X	X	
Single groove	X		X	X	X	X	X	X
Boss	X		X	X		X		X
Angular punctate	X	X	X	X	X	X	X	
Line dragged comb	X	X	X	X	X	X	X	X
Raised band decoration			X	X		X		X
Twisted cord roulette	X	X	X	X	X	X	X	X
Wavy dragged comb	X	X	X	X	X	X		X
Multiple groove	X		X	X	X	X	X	X
Dot punctate			X		X	X	X	
Perforation	X	X	X	X	X		X	
Geometric motif			X		X	X	X	
Incision	X	X	X	X	X	X	X	X
Channel			X					X
Stab impression			X				X	X
Slip		X	X	X	X	X		X
Burnish/basting	X	X	X	X	X	X	X	
Burnish			X			X	X	

X =Present

Table 5.29. Regional comparative analyses of Okesuna Ilorin ceramic complex.

As regards shape analysis, the ceramics issued from Okesuna Ilorin were compared with vessel forms from both Old Oyo and Ile-Ife complexes. The most common rim types of the Okesuna Ilorin assemblage are the simple rims category. These types of rims occur frequently in the archaeological contexts from the Yorùbáland and has been described as belonging to shallow bowls, hemispheric or can be straight necked (Ogundiran 2002b). Some of those associated with the Okesuna assemblage are similar to Garlake's (1977: 83) B and F bowl types.

However, there are variations with the rim types. Figure 5.23ab, showing simple rims resemble those from the Old Oyo ceramic complex and Figure 5.23b have also been reported for the Benin city area but absent in Ile-Ife (Ogundiran 2002b). Figure 5.23e, showing simple closed bowl type is similar to the Old Oyo and Ile-Ife complexes and had been identified by Ogundiran (2002b) to be a variant of both areas. The Old Oyo complex bowl type of Figure 5.23e is associated with angular punctate decoration and is usually burnished with but no cordon present, while the Ile-Ife type of this bowl is usually burnished on the exterior with the addition of cordon combined with decorations such as fine cord roulette, incision applied motif, or stamped circular stylus motifs (Ogundiran 2002b). Figure 5.23f bowl types resemble those from the Old Oyo ceramic complex due the burnishing and basting nature as well as the presence of punctate on the handle. Some other variants of the Old Oyo and Ile-Ife ceramic complex found in the Okesuna Ilorin assemblage are in form of vertical or neckless thick, and rounded or indented rims (i.e., Figure 5.23c). Similar types of these vertical neckless rims which were found in excavated contexts of Test Pits 1, 3, 5, 7 and surface collections in the Okesuna Ilorin assemblage have been reported for the Igbomina and Ilare-Ijesa areas (Aleru 2006; Ogundiran 2002; Usman 1998). Simple rim types and their variants were represented across the units excavated at Okesuna Ilorin but in varying amounts. A single out-turned simple rim found in the Okesuna Ilorin assemblage (Figure 5.24a) was absent in the Garlake typology but was reported for Igbo-Olokun in Ile-Ife (Babalola 2016).

Thickened rims are very rare in the Okesuna Ilorin assemblage and also more widely in the Yorùbá area. A unique thick rim type in this assemblage is Figure 5.24a which is a small thickened everted rim. This type has been referred to as *fitila,* a local name for a local lamp in Yorùbáland. The recovery of *fitila* has been reported for the Igbomina area (Aleru 2006) but the rim types are closed rims. Similarly, Ogundiran

(2002b) reported the presence of a clay lamp in the archaeology of Ilare-Ijesa and pointed out that evidence of the pot type in the archaeology of the Yorùbáland area is rare.

Carinated rims present in the Okesuna Ilorin assemblage are mostly decorated burnished and basted items. The range of decorations on this category of rims type include angular punctate, wavy dragged comb, striation, raised angular punctuate, twisted cored roulette, groove and dot punctate. The dominant decorations being angular punctate and wavy dragged comb. Burnished and basted wares are characteristics of the Old Oyo complex and are referred to as black/grey wares. The presence of decorations such incision, impressed round dot/dot punctate and roulettes on burnished/basted sherds are also characteristic of the Old Oyo ceramics (Willett 1960b: 75-76). However, the presence of such dominant decoration such as the wavy dragged comb which tends towards the Ile-Ife complex might reflect different communities within the area. As such, this implies that the Okesuna Ilorin rim assemblage falls between the two ceramic complexes**.** Although, a few items under this category appear similar to Garlake (1977) Ile-Ife type F, these were also reported by Babalola (2016) from his archaeological work at Ile-Ife (Igbo Olokun) as small hemispherical bowls with inverted shouldered bowls or bowls with vertical rims or hemispherical bodies.

Everted rims are common vessel forms in Yorùbáland (Ogundiran 2002b). In the case of the Okesuna Ilorin assemblage, these categories include short, medium to long everted rims. The Okesuna Ilorin rims are predominantly angular flared-everted rims with long, short or medium necks with indented, round or pointed lips. Similar types of these everted rim are associated with the Ile-Ife ceramic complex (Garlake 1977; Ogundiran 2002b). Ogundiran (2002b) reported the presence of these rim types from some excavated units of Ilare-Ijesa (Ogundiran 2002b). Generally, Okesuna Ilorin everted rim forms are made up of a variety of jars or bowls with everted rims and globular spheroid or hemispherical shapes with round, tapered, indented lips. These are represented across the excavated units at Okesuna Ilorin in varying amounts.

The J type of Garlake's (1977) pottery typology is a singular lid (Figure 5.37) recovered during surface collections of Okesuna Ilorin. This can be described as a looped lid with a knob or a strap-like handle at the centre of the lid's concave side and is associated with food bowls. A similar type was also recovered from an archaeological context in Ilare-Ijesa, central Yorùbáland which Ogundiran (2002b) referred to as L3 type. This was a looped lid with a knob handle at the centre of the lid's concave side and is associated with cooking.

As shown in Table 5.29, and just discussed, similarities in both decoration and shape exist between the Okesuna Ilorin assemblage and the two best described complexes of the Yorùbá world: Ile-Ife and Old Oyo. As a brief reminder, five radiocarbon dates were run on charcoal samples from three units at Okesuna. Two contexts in the main test pit, both associated with pottery, charcoal and ash, returned dates falling in the late 7th to late 9th centuries (Beta-587516) and (Beta-587517). The most common decorations reported in this unit were striation, wavy dragged comb, line dragged comb, angular punctate, raised banded punctate, and perforation. Two dates were also run on contexts associated with burials, and pottery in Test Pit 7. Those date (Beta - 587518) and (Beta-587519) fell between the mid-6th and late 9th centuries, with a possible stratigraphic inversion. Twisted cord, wavy, striation, dot punctate, angular punctate, boss/raised banded decorations, and burnish/basted pottery were the prominent decorations.

Lastly, a sample from the lowest context of Unit PPII returned a date of 1028-1172 CE after calibration (Beta - 587520) from a context underlying a pottery pavement. Unlike the case in the other two units just discussed, here twisted cord roulette impression was the most common decoration, and was dominant for the potsherd pavement surface sherds. This was followed by the combined decoration of twisted cord roulette and multiple groove, perforation, striation and wavy dragged comb**.** The combined decoration of twisted cord roulette and multiple grooves were only recovered from the potsherd pavement surface sherds. This is similar to the case of Test Pit 5. The high occurrence of twisted cord roulette in potsherd pavement surface sherds and in Test Pit 5 suggests, with caution due to the absence of radiocarbon dates for Test Pit 5, that the two contexts may be contemporary.

With this information, I argue that by the 7th and 9th centuries, the dominant decorations used were striation, and wavy dragged comb decoration and that by the 12th century, there was a gradual change of their decoration repertoire to the twisted cord roulette and groove which were most evident in the potsherd pavement surface sherds and Test Pit 5. In order to gain insights into the likely terminal period of the occupation of the Okesuna area, it is significant to note the complete absence of maize cob roulette decoration in the assemblage. Evidence of maize cob roulette in archaeology indicates a date after the 16th century Atlantic contact in West Africa and its absence in the assemblage indicates that the occupation of Okesuna Ilorin including the construction of the potsherd pavements, predates that time.

Within the Yorùbá contexts, the date obtained for this ceramic complex of Okesuna Ilorin (broadly mid-6th to late 12th centuries) falls within the earliest date for Ile-Ife (based on the 6th to late 10th century Orun Oba Ado site) and Old Oyo (based on around the 8th/9th centuries date from Agbaje-Williams work at the site). It is however right to examine other archaeological sites in Yorùbáland which falls within similar time period of the 1st millennium CE. Basically, the earlier part of the Okesuna sequence falls within a gap: there are earlier sites of Itaakpa rockshelter, Iffe-Ijumu in present-day Kogi state and Iwo Eleru in Akure Ondo State, Nigeria (early 1st millennium BC/1st millennium CE and 2nd /1st millennium BC respectively) and there are later sites such as the classical Ile-Ife. The earlier sites: Itaakpa rockshelter at Iffe-Ijumu and Iwo-Eleru have been associated with pottery decorations such as twisted string roulette, incision/groove and comb decorations within 1st millennium and 2nd millennium BC contexts respectively (Allsworth-Jones et al. 2012; Oyelaran 1998; Shaw and Daniels 1984). Unfortunately, it is difficult to compare Ilorin pottery assemblage with those of these earlier sites as they are Late stone Age sites with dates much earlier than those obtained for the Okesuna Ilorin site and lack archaeological ceramic data for the 1st millennium CE period. Although the later part of the Okesuna sequence overlaps with both Ile-Ife and Old Oyo period, but due to the herringbone pattern of the potsherd pavement traditions as well as the buried pot within potsherd pavement similar to those of the Ile-Ife sequence, this period tends more towards Ile-Ife.

Additionally, based on these dates, and at our present state of knowledge, there is an occupational gap between these periods obtained for the Okesuna Ilorin area and the Ilorin historical period which is assumed to be situated in the 17th century at the earliest. This issue is common in most archaeological investigations across present-day Yorùbáland. For instance, Roth et al. (2021) pointed out that for Ile-Ife archaeology, there has been a recurrent gap of about two centuries in Ile-Ife's occupational history, starting at the end of the pavement period, since Ekpo Eyo's excavations in the 1970s. This gap, though unclear if it corresponds to a drastic reduction of Ile-Ife size, signals a major crisis and equally a drastic shift in regional history (Chouin and Lasisi 2019; Ogundiran 2020a: 153–160; Roth et al. 2021). As a result, Roth et al (2021) proposed a revised chronology of Ife, which is as follows: 1) Pre-pavement period: ca.10th–12th c.; 2) Pavement period: 12th–14th c.; 3) Occupational gap: late 14thc–late 16th/early 17th c.;4) Resettlement: late 16th–early 17th c. to the modern era.

5.19. Conclusion

This chapter has presented the attribute-based typological analysis of potsherd items recovered from excavations and surveys. A total number of 5760 artefacts from five excavated units and surface collections were analysed. These units were of various sizes and content and as such impacted the amount of information obtained on pottery analysis. Test Pit 1 was the largest unit and yielded the larger corpus of ceramics. The work focused on examining the decorations, morphology and some aspects of technological variations across the ceramic assemblage, and to situate it within other regional assemblages, the Old Oyo and Ile-Ife ceramic complexes in particular. The main reason for the comparison with these two complexes is to establish a chronological significance for the Ilorin area.

The archaeological assemblage consisted of undecorated and decorated body and rim sherds and the bulk (about two-thirds) of this assemblage was made up of undecorated pottery. The decoration types, analysed for both rim and body sherds fell into six groups: incision /groove, stamping and stabbing, roulette, perforation, applied decorations and incised burnished. Decorations occurred either singly or in combinations. The dominant decoration group was the incision/groove category, and the predominant decoration within the group were wavy dragged comb and striation. The next most common decoration is the twisted cord roulette, under the rouletting category. The varieties of Okesuna Ilorin assemblage speak to the nature of the decoration repertoire and preference of the people of Ilorin in the past. Some of these decorations have been reported for some sites in the Yorùbáland area and elsewhere in Nigeria and West Africa mostly from dated contexts.

In terms of surface treatments, the Okesuna Ilorin archaeological assemblage was predominantly characterised by basting, burnishing while reddish slips are less dominant. The dominant surface treatment was the combined application of burnished and basted finish. Ethnographic sources on these treatments revealed that burnishing and basting are applied for purposes such as lustrous surface appearance and for the plasticity of vessels. In modern-day Ilorin, burnished/basted pottery are referred to as black and grey wares. Slip treatment was very rare in the archaeological context of Okesuna Ilorin. It has been recorded in the Ile-Ife ceramic complex but is absent in the Old Oyo ceramic complex. Burnished/basted and slip treated pottery are widely produced in Ilorin as far back as the 19th century.

The analysis of wall thickness was also carried out for the whole assemblage in order to understand the possible functions of the ceramics recovered. Sherds were classified under five groups: thin, moderately thin, medium, moderately thick, and thick. Medium thick-walled items were the most common and made up over 55% (over half) of the total assemblage. This was followed by moderately thin, moderately thick, thick and thin items. This implies that most ceramics used in Okesuna Ilorin performs functions around domestic activities such as cooking, serving, storage and even ceremonial related (ritual) activities.

Furthermore, additional analysis was carried out specifically on rim assemblage which are morphological and technological analysis. Under this analysis, eight attribute-variables were examined which include rim diameter, angle, types, lip shape, positions of decorations, paste colour, firing core and non-plastic inclusions (NPI). While the first three attributes fall under morphology, the remaining attributes are associated with the technological aspects of the analysis. These was to shed light on the variations of the ceramic assemblage across units. In all, the rim assemblage of Okesuna Ilorin consisted of various forms of which are mainly characterised by open, short-everted rims with rounded lips, vertical, simple rims with indented lips, wide open, carinated rims with tapered lips. Other attributes of rims recovered from the assemblage include medium everted, long everted, tightly closed, closed, flattened and thickened rims. Other parts of the assemblage which were analysed exclusive of the rim and body parts include the base, lid, and handle.

The technological analysis revealed significant understanding of Okesuna Ilorin pottery technological processes associated with the Ilorin area. The most common positions of decoration on pottery are the neck area and the dominant paste colour is the black/grey followed by brown. With regards to fabrics, low fired black/grey core with quartz inclusion were predominant across units albeit with variations within units. This was followed by brown core with sand or grog inclusions.

Results from the pottery analysis including the absence of the maize cob roulette, the nature of the stratigraphy and associated radiocarbon dates between the 6th and the 12th centuries has shown that the Ilorin area is much older than is suggested by historical sources, stretching back to the mid-1st millennium CE at least. Although the Okesuna Ilorin ceramic assemblages have commonalities with the ceramics of well-studied Yorùbá areas of Old Oyo and Ile-Ife, the challenge lies in the fact that the well-defined ceramics complexes from these centres are recovered from 2nd millennium CE contexts, while those of Okesuna Ilorin are from 1st millennium CE contexts. In addition, the radiocarbon dates obtained shows that there is an occupational gap between the archaeological period and the historic period of Ilorin spanning to about five centuries. This indicates that the socio-political developments of the area between the 12th century and 17th/18th centuries is still unknown.

Technologically, the dominance of certain distinctive decorations such as wavy dragged comb and striation as well as the black/grey to brown wares reflects the nature and composition of the past settlement of Okesuna Ilorin and its positioning within wider Yorùbá ceramic complexes during the 1st millennium CE.

Chapter 6. Small finds and other finds

6.1. Introduction

This chapter presents the analysis of small finds and other finds recovered from excavations (Appendices 8, 9 and 10). While Chapter five discussed the pottery from selected units and contexts, the present chapter deals with the other categories of finds from all excavations, including those finds from Test Pits 4 and 6 (the ceramics assemblage from which was otherwise not studied). As noted in Chapter four, all deposits were sieved during excavations. Despite this, it must be said that the small finds and other finds formed a rather small assemblage.

Finds were grouped into three categories: items made from clay other than pottery, non-pottery finds, and faunal remains. Materials made from clay include utilised sherds, and a pot stand while non-pottery finds include lithics, metal objects and beads. Faunal remains comprise shell (both bivalves and snails), animal bone, and teeth. In addition, some objects were classed in a separate category as unidentified.

6.2. Methodology

For the analysis of small finds and other finds, each item was classified into its respective group. This was then followed by further analysis of each group into sub-groups in order to identify and document elements of each material.

Various specialists were solicited to assist with some aspects of the analysis. The two beads were examined by Abigail Moffett, from the Sainsbury Research Unit, University of East Anglia, UK; and faunal remains were analysed based on photographs. Although three zooarchaeologists were consulted (Drs Alex Fitzpatrick, an independent researcher, Lorraine Higbee, from Wessex Archaeology, UK and Mik Liwoski, from the University of York, UK), only Dr Alex Fitzpatrick's report was used as it was the most comprehensive (Appendices 9 and 10). Informants in Ilorin who had been involved with the project were also asked for their insight. Table 6.1 presents a general inventory of the finds from Okesuna Ilorin, after which these discussed in more detail.

Contexts	Clay other than pottery		Non-pottery						Faunal remains				Unidentified
			Lithics			Perforated tooth	Metal	Bead					
	Utilised sherds	Circular Pot stand	Grinding stones	Hammer/ pounding stones	Pebble				Bivalve/ Shell	Snail shell	Animal bone	Teeth	
TP 1													
1							1		+	+	+	3	
2					1		2		+	+	+	3	3
3	1								+		+		
4			4			1			+		+		
5		1	2	2					+		+		
6									+		+		
7				1					+	+	+	1	
8			1	1			2		+		+		
9			1						+		+		
10				1					+	+	+		
11									+		+		
12			1		3				+	+	+		
13			2	1	2				+		+		
14									+				
15				2					+		+		
16									+		+		
17				1			1		+		+		
18									+	+	+	1	
19			1						+		+		
20									+				
21									+		+		
22	2								+		+		
23													
24									+		+		
25													
26									+				
TOTAL	**3**	**1**	**12**	**9**	**6**	**1**	**6**		**+**	**+**	**+**	**8**	**3**

Contexts	Clay other than pottery		Non-pottery						Faunal remains				Unidentified
			Lithics			Perforated tooth	Metal	Bead					
	Utilised sherds	Circular Pot stand	Grinding stones	Hammer/pounding stones	Pebble				Bivalve/ Shell	Snail shell	Animal bone	Teeth	
TP 3													
1			2						+		+		
2				5					+		+	1	
3			1		1		1		+		+		
4			1	4					+		+		
5			2						+		+		
6			2	2	1				+		+		
TOTAL			**8**	**11**	**2**		**1**		**+**		**+**	**1**	
TP 4													
1				1					+	+	+		
2									+		+		
3													
4													
5													
6													
7													
TOTAL				**1**					**+**	**+**	**+**		
TP 5													
1								1			+		
2									+	+	+		
3									+	+	+		
4									+	+	+		
5				1					+	+	+		
6													
				1				**1**	**+**	**+**	**+**		
TP 6													
1	1		16				2		+		+		
2									+		+		
TOTAL	**1**		**16**				**2**		**+**		**+**		

Contexts	Clay other than pottery		Non-pottery						Faunal remains				Unidentified
			Lithics			Perforated tooth	Metal	Bead					
	Utilised sherds	Circular Pot stand	Grinding stones	Hammer/ pounding stones	Pebble				Bivalve/ Shell	Snail shell	Animal bone	Teeth	
TP 7													
1								1			+		
2										+	+		
3				4					+	+	+		
4											+		
5									+	+	+		
6									+				
7									+				
8									+				
9									+		+		
10			1								+		
11													
12													
13									+				
14									+		+		
15									+	+	+		
16									+		+		
17			1										
18									+				
19													
20				2					+		+		
21											+		
22											+		
23											+		
24													
25											+		
26													
27													
TOTAL			**2**	**6**				**1**	**+**	**+**	**+**		

Contexts	**Clay other than pottery**		**Non-pottery**						**Faunal remains**				**Unidentified**
			Lithics			Perforated tooth	Metal	Bead					
	Utilised sherds	Circular Pot stand	Grinding stones	Hammer/ pounding stones	Pebble				Bivalve/ Shell	Snail shell	Animal bone	Teeth	
TP PPII													
1											+		
2											+		
3											+		
4													
5					1						+		
6			2	1									
7									+		+		
8													
9					1				+		+		
TOTAL			**2**	**1**	**2**				**+**		**+**		
TOTAL (ALL UNITS)	**4**	**1**	**40**	**29**	**10**	**1**	**9**						**3**

Table 6.1 General inventory of finds.

6.3. Clay objects

6.3.1. Utilised sherds

Utilised sherds are reused potsherds that have been ground smooth on one or more edges or, rarely, on one or both surfaces to form a disc or other shape such as a triangle. The utilised sherds recovered in excavated units at the Okesuna, Ilorin consisted of ceramic discs which are circular in shape and non-perforated. Their analysis considered shape, thickness, diameter, colour, and any decoration.

Four ceramic discs were recovered (Appendix 8); three came from Test Pit 1 and one from Test Pit 6. Their thicknesses ranged from 0.5cm and 1.9cm and their diameters from 3.4cm to 6.7cm. One of the ceramic discs (SF 1; Figure 6.1 and Appendix 8), brown in colour, from Test Pit 1, was recovered from a depth of 30 - 40cm and featured twisted cord roulette decoration. Its diameter was 2.6cm and its thickness 0.9cm, and the edges were well-rounded and smooth. Two other ceramic discs (SF 2 and 3; Figure 6.2 and Appendix 8) were retrieved from Test Pit 1, at a depth of between 2.63m and 2.78m, within a mud wall rubble. These are undecorated discs with diameters ranging between 4.8cm and 6.7cm and thickness ranging between 1.05cm and 1.09cm thick. They have irregular edges, and both are black on one surface and grey on the other. Mica is also observable, although lesser extent on SF 2, which is the smaller disc.

The last disk (SF 4, Figure 6.3) which was recovered from Test Pit 6 was from 10cm below the ground surface. Also, it is undecorated and has irregular edges. It has a diameter of 3.4cm, 1cm thick and is grey on both sides.

Figure 6.1. Twisted cord roulette decorated pottery disc from Test Pit 1 (SF 1) (Photo: Giulia Nazzaro 2022).

Figure 6.2. Undecorated pottery discs from Test Pit 1 (SFs 2 and 3) (Photo: Giulia Nazzaro 2022).

Figure 6.3. Undecorated pottery discs from Test Pit 6 (SF 4) (Photo: Giulia Nazzaro 2022).

Ceramic discs have been reported from excavated contexts in Yorùbáland and beyond. Within Yorùbáland, ceramic discs occurred in excavations at Ile-Ife, Igbomina and Ilare-Ijesa Yorùbáland, Nigeria (Babalola 2016; Fagg and Willett 1960a; Garlake 1977; Ogundiran 2002b; Usman 2012). They are most famously recorded at Ile-Ife. Excavations by Garlake (1977) at Woye Asiri led to the recovery of over 12,000 ceramic discs and 1,200 fragments within ritual, and temple contexts associated with potsherd pavements. Similarly, archaeological work at Igbo Olokun in Ile-Ife also yielded a total of 103 ceramic discs of which the majority were recovered from context assumed to be domestic owing to the presence of two hearth structures (Babalola 2016: 182). Eight ceramic discs were also recovered from excavated deposits at Ilare, Ijesaland near Ile-Ife, from both ritual sites and refuse mounds (Ogundiran 2002b: 115). These ceramic discs were both decorated and undecorated; the decorated disc consisted of basketwork and fine cord roulettes, which were also the dominant decorations on the ceramic discs at Ile-Ife (Ogundiran 2002b). In Igbomina, pottery discs are occasionally found in excavations (Usman 2012).

Outside Yorùbáland, the occurrence of clay disc has been reported from excavations in Benin City (Connah 1975), Kaduna (Aiyedun and Shaw 1989), Shira in Bauchi (Giade 2016), all in Nigeria; Jenne-jeno in Mali (McIntosh 1981: 144), Kufan Kanawa in Niger Republic (Haour 2003), Yikpabongo and the Koma region in Ghana (Dartey 2018; Insoll et al. 2012). They occur in contexts that span a range of dates. Based on their association with potsherd pavements dated to between the 11th and 15th centuries in Ile-Ife, ceramic discs are situated within this period for the Yorùbá and Edo areas (Eyo 1974; Garlake 1977; Ogundiran 2002b). However, at Daima, in northeastern Nigeria, their occurrences are as early as the 1st millennium CE (Connah 1981).

Various functions have been proposed for these objects. Due to their association with pavements, Fagg and Willett (1960) proposed that ceramic discs served as "top dressing" for pavements. This view was supported by Connah (1981: 148-149) based on his analysis of ceramic discs from Daima, that they were possibly associated with potsherd pavements. Contrary to this, ceramic disc in association with evidence of structural relics at Woye Asiri in Ile-Ife made Garlake (1977) to suggest that these items were not always associated with pavements. Garlake (1977: 71) pointed out that ceramic discs "were set in surfaces of mud walls or other vertical features, perhaps columns, as a continuous mosaic finish or in decorative patterns". Other authors have also suggested the disc were used to tile walls or columns (Eyo 1974; Usman 2012; Willett 1967). Aiyedun and Shaw (1989) also pointed out that ceramic discs may have been used as net sinkers or possibly weights based on the excavations at the Kaduna Valley, Niger area, Nigeria. Ceramic discs also were suggested to have been used as part of an Islamic weight system at Jenne-jeno (McIntosh 1981: 144).

Some further inferences have been made based on contemporary usage. Pottery discs in usage today among the people of Yikpabongo, Ghana were used as stoppers for horns or narrow-necked gourds, used as receptacles for storing medicine (Insoll et al. 2012: 36). Based on the reported use of these materials among the present-day communities, Haour (2003: 111) suggested that the utilised sherds recovered archaeologically at the site of Kufan Kanawa were used as smoothers. In different parts of the Yorùbáland and Edo regions, the use of ceramic discs seems to have continued until the middle of the 20th century, especially in Ilesa and Ahara villages near Ilorin (Ogundiran 2002b). However, their use by this time were not mentioned.

The function of the disc excavated at Okesuna Ilorin is unknown. Based on the context from which two of the discs were recovered-wall rubble-as well as the fact that the site features potsherd pavements, it is possible that they were connected to architectural features. Alternatively, they may have been used as smoothers. Unfortunately, no evidence of the use of ceramic disc was observed in present-day Ilorin, even though pottery making is still ongoing. With regards to dating, ceramic discs from Test Pit 1 were found within excavated contexts dated to between the 7th and the 9th centuries. This indicates that ceramic discs occurred earlier in Ilorin than other areas of Yorùbá and Edo areas which falls between the 11th and the 15th centuries. In all, the presence of ceramic discs in the archaeological record speaks to the various forms and functions in which ceramics can be remodified and utilised. See Table 6.4, Figures 6.18 & 6.19 for the distribution of utilised disc compared to other small finds in the assmblage.

6.3.2. Pot stand

One item (SF 5) interpreted as a pot stand was recovered as two fragments within Test Pit 1 at a depth of 65cm (Figure 6.4). The fragments were refitted to form a circular object with a diameter of 10.2cm and a thickness of 2.2cm, grey in colour with patches of black on the surface. Although similar finds have not been reported from previous archaeological research in Yorùbáland but oral information (Aleru pers. comm 2020) has suggested that such an item could have been used as a platform to place hot pots after cooking activities (See Table 6.4, Figures 6.18 & 6.19 for the distribution of the pot stand and other small finds in the assmblage).

Figure 6.4. Possible pot stand from Test Pit 1 (SF 5) (Photo: Giulia Nazzaro 2022).

6.4. Lithics

Based on physical observation of the lithics and with the help from oral information, three classes of stones were identified: grinding stones, hammerstones/pounding stones, and pebbles (Table 6.2 and Figure 6.9). Contexts, classes, size, and possible raw materials were recorded (Appendix 8). Identification into classes was carried out through careful examination of their shapes, edges, and surfaces. In addition, the distribution of lithics with other small finds in the assemblage is presented in Table 6.4, Figures 6.18 & 6.19.

6.4.1. Grinding stones

Forty grinding stones were recovered from excavations, accounting for over 50% of lithic finds. Grinding stones were found in all excavated units apart from Test Pit 5, together with pottery, bones and shell. They comprised both upper and lower grinding stones and were either broken or, intact (SFs 6, 7 & 8, Figures 6.5 & 6.6). Upper grinding stones which were fist-sized, were of different shapes, be they discoid, globular, spherical or cylindrical, and had smooth or flat surfaces and rounded edges, while lower grinding stones were flat bottomed, had smooth surfaces with hollow or concave rubbed surface depressions and were usually larger than upper grinding stones (Aiyedun and Shaw 1989; Babalola 2016). Measurements were taken on most of the intact items.

On average, upper and lower grinding stones measured 17.5cm and 45cm in length, 9cm and 30cm in width, and 4.5cm and 6cm in thickness respectively. Visual examination revealed evidence of polishing. Grinding stones are indispensable household articles used for grinding maize, beans, and soup condiments and might also have been associated with cracking nuts (Aiyedun and Shaw 1989; Ojo 1966), and with the production of beads (O'Hear 1986a). In Ife, grinding stones were reported to indicate intensive utilisation in crushing materials for glass bead making (Babalola 2016).

Grinding stones have been reported from different archaeological records of Yorùbáland and elsewhere in West Africa. They have been recovered from domestic, industrial, and ritual contexts within Old Oyo, Igbomina, Ile-Ife, Benin city, Owo, and the Kaduna valley area (Aiyedun and Shaw 1989; Babalola 2016; Fagg and Willett 1960; Garlake 1977; Usman 2012; Willett 1967). According to Ojo (1966: 63, 93), in the past in Yorùbáland, grinding stones were picked up or hewed by individuals as they were not regarded as an exchange commodity but over the years, this changed as grinding stones were exchanged for other commodities.

The presence of rock hollows in and around the site of Okesuna Ilorin indicates that grinding stones would have performed more functions than food processing. Ilorin is known for its production of items such as lantana stone beads and it is known that their production processes involved the use of grinding stones as polishing boards for smoothing the pierced beads (O'Hear 1986a: 36). O'Hear (1986a: 36) further posited that grinding stones were so significant to lantana bead production that the artisans would have carried them with them along to Ilorin due to their portability, as well as their abundance in the vicinity of Old Oyo, the artisans would have carried them along to Ilorin. It is therefore possible that grinding stones found in the Okesuna Ilorin assemblage were sourced from the Old Oyo area.

Figure 6.5. Upper grinding stones from excavation (SFs 6 & SF 7) (Photo: Emmanual Adeara 2020).

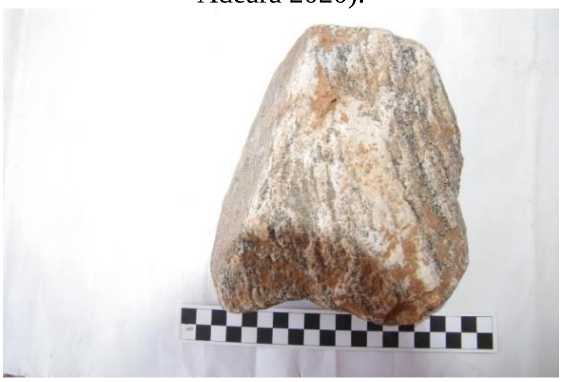


Figure 6.6. Lower grinding stones from Test Pit 1 (SF 8) (Photo: Emmanuel Adeara 2020).

6.4.1.1. Hammerstones or pounding stones

Twenty-nine fragments of hammerstone or pounding stones were identified, occurring across all excavation units apart from Test Pit 6 and accounting for 36.7% of the lithic assemblage. The stones are identified as granite or quartz (SFs 9, 10, 11, Figure 6.7). They were also either roundish or spheroid in shape, but smaller in size than upper grinding stones.

Archaeological evidence of hammerstones has been reported from Yorùbáland and elsewhere. In Ife, hammerstones and other lithics such as grinding stones, mullers and stone axes were reported, sometimes in association with pots and potsherd pavements (Garlake 1977: 90). Hammerstone were also documented from sites in the Kaduna valley (Aiyedun and Shaw 1989) and the Shira region of northern Nigeria (Giade 2016).

Hammerstones or pounding stones are commonly used also for grinding or processing substances like tubers, bones, and wood (Fullagar and Golson 2017: 376). In association with rock hollows, pounding stones are used for processing iron, shells of the kernel of the oil palm, and in some cases, in the preparation of clay for pottery making (David 1998; Fadipe 1970). In the Igbomina area, Usman (2012) assumed that the presence of rock hollow could have been associated with hammerstones for processing various items such as food and beads.

The presence of these hammerstones or pounding stones in the archaeological contexts of Okesuna Ilorin indicates that the people might have used them in association with processing different substances within domestic or commercial contexts. These substances could have included food, metal processing, beads and pottery making.

Figure 6.7. Hammerstones or pounding stones from Test Pit 4 (SFs 9, 10, and 11) (Photo: Emmanuel Adeara 2020).

6.4.1.2. Pebbles

Ten pebbles were recovered from excavation units (SFs 12, 13 14, Figure 6.8). They were the least common lithic finds from the archaeological contexts of Okesuna Ilorin, accounting for a total of 12.7% of the lithic assemblage. They were recovered in Test Pits 1, 3, and PP II, in association with pottery remains, ash and shell. Some of the pebbles measured an average of 5cm in diameter and were generally of varying shades of brown. The pebbles were oval, and rounded in shape, some of which were of smooth surfaces while others were rough.

Pebbles have been reported for some sites in Yorùbáland and beyond. For Igbo-Olokun at Ile-Ife, Babalola (2016: 188) recovered five pebbles from excavated contexts. Pebbles were also recorded for the excavation from the Kongon Makeri archaeological site of Kaduna Valley, Nigeria (Aiyedun and Shaw 1989). Pebbles are sometimes found in association with floors and pavements, for example, at the sites of Kainji Lake in Nigeria (Nzewunwa 1989: 96) or at Tin Tin Kanza in Benin Republic (Champion and Haour 2018: 346), and Iloja in Ilare-Ijesa, Osun State (Ogundiran 2002b: 115). Stones in association with pots and potsherd pavements were reported for Ife and were described as having been used as rubbers, smoothed by wear in places (Garlake 1977: 90). Other places where small stones have been reported with potsherd pavements include areas of Igbominaland, northern Yorùbáland (Usman 2012).

Figure 6.8. Pebbles from Test Pits 1 and 4 (SFs 12, 13 &14).

Similarly, pebbles are common items in the present-day Ilorin pottery industry and are used for burnishing. Oral information gathered from Ilorin potters revealed that most of the pebbles used by them were passed to them from their mothers who were also potters. Furthermore, it was revealed through oral information from Ilorin that the pebbles used were not obtained from Ilorin, but from the neighbouring town of Igbomina, due to the absence of raw materials in Ilorin. It is therefore possible, that the presence of these pebbles could likely be that they were used for purposes such as the smoothing of pottery or as part of a floor. Although no evidence of stone flooring and/or association with potsherd pavements was found at the site.

Contexts	**Grinding stones**	**Hammerstones /Pounding stones**	**Pebbles**	**Total**	**%**
TP1	12	9	6	27	34.18
TP3	8	11	2	21	26.58
TP4	0	1	0	1	1.27
TP5	0	1	0	1	1.27
TP6	16	0	0	16	20.25
TP7	2	6	0	8	10.13
PPII	2	1	2	5	6.32
TOTAL	**40**	**29**	**10**	**79**	**100**
%	**50.63**	**36.71**	**12.66**	**100**	

Table 6.2. Distribution of stone classes across excavated units.

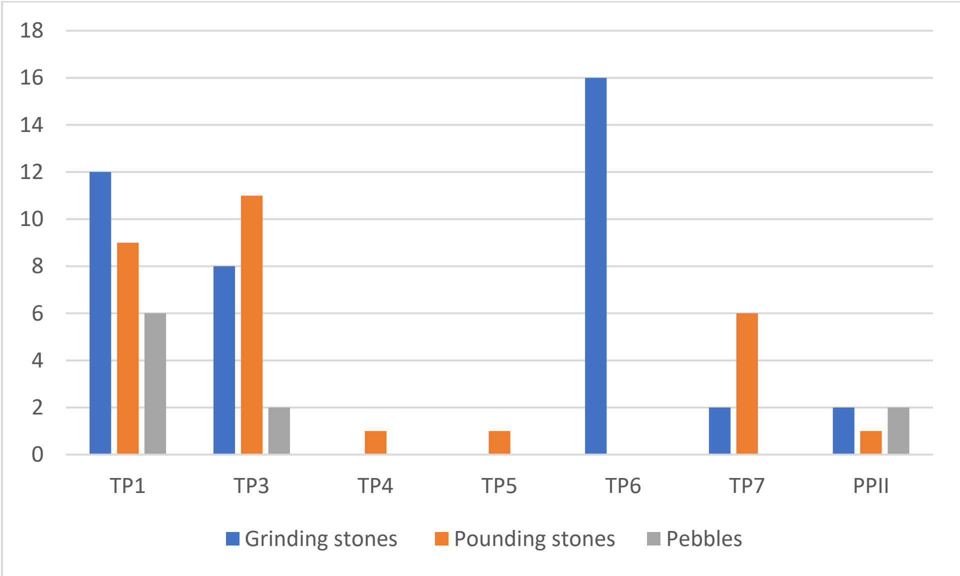


Figure 6.9. Lithic classes across excavated units.

6.5. Metal objects

Nine fragments of corroded metal objects were recovered, issued from three excavation units; Test Pits 1, 3 and 6 (Table 6.3, Figures 6.10ab, 6.11, 6.12 & 6.13). These are all made of iron. Their poor state of preservation made identification of their function difficult, and only a fragment of bracelet (Figure 6.10a & SF 15) could be identified with some confidence. The metal bracelet fragment is a semi-circular shaped item measuring 0.04cm in thickness, and 6.1cm in diameter. It was presumably worn as body adornment. The remaining eight unidentifiable metal objects which are the most common comprises of two rods of varying lengths and sections and pieces of metals that might have been part of a blade or rod. Although indeterminate, their associations with pottery in excavated units may indicate their likely use in domestic contexts for cutting and scraping items. Table 6.1 presents the distribution of metal objects across units.

Small find	Units	Context	Depth (cm)	Description of metal object
SF 15	TP 6	1	0-25	Fragment of bracelet
SF 16	TP 6	1	0-25	Unidentified metal object
SF 17	TP 3	3	30-50	Unidentified metal object
SF 18	TP 1	15a	190-201	Unidentified metal object
SF 19	TP 1	1	4-28	Unidentified metal object
SF 20	TP 1	1	4-28	Unidentified metal object
SF 21	TP 1	14	137-147	Unidentified metal object
SF 22	TP 1	15a	190-201	Unidentified metal object
SF 23	TP 1	15a	190-201	Unidentified metal object

Table 6.3. Distribution of metal objects by units and depths.

Figure 6.10a. Corroded bracelet fragment from Test Pit 6 Context 1 (SF 15) (Photo: Giulia Nazzaro 2022).

Figure 6.10b. Unidentified metal objects from Test Pit 6 Context 1 (SF 16) (Photo: Giulia Nazzaro 2022).

Figure 6.11. Unidentified metal object from Test Pit 3 Context 3 (SF 17) (Photo: Giulia Nazzaro 2022).

Figure 6.12. Unidentified metal objects from Test Pit 1 Context 15a (SF 18) (Photo: Giulia Nazzaro 2022).

a. b.

Figure 6.13ab. (a) Unidentified metal objects from Test Pit 1 Context 1 (SFs 19 & 20) (b) and from Test Pit 1 level 8 (SF 21) (Photo: Giulia Nazzaro 2022).

Remains of metal objects had been reported prior to this work from Kwara State College of Education through surface collections (Otukoko 2014) (see Figure 6.14). The recovery of iron objects at Okesuna Ilorin is however, not unexpected, given that the use of iron by communities in Yorùbáland has been documented more widely and is thought to date back to 9th century or earlier. According to Aremu (1991), the spread of skilled ironworkers and iron technology in Nigeria and Africa would have been facilitated by their migration after 500 B.C. Moreover, the adoption of iron technology led to rapid cultural development and regional technological differences in West Africa (Usman 2012: 24). Metal objects in form of iron objects and iron slag were reported at Itaakpa rockshelter in the Iffe-Ijumu area of present-day Kogi State (Oyelaran 1988). This evidence including tuyères from dated contexts at that site have established that ironworking and iron-using agricultural communities were occupying the region by the 1st millennium CE (Oyelaran 1988).

Archaeological work at Obo-Ayegunle site in northern Yorùbáland yielded evidence of metal in form of iron slag and produced dates clustering around the 9th century AD (Aremu 1991). Other areas in Yorùbáland where metal object have been recovered include Ile-Ife (Babalola 2016; Garlake 1977), Ilare-Ijesa district, southwestern Nigeria (Ogundiran 2000), and Igbomina areas of Kwara State (Usman 2012). Garlake's (1977) excavations at Woye Asiri at Ile-Ife recovered items as corroded iron nails and slag. In addition, a total of 55 identifiable metal objects including a single bracelet, were recovered in Ilare-Ijesa. The distribution of Okesuna Ilorin metal objects with other small finds in the assemblage is presented in Table 6.4, Figures 6.18 & 6.19.

Figure 6.14. One of the metal objects recovered from surface collection from Kwara State College of Education, Ilorin by Otukoko and assumed to be a blade (Photo: Otukoko 2018).

6.6. Perforated Tooth

A single perforated tooth was recovered from Test Pit 1 from a depth of between 43cm and 49cm (Figure 6.15). With a length of about 3cm, it appears to be a canine tooth probably a medium sized carnivore such as a hyena or leopard (Alex Fitzpatrick pers. comm. 2021, identification based on photographs). The presence of the hole drilled into it suggests it may have been used for body adornment while informants during fieldwork pointed to a possible use as an amulet. However, the occurrence of perforated tooth in archaeological contexts have not been reported in Yorùbáland. See Table 6.4, Figures 6.18 & 6.19 for the distribution of the perforated tooth with other small finds in the assemblage.

Figure 6.15. Perforated tooth from Test Pit 1 (SF 22).

6.7. Beads

Two perforated discs were recovered, issued from Test Pits 5 and 7 (Figures 6.16 and 6.17). SF 23 was recovered from the topsoil of Test Pit 5 and was encountered immediately after clearing the surface for excavation. SF 24 was recovered between a depth of 1cm and 10cm in Test Pit 7. The two beads were examined using a Dino-Lite microscope by Dr Abigail Moffett (Sainsbury Research Unit, Unit of East Anglia, UK).

SF 23 is a light yellowish bead measuring 9.786mm in diameter and is 4.462mm thick (Figure 6.16). Microscopic examination of the bead reveals evidence of several brown, dull whitish specks on the matrix, as well as random black marks on the surface. The raw material from which the bead was produced could not be ascertained. The objects may have been very recently deposited since it was recovered from a Context close to the surface in Test Pit 5.

SF 24 is a light brownish bead with a shiny surface. It measures 6.48mm in diameter and 2.02mm in thickness (Figure 6.17). Due to the presence of shiny patina on the bead surface, it was suggested by Dr Abigail Moffett that it may be shell bead.

Archaeological research revealed the presence of thirteen disc-shaped perforated beads at Iloyi in Ilare-Ijesa, Southwestern Yorùbá area, described as likely tortoise shell beads recovered from ritual and refuse deposits (Ogundiran 2002b: 118; Ogundiran pers. comm. 2022). Based on their provenance, Ogundiran (2002b) suggested that the beads from Iloyi were locally produced and formed part of the ensemble for ritual performances, especially dancing.

Beyond Yorùbáland, shell beads were identified at Kongon Makeri in Kaduna valley, Nigeria (Aiyedun and Shaw 1989). These consisted of multiple necklaces with an estimated 5000 tiny beads with an average weight of 0.3gm recovered from a burial deposit. The beads were reported to have been made from the shell of a pulmonated snail probably the large land snail *Achatina Marginata* (Aiyedun and Shaw 1989). At Birnin Lafiya, Northern Benin, eighty-five shell beads were also reported to have been recovered from excavations of which all but one came from a funerary context (Magnavita 2018: 199). The shell beads were made from mollusc or gastropod shells and were made into flat discoid shapes, the majority of which were circular, and all were perforated. See the distribution of the beads with other small finds in the assemblage as presented in Table 6.4, Figures 6.18 and 6.19.

Figure 6.16. Bead from Test Pit 5 (SF 23).

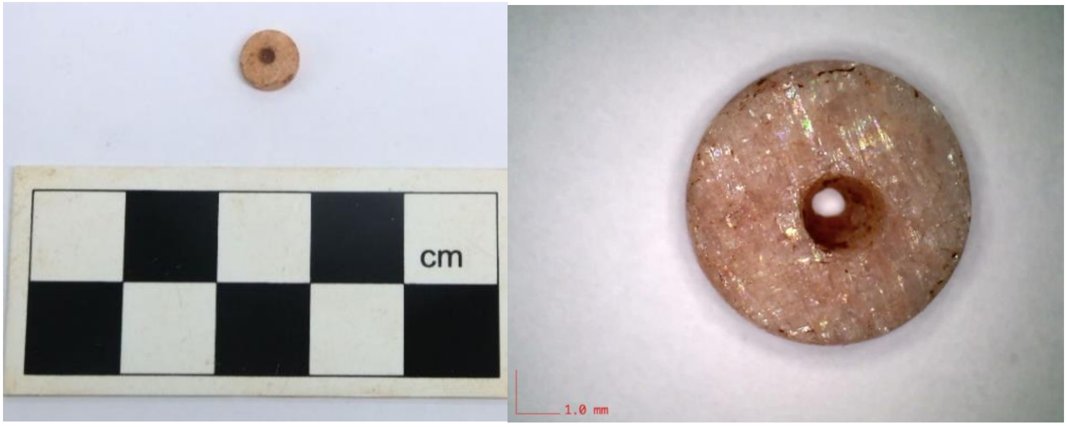


Figure 6.17. Assumed shell bead from Test Pit 7 (SF 24).

Contexts	Utilised Sherds	Pot Stand	Stone Objects	Metal Objects	Bead	Perforated Tooth	TOTAL	%
TP 1	3	1	27	6	0	1	38	39.58
TP 3	0	0	21	1	0	0	22	22.92
TP 4	0	0	1	0	0	0	1	1.04
TP 5	0	0	1	0	1	0	2	2.08
TP 6	1	0	16	2	0	0	19	19.79
TP 7	0	0	8	0	1	0	9	9.38
TP PPII	0	0	5	0	0	0	5	5.21
Total	**4**	**1**	**79**	**9**	**2**	**1**	**96**	100
%	**4.17**	**1.04**	**82.29**	**9.38**	**2.08**	**1.04**	**100**	

Table 6.4. Distribution of small finds by units.

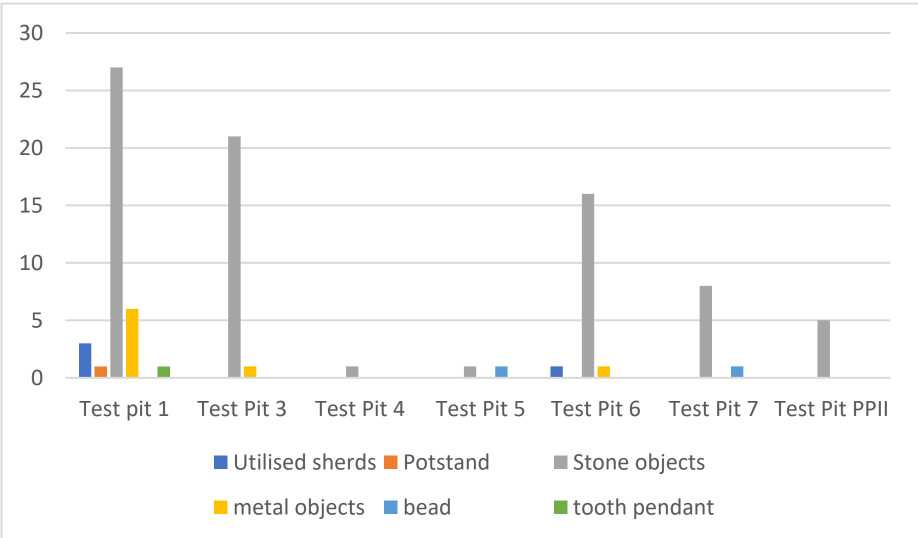


Figure 6.18. Distribution of small finds by units.

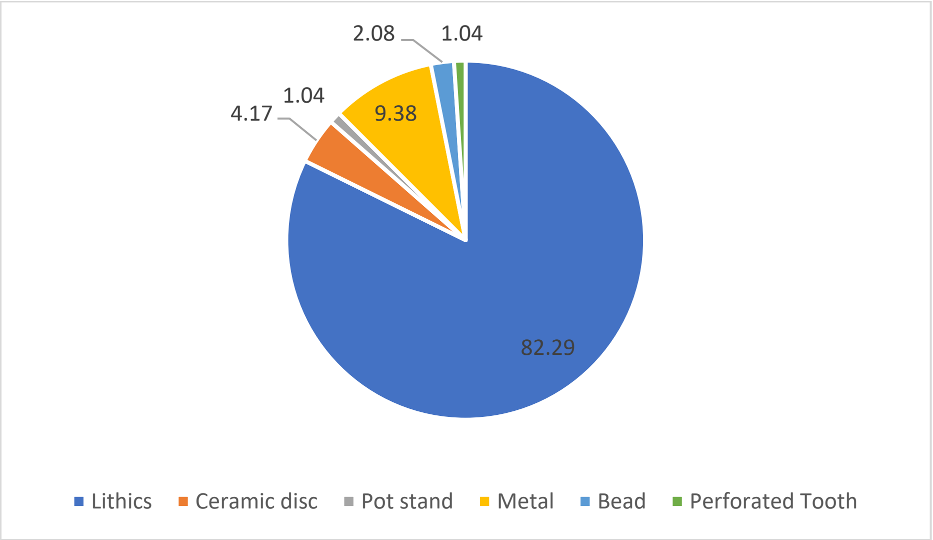


Figure 6.19. Distributions of small finds for the whole assemblage.

6.8. Faunal remains

Four types of faunal remains were recovered in the assemblage: snail shell, bivalve shell, animal bone and teeth. Under the shell category, only bivalves will be discussed since the snail shell recovered was very small in quantity, fragmentary, and poorly preserved.

6.8.1. Shell

Bivalve shells (Figure 6.20) were recovered from almost all excavated units. Analysis was carried out through two means; weighing using a scale, and use of a microscope to identify evidence of use wear. Weighing was carried out due to the fragmentary state of most of the shell, as individual counting of the shell could not be achieved. The weight of the bivalve shell was 1.92 kilograms, and some specimens appears to be polished although it could not be determined with certainty whether this was due to anthropogenic factors. Bivalve shells are referred to as *ikarahun* among the Igbomina Yorùbá people (Usman 2012: 83).

Cultural and natural factors could account for the presence of shells in the provenances in which they were found. Shell remains in excavations also indicate riverine or seafood consumption in the past and may have provided part of the people's diet. Usman (2012: 84) indicated that bivalve shell was used for scooping locust beans in

Igbomina in the past. This was also corroborated through oral information obtained at Ilorin for the Ilorin area, and the larger Yorùbáland in the past, where locust beans were produced.

Although snail shell is commonly recovered on archaeological sites of Yorùbáland such as Ile-Ife (Babalola 2016), and the Igbomina area (Aleru 2006; Usman 2012), this is not the case for bivalve shell. Evidence of bivalve shells in archaeological contexts has been documented for the Igbomina area of Yorùbáland (Usman 2012) and their use as pottery smoothers reported by Gosselain (2010) and Giade (2016) in the Republic of Niger and Shira in northern Nigeria respectively.

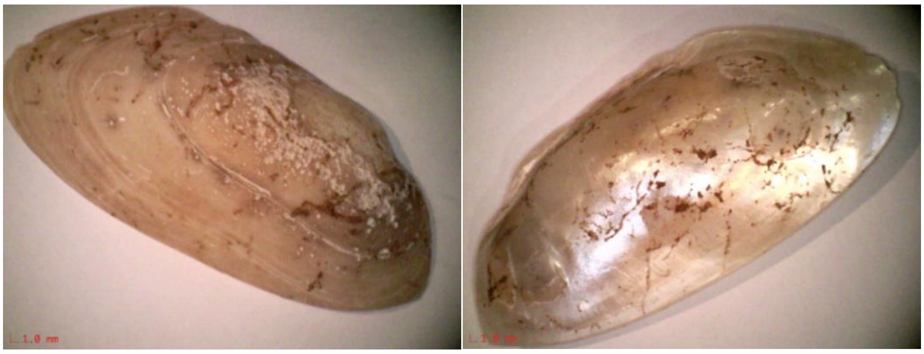


Figure 6.20. Microscopic view of the exterior and interior part of a bivalve shell from the Okesuna Ilorin assemblage. The back of the exterior appears to be scratched or polished which could indicate use as smoothers.

6.8.2. Animal teeth and bone

The bones and teeth assemblage recovered from the Okesuna Ilorin site was small and items were mostly fragmented (Appendices 9). Bone remains (Figure 6.21) were recovered from all excavation units, while teeth were only recovered from two units, Test Pits 1, and 3. Initial identification and classification of the remains was carried out on the field, and further analysis carried out in the UK. This involved weighing of the bone (a total of 1.98 kilograms) and basic zooarchaeological analysis. Animal bone with attached teeth were classified as bone.

To provide an initial assessment of the assemblage, 84 bone and teeth items (including SF 22, a perforated tooth, see Figure 6.15) in moderate state of preservation, were selected from the total assemblage and photographed (Appendix 9). Due to the ongoing Covid-19 pandemic, zooarchaeological analysis was undertaken remotely based on these photographs, by Dr Alex Fitzpatrick, an independent zooarchaeologist. It should be noted that Dr Fitzpatrick's expertise lies in British rather than West African faunal remains. As such, the identifications must be considered tentative.

Despite the poor state of their preservation, 52 items (ca. 62%) of the 84 could be conclusively analysed and thus categorised into large (horse/cattle sized), medium (sheep/pig sized) and small (fox/dog-sized) terrestrial mammals (Alex Fitzpatrick faunal report. 2021) (Appendix 10). Of the 52 items, 8 (15.4%) were identified as teeth. One or two possible bird bone fragments were also identified. Remains were also assessed for observable taphonomic characteristics, which revealed evidence of anthropogenic and non-anthropogenic modifications. Evidence of the modifications identified include butchery, burning, cracking, cut and chop marks as well as evidence of gnawing indicative of scavenging, perhaps by rodents. Some of the evidence indicative of butchery must have occurred when the bones were still fresh or raw prior to cooking. Attempt was also made to identify approximate age at death of the animals. This was based on analysis of six bones which produced two age categories: old and neonates. The bones categorised as coming from older animals were associated with the context dates to Cal AD 564-650 (Test Pit 7; Beta-587518).

Figure 6.21. Sample of the faunal remains (bone and teeth, some showing taphonomic characteristics) recovered across excavated units of Okesuna Ilorin.

Faunal remains have been reported from archaeological investigations across Yorùbá Yorùbáland, for example at Ile-Ife (Babalola 2016; Garlake 1977), Igbomina (Usman 2012), Old Oyo and Ede Ile (Ogundiran 2009). Evidence of a few faunal remains from Woye Asiri Ile-Ife were described as the bones and molars of sheep/goat molars and a bovid molar by Garlake (1977). Babalola (2016) also recovered some bones probably from sheep or goat and teeth from Igbo-Olokun site in Ife (Babalola 2016). In Ede-Ile, Osun state, southwestern Nigeria, the faunal remains recovered consisted predominantly of horse remains which, it is suggested, indicates connections between the Old Oyo area and Ede-Ile, the latter being proposed as a colony of the former (Ogundiran 2009, 2012; Ogundiran and Saunders 2011).

Generally, the faunal analysis of the Okesuna Ilorin assemblage showed the prevalence of domestic animals. The domestic species reported include cattle, sheep, goat, and pig. Evidence of the perforated tooth (Figure 6.15) assumed to be that of a carnivore probably hyena or leopard is suggestive of possible exploitation of wild animal species as well. One or two possible fish bone remains were also identified.

The presence of animal bones and teeth in the excavation give some indication of the components of the diets of the past people of Ilorin, as well as the nature of their environment which would have favoured the consumption of domestic and some wild animals. With the possible evidence of fish remains, the people must have also exploited water resources either nearby or far away. The Ilorin area is close to some important rivers such as, the Asa River in Ilorin and the River Niger about 200 km southwest.

6.9. Unidentified objects

Three similar unidentified black objects were recovered from Test Pit 1 Context 2 (Figure 6.22). Two were circular in shape and appeared to be broken parts of a larger item. The third item was a small piece halved lengthways. Diameters range between 0.05cm and 0.1cm while lengths range from 2.1cm to 4.1cm.

Figure 6.22. Unidentified objects from Test Pit 1 Context 2.

6.10. Conclusion

This chapter examined the small finds and faunal materials recovered from the units excavated. The finds comprised utilised sherds, pot stand, lithics, metals, beads, one perforated tooth, and organic materials consisting of bones, teeth, and shell. The utilised sherds in the form of ceramic discs may have been associated with architectural features such as potsherd pavements, or alternatively been used as tools (as a smoother). Lithics, including grinding stones, hammerstones and pebbles suggest an engagement in food processing, manufacturing, and possibly ritual activities.

Though evidence of metal objects was rare in the excavations, this may be the result of poor preservation. The recovery of metal artefacts established that the people had engaged with metal tools for various socio-economic activities. These activities would have included hunting, gaming, forest clearing, construction, production, ironworking, and even ritual purposes. The presence of a perforated tooth as a probable ornament or an amulet in the archaeological record of Okesuna Ilorin is an indication of additional human-animal interactions in the past. This could suggest their relationship with traditional or ritual activities. Though fragmentary in nature, remains of bone, teeth and shell provides valuable insights into past diets as well as possible further uses after consumption, as in the case of bivalve shell. The presence of two isolated beads, though difficult to associate their possible significance for the area, indicates that the people might have interacted with varieties of bead types through space and time.

Chapter 7: Summary and Conclusion

7.1. Introduction

This final chapter provides a synthesis of the archaeological research work conducted at Okesuna Ilorin, first presenting a summary and discussion of the results and assessing how far the research questions from Chapter 1 have been addressed. I then return to some of the theoretical frameworks that were introduced at the outset. I position the study within the general scholarship on the archaeology of the Yorùbá region and suggest directions for future research.

7.2. Summary and discussion of work

This study has provided the first systematic archaeological research work on the historically significant city of Ilorin, northern Yorùbáland, Nigeria. The research focused on investigating the socio-political development of the Ilorin area, and its connections to the wider region of Yorùbáland and beyond prior to the 19th century through material culture such as pottery, potsherd pavements, lithics, and bones. The investigation was carried out using archaeological survey and excavations, complemented by a survey of historical data, and ethnographic work. As such, it places itself within a growing body of archaeological studies of the borderlands of Yorùbáland, away from the prominent centres of Ile-Ife and Old Oyo.

The archaeological investigation was conducted at Okesuna Ilorin, one of the oldest quarters of the city. Although the city of Ilorin is heavily built up, archaeological materials were still visible, and at times abundant, in some parts of this area. Six sites were surveyed, five of which were previously known, and one newly identified. These sites are known today as Kwara State College of Education, Adewole residential estate, Government Day School Ilorin, Sheikh Abdulkadir College (all of which are flatlands); and Apata Suna and Okesuna hill sites. The survey allowed the systematic recording and georeferencing of evidence of human activity such as pottery, potsherd pavements, bone remains, lithics, and rock hollows. The survey was accompanied by surface collections of 787 pottery items within a designated area at the Kwara State College of Education site.

Nine potsherd pavements were also studied. Eight of these (of which four were studied in detail; see Chapters 3 and 4) were recorded within the Kwara State College of Education grounds, and the remaining one in the Adewole Estate. All were made up of relatively thick potsherds, arranged in herringbone patterns in different orientations. The survey provided significant datasets of sites, features, and artefacts for understanding some aspects of past human occupation in the Okesuna Ilorin area. All the sites yielded valuable finds and information for elucidating the cultural landscape of the area, and one of the sites, Kwara State College of Education, was selected for further investigation through excavation, due to the abundant and varied archaeological materials and features present there.

Ten units of various sizes were excavated within an area of about 100 x110m around the campus mosque (see Chapter 4). Six of these units (Test Pits 1, 3, 4, 5, 6, and 7) involved excavations of areas where potsherd remains, lithics, and bone fragments were visible on the surface; the other four units investigated the remains of potsherd pavements with a view to preservation for further archaeological heritage promotion, surface cleaning, examining associated embedded material evidence, and in the case of one unit, PPII, excavation. In total, a volume of 35.39m^3 was excavated across the seven units. The most substantial were Test Pit 1 (2m x 4m in size and reaching its lowest depth at 3.4m), Test Pit 3 (2m x 1.5m, reaching 1.2m), Test Pit 5 (2m x 2m reaching 0.64m) and Test Pit 7 (2m x 2m, reduced to 1m x 1m at 1.65m and reaching its lowest depth at 2.85m). Test Pit PPII (1m x 1 m, reaching 1.1m) for its part was important in providing an insight into the pottery pavement traditions at the site.

Test Pit 1 was the largest unit. It produced 14 stratigraphic layers and within which 17 contexts were recorded. Some distinctive contexts were identified which included ashy clayey mud deposits associated with wall rubble and a possible storage cavity. The depositional sequence and the abundant and varied nature of the materials recovered indicated that occupation was intensive. Apart from pottery, other material deposits include utilised sherds, a pot stand, animal bone and teeth, shell, and metal objects. Test Pit 3 produced 13 stratigraphic layers and 14 contexts, all of which yielding various material deposits, particularly pottery. Possible evidence of ritual practice was noted, with the presence of an embedded lateritic stone on the surface of the site which appeared to have dried oil (probably palm oil) on its surface. Two circular smaller pits containing mainly pottery were also encountered. Test Pit 4 was shallow and cultural material was sparse, but eleven stratigraphic layers and contexts were identified. Test Pit 5 yielded seven stratigraphies and contexts, as well as information on pottery and associated materials, for example, potsherd pavements. Test Pit 6 was a shallow unit with a concentration of cultural material on the surface to a depth of around 25cm. It also produced three stratigraphic layers and three contexts. Finally, Test Pit 7 unit produced 13 stratigraphic layers and 14 contexts, including two human burials and pottery, a mound covered in embedded potsherds, bone fragments, lithics, shell, bead, ash, and charcoal as well as the oldest of the five radiocarbon dates for the project (see Chapters 4, 5 and 6).

For its part, Test Pit PPII was excavated due to the presence of a potsherd pavement of the herringbone pattern, of the type often reported within the Yorùbá cultural sphere. The pavement was removed for analysis of the pottery and excavation beneath it reached a depth of 90cm. Pottery, shell, bone fragments, lithics, charcoal, and ash were recovered, with a clearly demarcated and gently sloping sequence of layers, demonstrating an occupation predating the construction of the potsherd pavement. A broken grinding stone and a potsherd were recovered at a depth of between 15cm and 40cm beneath one of the potsherd pavements studied by surface cleaning, while another pavement was associated with buried pottery.

Five radiocarbon dates were run on samples coming from three of the excavated units (Test Pits 1, 7, and PPII). These yielded dates falling between the mid-6th and the 12th centuries. This substantially extends the demonstrated length of occupation of Okesuna Ilorin as against the dates proposed by historical records, which place it at the 17th century approximately.

To complement information from the survey, excavation, and radiocarbon dates, the analysis of a corpus of 5760 ceramic items (5344 body parts which include near complete vessels and 416 rims) was carried out. These were issued from five excavated units (Test Pits 1, 3, 5, 7, and PPII) and from surface collections, including from potsherd pavements. Variables such as decoration and wall thickness and, in the case of rims, diameter, angle, type of rim, the position of decorations, paste colour, firing core, and non-plastic inclusions, were recorded.

The ceramic assemblage consisted of undecorated and decorated body and rim sherds and the bulk (about two-thirds) was made up of undecorated pottery. Decoration types fell into six groups: incision/groove, stamping/stabbing, roulette, perforation, applied decorations, and incised burnished. Decorations occurred either singly or in combinations. The dominant decoration group was the incision/groove category, with wavy dragged comb and striation, the most common within the group. The next most common decoration was twisted cord roulette impression, under the rouletting group. The absence of maize cob rouletting was noted; maize being an introduction of the 16th century, its absence at Okesuna Ilorin is in line with the radiocarbon dates obtained.

When compared with the two best-studied Yorùbá archaeological ceramic complexes, Ile-Ife and Old Oyo, within the 2nd millennium CE, it can be said that elements present in both of those decorative repertoires were present in the Okesuna Ilorin assemblage in varying quantities. For instance, the wavy dragged comb decoration commonly recovered at Ile-Ife was the dominant decoration in the Okesuna assemblage. However, it should be noted that the Okesuna Ilorin deposit are earlier, dating to the second half of the 1st millennium CE while those of Ile-Ife area date to the 2nd millennium. Other decorations such as bosses and incised geometric decorations featuring within the Okesuna Ilorin assemblage are also common to Ile-Ife ceramics. Decorations noted in the Old Oyo area such as dot punctate were also documented in the Okesuna Ilorin assemblage, albeit in very small quantities.

In terms of surface treatment, the burnished/basted treatments commonly recovered in Old Oyo assemblages were dominant within the Okesuna Ilorin ceramic assemblages while slip treatment known with the Ile-Ife complex were very rare. Burnished only pottery was the least in the surface treatment category. Most of the burnished/basted treatment sherds within the Okesuna Ilorin assemblage feature decorations such as wavy dragged comb, incision, angular punctate. This is also common to those of the Old Oyo assemblage. Willett (1960b: 75-76) pointed out that burnished/basted potsherds recovered from Old Oyo bore decorations such as incision, impressed round dot/dot punctate and roulettes made with a smaller roller. Some of the slipped and burnished only sherds from the Okesuna Ilorin assemblage also bear decorations such as punctate.

Moderately thick (15.5 - 20.4mm) sherds are the most common in the Okesuna Ilorin assemblage, while those with thin (0.1 - 5.4mm) and thick (20.5mm above) walls are the least common. This suggests the use of pottery for domestic functions such as cooking, serving, storage, and ceremonial activities.

The rim assemblage consisted of 416 items, with various forms mainly characterised by open short-everted rims with rounded lips, vertical simple rims with indented lips, and wide open carinated rims with tapered lips. Medium everted, long everted, flattened, and thickened rims were also noted. Most of the rims were also decorated on the neck area and the dominant paste colour was black/grey followed closely by brown. With regards to fabrics on rims, a low-fired black/grey core with quartz inclusion was predominant across units followed by a brown core with sand or grog inclusions.

A comparison of the archaeological materials with the present-day ceramic production at Ilorin yielded significant information on change and continuity in ceramic traditions. Ilorin has been known since the early 19th century, for its production of various types of pottery, most commonly red and black wares. These include large vessels used for storage, and pots and plates used for cooking, serving and other domestic functions. Compared to those from the archaeological assemblage, decorations in present-day productions are generally minimal or non-existent but they include incision (including incised burnished), groove and roulette. The varieties noted in the archaeological ceramic assemblage, such as wavy dragged, striation, angular punctuate, incision or composite decorations, are less common in the present-day pottery traditions of Ilorin. Incised burnished decorations were recovered only in association with burnished/basted items in both archaeological and ethnographic contexts. However, in the archaeological assemblage, they were only recovered in the form of parallel lines in the interior of burnished rims, while they appeared in various designs in present-day Ilorin pottery.

In terms of surface treatment, burnished/basted and slipped pots are both common in the present-day pottery of Ilorin, while in the case of the archaeological assemblage, burnished/basted pottery is more frequent while slipped pottery is very rare. The production techniques of present-day Ilorin black wares are claimed to have been derived from past practices. However, as far as Ilorin red wares are concerned, historical sources have indicated changes from the use of emulsion obtained from powdered lantana stone, left over by past bead makers, to create a red slip, to a mixture of other red minerals. It should be noted also that, while a small number of slipped pottery items were recovered in the archaeological assemblage, no evidence of lantana was recovered.

At our current state of knowledge, a comparative analysis of vessel forms in the archaeological assemblage (based on the study of the rim sherds and almost complete vessels) with those from the ethnographic records suggests that the Okesuna Ilorin pottery falls within the broader Yorùbá pottery traditions and show evidence of continuity. For instance, various types of open-mouthed, straight mouthed, close-mouthed and carinated rim forms were found in both contexts. Similar types to the near complete pot (Figure 5.29) recovered from the Okesuna Ilorin excavations were seen in present-day Ilorin and identified as a pitcher (local name: *Oru*) used in the past for the processing of medicinal herbs. That there might have been changes in the production of vessel forms through space and time at Ilorin is not surprising, as the current pottery makers in the area are not directly linked to the archaeological site. Based on the above, the Okesuna Ilorin pottery assemblage may therefore reflect evidence of different communities within the area.

In addition, the Okesuna Ilorin potsherd pavements studied show several attributes that support the result of the pottery analysis. Apart from the radiocarbon dates associated with pottery, the Okesuna Ilorin potsherd pavements patterns consist of the herringbone style, similar to that found widely in the Ile-Ife area and spanning a similar period of the 11th to 15th centuries. Evidence of buried pot remains associated with potsherd pavements in Okesuna Ilorin is also reminiscent of finds at Ile-Ife.

Beyond the consumption of pottery, this study revealed other material culture evidence such as utilised sherds, a pot stand, lithic, metal objects, beads, and faunal remains (Chapter 6). The four utilised sherds recovered are suggestive of architectural or craft activities as these have been identified as items used in potsherd pavements and mud walls and for smoothing. The lithics found in the assemblage suggest functions associated with grinding, pounding, and smoothing activities perhaps in the context of food processing, bead making, or pottery production. The presence of a few metal objects, albeit in a bad state of preservation, indicates that the past people of the settlement used metals for various activities, including cutting, while a corroded broken ring also suggests a possible use for adornment. Two beads were recovered from different contexts. The Okesuna faunal remains consisted of shell, animal bone and teeth, suggesting the exploitation of freshwater resources and mainly domestic animals. Only a few uncertain remains of wild animals were identified, but it is possible that the past people of the Okesuna area exploited wildlife resources due to the proximity of forested regions.

7.3. Contextualising Ilorin archaeology within theoretical models

In Chapter 1, several models were considered to help frame this research into the archaeology of Ilorin and northern Yorùbáland. These include the 'African Internal Frontier' drawn from Igor Kopytoff (1987), the 'zomia' model devised by James Scott (2009), and the peer-polity interactions model of Colin Renfrew and John Cherry (1986).

At the conclusion of the work, informed by the dates obtained, the nature of the ceramics recovered, and the general archaeological record of Ilorin within the wider context of Yorùbáland, we can return to these models to examine their applicability to the archaeological and historical evidence.

Kopytoff's (1987) African Internal Frontier thesis concerns the relationship between core centres and frontiers and suggests that new socio-political entities and identities develop at the frontiers of centres. As a result of the various processes of movements within the frontiers, it is believed that evidence of the resulting social organisations could provide evidence of connections and interactions among communities of people of different origin. Archaeological research within the Yorùbá region and elsewhere has revealed evidence of the impact of population movements on the material record in relations to the core/frontier dichotomy (i.e., Agbaje-Williams 1995; Aleru 2006; Ogundiran 2002b; Usman 2012). Within the Yorùbá world, archaeological and historical evidence of this type of relationship can be seen to emerge by the so-called Classical period (11th - 15th centuries CE), characterised by regional political institutions at Ile-Ife, and later by the Oyo empire (16th - 19th centuries CE). Based on limited oral and archaeological evidence, scholars such as Obayemi (1976) and Ogundiran (2003, 2020a) have argued that, between 250 - 750/800 CE, that is, prior to the Classical period, the Yorùbá region featured loose autonomous socio-political entities which may have shared common features and traditions. Later, in the 18th century, the Ilorin area is certainly regarded as a frontier of the Oyo empire, experiencing various characteristics of frontiers as described by Kopytoff (see Chapter 1). However, the fit during the earlier periods evidenced by the archaeological data recovered by the present work remains difficult to assess.

The archaeology of Ilorin has also been examined in this thesis within the context of James Scott's (2009) zomia model. Scott's zomia model was developed based on historical accounts of resistance, associated with the diverse groups of people who lived in an extensive high-altitude frontier zone of Southeast Asia, and while the geographical context differs, accounts of early 19th century Ilorin bear some resemblance with this; namely the fact of resistance against the major state authority of Old Oyo and multiple migrations. Scott's model indicates that areas regarded as zomias are refugee or shatter zones whose inhabitants include runaways, fugitives or marooned people who evaded state authorities due to incidences such as slavery, conscription, taxes, labour, epidemic and warfare. The ways of life and social practices of inhabitants of the zomias were organised to build resistance against any form of state intrusion, development, and power. However, a challenge is posed by the fact that Scott is a historian of Southeast Asia, whose model was based on historical data, and which does not focus on what resistance looks like archaeologically. As such, while the model remains fruitful to consider, its fits with the archaeology of Ilorin is difficult to assess.

At the conclusion of the work, the model of peer-polity interactions proposed by Colin Renfrew and John Cherry (1986) seems most appropriate. This can also be related to that of the Yorùbá community of practice referred to as *ebi* fraternity, advanced by Ogundiran (2020a) based on limited oral traditions and archaeological evidence. Also grounded in issues of regional interactions, the key point of Colin Renfrew and John Cherry (1986)'s peer-polity interaction model is that early socio-political units independent of one another existed but can also interact and share similar features. Although Renfrew and Cherry developed their model based on the prehistory of the Mediterranean, its general features are appropriate for the case of the archaeology of Ilorin in the 1st millennium CE.

Based on the radiocarbon dates from Okesuna Ilorin which span the mid-1st and 2nd millennium CE, and the associated material record, it can be suggested that the Ilorin area developed autonomous socio-political units that shared similar features and traditions with Yorùbáland more widely and elsewhere in West Africa. These socio-political unit might have been quite densely populated, considering the quantities of the finds and features recovered at Okesuna Ilorin site. The herringbone potsherd pavements, buried pottery and date of the 2nd millennium CE for one pavement (Test Pit PII) show commonalities with features from the wider Yorùbá region, in particular Ile-Ife. The various decorations identified in the Okesuna Ilorin ceramic assemblage, such as wavy dragged comb, striation, punctate, twisted cord roulette, as well as the vessel forms, suggest different communities or a mixed population. Although the Okesuna Ilorin ceramic assemblages have commonalities with those of well-known centres of Yorùbáland such as Old Oyo and Ile-Ife, these assemblages fall within the 2nd millennium CE, and the challenge is that the ceramics from contexts contemporary to Okesuna Ilorin, dated to the 1st millennium CE are not well studied.

This research is the first to document a 1st millennium CE ceramic assemblage outside these areas of Yorùbáland. It has also moved our attention away from the known centres, and thus sheds light on a different aspect of the development of Yorùbá pottery practices in an area that is also strategic and important in Yorùbá history.

This work has provided the first archaeological account of a possible connection between Ilorin and Ile-Ife potsherd pavement traditions. This is significant because the connection of Ilorin to Ile-Ife in historical times is much less clear than its connection with the Old Oyo area, which is known for its flat-laid potsherd patterns and its close historical link to the Ilorin area. From the archaeological data, it can be established that Ilorin must have benefitted as well as contributed to the regional socio-political processes in the Yorùbá region between the 1st and the 2nd millennium CE.

7.4. Conclusion

This study has provided the first archaeological and ethnohistorical documentation of the early material assemblage of the Ilorin area prior to the 19th century. Archaeological materials and features such as pottery, potsherd pavements, utilised sherds, lithics, metal objects, beads, shell and faunal remains have shed important insights into Ilorin's past in the mid-6th to the 12th centuries.

At the state of our present knowledge, archaeological investigation suggests that the early Ilorin settlement played a significant role in the socio-political development of the Yorùbáland region as early as the 1st millennium CE. Early settlers of Ilorin might have interacted and contributed within and outside Yorùbáland including with the areas of Ile-Ife and the northern Yorùbá area (including Old Oyo) prior to the periods in which these latter areas developed highly centralised polities. This is evident in the varieties of the archaeological material finds and features including potsherd pavements similar to those reported for the wider Yorùbá region.

Even though historical sources suggest that Ilorin derived its name from iron prospecting by the 17th century CE or earlier (Johnson 1921), no evidence of iron production was encountered. Future archaeological work can further examine this claim as ironworking is certainly documented archaeologically elsewhere in northern Yorùbáland at such sites as Iffe-Ijumu (Itaakpa rockshelter and Addo ironworking site) and Obo Aiyegunle at present-day Kogi and Kwara States respectively with associated dates from the 1st millennium CE to the 2nd millennium CE (Allsworth-Jones et al. 2012; Aremu 1991, 2004; Oyelaran 1998).

Other aspects of importance for future research include further archaeological research and pottery analysis on materials from Okesuna. This work represents the first multivariant work on ceramics from Ilorin, and further analysis of excavated ceramic assemblages from the area would be valuable for a more comprehensive understanding of material and chronological sequences. This can also further the understanding of the pottery *chaîne opératoire* and explore continuities and discontinuities with present-day productions in Ilorin. Further archaeological research can also provide data to fill the occupation gap observed at Okesuna through the present excavations. Lastly, the heritage management aspect of pottery pavements within the Kwara State College of Education (KWCOED) needs to be explored further.

Other areas within proximity of Ilorin associated with past hilltop sites are also of interest here. For instance, Shao hilltop site, located 10km northwest of Ilorin, close to the Jebba area and the River Niger, is valuable for the understanding of regional evolution, due to the claim by oral traditions that its occupation predates that of Ilorin (Hermon-Hodge 1929: 281; Jimoh 1994: 64-65; O'Hear 1983; pp 172-173, 176-177, 208). Shao is significant, not only as a northern frontier settlement of the Oyo empire but also due to its relationship with and location close to Ilorin, and local traditions which associate its settlement history to that of surrounding hilltop settlements. Limited reconnaissance has identified surface potsherd scatters, stone artefacts, rock hollows, remains of defensive rock boulders, and wall rubble (Oyetunji 2020). However, serious archaeological investigation at Shao, including a comparative analysis of finds with those from Okesuna Ilorin, would be interesting in this regard.

An archaeological investigation of Erin-Ile town (Olowe site), located about 40km northwest of Ilorin, which I visited during my fieldwork in 2020, would also prove valuable. This is another potsherd pavement town with associated heritage materials. Although I carried out a preliminary assessment, further study will provide better insights into the site's archaeological potential.

The results presented here position themselves within a growing body of archaeological research within Yorùbáland – beyond the well-studied centres of Ile-Ife and the Oyo empire. Through pioneering archaeological research in Ilorin, this thesis has demonstrated that Ilorin shared in the wider connections of social, political, economic, and cultural developments in Yorùbáland and more broadly West Africa prior to the 19th century.

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Appendices

Appendix 1: Details of key informants interviewed

S/N	Name	Sex	Age	Place of interview	Occupation/ Status	Date of interview	Witnesses/Research assistants/ student volunteers	Further remark
1	Pa Abubakar Garuba (of blessed memory)	M	80+	Adewole residential Estate (former Agbaakin settlement), Ilorin	Retired civil servant	15/02/2020	Mr Ibrahim Akanbi, Mr David Okanlawon	
2	Mrs Zanabu Garuba	F	75+	Adewole residential Estate (former Agbaakin settlement), Ilorin	Trader and wife to Pa Abubakar Garuba	15/02/2020	Mr Ibrahim Akanbi, Mr David Okanlawon	
3	Pa Kamoru Abdulraham	M	100+	Mogaji Odo Okun residence, Odo Okun, Sawmill area, Ilorin	Head (*Mogaji*) Odo Okun	21/05/2020	Mr. Tope Salami and Mr Yusuf	Okesuna descendant
4	Alhaji Giwa Jamiu	M	80	Imam Matase's Compound, Oke Leru, Ilorin	Retired Civil Servant	02/06/2020	Mr. Taofik Omotosho	Okesuna Descendant
5	Imam Yusuf Matase	M	40	Imam Matase's Compound, Oke Leru, Ilorin	Cleric	02/06/2020	Taofik Omotosho	Okesuna Descendant
6	Alhaji Yusuf Maikabara	M	90	Mekabara's Compound, Ita Kudimo, Ilorin	Head (*Mogaji*) of Maikabara	02/06/2020,04/06/2020	Mr. Taofik Omotosho and Sodiq Gold	Okesuna Descendant
7	Alhaji Olokode Suleiman Alkali Umar	M	75	Olokode's Compound, Balogun Fulani Ward, Ilorin	Retired Civil Servant	11/06/2020	Taofik Omotosho	Okesuna/ Solagberu Descendant
8	Alhaji Isiaka Onagun	M	77	Onagun's Compound, Ita Egba, Ilorin	Retired Civil Servant	02/06//2020	Taofik Omotosho and Sadiq Gold	Okesuna Descendant
9	Alhaji Abdullahi Onagun	M	80+	Onagun compound, Odoota, Ilorin	Head (*Mogaji*) of Onagun compound	04/06/2020	Taofik Omotosho	Okesuna Descendant

10	Alhaji Sholagberu Abdulsalam	M	81	Sholagberu's Compound, Agbaji, Ilorin	Mogaji of Sholagberu	02/06/2020	Taofik Omotosho	Okesuna/ Solagberu Descendant
11	Imam Bature Abdulwahab	M	62	Bature's Compound, Oke Apomu, Ilorin	Islamic Scholar	01/06/2020		Okesuna Descendant
12	Imam Abdulganiyu Ojibara	M	70	Ojibara's Compound, Oke Apomu, Ilorin	Retired Civil Servant	04/06/2020	Taofik Omotosho	Okesuna Descendant
13	Alhaji L.A.K Jimoh	M	78	Gambari area, Ilorin	Ilorin Elder Stateman, politician and Historian	09/06/2020	Mr Abdulhameed Ajao Ajikobi	
14	Mr Tunde Oyinloye	M	-	Ilorin National Museum, Ilorin	Museum Staff and ceramist	02/06/2020	Mr Sodiq Gold	
15	Ile Olode pottery centre	F	-	Pottery centre Pakata, Ilorim	Female Potters (2)	21/05/2020	Sodiq Gold	
16	Alhaji Yerima	F	-	Ebu Dada Pottery Cantre	Potter	21/05/2020	Sodiq Gold	
17	Madam Amope Iyalaro	F	-	Ile Apaana, Ode Olowo Off Adeta Ilorin	Potter	02/06/2020	Sodiq Gold, Taofik Omotosho	
18	Malubi	F	-	Ile Malubi pottery centre	Potters (2)	06/06/2020	Alhaji Olosho Babale and Mr Ibrahim Laaro	

Appendix 2. List of some Economic trees and Cultural trees with the Kwara State College of Education Grounds

S/N	English names	Botanical names
1	Algaroba bean	*Prosopis juliflora*
2	Oil palm	*Elaeis guineensis*
3	Locust bean tree	*Parkia biglobosa*
4	Shea tree	*Vitellaria paradoxa*
5	Pride of Barbados	*Caesalpinia pulcherrima*
6	Coastal Coral tree	*Erythrina caffra*
7	Pawpaw	*Carica papaya*
8	Mango	*Mangifera indica*
9	Neem tree	*Azadirachta indica*
10	Tamarind tree	*Tamarindus indica*
11	Ficus tree	*Ficus capensis or Ficus mucus*
12	Baobab tree	*Adansonia digitate*
13	Igi Odan	*Terminalia avicennioides*

Appendix 3.

Okesuna, Ilorin 2020.

Charcoal Sample Form

Sample#.......................................

Site: KWCOED 2020 Date: Collector:

Unit: PPIV Level: Feature:

Weight (g):

Depth (recorded specific depth):

Location on the unit (sketch on reverse):

Associated materials/features:

Describe any evidence of contamination:

Collection process and treatment:

Comments:

Appendix 4: Report of Radiocarbon dating analyses of Okesuna Ilorin.

BetaCal 4.20

Calibration of Radiocarbon Age to Calendar Years

(High Probability Density Range Method (HPD): INTCAL20)

(Variables: d13C = -27.0 o/oo)

Laboratory number **Beta-587516**

Conventional radiocarbon age **1270 ± 30 BP**

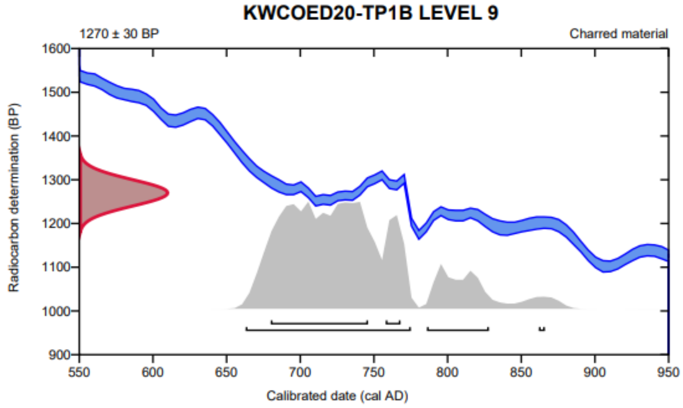
95.4% probability

(83.7%)	663 - 775 cal AD	(1287 - 1175 cal BP)
(11.2%)	786 - 828 cal AD	(1164 - 1122 cal BP)
(0.4%)	862 - 866 cal AD	(1088 - 1084 cal BP)

68.2% probability

(60.5%)	680 - 746 cal AD	(1270 - 1204 cal BP)
(7.7%)	758 - 768 cal AD	(1192 - 1182 cal BP)

KWCOED20-TP1B LEVEL 9



Database used

INTCAL20

References

References to Probability Method

Bronk Ramsey, C. (2009). Bayesian analysis of radiocarbon dates. Radiocarbon, 51(1), 337-360.

References to Database INTCAL20

Reimer, et al., 2020, Radiocarbon 62(4):725-757.

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BetaCal 4.20

Calibration of Radiocarbon Age to Calendar Years

(High Probability Density Range Method (HPD): INTCAL20)

(Variables: d13C = -24.6 o/oo)

Laboratory number **Beta-587517**

Conventional radiocarbon age **1220 ± 30 BP**

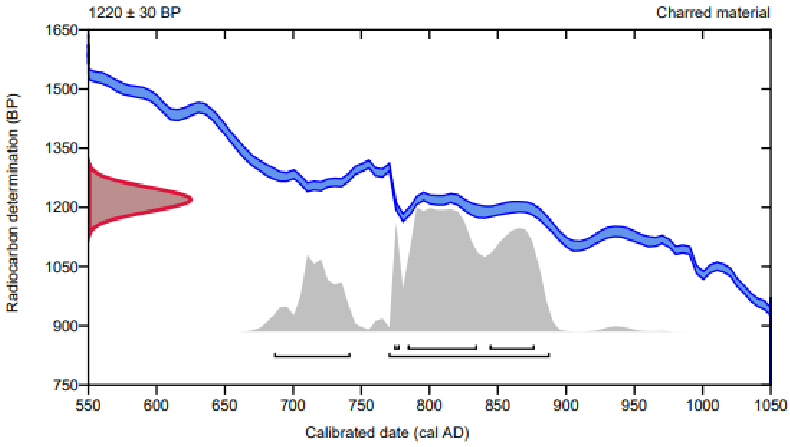
95.4% probability

(77.9%)	770 - 888 cal AD	(1180 - 1062 cal BP)
(17.5%)	686 - 742 cal AD	(1264 - 1208 cal BP)

68.2% probability

(42.5%)	784 - 835 cal AD	(1166 - 1115 cal BP)
(22.9%)	844 - 877 cal AD	(1106 - 1073 cal BP)
(2.8%)	774 - 778 cal AD	(1176 - 1172 cal BP)

KWCOED20-TP1B LEVEL 26



Database used

INTCAL20

References

References to Probability Method

Bronk Ramsey, C. (2009). Bayesian analysis of radiocarbon dates. Radiocarbon, 51(1), 337-360.

References to Database INTCAL20

Reimer, et al., 2020, Radiocarbon 62(4):725-757.

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BetaCal 4.20

Calibration of Radiocarbon Age to Calendar Years

(High Probability Density Range Method (HPD): INTCAL20)

(Variables: d13C = -27.0 o/oo)

Laboratory number **Beta-587518**

Conventional radiocarbon age **1460 ± 30 BP**

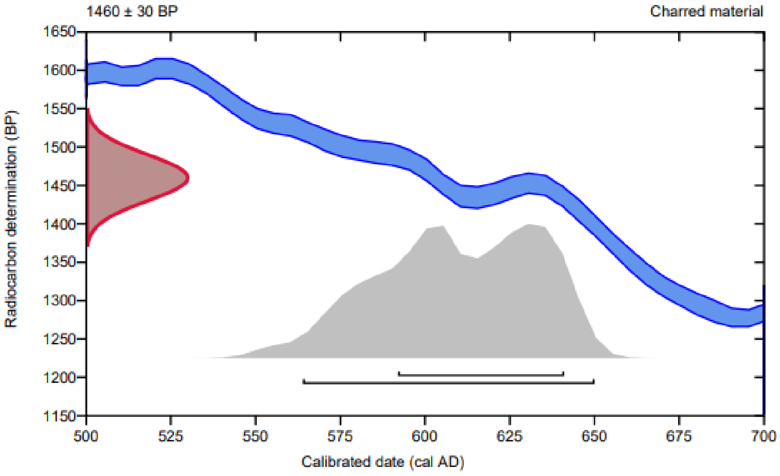
95.4% probability

(95.4%) 564 - 650 cal AD (1386 - 1300 cal BP)

68.2% probability

(68.2%) 592 - 641 cal AD (1358 - 1309 cal BP)

KWCOED20-TP7 LEVEL 5



Database used

INTCAL20

References

References to Probability Method

Bronk Ramsey, C. (2009). Bayesian analysis of radiocarbon dates. Radiocarbon, 51(1), 337-360.

References to Database INTCAL20

Reimer, et al., 2020, Radiocarbon 62(4):725-757.

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BetaCal 4.20

Calibration of Radiocarbon Age to Calendar Years

(High Probability Density Range Method (HPD): INTCAL20)

(Variables: d13C = -25.1 o/oo)

Laboratory number **Beta-587519**

Conventional radiocarbon age **1260 ± 30 BP**

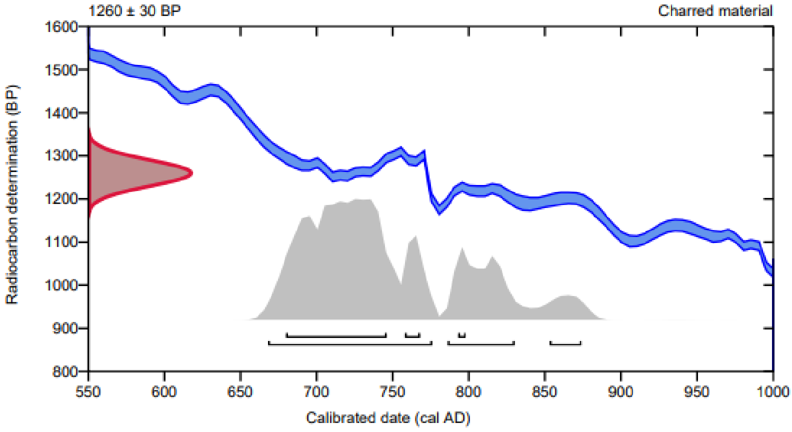
95.4% probability

(73.9%)	668 - 776 cal AD	(1282 - 1174 cal BP)
(17.8%)	786 - 830 cal AD	(1164 - 1120 cal BP)
(3.8%)	853 - 874 cal AD	(1097 - 1076 cal BP)

68.2% probability

(59.4%)	680 - 746 cal AD	(1270 - 1204 cal BP)
(6.2%)	758 - 768 cal AD	(1192 - 1182 cal BP)
(2.6%)	793 - 798 cal AD	(1157 - 1152 cal BP)

KWCOED20-TP7 LEVEL 27



Database used

INTCAL20

References

References to Probability Method

Bronk Ramsey, C. (2009). Bayesian analysis of radiocarbon dates. Radiocarbon, 51(1), 337-360.

References to Database INTCAL20

Reimer, et al., 2020, Radiocarbon 62(4):725-757.

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BetaCal 4.20

Calibration of Radiocarbon Age to Calendar Years

(High Probability Density Range Method (HPD): INTCAL20)

(Variables: d13C = -24.4 o/oo)

Laboratory number **Beta-587520**

Conventional radiocarbon age **940 ± 30 BP**

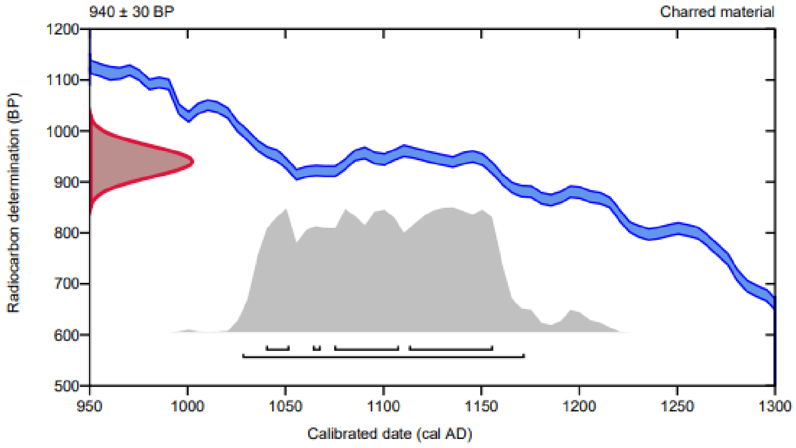
95.4% probability

(95.4%)	1028 - 1172 cal AD	(922 - 778 cal BP)

68.2% probability

(32.3%)	1113 - 1156 cal AD	(837 - 794 cal BP)
(24.2%)	1075 - 1108 cal AD	(875 - 842 cal BP)
(8.7%)	1040 - 1052 cal AD	(910 - 898 cal BP)
(3%)	1064 - 1068 cal AD	(886 - 882 cal BP)

KWCOED20-PPII LEVEL 9



Database used
INTCAL20

References
References to Probability Method

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References to Database INTCAL20

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ISO/IEC 17025:2005-Accredited Testing Laboratory

Quality Assurance Report

This report provides the results of reference materials used to validate radiocarbon analyses prior to reporting. Known-value reference materials were analyzed quasi-simultaneously with the unknowns. Results are reported as expected values vs measured values. Reported values are calculated relative to NISTSRM-1990C and corrected for isotopic fractionation. Results are reported using the direct analytical measure percent modern carbon (pMC) with one relative standard deviation. Agreement between expected and measured values is taken as being within 2 sigma agreement (error x 2) to account for total laboratory error.

Report Date: May 04, 2021
Submitter: Prof. Anne Haour

QA MEASUREMENTS

Reference 1

Expected Value:	129.41 +/- 0.06 pMC
Measured Value:	129.47 +/- 0.37 pMC
Agreement:	Accepted

Reference 2

Expected Value:	0.44 +/- 0.10 pMC
Measured Value:	0.42 +/- 0.03 pMC
Agreement:	Accepted

Reference 3

Expected Value:	96.69 +/- 0.50 pMC
Measured Value:	96.86 +/- 0.29 pMC
Agreement:	Accepted

COMMENT: All measurements passed acceptance tests.

Validation: Digital signature on file   Date: May 04, 2021

Appendix 5. Codes and descriptions of Rim analysis variables (See also Chapter 5).

Rim Angle

1 - Tightly closed
2 - Closed
3 - Vertical
4 - Open
5 - Wide Open
6 - Potlid

Rim Type

1- Simple
2- Thickened
3- Carinated
4- Short Everted
5- Medium Everted
6- Long Everted

Lip Shape

1- Rounded
2- Flattened
3- Tapered
4- Indented

Paste Colour

1- Orange
2- Brown
3- Black/Gray

Core

0- Fully Oxidized
1- Exterior Oxidation only

2- Interior Oxidation only

3- Black Sandwiched

4- Black/Gray throughout

5- Sandwiched Oxidation

Non-Plastic Inclusion Dominant (NPI)

1- Quartz

2- Sand

3- Grog

Outer Surface Treatment position

0- None

1- Entire Surface exterior

2- Rim

3- Lip

4- Rim and Shoulder

Interior Surface Treatment position

0- None

1- Entire interior

2- Rim

3- lip

Decorations

0- Plain

1- Striation or wiping

2- Single groove

3- Boss

4- Angular punctate

5- Dragged comb impression

6- Raised banded punctuate

7- Twisted cord roulette

8- Wavy dragged comb impression

9- Multiple groove

10- Dot/Circular punctuate

11- Perforation

12- Geometric motifs/lines (i.e. angular perpendicular/rocker comb)

13- Incision

14- Channel

15- Incised Burnished

16- Stamp/stab impression (indistinct)

Surface Treatment

17- Slip

18- Burnish/Basting

19- Burnish only

Decoration Position on rim pottery (Dec-P)

0- None

1- Lip Only

2- Rim Only

3- Rim and Shoulder

4- Rim, Shoulder, and Body

5- Shoulder and Body

6- Body

7- Interior

8- Neck

9- Shoulder

10- Base

11- Handle

Description of analysed variables on the Okesuna Ilorin rim pottery

1. RD – Rim diameter
2. THK – Thickness
3. RA – Rim angle
4. RT – Rim type
5. PC – Paste colour
6. LS – Lip shape
7. CORE - CORE

8. NPI – Non-plastic inclusion

9. OST/IST – Outer/Interior surface treatment

10. OSTP – Outer surface treatment position

11. ISTP – Interior surface treatment position

12. Dec – Decoration

13. Dec-p – Decoration position.

Appendix 6. Rim analysis (see Chapter 5. See appendix 5 for descriptions of codes)																					
SN	UNIT	CONTEXT	SHERD ID	RD	THK	RA	RT	PC	LS	CORE	NPI	OST/IST	OSTP	ISTP	Dec-I	Dec-p-I	Dec-II	Dec-p-II	Dec-III	Dec-p-III
1	Surface	Surface	1	24	3	5	1	3	1	4	2	0	0	0	1	2	3	7	0	0
2	Surface	Surface	2	8	3	3	1	3	2	1	1	0	0	0	0	0	0	0	0	0
3	Surface	Surface	4	18	4	5	5	3	4	5	0	0	0	0	1	2	0	0	0	0
4	Surface	Surface	5	14	3	4	4	3	4	5	0	0	0	0	8	2	0	0	0	0
5	Surface	Surface	7	20	3	4	1	2	4	4	0	0	0	0	1	2	0	0	0	0
6	Surface	Surface	8	14	2	4	3	3	1	4	0	18	1	3	7	2	0	0	0	0
7	Surface	Surface	9	22	3	5	4	3	3	5	0	0	0	0	0	0	0	0	0	0
8	Surface	Surface	11	22	3	3	4	3	1	4	1	0	0	0	0	0	0	0	0	0
9	Surface	Surface	13	14	3	5	1	2	3	5	0	0	0	0	0	0	0	0	0	0
10	Surface	Surface	14	18	3	5	1	3	1	4	0	19	1	1	4	6	0	0	0	0
11	Surface	Surface	19	10	3	4	4	3	4	5	2	0	0	0	0	0	0	0	0	0
12	Surface	Surface	20	15	4	4	1	3	4	5	2	0	0	0	0	0	0	0	0	0
13	Surface	Surface	21	12	3	3	1	3	4	1	1	0	0	0	0	0	0	0	0	0
14	Surface	Surface	22	11	4	3	1	3	4	5	1	0	0	0	0	0	0	0	0	0
15	Surface	Surface	24	19	3	3	1	2	3	5	1	0	0	0	8	8	0	0	0	0
16	Surface	Surface	29	27	5	3	2	2	4	0	1	0	0	0	1	2	0	0	0	0
17	Surface	Surface	30	13	3	3	1	3	1	4	1	0	0	0	0	0	0	0	0	0
18	Surface	Surface	32	29	2	3	1	3	1	4	1	0	0	0	0	0	0	0	0	0
19	Surface	Surface	33	30	2	3	1	3	1	4	1	0	0	0	0	0	0	0	0	0

SN	UNIT	CONT	CONTEXT DEPTH (CM)	SHERD ID	RD	THK	RA	RT	PC	LS	CORE	NPI	OST/IST	OSTP	ISTP	Dec-I	Dec-p-I	Dec-II	Dec-p-II	Dec-III	Dec-p-III
1	TP1A	1	7-26cm	5	18	3	4	5	2	4	1	0	0	0	0	8	2	0	0	0	0
2	TP1A	1	7-26cm	7	16	3	4	4	3	1	0	0	18	2	0	0	0	0	0	0	0
3	TP1A	2	26-30cm	2	20	2	2	5	2	4	0	0	0	0	0	1	3	0	0	0	0
4	TP1A	2	26-30cm	2	14	3	4	4	3	3	0	1	18	4	1	4	3	0	0	0	0
5	TP1A	5	51-59cm	1	16	2	4	5	2	4	4	1	17	0	1	0	0	0	0	0	0
6	TP1A	5	51-59cm	2	14	3	4	3	3	1	3	1	0	0	0	6	9	0	0	0	0
7	TP1A	5	51-59cm	3	14	3	4	2	3	2	4	1	18	1	1	4	11	0	0	0	0
8	TP1A	6	59-114cm	1	32	3	4	4	3	4	4	1	18	1	0	8	8	1	8	0	0
9	TP1A	6	59-114cm	2	14	3	4	5	2	3	0	1	17	1	1	7	3	10	9	0	0
10	TP1A	6	59-114cm	3	18	3	3	4	2	1	1	0	17	1	1	7	8	0	0	0	0
11	TP1A	6	59-114cm	4	18	3	4	4	3	3	4	2	18	1	1	8	8	8	9	0	0
12	TP1A	6	59-114cm	5	16	2	4	5	3	3	4	2	18	1	0	8	8	8	9	0	0
13	TP1A	6	59-114cm	6	26	2	4	3	3	1	0	1	18	1	1	8	8	4	9	0	0
14	TP1A	6	59-114cm	7	22	2	3	1	3	1	4	2	18	1	1	4	6	0	0	0	0
15	TP1A	6	59-114cm	8	22	3	5	1	3	1	4	2	18	1	1	4	10	0	0	0	0
16	TP1A	6	59-114cm	9	18	3	5	3	3	1	0	2	19	1	1	4	9	0	0	0	0
17	TP1A	6	59-114cm	11	20	3	4	4	3	1	4	1	19	5	1	1	9	0	0	0	0
18	TP1A	6	59-114cm	12	22	3	4	1	2	1	0	1	18	1	1	0	0	0	0	0	0
19	TP1A	6	59-114cm	13	22	3	4	4	2	1	0	1	18	1	1	8	8	0	0	0	0
20	TP1A	6	59-114cm	14	20	3	4	4	2	3	0	1	18	1	1	8	8	8	9	0	0
21	TP1A	6	59-114cm	15	18	3	4	3	3	1	2	1	0	0	0	0	0	0	0	0	0
22	TP1A	6	59-114cm	17	16	3	4	5	3	4	0	0	0	0	0	0	0	0	0	0	0

SN	UNIT	CONT	CONTEXT DEPTH (CM)	SHERD ID	RD	THK	RA	RT	PC	LS	CORE	NPI	OST/IST	OSTP	ISTP	Dec-I	Dec-p-I	Dec-II	Dec-p-II	Dec-III	Dec-p-III
23	TP1A	6	59-114cm	18	15	3	4	3	3	1	0	0	18	1	1	0	0	0	0	0	0
24	TP1A	6	59-114cm	20	12	2	5	5	3	1	4	2	18	1	1	8	3	0	0	0	0
25	TP1A	6	59-114cm	24	18	2	5	1	3	1	4	2	18	1		0	0	0	0	0	0
26	TP1A	7	114-137cm	1	25	3	4	1	2	1	0	0	0	0	0	4	1	8	4	0	0
27	TP1A	7	114-137cm	3	20	3	4	6	2	4	0	2	18	2	1	5	8	1	8	0	0
28	TP1A	7	114-137cm	4	14	3	4	1	3	1	1	1	0	0	1	0	0	0	0	0	0
29	TP1A	7	114-137cm	6	36	3	5	5	3	1	4	2	18	1	1	4	10	0	0	0	0
30	TP1A	7	114-137cm	7	34	3	5	3	3	1	4	2	18	1	1	4	10	0	0	0	0
31	TP1A	7	114-137cm	8	36	3	5	3	3	1	4	2	18	1	1	3	10	0	0	0	0
32	TP1A	7	114-137cm	9	25	3	5	3	3	1	4	3	18	1	1	8	8	4	6	0	0
33	TP1A	7	114-137cm	10	26	3	4	5	2	4	4	2	18	2	1	1	8	0	0	0	0
34	TP1A	7	114-137cm	11	20	3	5	3	3	1	4	2	18	1	0	4	6	0	0	0	0
35	TP1A	7	114-137cm	12	26	3	4	5	1	3	0	1	17	1	1	1	2	0	0	0	0
36	TP1A	7	114-137cm	13	24	3	5	4	2	1	1	1	18	2	1	1	8	0	0	0	0
37	TP1A	7	114-137cm	14	18	3	4	4	3	3	4	1	18	1	0	8	8	0	0	0	0
38	TP1A	7	114-137cm	16	18	2	4	4	3	3	0	1	18	2	0	8	8	0	0	0	0
39	TP1A	7	114-137cm	17	20	2	5	3	3	1	4	2	18	1	1	10	6	0	0	0	0
40	TP1A	7	114-137cm	18	14	2	4	4	2	3	0	2	18	1	0	8	8	0	0	0	0
41	TP1A	7	114-137cm	19	20	2	4	5	2	1	0	1	18	2	0	0	0	0	0	0	0
42	TP1A	7	114-137cm	21	19	2	3	4	3	2	4	2	18	1	1	8	5	0	0	0	0
43	TP1A	7	114-137cm	22	20	3	4	5	2	1	0	2	18	2	1	8	2	0	0	0	0
44	TP1A	7	114-137cm	32	28	3	5	6	2	3	5	1	0	0	0	8	3	13	9	0	0
45	TP1A	7	114-137cm	33	25	3	5	6	2	3	5	1	0	0	0	8	3	13	9	0	0
46	TP1A	7	114-137cm	34	24	3	5	3	3	3	4	1	19	1	1	4	9	0	0	0	0
47	TP1A	8	137-147cm	1	31	3	3	4	2	1	4	2	0	0	0	8	3	1	8	0	0

SN	UNIT	CONT	CONTEXT DEPTH (CM)	SHERD ID	RD	THK	RA	RT	PC	LS	CORE	NPI	OST/IST	OSTP	ISTP	Dec-I	Dec-p-I	Dec-II	Dec-p-II	Dec-III	Dec-p-III
48	TP1A	8	137-147cm	2	16	3	5	4	3	1	4	1	0	0	1	1	8	0	0	0	0
49	TP1A	8	137-147cm	3	35	3	4	3	3	1	3	2	18	1	1	4	6	0	0	0	0
50	TP1A	8	137-147cm	4	29	3	4	5	3	4	4	1	0	0	0	1	8	0	0	0	0
51	TP1A	8	137-147cm	5	30	3	4	4	3	2	4	1	0	0	1	1	8	0	0	0	0
52	TP1A	8	137-147cm	6	30	3	2	5	3	1	4	1	0	0	0	1	8	0	0	0	0
53	TP1A	8	137-147cm	7	34	4	5	4	3	1	4	1	0	0	0	0	0	0	0	0	0
54	TP1A	8	137-147cm	9	26	3	2	2	1	1	4	1	0	0	0	4	1	0	0	0	0
55	TP1A	8	137-147cm	11	25	2	4	3	3	1	4	2	0	0	0	14	10	8	6	0	0
56	TP1A	8	137-147cm	13	24	2	4	1	3	1	4	1	0	0	0	8	4	4	1	0	0
57	TP1A	8	137-147cm	15	25	3	3	1	2	1	1	2	0	0	0	4	1	0	0	0	0
58	TP1A	8	137-147cm	16	21	2	5	4	3	1	4	1	0	0	0	8	8	0	0	0	0
59	TP1A	8	137-147cm	18	32	3	3	1	2	1	5	2	0	0	0	8	4	4	6	0	0
60	TP1A	9	147-158cm	1	21	2	3	5	3	3	4	2	0	0	0	1	8	8	9	0	0
61	TP1A	9	147-158cm	2	25	4	4	4	2	4	4	1	0	0	0	8	8	1	8	0	0
62	TP1A	9	147-158cm	5	32	3	4	4	2	1	4	1	0	0	0	1	8	0	0	0	0
63	TP1A	9	147-158cm	11	26	3	4	4	2	1	0	1	0	0	0	8	8	0	0	0	0
64	TP1A	9	147-158cm	14	26	3	4	3	3	1	4	2	0	0	1	4	9	0	0	0	0
65	TP1A	9	147-158cm	19	28	2	5	4	3	1	2	2	0	0	0	5	8	0	0	0	0
66	TP1A	10	158-170cm	1	26	3	4	1	3	1	4	1	0	0	0	1	2	0	0	0	0
67	TP1A	10	158-170cm	2	28	3	3	4	2	1	1	1	0	0	0	8	2	0	0	0	0
68	TP1A	10	158-170cm	3	15	3	2	4	2	1	1	1	0	0	0	1	2	5	9	0	0
69	TP1A	10	158-170cm	4	18	3	4	4	2	1	4	2	0	0	0	1	2	0	0	0	0
70	TP1A	10	158-170cm	5	34	3	4	1	2	1	4	1	0	0	0	0	0	0	0	0	0
71	TP1A	10	158-170cm	6	24	3	4	1	2	1	4	1	0	0	0	0	0	0	0	0	0
72	TP1A	10	158-170cm	7	33	3	5	4	3	3	4	0	0	0	0	1	2	0	0	0	0

SN	UNIT	CONT	CONTEXT DEPTH (CM)	SHERD ID	RD	THK	RA	RT	PC	LS	CORE	NPI	OST/IST	OSTP	ISTP	Dec-I	Dec-p-I	Dec-II	Dec-p-II	Dec-III	Dec-p-III
73	TP1A	10	158-170cm	10	7	2	2	1	2	1	4	2	0	1	1	4	2	0	0	0	0
74	TP1A	12	180-190cm	1	33	3	5	6	2	3	3	1	0	0	0	8	3	13	8	0	0
75	TP1A	12	180-190cm	2	7	2	4	6	4	3	4	1	0	0	0	1	3	0	0	0	0
76	TP1A	12	180-190cm	4	19	3	4	2	2	2	3	1	18	0	1	0	0	0	0	0	0
77	TP1A	12	180-190cm	5	23	2	4	1	3	2	4	1	0	0	0	0	0	0	0	0	0
78	TP1A	13	190-200cm	1	19	3	4	5	2	1	4	1	0	0	0	8	8	0	0	0	0
79	TP1A	13	190-200cm	2	25	3	4	5	3	4	4	2	0	0	0	1	8	0	0	0	0
80	TP1A	14	200-265cm	1	17	3	4	4	2	2	5	0	0	0	0	4	8	12	8	0	0
81	TP1A	14	200-265cm	2	20	3	4	3	1	1	4	1	0	0	0	4	9	0	0	0	0
82	TP1A	14	200-265cm	3	19	1	4	3	3	1	1	1	18	1	1	0	0	0	0	0	0
83	TP1A	14	200-265cm	4	30	3	4	4	3	4	2	2	0	0	1	4	1	0	0	0	0
84	TP1A	14	200-265cm	5	17	2	2	1	2	2	4	1	0	0	0	0	0	0	0	0	0
85	TP1A	14	200-265cm	7	17	3	3	5	2	2	2	1	0	0	0	0	0	0	0	0	0
86	TP1A	14	200-265cm	8	23	4	4	5	3	4	4	1	0	0	0	8	6	0	0	0	0
87	TP1A	15	265-269cm	1	21	3	3	1	3	1	4	1	18	0	3	7	3	6	6	0	0
88	TP1A	15	265-269cm	2	22	3	5	6	3	1	5	1	0	0	0	13	2	1	8	0	0
89	TP1A	15	265-269cm	4	23	3	4	4	3	1	4	1	0	0	0	0	0	0	0	0	0
90	TP1A	15	265-269cm	5	17	2	3	3	3	2	4	1	18	0	1	8	2	4	6	0	0
91	TP1A	15	265-269cm	6	19	2	4	4	3	3	4	1	0	0	0	1	2	0	0	0	0
92	TP1A	15	265-269cm	7	17	2	4	5	3	4	4	1	0	0	0	1	8	0	0	0	0
93	TP1A	15	265-269cm	8	28	3	5	6	3	3	4	2	0	0	8	14	1	8	2	0	0
94	TP1A	15	265-269cm	9	19	3	5	3	3	1	4	2	18	0	1	4	6	0	0	0	0
95	TP1A	15	265-269cm	10	13	3	4	5	1	1	4	1	0	0	0	8	8	5	8	0	0
96	TP1A	15	265-269cm	11	18	3	4	5	3	3	4	1	17	1	1	5	4	6	9	3	9
97	TP1A	16	269-285cm	1	42	3	4	5	2	4	0	2	0	0	1	14	2	1	8	0	0

SN	UNIT	CONT	CONTEXT DEPTH (CM)	SHERD ID	RD	THK	RA	RT	PC	LS	CORE	NPI	OST/IST	OSTP	ISTP	Dec-I	Dec-p-I	Dec-II	Dec-p-II	Dec-III	Dec-p-III
98	TP1A	16	269-285cm	2	42	3	4	5	2	4	0	2	0	0	1	14	8	1	8	0	0
99	TP1A	16	269-285cm	3	28	3	5	5	2	1	2	1	0	0	0	8	3	0	0	0	0
100	TP1A	16	269-285cm	4	22	3	5	4	2	4	3	1	19	0	1	4	9	8	8	0	0
101	TP1A	16	269-285cm	5	42	3	4	5	2	4	0	2	19	0	1	14	8	1	8	0	0
102	TP1A	16	269-285cm	6	24	3	3	1	2	1	2	1	0	0	0	4	1	0	0	0	0
103	TP1A	16	269-285cm	7	34	2	5	4	2	1	1	1	0	0	0	1	8	0	0	0	0
104	TP1A	16	269-285cm	9	14	3	4	2	3	4	4	1	0	0	1	8	8	0	0	0	0
105	TP1A	17	285-292cm	1	30	3	5	6	2	1	0	1	0	0	0	1	8	8	6	0	0
106	TP1A	17	285-292cm	2	26	2	4	3	3	1	1	2	0	0	1	4	10	0	0	0	0
107	TP1A	17	285-292cm	3	24	2	5	3	3	1	1	2	0	0	1	4	10	1	8	0	0
108	TP1A	17	285-292cm	5	30	2	5	3	3	1	1	2	0	0	1	4	10	8	8	0	0
109	TP1A	17	285-292cm	6	22	2	3	1	3	1	3	1	0	0	0	0	0	0	0	0	0
110	TP1A	17	285-292cm	7	20	2	3	1	3	1	3	1	0	0	0	0	0	0	0	0	0
111	TP1A	17	285-292cm	9	24	3	3	4	3	2	2	1	0	0	0	0	0	0	0	0	0
112	TP1A	17	285-292cm	10	36	3	3	4	3	2	3	2	0	0	0	1	8	0	0	0	0
113	TP1A	18	292-300cm	1	36	4	5	6	2	4	0	2	0	0	0	1	8	0	0	0	0
114	TP1A	18	292-300cm	2	26	3	5	6	2	4	1	2	0	0	0	1	8	0	0	0	0
115	TP1A	18	292-300cm	3	28	3	5	6	2	4	0	1	0	0	0	1	8	0	0	0	0
116	TP1A	18	292-300cm	4	18	2	3	1	3	1	4	2	18	1	1	0	0	0	0	0	0
117	TP1A	18	292-300cm	5	36	2	5	6	2	3	0	1	0	0	0	0	0	0	0	0	0
118	TP1A	18	292-300cm	8	30	3	5	6	2	3	0	2	0	0	0	0	0	0	0	0	0
119	TP1A	21	323-340cm	1	14	2	3	1	3	3	3	1	0	0	0	6	1	8	4	0	0

SN	UNIT	CONT	CONTEXT DEPTH (CM)	SHERD ID	RD	THK	RA	RT	PC	LS	CORE	NPI	OST/IST	OSTP	ISTP	Dec-I	Dec-p-I	Dec-II	Dec-p-II	Dec-III	Dec-p-III	Dec-IV	Dec-p-IV
1	TP1B	1	4-28cm	4	22	2	4	1	2	4	0	1	0	0	0	8	2	0	0	0	0	0	0
2	TP1B	1	4-28cm	5	25	2	4	2	3	3	4	2	0	0	0	8	2	0	0	0	0	0	0
3	TP1B	2	28-34cm	1	24	3	5	4	1	2	1	0	0	0	0	8	3	5	8	0	0	0	0
4	TP1B	2	28-34cm	4	33	1	4	3	3	4	4	1	0	0	0	0	0	0	0	0	0	0	0
5	TP1B	4	47-56cm	1	20	3	4	3	3	1	3	1	18	1	1	4	10	0	0	0	0	0	0
6	TP1B	5	56-66cm	3	25	3	2	4	3	2	4	1	0	0	0	0	0	0	0	0	0	0	0
7	TP1B	8	78-99cm	1	28	4	4	5	3	1	4	1	0	0	0	8	8	11	8	0	0	0	0
8	TP1B	8	78-99cm	2	26	3	3	1	2	1	0	2	0	0	0	4	1	0	0	0	0	0	0
9	TP1B	8	78-99cm	4	24	2	4	1	2	1	4	1	0	0	0	10	2	12	2	0	0	0	0
10	TP1B	8	78-99cm	5	15	4	4	1	2	3	1	1	0	0	0	0	0	0	0	0	0	0	0
11	TP1B	8	78-99cm	7	18	2	3	1	2	1	1	1	0	0	1	0	0	0	0	0	0	0	0
12	TP1B	9	99-116cm	1	18	3	2	5	2	1	4	1	0	0	0	0	0	0	0	0	0	0	0
13	TP1B	9	99-116cm	2	28	2	5	3	3	1	3	1	18	1	1	4	4	0	0	0	0	0	0
14	TP1B	9	99-116cm	3	30	2	2	3	2	2	4	2	0	0	0	7	4	0	0	0	0	0	0
15	TP1B	9	99-116cm	4	34	3	3	4	2	2	4	1	0	0	0	0	0	0	0	0	0	0	0
16	TP1B	9	99-116cm	5	26	3	4	4	3	5	4	1	0	0	0	0	0	0	0	0	0	0	0
17	TP1B	9	99-116cm	6	19	2	5	1	2	3	4	2	0	0	0	1	3	0	0	0	0	0	0
18	TP1B	9	99-116cm	7	30	2	4	3	3	1	4	1	18	1	1	4	4	0	0	0	0	0	0
19	TP1B	9	99-116cm	8	24	3	5	5	1	2	5	1	17	1	0	10	6	4	6	0	0	0	0
20	TP1B	10	116-128cm	1	29	3	3	5	2	1	1	2	0	0	0	1	8	8	9	0	0	0	0
21	TP1B	10	116-128cm	2	24	3	5	3	2	1	0	1	0	0	0	4	1	0	0	0	0	0	0
22	TP1B	10	116-128cm	11	28	3	4	1	2	3	4	2	0	0	0	0	0	0	0	0	0	0	0

SN	UNIT	CONT	CONTEXT DEPTH (CM)	SHERD ID	RD	THK	RA	RT	PC	LS	CORE	NPI	OST/IST	OSTP	ISTP	Dec-I	Dec-p-I	Dec-II	Dec-p-II	Dec-III	Dec-p-III	Dec-IV	Dec-p-IV
23	TP1B	10	116-128cm	13	26	2	3	3	3	1	4	1	0	0	0	8	4	0	0	0	0	0	0
24	TP1B	10	116-128cm	14	19	3	4	4	3	1	3	2	0	0	0	0	0	0	0	0	0	0	0
25	TP1B	11	128-137cm	1	20	2	4	4	3	1	4	1	18	1	0	8	8	4	9	0	0	0	0
26	TP1B	11	128-137cm	2	14	3	4	4	3	5	4	1	0	0	0	0	0	0	0	0	0	0	0
27	TP1B	11	128-137cm	3	18	2	3	4	3	3	4	1	0	0	0	0	0	0	0	0	0	0	0
28	TP1B	11	128-137cm	4	21	3	5	4	3	3	4	1	0	0	0	1	8	0	0	0	0	0	0
29	TP1B	11	128-137cm	6	15	2	5	1	3	1	4	1	18	1	1	0	0	0	0	0	0	0	0
30	TP1B	11	128-137cm	7	22	3	5	4	3	4	5	1	0	0	0	0	0	0	0	0	0	0	0
31	TP1B	12	137-147cm	1	30	3	3	3	3	1	4	1	18	1	1	8	8	4	9	0	0	0	0
32	TP1B	12	137-147cm	2	17	4	2	4	2	3	4	3	0	0	1	0	0	0	0	0	0	0	0
33	TP1B	12	137-147cm	3	24	3	4	5	2	4	3	1	0	0	0	1	8	1	8	0	0	0	0
34	TP1B	13	147-158cm	1	20	2	3	4	2	4	0	1	18	1	1	8	8	8	9	0	0	0	0
35	TP1B	13	147-158cm	2	22	3	3	4	2	4	0	1	17	1	1	8	8	5	8	0	0	0	0
36	TP1B	13	147-158cm	5	22	2	4	4	3	1	0	2	18	1	1	0	0	0	0	0	0	0	0
37	TP1B	13	147-158cm	6	24	3	4	4	3	3	5	1	18	1	1	8	8	5	8	8	9	0	0
38	TP1B	13	147-158cm	7	24	2	4	4	2	4	0	0	18	1	1	8	8	0	0	0	0	0	0
39	TP1B	14	158-170cm	2	18	2	4	4	3	3	4	1	0	0	0	8	8	4	6	0	0	0	0
40	TP1B	15	170-179cm	1	12	2	4	1	2	1	3	3	0	0	0	8	2	3	2	0	0	0	0
41	TP1B	15	170-179cm	2	13	3	3	1	3	1	4	1	18	2	0	7	2	4	2	0	0	0	0
42	TP1B	15	170-179cm	3	6	3	4	5	3	1	4	1	0	0	0	1	2	0	0	0	0	0	0
43	TP1B	16	179-190cm	1	20	4	3	4	3	5	4	2	18	1	1	1	8	0	0	0	0	0	0
44	TP1B	16	179-190cm	2	20	2	4	4	2	4	0	2	18	1	0	1	8	0	0	0	0	0	0
45	TP1B	16	179-190cm	7	24	3	4	4	2	3	2	3	17	1	1	1	8	8	9	0	0	0	0

SN	UNIT	CONT	CONTEXT DEPTH (CM)	SHERD ID	RD	THK	RA	RT	PC	LS	CORE	NPI	OST/IST	OSTP	ISTP	Dec-I	Dec-p-I	Dec-II	Dec-p-II	Dec-III	Dec-p-III	Dec-IV	Dec-p-IV
46	TP1B	16	179-190cm	8	24	2	3	3	3	1	0	0	18	1	0	7	2	0	0	0	0	0	0
47	TP1B	17	190-201cm	1	24	3	4	4	2	3	0	3	18	1	1	8	3	4	8	0	0	0	0
48	TP1B	17	190-201cm	2	16	3	2	6	3	1	3	1	18	1	1	8	3	0	0	0	0	0	0
49	TP1B	17	190-201cm	3	24	3	4	3	3	1	4	1	17	1	0	8	8	4	8	0	0	0	0
50	TP1B	17	190-201cm	6	14	2	4	4	2	3	4	0	0	0	0	2	2	0	0	0	0	0	0
51	TP1B	17	190-201cm	7	22	2	2	3	2	1	0	1	17	4	1	6	6	7	3	0	0	0	0
52	TP1B	17	190-201cm	9	22	2	4	3	2	1	2	1	18	4	1	8	4	0	0	0	0	0	0
53	TP1B	17	190-201cm	10	20	3	4	4	2	4	1	1	18	2	1	8	2	0	0	0	0	0	0
54	TP1B	17	190-201cm	11	12	2	4	3	3	1	4	2	0	0	0	2	2	0	0	0	0	0	0
55	TP1B	17	190-201cm	13	16	3	4	4	3	3	3	1	18	1	1	0	0	0	0	0	0	0	0
56	TP1B	17	190-201cm	14	24	3	4	3	3	1	4	2	18	2	1	0	0	0	0	0	0	0	0
57	TP1B	17	190-201cm	16	26	4	5	6	3	3	4	1	0	0	0	8	3	3	3	5	8	4	9
58	TP1B	17	190-201cm	17	24	3	5	6	3	3	4	1	0	0	0	8	3	0	0	0	0	0	0
59	TP1B	18	201-215cm	1	22	2	4	1	2	1	0	1	18	1	0	7	3	6	6	0	0	0	0
60	TP1B	18	201-215cm	2	12	2	5	1	2	1	0	1	18	1	1	0	0	0	0	0	0	0	0
61	TP1B	19	215-230cm	1	18	3	2	4	2	3	1	1	18	1	0	3	2	4	3	0	0	0	0
62	TP1B	19	215-230cm	3	34	3	5	3	3	3	1	0	19	1	1	8	8	4	9	0	0	0	0
63	TP1B	20	230-236cm	1	32	3	4	5	2	3	1	1	17	1	1	8	3	1	2	0	0	0	0
64	TP1B	20	230-236cm	2	26	2	5	3	3	1	4	0	18	1	0	8	2	4	6	0	0	0	0
65	TP1B	20	230-236cm	3	18	2	3	4	3	5	5	0	18	1	1	8	2	1	5	0	0	0	0
66	TP1B	21	236-263cm	4	40	3	5	6	3	3	4	1	0	0	1	1	8	0	0	0	0	0	0
67	TP1B	21	236-263cm	7	20	2	5	3	3	1	1	2	0	0	1	8	8	4	9	0	0	0	0
68	TP1B	21	236-263cm	9	20	2	3	5	3	1	1	2	18	1	1	0	0	0	0	0	0	0	0

SN	UNIT	CONT	CONTEXT DEPTH (CM)	SHERD ID	RD	THK	RA	RT	PC	LS	CORE	NPI	OST/IST	OSTP	ISTP	Dec-I	Dec-p-I	Dec-II	Dec-p-II	Dec-III	Dec-p-III	Dec-IV	Dec-p-IV
69	TP1B	22	263-278cm	1	30	3	4	2	2	4	2	2	0	0	0	0	0	0	0	0	0	0	0
70	TP1B	22	263-278cm	4	24	2	4	3	3	1	4	2	18	1	1	8	8	4	9	0	0	0	0
71	TP1B	22	263-278cm	5	26	2	5	3	3	1	4	3	0	0	1	1	8	4	10	0	0	0	0
72	TP1B	22	263-278cm	7	18	3	3	3	3	1	1	1	0	0	1	4	11	0	0	0	0	0	0
73	TP1B	22	263-278cm	8	34	3	5	6	2	4	5	1	0	0	0	8	4	0	0	0	0	0	0
74	TP1B	22	263-278cm	9	30	3	4	5	3	4	4	2	0	0	0	1	8	8	9	0	0	0	0
75	TP1B	22	263-278cm	10	18	3	4	4	3	2	5	2	0	0	0	8	8	1	0	0	0	0	0
76	TP1B	22	263-278cm	11	30	3	5	6	2	5	0	2	0	0	0	1	5	0	0	0	0	0	0
77	TP1B	22	263-278cm	12	24	3	4	2	2	1	0	3	0	0	0	1	8	8	9	0	0	0	0
78	TP1B	22	263-278cm	13	14	3	5	2	3	1	5	2	0	0	0	1	8	4	0	0	0	0	0
79	TP1B	22	263-278cm	14	24	2	5	6	2	4	0	3	0	0	0	1	8	0	0	0	0	0	0
80	TP1B	22	263-278cm	15	24	3	4	4	3	1	5	2	0	0	0	8	3	0	0	0	0	0	0
81	TP1B	22	263-278cm	16	26	2	5	6	2	1	0	2	0	0	0	1	8	0	0	0	0	0	0
82	TP1B	22	263-278cm	17	28	3	5	5	3	1	4	2	0	0	0	8	8	0	0	0	0	0	0
83	TP1B	22	263-278cm	18	20	3	4	4	3	3	4	2	0	0	0	1	8	0	0	0	0	0	0
84	TP1B	22	263-278cm	20	16	2	5	5	3	4	4	1	0	0	1	8	8	0	0	0	0	0	0
85	TP1B	22	263-278cm	21	22	2	5	5	3	1	5	2	0	0	1	8	8	0	0	0	0	0	0
86	TP1B	22	263-278cm	24	20	3	4	3	3	1	4	2	18	1	1	1	8	4	9	0	0	0	0
87	TP1B	23	278-285cm	1	27	3	5	3	3	4	4	2	0	0	1	8	8	4	9	0	0	0	0
88	TP1B	23	278-285cm	2	32	2	5	6	2	4	0	1	0	0	0	1	8	8	0	0	0	0	0
89	TP1B	23	278-285cm	3	34	3	4	4	2	4	1	1	0	0	0	0	0	0	0	0	0	0	0
90	TP1B	23	278-285cm	4	20	2	4	1	2	1	0	3	0	0	0	1	8	0	0	0	0	0	0
91	TP1B	23	278-285cm	5	28	3	3	1	3	1	4	1	0	0	0	0	0	0	0	0	0	0	0

92	TP1B	23	278-285cm	6	19	2	5	5	3	4	5	1	0	0	0	13	8	0	0	0	0	0	0
93	TP1B	24	285-294cm	1	26	2	5	4	2	4	4	1	0	0	0	1	8	8	9	0	0	0	0
94	TP1B	24	285-294cm	2	20	2	4	3	3	4	4	2	0	0	1	4	8	0	0	0	0	0	0
95	TP1B	24	285-294cm	4	30	3	5	6	2	5	0	2	0	0	0	1	3	8	6	0	0	0	0
96	TP1B	25	294-304cm	1	18	3	5	3	3	1	4	2	18	1	1	8	8	4	8	0	0	0	0
97	TP1B	25	294-304cm	5	24	2	5	3	5	1	4	1	18	1	1	1	2	4	6	0	0	0	0

SN	UNIT	CONT	DEPTH (CM)	SHERD ID	RD	THK	RA	RT	PC	LS	CORE	NPI	OST/IST	OSTP	ISTP	Dec-I	Dec-p-I	Dec-II	Dec-p-II	Dec-III	Dec-p-III
1	TP1C	1	0-28cm	1	38	3	4	4	2	1	3	2	17	1	0	1	8	0	0	0	0
2	TP1C	9	78-116cm	1	29	2	4	3	3	1	4	1	0	0	0	8	6	4	1	0	0
3	TP1C	9	78-116cm	2	27	3	4	4	3	1	4	0	18	1	1	4	10	0	0	0	0
4	TP1C	9	78-116cm	3	17	2	5	4	3	1	2	1	0	0	1	0	0	0	0	0	0
5	TP1C	10	116-128cm	1	19	2	4	4	3	4	4	1	18	1	1	8	8	0	0	0	0
6	TP1C	10	116-128cm	2	18	2	4	5	3	3	4	1	18	1	1	0	0	0	0	0	0
7	TP1C	11	128-169cm	5	22	2	4	1	2	1	1	2	0	0	0	4	1	11	10	0	0
8	TP1C	15	169-179cm	1	19	2	4	1	3	1	4	2	19	5	1	8	4	0	0	0	0
9	TP1C	15	169-179cm	2	32	2	5	5	3	4	4	2	18	1	0	8	8	13	3	0	0
10	TP1C	16	179-189cm	1	18	2	4	1	3	1	4	2	18	3	1	8	3	0	0	0	0
11	TP1C	17	189-200cm	1	24	3	5	5	2	4	1	2	0	0	0	1	8	8	8	0	0
12	TP1C	18	200-210cm	1	30	3	2	5	2	4	1	2	0	0	0	1	8	8	9	0	0
13	TP1C	19	210-220cm	1	28	3	5	6	2	4	2	2	0	0	0	1	8	8	5	0	0
14	TP1C	19	210-220cm	3	18	2	2	1	2	1	1	2	18	3	1	7	4	0	0	0	0

SN	UNIT	CONT	DEPTH (CM)	SHERD ID	RD	THK	RA	RT	PC	LS	CORE	NPI	OST/IST	OSTP	ISTP	Dec-I	Dec-p-I	Dec-II	Dec-p-II	Dec-III	Dec-p-III
15	TP1C	20	220-230cm	1	24	3	5	5	3	4	4	2	0	0	0	8	4	0	0	0	0
16	TP1C	20	220-230cm	2	23	3	4	4	2	4	2	2	0	0	0	8	4	0	0	0	0
17	TP1C	20	220-230cm	3	24	3	5	4	2	4	1	2	0	0	0	8	8	1	8	0	0
18	TP1C	21	230-235cm	1	15	3	3	1	3	2	2	2	0	0	1	5	2	0	0	0	0
19	TP1C	23	263-283cm	1	21	3	2	2	3	1	4	2	0	0	0	1	5	0	0	0	0
20	TP1C	24	283-293cm	1	22	3	5	3	3	1	4	2	17	1	0	0	0	0	0	0	0
21	TP1C	24	283-293cm	2	22	2	4	1	3	4	4	1	0	0	1	2	2	0	0	0	0
22	TP1C	24	283-293cm	4	20	3	3	1	2	1	6	1	17	0	2	9	4	6	4	0	0
23	TP1C	25	293-303cm	1	18	3	5	5	3	3	4	1	0	0	1	4	5	0	0	0	0
24	TP1C	25	293-303cm	2	28	3	4	3	2	1	1	2	0	0	1	1	2	0	0	0	0
25	TP1C	25	293-303cm	3	20	3	4	1	3	1	4	2	0	0	0	0	0	0	0	0	0
26	TP1C	25	293-303cm	4	21	3	4	3	3	3	4	1	0	0	0	8	2	0	0	0	0
27	TP1C	25	293-303cm	5	29	3	5	4	3	4	4	2	0	0	1	0	0	0	0	0	0
28	TP1C	25	293-303cm	8	36	3	5	5	2	3	0	2	0	0	0	1	2	0	0	0	0
29	TP1C	25	293-303cm	10	27	3	3	3	3	4	4	1	0	0	0	8	2	0	0	0	0
30	TP1C	25	293-303cm	11	18	3	4	5	3	3	4	1	0	0	0	1	2	0	0	0	0
31	TP1C	25	293-303cm	12	18	3	3	1	3	1	5	1	0	0	0	15	4	0	0	0	0

SN	UNIT	CONT	CONTEXT DEPTH (CM)	SHERD ID	RD	THK	RA	RT	PC	LS	CORE	NPI	OST/IST	OSTP	ISTP	Dec-I	Dec-p-I	Dec-II	Dec-p-II	Dec-III	Dec-p-III
1	TP1D	1	0-10cm	1	29	3	4	6	3	5	4	2	0	0	0	0	0	0	0	0	0
2	TP1D	1	0-10cm	2	14	3	3	2	3	3	4	2	18	1	1	0	0	0	0	0	0
3	TP1D	11	78-99cm	1	10	2	3	4	3	1	4	2	0	0	0	0	0	0	0	0	0
4	TP1D	12	99-118cm	1	20	3	2	3	1	2	0	2	0	0	0	1	3	0	0	0	0
5	TP1D	12	99-118cm	2	12	2	4	1	1	1	4	1	0	0	0	0	0	0	0	0	0
6	TP1D	16	132-160cm	1	24	3	3	5	3	4	2	1	18	1	1	1	8	0	0	0	0
7	TP1D	18	169cm	4	11	3	5	3	3	3	4	1	0	0	0	8	8	4	9	0	0

SN	UNIT	CONT	CONTEXT DEPTH (CM)	SHERD ID	RD	THK	RA	RT	PC	LS	CORE	NPI	OST/IST	OSTP	ISTP	Dec-I	Dec-p-I	Dec-II	Dec-p-II	Dec-III	Dec-p-III
1	PPII	SURFACE	Surface	D40	16	4	3	1	2	4	0	1	0	0	0	0	0	0	0	0	0
2	PPII	SURFACE	Surface	C15	34	4	3	1	3	2	3	1	0	0	0	13	2	0	0	0	0
3	PPII	SURFACE	Surface	G20	28	4	1	2	2	4	0	1	0	0	0	0	0	0	0	0	0
4	PPII	1	3.4-13.4cm	2	26	4	4	6	2	2	3	1	17	0	0	0	0	0	0	0	0
5	PPII	1	3.4-13.4cm	5	20	3	4	5	3	2	3	1	0	1	0	0	0	0	0	0	0
6	PPII	2	13.4-3.4cm	1	24	2	5	4	3	3	3	0	0	1	1	0	0	0	0	0	0
7	PPII	3	23.4-33.4cm	1	24	3	2	1	3	1	4	0	0	0	0	4	2	0	0	0	0
8	PPII	3	23.4-33.4cm	2	20	2	2	4	2	3	4	0	0	1	0	1	8	0	0	0	0
9	PPII	4	33.4-43.4cm	1	24	2	4	3	3	1	4	0	0	1	0	8	2	4	0	0	0
10	PPII	5	43.4-53.4cm	1	14	2	2	1	2	1	1	0	18	1	4	11	4	2	0	0	0
11	PPII	5	43.4-53.4cm	2	24	4	3	5	2	4	0	1	0	0	0	0	0	0	0	0	0
12	PPII	6	53.4-63.4cm	1	26	4	3	6	2	3	0	0	0	0	0	0	0	0	0	0	0
13	PPII	7	63.4-73.4cm	1	26	2	4	2	2	1	3	0	0	0	1	8	8	0	0	0	0
14	PPII	7	63.4-73.4cm	3	18	3	4	3	2	3	0	1	19	0	0	0	0	0	0	0	0
15	PPII	9	83.4-93.4cm	1	22	2	4	3	3	4	3	3	17	0	0	8	1	8	0	0	0
16	PPII	9	83.4-93.4cm	2	22	3	3	4	2	1	0	0	0	0	0	8	8	0	0	0	0

SN	UNIT	CONT	CONTEXT DEPTH (CM)	SHERD ID	RD	THK	RA	RT	PC	LS	CORE	NPI	OST/IST	OSTP	ISTP	Dec-I	Dec-p-I	Dec-II	Dec-p-II	Dec-III	Dec-p-III
1	TP3	1	0-20cm	1	32	3	4	4	2	3	2	1	0	0	0	8	8	1	9	0	0
2	TP3	1	0-20cm	3	44	3	3	1	2	1	1	2	0	0	0	8	6	3	6	0	0
3	TP3	1	0-20cm	4	22	3	5	5	2	4	0	3	0	0	0	1	8	0	0	0	0
4	TP3	1	0-20cm	5	23	3	3	1	2	2	0	2	0	0	0	0	0	0	0	0	0
5	TP3	1	0-20cm	6	34	3	3	1	2	2	0	1	0	0	0	8	8	0	0	0	0
6	TP3	1	0-20cm	8	28	4	4	5	2	2	1	2	0	0	0	0	0	0	0	0	0
7	TP3	2	20-30cm	1	28	3	3	1	3	1	5	2	0	0	0	8	3	0	0	0	0
8	TP3	2	20-30cm	2	23	2	3	1	3	1	2	2	0	0	0	0	0	0	0	0	0
9	TP3	2	20-30cm	3	30	2	3	1	2	2	2	2	0	0	0	0	0	0	0	0	0
10	TP3	2	20-30cm	4	26	2	4	3	2	4	0	2	0	0	0	7	8	0	0	0	0
11	TP3	3	30-50cm	2	24	3	4	4	3	1	4	2	0	0	0	0	0	0	0	0	0
12	TP3	3	30-50cm	3	40	2	4	3	3	1	4	1	18	1	1	4	6	0	0	0	0
13	TP3	3	30-50cm	6	30	2	4	2	2	3	4	1	0	0	0	2	2	0	0	0	0
14	TP3	3	30-50cm	7	28	2	3	5	3	2	4	1	0	0	0	5	4	0	0	0	0
15	TP3	3	30-50cm	8	34	3	4	3	2	4	4	2	0	0	0	1	8	0	0	0	0
16	TP3	3	30-50cm	9	30	5	4	1	2	3	0	2	0	0	0	0	0	0	0	0	0
17	TP3	3	30-50cm	10	16	3	5	5	1	1	0	1	0	0	0	8	3	0	0	0	0
18	TP3	4	50-60cm	1	22	3	4	5	2	2	4	1	0	0	0	12	3	3	3	0	0
19	TP3	4	50-60cm	2	17	3	3	4	2	1	4	1	0	0	0	1	8	8	9	0	0
20	TP3	5	60-102cm	1	20	3	5	4	2	3	0	1	18	1	1	13	4	8	6	0	0
21	TP3	5	60-102cm	2	24	3	4	4	2	4	0	1	18	1	1	8	3	0	0	0	0
22	TP3	5	60-102cm	4	22	3	4	3	2	1	4	2	18	1	0	8	8	4	9	0	0
23	TP3	5	60-102cm	5	28	4	4	6	2	4	0	1	18	1	1	0	0	0	0	0	0
24	TP3	5	60-102cm	6	20	3	5	3	3	1	0	1	18	1	1	4	9	0	0	0	0

SN	UNIT	CONT	CONTEXT DEPTH (CM)	SHERD ID	RD	THK	RA	RT	PC	LS	CORE	NPI	OST/IST	OSTP	ISTP	Dec-I	Dec-p-I	Dec-II	Dec-p-II	Dec-III	Dec-p-III
25	TP3	5	60-102cm	8	20	3	3	3	2	2	0	1	18	1	1	1	8	0	0	0	0
26	TP3	5	60-102cm	9	14	2	4	4	2	3	0	0	18	1	1	1	8	8	8	0	0
27	TP3	6	60-80cm	1	23	3	3	1	3	1	5	1	18	0	1	0	0	0	0	0	0
28	TP3	6	60-80cm	2	19	3	3	1	3	3	4	1	18	1	1	0	0	0	0	0	0
29	TP3	6	60-80cm	3	18	3	4	5	2	3	3	1	0	0	0	1	8	0	0	0	0
30	TP3	6	60-80cm	4	14	3	4	3	3	1	4	1	18	1	1	1	8	4	9	0	0
31	TP3	6	60-80cm	5	21	2	5	3	3	1	4	4	18	0	1	8	8	4	9	0	0
32	TP3	6	60-80cm	6	22	3	3	1	3	1	4	4	0	1	1	0	0	0	0	0	0
33	TP3	6	60-80cm	7	20	3	3	1	3	1	4	1	0	0	0	11	6	0	0	0	0
34	TP3	6	60-80cm	8	18	2	3	1	3	1	4	1	18	0	1	0	0	0	0	0	0
35	TP3	6	60-80cm	9	23	2	5	4	2	4	0	1	17	1	1	0	0	0	0	0	0
36	TP3	6	60-80cm	10	18	2	3	1	3	1	4	1	0	0	0	1	4	0	0	0	0
37	TP3	6	60-80cm	12	23	3	4	4	3	4	4	1	0	0	0	0	0	0	0	0	0

SN	UNIT	CONT	CONTEXT DEPTH (CM)	SHERD ID	RD	THK	RA	RT	PC	LS	CORE	NPI	OST/IST	OSTP	ISTP	Dec-I	Dec-p-I	Dec-II	Dec-p-II	Dec-III	Dec-p-III
1	TP5	1	2-15cm	1	33	5	4	6	3	4	5	4	0	0	0	7	6	9	6	0	0
2	TP5	1	2-15cm	2	26	5	4	6	3	4	5	4	0	0	0	7	6	13	6	0	0
3	TP5	1	2-15cm	3	20	3	5	5	3	3	5	1	0	0	0	8	8	12	8	0	0
4	TP5	1	2-15cm	4	32	4	4	6	3	4	1	4	0	0	0	1	8	0	0	0	0
5	TP5	1	2-15cm	5	22	3	4	4	3	3	5	1	0	0	0	0	0	0	0	0	0
6	TP5	1	2-15cm	6	24	3	3	1	3	4	5	1	0	0	0	0	0	0	0	0	0
7	TP5	1	2-15cm	7	28	3	4	5	3	4	3	1	0	0	0	0	0	0	0	0	0
8	TP5	1	2-15cm	12	10	2	4	4	3	1	5	1	0	0	0	0	0	0	0	0	0
9	TP5	2	15-25cm	1	27	3	4	6	3	4	3	1	0	0	0	7	8	9	8	0	0
10	TP5	2	15-25cm	2	18	3	3	1	3	1	4	1	0	0	0	0	0	0	0	0	0
11	TP5	2	15-25cm	3	20	2	3	1	3	1	5	1	0	0	0	0	0	0	0	0	0
12	TP5	2	15-25cm	4	25	3	3	5	3	4	4	1	0	0	0	0	0	0	0	0	0
13	TP5	2	15-25cm	5	15	3	3	1	3	3	5	1	0	0	0	0	0	0	0	0	0
14	TP5	2	15-25cm	9	19	2	3	4	2	4	0	1	0	0	8	0	0	0	0	0	0
15	TP5	2	15-25cm	10	27	4	3	4	1	4	0	1	0	0	0	0	0	0	0	0	0
16	TP5	2	15-25cm	12	22	4	3	1	3	4	4	1	0	0	0	0	0	0	0	0	0
17	TP5	2	15-25cm	13	18	4	3	4	3	3	4	1	0	0	0	8	2	0	0	0	0
18	TP5	2	15-25cm	14	24	2	3	4	3	4	4	1	0	0	0	0	0	0	0	0	0
19	TP5	2	15-25cm	15	22	2	4	1	3	1	5	1	0	0	0	0	0	0	0	0	0
20	TP5	2	15-25cm	16	17	2	4	4	3	4	4	1	0	0	0	0	0	0	0	0	0
21	TP5	2	15-25cm	18	21	4	5	6	3	3	4	1	0	0	0	8	8	5	8	0	0
22	TP5	2	15-25cm	19	15	3	5	6	3	3	4	1	0	0	0	8	2	1	2	0	0
23	TP5	2	15-25cm	23	38	5	4	6	2	4	0	1	0	0	0	0	0	0	0	0	0
24	TP5	3	25-29cm	2	19	3	5	4	3	3	4	1	0	0	0	1	2	0	0	0	0

SN	UNIT	CONT	CONTEXT DEPTH (CM)	SHERD ID	RD	THK	RA	RT	PC	LS	CORE	NPI	OST/IST	OSTP	ISTP	Dec-I	Dec-p-I	Dec-II	Dec-p-II	Dec-III	Dec-p-III
25	TP5	3	25-29cm	4	13	2	3	4	3	4	3	1	0	0	0	4	9	3	9	0	0
26	TP5	4	25-35cm	1	18	3	4	4	2	4	0	1	0	0	0	7	6	0	0	0	0
27	TP5	4	25-35cm	3	17	3	4	1	3	4	3	0	0	0	0	0	0	0	0	0	0
28	TP5	4	25-35cm	7	17	3	5	4	1	4	3	0	0	0	14	9	0	0	0	0	0
29	TP5	5	35-40cm	1	18	3	4	6	2	3	0	1	0	0	0	2	8	8	8	0	0
30	TP5	5	35-40cm	2	18	2	3	1	3	1	4	1	0	0	0	0	0	0	0	0	0
31	TP5	5	35-40cm	3	21	4	4	6	2	4	0	1	0	0	0	0	0	0	0	0	0
32	TP5	5	35-40cm	6	13	4	5	5	3	3	4	1	18	0	2	3	2	6	3	8	8
33	TP5	5	35-40cm	7	17	4	5	5	3	3	4	1	18	0	2	6	3	8	8	0	0
34	TP5	5	35-40cm	8	23	4	3	6	2	4	0	1	0	0	0	0	0	0	0	0	0
35	TP5	5	35-40cm	9	16	2	4	1	3	1	4	1	0	0	0	0	0	0	0	0	0
36	TP5	5	35-40cm	11	12	4	4	6	3	4	5	1	0	0	0	5	2	5	8	1	8
37	TP5	5	35-40cm	12	11	2	4	4	2	4	3	1	0	0	0	0	0	0	0	0	0
38	TP5	5	35-40cm	14	18	4	4	6	2	4	0	1	0	0	0	0	0	0	0	0	0
39	TP5	5	35-40cm	15	15	2	4	4	2	4	0	1	0	0	0	0	0	0	0	0	0
40	TP5	5	35-40cm	16	21	2	3	4	2	4	0	1	0	0	0	0	0	0	0	0	0
41	TP5	5	35-40cm	17	17	4	4	4	3	4	4	4	0	0	0	8	8	0	0	0	0
42	TP5	5	35-40cm	19	18	4	4	4	3	4	4	1	0	0	0	0	0	0	0	0	0
43	TP5	5	35-40cm	21	17	3	4	5	3	4	0	1	0	0	0	8	8	0	0	0	0
44	TP5	5	35-40cm	32	14	2	3	1	3	1	4	1	0	0	0	0	0	0	0	0	0
45	TP5	5	35-40cm	33	14	2	4	4	3	4	4	1	0	0	0	0	0	0	0	0	0
46	TP5	5	35-40cm	34	15	3	4	4	3	3	4	1	0	0	0	0	0	0	0	0	0
47	TP5	5	35-40cm	39	30	3	5	1	2	1	3	1	0	1	1	0	0	0	0	0	0

SN	UNIT	CONT	CONTEXT DEPTH (CM)	SHERD ID	RD	THK	RA	RT	PC	LS	CORE	NPI	OST/IST	OSTP	ISTP	Dec-I	Dec-p-I	Dec-II	Dec-p-II	Dec-III	Dec-p-III
1	TP7	2	15-25cm	2	30	3	3	5	2	4	0	2	0	0	0	8	2	5	8	7	8
2	TP7	2	15-25cm	5	26	3	4	1	2	4	0	0	0	0	0	0	0	0	0	0	0
3	TP7	2	15-25cm	6	26	2	4	3	3	4	1	2	18	2	1	0	0	0	0	0	0
4	TP7	2	15-25cm	10	18	2	3	3	3	1	3	2	18	1	1	0	0	0	0	0	0
5	TP7	2	15-25cm	11	10	2	4	4	2	4	3	2	18	1	1	4	9	0	0	0	0
6	TP7	3	25-28cm	1	24	3	4	4	2	4	3	1	18	1	1	7	8	0	0	0	0
7	TP7	3	25-28cm	5	26	3	3	3	2	4	2	0	18	4	0	1	8	8	8	0	0
8	TP7	3	25-28cm	11	30	3	2	5	2	4	3	2	18	1	1	1	4	0	0	0	0
9	TP7	5	35-65cm	3	26	3	3	1	2	2	4	2	18	1	1	8	3	0	0	0	0
10	TP7	5	35-65cm	4	26	3	2	3	3	1	4	7	18	1	1	0	0	0	0	0	0
11	TP7	5	35-65cm	5	22	3	4	3	3	1	4	2	18	1	1	4	6	0	0	0	0
12	TP7	5	35-65cm	6	18	3	3	4	2	3	4	0	17	1	1	0	0	0	0	0	0
13	TP7	5	35-65cm	8	32	5	5	1	2	3	2	2	18	1	1	0	0	0	0	0	0
14	TP7	5	35-65cm	10	20	3	3	4	2	3	4	2	18	1	1	1	2	0	0	0	0
15	TP7	5	35-65cm	15	24	2	3	4	3	4	4	1	18	1	1	7	9	0	0	0	0
16	TP7	5	35-65cm	17	20	2	4	4	3	4	4	1	18	1	1	0	0	0	0	0	0
17	TP7	5	35-65cm	18	22	2	4	1	3	3	3	0	19	1	1	0	0	0	0	0	0
18	TP7	5	35-65cm	19	20	2	4	4	3	1	0	1	18	1	1	0	0	0	0	0	0
19	TP7	7	75-85cm	1	26	3	2	5	2	4	0	1	0	0	0	8	8	1	8	0	0
20	TP7	9	95-105cm	1	28	3	2	5	2	4	0	2	18	1	0	4	8	0	0	0	0
21	TP7	10	105-115cm	1	26	2	2	5	3	4	2	2	18	1	0	7	8	2	1	0	0
22	TP7	10	105-115cm	2	20	2	3	3	2	2	0	2	0	0	0	0	0	0	0	0	0
23	TP7	10	105-115cm	6	20	2	3	4	2	4	4	0	0	0	0	0	0	0	0	0	0
24	TP7	10	105-115cm	7	16	2	4	4	2	3	1	0	18	1	1	4	8	0	0	0	0

SN	UNIT	CONT	CONTEXT DEPTH (CM)	SHERD ID	RD	THK	RA	RT	PC	LS	CORE	NPI	OST/IST	OSTP	ISTP	Dec-I	Dec-p-I	Dec-II	Dec-p-II	Dec-III	Dec-p-III
25	TP7	10	105-115cm	8	26	2	2	3	2	4	0	2	18	1	1	7	6	0	0	0	0
26	TP7	11	115-125cm	1	28	4	3	6	4	4	0	1	0	0	0	0	0	0	0	0	0
27	TP7	11	115-125cm	2	14	2	4	3	3	4	4	0	0	0	0	7	2	4	2	0	0
28	TP7	12	125-135cm	1	18	2	5	2	3	1	1	2	18	1	0	4	8	15	6	0	0
29	TP7	13	135-145cm	1	36	2	3	5	4	4	0	1	0	0	0	0	0	0	0	0	0
30	TP7	13	135-145cm	5	18	2	4	3	2	4	0	0	0	0	1	4	2	0	0	0	0
31	TP7	15	155-165cm	1	22	2	3	2	2	4	0	2	18	2	1	0	0	0	0	0	0
32	TP7	15	155-165cm	2	14	2	4	3	3	1	0	2	18	1	0	0	0	0	0	0	0
33	TP7	17	176-185cm	1	14	2	3	4	2	4	0	2	0	0	1	4	8	0	0	0	0
34	TP7	17	176-185cm	2	20	3	3	4	2	3	0	2	18	2	1	1	2	0	0	0	0
35	TP7	18	185-195cm	1	30	3	4	5	2	1	2	1	0	0	1	0	0	0	0	0	0
36	TP7	18	185-195cm	2	24	3	3	6	2	4	0	1	18	1	0	0	0	0	0	0	0
37	TP7	18	185-195cm	3	18	2	2	4	2	3	0	1	0	0	0	8	8	0	0	0	0
38	TP7	18	185-195cm	4	24	3	4	3	3	1	4	2	18	1	1	7	2	0	0	0	0
39	TP7	20	205-215cm	1	24	3	4	3	3	4	0	2	18	1	1	4	8	0	0	0	0
40	TP7	21	215-225cm	2	22	2	4	3	2	1	0	1	17	1	1	7	2	0	0	0	0
41	TP7	22	225-235cm	1	22	2	4	3	2	1	0	0	18	1	1	3	6	0	0	0	0
42	TP7	23	235-245cm	1	18	2	4	3	3	3	4	2	18	1	1	4	6	0	0	0	0
43	TP7	23	235-245cm	3	30	4	3	5	2	3	0	1	18	1	1	8	2	0	0	0	0
44	TP7	26	265-275cm	2	18	3	3	1	2	2	0	0	18	1	1	0	0	0	0	0	0

Appendix 7. Body sherd analysis. See Appendix 5 for description of codes												
Pottery Recording Sheet for Body sherds (excluding bases, handles and lid). Site: Okesuna Ilorin Date:2020-2022												
SN	**Unit**	**Context/Level (spit)**	**Context/level depth (cm)**	**Number of sherds**	**Burnish (int/ext)**	**Slipping (int/ext)**	**Dec I**	**Dec II**	**Dec III**	**Dec IV**	**Dec V**	**Remarks (please keep to minimum)**
1	surface	Surface	Surface	1			11	4				
2	surface	Surface	Surface	215			0					
3	surface	Surface	Surface	2			4					
4	surface	Surface`	Surface	1			6					
5	surface	Surface	Surface	1			6	1				
6	surface	Surface	Surface	1			2					
7	surface	Surface	Surface	15			1					
8	surface	Surface	Surface	20			7					
9	surface	Surface	Surface	13			7	9				
10	surface	Surface	Surface	1			7	2				
11	surface	Surface	Surface	15			8					
12	surface	Surface	Surface	5			8	1				
13	surface	Surface	Surface	1			8	13				
14	surface	Surface	Surface	2			9					
15	surface	Surface	Surface	2			7	9	16			
16	surface	Surface	Surface	2			16					

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
17	surface	Surface	Surface	2			13					
18	surface	Surface	Surface	9			5					
19	TP1A	1	7-26cm	17			0					
20	TP1A	1	7-26cm	1			2					
21	TP1A	1	7-26cm	4			1					
22	TP1A	1	7-26cm	1			8					
23	TP1A	1	7-26cm	1			8	1				
24	TP1A	2	26-30cm	4			0					
25	TP1A	2	26-30cm	2			6					
26	TP1A	2	26-30cm	6			1					
27	TP1A	3	30-41cm	1			4	1				
28	TP1A	3	30-41cm	10			0					
29	TP1A	3	30-41cm	1			6	3				
30	TP1A	3	30-41cm	1			1	4				
31	TP1A	3	30-41cm	1			8	9				
32	TP1A	3	30-41cm	2			8	1				
33	TP1A	4	41-51cm	1			1	3				
34	TP1A	4	41-51cm	1			5					
35	TP1A	4	41-51cm	2			11					
36	TP1A	4	41-51cm	26			0					
37	TP1A	4	41-51cm	1			6					
38	TP1A	4	41-51cm	3			6	1				
39	TP1A	4	41-51cm	4			1					
40	TP1A	4	41-51cm	1			7					
41	TP1A	4	41-51cm	7			8					

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
42	TP1A	4	41-51cm	5			8	1				
43	TP1A	5	51-59cm	1			9					
44	TP1A	5	51-59cm	4			0					
45	TP1A	5	51-59cm	1			1					
46	TP1A	5	51-59cm	1			8					
47	TP1A	5	51-59cm	4			8	1				
48	TP1A	5	51-59cm	1			6	8	5			
49	TP1A	6	59-114cm	1			4					
50	TP1A	6	59-114cm	2			4	8				
51	TP1A	6	59-114cm	2			6	8	3			
52	TP1A	6	59-114cm	4			9					
53	TP1A	6	59-114cm	2			11					
54	TP1A	6	59-114cm	1			11	1				
55	TP1A	6	59-114cm	88			0					
56	TP1A	6	59-114cm	2			6					
57	TP1A	6	59-114cm	2			6	8				
58	TP1A	6	59-114cm	4			1					
59	TP1A	6	59-114cm	2			7					
60	TP1A	6	59-114cm	14			8					
61	TP1A	6	59-114cm	2	19		8	15				
62	TP1A	6	59-114cm	9			8	1				
63	TP1A	7	114-137cm	1			4					
64	TP1A	7	114-137cm	1			10	3	1	6		
65	TP1A	7	114-137cm	6			9					
66	TP1A	7	114-137cm	1			11					

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
67	TP1A	7	114-137cm	77			0					
68	TP1A	7	114-137cm	7			6					
69	TP1A	7	114-137cm	3			6	9				
70	TP1A	7	114-137cm	1			6	9	1			
71	TP1A	7	114-137cm	3			6	1				
72	TP1A	7	114-137cm	4			6	8				
73	TP1A	7	114-137cm	12			1					
74	TP1A	7	114-137cm	21			8					
75	TP1A	7	114-137cm	1			8	3				
76	TP1A	7	114-137cm	1			8	3	9			
77	TP1A	7	114-137cm	1			8	12				
78	TP1A	7	114-137cm	2			8	9				
79	TP1A	7	114-137cm	8			8	1				
80	TP1A	7	114-137cm	1			6	5				
81	TP1A	8	137-147cm	1			8	5				
82	TP1A	8	137-147cm	2			9					
83	TP1A	8	137-147cm	53			0					
84	TP1A	8	137-147cm	2			6					
85	TP1A	8	137-147cm	1			6	9				
86	TP1A	8	137-147cm	1			1	8	3			
87	TP1A	8	137-147cm	6			1					
88	TP1A	8	137-147cm	9			8					
89	TP1A	8	137-147cm	6			8	1				
90	TP1A	9	147-158cm	1			4	9				
91	TP1A	9	147-158cm	1			4					

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
92	TP1A	9	147-158cm	4			9					
93	TP1A	9	147-158cm	1			9	11				
94	TP1A	9	147-158cm	1			11	8				
95	TP1A	9	147-158cm	1			11					
96	TP1A	9	147-158cm	74			0					
97	TP1A	9	147-158cm	1			6					
98	TP1A	9	147-158cm	1			6	8				
99	TP1A	9	147-158cm	9			1					
100	TP1A	9	147-158cm	1			7					
101	TP1A	9	147-158cm	1			7	6				
102	TP1A	9	147-158cm	6			8					
103	TP1A	9	147-158cm	1			8	9				
104	TP1A	9	147-158cm	1			8	9	11			
105	TP1A	9	147-158cm	2			8	1				
106	TP1A	10	158-170cm	1			4	9				
107	TP1A	10	158-170cm	4			4	8				
108	TP1A	10	158-170cm	1			8	12				
109	TP1A	10	158-170cm	4			9					
110	TP1A	10	158-170cm	3			11					
111	TP1A	10	158-170cm	1			11	8				
112	TP1A	10	158-170cm	52			0					
113	TP1A	10	158-170cm	1			6	5				
114	TP1A	10	158-170cm	2			6	8				
115	TP1A	10	158-170cm	10			1					

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
116	TP1A	10	158-170cm	1			7					
117	TP1A	10	158-170cm	1			7	4				
118	TP1A	10	158-170cm	3			8					
119	TP1A	10	158-170cm	6			8	1				
120	TP1A	12	180-190cm	1			1	3	4	8	11	
121	TP1A	12	180-190cm	1			3					
122	TP1A	12	180-190cm	1			14					
123	TP1A	12	180-190cm	3			11					
124	TP1A	12	180-190cm	1			11	1				
125	TP1A	12	180-190cm	3			11	8				
126	TP1A	12	180-190cm	12			0					
127	TP1A	12	180-190cm	1		17						
128	TP1A	12	180-190cm	1			1					
129	TP1A	12	180-190cm	2			8					
130	TP1A	12	180-190cm	1			8	1				
131	TP1A	13	190-200cm	1			10					
132	TP1A	13	190-200cm	1			11	9				
133	TP1A	13	190-200cm	10			0					
134	TP1A	13	190-200cm	1			1					
135	TP1A	13	190-200cm	2			8					
136	TP1A	14	200-265cm	1			14					
137	TP1A	14	200-265cm	1			9					
138	TP1A	14	200-265cm	11			0					
139	TP1A	14	200-265cm	1			1					
140	TP1A	14	200-265cm	2			8					

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
141	TP1A	14	200-265cm	1			1	8				
142	TP1A	15	265-269cm	1			11	8				
143	TP1A	15	265-269cm	49			0					
144	TP1A	15	265-269cm	4			1	8	3			
145	TP1A	15	265-269cm	1			8	4				
146	TP1A	16	269-285cm	1			9	3				
147	TP1A	16	269-285cm	1			11					
148	TP1A	16	269-285cm	67			0					
149	TP1A	16	269-285cm	1			6					
150	TP1A	16	269-285cm	6			1					
151	TP1A	16	269-285cm	5			8					
152	TP1A	16	269-285cm	4			8	1				
153	TP1A	17	285-292cm	1			3	4				
154	TP1A	17	285-292cm	26			0					
155	TP1A	17	285-292cm	5			1					
156	TP1A	17	285-292cm	1			7	6	3			
157	TP1A	17	285-292cm	1			8	3				
158	TP1A	17	285-292cm	4			8	1				
159	TP1A	18	292-300cm	1			9					
160	TP1A	18	292-300cm	10			0					
161	TP1A	18	292-300cm	1			6	1	8			
162	TP1A	18	292-300cm	1			6	8				
163	TP1A	18	292-300cm	2			1					
164	TP1A	18	292-300cm	2			7	6				
165	TP1A	18	292-300cm	1			8					

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
166	TP1A	18	292-300cm	1			8	3				
167	TP1A	20	310-323cm	5			0					
168	TP1A	20	310-323cm	1			1	11				
169	TP1A	21	323-340cm	2			0					
170	TP1B	1	4-28cm	2			4					
171	TP1B	1	4-28cm	2			4	5				
172	TP1B	1	4-28cm	2			14					
173	TP1B	1	4-28cm	1			5					
174	TP1B	1	4-28cm	2			5	4				
175	TP1B	1	4-28cm	15			0					
176	TP1B	1	4-28cm	2			6					
177	TP1B	1	4-28cm	7			1					
178	TP1B	1	4-28cm	5			8					
179	TP1B	2	28-34cm	6			4					
180	TP1B	2	28-34cm	1			5					
181	TP1B	2	28-34cm	28			0					
182	TP1B	2	28-34cm	1			6	8				
183	TP1B	2	28-34cm	2			1					
184	TP1B	2	28-34cm	2			7					
185	TP1B	2	28-34cm	1			7	3				
186	TP1B	2	28-34cm	6			8					
187	TP1B	3	34-47cm	8			0					
188	TP1B	3	34-47cm	4			1					
189	TP1B	3	34-47cm	1			8					
190	TP1B	4	47-56cm	1			4					

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
191	TP1B	4	47-56cm	1			5					
192	TP1B	4	47-56cm	17			0					
193	TP1B	4	47-56cm	7			1					
194	TP1B	4	47-56cm	1			1	5				
195	TP1B	4	47-56cm	1			8					
196	TP1B	4	47-56cm	3			8	1				
197	TP1B	5	56-66cm	7			0					
198	TP1B	5	56-66cm	2			7					
199	TP1B	5	56-66cm	1			8					
200	TP1B	5	56-66cm	1			8	1				
201	TP1B	6	66-76cm	6			0					
202	TP1B	6	66-76cm	2			1					
203	TP1B	6	66-76cm	1			7					
204	TP1B	6	66-76cm	1			8					
205	TP1B	6	66-76cm	1			8	1				
206	TP1B	7	76-78cm	7			0					
207	TP1B	7	76-78cm	1			6					
208	TP1B	7	76-78cm	1			6	8				
209	TP1B	7	76-78cm	12			1					
210	TP1B	8	78-99cm	2			1	3				
211	TP1B	8	78-99cm	1			5					
212	TP1B	8	78-99cm	1			11					
213	TP1B	8	78-99cm	35			0					
214	TP1B	8	78-99cm	1			6	1				
215	TP1B	8	78-99cm	1			6	8				

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
216	TP1B	8	78-99cm	2		17						
217	TP1B	8	78-99cm	4			1					
218	TP1B	8	78-99cm	5			8					
219	TP1B	9	99-116cm	15			8					
220	TP1B	9	99-116cm	4			9					
221	TP1B	9	99-116cm	1			16	1				
222	TP1B	9	99-116cm	45			0					
223	TP1B	9	99-116cm	3			6					
224	TP1B	9	99-116cm	2			6	8				
225	TP1B	9	99-116cm	1			2					
226	TP1B	9	99-116cm	3			1					
227	TP1B	9	99-116cm	2			1	9	8			
228	TP1B	9	99-116cm	4			8	1				
229	TP1B	9	99-116cm	1			8	1	3			
230	TB1B	10	116-128cm	1			5					
231	TP1B	10	116-128cm	1			11					
232	TP1B	10	116-128cm	42			0					
233	TP1B	10	116-128cm	2			6					
234	TP1B	10	116-128cm	1			6	1				
235	TP1B	10	116-128cm	3			6	8				
236	TP1B	10	116-128cm	3			1					
237	TP1B	10	116-128cm	1			7					
238	TP1B	10	116-128cm	1			7	6				
239	TP1B	10	116-128cm	14			8					
240	TP1B	11	128-137cm	1			4					

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
241	TP1B	11	128-137cm	1			5					
242	TP1B	11	128-137cm	42			0					
243	TP1B	11	128-137cm	4			1					
244	TP1B	11	128-137cm	6			8					
245	TP1B	12	137-147cm	2			11					
246	TP1B	12	137-147cm	1			11	8				
247	TP1B	12	137-147cm	22			0					
248	TP1B	12	137-147cm	2			8					
249	TP1B	12	137-147cm	1			8	9				
250	TP1B	12	137-147cm	1			8	1				
251	TP1B	13	147-158cm	2			6					
252	TP1B	13	147-158cm	1			5					
253	TP1B	13	147-158cm	1			11					
254	TP1B	13	147-158cm	39			0					
255	TP1B	13	147-158cm	4			1					
256	TP1B	13	147-158cm	7			8					
257	TP1B	13	147-158cm	5			8	1				
258	TP1B	14	158-170cm	1			11	1				
259	TP1B	14	158-170cm	1			11	8				
260	TP1B	14	158-170cm	21			0					
261	TP1B	14	158-170cm	2			1					
262	TP1B	14	158-170cm	5			8					
263	TP1B	14	158-170cm	2			8	1				
264	TP1B	15	170-179cm	2			4					
265	TP1B	15	170-179cm	1			1	11				

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
266	TP1B	15	170-179cm	21			0					
267	TP1B	15	170-179cm	2			6					
268	TP1B	15	170-179cm	3			1					
269	TP1B	15	170-179cm	2			1	3				
270	TP1B	15	170-179cm	4			8					
271	TP1B	15	170-179cm	1			8	3				
272	TP1B	16	179-190cm	1			4					
273	TP1B	16	179-190cm	1			14					
274	TP1B	16	179-190cm	7			11					
275	TP1B	16	179-190cm	40			0					
276	TP1B	16	179-190cm	1			6					
277	TP1B	16	179-190cm	1			6	8				
278	TP1B	16	179-190cm	2			1					
279	TP1B	16	179-190cm	6			8					
280	TP1B	16	179-190cm	5			8	1				
281	TP1B	17	190-201cm	1			3	5	11	1		
282	TP1B	17	190-201cm	1			3	6	7			
283	TP1B	17	190-201cm	1			3	1	12			
284	TP1B	17	190-201cm	1			11					
285	TP1B	17	190-201cm	43			0					
286	TP1B	17	190-201cm	1			4					
287	TP1B	17	190-201cm	1			4	8				
288	TP1B	17	190-201cm	2			1					
289	TP1B	17	190-201cm	10			8					
290	TP1B	17	190-201cm	1			8	1				

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
291	TP1B	18	201-215cm	24			0					
292	TP1B	18	201-215cm	2			6					
293	TP1B	18	201-215cm	1			6	8				
294	TP1B	18	201-215cm	3			1					
295	TP1B	18	201-215cm	2			8					
296	TP1B	18	201-215cm	3			8	1				
297	TP1B	19	215-230cm	10			0					
298	TP1B	19	215-230cm	1			1					
299	TP1B	19	215-230cm	2			8					
300	TP1B	19	215-230cm	1			8	5				
301	TP1B	19	215-230cm	4			8	1				
302	TP1B	20	230-236cm	2			0					
303	TP1B	20	230-236cm	1			8	1				
304	TP1B	21	236-263cm	1			0					
305	TP1B	21	236-263cm	26			0					
306	TP1B	21	236-263cm	2			1					
307	TP1B	21	236-263cm	1			8	1				
308	TP1B	22	263-278cm	2			1	3				
309	TP1B	22	263-278cm	1			2	3				
310	TP1B	22	263-278cm	1			5					
311	TP1B	22	263-278cm	36			0					
312	TP1B	22	263-278cm	2			6					
313	TP1B	22	263-278cm	4			11					
314	TP1B	22	263-278cm	8			1					
315	TP1B	22	263-278cm	1			1	5				

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
316	TP1B	22	263-278cm	5			8					
317	TP1B	22	263-278cm	1			8	1				
318	TP1B	23	278-285cm	12			0					
319	TP1B	23	278-285cm	8			1					
320	TP1B	23	278-285cm	2			8					
321	TP1B	23	278-285cm	1			8	1				
322	TP1B	24	285-294cm	20			0					
323	TP1B	24	285-294cm	1			6					
324	TP1B	24	285-294cm	2			1					
325	TP1B	24	285-294cm	2			8					
326	TP1B	24	285-294cm	1			11	8				
327	TP1B	25	294-304cm	1			0					
328	TP1B	26	304-314cm	1			1	3				
329	TP1B	26	304-314cm	3			0					
330	TP1B	26	304-314cm	1			1					
331	TP1C	1	0-28cm	5			5					
332	TP1C	1	0-28cm	8			0					
333	TP1C	1	0-28cm	1			2					
334	TP1C	1	0-28cm	2			12					
335	TP1C	1	0-28cm	1			7	2				
336	TP1C	1	0-28cm	1			8					
337	TP1C	2	28-34cm	1			4					
338	TP1C	2	28-34cm	1			11					
339	TP1C	2	28-34cm	12			0					
340	TP1C	2	28-34cm	1			12					

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
341	TP1C	2	28-34cm	2			8					
342	TP1C	2	28-34cm	1			5	8				
343	TP1C	3	34-48cm	2			4	9				
344	TP1C	3	34-48cm	4			0					
345	TP1C	3	34-48cm	2			2	1				
346	TP1C	3	34-48cm	4			12					
347	TP1C	3	34-48cm	2			8					
348	TP1C	3	34-48cm	1			8	1				
349	TP1C	4	48-58cm	1			0					
350	TP1C	4	48-58cm	2			12					
351	TP1C	4	48-58cm	1			7					
352	TP1C	4	48-58cm	1			8					
353	TP1C	5	58-68cm	10			0					
354	TP1C	5	58-68cm	3			12					
355	TP1C	5	58-68cm	1			8					
356	TP1C	5	58-68cm	1			8	1				
357	TP1C	6	68-78cm	3			0					
358	TP1C	7	78-101cm	6			0					
359	TP1C	7	78-101cm	1			12					
360	TP1C	8	78-169cm	1			3					
361	TP1C	8	78-169cm	1			9					
362	TP1C	8	78-169cm	7			0					
363	TP1C	8	78-169cm	1			6	9				
364	TP1C	8	78-169cm	2			1					
365	TP1C	8	78-169cm	1			8	1				

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
366	TP1C	9	78-116cm	1			9					
367	TP1C	9	78-116cm	17			0					
368	TP1C	9	78-116cm	1			1					
369	TP1C	9	78-116cm	1			8					
370	TP1C	9	78-116cm	1			8	9				
371	TP1C	9	78-116cm	3			8	1				
372	TP1C	10	116-128cm	1			11					
373	TP1C	10	116-128cm	12			0					
374	TP1C	10	116-128cm	2			8					
375	TP1C	11	128-169cm	1			3	4	11	8	1	
376	TP1C	11	128-169cm	9			0					
377	TP1C	11	128-169cm	1		17						
378	TP1C	11	128-169cm	2			1					
379	TP1C	12	116-144cm	1			11					
380	TP1C	12	116-144cm	3			11	8				
381	TP1C	12	116-144cm	17			0					
382	TP1C	12	116-144cm	1			1					
383	TP1C	12	116-144cm	1			8					
384	TP1C	12	116-144cm	1			8	1				
385	TP1C	13	144-157cm	10			0					
386	TP1C	13	144-157cm	2			8					
387	TP1C	14	157-169cm	1			3					
388	TP1C	14	157-169cm	1			9					
389	TP1C	14	157-169cm	11			0					
390	TP1C	14	157-169cm	1			1					

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
391	TP1C	14	157-169cm	2			8					
392	TP1C	15	169-179cm	2			3	4	11	8	1	
393	TP1C	15	169-179cm	10			0					
394	TP1C	16	179-189cm	10			0					
395	TP1C	16	179-189cm	1			6					
396	TP1C	16	179-189cm	3			1					
397	TP1C	16	179-189cm	1			8					
398	TP1C	17	189-200cm	2			0					
399	TP1C	17	189-200cm	1			1					
400	TP1C	18	200-210cm	1			4					
401	TP1C	18	200-210cm	1			11					
402	TP1C	18	200-210cm	13			0					
403	TP1C	18	200-210cm	4			8					
404	TP1C	18	200-210cm	1			8	1				
405	TP1C	19	210-220cm	2			3	6	8			
406	TP1C	19	210-220cm	1			11					
407	TP1C	19	210-220cm	19			0					
408	TP1C	19	210-220cm	2			1	8				
409	TP1C	20	220-230cm	1			4	8				
410	TP1C	20	220-230cm	1			9					
411	TP1C	20	220-230cm	9			0					
412	TP1C	20	220-230cm	1			6					
413	TP1C	20	220-230cm	1			1					
414	TP1C	20	220-230cm	1			8					
415	TP1C	20	220-230cm	2			8	1				

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
416	TP1C	21	230-235cm	6			0					
417	TP1C	21	230-235cm	1			1					
418	TP1C	21	230-235cm	1			7	6				
419	TP1C	22	235-263cm	10			0					
420	TP1C	22	235-263cm	1			1					
421	TP1C	22	235-263cm	2			8					
422	TP1C	23	263-283cm	1			4	8				
423	TP1C	23	263-283cm	8			0					
424	TP1C	23	263-283cm	1			1					
425	TP1C	24	283-293cm	1			9					
426	TP1C	24	283-293cm	28			0					
427	TP1C	24	283-293cm	1			6	1				
428	TP1C	24	283-293cm	1			1					
429	TP1C	24	283-293cm	4			8					
430	TP1C	24	283-293cm	2			8	1				
431	TP1C	24	283-293cm	1			8	1	3			
432	TP1C	25	293-303cm	1			3	6	1			
433	TP1C	25	293-303cm	2			9					
434	TP1C	25	293-303cm	9			0					
435	TP1C	25	293-303cm	3			8	1				
436	TP1C	26	303-313cm	13			0					
437	TP1C	27	313-323cm	13			0					
438	TP1C	27	313-323cm	2			8					
439	TP1D	1	0-10cm	1			16					
440	TP1D	1	0-10cm	10			0					

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
441	TP1D	1	0-10cm	1			7					
442	TP1D	1	0-10cm	3			8					
443	TP1D	1	0-10cm	2			8	1				
444	TP1D	2	10-20cm	3			11					
445	TP1D	2	10-20cm	9			0					
446	TP1D	2	10-20cm	2			4	1				
447	TP1D	2	10-20cm	1			6					
448	TP1D	2	10-20cm	1			1					
449	TP1D	2	10-20cm	3			8	1				
450	TP1D	3	20-30cm	1			11					
451	TP1D	3	20-30cm	2			1					
452	TP1D	3	20-30cm	2			7					
453	TP1D	4	30-40cm	1			8	1				
454	TP1D	5	40-43cm	3			0					
455	TP1D	5	40-43cm	2			8					
456	TP1D	6	43cm	1			16					
457	TP1D	6	43cm	2			0					
458	TP1D	6	43cm	3			1					
459	TP1D	7	43-49cm	1			0					
460	TP1D	7	43-49cm	1			6	1				
461	TP1D	7	43-49cm	3			1					
462	TP1D	8	49-59cm	3			0					
463	TP1D	8	49-59cm	1			1					
464	TP1D	9	59-69cm	2			0					
465	TP1D	9	59-69cm	2			1					

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
466	TP1D	9	59-69cm	3			8					
467	TP1D	9	59-69cm	1			8	1				
468	TP1D	10	69-78cm	1			14					
469	TP1D	10	69-78cm	3			0					
470	TP1D	11	78-99cm	4			0					
471	TP1D	11	78-99cm	1			6					
472	TP1D	11	78-99cm	3			1					
473	TP1D	11	78-99cm	2			8					
474	TP1D	12	99-118cm	10			0					
475	TP1D	12	99-118cm	5			1					
476	TP1D	12	99-118cm	1			1	4				
477	TP1D	12	99-118cm	1			7	1				
478	TP1D	12	99-118cm	1			8					
479	TP1D	12	99-118cm	1			8	1				
480	TP1D	14	89-116cm	1			11					
481	TP1D	14	89-116cm	1			0					
482	TP1D	14	89-116cm	1			1					
483	TP1D	15	116-132cm	2			11	4				
484	TP1D	15	116-132cm	4			1					
485	TP1D	16	132-160cm	1			11					
486	TP1D	16	132-160cm	2			0					
487	TP1D	16	132-160cm	1			2					
488	TP1D	16	132-160cm	1			1					
489	TP1D	16	132-160cm	1			8					
490	TP1D	16	132-160cm	1			8	1				

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
491	TP1D	17	160-169cm	5			0					
492	TP 3	1	0-20cm	2			4					
493	TP3	1	0-20cm	7			8					
494	TP 3	1	0-20cm	1			5					
495	TP3	1	0-20cm	3			7	9				
496	TP 3	1	0-20cm	2			9					
497	TP 3	1	0-20cm	4			2	7				
498	TP 3	1	0-20cm	2			11					
499	TP 3	1	0-20cm	112			0					
500	TP 3	1	0-20cm	11			1					
501	TP 3	1	0-20cm	5			1	8				
502	TP 3	2	20-30cm	9			11					
503	TP 3	2	20-30cm	20			0					
504	TP 3	2	20-30cm	1			8					
505	TP 3	2	20-30cm	1			7					
506	TP 3	3	30-50cm	1			6					
507	TP 3	3	30-50cm	1			5					
508	TP 3	3	30-50cm	1			9					
509	TP 3	3	30-50cm	24			0					
510	TP3	3	30-50cm	2			2	6	8			
511	TP3	3	30-50cm	1			6	8				
512	TP3	3	30-50cm	2			1					
513	TP 3	4	50-60cm	1			8	9	11			
514	TP 3	4	50-60cm	11			0					
515	TP 3	4	50-60cm	1			1					

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
516	TP 3	4	50-60cm	1			4	5				
517	TP 3	5	60-102cm	1			1	6				
518	TP 3	5	60-102cm	1			11					
519	TP 3	5	60-102cm	1			6	8	11			
520	TP 3	5	60-102cm	40			0					
521	TP 3	5	60-102cm	3			6	8				
522	TP 3	5	60-102cm	8			1					
523	TP 3	5	60-102cm	6			8					
524	TP 3	5	60-102cm	1			7	9				
525	TP 3	5	60-102cm	5			1	8				
526	TP 3	5	60-102cm	8			2	7				
527	TP 3	5	60-102cm	1			3	8				
528	TP 3	5	60-102cm	1			3	12				
529	TP 3	5	60-102cm	5			1	8				
530	TP 3	6	60-80cm	3			2	6				
531	TP 3	6	60-80cm	1			3	8				
532	TP 3	6	60-80cm	25			0					
533	TP 3	6	60-80cm	1			6					
534	TP 3	6	60-80cm	2			1					
535	TP 3	6	60-80cm	3			8					
536	TP 3	7	60-120cm	6			0					
537	TP 3	7	60-120cm	1			6					
538	TP 5	1	2-15cm	3			4					
539	TP 5	1	2-15cm	3			11					
540	TP 5	1	2-15cm	90			0					

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
541	TP 5	1	2-15cm	3			1					
542	TP 5	1	2-15cm	5			7					
543	TP 5	1	2-15cm	8			7	9				
544	TP 5	1	2-15cm	5			2	7				
545	TP 5	1	2-15cm	3			1	8				
546	TP 5	1	2-15cm	1	19							
547	TP 5	1	2-15cm	3			8					
548	TP 5	2	15-25cm	4			4					
549	TP 5	2	15-25cm	1			4	9				
550	TP 5	2	15-25cm	1			13					
551	TP 5	2	15-25cm	1			16					
552	TP 5	2	15-25cm	2			2					
553	TP 5	2	15-25cm	1			4	5				
554	TP 5	2	15-25cm	6			11					
555	TP 5	2	15-25cm	197			0					
556	TP 5	2	15-25cm	13			1					
557	TP 5	2	15-25cm	1			1	10				
558	TP 5	2	15-25cm	10			7					
559	TP 5	2	15-25cm	12			7	9				
560	TP 5	2	15-25cm	7			8					
561	TP 5	2	15-25cm	5			1	8				
562	TP 5	2	15-25cm	1			1	2				
563	TP 5	3	25-29cm	1			4					
564	TP 5	3	25-29cm	25			0					
565	TP 5	3	25-29cm	1			6					

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
566	TP 5	3	25-29cm	5			1					
567	TP 5	3	25-29cm	1			1	10				
568	TP 5	3	25-29cm	8			7					
569	TP 5	3	25-29cm	1			7	9				
570	TP 5	3	25-29cm	3			8					
571	TP 5	4	25-35cm	44			0					
572	TP 5	4	25-35cm	6			1					
573	TP 5	4	25-35cm	3			7					
574	TP 5	4	25-35cm	6			7	9				
575	TP 5	4	25-35cm	1			8					
576	TP 5	4	25-35cm	1			1	8				
577	TP 5	5	35-40cm	4			4					
578	TP 5	5	35-40cm	1			10					
579	TP 5	5	35-40cm	1			12					
580	TP 5	5	35-40cm	1			2					
581	TP 5	5	35-40cm	10			5					
582	TP 5	5	35-40cm	2			13					
583	TP 5	5	35-40cm	4			11					
584	TP 5	5	35-40cm	164			0					
585	TP 5	5	35-40cm	5			1					
586	TP 5	5	35-40cm	11			7					
587	TP 5	5	35-40cm	10			7	9				
588	TP 5	5	35-40cm	1			2	7				
589	TP 5	5	35-40cm	2			8					
590	TP 5	5	35-40cm	6			1	8				

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
591	TP 5	5	35-40cm	3			1	5				
592	TP 5	6	40-70cm	1			0					
593	TP 5	6	40-70cm	15			0					
594	TP 5	6	40-70cm	1			6					
595	TP 5	6	40-70cm	1			6	8				
596	TP 5	6	40-70cm	14			1					
597	TP 5	6	40-70cm	1			7					
598	TP 5	6	40-70cm	1			8					
599	TP 7	1	5-15cm	2			4					
600	TP 7	1	5-15cm	27			0					
601	TP 7	1	5-15cm	1			6					
602	TP 7	1	5-15cm	4			1					
603	TP 7	1	5-15cm	3			7					
604	TP 7	1	5-15cm	1			7	9				
605	TP 7	2	15-25cm	1			11					
606	TP 7	2	15-25cm	44			0					
607	TP 7	2	15-25cm	1			4	6				
608	TP 7	2	15-25cm	2			1					
609	TP 7	2	15-25cm	1			1	4				
610	TP 7	2	15-25cm	9			7					
611	TP 7	2	15-25cm	1			7	9				
612	TP 7	2	15-25cm	1			1	8				
613	TP 7	3	25-35cm	1			4					
614	TP 7	3	25-35cm	24			0					
615	TP 7	3	25-35cm	1			6					

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
616	TP 7	3	25-35cm	5			1					
617	TP 7	3	25-35cm	1			1	5				
618	TP 7	3	25-35cm	8			7					
619	TP 7	3	25-35cm	1			7	9				
620	TP 7	3	25-35cm	3			8					
621	TP 7	3	25-35cm	1			1	8				
622	TP 7	4	35-45cm	1			10					
623	TP 7	4	35-45cm	1			8	11				
624	TP 7	4	35-45cm	29			0					
625	TP 7	4	35-45cm	3			1					
626	TP 7	4	35-45cm	2			7					
627	TP 7	4	35-45cm	1			7	9				
628	TP 7	4	35-45cm	3			8					
629	TP 7	4	35-45cm	1			1	8				
630	TP 7	5	35-65cm	7			0					
631	TP 7	5	35-65cm	2			1	5				
632	TP 7	5	35-65cm	1			2	7				
633	TP 7	5	35-65cm	1			1	8				
634	TP 7	6	65-75cm	2			4	8				
635	TP 7	6	65-75cm	3			11					
636	TP 7	6	65-75cm	86			0					
637	TP 7	6	65-75cm	1			4					
638	TP 7	6	65-75cm	1			6	8				
639	TP 7	6	65-75cm	2		17						
640	TP 7	6	65-75cm	8			1					

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
641	TP 7	6	65-75cm	1			1	5				
642	TP 7	6	65-75cm	1			7					
643	TP 7	6	65-75cm	1			3	13	18			
644	TP 7	6	65-75cm	10			8					
645	TP 7	6	65-75cm	1			8	9				
646	TP 7	6	65-75cm	3			1	8				
647	TP 7	7	75-85cm	7			0					
648	TP 7	7	75-85cm	1			4					
649	TP 7	7	75-85cm	1			1	6				
650	TP 7	7	75-85cm	12	17							
651	TP 7	8	85-95cm	7			0					
652	TP 7	8	85-95cm	1			6					
653	TP 7	8	85-95cm	1			1	6				
654	TP 7	8	85-95cm	12	17							
655	TP 7	9	95-105cm	3			4					
656	TP 7	9	95-105cm	26			0					
657	TP 7	9	95-105cm	1			1					
658	TP 7	9	95-105cm	4			7					
659	TP 7	9	95-105cm	1			8					
660	TP 7	10	105-115cm	15			0					
661	TP 7	10	105-115cm	3			1	8				
662	TP 7	10	105-115cm	3			7					
663	TP 7	10	105-115cm	1			1					
664	TP 7	10	105-115cm	1			11					
665	TP 7	11	115-125cm	1			4					

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
666	TP 7	11	115-125cm	24			0					
667	TP 7	11	115-125cm	1			6					
668	TP 7	11	115-125cm	5			1					
669	TP 7	11	115-125cm	1			1	5				
670	TP 7	11	115-125cm	8			7					
671	TP 7	11	115-125cm	1			7	9				
672	TP 7	11	115-125cm	3			8					
673	TP 7	11	115-125cm	1			1	8				
674	TP 7	12	125-135cm	1			4					
675	TP 7	12	125-135cm	1			5					
676	TP 7	12	125-135cm	17			0					
677	TP 7	12	125-135cm	7			1					
678	TP 7	12	125-135cm	1			1	5				
679	TP 7	12	125-135cm	1			8					
680	TP 7	12	125-135cm	3			1	8				
681	TP 7	13	135-145cm	7			0					
682	TP 7	13	135-145cm	2			7					
683	TP 7	13	135-145cm	1			8					
684	TP 7	13	135-145cm	1			1	8				
685	TP 7	14	145-155cm	6			0					
686	TP 7	14	145-155cm	2			1					
687	TP 7	14	145-155cm	1			7					
688	TP 7	14	145-155cm	1			8					
689	TP 7	14	145-155cm	1			1	8				
690	TP 7	15	155-165cm	7			0					

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
691	TP 7	15	155-165cm	1			6					
692	TP 7	15	155-165cm	1			6	8				
693	TP 7	15	155-165cm	12			1					
694	TP 7	16	165-175cm	7			0					
695	TP 7	16	165-175cm	1			6					
696	TP 7	16	165-175cm	1			6	8				
697	TP 7	16	165-175cm	12			1					
698	TP 7	17	176-185cm	2			4					
699	TP 7	17	176-185cm	1			2					
700	TP 7	17	176-185cm	10			0					
701	TP 7	17	176-185cm	1			11					
702	TP 7	17	176-185cm	1			1	3				
703	TP 7	18	185-195cm	1			9					
704	TP 7	18	185-195cm	2			7					
705	TP 7	18	185-195cm	52			0					
706	TP 7	18	185-195cm	6			1					
707	TP 7	18	185-195cm	4			7					
708	TP 7	18	185-195cm	4			8					
709	TP 7	18	185-195cm	1			1	8				
710	TP 7	19	195-205cm	1			4					
711	TP 7	19	195-205cm	24			0					
712	TP 7	19	195-205cm	1			6					
713	TP 7	19	195-205cm	5			1					
714	TP 7	19	195-205cm	1			1	5				
715	TP 7	19	195-205cm	8			7					

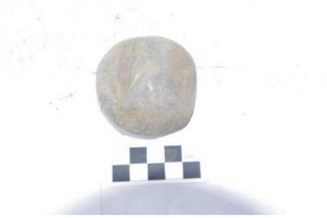
SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
716	TP 7	19	195-205cm	1			7	9				
717	TP 7	19	195-205cm	3			8					
718	TP 7	19	195-205cm	1			1	8				
719	TP 7	20	205-215cm	1			4					
720	TP 7	20	205-215cm	1			5					
721	TP 7	20	205-215cm	17			0					
722	TP 7	20	205-215cm	7			1					
723	TP 7	20	205-215cm	1			1	5				
724	TP 7	20	205-215cm	1			8					
725	TP 7	20	205-215cm	3			1	8				
726	TP 7	21	215-225cm	7			0					
727	TP 7	21	215-225cm	2			7					
728	TP 7	21	215-225cm	1			8					
729	TP 7	21	215-225cm	1			1	8				
730	TP 7	22	225-235cm	6			0					
731	TP 7	22	225-235cm	2			1					
732	TP 7	22	225-235cm	1			7					
733	TP 7	22	225-235cm	1			8					
734	TP 7	22	225-235cm	1			1	8				
735	TP 7	23	235-245cm	7			0					
736	TP 7	23	235-245cm	1			6					
737	TP 7	23	235-245cm	1			6	8				
738	TP 7	23	235-245cm	1			1	6				
739	TP 7	23	235-245cm	12			1					
740	TP 7	23	235-245cm	1			7	9				

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
741	TP 7	23	235-245cm	1			8					
742	TP 7	25	255-265cm	1			0					
743	TP 7	25	255-265cm	1			7					
744	TP 7	25	255-265cm	1			8					
745	TP 7	26	265-275cm	26			0					
746	TP 7	26	265-275cm	2			1					
747	TP 7	26	265-275cm	2			8					
748	TP 7	26	265-275cm	1			11					
749	TP 7	27	275-285	2			0					
750	PPII	Surface	Surface	464			0					
751	PPII	Surface	Surface	2			1					
752	PPII	Surface	Surface	21			7					
753	PPII	Surface	Surface	10			7	9				
754	PPII	1	3.4-13.4cm	9			0					
755	PPII	1	3.4-13.4cm	1			1					
756	PPII	1	3.4-13.4cm	1			4					
757	PPII	1	3.4-13.4cm	2			7					
758	PPII	1	3.4-13.4cm	1			1	8				
759	PPII	1	3.4-13.4cm	1			4	8				
760	PPII	2	13.4-23.4cm	7			0					
761	PPII	2	13.4-23.4cm	2			7					
762	PPII	2	13.4-23.4cm	3			11					
763	PPII	3	23.4-33.4cm	19			0					
764	PPII	3	23.4-33.4cm	2			7					
765	PPII	4	33.4-43.4cm	5			0					

SN	Unit	Context/Level (spit)	Context/level depth (cm)	Number of sherds	Burnish (int/ext)	Slipping (int/ext)	Dec I	Dec II	Dec III	Dec IV	Dec V	Remarks (please keep to minimum)
766	PPII	4	33.4-43.4cm	1			5					
767	PPII	4	33.4-43.4cm	1			8					
768	PPII	4	33.4-43.4cm	1			11					
769	PPII	4	33.4-43.4cm	1	18		4					
770	PPII	5	43.4-53.4cm	6			0					
771	PPII	5	43.4-53.4cm	1			8					
772	PPII	6	53.4-63.4cm	3			0					
773	PPII	6	53.4-63.4cm	1			5					
774	PPII	6	53.4-63.4cm	1			7					
775	PPII	7	63.4-73.4cm	7			0					
776	PPII	7	63.4-73.4cm	1			1					
777	PPII	8	73.4-83.4cm	4			0					
778	PPII	9	83.4-93.4cm	7			0					
779	PPII	9	83.4-93.4cm	1			7					
780	PPII	9	83.4-93.4cm	1			1	8				
781	PPII	9	83.4-93.4cm	1			1	8	11			

Appendix 8. Description of small and other finds recorded										
Small finds number	**Image**	**Unit**	**Context**	**Object**	**Date**	**Length (cm)**	**Breadth(cm)**	**Diameter (cm/mm)**	**Thickness (cm/mm)**	**Additional description**
SF 1		TP1	3	Utilised sherd	05/02/2020	-	-	2.6cm	0.9cm	Fine twisted cord on one side
SFs 2-3		TP1	16	Utilised sherd	05/02/2020	-	-	4.8cm, 6.7cm	1.05cm, 1.09cm	
SF 4		TP6	1	Utilised sherds	05/02/2020	-	-	3.4cm	1.0cm	

SF 5		TP1	6	Potstand	05/02/2020	-	-	10.2cm	2.2cm	Two refitted fragments
SF 6		TP3	3	Upper grinding stone	05/02/2020	≤17.5	≤9	≤10cm	≤10cm	
SF 7		TP3	2	Broken upper grinding stone	05/02/2020	≤17.5	≤9	≤6cm	≤6cm	
SF 8		TP1	1	Broken lower grinding stone	05/02/2020	≤45	≤30	≤10cm	≤10cm	Assumed as part of SF 25 as they were found together within same context.

SF 9		TP4	1	Hammerstone				≤10cm	≤10cm	
SF 10		TP4	1	Hammerstone				≤10cm	≤10cm	
SF 11		TP4	1	Hammerstone				≤10cm	≤10cm	
SF 12		TP1	1	Pebble				≤5cm	≤5cm	

SF 13		TP4	1	Pebble				≤5cm	≤5cm	
SF 14		TP4	1	Pebble				≤5cm	≤5cm	
SF 15		TP6	1	Metal	05/02/2020			6.1cm	0.04cm	
SF 16		TP6	1	Metal	05/02/2020	≤5	≤5	-	≤5cm	

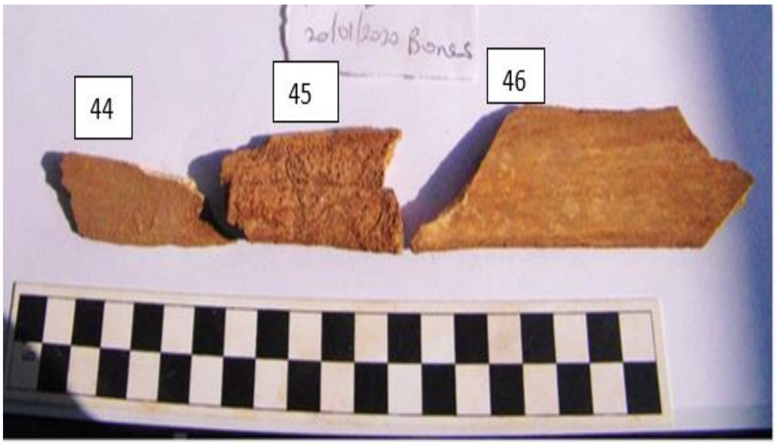
SF 17		TP3	3	Metal	20/02/2020	7.5	2	-	-	
SF 18		TP1A	15a	Metal	05/02/2020	≤5	≤5	-	≤5cm	
SFs 19 & 20		TP1B	1	Metal	28/01/2020	≤5	≤5	-	≤5cm	
SF 21		TP1	8	Metal	27/01/2020	≤7.5	≤5	-	≤5cm	
SF 22		TP1	4	Perforated Tooth	25/07/2021	3	≤5	-	-	

SF 23		TP5	1	Bead	03/02/2020	-	-	9.786mm	4.462mm	Perforated
SF 24		TP7	1	Bead (Assumed shell bead)	08/02/2020	-	-	6.48mm	2.02mm	Perforated
SF 25		TP3	1	Broken part of a lower grinding stone	08/02/2020	-	-		≤5cm	Assumed as part of SF 8 as they were found together within same context.

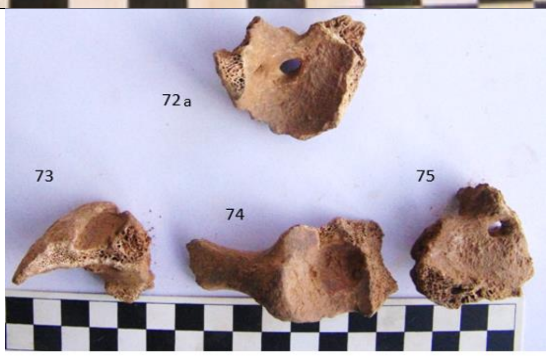
Appendix 9. Analysed animal bone and teeth from excavations for the whole Okesuna Ilorin assemblage (ID.Nos by Alex Fitpatrick 2021)

<table>
<tr><th>SN</th><th>Images of Bone and teeth</th><th>Descriptions</th></tr>
<tr><td>1</td><td>
</td><td>Bone (and likely tooth remains; ID.No.8 and fishbones; ID.No 16 & 17) from Test Pit 1 Context 9.</td></tr>
<tr><td>2</td><td>
</td><td>Bones from Test Pit 7 Context 2.</td></tr>
<tr><td>3</td><td>
</td><td>Bone and teeth from Test Pit 3 Context 2</td></tr>
</table>

4		Animal bone with attached tooth likely bovine (cattle) from Test Pit 1 Context 2
5		Animal bone from Test Pit 1 Context 9
6		Animal bone from Test Pit 1 Context 18
7		Animal bone from Test Pit 7 Context 22.

8		Animal bone from Test Pit 1 Context 1
9		Animal bone from Test Pit 5 Context 3
10		Animal bone from Test Pit 2 Context 7
11		Animal bone from Test Pit 1 Context 4

12		Bone from Test Pit 1 Context 10
13		Animal bone from Test Pit 1 Context 2.
14		Teeth from Test Pit 1 Context 1.
15		Tooth from Test Pit 1 Context 18.

16		Animal bone from Test Pit 7 Context 16
17		Animal bones from Test Pit 7 Context 5
18		Animal bone from Test Pit 2 Context 15
19		Animal bones from Test Pit 7 Context 16.
20		Animal bones from Test Pit 7 Context 21
21		. Tooth from Test Pit 1 Context 2

22		Tooth from Test Pit 1 Context 1
23		Teeth from est Pit 1 Context 2

Appendix 10

Faunal Report: Ilorin, Nigeria, West Africa

Dr Alex Fitzpatrick (Independent zooarchaeology researcher)

The following report is a brief summary of faunal bone remains found in excavated contexts from the site of Ilorin, Nigeria, West Africa. Due to the ongoing pandemic, zooarchaeological analysis was undertaken remotely using photographs; as such, the available data resulting from this analysis is limited. Fragments were identified to species and element, with any additional details recorded for posterity (see the accompanying spreadsheet for more information).

This assemblage consists of 84 individual faunal bone fragments, which were given Context numbers during zooarchaeological analysis (see supplementary document). 62% (52 fragments) were identifiable to a specific species and/or element overall (Table 1).

ID Number	Context	Species	Element
5	TP1 Context 9	Sheep/Goat (*Ovis aries/Capra hircus)*	Ulna
6	TP1 Context 9	Cattle (*Bos taurus*)	Humerus
9	TP1 Context 9	Medium-Sized Terrestrial Mammal	Scapula
10	TP1 Context 9	Medium-Sized Terrestrial Mammal	Rib
11	TP1 Context 9	Medium-Sized Terrestrial Mammal	Humerus

19	TP1 Context 9	Sheep/Goat (*Ovis aries/Capra hircus)*	Mandible
20	TP7 Context 2	Cattle (*Bos taurus*)	Carpal/Tarsal
21	TP7 Context 2	Cattle (*Bos taurus*)	Femur
22	TP7 Context 2	Large-Sized Terrestrial Mammal	Phalange
24	TP7 Context 2	Pig/Boar (*Sus domesticus*/*Sus scrofa*)	Carpal/Tarsal
25	TP7 Context 2	Pig/Boar (*Sus domesticus*/*Sus scrofa*)	Carpal/Tarsal
26	TP7 Context 2	Pig/Boar (*Sus domesticus*/*Sus scrofa*)	Carpal/Tarsal
28	TP3 Context 2	Sheep/Goat (*Ovis aries/Capra hircus)*	Mandible
29	TP3 Context 2	Cattle (*Bos taurus*)	Vertebra
30	TP3 Context 2	Cattle (*Bos taurus*)	Molar

31	TP3 Context 2	Sheep/Goat (*Ovis aries/Capra hircus)*	Mandible
33	TP1 Context 9	Medium-Sized Terrestrial Mammal	Scapula
34	TP1 Context 9	Cattle (*Bos taurus*)	Long Bone Fragment
35	TP1 Context 9	Cattle (*Bos taurus*)	Long Bone Fragment
36	TP1 Context 9	Cattle (*Bos taurus*)	Long Bone Fragment
37	TP1 Context 9	Unidentified Faunal Species	Rib
38	TP1 Context 18	Cattle (*Bos taurus*)	Rib
38a	TP1 Context 9	Unidentified Faunal Species	Phalange
40	TP1 Context 18	Cattle (*Bos taurus*)	Vertebra
41	TP7 Context 22	Cattle (*Bos taurus*)	Skull Fragment
43	TP1 Context 1	Cattle (*Bos taurus*)	Phalange
44	TP5 Context 3	Cattle (*Bos taurus*)	Rib

45	TP5 Context 3	Cattle (*Bos taurus*)	Rib
46	TP5 Context 3	Cattle (*Bos taurus*)	Rib
48	TP1 Context 7	Cattle (*Bos taurus*)	Rib
49	TP1 Context 4	Medium-Sized Terrestrial Mammal	Rib
51	TP1 Context 2	Large-Sized Terrestrial Mammal	Rib
53	TP1 Context 2	Cattle (*Bos taurus*)	Scapula
55	TP1 Context 2	Cattle (*Bos taurus*)	Scapula
60	TP1 Context 2	Cattle (*Bos taurus*)	Scapula
61	TP1 Context 1	Sheep/Goat (*Ovis aries/Capra hircus)*	Tooth Fragment
62	TP1 Context 1	Sheep/Goat (*Ovis aries/Capra hircus)*	Tooth Fragment
63	TP1 Context 18	Sheep/Goat (*Ovis aries/Capra hircus)*	Tooth Fragment

64	TP7 Context 16	Sheep/Goat (*Ovis aries/Capra hircus)*	Tibia
65	TP7 Context 16	Sheep/Goat (*Ovis aries/Capra hircus)*	Tibia
66	TP7 Context 16	Sheep/Goat (*Ovis aries/Capra hircus)*	Tibia
67	TP7 Context 16	Sheep/Goat (*Ovis aries/Capra hircus)*	Tibia
68	TP7 Context 5	Medium-Sized Terrestrial Mammal	Rib
69a	TP1 Context 15	Cattle (*Bos taurus*)	Rib
70a	TP7 Context 16	Sheep/Goat (*Ovis aries/Capra hircus)*	Humerus
71a	TP7 Context 16	Cattle (*Bos taurus*)	Calcaneus
74	TP7 Context 21	Cattle (*Bos taurus*)	Vertebra
75	TP7 Context 21	Medium-Sized Terrestrial Mammal	Sacrum

76	TP1 Context 1	Medium-Sized Terrestrial Mammal	Canine
78	TPI Context 1	Sheep/Goat (*Ovis aries/Capra hircus)*	Tooth Fragment
79	TPI Context 2	Sheep/Goat (*Ovis aries/Capra hircus)*	Incisor
80	TPI Context 2	Sheep/Goat (*Ovis aries/Capra hircus)*	Incisor

Table 1. Overview of the faunal bone with species and element identification

Recording was undertaken following the guidelines from Historic England (Baker and Worley, 2019), with some modifications based on the North Atlantic Biocultural Organisation's Zooarchaeological Database (McGovern et al. 2008). Species and element identification were made in consultation with the author's personal reference collection of modern faunal bones; when this was not possible, additional reference was made to Walker's (1985) *Guide to Post-Cranial Bones of East African Mammals*, the Bone ID Visual Reference Database, and the East African Mammal Dentition Database from the Smithsonian's National Museum of Natural History. In addition, Hillson's *Mammal Bones and Teeth* (1992) was consulted for comparison. Fragmentation was recorded using Dobney and Reilly's (1988) diagnostic zone system. Given the fragmentary nature of this assemblage, quantification is represented by the number of individual specimens (NISP).

All of the identified species in this assemblage (Figure 1) are likely domesticate species, including sheep, goat, cattle, and pig. However, there are some caveats. Given the limited ability to closely examine the faunal remains, as well as the inherent difficult in differentiating between sheep and goat bones in the zooarchaeological record (Zedda et al. 2017), sheep/goat will be considered as one combined category. Similarly, pig and boar have been combined into a similar category due to the difficulties in differentiation (Rowley-Conwy and Dobney, 2012), which have been exacerbated by the use of photographic analysis. In addition, as the author has limited experience with West African faunal remains, most species identifications should be seen as suggestions; for example, remains identified as cattle may be more contextually suited to a related species such as wildebeest. Identifications in this report should therefore be considered to be at least accurate to the Family taxa and should be adjusted to fit the particular Context of the site.

41% of the faunal remains were not identifiable to species but were at least identified as terrestrial mammals and thus given size designations according to the recommendations made by McGovern et al. (2008). Large-sized terrestrial mammals (LTM) are considered to be horse/cattle-sized, medium-sized terrestrial mammals (MTM) are sheep/pig-sized, and small-sized terrestrial mammals (STM) are fox/dog-sized. One possible bird bone fragment was observed as well, but unable to be identified to any particular species.

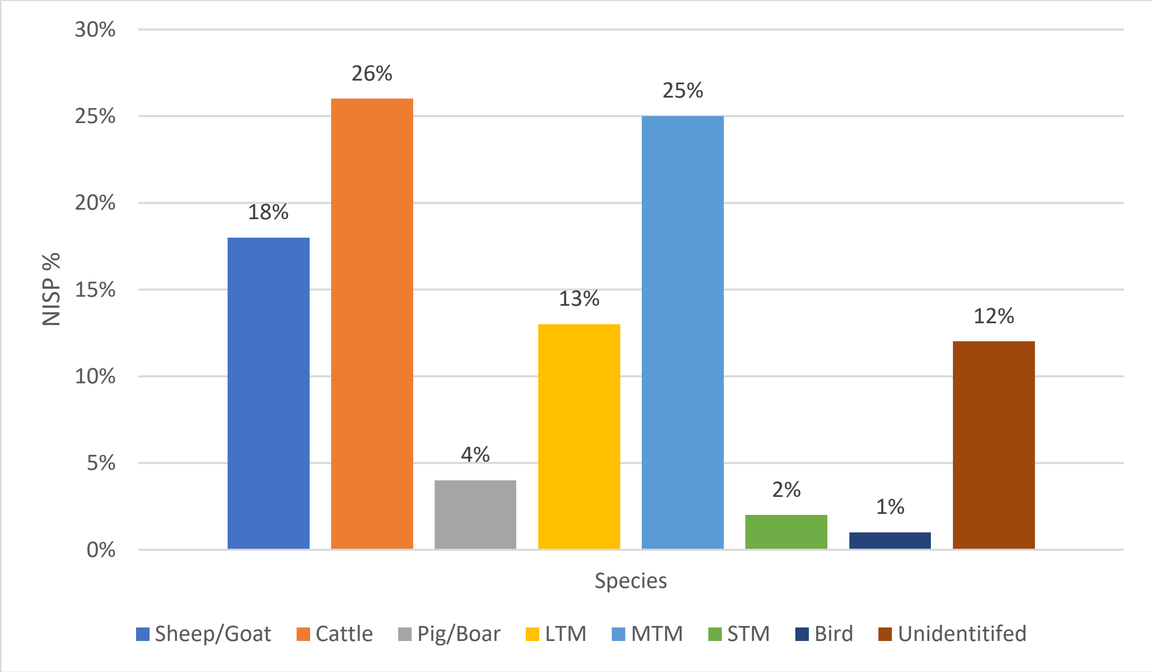


Figure 1. Percentage of the overall NISP for each identified species in the faunal assemblage

63% of the assemblage was identifiable to skeletal element (Figure 2). Using Reitz and Wing's skeletal group designations (1999, p. 206) to categorise the individually identified elements, it can be determined that head elements were most prevalent (27% of the assemblage), alongside foot (20%) and axial (18%) bones.

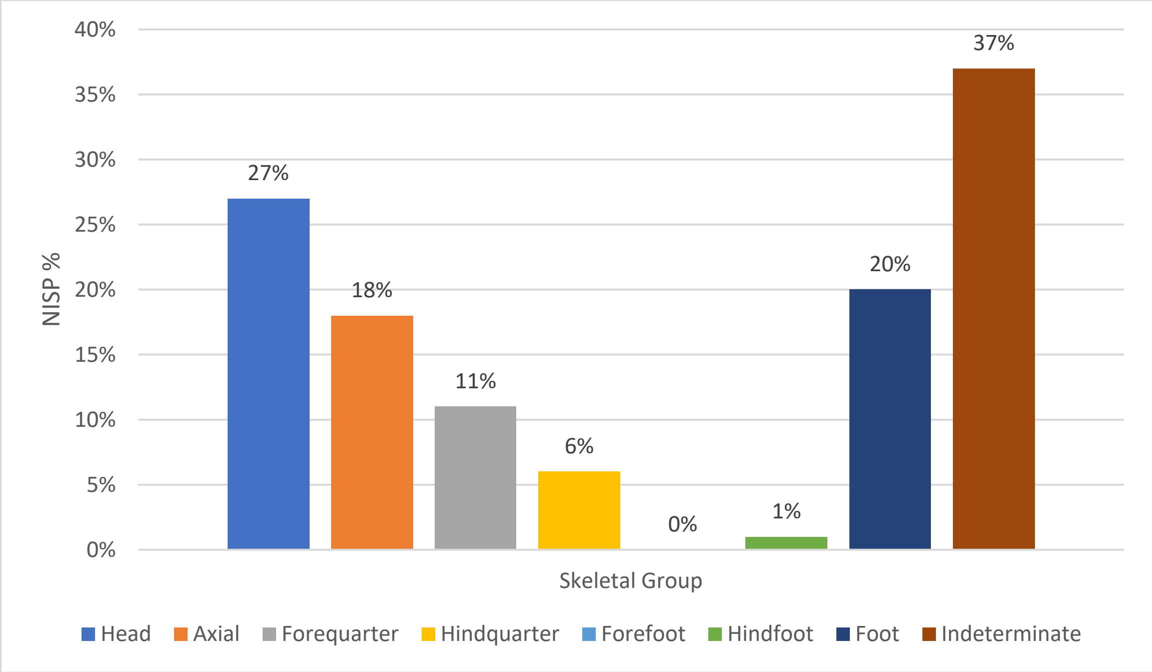


Figure 2. Percentage of the overall NISP for each identified skeletal group in the faunal assemblage

Approximate age at death was recorded in the broadest of terms following McGovern *et al*. (2008). However, due to the fragmentary nature of the assemblage, only 6 bones were able to be identified to one of the given age categories. This included 4 fragments which likely came from older individuals, and 2 fragments that were likely from neonates.

The taphonomic profile of the overall assemblage showed some evidence of anthropogenic and non-anthropogenic modification (Table 2), only making up approximately 19% of the total number of remains. It should be noted that this low number may be due to the limitations of a photo-based zooarchaeological analysis. 13% (11 fragments) of the assemblage were observed to have possible evidence of butchery, 5% (4 fragments) was observed to have been burnt to some extent, and 2% (2 fragments) had signs of gnawing.

ContextID	Species	Element	Taphonomic Characteristics
1	MTM	Long Bone Fragment	Possible Cracking
4	STM	Long Bone Fragment	Calcined
5	Sheep/Goat	Ulna	Possible Cracking and Canid Gnawing
6	Cattle	Humerus	Possible Cracking
9	MTM	Scapula	Blackened
11	MTM	Humerus	Possible Cracking
13	Unidentified	Unidentified	Blackened
14	MTM	Long Bone Fragment	Blackened
33	MTM	Long Bone Fragment	Blackened
35	Cattle	Long Bone Fragment	Chopmark
36	Cattle	Long Bone Fragment	Chopmark
39	Unidentified	Unidentified	Scorched
40	Cattle	Vertebra	Calcined
42	LTM	Unidentified	Cutmarks and/or Canid Gnawing
47	LTM	Unidentified	Possible Cracking
52	LTM	Long Bone Fragment	Possible Cracking
54	LTM	Unidentified	Scorched
74	Cattle	Vertebra	Chopmark
76	MTM	Canine	Worked – Drilled Hole

Table 2. Overview of the faunal remains which had observable taphonomic characteristics (i.e., gnawing, butchery, etc.) in the faunal assemblage

Anthropogenic taphonomy included butchery marks as well as some possible evidence of bone breakage for marrow extraction (based on Binford, 1981). 6 fragments were noted as potentially representative of this kind of cracking modification, although it should be noted that this is difficult to confirm via photographic analysis and thus must be taken as a potentiality rather than firm evidence. In addition, 1 fragment was observed to have cutmarks (from a smaller-sized blade, often used for skinning or other precise cuts), and 4 fragments had evidence of chopmarks (from a larger-sized blade, often used for dismemberment). A canine tooth had a hole drilled into it as well, indicating that it was likely worked for the ornamentation purposes (i.e., worn as a pendant, etc.); although the species was unable to be confirmed, it is likely from a medium-sized carnivore, such as a hyena or leopard.

Burning was recorded following McGovern et al. (2008) and using Johnson (1989, p. 441) for further reference. 3 were blackened, 2 were scorched (both are indicative of indirect contact with the heat source) and 2 were calcined (likely direct contact with heat source). Non-anthropogenic taphonomy included two instances of possible gnawing (based on scavenging criteria from Young, 2017), both of which has been identified as most likely canid in nature.

By using Behrensmeyer's (1978) weathering criteria, the overall preservation of the faunal assemblage can be described as "moderate" (Figure 3), with most remains graded as either Stage 2 (deep cracking/flaking, with a separation of flakes from the bone edge) or Stage 3 (rough texture, rounded crack edges).

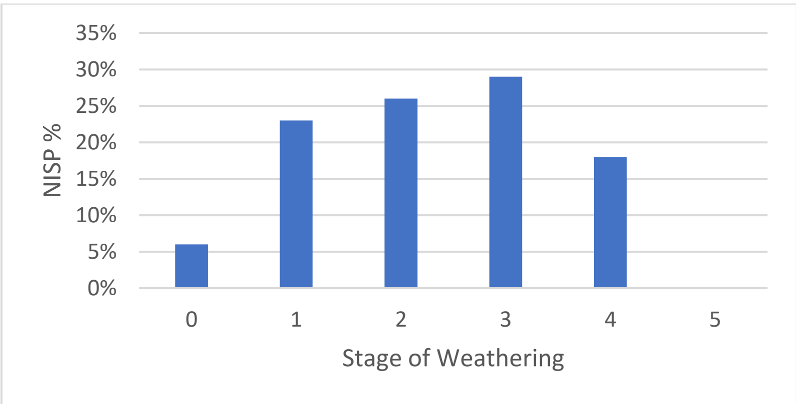


Figure 3. Percentage of the overall NISP for each observed level of weathering based on Behrensmeyer's criteria (1978) in the Raunds 3014 faunal assemblage

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