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The Mosques of Songo Mnara in their Urban Landscape

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Abstract
The 15\textsuperscript{th} century Swahili town of Songo Mnara (Tanzania) had six mosques – an unusual quantity for a town of only 7 hectares and a population of 500-1000 people. Large scale archaeological investigations of two previously unstudied mosques, and detailed survey of the remaining four structures has suggested a complex dynamic of Islamic practice in the town, including a growing link between mosques and burials, an emerging sense of social differences within the town, and an active construction of monuments of religiosity that were intended to be seen beyond the town itself. We commend a holistic approach in which mosques are studied not as isolated structures but part of a wider urban landscape, what Wynne-Jones and Fleisher (2016) have called the ‘ritual territories’ of Swahili urban landscapes.

Introduction
The study of mosques within their urban landscapes has hitherto received little attention in Islamic archaeology. While studies of individual structures are numerous, and go back to the beginnings of Islamic architectural archaeology (Creswell 1989), how these structures fit into the wider urban fabric has generally been left undiscussed. Mosques performed a range of different functions, not just as places for daily and weekly prayer; their foundations, often through individual piety or remembrance of particular holy individuals, played an important part in the evolution and development of the urban fabric.

Such considerations have rarely been considered on the East African coast, Muslim in part since the late 8\textsuperscript{th} century CE (Horton 2004). A simple developmental model has been typically employed in which early towns have only a single Friday or Congregational mosque, generally located at the centre of the settlement (Horton 1994, 151-5; Fleisher & Wynne-Jones 2012). In the 14\textsuperscript{th} century this pattern is interrupted, as the stonetowns
expand in size, through the foundation of neighborhood mosques, which enable the daily prayer to be conducted closer to the domestic space or place of work. By the 19th century Swahili towns have multiple mosques – for example around 22 in Lamu (Allen 1974 25-6) or 50 in Zanzibar (Sheriff 1992). The 14th – 15th century is therefore a period of particular interest marking this period of transition in East Africa.

The Swahili stonetown of Songo Mnara (and World Heritage site) lies in the Kilwa Archipelago (Tanzania), and is well known for its well-preserved coral rag architecture (Garlake 1966, 91-4; Fleisher and Wynne-Jones 2012; Wynne-Jones 2013; Wynne-Jones & Fleisher 2010, 2011, 2016). The town has been the subject of a seven-year intensive archaeological study (2009-2016) and this paper comes out of this research, focusing on the six unusual mosques found there (fig 1). Two were completely excavated by the project, while four were surveyed and reassessed from their upstanding masonry. The wider research on the town examined the stone houses, burials and several of the daub buildings, that were only visible through geophysics and excavation (Welham et al. 2014). This study of the mosques therefore provides an unusual opportunity to understand the role of mosques within their wider townscape during the 15th century.

Songo Mnara covers around 7 hectares and was surrounded by a town wall (fig. 1). Within the town there are around 48 houses, and an unknown number of daub houses over a further 30% of the site. The archaeological evidence from the excavations and sondages suggests the site had a relatively brief occupation, beginning in the late 14th and ending in the early 16th century (Perkins et al. 2014) with some suggested reoccupation and rebuilding of the houses in the 17th or 18th centuries; the town was however fully abandoned and overgrown by the time of Lt. Prior’s visit in 1811 (Prior 1819; Freeman-Grenville 1962a, 209).

Songo Mnara is only 11 km from the better known and much larger town of Kilwa (or Kilwa Kisiwani), whose own origins lay in the 9th century, and which underwent a boom in prosperity between the 13th and 16th century (Chittick 1974). The arrival of the Portuguese, under Pedro Alvares Cabral in 1500 (Freeman-Grenville 1962a, 60), and the construction of a stone fort in 1505 may have precipitated the decline of the stone towns in the archipelago
and the abandonment of Songo Mnara. While Kilwa itself was well described by the Portuguese (Chittick 1974, 247-251), Songo Mnara is nowhere mentioned in any historical source and only a very garbled origin tradition was collected by Burton in 1859 (Burton 1872 ii, 361). Songo is most likely its historical name, while the appellation Mnara was given to the site during colonial times, on account of a presumed tower on the beach.

Our reconstruction of the mosques and their roles relies entirely on archaeological and architectural evidence, as there is no historical evidence to help us in attributing their foundation or use. No inscriptions have yet been found either at the mosque or indeed elsewhere on the site. The elaborate architecture of the houses suggests this was an important place, yet its relationship with the Kilwa polity remains somewhat of mystery. The plan of the town is typical for Swahili stonetowns, with a central open area, with houses densely packed, with narrow streets, around this central area (Wynne-Jones and Fleisher 2014). The central open area contains a large number of burials, perhaps 1000 – marked by masonry tombs and/or head and foot stones – but also many unmarked graves and multiple internments – and thus seems to have largely functioned as a cemetery in which ongoing and public commemorative acts were carried out over many years (Fleisher 2013, 2014).

The six mosques at Songo Mnara include (figs. 2, 3 & 4): (1) the Northeast Mosque, the largest mosque at the site located in the north east corner of the settlement, adjacent to one of two large house complexes (House 34); (2) the Central Mosque, located at the center of the site surrounded by an extensive cemetery; (3) the Necropolis Mosque, a structure set up on a bluff just outside the south west corner of the site, with an attached, walled cemetery; (4) the Small Mosque, a small, simple structure on the western shoreline of the site; (5) the Town Wall Mosque, a long thin mosque connected to the town wall, also on the western shoreline of the site; and (6) the Mnara Mosque, a structure set on a rectangular coral platform within the tidal waters of the western shore.

**Visits and Investigations 1777 – 2004**

The site has long been known through its famous “tower” or Swahili, mnara, recorded since the late 18th century. M. Morice includes a little sketch of a three-storied tower, which he calls La Pagode, on a chart of Kilwa bay, dated to September 1777 (Freeman-Grenvile 1965,
M. Crassons de Medeuil, a French slave captain, noted in 1784 that the pagoda had recently fallen (Freeman-Grenville 1962a, 196). On a chart, drawn by A. Dalrymple, also published in 1784, but based on Morice’s original sketch of 1777, the mnara is shown as a slender tower (http://gallica.bnf.fr/ark:/12148/btv1b7759855g) but with a Muslim crescent as a finial, possibly indicating a minaret. In 1811, HMS Nisus visited the Songa Mnara, and Lt. J. Prior and Captain Philip Beaver described houses, tombs, ‘Saxon’ arches and what they thought was a mosque, but were unable to find the “pagoda” but adding that ‘seems strange that a temple appropriated to popular religion should be fixed in an obscure wood’ (Prior 1819, 76-8; Freeman-Grenville 1962a, 209). They did however leave a detailed description of the Necropolis Mosque (Freeman-Grenville 1962a, 208). Richard Burton visited in 1859 (Burton 1872, ii, 358-9), and first came upon the ‘Nabahani Mosque’ (which is most likely the Necropolis Mosque) through a well-cut gateway, and noted the mihrab decorated with ‘Persian tiles’\(^1\). Around it lay the tombs of the ‘Shirazi sheiks’, and he noted the custom of placing waterworn pebbles on graves – a feature that is still visible on many of the Songa Mnara graves. He also observed the mnara in the mangroves, which he correctly identified as a mosque.

The first archaeological description was in 1938 by M.H. Dorman, who compiled a reasonable plan of the site, showing the location of four mosques (he describes one) and the ‘lighthouse’ (Dorman 1938). Dorman may well have cleared some of the buildings of rubble, but does not state so. Around 1949, the ‘hitherto unknown site of a ruined city on Songo Manara (sic.)’ was discovered and excavated, and the photographs published by the adventurer F.A. Mitchell-Hedges (Mitchell-Hedges 1954, plate opp. 238). A more serious account of the site was by Rev. Gervase Mathew (1959), who conducted small scale excavations. He left a decent description of the Northeast Mosque which he described as the “Nabahani” Mosque\(^2\) and recorded that some elements of spirit worship continued in

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1 Most likely a confusion for the many turquoise-glazed fritware bowls set into the roof, and recorded by Chittick (1963, 5).

2 Burton (1872, ii 358-9) seems to be describing the Necropolis Mosque as the Nabahani mosque. According to Freeman-Grenville (1962b, 114), Mathew recorded the oral tradition that that Northeast mosque was the Nabahani Mosque, and that he had been able to record this personally from a number of persons’. The Nabhani, a tribe from Oman, are recorded as
the mosque. He believed the mnara was watch tower, built in ‘ziggurat fashion’ (Mathew 1959, 157). In 1955, James Kirkman and Greville Freeman-Grenville (Kirkman 1958; Freeman-Grenville 1962b, 174) undertook some small scale investigations, that included the discovery of a piece of herringbone carved coral, and a white porcelain bowl with mortar attached. Kirkman believe this came from a mosque while Freeman-Grenville later claimed that the mnara was a ‘tower kiosk for the purpose of enjoying the evening breeze on what is a hot and sticky island’ (Freeman-Grenville 1965, 73). In 1961 H.N. Chittick undertook considerable archaeological and conservation work on the site, which included emptying wells, and conserving the Northeast Mosque (Chittick 1963, 7). He observed that the mosque has already been cleared out ‘probably in the 1930’s’. He also cleared the remains of the mnara and found celadon bowls with mortar attached, which he adduced would have originally have come from a domed roof of a mosque (Chittick 1963, 5). He also worked on the Necropolis mosque clearing the southern part of the prayer hall, and finding many pieces of Persian glazed bowls set into the vault.

The most serious study of the mosques (and indeed town) was undertaken by Peter Garlake in 1962-4 (1966). He drew the Necropolis, Mnara and Northeast Mosques (Garlake 1966, figs. 18, 48) and thought the other two mosques along the shore were likely to be 18th century (Garlake 1966, 91). He located the Central Mosque on his site plan, but did not describe it. In 2004, Stéphyane Pradines excavated below the prayer hall of the Northeast mosque, and observed that there was a late 14th-century level at the base of the mosque and suggested its construction dated to the early 15th century (Pradines & Blanchard 2009, 49-50).

**Northeast Mosque**

The largest and most elaborate mosque at Songo Mnara is located, not in the centre of the town, but in its north-east corner. It has been described as the Main Mosque by Garlake (1966, fig 48) or Great Mosque by Chittick (1963, 5) . It attribution as the Friday or Congregational mosque relies on its overall size, rather than specific evidence for a minbar, that could have been made of wood. Clearance of the mosque in the 1930’s and further the rulers of Pate, but most likely significantly later than the dates of either of these mosques (Chittick 1969).
work in the 1960’s and 2004 removed all the floor deposits and the critical area of floor where traces of a minbar might have been seen. Remains of the ablution area were not visible in 1964, and were probably exposed in 2004 as part of the conservation work on the site. While on the edge of the town, the mosque lies opposite one of the most elaborate monumental entrance for a domestic house in the town (House 34).

Our plan of the mosque (fig. 2) is the most complete, as previously published plans have included only the main prayer hall (Garlake 1966, fig 48). The main prayer hall is nearly square (7.75 x 7.68m$^3$), on a qibla of 20 degrees. It would have accommodated around 75-80 worshippers. The flat roof was supported on four octagonal columns on square column bases, that formed a double transverse arcade with engaged columns on the side walls, leaving the mihrab open to view on its central axis (plate 1). The southern arcade is partially intact (plate) showing the fine cut porites coral, and broad arches with the typical apex nick. The floor was raised on a 2m level of sand (Pradines & Blanchard 2005, 45). East and west were side rooms or verandas, reached via side doors, and which could have increased mosque capacity to around 115 worshippers. The prayer hall was entered via a southern room, reached by three stone steps and an impressive triple transverse arcade, and two arched doorways. In the south west corner was the well, tank and rubbing stone, and two steps to enter the southern room from the west. North of the mosque was a cemetery in two parts, a smaller and larger enclosure, with at least 27 grave memorials including large sandstone slabs set as head and foot stones.

The mihrab (fig. 5) which survives in part, was particularly elaborate, with an inner trefoliate arch (fragments of which was found in 1964 (Garlake 1966, 69)), six jamb orders, decorated with double herringbone and an apse with carved blind niches, supported on an arcade, with a fluted semi-dome. It has elements found in the twelfth-century Kizimkazi and Tumbatu mihrabs (Horton forthcoming), but also Kisimani Mafia and Kua (Garlake 1966, figs. 49, 51) that may date to the 13th or 14th centuries. Garlake (1966, 69) argued that the mihrab at Songo Mnara was later 16th century on typological ground, but this is probably too late, as there is no other evidence for occupation on the site at this date.

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3 All measurements given in this article are internal, north-south followed by east west.
Central Mosque (SM030)

Located within the central area of the site, this small mosque was left unexcavated in the earlier clearance of the site and so provided an opportunity to examine a structure in detail (fig 3). Its central position in the site might suggest it to be the earliest and original mosque – possibly serving as the first Friday mosque. The pattern of the floor wear to the right of mihrab could suggest the location of a wooden minbar.

The pre-disturbance plan of the site (fig 3) shows a mound of collapsed rubble, a well, and low walls that enable a rough plan of the mosque to have been estimated and is shown on earlier site plans (Garlake 1966, fig 74). A spoil heap located on the western side of the mosque was probably from the emptying of the well in 1961. The prayer hall was rectangular (6.72 x 4.66-4.75m) on a qibla line of 004 degrees, with a flat masonry roof supported on four circular wooden columns, set into the floor on large stone foundations below the floor (fig 3). One was revealed in a sondage (SM 029), that indicated the makeup of the floor. The mosque walls were dug into a basal orange red sand. The area was then infilled with light brown occupation / midden level 35 cm deep, with ceramics from the 14th and early 15th century, including imported black-on-yellow and blue monochromes. As this midden was fill, it is possible that this deposit was brought in from elsewhere or may be the primary occupation of the site redeposited in the mosque. Over this were two levels of white sand (as in the Northeast Mosque) a subfloor of broken coral stones, and a plaster floor. The column supports were placed in a pit dug into the white sand and midden levels. The plaster floor was preserved around 30% of the total area although much cracked. Adjacent to the mihrab were the collapsed qibla stones. These were a pile of stones, with only one piece of herringbone capital and two arch fragments, suggesting that the mihrab had been deliberately taken down when the mosque had been abandoned and the more useful pieces removed. What was left – lying on a thin humic layer – was the discard heap. Much of roof fell inside the prayer hall, and sections of it were up to 40 cm thick with layers of coral and lime. Ceiling rubble was found directly on the floor, suggesting the collapse took place on a clean floor, and probably shortly after its abandonment. Carved coral spouts for collecting rainwater were also found. The unusual ceiling tiles found in the internal roof collapse comprised flat sandstone slates squared off and set into the lime. Square blocks of
Porites coral were also employed. The very heavy roof was remarkably supported on only four timber columns and probably explains its collapse.

There were three doors to the mosque on the south, east and west sides. Those on the sides (which were probably arched) lead via three steps (made from large blocks of shaped sandstone) to open side verandas – a patch of plaster floor was found in the south east corner. The main entrance was however to the south via a ramp and steps, with two tanks on either side and a low bench (plate 2). The tanks were connected by a trough, flowing via a channel below the steps from the western tank adjacent to the well. The western tank has an unusual arrangement of two steps at one end, to enter within (presumably to clean the tank out). The eastern tank has a robbed bowl inset, but a base sherd of Chinese celadon with mortar attached was most likely used in this position. The bowl on the western cistern was remaining; a shallow longquan bowl with a diameter of 370mm and a depth of 54mm (plate 3).

The mihrab could be reconstructed from the surviving elevation, the plan, and the analysis of 56 worked pieces of coral from the rubble pile on the north-east corner (fig. 5). The mihrab is unusually flat and concave, with four jamb orders. The upper sections reconstructed from the blocks, comprised a capital decorated with double herringbone (stone 18) and an arch of two orders with a double apex nick (stones 42 and 47), the whole framed in a plain architrave. Some of the fragments had mortar patterns to suggest they had been reused.

The mosque was originally free standing with its washing area, but during its life, some additional walls were added. South of this washing area, an enclosure wall was added, and the area was used for burial. This wall abutted a demolished tomb, that itself abutted an earlier tomb, suggesting that this addition was late in the sequence. An additional western plinth built that abutted a low cemetery wall that enclosed further graves on the north side.

**Town Wall Mosque (SM050)**

Early accounts of the site show this as a simple small prayer hall with an upstanding mihrab, close to the shore, and suggests it was 18th century in date (Garlake 1966, 81, fig 74). The
town wall was attached to its north-west corner. The excavation of this mosque however revealed a more complex and interesting story, showing that the building went out of use and its masonry reused for the town wall, most likely in the early 16th century. The mosque is 2m above high tide level and about 4m from the current beach.

The original mosque was a long and thin two-roomed prayer hall (14.25 x 3.30m) on a qibla line of 350 degrees (fig 4, plate 4). A large fire ended the mosque’s life, and burning marks could be seen on the floor and in doorways as well as indentations in the floor where masonry and timber had fallen to the ground. The west wall largely fell into the prayer hall, but the east wall fell outwards towards the town in a single block, and may well have been deliberately pushed over breaking along a line of layered construction. The ceiling fell on the floor, and many pieces of square porites coral tiles were found, separated by mangrove poles.

The northern room is 2.9 x 3.3m, with its mihrab, and the southern room 9.75 x 3.3m, the two rooms divided by an internal wall. This wall originally at full height (the wall scar is visible both on the fallen wall and the east wall, as well as a plaster lip), but was taken down level to the floor when the town wall is constructed and there is no evidence of any doorway between the two rooms. The northern room was entered from the west, via a sandstone step and a sandy ramp that led to the beach. By the step was a plaster plinth and an inset ceramic water pot. As there was no well at this mosque, it is assumed that ablutions were undertaken in the sea, with the water pot serving as a final washing point before entering the mosque. The plaster floor in this room was well preserved at the southern end, but quite worn around the mihrab. The mihrab has a very simple elevation of a narrow arch, without any capital. The base was semi-circular, but at the springing level, it was rectangular.

The southern room (10.3 x 3.25m) had three doorways, two on the west wall and a further one in the centre of the south wall. A single fragment of arch was found nearby. Detail of the threshold were only visible in northern doorway, the position of the other two inferred from scorch marks in the masonry. The east wall had no opening and would have been a blank wall to the town. The floor was less well preserved than the northern room, with
small patches of original floor by the dividing wall and at the south end. The rest of the floor-surface comprises sandy and ashy spreads, and even an area of worn bedrock. These levels were comparatively rich in finds, including 29 glass beads, a spindle whorl, and quantities of local pottery that may have derived from underlying pre-mosque occupation or midden levels along the beach. The bedrock sloped to the north, as a sondage in the north east corner of the mosque reached bedrock 1.0m below the floor, with the floor here resting on fills of white and grey sand.

After the fire, the ruined mosque was turned into a section of the town wall. At the northwest corner the town wall abuts the mihrab wall, which then acts as part of the town wall. An L shaped section of new wall, around 50-60 cm wide, with very little mortar, is built inside the mosque (and over the plaster floor with its burnt patches) along the whole length of the mosque and south wall. No trace of the wall was found south of the mosque, but in line, 5m beyond the south wall, was what appeared to be a town wall guard house or gatehouse and this section of town wall between mosque and gatehouse was most likely robbed out.

Small Mosque
This small mosque is 80m south of the town wall mosque and was not investigated by excavation (fig. 2). The plan is the best guess from the surface indications. A free standing prayer hall is visible (6.0 x 5.0m) on a qibla line of 010 degrees. The back of the mihrab apse is still standing, but no trace of its front was visible. On the west wall is an engaged column; a fallen column by the east wall suggests that there was a single transverse arcade supported on a central pillar – echoing a similar arrangement in the Northeast Mosque; the span between each pillar being an identical 2m in both mosques. Little else can be said about this structure excepting that it lies adjacent to an area of daub houses at the site, and may have acted as a neighborhood mosque for this part of the community.

Necropolis Mosque
Located southwest of the site and outside the town wall, this mosque has drawn particular attention from travelers, from Prior to Burton because it is the building first encountered from an accessible landing place. Chittick (1963, 5) and Garlake (1966, 38, 86, fig. 18) called
it the Vaulted Mosque, but we prefer Necropolis as it is associated with numerous graves contained within its enclosure. Burton called it the Nabahani Mosque, but the authority for this is not known, and the Nabahani probably arrived in East Africa from Oman no earlier than the 16th century – at least 200 years after this mosque was built (Horton 2017a). The mosque is now very ruined and some ambiguities remain as to its original plan.

The mosque has a narrow prayer hall (5.4 x 2.75/3.25m) aligned on 347/340 degrees (fig 2). It was entered through a surviving arched doorway in the south wall. Two further arched doors either side of the mihrab led to two small rooms and an open courtyard beyond. The mihrab has an apse but no arch (fig 5). The roof was barrel-vaulted with three transverse vaults supported on a cornice. In the vault were numerous inset bowls, recorded by Chittick (1963, 5) - fritware bowls with turquoise glazes and under-painted black and dark blue decoration. These bowls are identical to those found at the House of the Mosque at Kilwa (Chittick 1974, 135, 306) and at Songo Mnara in the barrel vault of House 17, and probably date to the early – mid 15th century. Fragments of one is still visible in the rubble; no doubt others remain buried.

The mosque is located within an enclosure 16m square, in which are located numerous graves, marked by sandstone slabs. The mosque and its enclosure seems to be have been only entered from the beach, where six steps are set against an external wall, leading to the doorway in the north west corner. From here it was possible to enter the mosque through its two north doorways crossing the raised area north of the mosque; this is a very unusual arrangement. The graveyard was reached via six steps leading down from the raised area. South of the mosque is a large mound of rubble and masonry. Chittick (1963, 5) noted this as well, so it is unlikely to be the collapsed roof removed from the interior of the mosque. He suggested it was a collapsed minaret, and it is tempting to link this with the record of the collapsed ‘pagoda’ mentioned by Crassons in 1784 (Freeman-Grenville 1962a, 196).

**Mnara Mosque**

The sixth mosque, which gives the site its name, is located in a highly unusual position as an island in the sea, around 30m from the beach. Reached at low tide through the mangroves, by walking through muddy flats, it is surrounded by water at high tide. It is unclear whether
this unusual location is due to shoreline erosion since the 15\textsuperscript{th} century or whether the mosque was built in the sea. This area is now surrounded by mangroves, and there is no evidence for coastal erosion (indeed the mangrove created a depositional environment along what must originally have been the main harbour beach) – making it more likely that the mosque was originally built in the sea.

The building is a two-phase structure. The original construction is a rectangular platform, 9.3 x 5.75m, three steps on the north, east and west sides, and five to the south, the building’s main entrance (fig 2). The building is made of coral, but the steps have on their upper surface slabs of sandstone. The prayer hall is rectangular (4.45 x 3.0/3.25m) on a \textit{qibla} of 355 degrees with side-engaged columns. Chittick (1963, 5) noted ‘numbers of celadon bowls which had been inserted in the masonry’ when he cleared the mosque, and which he considered to be 15\textsuperscript{th} century. Inserted bowls are found only in domed roofs, and twin transverse barrel vaults supported on the engaged columns are probable.

The mihrab has disappeared, but the pilasters for the framing architrave are visible as well as several pieces of carved coral, including part of a capital and a faceted column (and Freeman-Grenville found a piece of herringbone on the site). There is no space for a projecting mihrab, so the apse was probably contained within the thickness of the wall – as it is in the nearby site of Sanje ya Kati (Horton 2013).

The second phase involved the rebuilding of the external walls on the east, north and west sides, by the addition of a masonry skim. A curious feature of this is that it was asymmetrical to the original building, creating a new external \textit{qibla} of 00 degrees – maybe the rebuild was intended to realign the mosque to the more correct direction of Mecca\textsuperscript{4}.

\textsuperscript{4} The true direction of Mecca from Songo Mnara is 0.56 degrees so this realignment was accurate.
Table 1. Size, layout and architectural data from the six mosques at Songo Mnara.

**Table**

<table>
<thead>
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<th>Mosque</th>
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<th>praying capacity</th>
<th>qibla</th>
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<th>east door</th>
<th>west door</th>
<th>south door</th>
<th>roof</th>
<th>ablutions</th>
<th>date</th>
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<td>80+35</td>
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<td>1</td>
<td>2</td>
<td>flat</td>
<td>well and tanks</td>
<td>late 15th</td>
</tr>
<tr>
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<td>36</td>
<td>003/005</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>flat</td>
<td>well and tanks</td>
<td>late 14th/early 15th</td>
</tr>
<tr>
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<td>1</td>
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</tr>
<tr>
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<td>16</td>
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<td>1</td>
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</table>

**Discussion**

Table 1 summaries the data from the six mosques. Some can be directly measured (area, praying capacity) although without excavation the details of the Small Mosque remain ambiguous. There is considerable variation in qibla direction, which is surprising given that the mosques are so close in date. While qibla can be calculated using the qibla-day method, which was well known by the 15th century, it requires a knowledge of longitudinal position, which remained unknown to Arab seafarers, at least as far as East Africa was concerned (Tibbets, 1971, 273). As King (1995) has suggested mosques were in practice set out by a variety of folk astronomical methods and this was probably the case at Songo Mnara. The observation that the Mnara Mosque was realigned during its lifetime suggests that there may have been dispute in the community as to the true direction of the Mecca, and ironically this final rebuild gets qibla exactly correct, unlike the near contemporary Northeast Mosque that was 20 degrees off. It is tempting to suggest that the precision of
the Mnara Mosque might have been linked to its maritime location, with seafarers, with their greater geographical knowledge, informing its orientation.

The dating of the mosques is purely indicative. One clue is the use of domes in two of the mosques and which we can compare to similar buildings at Kilwa – particularly the Palace Mosque, which has many points of direct comparison (Chittick 1974, 134). The revival of vaulting has been linked to the rebuilding of the Kilwa Friday Mosque c. 1421-1442 (Chittick 1974, 76, Horton 2017b). Vaulted domestic structures at Songo Mnara probably also date to this period, and are closely linked to the Kilwa tradition, even using similar types of turquoise-glazed fritwares (Chittick 1974, 162-4). Chittick suggested that these unusual bowls may have been imported as a single lot (Chittick 1974, 308) and it may well be that all these structures belong to the second quarter of the 15th century. The bowls set into the Mnara mosque were apparently Chinese, and were compared to bowls found in the Eastern part of the Great House (Chittick 1963, 5; 1974, 121) and may be later.

The flat-roofed mosques present more complex arguments for dating. Pradines’s excavations below the Northeast Mosque produced evidence for occupation at its base, suggesting that the mosque was not primary to the site. He noted a piece of 15th century celadon in the mosque fills (Pradines & Blanchard 2009, 46). Garlake (1966, 33,69) commented that the transverse arcade seems to have developed from the 15th century vaulting systems and therefore cannot be earlier than the mid or even late 15th century. He actually dates the mosque to the early 16th century on architectural ground (Garlake 1966, 69). Whether late 15th or early 16th, the mosque is certainly not primary to the occupation, nor is there evidence for an earlier mosque below the present structure. This raises the question of where was the original mosque?

The best candidate for this is the Central Mosque. The plan of this mosque is a very traditional rectangular structure that reflects the plan of earlier Shirazi mosques of the coast (Horton 2017b, 2017c) and with its wooden columns and plan echo similarities to the original Northern Mosque at Kilwa (Chittick 1974, 61-3). The sondage below the floor included an introduced occupation deposit with 9 sherds of imported blue monochrome pottery of a type recorded at Shanga from the late 14th century and early 15th century.
Further evidence for an early date comes from the magnificent greenware shallow bowl set into the western tank. This is from a well-known group of Longquan bowls dating to the late Yuan and early Ming, which were widely imitated by Iranian potters in the 14th century. In its position, it is most likely an heirloom, brought into the site from elsewhere.

The Town Wall Mosque may also be early 15th century. It rests on a shallow occupation level of the early 15th century – middens that formed along the shoreline. The absence of vaulting might suggest an early date, while it must predate the town wall which is most likely early 16th century. The burning of the mosque may date to the sacking of Kilwa in 1505. While there is no historical evidence to suggest that the Portuguese reached Songo Mnara, F. Monclaro claims in 1569, that Kilwa was sacked twice ‘because of the treachery of its inhabitants’ (Freeman-Genville 1962a, 138) and this second, otherwise unrecorded military activity might have included Songo Mnara.

**Mosque Narratives**

Six mosques in a town of this size is unusual, but our study allows us to understand both the dynamic and spatial aspects of mosque location. Broadly, early Swahili towns have a single Friday mosque that often lies close to the centre of the settlement. This pattern was recorded at Shanga (Horton 1996), Ras Mkumbuu and Mtambwe Mkuu (Horton forthcoming) and Sanje ya Kati and most likely also existed at Kilwa (Chittick 1974, 61) and Manda (Chittick 1984). The 14th century saw the establishment of neighborhood mosques – smaller mosques that most likely served local communities for daily prayer and may well indicate an increase in devotion, under Sunni-Shafi and sharifian influences. Initially, a small number of these mosques are added - 14th century towns like Shanga, Jumba la Mtwana or Tumbatu have two smaller mosques added; Kilwa has four mosques added in the 14th and 15th centuries. By the 18th century, Swahili stone towns have many mosques – such as Lamu with at least 22 (Allen 1974) or Pate with 12 mosques (Chittick 1967, fig 11).

The earliest mosque at Songo Mnara would appear to be the Central Mosque, placed in the middle of the newly established settlement. It was consciously archaic in form, with its timber columns, rectangular plan, and possibly built with introduced midden material –
perhaps a symbolic gesture of moving settlements c. 1375 - 1400. The Chinese bowls in the tanks may have been heirlooms, and the mihrab may also have been brought from elsewhere. Perhaps it was built by a community of merchants that deliberately left Kilwa during a period of documented internal disputes in the late 14th century (Freeman-Grenville 1962b, 118-20, Saad 1979, 186-7). As the only mosque for around 40 years, this would have served as both the daily and Friday mosque. Songo Mnara undergoes a significant expansion in the second quarter of the 15th century – the period to which much of the domestic architecture belongs – and clearly the Central Mosque was no longer of adequate size or grandeur. Normally, this would involve the rebuilding of the mosque, but for some reason, this did not happen, and instead a site was found on the edge of town close to one of the largest of the merchants’ houses – who perhaps may have funded its constructions. The Central Mosque was converted to a cemetery mosque, with new burials around it (and even blocking the main southern entrance), although could have continued as a rival Friday mosque as is often the case in Swahili towns.

Only one mosque could be interpreted as a neighborhood mosque – the Small Mosque that lies within the main area of daub houses. Surprisingly no small mosque has been found in the areas of the large stone houses, who occupants must have used the Central and Northeast Mosques. The Town Wall Mosque is particularly interesting as it has two prayer rooms with independent entrances on the south and west sides – the east wall being blank to the town. Mosques on beaches are sometimes suggested being for fishermen or seafarers and there was certainly a move to build mosques to be visible from the sea from the 13th century onwards (Fleisher et al. 2015). This mosque seems not to be a typical ‘fisherman’s mosque’ with its exceptionally large and distinct southern prayer room. An alternative suggestion is that it served as a women’s mosque with the small northern room being reserved for the male iman, and the larger (and heavily worn) rear room for the women – the blank wall to enable privacy for female devotion. Being located close to the

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5 As a rule of thumb, Friday prayer capacity can be multiplied by around 10 to estimate total population (Horton 2004) – so an initial population of around 350 is suggested. By the late 15th century, the new mosque held 115, giving a population of around 1000. This is very close to the figure derived from estimates based on area and house counts.
daub-house section of the town, female space may have been more limited than in the stone houses, where devotion could take place privately.

The Necropolis Mosque located outside the town was be associated with burials within its enclosure – albeit of a modest type marked by sandstone slabs rather than monumental construction. Although this would contradict the notion of Burton that it was a sheik’s graveyard, there are thousands of worn quartz pebbles littering the cemetery surface, indicating that this cemetery was an active and ongoing location of prayers and offerings. The mosque is very similar to the Palace Mosque in Kilwa, which left both Chittick (1974, 134-5) and Garlake (1966, 38) wondering about the relationship between the two, and whether they represented structures linked to the rulers of Kilwa. More likely, this was a clan-focused burial ground with its associated mosque – an elite clan that might also have been living at the contemporary the House of the Mosque at Kilwa. Similar detached burial areas outside the town, sometimes with buildings, exist at Kilwa, in the Kilwa Sultans, Sake and Forty Sheikhs cemeteries (Chittick 1974, 224-7). Further work is needed to test whether it had a tower minaret at its south west corner.

The Mnara Mosque represents a most singular structure, located in the sea, but is very substantial. It seems curious to build such a major undertaking, with domed vaults, for a praying capacity of around 16 worshippers and far beyond what would be expected for the use of fishermen – where a small mosque could have been built on the beach at a fraction of the cost. More likely is that it is part of the idea of an emerging sense of maritimity in which the sea-approach to the town was deliberately ‘Islamic’ so that seafarers were able to identify with a safe and friendly port. Other mosques erected on or close to beaches include two at Shanga, two mosques at Ras Mkumbuu, the Malindi mosque at Kilwa (Fleisher et al. 2015). The Mnara mosque and the Necropolis Mosque with its possible minaret, when seen from the sea, would have given the town its strongly Islamic identity.

By examining the mosques within their urban landscape, we can begin to capture the way that the construction and use of mosques at Songo Mnara over time was not simply a matter of functional necessity or religious transformation. Starting from a single central mosque built in an archaic style (Central Mosque), the Songo Mnara’s urban landscape grew
to accommodate six highly unique mosques that marked both the growing size and complexity of the urban community as well as efforts to mark authority, difference, and Islamic piety within the town and the broader region.

The proposed shift from the Central Mosque to the Northeast Mosque for the main congregational structure surely occurred as a way to accommodate a growing community, but it also indicates an increasingly complex political climate at Songo Mnara during the mid 15th century, where opposing great houses were constructed in the northeast and southwestern corners of the settlement. The location of the Northeast Mosque adjacent to one of these two great houses suggests that the private sponsorship of one of the most significant monuments in the town could have been a source of local power and authority, and an effort to counter a consolidation of power in a rival town family. The development of mosques at Songo Mnara also offers insight into the divisions between élite and non-élite communities in the town. With the development of two small mosques along the western shoreline, we can see the emergence of structures that may have served an emerging non-élite population, focused around a series of a dozen or more daub houses in the western open area. The evidence that the Town Wall Mosque might have been used primarily by women in this part of the community offers more evidence of the increasingly complex social divisions emerging at the settlement.

Additionally, the construction of two mosques, the Necropolis and Mnara Mosques, follows a pattern found at other Swahili sites, where mosque structures serve as a form of religious beacon for visitors and passers-by (Pollard 2008; Fleisher et al. 2015). Both of these mosques were positioned to be seen from distances, set up on either a high bluff or man-made base. They both would have been accessed from the sea, and both required climbing steep staircases to enter them. These mosques seem to suggest efforts to broadcast the religiosity and piety of the town itself, and to offer unique and impressive prayer locations at first arrival in the town. Thus, the mosques of Songo Mnara where not only a part of the emerging complexity of élite and non-élite communities within the town, but also an active way to engage with visitors and non-residents from the region and beyond.
Finally, the association through time between mosques and cemeteries with ongoing commemorative practices, seen in the Central, Northeast, and Necropolis Mosques, suggests the way that religious practice at Songo Mnara was intimately connected to ancestors and ancestry. Wynne-Jones and Fleisher (2016) have argued that cemeteries and mosques at Songo Mnara served to constitute a ritual territory, “an inclusive space linked to a religious community and ancestral claims”. The growing number of graves associated with mosques offers evidence of the way religious practices were also involved with “an ongoing relationship with ancestors who were part of urban life and whose territories created particular spaces in the urban setting”.

Conclusions

In this paper we have tried to set out the connections between town and mosques – suggesting that the relationship is a complex one that needs to take into account ritual practices, emerging social complexity, gender roles, and the evolving urban landscape. Too often mosques have been seen as isolated buildings; here we believe that understanding their chronological and spatial context within the urban framework is central in not only interpreting their architecture but also in placing Islamic practice with its wider social landscape.
Bibliography


Figures

Fig 1 The site of Songo Mnara and the location of its six mosques.

Fig 2 Architectural Plans of the Northeast, Small, Necropolis and Mnara Mosques (surveyed by Mark Horton, Juliette Chausson and Thomas Delany)

Fig 3 Excavated plans and sections of the Central Mosque (SM029/030)

Fig 4 Excavated plans and sections of the Town Wall Mosque (SM050)

Fig 5 Mihrabs of the Songo Mnara mosques (Northeast and Necropolis Mosques after Garlake)
Plate 1 Northeast Mosque
Plate 2 Central Mosque
Plate 3 Inset Lonquan shallow bowl
Plate 4 Town Wall mosque

Fig 1
Fig 2
Fig 4
Fig 5

Northeast Mosque

Central Mosque

Town Wall Mosque

Necropolis Mosque