Introduction

This report presents the preliminary results of excavations conducted in the areas around Korogwe district in Tanga region, north eastern Tanzania. The work was carried out over two field seasons between the months of July-September 2008 and 2009. This investigation forms part of a broader research program undertaken by the Historical Ecologies of East African Landscapes (HEEAL) project based at the University of York, UK. This parent project seeks to reconstruct the long term history of human impacts on East African landscapes over the last 500 years. In keeping with this broader objective, the project outlined here aims to investigate the relationship between the expansion of the caravan trade during the 19th century and possible agronomic transformation and land-use changes in the areas crossed by the caravan trade routes in the lower Pangani Basin. The sites discussed here were identified on the basis of existing historical documents, oral traditions, and archaeological surveys and excavations. The combined sources of evidence demonstrate that the sites of Ngombezi, Old Korogwe and Kwa Sigi developed during the period in which the size and frequency of long distance caravan trade dramatically increased in the region. This report presents the studied sites, states the research objectives, and it outlines various methods and techniques employed to acquire various types of data. Excavation results, mainly artefactual evidence from each site are presented, and then followed by a short discussion and conclusion. The analysis of the faunal assemblage is in progress and the results will be reported elsewhere.

The Study Area

Excavation was carried out on three abandoned island settlements of Ngombezi, Old Korogwe and Kwa Sigi; all of which are located along the Pangani River within the administrative boundary of Korogwe district in Tanga region (Figure 1). Several factors triggered the selection of the study area. The presence of 19th century historical records about the region compiled by early European travellers, explorers and missionaries in the form of descriptive reports (e.g. Baumann 1891; Burton and Speke 1858; Farler 1879, 1882; Krapf 1860), cartographic evidence (e.g. Baumann 1890) and sketch maps (e.g. Baumann 1891; Farler 1882; Johnston 1879) made possible the identification of several of the settlements involved in the 19th century caravan trade. These documents give rough locations and include observations concerning the settlements and communities along the main caravan trade routes. Archaeological surveys and ethnographic studies conducted by Lane in 1991/92 located surface archaeological scatters of pottery, beads and animal bones in the areas around Ngombezi village and elsewhere, signifying the presence of the abandoned settlements (Lane 1992; see also Walz 2005). In 2008, the archaeological potential of Ngombezi Island was further revealed following a test pit excavation that targeted the base of one of several ashy mounds. This test excavation yielded a wide range of local and imported cultural materials to the depth of 230 cm below ground level. While excavating at Ngombezi, local informants reported to the author the existence of similar abandoned island settlements of Kwa Sigi and Old Korogwe. These islands were briefly surveyed and test excavated in 2009.

Research Objectives

The overall research objective is to explore the consequences of the expansion of the 19th century caravan trade on the human environment in regard to possible agronomic transformation and land-use changes in the areas crossed by the caravan routes in lower Pangani Basin. Specific research objectives include: i) to document the archaeological evidence of the 19th century caravan trade; ii) to establish the relationships between the expansion of the caravan...
trade during the 19th century and the transformation of animal economies; and, iii) establish the links between the transformation of animal economies (if any) and the changing strategies of local land-use in the study area. To address these goals, three archaeological sites with 19th century material and known links with the caravan trade were excavated.

The work reported upon here consisted of three elements. The first phase involved a preliminary visit by the HEEAL team in June 2008 which aimed to locate sites for investigation and negotiate with land owners about accessibility. Through a combination of survey, interviews and test excavations the sites of Ngombezi, Kwa Sigi, Hale and Kwa Fungo were
identified. All these sites represent abandoned village settlements located along the Pangani River. The second component involved a long season of major excavation at the site of Ngombezi in July – September 2008. This was followed by a short field season during August 2009 that focused on test pit excavations at the sites of Kwa Sigi and Old Korogwe.

**Preliminary Excavation Results**

*Ngombezi island (S 05° 10' 33" E 038° 25' 18"

altitude 338 metres)*

A 2 m by 14 m trench (Figure 2a) was set across a circular mound which covers an area of 1310 m². This was excavated to the natural subsoil, which was reached at 350 cm below ground surface. Thirteen well-stratified layers were recorded; these provide evidence of two distinct phases of building as marked by collapsed walls, and traces of house floor and postholes, and a hearth (Figure 2b-e).

Ash mixed with brown, silt clay deposits dominated this excavation unit. All layers produced cultural material remains, notably a variety of imported beads, pottery, faunal material, metal objects, cowry shells, daub and a few charred grain seeds. The quantity and type of the recovered materials varied across layers, especially for beads, bones and pottery. The bead types from this trench also varied between levels (see Figure 3). The lower levels, approximately 150 - 330 cm, produced thin, disc-shaped beads with large perforations made from shell. Some glass beads were also recovered from these levels. The middle levels, roughly 80 - 140 cm, yielded small, hand drawn barrel-shaped glass beads (cf. Kinahan 2000), mostly white in colour. The upper levels, roughly 0 - 70 cm, were dominated by hand drawn, cylindrical glass beads mostly white and reddish brown in colour.

A large assemblage of well preserved faunal material was recovered from this excavation unit that comprised a mix of fish, domestic stock, and non-domestic terrestrial species. Cattle, goat, sheep and chicken bones dominate the domestic stock assemblage, whereas non-domestic species are represented mainly by small and medium size antilopinae, as well as rodents of various species and sizes. Fish bones are well represented in the assemblage and the species content is still under identification. So far, about 30% of the identified skeletal elements within the faunal assemblage bear surface modifications. These are in the form of either burning or cut (tooth and tool) marks. The composition of domestic and wild animals in the assemblage is an indicator of the ways in which site occupants mixed both domestic and wild resources to meet their local and market demands during the heyday of the caravan trade.

Plain pottery, certainly post-Swahili tradition, dominates the pottery assemblage. A small amount of decorated potsherds were obtained from levels below ca.120 cm downwards. Their shape, decorative styles and motifs (Figure 4a-d) fall under the Soper’s (1967) Usambara Mountains pottery group D (dotted ware) ceramic categorisation for north eastern Tanzania. This tradition is characterised by a composition of open pots with vertical, straight or slightly concave, tapering rims and straight angle at the shoulder. They are decorated mostly with raised ‘pimples’ and patterns of dots. Some have raised ridges with vertical incisions beneath the lips. A few sherds of graphite-coated and comb stamped open bowl pottery was also recovered (Figure 4a). It is remarkable that while over 30,000 sherds were recovered from the trench only two pieces of imported ceramic were obtained, both from layer 7 ca. 160 cm below ground surface (Figure 4e). Other materials obtained included cowry shells, of which the source is likely to have been the Indian Ocean some 90 km due east of Ngombezi. Metal objects comprised knives, rings, bangles, and fishing hooks. Six clay hand-made, tubular pipe bowls were obtained at 70 - 120 cm below the modern ground surface (Figure 4f). Daub fragments were common in all layers, and a total of 1,836 kg was recovered.

Two radiocarbon charcoal samples, one from layer six (Wk-25717) collected from beneath a collapsed wall (100 cm), and one from layer thirteen (Wk-25718) from beneath a house floor (330 cm) have been dated. These yielded radiocarbon ages of 184±30 BP and 238±30 BP, respectively. These samples were dated to determine the period of early and later occupations of the site as well as the materials contained notably pottery, beads, faunal remains, cowry shells, smoking pipes and metal objects. The calibrations of these dates suggest the earliest structure is of 17th century in date and the second structure was abandoned in the 19th century. It is recognised, however, that because of calibration difficulties the use of the radiocarbon method for dating post-1600 AD material can be problematic, and these dates must be used with caution.
Figure 2: Ngombezi Trench 2 at various stages of excavation, August 2008.
(Photos: Thomas J. Biginagwa, 2008).

2a: Excavation in progress at Ngombezi.

2b: Postholes exposed at 150 cm below g.s.

2c: Daub layer from collapse house/wall encountered at 120 cm below g.s.

2d: Ngombezi trench 2, view of final section, max depth 350 cm, showing well-stratified layers.

2e: A hearth encountered at (330 cm.) surrounded by postholes.
Old Korogwe Island (S 05° 09 402’ E 038° 28 633’ altitude 298 meters)

This site is located about 10 km north east of Ngombezi. A 2 m by 2 m trench was opened on top of a mound which covers an area of 1250 m², and was excavated to the base of the anthropogenic deposits at ca. 360 cm. below ground surface. Four discrete layers of dark yellowish to pale brown clay were revealed. Thin ash deposits, charcoal fragments and daub were encountered in all layers. Like Ngombezi, abundant cultural materials were obtained comprising pottery, faunal remains, beads, cowry shells, metal objects, daub, and clay pipes bowls. Archaeofaunal remains dominated the finds and comprised both domestic (cattle, sheep, goat, and chicken) and non-domestic animals, notably rodents. Fish bones from this trench were also abundant.

Plain pottery dominated the ceramic assemblage. A few decorated pieces were recovered from layers 3 and 4 (150 - 350 cm). These had similar decorative styles and motifs to those recovered from Ngombezi (see Figure 4a-d), and fall within Soper’s Usambara pottery group D (Soper 1967). A variety of beads was recovered from all layers. As at Ngombezi, the bead types also varied stratigraphically, which may possibly be of chronological significance. The

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**Figure 3:** Variety of bead types from Ngombezi, Old Korogwe and Kwa Sigi. (Photos: Thomas J. Biginagwa, 2008/09).

3a: Cylindrical or tubular bead type from upper levels at Ngombezi, also found at Old Korogwe and Kwa Sigi.

3b: Compound circular short barrel bead, dominant category at Kwa Sigi.

3c: Disc-shape bead type from lower levels at Ngombezi, also found at Old Korogwe.

3d: Simple barrel bead type from middle levels at Ngombezi, also found at Old Korogwe and Kwa Sigi.
Figure 4: Decorated pottery (Group D) and other ceramic objects obtained from Ngombezi, Old Korogwe and Kwa Sigi sites. (Photo: Thomas J. Biginagwa, 2008/09).
lower levels (250 - 350 cm) produced a mixture of thin, round, disc-shaped bead types with large perforations. A fewer ‘wound and pressed’ oblate beads were also recovered, mostly white in colour. Layers 1 and 2 and the upper half of layer 3 (at about 0 -150 cm) produced both white and reddish brown ‘hand drawn’ barrel and cylindrical bead types. Other cultural materials included cowry shells that were obtained in layers 2 to 4 (20 - 250 cm), metal objects, mainly knives and part of a musket, were retrieved from layers 1 to 3 (0 - 200 cm). Four ceramic pipe bowls similar to those found at Ngombezi were also recovered from layers 1 and 2 (0 - 100 cm). Daub fragments weighing 28 kg were retrieved from layers 1 and 2 of this excavation unit.

**Kwa Sigi Island (S 05° 08 046’ E 038° 24 001’ altitude 357 meters)**

This predominantly flat island is located about five km west of Ngombezi. Ten test excavation units were excavated to undisturbed subsoil. All produced a variety of cultural materials. Eight test pits ended at 40 cm below the modern ground surface while two contained anthropogenic deposits extending to a depth of 100 cm below the surface. The types of cultural materials recovered were similar to those obtained from Ngombezi and Old Korogwe, albeit in lesser quantities. Pottery dominated the cultural materials and was recovered from all ten test pits. However, the sherds were highly fragmented and heavily abraded. This could be an indicator of strong water erosion on this island. Two main bead types characterise the bead assemblage. Again, following Kinahan’s (2000) bead type descriptions, these are ‘hand drawn compound, circular, short barrel’ red and white beads (Figure 3b), and ‘simple hand drawn’ circular short and standard beads, mostly in opaque blue and white colours (Figure 3d). Unlike at Ngombezi and Old Korogwe, no disc-shaped glass or shell beads were found at Kwa Sigi. Other cultural materials included grinding stones, cowry shells, and metal objects, the latter mainly knives, rings, bangles and one gun muzzle. Five Deutsch Ostafrika Heller coins dated 1905 were found in test pits 9 and 10. About 2.5 kg of burnt maize seeds and cobs were encountered in test pit 8 below a daub fill layer, at about 45 - 60 cm below surface. Compared with Ngombezi and Old Korogwe, very few faunal remains were encountered at Kwa Sigi, and those recovered were highly fragmented, heavily worn and very fragile. A few identifiable skeletal elements and isolated teeth indicate the presence of cattle, goat, sheep, chicken and fish.

**Discussion and Conclusion**

A chain of Zigua abandoned island villages have been located along the Pangani River in the area of Korogwe district in Tanga region. The excavation work reported here focused only on three island settlements of Ngombezi, Old Korogwe and Kwa Sigi where a wide range of archaeological data that can inform us about various issues related to the 19th century caravan trade in the lower Pangani were recovered. At its preliminary stages this study has brought new knowledge concerning this topic. It is now clear that the Zigua island villages along the Pangani River were occupied from at least the 17th century until the mid-20th century. Radiocarbon dates from the lowermost occupation levels at Ngombezi, as well as the type and continuity of material culture retrieved through excavation support this determination. These dates, however, contradict earlier perceptions regarding the initial occupation of these settlements, and it has generally been held that these islands and other hilly top settlements were first inhabited by Zigua communities fleeing from the Maasai raids in the early 19th century (e.g. Johnston 1879: 553; Kjekshus 1996: 59; Soper 1967:30).

Archaeological evidence of traded goods, notably beads, suggests that Zigua communities along the Pangani River were active participants in the 19th century world economic systems of the Indian Ocean. The spatial–temporal changes in types, quantities and fashions of imported goods apparent at the sites reported here suggests that local people had their own preferences, choices, and decisions to make regarding the type of commodities to be brought to the market (see also Pallaver 2008: 24). The presence of a variety of beads and the very limited number of imported ceramics clearly supports this assertion. On this basis, it seems likely that coastal traders had to find out strategies on how to access and win the local market in the interior.

Soper (1967) was the first to describe the Usambara Mountains dotted ware pottery (Group D), but lacked any securely dated material. On the basis of the information then available, he concluded that this tradition was confined to the southern part of
the western Usambara Mountains, and noted that no examples were found in association with any shell or other bead types. This study, however, has recovered Group D pottery from well stratified and dated deposits at Ngombezi. Following this it is possible now to place the Usambara Mountains Group D pottery within the historic time period. By the 17th century the tradition had already been spread beyond the Usambaras and was in use by Zigua communities in the lowland areas. This could further attest archaeologically, the existence of trade relationships and contacts between the Zigua communities of the lowland and their Shambaa neighbours from the Usambara Mountains. Indeed, the co-existence of Group D pottery in association with shells and beads of various types at Ngombezi, Old Korogwe and Kwa Sigi is an indicator of the scale of participation in the coastal trade (e.g. Fieirman 1974: 135-144). The presence of pipes probably used for smoking tobacco at the sites reported here also suggests such trade contacts between Zigua communities and their neighbours. This material evidence supports historical accounts that mention that tobacco was being grown on the Usambara Mountains in the 19th century and traded to the lowland areas, including the coastal towns of Pangani, Tanga and Mombasa (e.g. Farler 1879; Fieirman 1974; Kimambo 1996).

Preliminary analysis of the faunal remains indicated that Zigua communities along the Pangani River had access to a wide range of animal resources and exploited a combination of domestic and wild animals, as well as a variety of fish from Pangani River. In addition, we now know that maize was one of the cereals grown by Zigua communities during their occupation of these island villages, even prior to the establishment of German colonial rule – as indicated by the stratigraphic relationship between maize cobs and German coins observed at Kwa Sigi.

The ongoing analysis of a large collection of faunal remains will enlighten us about various issues related to herd management strategies and culling regimes, and may also enhance our knowledge of the land use strategies that prevailed during the expansion of the caravan trade in the study area. Despite initial promising results, there are number of research questions that still need to be addressed by the current project. It is unclear, for instance, as to when and why all the Zigua Island settlements along the Pangani River were eventually abandoned. Also little is yet known about the nature of the 19th century agronomic systems in the study area. It is hoped that both questions can be answered following further analysis of the data collected during the 2008 and 2009 field seasons reported here.

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