This note reports on a second season of fieldwork carried out in the Republic of Maldives, with the aim of studying the medieval settlement of these islands, and their significance for the trade in cowrie shells to West Africa. Fieldwork took place over January and February 2017 and the team was composed of the authors, plus nine local workers.

An earlier paper in *Nyame Akuma* (Haour et al. 2016) reported on our 2016 field season, which involved test pitting at a range of locations. In contrast, this year’s work focused on just two sites – Utheemu, where the exposure of a set of coralstone slabs was completed, and Kinolhas, an island in the atoll of Raa (Figure 1). This paper deals with the excavations at Kinolhas. The island was chosen for investigation due to historical mentions of its significance, and the identification in 2016 by one of us (AH) of a promising site for excavation at the western end of the island.

**Introduction**

“When I arrived at these islands I disembarked at the one called Kannalus, a fine island containing many mosques”, writes Ibn Battuta (2003: 237). Local understandings identify the island of Kannalus as Kinolhas. Moreover, the Heritage Inventory (Report on Cultural Resources of Maldives & Heritage Action Plan, 2011) mentions the presence of tombs belonging to respected individuals and of two late 15th century marble tombstones. Specifically, it states that these are “two marble tombstones with carvings and very beautiful Arabic calligraphy. According to the inscription these date from 29 Jumaadhii Aakhir 885 AH (5 September 1480 CE). Since marble is not available in Maldives the slabs must have been brought to Maldives from abroad, perhaps from Gujarat. The inscription is also likely to have been written by someone well versed in the technique overseas” (Report on Cultural Resources of Maldives & Heritage Action Plan 2011). These have been published by Kalus & Guillot (2005). These standing remains are located on the margins of the present-day settlement, which is rapidly encroaching on them. Parts of the surrounding coconut grove are used for modern rubbish disposal, and although some archaeological material is visible amongst these remains, we felt that this area appeared too disturbed for reliable study. In contrast, at the western end of the island, at some distance from the modern settlement and described by villagers as the location of the medieval occupation, we noted surface scatters of stone and pottery (including handmade, low fired wares and apparent Asian imports). Much was disturbed by modern gardens, but uncultivated areas also existed. We duly selected these uncultivated areas as the focus of the 2017 field-season. Our work involved a nested survey strategy combing surface survey, Shovel Test Pits (STPs), and larger excavation areas. Surface surveys focused primarily on identifying and marking sandstone and coral stone debris across the landscape. These comprised isolated fragments of worked stone, small square or rectilinear stone features, some of which were interpreted as wells, and larger, low rectilinear structures. Six transects of STPs spaced 20m apart were excavated to sterile across the survey landscape. The
survey grid was created by one of us (AC) using GIS and test pit locations marked using a handheld GPS. The pottery, bone and shell recovered were analysed, counted and mapped to examine the horizontal distribution of archaeological remains and to inform the selection of sites for larger scale excavations.

The surveys and STPs showed that the northernmost pits often yielded no archaeological finds whereas there was an increasing density of archaeological materials to the southwest, with extensive structural remains west of the STP survey universe. Four units (321, 325, 449 and 544) were selected for further investigation through 2m x 2m units. A larger excavation unit, 631, was excavated close to a rectilinear stone feature. All units were adjacent to or encompassed a STP which had provided information on subsurface evidence (see Figure 2 for aerial view of trench locations). Two additional 1m x 2m trenches, excavated at the easternmost and westernmost edges of our survey area to clarify the maximum extent of the site, are not discussed here.

**Trench 321**

Trench 321 uncovered four distinct archaeological layers: a topsoil consisting of brown, loose soil, two lighter grey layers labelled Contexts 2a and 2b, and a pit.

Context 2a began approximately 20-30cm from the surface of the trench and exhibited a high frequency of large stones in no apparent order (Figure 3). In addition to the local coral and sandstone, others were foreign to the Maldives. A small circle of coral stones (Context 23) was associated with a single potsherd. A series of possible postholes were noted but subsequently identified as root disturbance. Context 2a yielded a high concentra-
tion of metal slag and an abundance of pottery, including glazed, likely east Asian, varieties. Layer 2b, 30-40cm from the surface, was less rich in archaeological material or coral inclusions. There was a cut (Context 3) into Context 2b, of very light grey soil, transitioning into a cement-like consistency, and reaching the water table at its narrow bottom, where some potsherds were recovered. This trench also yielded almost 1.2 kg of metal slag (Dr Caroline Robion-Brunner, University of Toulouse, pers. comm.). This was a characteristic of this unit: slag was extremely rare elsewhere on the site.

Trench 325

Trench 325 uncovered six contexts above the sterile soil at 60cm. The topsoil was a damp humic layer with many roots, overlying a very gritty layer containing abundant coral inclusions, which was difficult to trowel.

This layer was first noted at the eastern side of the unit, but was later encountered at different depths throughout the unit, concentrated at the north and south of the unit. A diffuse ashy patch featured at the southwest corner. Following this was a similar layer, Context 3, with fewer finds but many small coral flakes. Three possible pits (Contexts 4, 5 and 6) appeared to cut from this level into sterile. The most convincing of these was Context 5, abutting the north section. Sterile occurred at different levels throughout the unit, possibly indicating past disturbance.

Trench 449

Trench 449 revealed three distinct layers. Context 1, reaching a depth of 15-20cm, consisted of a light brown topsoil, with very few roots and evidence of animal activity. Below this lay Context 2, a thin (10cm) layer of a lighter brown and yellow colour with coral flecks, rich in archaeological material including charcoal, bone, shell, pottery and glass. Context 3 consisted of light brown to yellower soil, with few coral inclusions and very little archaeological material. Various soil features cut into Context 3; these were mostly shallow and diffuse, although three (Contexts 5, 7 and 9) contained charred material, some of which resembling burnt coconut. A much larger pit (Context 16, some 60cm wide at its summit) cut into the east section; it contained few archaeological re-
mains but despite some signs of root action was the most convincing pit in this trench.

Two caches of cowrie shells were recovered, both within Context 3. Context 12 was a mass of 17 cowrie shells abutting the east section at a depth of c.30cm. A discrete feature (Contexts 13 and 14) consisting of 99 cowrie shells arranged around a small glazed ceramic vessel was recovered at 40-50cm below the surface (Figure 4). Upon sieving the fill inside the pot, a small yellow artefact was found.

**Trench 544**

Trench 544 was located in a heavily vegetated area and required clearing before the trench could be set out (Figure 5). The unit recovered five contexts above the sterile soil, which was reached at a depth of about 70cm.

The topsoil was a fine, humic layer that was extremely dense in roots. As such, it was difficult to trowel and was excavated by hoe, with due caution given the density of finds. Patches of charred material occurred in the northeast and centre of the trench. Artefacts were mostly concentrated on the northern side of the unit, with particularly rich deposits in the northeast corner. Context 2, excavated by trowel, was a dense deposit of coral rubble, stone fragments of varying size, and roots. This deposit yielded many finds, including abundant bones and large pottery fragments. Context 3 was similar, but with fewer roots, large stones and finds. Context 4 was a layer of greyish ashy soil with some very dark patches.
This appeared first on the eastern side of the unit and its most remarkable feature was the large amount of bones it contained. The lower limit of Context 4 was diffuse and merged gradually into Contexts 5 and 6, which were both light yellow sand, the latter sterile.

**Trench 631**

Our main unit was placed in a part of the settlement which had initially escaped our notice as it was screened by extremely dense vegetation. However, its significance was reported to us by local council members and upon investigation, we realised that this area stood out for its evidence of structural remains, comprising both sandstone and coral stone in rectilinear arrangements. With no information to suggest their function, we assumed that these represented house remains and we set out a 3m x 3m unit to cut the corner of the main rectilinear feature, with the aim of gaining insight into different uses of space (inside/outside). During excavation, it was noted that two of the coral stones were decorated, but that the other sandstone blocks were unworked. As excavation progressed, a mound of sandstone and coral stone rubble was uncovered in the northwest corner of the unit, and the coral stone identified as a tombstone. It seemed that we had unexpectedly encountered part of a mortuary complex.

Once permission had been secured from the island council, we extended the excavation area, in order to elucidate the extent of the sandstone debris and to determine the relationship between them and the rectilinear structure. The original boundaries of the trench were extended in all directions to encompass the rectilinear structure; the final size of the area excavated was 6m x 4.5m.

Excavations indicated that the sandstone and coral stone debris extended approximately 3.5m north of the rectilinear structure, forming a roughly circular mound interspersed with comparatively intact glazed ceramics of eastern and southeastern Asian origin, as well as low-fired pottery. Although at first glance it seemed that these fragments came from vessels broken in situ, subsequent analysis revealed that they did not refit. At the north of the unit, seven standing coral stone tombstones and eight fallen tombstones were identified, of which four were interpreted by local informants as children’s, due to their small size. Four of the standing tombstones were aligned, and three of these were matched by standing stones 2-2.5m to the south, presumably head and foot markers (Figure 6). All are consistent with the style of Islamic tombstones used in the Maldives. Three of the tombstones (two standing and one fallen) were inscribed with Arabic lettering, which could not be fully read.
Additionally, as excavation proceeded within the rectilinear structure, two additional coral stone tombstones were identified, consistent with an identification as the head and footstones of a single individual. Indeed, human remains were encountered. The cranium and left foot had been disturbed, but the postcranial elements were articulated, suggesting a single person buried on their right side facing west, with legs flexed slightly at the knee. The western edge of the structure overlaid the knee joint, suggesting the burial pre-dated the structure. It is possible that the construction of the structure resulted in the disturbance to the head and foot. The presence of the skeleton – and of the grave markers – within the structure suggests it was a mausoleum.

Our working hypothesis is that the rubble mound was created by the destruction of the rectilinear structure or mausoleum. The fallen tombstones appeared to be part of the rubble and were broken, often in several pieces. It is unclear why they were so badly damaged. The area to the west of the rectilinear structure contained very little cultural material. Unsurprisingly given the mortuary context, few faunal remains were found. However, two small caches of cowrie shells – all *Cypraea moneta* – were recovered, abutting two of the tombstones.

**Discussion**

The stratigraphy of all trenches but the ‘mausoleum’ trench was very similar: a thin, archaeologically
rich layer followed by a less distinct context that faded into a sandy sterile layer.

Small finds were unevenly distributed. Trench 631 was comparatively poor, with just 2 glass fragments. Trench 321 and Trench 325 were similar to each other in small finds density and Trench 544 and 449 were the richest (Table 1). A worked coral stone recovered from Trench 544 (Context 1) was recognised by local workers as ‘Hanudhamaa Gau’, a whetstone.

Portable X-ray fluorescence (pXRF) analysis of the small yellow artefact recovered in the fill of the small glazed ceramic vessel pot in Trench 449 revealed that it was made of electrum (Prof. Marcos Martinón-Torres, University College London, pers. comm.). Moreover, upon sieving the fill seven very small beads were retrieved.

The Chinese imported pottery from the site can be dated to a long period from 14th to the 18th centuries; it includes Longquan celadon from eastern and southeastern provinces of China, blue and white porcelain, enameled porcelain, white porcelain from Jiangxi Province and coarse transportation jars from Guangdong. A single sherd of a white imperial porcelain with moulded dragon patterns and an imperial Longquan celadon small dish were also identified (Dr Ran Zhang, University of Durham, pers. comm.).

Dates were run on charcoal samples from all units; a total of 13 samples: four from Trench 631; three from Trench 449; and two from each of Trenches 321, 325 and 544. A detailed interpretation of these is still underway, but they suggest that the site was occupied in the fourteenth and fifteenth centuries. There is a good concordance in particular between dates from Trenches 321 and 325, which were situated quite close to one another and shared the same gravelly, gritty brown layer with plentiful shell (Context 2 in each case), and the data from Trenches 449 and 544 point the same way. As for the structures in Trench 631, we can tentatively suggest that the ‘mausoleum’ was erected around the mid-14th century. Its date of destruction is not clear from the three dated samples relating to that episode but, in combination with data from the ceramic analysis, they would suggest a date later than the early 15th century.

The excavations at Kinolhas were highly instructive. The identification of a site contemporary with the reported growth in the Indian Ocean cowrie trade – possibly even of the site visited by ibn Battuta – is of direct relevance to West African archaeology. The default assumption, best summarised by York (1972; see also Hogendorn

<table>
<thead>
<tr>
<th>Unit</th>
<th># Glass finds</th>
<th># Metal finds</th>
</tr>
</thead>
<tbody>
<tr>
<td>321</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>325</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>449</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>544</td>
<td>24</td>
<td>7</td>
</tr>
<tr>
<td>631</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 1: Distribution of small finds
& Johnson 1986), is that Cypraea moneta shells were first brought into West Africa overland from North Africa, originating from the Maldives, while Cypraea annulus came into use from the time sea links were established with the East African coast and became predominant by the middle of the 19th century. Whether this model stands up to detailed scrutiny is a key question we are currently investigating.

Acknowledgments

This research was undertaken thanks to funding by the Leverhulme Trust (RPG 2014-259 to Anne Haour). We extend our grateful thanks the various local partners without whom this work would not have been possible. These include the Heritage Department in Malé, members of the Kinolhas Council (especially Faisal Ibrahim, Council President Ahmed Hussain and council member Zubair Hussein), our hosts in Kinolhas (Ramla Easa, Abdul Hameed, and Abdul Sathaar) and the owner and operator of the drone, Aslam Abubakuru and Ali Riffath. For their work on the site, we are grateful to Ibrahim Shaahir, Abdhul Sathaaru, Hassan Junaidh, Abdul Muhaamin, Hassan Nabeel, Zaidh Zubair, Hussain Zaidh Zubair, Hamid Ali, and AbuBakuru Easa. Finally, we thank Kinolhahu School and its principal for helping us to arrange a stimulating public session and site tour. After fieldwork, Marcos Martinón-Torres, Caroline Robion-Brunner and Ran Zhang provided invaluable initial comments on our finds.

References Cited

Haour, A., Christie, A., and Jaufar, S. 

Hogendorn, J. and Johnson, M. 
1986 The shell money of the slave trade. Cambridge: Cambridge University Press.

Kalus, L. and Guillot, C. 

MackIntosh-Smith, T. ed. 

York, R. N. 