

## Tanzania

### Preliminary Results of a 2019 Survey in Inland Zanzibar, Tanzania

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#### Introduction

This report describes the results of a shovel-test pit (STP) survey conducted from June to September 2019 on the island of Unguja. Unguja is the local name for the island commonly known as Zanzibar, the southern island of the Zanzibar archipelago in Tanzania; here I refer to it as Zanzibar. The aim of this survey was to investigate the deep history of the inland region, from the earliest settlements in the 1st millennium AD to the development of the plantation system in the nineteenth century. My research asks the following questions: When agricultural production intensified in the nineteenth century, did Swahili and Omani landowners place their plantations on top of earlier, hitherto unrecorded Swahili settlements? To what extent did earlier Swahili landscape modifications and settlement forms shape the intensification of agriculture, and the social impacts of the nineteenth-century transformations? Here I present preliminary results of a survey aimed at charting the general long-term settlement patterns of the region.

The last several decades of research on Zanzibar have emphasized the economic and social relationships between Swahili settlements at different geographical scales (e.g., Crowther *et al.* 2016; Fitton 2017; Juma 2004; LaViolette & Fleisher 2009; Stoetzel 2014; Walshaw 2010). Furthermore, archaeological research on the so-

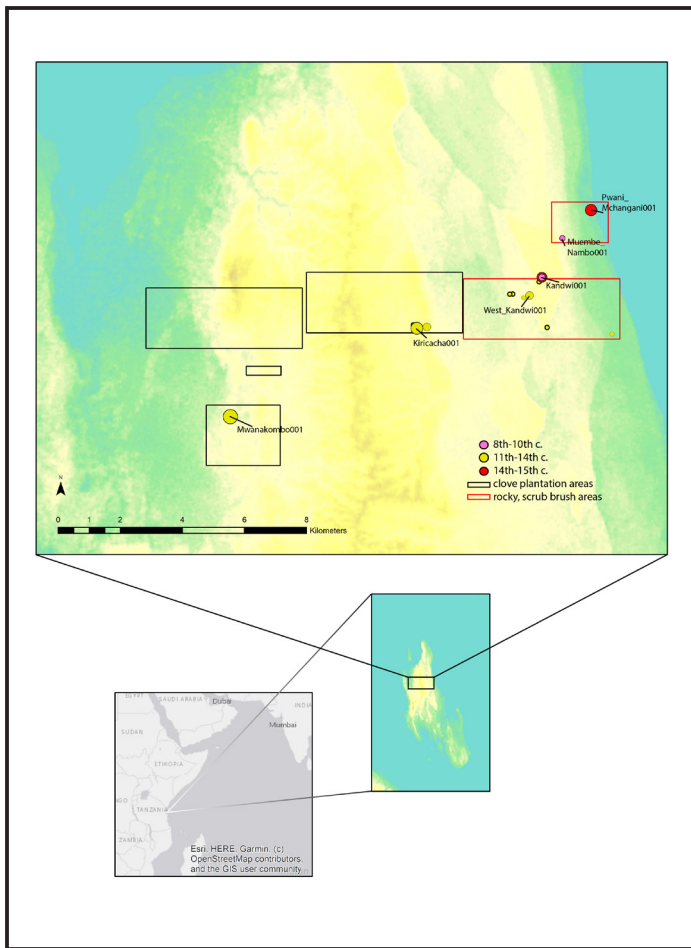
called Portuguese and Omani periods has begun to elucidate the connections between Zanzibari communities and the colonial world of the Indian Ocean from the sixteenth to nineteenth centuries (e.g., Croucher 2006; Norman & LaViolette 2016; Leech 2017). Historical scholarship has also shed light on transformations on the East African coast from the late eighteenth to twentieth centuries, focusing on the growth of slavery and the agricultural export economy, increased circulation of global industrial commodities, and political and legal factors of Omani and British colonialism (e.g., Bishara 2017; Glassman 1995; Prestholdt 2008; Sheriff *et al.* 2016; Vernet 2017). These studies have shown that while transformations in nineteenth-century Zanzibar were related to emerging global capitalist processes and consumer demand in Europe, the Americas, South and East Asia, and the Persian Gulf, they were also based in indigenous systems of land tenure, dependency and slavery for agricultural production, and the social networks of Swahili and Omani elite.

Until the present survey, all known first- and early second-millennium Swahili sites on Zanzibar were located on the island's coast and were oriented toward marine resource exploitation and coastal trade (Fitton 2017). Unlike on Pemba Island, northern neighbor to Zanzibar (e.g., Fleisher 2003; LaViolette & Fleisher 2009; Walshaw 2010; Stoetzel 2012), little research has been conducted to understand the settlement systems in the interior during the precolonial period, or to understand how such systems developed and changed from the onset of colonialism to the high point of the plantation system in the nineteenth century.

#### The Survey

In this study, sites were defined as spaces with three or more positive STPs, findspots, or artifact surface scatters within at least 40 m of proximity. A positive STP was defined as an STP with 3 or more artifacts. A findspot was defined as a surface find of one or more artifacts. We recorded 49 sites, most having many more than the minimum criteria. Sites represent areas of deposition related to human occupation and activity. Site components are discrete finds of materials 40 m or more from two other discrete finds; we recorded 127 of these site components.

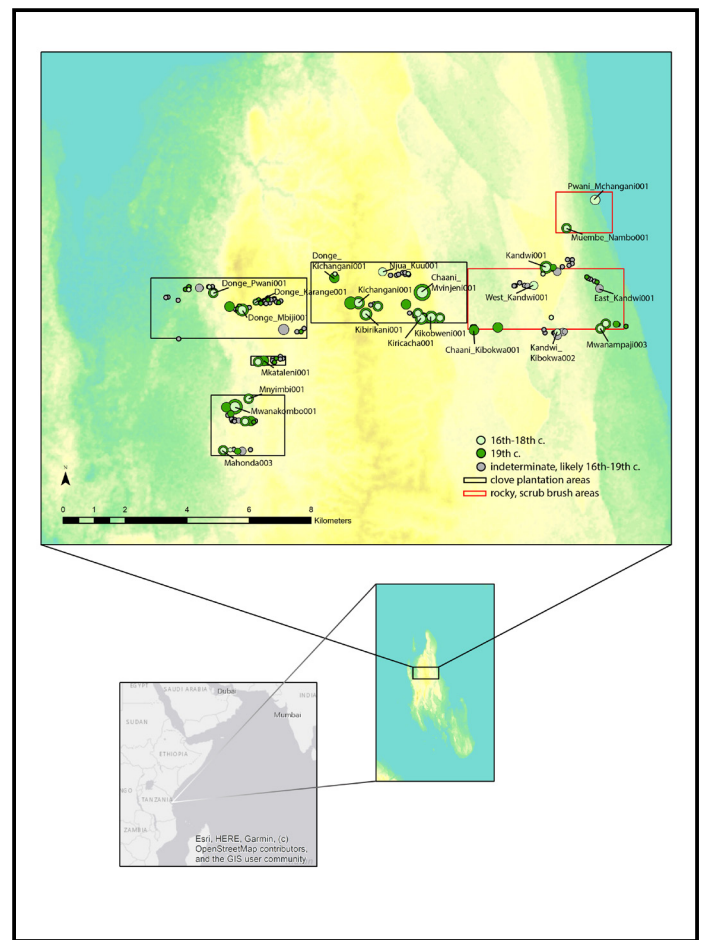
The methodology employed here was based on Fleisher's (2003) survey of northern Pemba, which I elaborate more on below. I chose the survey region for this study (see Figures 1 and 2) based on a reconstruction of nineteenth-century clove plantation areas



**Figure 1:** Map of sites, late first to mid-second millennium AD. Circles indicate relative site size. Survey regions indicate areas of historical clove plantation areas (based on Sheriff *et al.* 2016: 20).

(Sheriff *et al.* 2016: 20). Transects of 100 x 1000 meters were planned in the west, central and east regions in a staggered grid pattern using a stratified random sampling method. Each region measured 10 km<sup>2</sup> and was chosen based on its intersection with plantation areas, feasibility to survey, and diversity of environmental features. Three other areas were sampled using transects placed judgmentally, based on previous research and on-the-ground observations.

Our team carried out STP surveys along most of the planned transects. Thirty STPs were dug along these transects at regular intervals. Upon encountering a positive STP or artifact surface scatter, we dug STPs in four cardinal directions to investigate whether a site was present and to define its boundaries. All archaeological materials were collected and bagged. Three teams would dig, sieve, and record soil colors, depths of deposits soil



**Figure 2:** Map of sites, late second millennium AD. Circles indicate relative site size. Survey regions indicate areas of historical clove plantation areas (based on Sheriff *et al.* 2016: 20).

types, artifacts found, any photos taken, and bag catalog numbers for artifacts, before immediately backfilling the STP. While walking from one line of STPs to the next, we would spread out and scan for any surface remains, which were recorded either as find spots or artifact scatters. In total, we completed 21 transects and dug 935 STPs.

**Results and Discussion**

A primary aim of this research was to reconstruct the general settlement pattern of the inland region, and a complete list of newly recorded sites with dates and size in hectares can be found in Table 1. Early sites are mapped in Figure 1, and later period sites are mapped in Figure 2. Furthermore, Table 2 shows the diagnostic artifacts and comparative examples used for determining site age in each period. Figure 3 and Figure 4 show diagnostic artifacts from different periods

Site Name	Date Range	Area (ha)	Site Type	Region
Mahonda004	16 <sup>th</sup> to 18 <sup>th</sup> c.	0.01	Field house	Mahonda
West_Kandwi002	16 <sup>th</sup> -20 <sup>th</sup> c.	0.01	Field house	east
Kandwi002	19 <sup>th</sup> c.	0.02	Field house	east
West_Kandwi003	11 <sup>th</sup> to 14 <sup>th</sup> c.	0.02	Field house	east
Kanisani001	19 <sup>th</sup> c.	0.06	Field house	Mahonda
Donge_Karange001	16 <sup>th</sup> -18 <sup>th</sup> c., 19 <sup>th</sup> c.	0.07	Field house	west
Mwanampaji001	11 <sup>th</sup> to 12 <sup>th</sup> c., 19 <sup>th</sup> c.	0.09	Field house	east
Mahonda002	19 <sup>th</sup> c.	0.09	Field house	Mahonda
Mahonda_Mkataleni002	indeterminate	0.09	Field house	Mahonda
Kandwi_Kibokwa001	indeterminate	0.1	Field house	east
Donge_Pwani001	indeterminate	0.11	Hamlet	west
Kandwi003	indeterminate	0.12	Hamlet	east
Kikobweni003	18 <sup>th</sup> -19 <sup>th</sup> c.	0.14	Hamlet	central
Chaani_Kibokwa001	19 <sup>th</sup> c.	0.14	Hamlet	east
Mahonda003	16 <sup>th</sup> to 18 <sup>th</sup> c., 19 <sup>th</sup> c.	0.16	Hamlet	Mahonda
Mwanampaji003	16 <sup>th</sup> -18 <sup>th</sup> c., 19 <sup>th</sup> c.	0.17	Hamlet	east
Kandwi_Kibokwa002	16 <sup>th</sup> -18 <sup>th</sup> c.	0.18	Hamlet	east
Kandwi_Kibokwa004	indeterminate	0.18	Hamlet	east
Kandwi_Kibokwa003	16 <sup>th</sup> -20 <sup>th</sup> c.	0.2	Hamlet	east
Mwanampaji002	16 <sup>th</sup> -18 <sup>th</sup> c., 19 <sup>th</sup> c.	0.23	Hamlet	east
Donge_Kichangani001	19 <sup>th</sup> c.	0.26	Hamlet	central
Kikobweni004	19 <sup>th</sup> c.	0.26	Hamlet	central
Mahonda001	16 <sup>th</sup> -20 <sup>th</sup> c.	0.28	Hamlet	Mahonda
Donge_Mbiji002	19 <sup>th</sup> c.	0.31	Hamlet	west
East_Kandwi001	16 <sup>th</sup> -20 <sup>th</sup> c.	0.31	Hamlet	east
Chaani_Kibokwa002	19 <sup>th</sup> c.	0.35	Hamlet	east
Muembe_Nambo001	9 <sup>th</sup> -10 <sup>th</sup> c.; 16 <sup>th</sup> -18 <sup>th</sup> c., 19 <sup>th</sup> c.	0.38	Hamlet	northeast
Daraja_La_Mwanakombo001	19 <sup>th</sup> c.	0.4	Hamlet	Mahonda
Donge_Pwani002	16 <sup>th</sup> -18 <sup>th</sup> c., 19 <sup>th</sup> c.	0.4	Hamlet	west
Mkataleni002	16 <sup>th</sup> -18 <sup>th</sup> c., 19 <sup>th</sup> c.	0.49	Hamlet	Mkataleni
Kichangani003	16 <sup>th</sup> -18 <sup>th</sup> c., 19 <sup>th</sup> c.	0.65	Hamlet	central
Mkataleni001	19 <sup>th</sup> c.	0.7	Hamlet	Mkataleni
Kikobweni002	16 <sup>th</sup> to 18 <sup>th</sup> c., 19 <sup>th</sup> c.	0.71	Hamlet	central
Mnyimbi001	16 <sup>th</sup> to 18 <sup>th</sup> c., 19 <sup>th</sup> c.	0.74	Hamlet	Mahonda
Mahonda_Mkataleni003	16 <sup>th</sup> -18 <sup>th</sup> c., 19 <sup>th</sup> c.	0.78	Hamlet	Mahonda

Mahonda_Mkataleni001	19 <sup>th</sup> c.,	0.8	Hamlet	Mahonda
Donge_Karange002	16 <sup>th</sup> -20 <sup>th</sup> c.	1.08	Small Village	west
Donge_Mbiji001	16 <sup>th</sup> -18 <sup>th</sup> c., 19 <sup>th</sup> c.	1.09	Small Village	west
West_Kandwi001	11 <sup>th</sup> -14 <sup>th</sup> c., 16 <sup>th</sup> -18 <sup>th</sup> c.	1.15	Small Village	east
Kandwi001	14 <sup>th</sup> -15 <sup>th</sup> c.; 16 <sup>th</sup> -18 <sup>th</sup> c.; 19 <sup>th</sup> c.;	1.53	Small Village	east
Kichangani001	16 <sup>th</sup> -18 <sup>th</sup> c., 19 <sup>th</sup> c.	1.59	Small Village	central
Kiricacha001	11 <sup>th</sup> -14 <sup>th</sup> c.; 16 <sup>th</sup> -18 <sup>th</sup> c.; 19 <sup>th</sup> c.	1.67	Small Village	central
Njua_Kuu001	16 <sup>th</sup> -18 <sup>th</sup> c.	1.77	Small Village	central
Kibirikani001	16 <sup>th</sup> -18 <sup>th</sup> c.; 19 <sup>th</sup> c.	1.99	Small Village	central
Kichangani002	19 <sup>th</sup> c.	2.04	Small Village	central
Kikobweni001	11 <sup>th</sup> -12 <sup>th</sup> c.; 16 <sup>th</sup> -18 <sup>th</sup> c.; 19 <sup>th</sup> c.	2.8	Small Village	central
Mwanakombo001	11 <sup>th</sup> -14 <sup>th</sup> c.; 16 <sup>th</sup> -18 <sup>th</sup> c., 19 <sup>th</sup> c., 20 <sup>th</sup> c.	4.24	Village	Mahonda
Pwani_Mchangani001	11 <sup>th</sup> -14 <sup>th</sup> c.; 14 <sup>th</sup> -15 <sup>th</sup> c.; 16 <sup>th</sup> -18 <sup>th</sup> c.	5.56	Village	northeast
Chaani_Mvinjeni001	16 <sup>th</sup> -18 <sup>th</sup> c.; 19 <sup>th</sup> c.	~60	Town	central

**Table 1:** Chart of all sites, with dates of associated artifacts.

Centuries	Imports found	Decorated Local Pottery found
800-1000	none	Types 1, 2 (Fleisher 2003: 282-291)
1000-1100	none	Types 1, 2, 3, 4, 5 (Fleisher 2003: 282-295)
1100-1300	Green, Apple-Green, yellow, brown glazed late sgraffiato	Type 3, 4, 5, 7, 8, 10b (Fleisher 2003: 292-295, 299-304)
1300-1500	Islamic monochromes (blue, green, white), Chinese Longquan celadon	Type 3, 4, 6 (Fleisher 2003: 292-295)
1500-1800	Chinese blue-and-white porcelain	Type 13 (Fleisher 2003: 307), and square and diamond impressions on carination (Kirkman 1975: 219)
1800-1950	European imports, stonewares, various unglazed earthenwares, glazed Gulf wares, late Chinese porcelain	Arcs impressions (Croucher 2006; Kirkman 1974), carinated undecorated pots with everted rims

**Table 2:** Centuries and associated materials.



**Figure 3:** Local and imported ceramics, a spindle whorl and *mofa* (bread oven) fragment, 1100-1500 AD.

The earliest possible evidence for settlement that we recorded comes from the northeast at the site of Muembe Nambo, where we located iron slag and TIW/Early Tana Tradition ware (Chami 1998; Horton 1996: 253; Fleisher & Wynne-Jones 2011) among large baobabs, a dry-stone wall, and later sixteenth-nineteenth century materials. Outside of this, most of the earlier sites recorded in survey date from the eleventh to fourteenth centuries AD (see Figure 1). We located two village sites, Mwanakombo and Kiricacha, on bluffs overlooking perennial streams in the west and central regions, respectively. These sites were identified and dated by green-, apple green-, brown-, and yellow-glazed late sgraffiato, neck-punctated wares, necked jars with late TIW decorative motifs, spherical hole-in-mouth pots, and open bowls with applied bases (Fleisher 2003; Horton 1996). Mwanakombo produced iron slag, bead grinders, circular ceramic discs that are possibly either game pieces or unfinished spindle whorls, and fragments of a *mofa* (a type of oven common on the coast for baking millet bread; see Fleisher 2003: 330), suggesting that this site was a small village community involved in craft production and some communal food consumption. Kiricacha also produced *mofa* fragments and yielded a larger and more diverse array of late sgraffiato wares. Ceramic types and the site’s location nearby a large rice-growing valley suggest communal feasting practices centered around rice consumption, a phenomenon well developed on Pemba Island from the eleventh to fifteenth centuries (Fleisher 2003; LaViolette and Fleisher 2009; Walshaw



**Figure 4:** 16<sup>th</sup>-19<sup>th</sup> century ceramics. Industrial European polychrome whitewares, Chinese blue and white porcelain, *Bahlā* ware, and locally produced decorated earthenware, including “Type 13” (Fleisher 2003: 258).

2010). This phase of settlement relates to urban sites like Tumbatu (Rødland 2018) and Shangani (Fitton 2017; Horton forthcoming) during this period.

In the east, two sites with Islamic monochromes were found, suggesting dates from the fourteenth to fifteenth centuries. The larger site is Pwani Mchangani (different from another site in the west of the same name), a large shell-mound site with Islamic monochrome, celadon, and a sherd of Husuni modelled ware, linking it to fourteenth-century Kilwa (Chittick 1975; Wynne-Jones 2005). Kandwi, the other site, was located inland on good soils, and produced evidence for Islamic monochromes and spindle whorls, suggesting textile production from the fourteenth to fifteenth centuries.

For the sixteenth to eighteenth centuries, motifs like those on Fleisher’s (2003: 258) Type 13 ceramics from northern Pemba were a main line of evidence for dating, also comparable to motifs at the fifteenth to seventeenth century site of Pujini in Pemba (LaViolette pers. comm.). However, Croucher (2006: 284) suggests that Type 13 may also continue into the twentieth century, possibly limiting its use as a sole diagnostic for the sixteenth to eighteenth centuries. Two motifs found in abundance on Chinese blue-and-white pottery, the “Allah pattern” and Sino-Sanskrit “comb” pattern, are found from the seventeenth to early nineteenth centuries as well but are most common in the eighteenth (Madsen & White 2011; Thompson 2002). This suggests that while

sixteenth to eighteenth century occupations are plausible, most sites were occupied closer to the end of the period, in the eighteenth century (see Figure 2).

For the late eighteenth-nineteenth century, sites were identified and dated through imported European wares including hand-painted polychrome whitewares and pearlwares; edged wares; undecorated white refined earthenware or white granite wares, plain and ribbed; dipped annular wares; sponge-decorated wares; wares with combined hand-painted and cut-sponge impressions; and black, blue, brown, red, and green transfer print wares, many with the common “Willow” pattern. The forms and types of European (largely English and Dutch) imported wares are identical to those found by Croucher (2006) and largely comparable to those from other eighteenth-nineteenth-century colonial sites (e.g., Samford & Miller 2012). Some, but not all types of European polychrome hand-painted glazed earthenware persisted through the early twentieth century, meaning that sites ascribed to the nineteenth century based on hand-painted European ceramics alone may have occupations which extend slightly later (Fleisher 2003: 274, Croucher 2006: 174). Decorations on locally produced pottery were also used to date nineteenth-century sites, specifically variations of incised arc decorations on carinated pots with everted rims (Croucher 2006: 468; Kirkman 1974: 260).

Other finds which may span the sixteenth to twentieth centuries include Indian red unglazed earthenware, indeterminate Chinese blue-and-white porcelain, East Asian grey stoneware, green-glazed and unglazed Chinese “ginger jars,” undiagnostic European yellow and grey salt-glazed stonewares, Bahla ware from Oman, unglazed Julfar earthenware, and a buff paste, brown-glazed imported earthenware similar to late Islamic glazed wares from the Gulf (Power 2015).

Sites from the sixteenth to nineteenth century with slag finds include Chaani Mvinjeni, Njua Kuu, Kibirikani, and Daraja la Mwanakombo, though small finds of individual slag pieces do not necessarily indicate iron production at the scale of earlier periods (e.g., Baužytė 2019).

## Conclusions

My research questions asked if nineteenth-century plantation systems grew out of earlier, hitherto unrecorded Swahili settlements, and how earlier Swahili landscape modifications and settlement forms shaped nineteenth-century transformations. While hamlets and field houses

of the late second millennium were present outside any areas of earlier settlement, some of the largest nineteenth-century sites indeed developed directly over or adjacent to earlier village sites. The nineteenth-twentieth-century sugar plantation at Mwanakombo was built directly over an eleventh to fourteenth-century village, which also had evidence for sixteenth-eighteenth-century occupations based on local ceramic decorations. This suggests continuous occupation from the eleventh century to the present. Chaani Mvinjeni, the largest site located in the survey, was a major hub in the nineteenth-century settlement system, and it developed just directly north of the eleventh-fourteenth-century village at Kiricacha, which also had smaller numbers of ceramics indicating later phases of occupation from the sixteenth to nineteenth centuries. Both sites overlook a large rice valley, suggesting a continued reliance on agricultural production in the inland areas from the eleventh century onward. Finally, the nineteenth-century village site at Kibirikani did not have evidence for early occupation, but the site appears to have grown prior to the development of the slave-based clove plantation economy based on the preponderance of eighteenth-century materials recovered.

While early to mid-second-millennium settlement is based around villages with craft production taking place, links to other Swahili towns, and links to the western Indian Ocean, the expansion of the late second millennium suggests a dramatic reorganization of rural life. Instead of the isolated villages of the early second millennium, by the eighteenth century numerous small hamlets and field houses were spread out across diverse microenvironments in the rural areas. By the nineteenth century, nearly all sites had evidence for imported mass-produced European ceramic wares, and the development of several larger villages and towns around Mahonda and Chaani suggest rapid demographic and economic expansion.

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