

■ KENYA

## Archaeological Survey and Landscape History at Gede, Kenya

Wolfgang Alders

Department of Anthropology  
UC Berkeley  
[alders@berkeley.edu](mailto:alders@berkeley.edu)

**Present Address:**

457 42<sup>nd</sup> Street  
Oakland, CA 94609 USA

### Introduction

The societies of the Swahili coast extend over 3000km from southern Somalia to northern Mozambique, including the Comoros Islands and parts of northern Madagascar. Complex urban societies developed in the late first and early second millennia AD. Swahili societies grew out of agricultural and maritime communities of the East African coast that had been developing for centuries prior in relation to larger interaction spheres, including the interior of the African continent and the wider Indian Ocean world (LaViolette 2013). These societies shared particular commonalities such as the widespread adoption of Islam, coral limestone architecture mixed with earth-and-thatch buildings, a unique pottery tradition with regional variations, and participation in trade networks linking East Africa to global economies (Horton and Middleton 2000; LaViolette 2013).

Recent archaeological work has stressed the continuity of interaction and settlement between East African coastal town-dwellers and people in the rural

countryside over time at various locations and at various spatial scales (Fleisher 2010; Helm 2000; Helm *et al.* 2012; Kusimba 2013; LaViolette and Fleisher 2009; Pawlowicz 2013; Walz 2005; Wright 2005). This paper presents the results of a recent archaeological survey at the site of Gede, which highlights areas for future research on these possible relationships between Swahili urban centers and rural landscapes. Here, the area under investigation is the site of Gede and the immediate surrounding agro-sylvo-pastoral landscape, an area including the Mida Creek bay and mangroves, the Arabuko Sokoke forest, surrounding fields, and coastal areas (Figure 1).

Gede is located on the central Swahili coast of East Africa, in modern Kenya (Figure 1). The site of Gede (Figure 2) consists of an urban neighborhood, palace, and Great Mosque inside two rings of irregularly shaped walls. The interior walls include an area of approximately 18ha and the exterior 30ha (Pradines 2004: 110-111). The site is known for its wide variety of imported pottery and foreign trade items, and it is also one of the most well-preserved examples of standing Swahili architecture (Pradines 2010: 18-19). Wilson (1982: 211) argues that Gede was comparable in size to some of the largest urban settlements on the coast. While occupation at sites like Malindi, Mombasa and Mogadishu has continued to the present day, Gede was largely abandoned by the early 17<sup>th</sup> century. The ruins of the site lie within a forest preserve located just east of the modern town of (also named) Gede (Deady 2014).

James Kirkman excavated at Gede between 1948 and 1958, in the first systematic archaeological project on the coast of East Africa (Kirkman 1974). Gede was the life work of Kirkman (Kirkman 1954, 1960, 1963, 1964, 1974 1975), and he argued that the site was built by a “sub-Arab” culture that settled the coast in great numbers from the 11<sup>th</sup> to 15<sup>th</sup> centuries AD, a view that has been largely refuted and critiqued by post-colonial scholars (Chami 1998; Horton and Middleton 2000). Since then, the site was also surveyed by Mohammed Mchulla in 1998 leading to a better understanding of the area outside the main enclosure (Pradines 2004: 111). Next, Stéphane Pradines excavated an additional mosque and



**Figure 1:** Gede regional context. Light gray canvas map. Sources: Esri, DeLorme, HERE, MapmyIndia. Maps throughout this paper were created using ArcGIS® software by Esri. ArcGIS® and ArcMap™ are the intellectual property of Esri and are used herein under license. Copyright © Esri. All rights reserved. For more information about Esri® software, please visit [www.esri.com](http://www.esri.com).

other parts within the inner wall between 1999-2003, resulting in a better understanding of the chronology of the site and the development of its Islamic architecture (Pradines 2004, 2010). The most recent work at Gede (Koplin and LaViolette 2008; Pawlowicz forthcoming) has investigated the areas between the inner and outer walls to search for neighborhoods of earth-and-thatch houses in the non-elite spaces around the central stonetown.

### Monumental Site Survey at Gede

Gede’s traditional site boundaries are based on a “monumental site” survey model, wherein there is the assumption “...that the archaeological population consists of a set of discrete “sites” or “monuments” that are quite obvious on the modern surface” (Banning 2002: 13). This is one of the oldest paradigms in archaeological survey, so it is unsurprising that Gede, with its long history of excavation,

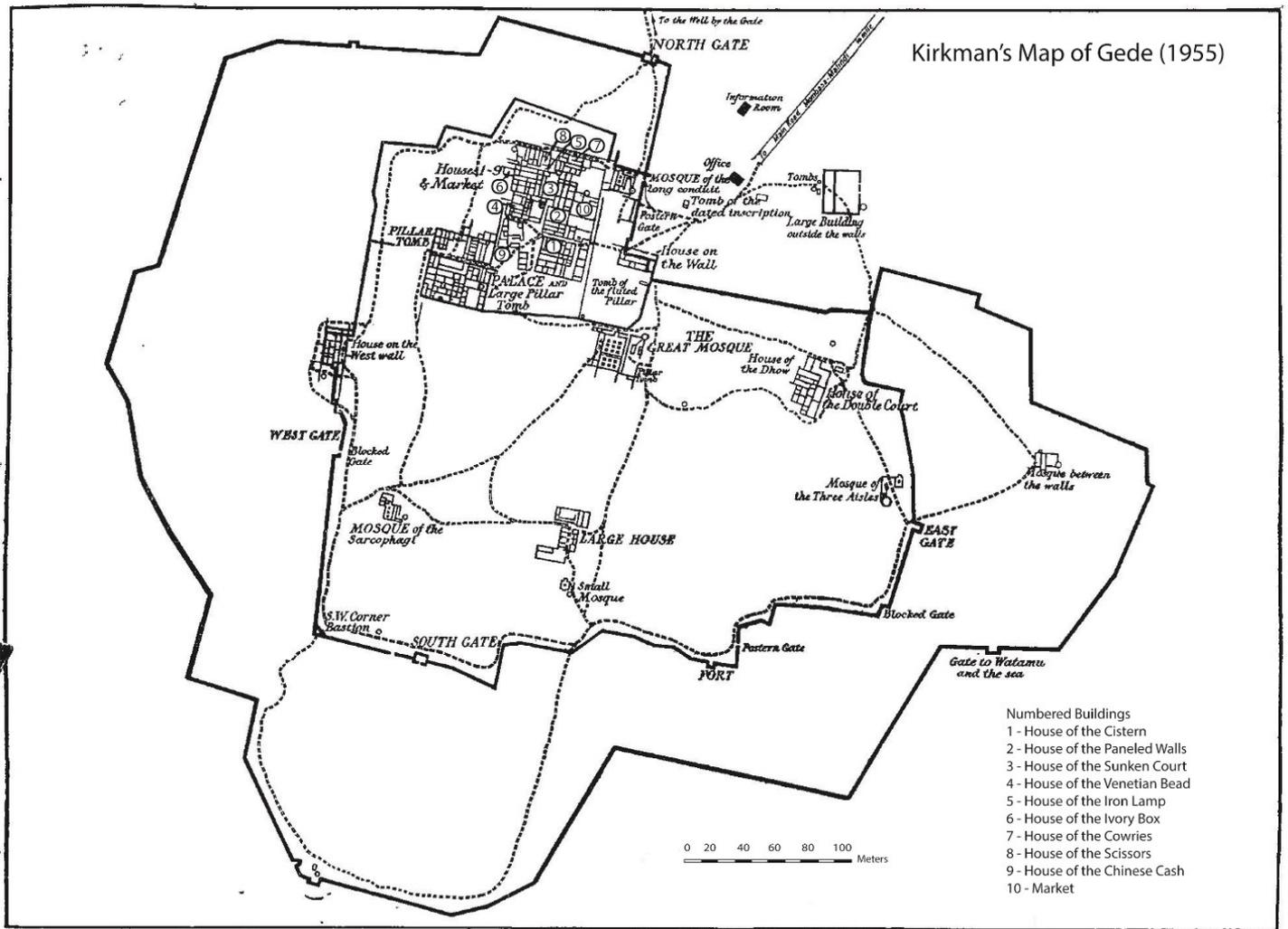


Figure 2: Map of Gede, from “The Arab City of Gedi” (Kirkman 1955).

was conceived in this way (e.g., Kirkman 1974). Monumental site survey meshed well with colonial research assumptions about mass migration and diffusion to East Africa from the Middle East during the 1<sup>st</sup> and 2<sup>nd</sup> millennia AD (e.g., Chittick 1965; Kirkman 1964), wherein stone monumental architecture was seen to index a foreign colonial group of Arab or Persian origin.

In the post-colonial period, interpretations at Gede have generally moved away from a monumental survey design (Horton and Middleton 2000; Koplin and LaViolette 2008; Pawlowicz forthcoming; Pradines 2004, 2010; Wilson 1982). Wilson mentions the possibility of a large rural hinterland supporting the inhabitants of Gede (Wilson 1982: 215),

and Pradines also describes the possibility of a wider archaeological landscape, noting the existence of four different smaller sites in the bay at Mida Creek that are contemporary with Gede’s main phase of occupation (Pradines 2010: 22). Other recent work has focused explicitly on ‘non-elite’ areas not necessarily related to the monumental center of Gede (Koplin and LaViolette 2008; Pawlowicz forthcoming).

Building on these suggestions of habitation outside the main stone areas of Gede, this project designed an archaeological walking survey to assess potential areas for further research beyond the walls of Gede. The interpretations build on recent work by Pradines, and his suggestion that the northern areas of the site might have been an earlier locus of occu-

pation (Pradines 2004: 245, 2010: 197) This survey also builds on Koplín and LaViolette's recognition that occupation at Gede extended beyond the stone architecture that is immediately apparent (Koplín and LaViolette 2008), as well as on understandings of the spatial organization of activity areas described in Koplín's data (Pawlowicz forthcoming).

## Materials and Methods

Through a judgmental walking survey of areas inside and outside the walls of Gede, this project tested whether material traces of occupation at Gede extend beyond the traditional boundaries of the site. Archaeological prospection at Gede qualitatively assessed the archaeological landscapes outside the central area using a purposive, non-representative presence/absence survey methodology (Banning 2002) in which surface finds were recorded spatially and photographed *in situ* but not collected. The survey employed here is also known as archaeological prospection, or purposive survey. The goal of prospection is "...to discover particular kinds of archaeological materials or sites, including ...evidence that can help to evaluate a specific hypothesis, rather than to estimate parameters of a more general archaeological population" (Banning 2002: 133).

While purposive prospection does not produce generalizable results, it is well-suited for archaeological research questions like this one where the goal is to determine whether archaeological traces exist in very specific locations. Specifically, the goal of this project was to investigate areas where future research in the form of systematic shovel test pit survey or excavation might shed light on the relationships between Gede and the surrounding rural areas. This method proved to be a useful technique given the limitations of access, obtrusiveness, time, manpower, and equipment that would have stymied an attempt to do systematic survey. This led to the collection of data far beyond the traditional site boundaries of Gede and toward a consideration of the site as a larger place with boundaries and spheres of interaction that are yet to be defined.

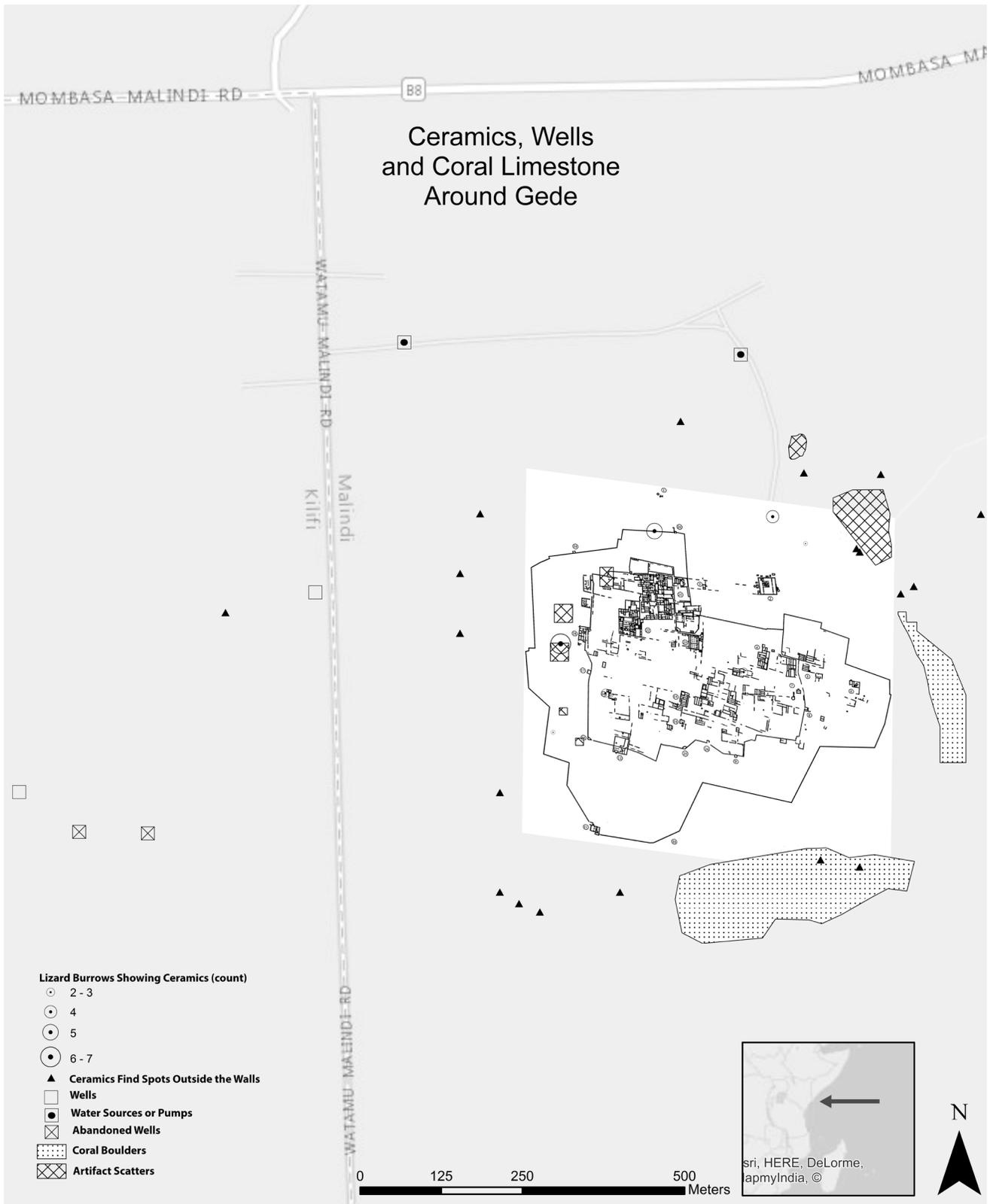
## Results and Discussion

The following findings in different archaeological areas outside and beyond the walls of Gede (Figure 3) demonstrate potential areas for future research outside of Gede's stone architecture. While this survey noted coral rubble and standing architectural features not present on Kirkman's maps, these features are likely accounted for in Pradine's research (Pradines 2004, 2010) and so they are not discussed here. Another find, the presence of archaeological materials in great density in the northern and northeastern parts of the site, possibly accords with Pradine's suggestion of earlier (and therefore perhaps denser) occupation to the north. These findings are discussed briefly. Two other features are of note: 1) the wells to the west of the site, some currently in use but others abandoned and possibly dating to an early period; and 2) the large amount of large unworked coral boulders around the east and south of the site. These last two findings will be discussed in more detail here, and their implications for landscape history will be discussed in the conclusion.

Findings include:

*Surface Ceramics.* Surface ceramics were located in many areas around Gede (Figure 3). A findspot was considered an area with 1 to 10 ceramics, though many findspots include just one or two pieces. An artifact scatter was considered any area with an uncountable amount of ceramics covering the surface. Ceramics were photographed and located with GPS but not collected. Most are plain body sherds, ranging in size from 1 to 10cm at the widest point. Ceramics could not be quantified or identified by the author in the timespan of the project, but their presence in areas both within and outside the stone walls of Gede unassociated with coral stone architecture indicates the potential for uncovering evidence of non-elite occupation contemporary with the occupation of the site.

*Sub-Surface Ceramics.* In several areas between the inner and outer walls and outside the outer walls, burrowing lizards (possibly *Varanus niloticus*)



**Figure 3:** Gede survey results: Wells, ceramic findspots, shell, artifact scatters, coral rubble, and unworked coral. The site plan of Gede is from Pradines (2004: 119).

have exposed large amounts of subsurface ceramic material that might have otherwise been invisible. These findings give some indication of the density of ceramic remains not visible from the surface. Surveys also recorded burrows *without* any ceramic remains, indicating that the whole area was not uniformly inhabited but that there were certain areas with dense habitation.

Ceramics from lizard burrows were mostly found in the north and northeast of the site, between the inner and outer walls and also outside the outer walls (Figure 3). It is likely that burrow location is determined by the relative lack of conservation attention in these areas—while there may be large amounts of subsurface ceramics within the inner wall, these are not exposed by burrows since the grounds are constantly maintained and walked over by visitors and park staff. Ceramics exposed by a quarry pit were also found in the northeast of the site, beyond the outer wall and outside the forest preserve, near a large artifact scatter of ceramics on the surface. This suggests that surface ceramics found elsewhere might also be associated with subsurface deposits.

*Artifact Scatters.* Artifact scatters are defined by areas where an uncountable amount of ceramics covered a large area. Three artifact scatters were located to the east between the inner and outer walls of the site (Figure 3). To the northeast of the site outside the walls, one artifact scatter extended into dense brush and could not be completely surveyed. Within this scatter was a recently-dug pit providing a glimpse of ceramics in a stratigraphic section. Just south of this scatter was an even larger artifact scatter containing hundreds of ceramics in a fallow field (Figure 3). Among these ceramics, the author found a sherd of Chinese porcelain, an incised ceramics sherd, a piece of iron slag, and coral rubble. The large amount of archaeological activity in the north outside the walls, visible from the surface and from sub-surface, lizard-disturbed ceramics, possibly corroborates the suggestion by Pradines that the north of the site was the area of earliest development (Pradines 2004: 245, 2010: 197). Research by Koplín (Koplín and LaViolette 2008) and Pawłowicz (Pawłowicz forthcoming) will continue to delineate

these occupations and build on the work by Pradines. LaViolette and Fleisher's investigation of Tumbé on Pemba Island shows that evidence for earth-and-thatch settlement is not often visible from the surface, and it suggests that there may have been many areas on the East African coast with dense settlements of earth-and-thatch dwellings that are yet to be discovered (LaViolette and Fleisher 2009: 445). The aforementioned burrows dug by monitor lizards that live around Gede have turned up huge quantities of ceramics from deep in the ground, in areas that show no evidence for surface architecture. These areas strongly suggest the possible richness of subsurface archaeological deposits in the areas outside the walls of Gede, especially in the northern and northeastern parts of the site.

*Wells.* Circular, low-walled wells built from coral-rag limestone were found in several areas to the west of the site, a half kilometer to a kilometer from the central stonetown. One is in use today, while two others were said to be abandoned and are partially covered with vegetation (Figure 4). In addition, several other wells and water sources were documented inside the inner wall and in between the inner and outer walls of the site, and two more wells were mentioned by a farmer to exist to the east of the site although these were never visited and do not appear on the map (Figure 3). A comparison between the abandoned two wells west of Gede and the wells inside the walls suggests that they are similar in size and construction, both being made from coral rag and cemented with lime mortar (Figure 4). Further investigations are needed to confirm the age of these wells, but they possibly suggest that occupation contemporary to Gede extended out into the surrounding agricultural landscape. It is yet to be established whether these wells are archaeologically significant for the period of Gede's occupation, or whether certain types of well construction are diagnostic of specific time periods. The agricultural landscape to the west of the site may be an area for future research.

*Coral Rag Limestone Boulders.* Coral stones are present in many areas around Gede, but to the east and south there are exceptionally dense concentrations. To the east, these boulders were visible off



**Figure 4:** One of the abandoned wells to the west of Gede. The other well is under dense brush and not easily photographed.

the path by the forest preserve, while to the south they were visible in a fallow field, and their white appearance can be seen in satellite imagery. Given that local people today dig coral stones out of the ground to use in building their earth-and-thatch houses, it is possible that these sources of coral stone might have also been quarried for the construction of the stone buildings at Gede. While intricate decorative features for mihrabs and doorways were made from living *porites*, coral that was most likely cut from reefs near Watamu or Malindi (the closest coastal settlements contemporary with Gede), the majority of the buildings at Gede are made from rough coral rag limestone that may have been dug from the ground nearby. An area for future research would be the pro-

cess of coral building construction starting from the acquisition and transportation of raw materials, and the relationship between Gede's stone constructions and the large fields of unworked coral boulders to the south and east of the site. While the acquisition of living *porites* coral would have certainly required the transportation of materials from at least several kilometers (from the coast), it remains to be seen whether the fossilized coral limestone bricks used for most of the construction at Gede was brought from afar, or acquired locally from bedrock outcrops. Further research might clarify how common it is to find coral rag limestone six kilometers from the coast, and whether the availability of local coral might have influenced the ability of local people at Gede to build

in stone beyond the immediate littoral area where most other stone-built sites are located.

Finally, Pradines describes the possibility of a larger landscape of settlement that would have incorporated Gede into wider regional agricultural and village economies (Pradines 2010: 22). Though this would have been an agricultural economy, the Arabuko Sokoke forest and the mangroves of Mida Creek should be considered as likely areas for supplemental economic and subsistence practices. The large Arabuko Sokoke forest may have supplied timber for charcoal burning, lime burning (Horton 1996: 29), construction, or even export. It could also have been a place for subsistence hunting, a practice that continues today (Fitzgibbon *et al.* 1995), or even possibly for the procurement of ivory from elephants. To the west, Mida Creek has several stone mosques scattered through the mangroves that would have been contemporary with Gede, and it is likely that people in the past fished in the mangroves as they do today.

### **Conclusion – Toward a Landscape History of Gede**

In describing a landscape history approach, Morrison argues for a consideration of, "...the untidy space of the archaeological landscape, where structures, features and places 'out of time' constantly impinge on one another in ways that standard field practices tend to elide" (Morrison 2013: 4). These field practices, in particular, are those having to do with periodization—a practice that is important for archaeological reconstruction but that may also have the effect of making archaeologists forget that things and places endure and act on the landscape, long after the period to which they are ascribed. Reorienting coastal East African archaeology toward a consideration of landscape history at a site like Gede would mean understanding how materials and places are never actually confined to a single time period, but rather persist materially. This reorientation would mean tracing how places and things were important in the past, but also the ways in which they remained important to local people long after the site's aban-

donment in the 17<sup>th</sup> century and in the present day. Though the two coral wells to the west of the site were abandoned at some point, one other has been maintained and is used by local people to draw water. Similarly, while the coral fields to the south and east of Gede may or may not have supplied building materials for the residents of the stone town from the 11<sup>th</sup> to 17<sup>th</sup> centuries, they certainly supply materials today for local Giriama people living around the site, who dig the coral stones out of the ground and use them in the construction of earthen houses. Furthermore, recent interviews by Deady (2014) have shed considerable light on the relationship between local Giriama peoples and the ruins themselves, highlighting the ways that Giriama people have interacted with, maintained, and also been politically and spatially excluded from the ruins over the last hundred years or so. Landscape archaeology, and investigations into the oral histories of the people currently living in communities around Gede, might shed light on the material continuities and the "after-lives" of things and places around Gede, in the historical period from the final occupation of the town in the 17<sup>th</sup> century to the present day. This period is almost totally unknown archaeologically, and more generally, archaeological understandings of the ways that later coastal peoples related to the ruins of "classical" Swahili sites is relatively poorly understood (although see Wynne-Jones 2010). Archaeological research in the historical period on the East African coast might do considerably more to establish continuities between sites and local peoples living around them today.

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