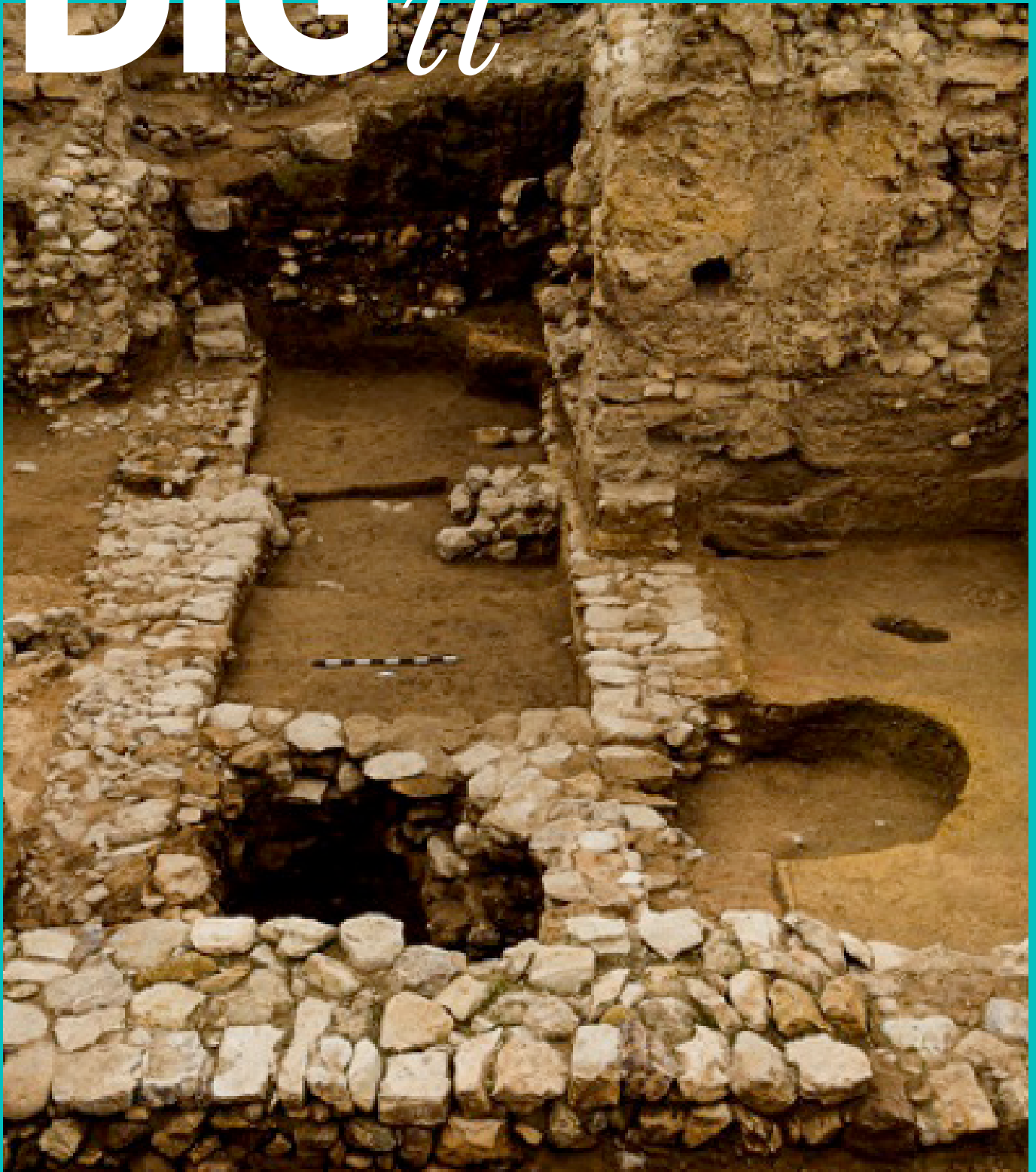


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# DIG<sup>it</sup>



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# EDITORIAL

Welcome to Volume 3 of *Dig It*. This year we have built on the success of last year's editorial committee to ensure the journal's future. Part of this process was to rearrange the roles of the editorial committee, whereby we now have four people doing the same tasks that the previous editor, Jana, undertook singlehandedly. We also created two positions for short contributions editor, which were taken up by Kathleen Gorey and Rose Santilli, who worked tirelessly to guarantee the quality of the short contributions for this volume.

Another change that our members will have noticed is that we only produced one issue this year. After careful deliberation, the editorial committee found that we could produce a higher quality journal if we reduced this volume to one issue. Additionally, over the last few years, ArchSoc has been producing *Dig It* at a loss; membership fees were not covering the costs of *Dig It* and this meant that we had to come up with a long-term solution to this budgeting issue. Not only has the reduction of issues meant that *Dig It* is no longer produced at a loss, but the remainder of each membership fee can be allocated to fund other initiatives and opportunities for ArchSoc members.

Earlier this year we engaged with graphic designer, Laura Cooper, who agreed to take over from our editor, Jordan Ralph, in designing this volume of *Dig It*. Jordan has designed all five previous issues of the new series of *Dig It* (2012–2014), which—due to his lack of graphic design qualifications—meant that on average each issue would take him two–three weeks to design. The editorial committee decided that it was a cost-effective and time-effective solution to hire Laura as our graphic designer and to pay her an honorarium for her service. This honorarium was covered by a Cadbury™ Fundraiser in semester two. Thank you to everyone who bought and sold chocolates for this fundraiser! We would also like to thank Laura for putting so much work into designing this issue for us.

We encourage all students, regardless of their geographical location, to consider writing for *Dig It*—we want to know what students are researching across the globe. Our advice for future contributors is to make sure your contribution is grounded

in current academic literature and deals with a specific topic or question. Most often, it is not enough to try to fit all of the discussion points from a thesis into one paper. We suggest that you pick one topic from your research and write about that specific thing, rather than try to cover a broad range of issues in a few thousand words. This will make your contribution—and your argument—concise, clear, and robust. We look forward to receiving many more contributions from students and recent graduates and to helping them to refine their research for publication.

A few final notes on this volume and the articles herein: *Dig It* is fast becoming a global journal for archaeology students and recent graduates. Despite being based in Adelaide, Australia, this volume of *Dig It* includes papers by authors from Argentina, Australia, Nigeria, and Romania. The diversity and breadth of the theories, topics and sites that our authors write about is a testament to a growing attitude of global collaboration and dialogue in archaeology, not least of which has been fostered by the World Archaeological Congress.

Jordan Ralph, Catherine Bland, Adrian Mollenmans and Fiona Shanahan

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Change and consolidation can best be used to describe the year 2015 for the Flinders Archaeological Society. During this time members of ArchSoc benefited from the hard work and vision of its committee. Not only did the number of workshops offered increase but the type of workshop was expanded, with ArchSoc not only offering the ever popular Total Station but also the Intro to GIS, Geophysics Taster, Mapping and Dumpy Level workshops. Many thanks are given to Rob Koch, Bob Stone, Ian Moffat and Andrew Frost who gave freely of their time, expertise and experience, thus enabling the Society to again provide the workshops free of charge to its members. Attendance at the workshops was excellent and the feedback from members was positive and encouraging. There is a definite ongoing need for these workshops. Thank you again to all those people who have taken the workshops from an idea to a reality.

Congratulations also to Susan Arthure and Cherrie de Leiu, the very deserving winners of the 2014 Ruth and Vincent Megaw award.

During 2015 ArchSoc again supported the Archaeology Department's Thursday Seminar Series; provided a very successful Graduan Celebration for the 2014 Graduates and stalls at the two O Week events and university Open Days. ArchSoc also gladly supported the UNESCO UNITWIN event and congratulates the Archaeology Department on achieving this outstanding UNESCO recognition. Another popular event was the Meet the Archaeologists and Archaeology Students lectures. In addition, ArchSoc was pleased to again support the South Australian Anthropological Society's Norman Tindale Lecture. The ArchSoc pub crawl was a success and the upcoming quiz night will also be an event not to be missed.

Significant changes were made during this year with regards to *Dig It*. It was decided to publish one issue per year of the society's journal *Dig It* and to also employ the services of a graphic artist. Given the huge amount of commitment needed to produce a journal of this quality, these changes will benefit all concerned with the publication of our journal.

ArchSoc also supported the Palaeontology Society's James Moore scholarship fund with the donation of \$500 which money was raised from the proceeds of the Diggers Shield Cricket match and an on campus book sale. Thank you to everyone who supported and contributed to this very worthy cause.

Members might have noticed that significant changes are being undertaken on campus, including several new Archaeology Department facilities, namely the closing of its lab in Social Sciences South and the opening of brilliant new labs/computer resource room in the Humanities quadrant. Due to these changes ArchSoc no longer has the use of the Map room, where we had stored equipment and merchandise as well as using it as an office. ArchSoc would like to thank the Archaeology Department for the use of the Map room over the years; to have been able to use it has been invaluable. Although this loss is problematic for ArchSoc and we have had to come up with different strategies to address it, the department has kindly provided temporary but very much appreciated secure storage.

Volunteering opportunities have again successfully been advertised to our members and we anticipate that similar opportunities will again become available in 2016.

Changes to our constitution are again being taken to our AGM. Some of the proposed changes have resulted from our ongoing affiliation with FUSA and our support of the new student association FUCAHSA. It has been encouraging to see that our membership numbers have been maintained in 2015.

Lastly, as your outgoing President, I would like to take this opportunity to thank the ArchSoc committee for their support but most importantly I thank you, our members for your continued support.

Dianne Riley  
President, Flinders Archaeological Society 2015  
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# PRESIDENT'S ADDRESS

# NEW LIGHTS ON THE ARCHAEOLOGY OF SUNGBO'S EREDO, SOUTH-WESTERN NIGERIA

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## Abstract

Earlier studies carried out on Sungbo's Eredo (embankment) showed that it is about 165 km in circumference and surrounds the whole of Ijebu Kingdom. From the date obtained by Aremu et al. (2013: 17), the structure is thought to have been built around 5000 years ago. However, it is possible that the site was also occupied during the medieval period, as evidenced in the remains around the sacred grove. This paper reports on a GPS survey of the site and excavations carried out during 2014 fieldwork archaeology intended to confirm or refute the dates previously obtained from the embankment. It examines the cultural materials recovered from the excavation, including Late Stone Age materials and those of the Neolithic period. Analysis of the Neolithic and Late Stone Age materials suggests that the site may be of greater antiquity than earlier reported and that this forest zone of West Africa was occupied at different time periods.

## Introduction

For many years, it has been thought that the main driver of the development of complex West African societies came from outside. In fact, the 'big bang' theory claims that before the integration of forested West Africa into the European bullion market and the opening of the Atlantic trade, the forested region of West Africa was uninhabited (Wilks 1993). This notion has been strongly contested by archaeologists in the last two decades. As Chouin (2012) noted, the archaeological data and the reinterpretation of previous work suggest that the 'hunters and gathers' hypothesis of the big-bang theory needs to be revised.

Archaeological work in West Africa has shown evidence of complex social stratification, long-distance trade, and sophisticated urbanisation long before the opening of the trans-Atlantic/Saharan trade. Similarly, archaeological and ethnographic evidence from Oke-Eri and many parts of Nigeria is inconsistent and at odds with the big-bang theory. It is in this regard that the dates of Cal BC 2830–2820 and Cal BP 4780–4770 from the 2012 excavation at Sungbo's Eredo (Aremu et al. 2013) must be critically examined via the dating of more datable samples. While Darling (1997)

obtained radiocarbon dates (AD 870 and AD 670–1050) which pre-date the coming of Europeans to the West African coast, the new date found in the present study (10060±30 BP) also pre-dates this period. It is presumed that more samples would yield dates that might not only pre-date the coming of Europeans but fill the gaps in our knowledge, especially in the debate on the presence or absence of large polities in West Africa.

Sungbo's Eredo is an embankment which surrounds the whole of Ijebu Kingdom in South Western Nigeria. In some places, it is in the form of a ditch cutting through the land mass

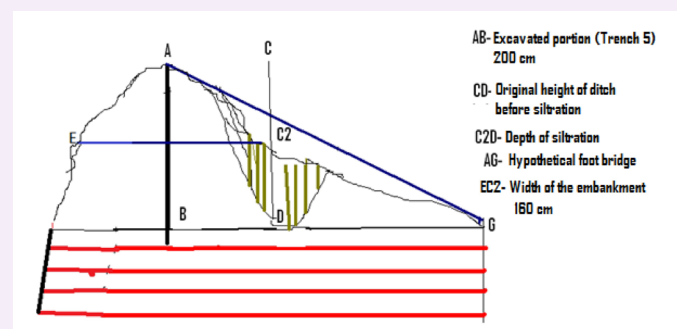


Figure 1: Configuration of Eredo at Oke-Eri (created by Lasisi Olanrewaju)

and thus forming two vertical sided walls (Figure 4). In other places, it is in form of a mound formed by the successive digging of the surrounding land mass to form an accumulated dump of about 160 cm in width (Figure 1). It is popularly known to as “Eredo”. The word Eredo is a term which according to the oral tradition of the Oke-Eri people means an “embankment”. The difference between this feature and every other wall systems in Nigeria is that it is the longest of all and has the distinct characteristics of a mound, ditch and rampart as evidenced in the different fractions of its length.

It is located in the rain forest of south-western Nigeria, and is among the largest man-made monuments in Africa, with an estimated 3.5 million cubic meters of moved earth and sand (Darling 2001). It is approximately 165 km long and surrounds the whole of Ijebu Kingdom (Figure 2), forming a gigantic feature that shows how complex the local socio-political system was long before the opening of the Atlantic trade. Indeed, it is the most significant earthwork of the ancient ramparts, boundary embankments, and ditches that stretch across Nigeria (Aremu 2002). Like Orile-keesi embankment, also in the south-western part of Nigeria (Ogundele et al. 2007), Sungbo’s Eredo was built completely by hand and without any sophisticated construction equipment.

Adjacent to the earthwork within Oke-Eri is a sacred grove (Figure 3a). According to local oral tradition, the grove houses the tomb of the Queen of Sheba. The Queen was referred to as “Bilikisu Sungbo” which gave rise to the name of the grove as the Bilikisu Sungbo’s grove and the embankment as “Sungbo’s Eredo”. The Queen of Sheba appeared in the Bible as well as the Quran. It was recorded that she was wealthy and visited King Solomon with magnificent gifts. As such, she has been elevated to a figure of religious devotion and the tomb has become a place of worship where pilgrims visit during Christmas to make prayer requests.

## Geographical background of the study area

Sungbo’s Eredo cuts across both Lagos and Ogun states in Nigeria. The part excavated in Ogun State is located in the village of Oke-Eri, southwest of Ijebu-Ode. The Eredo extends as far as Epe in Lagos State where vertical sided walls are formed and is about 165 km long. In Oke-Eri, the region covers an area over 72 sq km (Olonade 2005). The land of Ijebu is located between latitude 6°44’ N and 6°48’ N and longitude 3°58’ E and 3°59’ E. Ijebuland is bounded to the south by Lagos and the Atlantic Ocean, to the west by Sagamu in Ogun State, to the north by Osun and Oyo states, and to the east by Ondo State (Aremu and Olukole 2002). The study area is situated in the Tropics, where the sun is overhead almost every day of the year. The mean temperature is about 28°C and rainfall is high, averaging 2300 mm per annum and reaching its peak between June and late September.

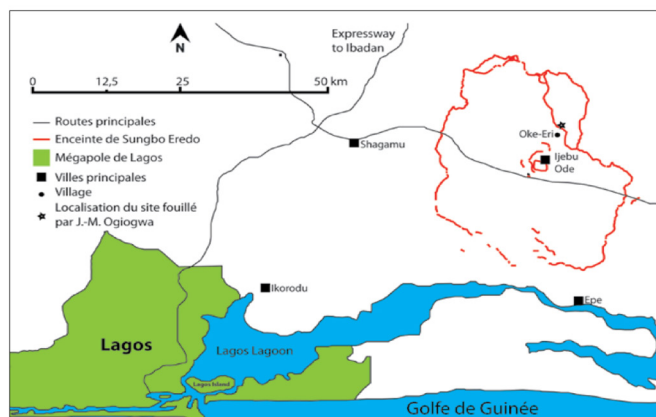


Figure 2. The boundary of Sungbo’s Eredo (after Chouin 2014)

## Previous research work in the study area

Earlier works undertaken in the vicinity of this magnificent embankment has shown that the south-western part of Nigeria possesses a history capable of redefining the historiography of the Ijebu Kingdom and, by inference, the Yoruba people in general. The cultural manifestations include the fact that despite the absence of a single potter in the contemporary village of Oke-Eri, ethnoarchaeological work carried out in 2010 shows that pottery making was at one time well established there (Adewale 2010). Afolabi (2009) discovered many abandoned sites in Oke-Eri where pottery formed most of the materials recovered. Daraojimba (2010), in his palynological analysis, compared present-day vegetation with surface spectra in Oke-Eri and concluded that most of the plants identified in present-day vegetation were not present in the pollen spectra. Aremu et al. (2013) considered the structure to have been a fortification around the Ijebu Kingdom and today, one of the most visited tourist and local pilgrimage sites in Ijebuland.

### Archaeology of Sungbo’s Eredo

The Sungbo’s Eredo sheds light on the process of urbanisation and state consolidation that took place in the forests of West Africa, long before Islam and Christianity came to reshape people’s history and long before the opening of the Atlantic trade (Chouin pers. comm. 2014). In addition, it challenges the Hamitic hypothesis that tends to see urbanisation in Africa as an European experience (Sanders 1969). The evidence found is not linked to an isolated town but to a kingdom’s large dike, a kingdom which was once functional and had at its disposal a high level of agricultural practice, an established pottery-making tradition, and possibly an army that triggered the construction of the Eredo.

The magnitude of Sungbo’s Eredo further exemplifies the unity and bond between the builders and the power that directed this construction. According to Darling (1997), the vertical-sided ditches run for 160 km, and is estimated to be

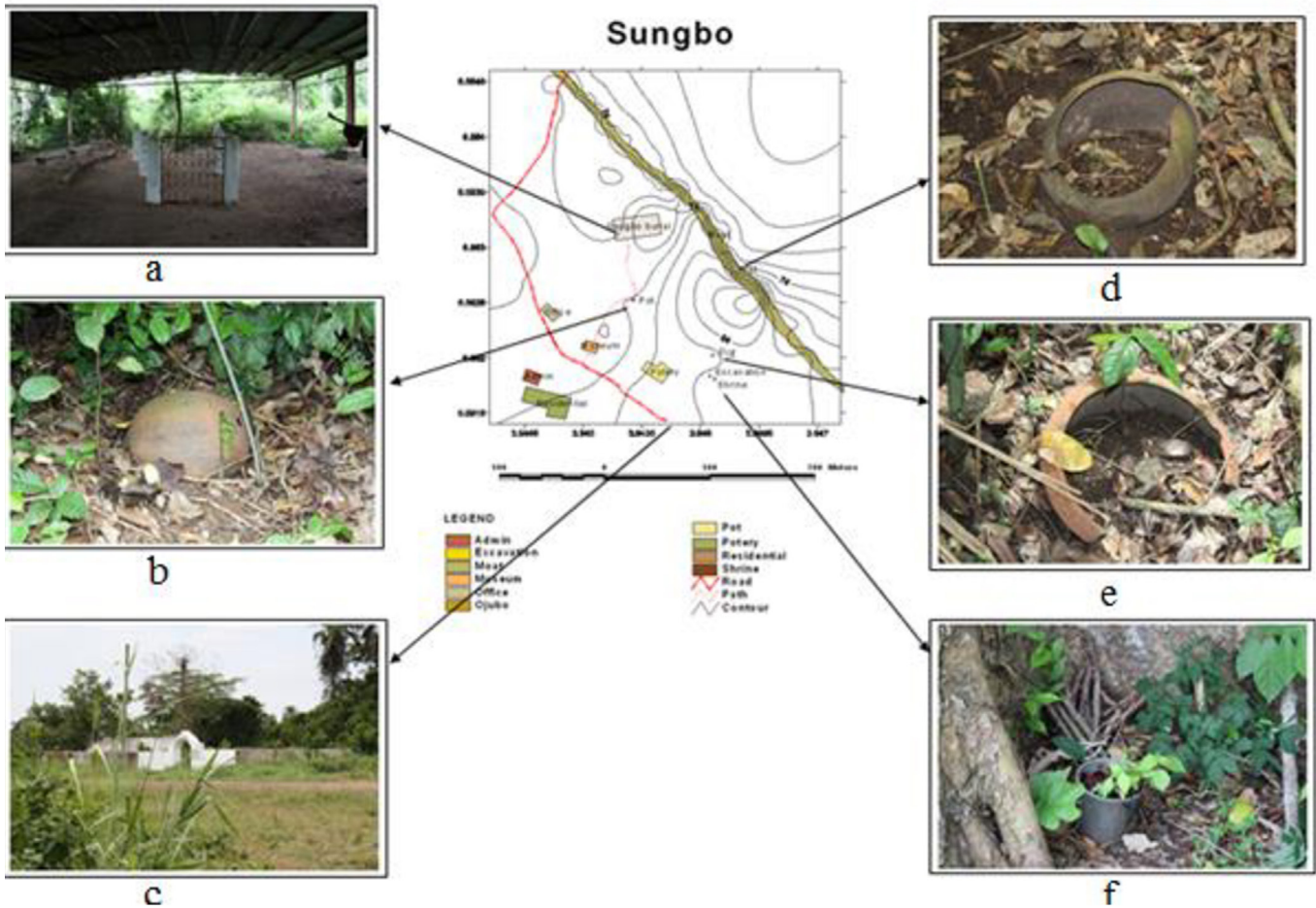


Figure 3 (a-f). The sacred grove and surface scatters around the Eredo (Figure created by Alafia Tayo)



Figure 4. The Eredo at Epe (photograph from Aremu et al. 2013)

over 1000 years old. Based on the above evidence, the Ijebu Kingdom is estimated to be one of the earliest kingdoms founded in the African rain forest

Although the Oke-Eri people believe that the Eredo was built by Queen of Sheba, the archaeological evidence found does not seem to agree with that view. Unlike unproven oral sources of information, archaeology is a discipline capable of liberating people from blind beliefs and pre-conceived ideas. The decision to apply a systematic approach to the

understanding of the occupation of this area was based on the fact that such oral information, while interesting in itself and suggestive of intriguing possibilities, remains unsubstantiated and therefore cannot be relied upon. Once the past fades into oblivion, the present becomes uncertain and the future is a mystery. Attention must be shifted from oral accounts to the actual evidence from the embankment in this region, in order to interpret its historical and archaeological significance and to analyze its effect on the Yoruba migration into south-western Nigeria and the socio-political enterprise during this period. Once there is clear scientific evidence, an understanding of the past and a resolution of the 'Queen of Sheba mystery' are possible.

The GPS (Figures 3 a-f) data illustrate the Eredo area where the survey and excavation was carried out. Figure 3a and 3c is the supposed tomb of the Queen of Sheba, and the evidence of cultural materials in the Sungbo forest includes ritual pots (Figures 3b, 3d, 3e) and a shrine (Figure 3f) under a tree in the riparian forest. These and other cultural materials discovered on the site show that people of Oke-Eri interacted with the grove and the Eredo itself.



### Recent research

At Oke-Eri, the section excavated was on the top of the Eredo and is the most recent excavation carried out in the study area. Here, a mound was formed as an embankment different from the vertical sided one found in Epe axis. The specific co-ordinates were 6°N, 6°N 2°E, 8°N, 8°N 2°E (Figure 5). This point was chosen because it is only a few centimeters from the 2012 excavations that yielded a date of close to 5000 BP. At 2.7 m, sterility was attained and considerable quantities of cultural materials were retrieved, including lithic materials, pottery, and charcoal samples. The Eredo is about 2 m high at the excavated portion, although it can be as high as 20 m in other places where vertical sided walls are formed. The type of materials recovered provides data on the depositional history of the course of constructing the Eredo. The concentration of potsherds within the first 2 m and their relative absence in the last 0.7 m are noteworthy. In addition, the stone tools recovered from far below the accumulated sand collected for the construction of this Eredo shed more light on its antiquity.

## Findings

### Ceramics

Pottery is a product of people's technological development and borne out of responses to their material needs (Aremu 2004). Although the ceramics recovered from the 2.7 m trench are fragmentary, the significance of these materials is of paramount importance. Despite the fragmentary proportion, potsherds were recovered from almost all levels except the levels below 2 m. The reason for this was that sand was brought from long distances and, in addition to that removed from the ditch, was dumped on the ground when constructing the Eredo. Thus, all materials recovered from 0–2 m are in their secondary position. This can be traced from the stratigraphy, because the color and texture of the soil changes dramatically at this level (Figure 6). The potsherds were found alongside other materials (also distant from their primary position) and were dumped at the site during the course of constructing the Eredo.

The potsherds recovered were largely eroded by the passage of time; however, it can be observed that they are mainly plain (Figure 7) except for a few with striations as decorative motifs. The potsherds recovered from the surface of the pit were not deposited alongside those within the pit. The former seem to be of more contemporary age because their orientation is quite different from other potsherds and they are still in a far better state of preservation than the other potsherds. In addition, the pottery materials deposited during the course of the moat construction begin to appear at 30 cm depth. Thus, the surface scatter could not have been secondarily deposited but was primarily deposited, probably by farmers, ritualists, or hunters, who must have discarded it after usage (Figures 3b, 3d, 3e)

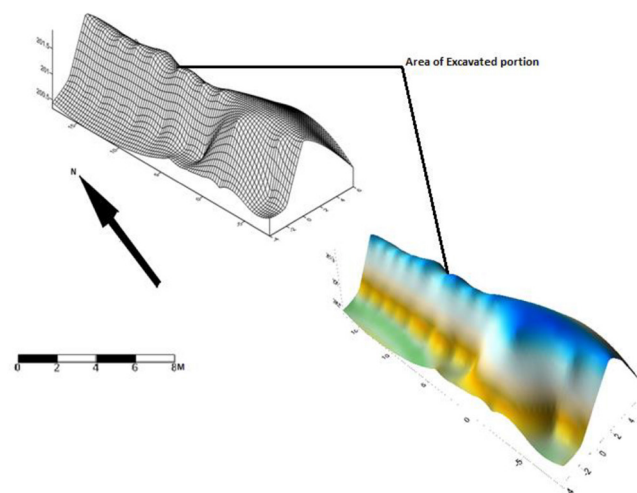


Figure 5. A 3-D depiction of the Eredo at Oke-Eri (created by Lasisi Olanrewaju)

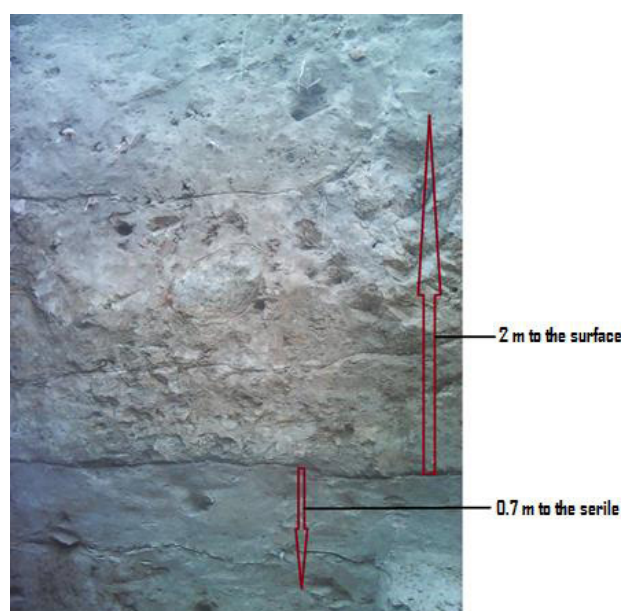


Figure 6. Primary and secondary formations (photograph by Lasisi Olanrewaju, November 2014)



Figure 7. Rimsherd from the trench (photograph by Lasisi Olanrewaju, November 2014)

### Stone analysis

The lithic materials present in the trench are of a large number (154 stones), with only ten of these primarily deposited since they were located beneath the 2 m mark of the accumulated dump before the Eredo was constructed. These materials after the 2.1 m point are those in a primary state of deposition, because the soil here down to the sterile layer is consistent in appearance, as opposed to the upper 2 m. This indicates that a settled lifestyle existed around the vicinity of the Eredo before it was constructed.

The stones are made of quartz, an igneous formation of silica crystals that forms within cooling molten rock. This process produced quartz crystals that are twinned such that the crystal faces are not obvious. Although it is difficult to flake this type of rock, those rocks homogenous in texture were used to create a variety of well-formed artefacts, as found within the last few centimeters of the excavated portion.

As Hiscock and Clarkson (2000: 99) asserted:

*in the use of recording and analytical procedures that acknowledge the differing standards of reliability in artifact identifications, one method of achieving this is by dividing quartz artifacts into two classes. The first class comprises artefacts that can be regarded as cultural to a high degree of certainty, either because they bear attributes consistent with hertzian fracture or because they display other features that have been shown by replication experiments to be diagnostic of knapping.*



Figure 8. Double platform cores (photograph by Lasisi Olanrewaju, November 2014)

In light of this, I decided to use a different but similar criterion to divide the stones, and this included a distinction on the basis of stones that were secondarily deposited (i.e. those deposited before 2 m) and those primarily deposited (between 2 m and the sterile layer). From the analysis, cores represent 33% of all lithic materials, almost all the cores are double platform cores (Figure 8),<sup>1</sup> and most of them came from within the first 40 cm.

Cores, chips, chunks, and flakes are all stones that do not have secondary flaking removed from them. As such, they are simply stones or forms made in the process of making tools. More important is the fact that most of this waste (93.5% of

all stones retrieved) was found within the 1.8 m depth of the trench; in other words, they were deposited secondarily while the moat was being constructed. However, the remaining 6.5% (Figure 11), comprising trapez, backed blade, and chisel, show the scars of a secondary flaking or a definite re-touch to produce such tools, except for the very few waste items found with the tools.

A chip is a small irregular piece of stone (usually less than 5 mm in length) that is removed during the flaking process. They are waste products not usually intended for use or modification into tools and are often referred to as debitage. A flake is a generic term for any piece of stone that has been chipped from another piece of stone. Some flakes can be subsequently modified into tools, while others may be utilized without recourse to modification. The flakes present here are not tools but mere detached pieces with no secondary flaking.

A blade is a flake more than twice as long as its width, with parallel or slightly converging edges, having one or more ridges parallel to its long axis, giving it a rectangular cross-section. This definition implies one basic technological parameter: all blades are detached from cores with longitudinal ridges on their faces (Cotterell and Kamminga 1979: 104; Whittaker 1994: 105-6). As Opadeji (2001: 51) noted, “[a blade] is a piece tending toward rectangle in form with one of the edges blunt as a result of backing with its length at least twice the breadth.” This is typical of the backed blade recovered from a depth of 2.47 m. It has a slight cut near one end, indicating it may have combined the roles of being a backed blade and a notched piece (Figure 9).

A chisel, as defined by Opadeji (2001: 51), is “small, roughly rectangular with shatter wear along one straight edge.” The chisel from the trench looks more like a small ground-edged implement, with its ground edge on the end margin (Figure 10).

It is possible in this instance to understand why ordinary stones were found within the first 2 m of the trench, which of course was deposited during the moat construction. However, it is unusual to find lithic materials, which in this case are not wastes but tools, located in a layer deposited even before the construction of the moat (2.1–2.7m). At this juncture, it is logical to suggest a life, a settlement, or possibly an action that triggered such a phenomenon even long before the Eredo was constructed. Although the presence of just four tools is normally too insignificant to draw conclusions, in the present instance it is significant enough to conclude that the tools are cultural given the fact they were recovered between 2.1 and 2.7 m and within a 2 m × 2 m trench dug into a 165 km-long embankment.

### Charcoal samples

The presence of charcoal in the trench is noteworthy, considering that the site is not a habitation or a camp site but an embankment. Charcoals were retrieved from the top soil



Figure 9. Backed blade from 2.47 m depth (photograph by Lasisi Olanrewaju, November 2014)



Figure 10. Chisels from 2.3 m (photograph by Lasisi Olanrewaju, November 2014)

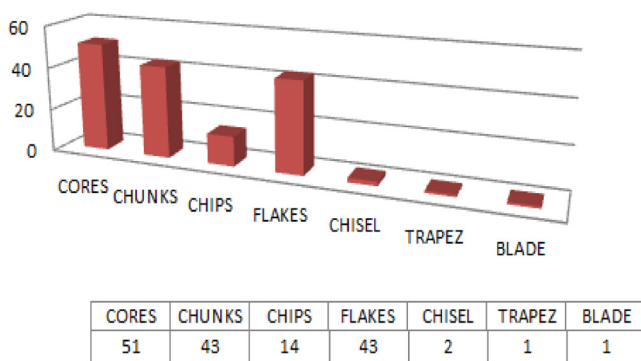


Figure 11. Relative proportions of stones found (created by Lasisi Olanrewaju)

down to about 15 cm before the sterile layer. More important is the fact that the charcoals found lower, that is below 2 m, are in a far better state of preservation than those at the top. This is very important in dating the charcoals and, by extension, the structure itself. The reason for this state of preservation is that the charcoal was beneath the soil and was compacted, keeping it in relatively large forms. Two large pieces of charred nut found at 2.47 m, alongside the backed blade, were sent to the laboratory and a date of  $10060 \pm 30$  BP was reported.

### Stratigraphic implications

The step extending from 1.9 m to 2.7 m has a uniform stratigraphy distinguished only by colour differences. It comprises just two layers, which are presumed to be the natural stratigraphy housing the stone tools with no pottery (Figure 6). Apparently, the landscape before the construction of the moat has cultural materials; however, it is devoid of pottery. It can be deduced from the foregoing that the absence of pottery is a pointer to the fact that Late Stone Age people had earlier occupied the area. This can be seen from the presence of blade, chisel, trapez, and a few debitage. Although the lithic materials here are fragmentary, this is not to say they are mere stones. After all, the tools possess secondary flaking, showing their use in antiquity.

Above the step is a 1.9 m dump deposited in a bid to construct the mound. It should be noted that the stratigraphy of this region is quite different from the one beneath. Its complexity may be due to the fact that soil was brought from distant locations to build up the mound, in addition to the soil from the surrounding ditch. Suffice it to say that materials such as coarse sands, different from the fine sands below, form most of the soil composition along with a large mass of gneiss that has been metamorphosed over time (with its end product as kaolinite). This accounts for the soil beneath the rock materials of gneiss being compact and sticky, as seen in layer 3 and layer 4 (Figure 12). The protruding potsherd at 190 cm (Figure 12) is the last potsherd to be seen in the pit. Thus, from the stratigraphic analysis, considering the deposition of materials, one can deduce that the mound above normal ground level is at least 1.9 m, without considering siltration effects (Figure 1).

Emphasis at this point must be laid on the presence of a damp and compact soil within the walls. No clayey substance was found alone without being in a context with gneiss rock material. This means there is a relationship between gneiss and the compact soil of kaolinite. Gneiss is a metamorphic rock, and its basic content is feldspar, quartz, mica, hornblende, and amphibole. Its texture is generally medium-to-coarse grained and consists of alternating dark and light band of minerals, varying in thickness from one millimeter to a few centimeters.

The gneiss extending from the southern wall to the western wall (Figure 12) underwent chemical processes of decomposition, whereby through hydrolysis the feldspar content forms kaolinite with some potassium and sodium ions. But through leaching, it is expected that the sodium and potassium ions would be displaced leaving the biotite and amphiboles to undergo hydrolysis to form clay and iron oxides. The feldspar present in gneiss has an opaque, brownish appearance owing to a microcrystalline secondary product, which is probably a clay mineral replacement during weathering (Velbel 1983; Tazaki and Tyfe 1987). The dominance of the highly degraded clay kaolinite implies pronounced chemical weathering under humid condition

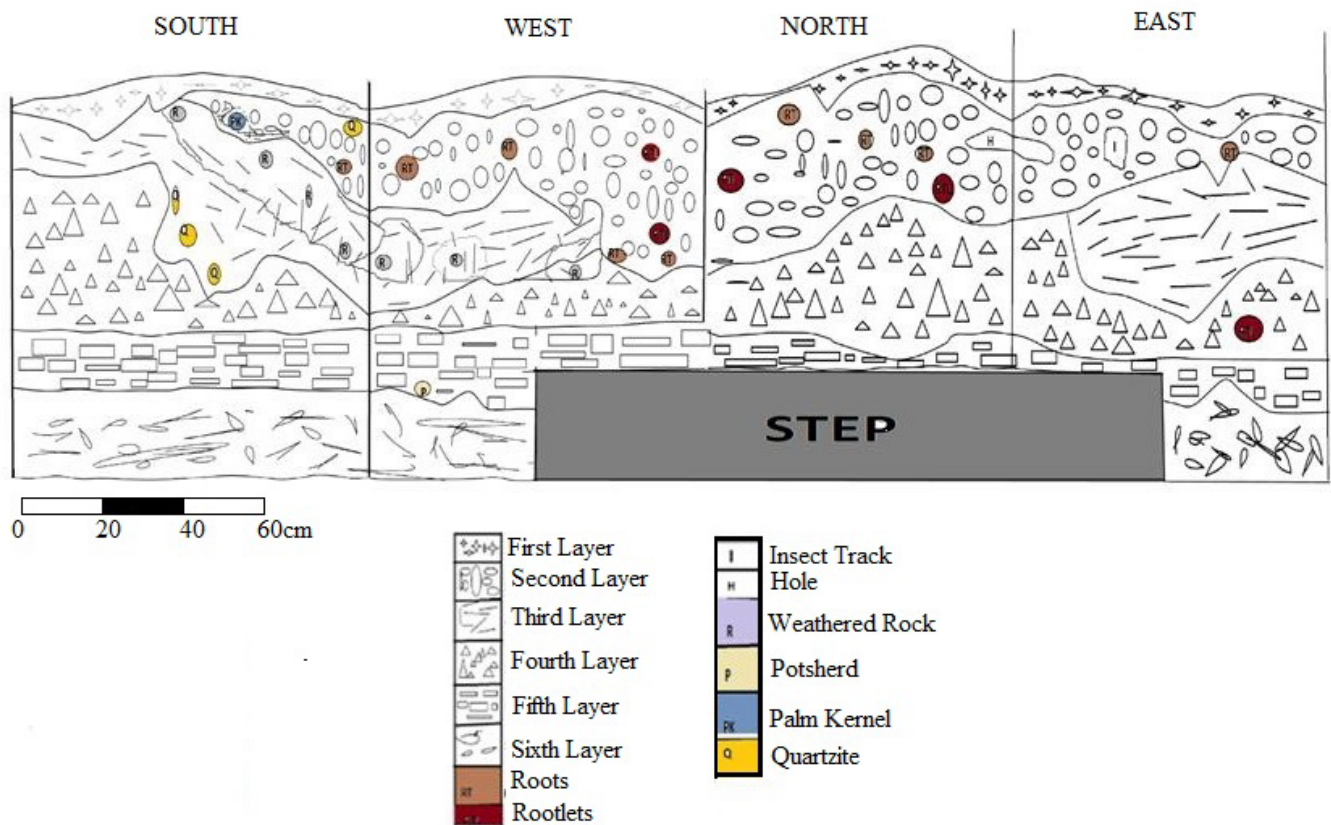


Figure 12. Stratigraphic profile showing the four walls (created by Lasisi Olanrewaju)

(Petters 2006). Thus, a large solid gneiss must have been dumped during the construction to make up a solidified structure, and over time it disintegrated into the large mass of kaolinite. The presence of this feature between the southern and the western wall is a sign of a large boulder decomposed to the consistency of clay.

## Summary

In summary, the 2.7 m trench yielded materials from the vicinity of Oke-Eri which were dumped on the site during construction. These are pottery materials, quartz, quartzites, and gneiss. The analysis of these finds has shown that the deposition took place many years ago, with the pottery materials found at 1 m to 1.9 m being washed, the charcoal within this region already in a crumbled state, and character of some of the stones being undiagnostic. Although the charcoal retrieved from 2.47 m is small, it is significant as it correlates with the same period as the Late Stone Age materials. The cultural manifestations in the form of pottery are not an end in themselves but a means to an end in that these materials represent a culture, an idea, a people—whose other cultural aspects cannot be fully deciphered from the Eredo but only by examining neighboring communities for relationships.

Previous excavation work yielded a date of  $4040 \pm 30$  BP, with a sterile layer at 2.65 m (Ogiogwa, J. 2014, Aremu et al. 2013). The most recent work carried out at the site was only 2 m away from this previous work, and it was expected that the sterile layer should be relatively close. At 2.7 m, sterility was reached and materials similar to those found in the 2013 excavation were again retrieved, with the exception of the additional finding of lithic tools.

The difficulty in understanding the mixture of stones and pottery at the upper level is not significant since it is known that the deposition of materials are not in their primary state; rather, they are secondarily deposited, and thus the depositional history and dynamic of processes involved is unknown. Naturally, one would expect the upper layer to be considered as deposition from a Neolithic assemblage because of the presence of pottery, but the presence of stones (all objective pieces) does not mean these stones belong to the same period since we do not know their provenance.

## ***Chronology: Reconsidering previous dates suggested for this site***

Charcoal samples retrieved from previous excavations were sent to Beta Analytic Inc. Radio Carbon Laboratory, Miami, Florida, USA (Aremu et al. 2013). A date of  $4040 \pm 30$  BP (2620–2480 BC) was reported, a testimony to the antiquity of the site (although not the Eredo). Another date was retrieved from a level of 1.4–1.5 m, unlike the first date which is from 1.9–2 m. This second date,  $730 \pm 30$  BP (1260–1290 BC), is old and not close to the dates published by Darling (1997), whose dates are AD 870 and AD 670–1050. The differences between the first and second date are not due to an old wood effect, but one must consider the fact that two depositional stages occurred here. The older date might belong to the period before the construction, and the later date probably belongs to the recent time in which the it was constructed. Moreover, these materials, in addition to the ones from the ditch, were brought from different places to be dumped at this location. Emphasis should thus be placed on the location whence the materials were brought.

The performance of AMS dating on the charcoal samples from the most recent excavation confirmed the dates obtained from the site, as the charred nut retrieved from 2.47 m dates as far back as the Late Stone Age ( $10060 \pm 30$  BP). However, as noted earlier, the charcoals retrieved from 0–1.9 m and from 2–2.7 m are not the same, the reason being that those below 2 m are primarily deposited and those at the top are secondarily deposited. This is not a disadvantage; rather, it is an aid to understanding the processes of urbanization in Sub-Saharan Africa. Any date from the upper level is a date of such material from a place in the vicinity of the moat, given that those materials were brought to the location to construct the moat. On the other hand, dates from the lower level pre-date the time of construction of the moat; this is because the stratigraphic profile had already been established before this architectural endeavor. Therefore, one must be careful not to confuse the two disparate dates from the same trench. The oldest date pre-dates the construction of the moat, while the relatively recent date is the date by which the moat was constructed and may not go beyond the first millennium AD.

## ***Discussion and Conclusion***

Considering the local oral tradition of the people that is committed to the idea that the Biblical Queen of Sheba was the architect of the Eredo, is it possible that a relationship exists between the Eredo and the Queen of Sheba, who reigned during the time of King Solomon (950 BC)?

The question is therefore asked, why is there a discrepancy as to her country of origin whether it is Yemen, Nigeria,

Jerusalem, or Ethiopia? Nigeria—as a place of contact by the Queen of Sheba—seems far from being expected unlike others considering the geographical distance of West Africa from the Mediterranean. The issue of Queen of Sheba can be considered as another subject of study in another research but despite the convincing characteristics of Queen of Sheba as having power to dominate territories with so many slaves at her disposal, she might have her tomb in the South Western part of Nigeria as evident in Oke-Eri but she only reigned about 950BC. At this period, the Late Stone Age occupation was over, and the medieval construction took place long after she reigned. It seems she was assumed to be the architect of the embankment because of the presence of her ‘tomb’ very close to the mound at Oke-Eri. As mentioned earlier, it is pertinent we detach first the affiliation of the Queen of Sheba with the embankment since it appears that the chronology of the Eredo and the Biblical/Quranic history of her existence are incoherent.

The gneiss boulder found within the mound has decomposed mostly to the consistency of clay. This is because the decomposition of gneiss is characterized by mineral dissolution, with the formation of clays and ferruginous products occurring as the replacements for the feldspar and biotite and thus filling the interstices between grains (Baynes and Deaman 1978). It is difficult to calculate how long it would take gneiss from the trench to decompose into kaolinite, because environmental conditions differ greatly from place to place; but Critelli et al. (1991) and Mongelli et al. (1998) suggest that weathering of gneiss lasts for a protracted period of time and, as such, constitutes a pre-holocene relict product of paleo-weathering found during warmer and more humid climatic conditions (Le Pera et al. 2001). Thus, the decomposed gneiss found within the upper level actually came from the ditch and formed the reversed stratigraphy.

The presence of pottery also confirms that this Neolithic evidence is a sign of a settled lifestyle that existed around the Eredo. However, the most recent excavation revealed that while the dump materials were brought from an area of Neolithic tendencies, the lower part of the trench exhibits technological manifestations of a Late Stone Age assemblage—even if they are very few. With further work around Oke-Eri, the discovery of a Late Stone Age, and perhaps a Neolithic, site is highly likely.

In addition, the local oral history views pottery lifestyles to be of antiquity and to have been introduced by Bilikisu (the Queen of Sheba). However, the history of pottery in this location is not convincing and does not look like it was once established in the area. Inferences about pottery must be drawn from the surrounding communities, according to Oladapo Afolabi (2015), whose work was on the ethnography of the pottery tradition in Imope. Imope is a neighboring community to Oke-Eri and pottery is well established there up until the present day. As a matter of fact, the name Imope was derived from the production of pottery. Furthermore, the

earthwork also passed through Imope, which highlights the fact that in answering any question about a pottery tradition in Oke-Eri, work must be done to a large extent around neighboring communities. The chronology of the site is quite complicated, and materials of the Late Stone Age and those of the Neolithic period were evident. This is to say that in building the earthwork, metals must have been fashioned. A survey of these areas might not only reveal the presence of a Late Stone Age and a Neolithic assemblage (as seen from the excavation report), but a transition from stone through to metals (presumed to have been used for the construction). It is very possible that during the medieval period, Sungbo's Eredo interacted with and could possibly have had much to do with the sacred grove at Oke-Eri.

There is no doubt that the earlier dates obtained from the Eredo extend back to antiquity. However, one could argue that the date obtained from the excavation is only the date at which the materials found were made before they were secondarily deposited and is not the date at which the structure was constructed. It should also be noted that we cannot directly date the Eredo; inference can be made only from the materials contained.

The hypothesis that the forest dwellers of West Africa were strictly hunters and gatherers may be untrue, as the architectural endeavour of Sungbo's Eredo indicates a history of great time depth and of massive urbanization processes. This is a history that existed many centuries before the integration of forested West Africa into the European bullion markets.

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## Notes

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## Editorial Committee

### Jordan Ralph, Editor

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Jordan completed a Bachelor of Archaeology (Honours) degree at Flinders University in 2012. The focus of Jordan's Honours research was contemporary graffiti of Jawoyn Country. He is an active member of the archaeological community, serving as a Student Representative for the Australian Archaeological Association and the President of the Flinders University Archaeological Society during 2012, as a member of the World Archaeological Congress Student Committee in 2012 - 2015 and as a member of the Council of the World Archaeological Congress as the Junior Representative for Southeast Asia and the Pacific in 2013 - present. Jordan has considerable experience working with Indigenous communities in the Northern Territory, and has participated in numerous archaeology surveys and recording projects, with a particular focus on rock art and graphic representation. Jordan now works as a field archaeologist at Wallis Heritage Consulting and is a PhD candidate with the Flinders University Department of Archaeology where is currently researching modern material culture in Aboriginal communities in the Northern Territory.

### Catherine Bland, Co-editor

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Catherine completed her Honours degree in 2012 where she conducted a technological and functional analysis on stone artefacts from the archaeological site of Ngaut Ngaut (Devon Downs), South Australia. Her current PhD research involves analysing ceramics with elemental and mineralogical techniques in order to explore questions about provenance and technology, which can be used to infer interregional interaction. The archaeological site of Caleta Vitor is the focus of her research and is located in northern Chile, South America. The ceramic record from the site spans the last 2,000 years and thus covers the rise, consolidation and collapse of two Andean cultures - Tiwanaku and Inka. This is a multidisciplinary international project that will provide insight into the ceramic manufacturing process for the site and identify the possible influences that the overarching political states of Tiwanaku and Inka had on the population.

### Adrian Mollenmans, Co-editor

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Adrian completed his Honours degree in 2014 in which he undertook an analysis of Aboriginal fish traps on Yorke Peninsula (Gururanda), South Australia. Adrian's research interests include Indigenous archaeology with an emphasis on adopting and promoting collaborative archaeological and community based participatory research approaches (see also Interview with Dr Amy Roberts in this edition for a further discussion on ethical considerations that underline the need for adopting such approaches). His current PhD research continues his collaboration with the Narungga community of Yorke Peninsula (Gururanda) by undertaking a broader investigation of coastal and marine resource use of this community including how the coastal and marine economy developed over time.

### Fiona Shanahan, Co-editor

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Fiona completed an archaeological Honours degree at La Trobe University in 2014. Her thesis deals with the management of World War II aviation sites in Australia and the Marshall Islands. Fiona has presented at a number of international and domestic conferences, including the National Student Archaeology Conference (NASC) and Australasian Institute for Maritime Archaeology (AIMA) conferences. She has a broad range of fieldwork experience including terrestrial and maritime archaeology throughout Australia. Excavations include the Penitentiary in Port Arthur, Oatlands Guard House, Australian Historic Shipwreck Preservation Project (Clarence) in Victoria, a shell midden in Apollo Bay, survey work at Ned's Corner as well as consulting work throughout Victoria, Tasmania and Western Australia.

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