

*Urban transitions in the Zanzibar archipelago*

**ARCHAEOLOGICAL FIELDWORK AT UNGUJA UKUU**

**July 2017**



**Interim report**

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## 1. Introduction

This report details activities carried out during a season of fieldwork at Unguja Ukuu from June 25 to July 14, 2017. Pilot excavations were conducted at the site, focusing on 3 main objectives:

- 1) prospecting for house deposits and excavations of occupation deposits;
- 2) off-site, geoarchaeological survey;
- 3) multi-scalar sampling of environmental and archaeological contexts.

The fieldwork season also served as an introduction for local communities to the larger *Urban Transitions* project. This involved introducing team members and activities to local authorities and communities, including residents of the KMKM Military Base at Unguja Ukuu, via short talks given by S. Wynne-Jones in Swahili, and a poster (English/Swahili) was produced for display at the local visitor centre and the Department of Antiquities and tourism offices in Stone Town (Appendix 1).

In addition to S. Wynne-Jones and F. Sulas, the team included Thomas Fitton (University of York), Ema Bauzyté (UrbNet), Abdallah K. Ali (Director of Antiquities, Zanzibar), and Wolfgang Alders (Ph.D. candidate, UC Berkeley). A total of 7 local workmen and a cook were hired.

Research in the field, the export of environmental and archaeological samples as well storing of retrieved artefacts were conducted under permits issued by the Department of Antiquities in Zanzibar. Soil samples were imported into Denmark with permission from the Danish AgriFish Agency.

## 2. Research problem

Archaeological research on the eastern coast and offshore islands of Africa has provided a sound background understanding of the development of an urban, mercantile, culture here. Excavations have charted the evolution of emporia or trading sites from at least the 7<sup>th</sup> century AD, and the transformation of these centres into complex stone-built towns of the second millennium AD. In this urban trajectory, Zanzibar has a special place. The early sites on Zanzibar and Pemba—such as Unguja Ukuu or Tumbatu—have given some of the earliest dates on the coast, suggesting that settled life, and connection to Indian Ocean trade networks, may have begun here.



Fig. 1 Zanzibar Archipelago.

Over the next 1,500 years, the archipelago can be seen as a microcosm of the coastal urban trajectory, with early evidence for the conversion to Islam, and the development of stonetown polities at sites like Tumbatu or Chwaka (Fig. 1). It is clear that the archipelago holds great potential for studies exploring the nature of urbanism in coastal eastern Africa. *Urban Transitions in the Zanzibar Archipelago* is a project designed to exploit that potential.

The research tradition on the eastern African coast has favoured an exploration of basic chronology and connection through small test pits. It is therefore very difficult to explore the nature of urban life, or the relationship of urban settlements with a resource landscape, or even with each other, without more detailed, contextual exploration. *Urban Transitions* sets out to achieve this, via a high-resolution study of urbanism in a location where basic questions of urban form and function remain unanswered. This offers tremendous potential for the contribution to knowledge, but it also offers challenges in planning fieldwork.

In the longer term, two major campaigns of excavation and off-site sampling are planned at Unguja Ukuu (7<sup>th</sup> century onwards) and Tumbatu (11<sup>th</sup> century onwards) respectively, providing coverage of two key moments of transition in the urban record of the archipelago. The combination of detailed stratigraphic excavation of known contexts and sampling at a micro-scale will offer unprecedented detail on these sites, and the ways they shaped and were shaped by their local environment. The broader project has thus been planned around large-area excavations such that structures and activity contexts can be identified. This is crucial, as both sites have previously been subject to small-scale excavations which have demonstrated their potential and given broad indications of chronology, economy, and affiliations. We feel that without the ambitious, large-scale coverage of the planned excavations, we will not be able to move on from those previous studies and risk simply repeating their conclusions. We also plan to use LiDAR coverage and analysis to explore the layout of the sites and to place them within a regional landscape of resources and auxiliary settlement.

Excavations in 2017 were planned as a pilot season for this larger project, but according to the aims of the project there was little point in excavating small test pits; this would simply replicate previous work at the site. It was therefore decided that fieldwork should contribute directly to the larger project, addressing two research problems. First, fieldwork was designed to test potential for aspects of the larger project, exploring whether it was possible to identify and isolate domestic structures, and sampling sediments, botanical and faunal remains with a view to testing potential methodologies. Second, excavation should contribute useful and publishable information on its own terms. It was decided that excavation of a domestic structure at Unguja Ukuu, and sampling of several other areas, could achieve both of these objectives.

### **3. Site landscape and selection of target areas**

The archaeological site of Unguja Ukuu is located on a sandy strip along the seashore of the Menai Bay (Fig 2.). The local topography is characterised by two main features: the low-lying beach sand bank on the western side of the bay and the creek (Uzi Channel) on the eastern side (see discussion below, section 6). The archaeological site of Unguja Ukuu was mapped in the mid-1980s and subsequently explored by means of test pits mainly on middens, and through coring and geophysical survey (Horton and Clark 1986; Juma 2004; Boivin *et al.* 2014; Crowther *et al.* 2015, 2017; Fitton and Wynne-Jones *in press*; Horton *in press*). Until now, no structure had been excavated in its entirety. Previous studies by Horton (*in press*) and Juma (2004) recorded an estimated extent of the site over about 17 ha, including the presence of numerous middens, and a general depth of less than 2 m. A significant part of the site is currently within the premises of a beach resort and a Navy military base (Unguja Ukuu Navy KMKM).

Most of the middens excavated by various teams have been located on the southwestern edge of the site, adjacent to the shore. This area of the site has changed considerably during the period since the first test pits in the 1980s, with the expansion of the military base, including clearance of a parade ground immediately above the middens, along the top of the ridge. The impact of such activities on the local archaeology cannot be fully determined, beyond the fact that the original topsoil cover has been completely removed. However, coring conducted by A. Juma (2004) had recorded the presence of archaeological deposits at relatively shallow depths. Furthermore, geophysical survey conducted in the area also detected anomalies in the same area (Fitton et al. in press) and it was postulated that the bulldozed area might have had the topsoil removed, leaving the earliest deposits intact beneath. It was therefore decided that the first excavation trench (UZ001) would be located just above the midden area, on the edge of the cleared ground.

Landscape modifications at the site have also included the construction of a road along the eastern side of the ridge. During a pilot visit in 2016, a section with stratified archaeological deposits was recorded in the cut created by this road. While laboratory analyses of samples collected then are still underway, the presence of diagnostic local and imported pottery visible in the section linked these deposits to the 7th century AD-settlement. The second excavation unit (UZ002) was therefore sited on top of, and slightly back from, this section, with the intention of encountering the domestic deposits that could be seen in the cut.

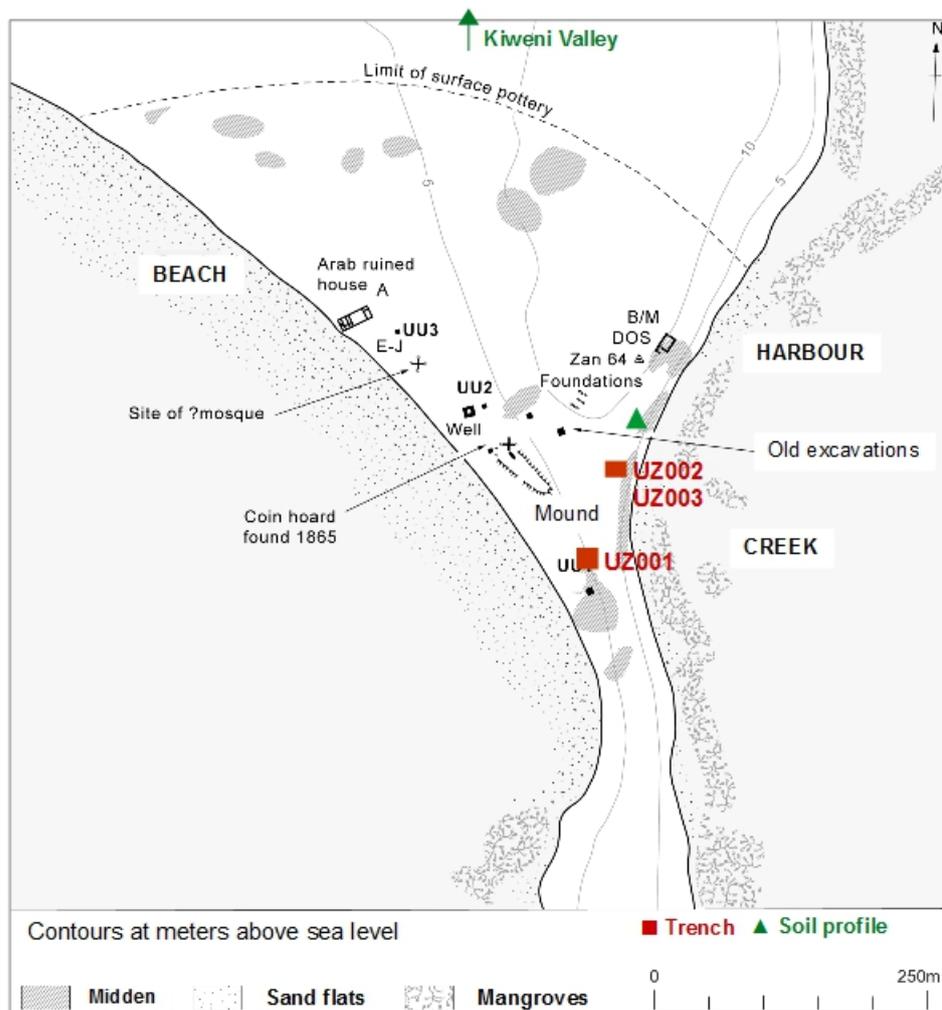


Fig. 2 Site location (map adapted from Horton in press).

## 4. Methods

### 4.1 Excavation and artefact recording

Trenches were laid and mapped using high-precision GPS. Deposits were excavated by context and each context was recorded, measured, planned and photographed. Individual artefacts, features and cuts observed in situ were individually recorded and mapped before removal. Artefacts, faunal and plant remains were collected also via sieving. 100% of the material removed from each context was dry-sieved at 2 mm-mesh. In addition, flotation was performed of a sample (2l) from each context.

The following categories of finds were recovered from excavation trenches: local and imported pottery, daub, glass and metal fragments, shell and glass beads; shell, marine and terrestrial faunal remains; charcoal and charred plant remains; and copal/resin fragments. All finds were recovered, weighed and/or counted on site and the majority were stored at the local visitor centre, following the recommendation of the local Antiquity Representative. The list of finds is given in Appendix 2. A selection of representative material together with all the soil samples, charcoal and flotation residues were exported to Denmark and UK, under export licence issued by the Department of Antiquities, for laboratory analyses (Appendix 3). Excavation trenches were refilled at the end of the season and undiagnostic ceramics were placed at the bottom of the trenches before refilling.

### 4.2 Soil sampling and chemical mapping

Bulk samples of sediments were collected from each context and soil micromorphological samples were taken from key floor and cultural deposits. Systematic sampling was employed to map chemical markers of activities across floor and occupation contexts (Fig. 3): 1m-interval sampling grid was applied to characterise artefact-rich deposits immediately above floors/surfaces, and a 50cm-interval sampling was used over floors and occupation surfaces.



*Fig. 3* Systematic chemical mapping at 1 m-interval (top) and 50cm-interval at UZ002 (bottom).

#### 4.3 Survey

A key priority of this season was to record local soils and sediments, land formations, and broad landscape processes. Given the extent of work generated by the archaeological trenches and time constraints, only very limited amount of time was left for a geoarchaeological survey. Two main areas were targeted: the lower part of the creek, including part of the site, and one tributary valley approximately 2 km north of the site (Fig. 2). Features of interest (soil cover, water sources) and points of investigation by means of test pitting were mapped using hand-held GPS. Small soil test pits (c. 30 cm in diameter) were dug to ascertain the local soil sequence across the valley. Upon completion of recording and sampling, each test pit was refilled.

The locations of four shell middens in proximity of the site along the creek were mapped and a small sample of shell were collected and exported to Denmark. Although the chronology of these middens remain unclear, the samples taken will provide important reference material for the interpretation of faunal remains recovered from the trenches.



Fig. 4 Recording soil sequences in the Kiweni valley.

## 5. Excavation results

### 5.1 Trench UZ001

A 10 x 10 m trench was laid to ascertain the depth, conditions and extent of archaeological deposits in an area where previous studies have explored midden deposits (Horton and Clark 1985) and a number of geophysical anomalies had been recorded (Fitton and Wynne-Jones in press). In particular, a sondage (UU1), excavated by M. Horton in 1984 just a few metres SW towards the beach, had recorded 2.1 metres of midden with dense concentrations of local and imported pottery, daub, bead-grinders, animal bone, shell, iron slag, and daub (Horton and Clark 1986: 169).



*Fig. 5* Trench UZ001 at the opening.

As anticipated, the area has undergone substantial landscaping, including bulldozing of the topsoil in recent years. Excavation therefore immediately encountered deposits of the earliest occupation of the site. This meant that it was possible to see some patterning of deposits around probable features, but also resulted in significant damage to these features. Topsoil was cleared as context #1001 (Fig 5), and contained significant quantities of artefacts. Excavations immediately reached a coherent layer with a clear concentration of artefacts; this was recorded as context #1002 and was systematically sampled for soil chemistry using a 1m-interval grid. A total of 121 soil samples were taken with the aim to detect chemical markers of activities (Fig. 6). Excavations then continued into what proved to be dense layers of artefacts, but without clear signals of structural features. Due to time constraints, and how slow it was to excavate such artefact-rich deposits, a decision was taken to cease excavations of this unit, with plans to return in subsequent seasons. There were indications of some patterning to the artefact remains, and the soil chemistry should clarify this further for future interpretation. Yet as the primary goal was to excavate a structure, it was decided that the team should concentrate its efforts on UZ002.



*Fig. 6* Trench UZ001, sampling of cultural layer at 1m-interval.



Fig. 7 Trench UZ002 at the opening.

### 5.2 Trench UZ002

A 3 x 5 m trench was laid to excavate cultural deposits recorded in the road section examined in 2016 (UZ003). Excavations here encountered the remains of a series of domestic structures, apparently occupied over a relatively continuous period. Artefact remains date these to the 7<sup>th</sup> – 9<sup>th</sup> centuries AD and thus the earlier occupation of the site. Beneath an initial topsoil layer (Fig. 7), excavations encountered a series of packed earth floors with some remains of baked daub suggestive of previous walls. The edges of these floors were not apparent on all sides (due to the size of the trench) but at the eastern and western ends it was possible to view sandy sediments that seem to have lain outside the structure (Fig. 8). The floors were separated by packed sandy sediments.



Fig. 8 Trench UZ002, floor contexts.

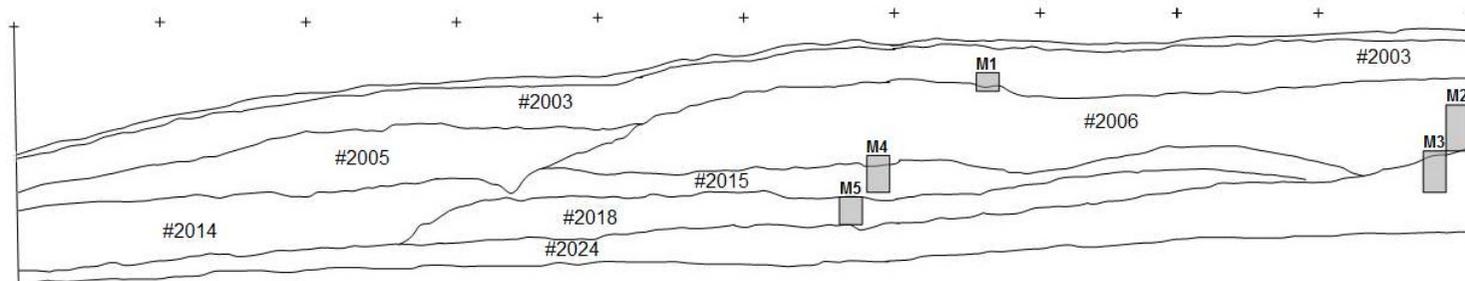
Systematic soil sampling was employed to map the chemical concentrations across key deposits and surfaces. Two different sampling intervals were employed: 1 m-interval to characterise relatively single-context deposits and 50cm-interval for multi-context, complex deposits (Fig. 9). Each of 4 levels were sampled (n=202 samples):

- 1) Contexts #2002, top of #2003: this level was sampled at 1m-interval (n=24 samples)
- 2) Context #2006: sampled at 1m-interval (n=24)
- 3) Contexts #2014, #2017, #2018, #2019: sampled at 50cm-interval (n=77)
- 4) Contexts bottom #2014, #2022, #2023, #2014: sampled at 50cm-interval (n=77)

In addition, artefacts and ecofacts were recorded in situ and according to our spatial approach. It should thus prove possible to map information closely onto the domestic structure.



UZ002 North-facing section  
1:20



#000 = context number  
M = Micromorphology samples  
B = Bulk samples

Fig. 9 North-facing section of trench UZ002.

### 5.3 Section UZ003

The section was cleared and cut back to allow for detailed mapping, recording and sampling (Fig. 10). The section exhibits a complex sequence of aggrading sediments, cuts, occupation surfaces and sandy deposits overlying a regolithic-type bedrock. The section was sampled for bulk and micromorphological analyses (Fig. 11).



*Fig. 10* Trench UZ003.



*Fig. 11* Micromorphology sampling of UZ003.

## 6. Geoarchaeological survey

The geomorphological settings of the site landscape are characterised by uneven topography. The beach sand bank on the western side gives rise to a low-lying topography leading on the shore-line of Menai Bay and the small peninsula of Makime. Here, mangrove alternates with areas of low grassland. The eastern side of the site area is marked by a relatively high ridge, running N-S, with steep slopes descending onto the creek's sandy banks. This uneven topography is likely the result of different geological substrata, vegetation cover and long-term land use. In the western, low-lying part of the site, mangrove growth, aeolian and sea-shore processes are likely to control soil erosion and deposition processes. On the eastern side, the ridge is likely formed by a bank of red laterites over (coralline) limestone, which support underground aquifers and hillside springs (see also Hardy *et al.* 2015). The upper part of the steep hillsides are covered by fine-grained red soils which support forest vegetation. As the slope breaks down (with a drop of approximately 10 m), it joins the beach bank of the creek, under a belt of mangrove. In this part of the site, the ridge provides a source of material for soil development and water from springs.

Two main soil types were recorded (Fig. 12): bright red, medium to fine sandy loams and dark, reddish brown fine sandy silty loam. These soils conform to two main types commonly known for Unguja and locally known as *mchianga* (red sand) and *kidongo* (clay) (Hettige 1990; Juma 2004: 43). *Mchianga* soils develop from non-calcareous sediments and are commonly found on Miocene limestone geology in coastal areas. These soils are well leached, and moderately to well-drained soils with predominant kaolinite clay (Hettige 1990: 55). This is in part due to the limestone, which can provide discrete aquifers. For these properties, they are farmed to grow clove, coconut, citrus, banana, cassava, etc. At Unguja Ukuu, this soil type was recorded under forest and orchard vegetation along the hillsides sloping into the creek. *Kidongo* soils are also well-known in the region as free draining soils developing on weathered limestone materials, and forming a mature sequence (Hettige 1990: 57–58). These are common on ridges in the central part of the island. At Unguja Ukuu, this soil type was recorded in a tributary valley bottom at Kiweni, about 2 km north of the site.

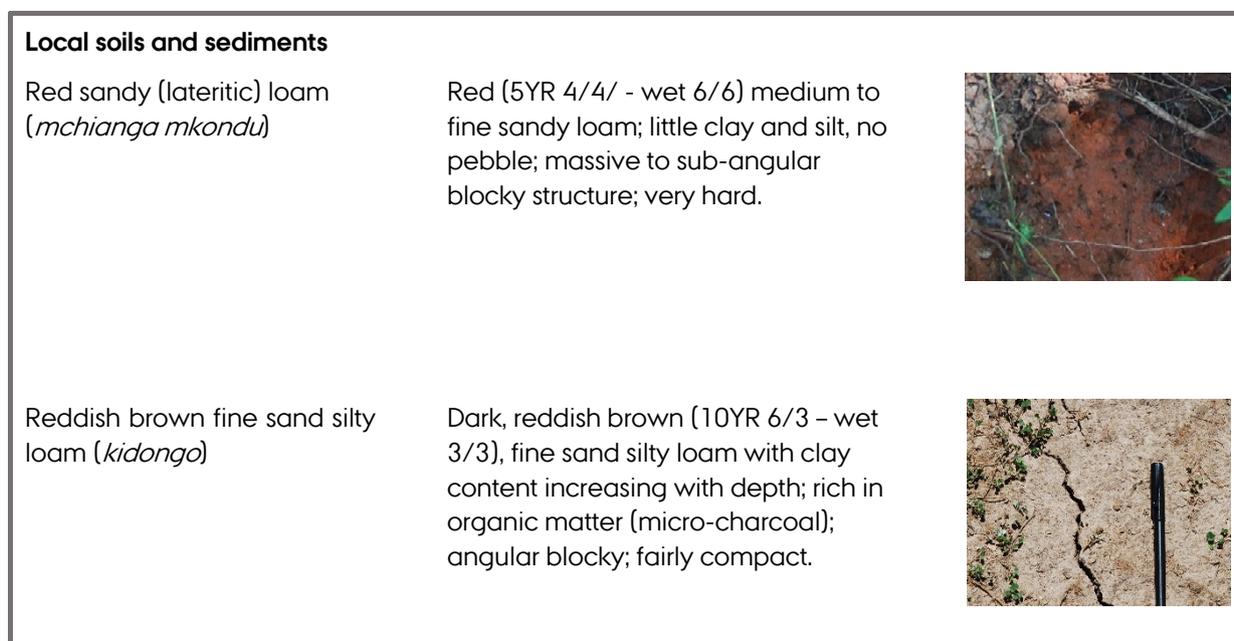


Fig. 12 Local soils and sediments.

### 6.1 Forest along the lower creek

The lower part of the creek is characterised by dense vegetation with mangrove growth alongside the beach and tropical forest on the rising hillsides. The hillside, about 200 m north of Trench UZ002, is currently used as orchards for growing mango, coconut, banana, and other tropical trees (by Mohammed Bussara, resident of Unguja Ukuu). Here, a small spring feeds an ephemeral watercourse running perpendicular to the slope. The forest red soil is known locally as *mchianga mkondu* (red sand) and is very common in the area. This is a bright red, medium to fine sandy loam with little clay and silt, rich in organic (Table 1 - Soil Type 1). The soil depth has yet to be ascertained, but thick deposits (>30cm, Ah horizon) were observed on the hillsides.

### 6.2 Kiweni valley

A small tributary valley in the area of Kiweni, about 2km north of the site, was surveyed over a transect (E-W) to record and sample the local soil sequence. In the lower part of the hillsides and the valley bottom, the soil cover is a dark, reddish brown fine sand silty loam, known locally as *kidongo* (clayey soil). The *kidongo*-type soils recorded are found on low water table. The upper hillsides are characterised by patches of trees over red, medium to fine sandy loam. The soil sequence was ascertained via test-pits and summarised in Fig. 13.



#### Profile of *kidongo* soil, Kiweni valley

Topsoil	0-10 cm	Greyish brown (10YR 6/3) fine sand silty loam
Ah	10-30 cm	As above but coarser, medium to fine sand silty loam
B(w)	30-50 cm	Dark brown (10YR 5/2) medium sand silty loam; increasing clay content
	< 53 cm	As above, sandy clayey loam; mottling; ground-water table

Fig. 13 Soil sequence at the Kiweni valley.

## **7. Preliminary conclusions**

Analysis of the 2017 fieldwork campaign at Unguja Ukuu is ongoing, and many of the conclusions will await the results of laboratory analysis. Yet, there are some clear results against our research objectives.

### *Objective 1: To provide pilot data and proof of concept for future work*

Excavations at UZ001 showed that some spatial patterning is recoverable even in areas of the site that have undergone significant clearing. UZ002 located the remains of a series of domestic structures, showing that such remains still exist intact at the site, and can be recovered through contextual excavation. Sampling was successful, although decisions about which types of artefact and environmental analysis are most effective will have to follow from post-excavation work on samples taken this season. This will provide an invaluable guide for future seasons.

### *Objective 2: To provide publishable data from this season*

Already, this project has conducted the first contextual excavations at Unguja Ukuu. Artefacts at UZ001 are quite different from those in UZ002, suggesting that this was not such a clear-cut domestic context. Instead, it may have been an area for craft production (although perhaps also a domestic situation, as the two need not be distinct). Excavations in UZ002 provide the first ever house to be excavated from this time period. These alone might be publishable results. It is hoped that the sampling will make a more compelling publication, however, as we test the possibilities for high-resolution data from these excavations, and in the process provide some of the first contextual understandings of how urban life was lived in the earliest towns of the Swahili coast.

## **Acknowledgements**

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## Appendix 1 - POSTER

### Urban transitions in the Zanzibar archipelago ITAMBUWE MIJI YA KWANZA YA UNGUJA

Unguja, one of the islands of the Zanzibar archipelago, was home to the earliest towns in eastern Africa. Unguja Ukuu, from the 7<sup>th</sup> century onwards, was an important settlement for craft and trade across the Indian Ocean. Tumbatu, from the 11<sup>th</sup> century onwards, was a town with grand stone architecture, houses, and a large mosque. Both towns were home to a Muslim population from an early date. This research is investigating life in these early towns, and the ways they used their environment for food and for technological production.

In June-July 2017, the first season of archaeological investigations explored two locations at Unguja Ukuu. Excavations focused on areas of housing at the site.

#### Mapping:

We mapped areas of activity across the site, focusing on exploring areas of housing which have not been explored in the past. We also began creating a map of activity areas at the site, including iron working, bead manufacture, and coastal zones linked to fishing and shell collection.



#### Excavating houses:

An entire house of the 8<sup>th</sup> century was excavated, and mapped spatially. We found evidence for domestic activity inside the house, and collected bones, shells, and plant remains to understand diet and resource use. We also collected artefacts like local and imported pottery and soil samples for laboratory analysis, to continue studying the technologies used by Unguja Ukuu's inhabitants.



#### Future work

Future work will expand this approach with excavating another house at Unguja Ukuu and explore similar questions at Tumbatu.

The project wishes to express its sincere thanks to the community of Unguja Ukuu for being so welcoming and sharing their knowledge. The help of the Department of Antiquity, Zanzibar, is also gratefully acknowledged.

The research project is led by Stephanie Wynne-Jones (University of York, UK; Swedish Collegium for Advanced Study, Uppsala; UrbNet, Aarhus University) and Federica Sulas (UrbNet, Aarhus University). The research visit in 2017 was funded by UrbNet, Centre of Excellence of the Danish National Research Foundation, Aarhus University, and the Swedish Collegium for Advanced Study.



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Unguja, moja kati ya visiwa vya Zanzibar archipelago, ilikuwa na miji ya kwanza kwa Africa Mashariki. Mfano Unguja Ukuu kutoka karne ya 7<sup>th</sup>, ilikuwa mji maalum kwa watu kuishi, kutengeneza vyombo vya chuma na shanga, na kufanya biashara na watu wa nje. Tumbatu, kutoka karne ya 11<sup>th</sup>, ulikuwa mji mkubwa uliokuwa na nyumba kubwa, na mskiti mkubwa na maridadi kwa wakati wake. Miji yote hiyo ilikuwa nyumbani kwa waislamu. Utafiti huu unahusiana zaidi na kujua watu wa miji hiyo walivyoishi, na walivyotumia mazingira yao katika chakula na matumizi ya teknolojia.

Kwenye miezi ya sita na saba 2017, watalamu wa Mambo ya kale walifanya utafiti katika mji wa Unguja Ukuu na walichimbuwa maeneo mawili tofauti kwa ajili ya kuangalia mabaki ya nyumba ambazo zilikuwa zimefukiwa chini ya ardhi.

#### Kuchora ramani:

Tulitembea maeneo yote ya mji, kuangalia sehemu tafauti na tuliona eneo la nyumba, ambalo huenda ikawa lilikuwa jaa la kutupia takataka, na eneo ambalo huenda ikawa kazi za uhunzi zilikuwa zikifanyika katika eneo hilo bda ya kugunduwa mabaki mengi ya chuma, shanga na viu vingine. Pia, imechorwa ramani nzuri, na kuona maeneo ambayo yalikuwa na kombe nyingi za zamani.

#### Kuchimba nyumba:

Tulichimba nyumba nzima toka karne ya 8. Tulipima maeneo ambayo palikuwa na jiko la kupikia, na tulipata mifupa mingi na maganda ya kombe kujua watu hao walikuwa wakila chakula cha aina gani. Tumepata vitu vingi vikiwemo vyungu n.k na tutaendelea kutafiti zaidi kwa kutumia teknolojia ya kisasa kutambua umri wake na kujuwa teknolojia waliokuwa wakitumia katika miji hii.



#### Kazi za baadae

Mwaka ujao, tunategemea kuendelea na kazi hii ya utafiti hapo hapo Unguja Ukuu vile vile tutaenda na Tumbatu kwa ajili ya kuangali mabaki mengine ya nyumba za mawe zilizokuwika katika kisiwa hicho

Tungependa kusema asante sana kwa watu wa Unguja Ukuu kwa msaada wao na tumekaribishwa vizuri sana katika kijiji chao. Vile vile tunashukuru kwa msaada mkubwa tuliopata kutoka Department of Antiquities, Zanzibar, na tunashukuru sana. Viongozi vya utafiti huu ni Stephanie Wynne-Jones (University of York, UK; Swedish Collegium for Advanced Study, Uppsala; na UrbNet, Aarhus University) na Dr Federica Sulas (UrbNet, Aarhus University, Denmark).

Utafiti huu ulipata ufadhili kutoka UrbNet, Centre of Excellence of the Danish National Research Foundation, Aarhus University, na Swedish Collegium for Advanced Study.

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## Appendix 2 – MAIN FINDS

Unit	Local pottery			Imported pottery	Daub	Beads n.			Iron slag gr		Metal fragments gr				Glass	Bone	Plant gr		Shells			
	Context	Undiagn. kg	Diagn. kg.			Bead grinders n.	Import kg	kg	Glass	Shell	Camelian	Iron slag	Small iron slag	Lead			Copper	Iron	Kohl stick	gr	gr	Charcoal
<b>UZ001</b>	1001	2,75	0,35	2	0,587		7	2	1	0,25										12	0,5	
	1002	25,25	3,2	55	3,475	153,2	72	124	1	2		28,5	18,72		20,7	63	900	45,2	6,5	179	1,75	
	1003	7,25	1,55	10	0,95	88,29	9	76		0,5		2,66	1,81	9,27	1,3	49	703,1	8,6	2	8	1,5	
<b>UZ002</b>	2001	4,5	0,475	2	0,65	0,75	30	2		11,75					73	8,2	5		1	1,5		
	2002	1,5	0,1	1	0,03	0,25	3			29		52			12					97,3		
	2003	7	0,85	3	1,19	1,5	34			13,5			1,8		141	10,5	111,1			60,49		
	2004	0,25	0,15		0,03	51,31				51,31					1		6,7			2,25		
	2005	1		4	0,12	0,2	1			0,2					31		508,4			0,15		
	2006	2	0,26	2	1,22	0,7	4			0,75			26,94		52	2,2	53,3			1,1		
	2007																				0,55	
	2008	0,112				0,7	4			2,25				0,05	8		14,2					
	2009	0,019			0,1	0,784	1			0,784					2		263,7					
	2010																					
	2011																					
	2012					0,05	0,25			0,02								17,7				
	2013	0,304		1	0,045	0,01	5			0,45					13	2,1	8,5				0,05	
	2014	0,123			0,021													48,2			0,03	
	2015	0,157			0,005										3		11,8				0,006	
	2016	0,027																37,7				
	2017	0,125			0,069										7		1,8					
	2018	0,006			0,25										3		2,3					
	2019																					
	2020																					
	2021																					
	2022	0,094																				0,007
<b>Total</b>		52,47	6,935	80	8,792	297,9	170	204	2	112,8	0	83,16	47,52	11,07	22	458	1630	1160	8,5	200	167,2	

### Appendix 3 – SOIL SAMPLES

<i>ID</i>	<i>Type</i>	<i>Trench</i>	<i>Code</i>	<i>Context</i>	<i>Grid</i>	<i>Munsell</i>	<i>Note</i>
1	GT	UZ001	GT001	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
2	GT	UZ001	GT002	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
3	GT	UZ001	GT003	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
4	GT	UZ001	GT004	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
5	GT	UZ001	GT005	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
6	GT	UZ001	GT006	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
7	GT	UZ001	GT007	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
8	GT	UZ001	GT008	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
9	GT	UZ001	GT009	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
10	GT	UZ001	GT010	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
11	GT	UZ001	GT011	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
12	GT	UZ001	GT012	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
13	GT	UZ001	GT013	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
14	GT	UZ001	GT014	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
15	GT	UZ001	GT015	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
16	GT	UZ001	GT016	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
17	GT	UZ001	GT017	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
18	GT	UZ001	GT018	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
19	GT	UZ001	GT019	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
20	GT	UZ001	GT020	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
21	GT	UZ001	GT021	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
22	GT	UZ001	GT022	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
23	GT	UZ001	GT023	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
24	GT	UZ001	GT024	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
25	GT	UZ001	GT025	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
26	GT	UZ001	GT026	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
27	GT	UZ001	GT027	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
28	GT	UZ001	GT028	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
29	GT	UZ001	GT029	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
30	GT	UZ001	GT030	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
31	GT	UZ001	GT031	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
32	GT	UZ001	GT032	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
33	GT	UZ001	GT033	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
34	GT	UZ001	GT034	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts





109	GT	UZ001	GT109	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
110	GT	UZ001	GT110	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
111	GT	UZ001	GT111	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
112	GT	UZ001	GT112	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
113	GT	UZ001	GT113	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
114	GT	UZ001	GT114	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
115	GT	UZ001	GT115	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
116	GT	UZ001	GT116	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
117	GT	UZ001	GT117	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
118	GT	UZ001	GT118	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
119	GT	UZ001	GT119	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
120	GT	UZ001	GT120	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
121	GT	UZ001	GT121	1002	1m	10YR 2/2	Dark brown fine sand silty loam; organic rich; abundant artefacts
<b>TRENCH UZ002</b>							
122	GT	UZ002	GT001	2002	1m	10YR 3/1	Dark brown medium fine sand silty loam
123	GT	UZ002	GT002	2002	1m	5YR 5/3	Reddish brown medium fine sandy loam
124	GT	UZ002	GT003	top 2003	1m	5YR 5/3	Reddish brown medium fine sandy loam
125	GT	UZ002	GT004	top 2003	1m	5YR 5/3	Reddish brown medium fine sandy loam
126	GT	UZ002	GT005	top 2003	1m	7.5 YR 2.5/2	Brown fine sandy loam beneath topsoil, slightly compact, rare pebbles
127	GT	UZ002	GT006	top 2003	1m	7.5 YR 2.5/2	Brown fine sandy loam beneath topsoil, slightly compact, rare pebbles
128	GT	UZ002	GT007	top 2003	1m	7.5 YR 2.5/2	Brown fine sandy loam beneath topsoil, slightly compact, rare pebbles
129	GT	UZ002	GT008	top 2003	1m	7.5 YR 2.5/2	Brown fine sandy loam beneath topsoil, slightly compact, rare pebbles
130	GT	UZ002	GT009	top 2003	1m	7.5 YR 2.5/2	Brown fine sandy loam beneath topsoil, slightly compact, rare pebbles
131	GT	UZ002	GT010	top 2003	1m	5YR 5/3	Reddish brown medium fine sandy loam
132	GT	UZ002	GT011	2002	1m	5YR 5/3	Reddish brown medium fine sandy loam
133	GT	UZ002	GT012	2002	1m	7.5 YR 2.5/2	Brown fine sandy loam beneath topsoil, slightly compact, rare pebbles
134	GT	UZ002	GT013	top 2003	1m	7.5 YR 2.5/2	Brown fine sandy loam beneath topsoil, slightly compact, rare pebbles
135	GT	UZ002	GT014	top 2003	1m	10YR 3/1	Dark brown medium fine sand silty loam
136	GT	UZ002	GT015	top 2003	1m	5YR 5/3	Reddish brown medium fine sandy loam
137	GT	UZ002	GT016	top 2003	1m	7.5 YR 2.5/2	Brown fine sandy loam beneath topsoil, slightly compact, rare pebbles
138	GT	UZ002	GT017	top 2003	1m	7.5 YR 2.5/2	Brown fine sandy loam beneath topsoil, slightly compact, rare pebbles
139	GT	UZ002	GT018	top 2003	1m	7.5 YR 2.5/2	Brown fine sandy loam beneath topsoil, slightly compact, rare pebbles
140	GT	UZ002	GT019	top 2003	1m	7.5 YR 2.5/2	Reddish brown medium fine sandy loam
141	GT	UZ002	GT020	top 2003	1m	7.5 YR 2.5/2	Reddish brown medium fine sandy loam
142	GT	UZ002	GT021	top 2003	1m	7.5 YR 2.5/2	Reddish brown medium fine sandy loam
143	GT	UZ002	GT022	top 2003	1m	5YR 5/3	Reddish brown medium fine sandy loam
144	GT	UZ002	GT023	top 2003	1m	5YR 5/3	Reddish brown medium fine sandy loam
145	GT	UZ002	GT024	top 2003	1m	10YR 3/1	Dark brown medium fine sand silty loam
146	GT	UZ002	GT01	2008	1m	7.5YR 4/4	Brown medium to fine clayey sandy loam
147	GT	UZ002	GT02	2008	1m	7.5YR 4/4	Brown medium to fine clayey sandy loam
148	GT	UZ002	GT03	2008	1m	7.5YR 4/4	Brown medium to fine clayey sandy loam

149	GT	UZ002	GT04	2008	1m	7.5YR 4/7	Brown medium to fine clayey sandy loam
150	GT	UZ002	GT05	2005	1m	7.5YR 4/2	Brown medium to fine sandy loam with moderate coarse and medium rootlets; microcharcoal; artefacts. Across E end of trench, sloping eastwards
151	GT	UZ002	GT06	2005	1m	7.5YR 4/2	Brown medium to fine sandy loam with moderate coarse and medium rootlets; microcharcoal; artefacts. Across E end of trench, sloping eastwards
152	GT	UZ002	GT07	2005	1m	7.5YR 4/2	Brown medium to fine sandy loam with moderate coarse and medium rootlets; microcharcoal; artefacts. Across E end of trench, sloping eastwards
153	GT	UZ002	GT08	2005	1m	7.5YR 4/2	Brown medium to fine sandy loam with moderate coarse and medium rootlets; microcharcoal; artefacts. Across E end of trench, sloping eastwards
154	GT	UZ002	GT09	2006	1m	7.5YR 4/4	Reddish brown medium to fine sandy clayey loam, fairly compact with ceramics and shells (inside house?)
155	GT	UZ002	GT10	2006	1m	7.5YR 4/4	Reddish brown medium to fine sandy clayey loam, fairly compact with ceramics and shells (inside house?)
156	GT	UZ002	GT11	2006	1m	7.5YR 4/4	Reddish brown medium to fine sandy clayey loam, fairly compact with ceramics and shells (inside house?)
157	GT	UZ002	GT12	2008	1m	7.5YR 4/4	Brown medium to fine clayey sandy loam
158	GT	UZ002	GT13	2006	1m	7.5YR 4/4	Reddish brown medium to fine sandy clayey loam, fairly compact with ceramics and shells (inside house?)
159	GT	UZ002	GT14	2012	1m	7.5YR 3/2	Reddish brown medium to fine sand silty loam; fairly compact; common charcoal and roots
160	GT	UZ002	GT15	2006	1m	7.5YR 4/4	Reddish brown medium to fine sandy clayey loam, fairly compact with ceramics and shells (inside house?)
161	GT	UZ002	GT16	2006	1m	7.5YR 4/4	Reddish brown medium to fine sandy clayey loam, fairly compact with ceramics and shells (inside house?)
162	GT	UZ002	GT17	2005	1m	7.5YR 4/2	Brown medium to fine sandy loam with moderate coarse and medium rootlets; microcharcoal; artefacts. Across E end of trench, sloping eastwards
163	GT	UZ002	GT18	2005	1m	7.5YR 4/2	Brown medium to fine sandy loam with moderate coarse and medium rootlets; microcharcoal; artefacts. Across E end of trench, sloping eastwards
164	GT	UZ002	GT19	2005	1m	7.5YR 4/2	Brown medium to fine sandy loam with moderate coarse and medium rootlets; microcharcoal; artefacts. Across E end of trench, sloping eastwards
165	GT	UZ002	GT20	2005	1m	7.5YR 4/2	Brown medium to fine sandy loam with moderate coarse and medium rootlets; microcharcoal; artefacts. Across E end of trench, sloping eastwards
166	GT	UZ002	GT21	2006	1m	7.5YR 4/4	Reddish brown medium to fine sandy clayey loam, fairly compact with ceramics and shells (inside house?)
167	GT	UZ002	GT22	2006	1m	7.5YR 4/4	Reddish brown medium to fine sandy clayey loam, fairly compact with ceramics and shells (inside house?)
168	GT	UZ002	GT23	2006	1m	7.5YR 4/4	Reddish brown medium to fine sandy clayey loam, fairly compact with ceramics and shells (inside house?)
169	GT	UZ002	GT24	2006	1m	7.5YR 4/4	Reddish brown medium to fine sandy clayey loam, fairly compact with ceramics and shells (inside house?)
170	GT	UZ002	GT01	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
171	GT	UZ002	GT02	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
172	GT	UZ002	GT03	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
173	GT	UZ002	GT04	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
174	GT	UZ002	GT05	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
175	GT	UZ002	GT06	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
176	GT	UZ002	GT07	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts

177	GT	UZ002	GT08	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
178	GT	UZ002	GT09	2014	50cm	7.5YR 5/6	Pale brown fine sand silty loam - occ. Charcoal
179	GT	UZ002	GT10	2014	50cm	7.5YR 5/6	Pale brown fine sand silty loam - occ. Charcoal
180	GT	UZ002	GT11	2014	50cm	7.5YR 5/6	Pale brown fine sand silty loam - occ. Charcoal
181	GT	UZ002	GT12	2014	50cm	7.5YR 5/6	Pale brown fine sand silty loam - occ. Charcoal
182	GT	UZ002	GT13	2014	50cm	7.5YR 5/6	Pale brown fine sand silty loam - occ. Charcoal
183	GT	UZ002	GT14	2014	50cm	7.5YR 5/6	Pale brown fine sand silty loam - occ. Charcoal
184	GT	UZ002	GT15	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
185	GT	UZ002	GT16	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
186	GT	UZ002	GT17	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
187	GT	UZ002	GT18	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
188	GT	UZ002	GT19	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
189	GT	UZ002	GT20	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
190	GT	UZ002	GT21	2019	50cm	7.5YR 4/4	Darkish brown fine sand silty loam - pit?
191	GT	UZ002	GT22	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
192	GT	UZ002	GT23	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
193	GT	UZ002	GT24	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
194	GT	UZ002	GT25	2017	50cm	7.5 YR 4/4	Darkish brown fine sand silty loam - pit?
195	GT	UZ002	GT26	2017	50cm	7.5YR 4/4	Darkish brown fine sand silty loam - pit?
196	GT	UZ002	GT27	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
197	GT	UZ002	GT28	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
198	GT	UZ002	GT29	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
199	GT	UZ002	GT30	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
200	GT	UZ002	GT31	2014	50cm	7.5YR 5/6	Pale brown fine sand silty loam - occ. Charcoal
201	GT	UZ002	GT32	2014	50cm	7.5YR 5/6	Pale brown fine sand silty loam - occ. Charcoal
202	GT	UZ002	GT33	2014	50cm	7.5YR 5/6	Pale brown fine sand silty loam - occ. Charcoal
203	GT	UZ002	GT34	2014	50cm	7.5YR 5/6	Pale brown fine sand silty loam - occ. Charcoal
204	GT	UZ002	GT35	2014	50cm	7.5YR 5/6	Pale brown fine sand silty loam - occ. Charcoal
205	GT	UZ002	GT36	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
206	GT	UZ002	GT37	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
207	GT	UZ002	GT38	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
208	GT	UZ002	GT39	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
209	GT	UZ002	GT40	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
210	GT	UZ002	GT41	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
211	GT	UZ002	GT42	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
212	GT	UZ002	GT43	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
213	GT	UZ002	GT44	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
214	GT	UZ002	GT45	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
215	GT	UZ002	GT46	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
216	GT	UZ002	GT47	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
217	GT	UZ002	GT48	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts

218	GT	UZ002	GT49	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
219	GT	UZ002	GT50	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
220	GT	UZ002	GT51	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
221	GT	UZ002	GT52	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
222	GT	UZ002	GT53	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
223	GT	UZ002	GT54	2014	50cm	7.5YR 5/6	Pale brown fine sand silty loam - occ. Charcoal
224	GT	UZ002	GT55	2014	50cm	7.5YR 5/6	Pale brown fine sand silty loam - occ. Charcoal
225	GT	UZ002	GT56	2014	50cm	7.5YR 5/6	Pale brown fine sand silty loam - occ. Charcoal
226	GT	UZ002	GT57	2014	50cm	7.5YR 5/6	Pale brown fine sand silty loam - occ. Charcoal
227	GT	UZ002	GT58	2014	50cm	7.5YR 5/6	Pale brown fine sand silty loam - occ. Charcoal
228	GT	UZ002	GT59	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
229	GT	UZ002	GT60	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
230	GT	UZ002	GT61	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
231	GT	UZ002	GT62	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
232	GT	UZ002	GT63	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
233	GT	UZ002	GT64	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
234	GT	UZ002	GT65	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
235	GT	UZ002	GT66	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
236	GT	UZ002	GT67	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
237	GT	UZ002	GT68	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
238	GT	UZ002	GT69	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
239	GT	UZ002	GT70	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
240	GT	UZ002	GT71	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
241	GT	UZ002	GT72	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
242	GT	UZ002	GT73	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
243	GT	UZ002	GT74	2018	50cm	2.5YR 4/8	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
244	GT	UZ002	GT75	2014	50cm	7.5YR 5/6	Pale brown fine sand silty loam - occ. Charcoal
245	GT	UZ002	GT76	2014	50cm	7.5YR 5/6	Pale brown fine sand silty loam - occ. Charcoal
246	GT	UZ002	GT77	2014	50cm	7.5YR 5/6	Pale brown fine sand silty loam - occ. Charcoal
247	GT	UZ002	GT01	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
248	GT	UZ002	GT02	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
249	GT	UZ002	GT03	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
250	GT	UZ002	GT04	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
251	GT	UZ002	GT05	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
252	GT	UZ002	GT06	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
253	GT	UZ002	GT07	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
254	GT	UZ002	GT08	2022	50cm	7.5YR 4/3	Pale brown fine sand silty loam - occ. Charcoal
255	GT	UZ002	GT09	2022	50cm	7.5YR 4/3	Pale brown fine sand silty loam - occ. Charcoal
256	GT	UZ002	GT10	2023	50cm		
257	GT	UZ002	GT11	2023	50cm		



296	GT	UZ002	GT50	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
297	GT	UZ002	GT51	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
298	GT	UZ002	GT52	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
299	GT	UZ002	GT53	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
300	GT	UZ002	GT54	2014	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
301	GT	UZ002	GT55	2014	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
302	GT	UZ002	GT56	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
303	GT	UZ002	GT57	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
304	GT	UZ002	GT58	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
305	GT	UZ002	GT59	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
306	GT	UZ002	GT60	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
307	GT	UZ002	GT61	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
308	GT	UZ002	GT62	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
309	GT	UZ002	GT63	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
310	GT	UZ002	GT64	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
311	GT	UZ002	GT65	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
312	GT	UZ002	GT66	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor?
313	GT	UZ002	GT67	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor?
314	GT	UZ002	GT68	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
315	GT	UZ002	GT69	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
316	GT	UZ002	GT70	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
317	GT	UZ002	GT71	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
318	GT	UZ002	GT72	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
319	GT	UZ002	GT73	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
320	GT	UZ002	GT74	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
321	GT	UZ002	GT75	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
322	GT	UZ002	GT76	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
323	GT	UZ002	GT77	2024	50cm	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
324	Bulk	UZ001	BS#1001	1001		7.5YR 2.5/1	Dark brown very fine sand silty loam
325	Bulk	UZ002	BS#2001	2001		7.5YR 2.5/1	Dark brown medium to fine sand silty loam
326	Bulk	UZ002	BS#2001	2004		2.5YR 3/3	Pale greyish brown silty sand - shell concentration
327	Bulk	UZ002	BS#2002	2003		5YR 5/3	Reddish brown medium fine sandy loam
328	Bulk	UZ002	BS#2003	2005		7.5YR 4/2	Brown medium to fine sandy loam
329	Bulk	UZ002	BS#2004	2006		7.5YR 4/4	Reddish brown medium to fine sandy clayey loam, fairly compact (inside house?)
330	Bulk	UZ002	BS#2005	2008		7.5YR 4/4	Brown medium to fine clayey sandy loam
331	Bulk	UZ002	BS#2006	2009		7.5YR 2.5/1	Brown fine sandy silty loam
332	Bulk	UZ002	BS#2007	2014		7.5YR 5/6	Pale brown fine sand silty loam
333	Bulk	UZ002	BS#2008	2015		5YR 6/6	Compact red medium to fine sand clayey loam

334	Bulk	UZ002	BS#2009	2024	2.5YR 4/6	Bright red medium to fine sand clayey loam - packed earth floor? Low artefacts
335	Bulk	UZ003-S ext	2	UNIT 1		
336	Bulk	UZ003-S ext	3	UNIT 3		
337	Bulk	UZ003-S ext	4	UNIT 4		
338	Bulk	UZ003-S ext	5	UNIT 5		
339	Bulk	UZ003-S ext	6	UNIT 5		
340	Bulk	UZ003-N extension	7	UNIT 6		
341	Bulk	SURFACE (227)	0	topsoil	5YR 6/6	Red forest soil
342	Bulk	STP 1 (228)	1	0-5cm	10YR 3/3	Greysh brown fine sand silty loam
343	Bulk	STP 1 (228)	2	35-40cm	10YR 3/3	Greysh brown fine sand silty loam
344	Bulk	STP 1 (228)	3	53cm+	10YR 5/2	Medium sand silty clayey loam with red mottling
345	Bulk	STP 2 (231)	1	35-40cm	10YR 5/2	Dark brown silty clayey loam with red mottling - mud deposit
346	Bulk	STP 3 (232)	1	55-60cm	10YR 5/2	Dark brown silty clayey loam with red mottling - mud deposit
<b>MICROMORPHOLOGY SAMPLES</b>						
347	Micro	UZ003-S ext	1	UNIT 2	10YR 3/3	Topsoil: fine to very fine sand siltu loam,relatively compact; rare artefacts
348	Micro	UZ003-S ex	2	UNIT 3	5YR 5/6	Lower Ah-B? Reddish brown, fine to very fine sand clayey loam; very compact
349	Micro	UZ003-S ext	3	UNIT 4	7.5YR 4/6	Buried topsoil/Ah2? Brown medium to fine sand silty loam; very compact
350	Micro	UZ003-S ext	4	UNIT 5	5YR 7/8	Bedrock/regolith: bright yellowish red fine to very fine sand
351	Micro	UZ003-S ext	5	UNIT 5	5YR 7/8	beneath pit cut sampled across a possible floor surface with torpedo jar sherds.
352	Micro	UZ003-N ext	6	UNIT 6	5YR 7/8	As unit 5, more compact. Link to Micro n. 6
353	Micro	UZ002-S sect	1	2003	n/a	
354	Micro	UZ002-S sect	2	2006	n/a	
355	Micro	UZ002-S sect	3	2014	n/a	
356	Micro	UZ002-S sect	4	2015	n/a	
357	Micro	UZ002-S sect	5	2018	n/a	