

“Every afternoon at high tide the people flock to the public sand.
It is not a spot of great beauty, but tranquil nevertheless.
The sun greeting the white sands; the calm waters carrying the oil tanks.
It is here that we reminisce our Omani heritage...”
- Poem about the *Genus Loci* of Mtoni Palace by the Author (Author, 2013).

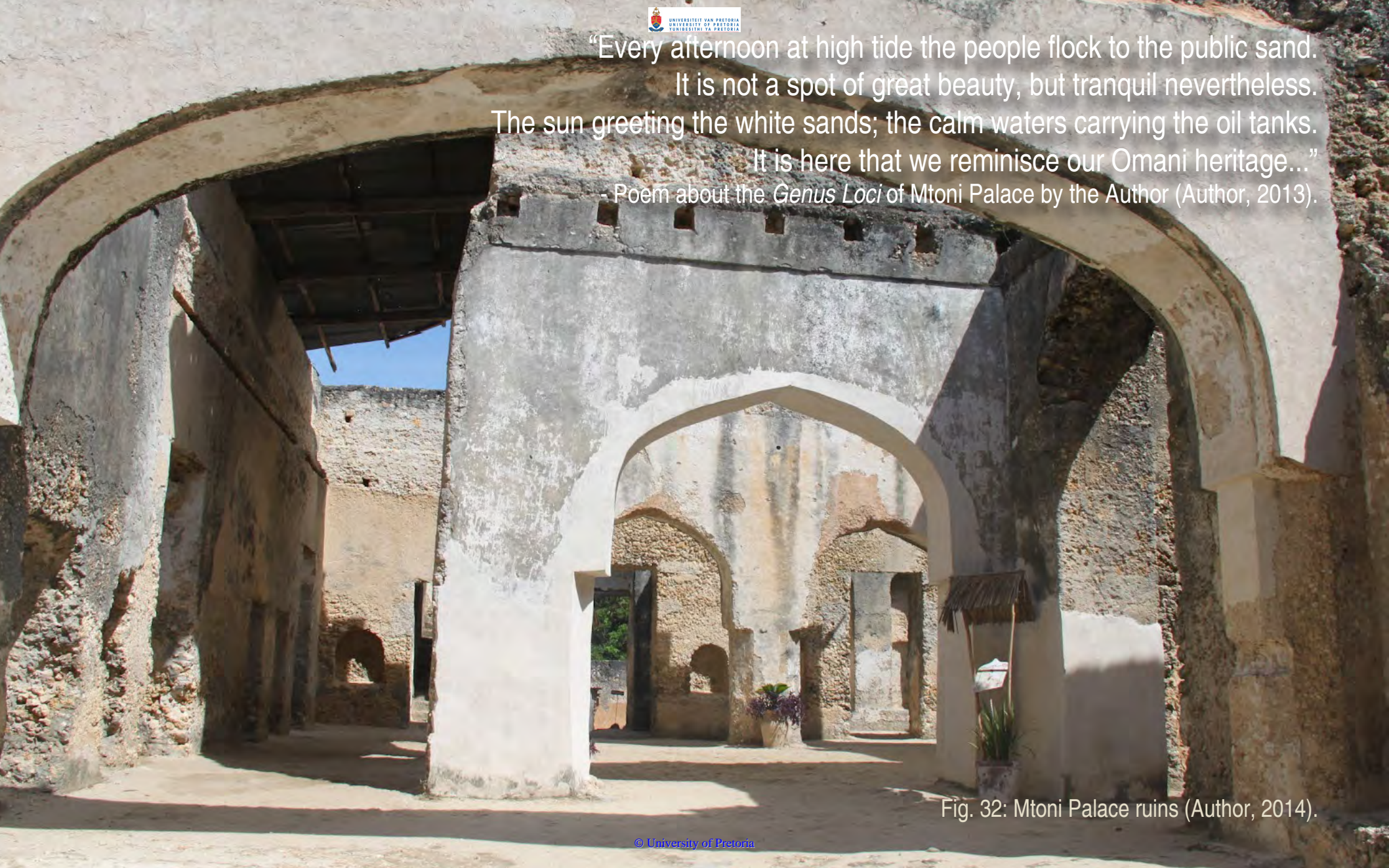


Fig. 32: Mtoni Palace ruins (Author, 2014).

5 SITE ANALYSIS

5.1. Introduction

Beit il Mtoni, today known as Mtoni Palace, was the seat of power during the first part of the 19th Century and home to Sultan Seyyid Said, emperor of mercantile East Africa and Imam of Muscat. It is here at Mtoni Palace that the first clove trees were planted on Zanzibar, one of the main trade resources of Zanzibar in the 19th Century.

Much of our understanding of Mtoni Palace comes from the memoirs of Emily Ruete. Emily Ruete was a princess of Zanzibar and daughter of Seyyid Said. She spent her first 7 years at Mtoni Palace as Sayyida Salme (Figure 33), and was one of the many daughters of Seyyid Said. She later fell in love with Rudolph Heinrich Ruete, a German merchant in Stone Town, and the couple eloped to Hamburg (Figure 34). Later in life she wrote *Memoirs of an Arabian Princess from Zanzibar*, a book that describes the daily life at Mtoni Palace in detail.



Fig.33: Sayyida Salme in traditional Omani clothing (Leiden University, 2010).



Fig.34: Portrait of Emily Ruete (Cambridge, 1888).

5.2. Development of Mtoni Palace

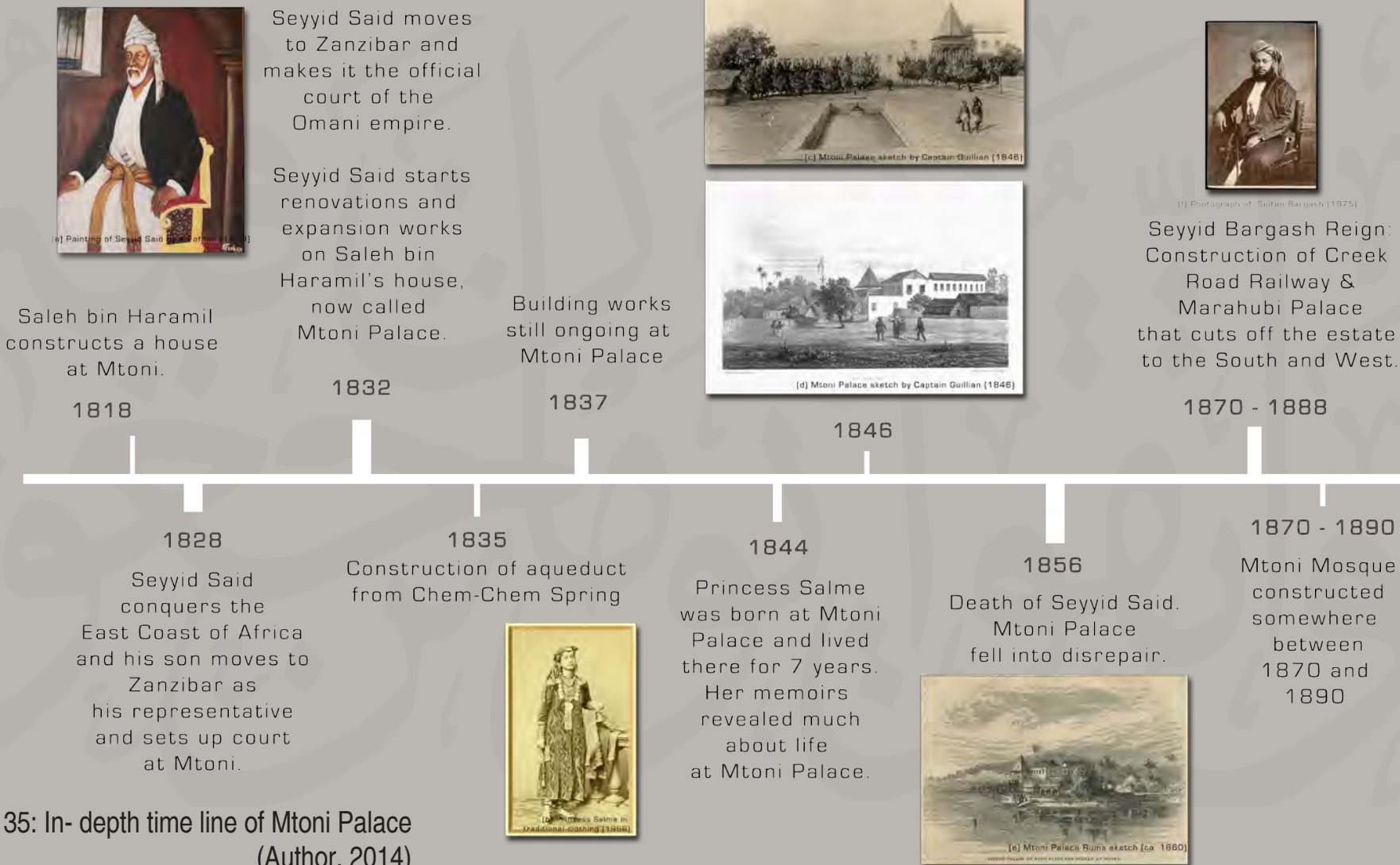


Fig. 35: In- depth time line of Mtoni Palace (Author, 2014)



Princess Salme visits Mtoni Palace and finds people still living there.

1885



Fuel Storage established at Mtoni Palace.

1914

Mtoni Palace listed as a National Monument

1957

Zanzibar Revolution: end of Arab ascendency

1964



Aerial photograph of Mtoni Palace with Mtoni Marine being constructed [1989]

Construction of Mtoni Marine started.

1989

1890

Zanzibar became a British Protectorate. Mtoni Palace completely deserted.

1916

Monopitch roof constructed over Northern courtyard.

1960

Mtoni Palace ruins used as a cement storage facility.

2005

Formal Public-Private Partnership between Government and Mtoni Marine.

1950's

Oil storage ceased at Mtoni Palace with new Bulk Storage facilities north of Mtoni Palace constructed.



Mtoni Palace under conservation of Mtoni Marine [2008]

Research, archeological excavations and restoration started at Mtoni Palace

5.3. *Site situation today*

Mtoni Palace is but a remnant of the home of the Royal Family it once gave shelter to. Figure 36 shows Mtoni Palace with Mtoni Marine and the bulk oil storage facilities bordering the site while Figure 37 indicates the various site elements. Figures 38 - 42 are photographs to aid the reader in understanding the site better.



Fig. 36 Aerial photograph of Mtoni Palace (Antoni Folkers, 2008).

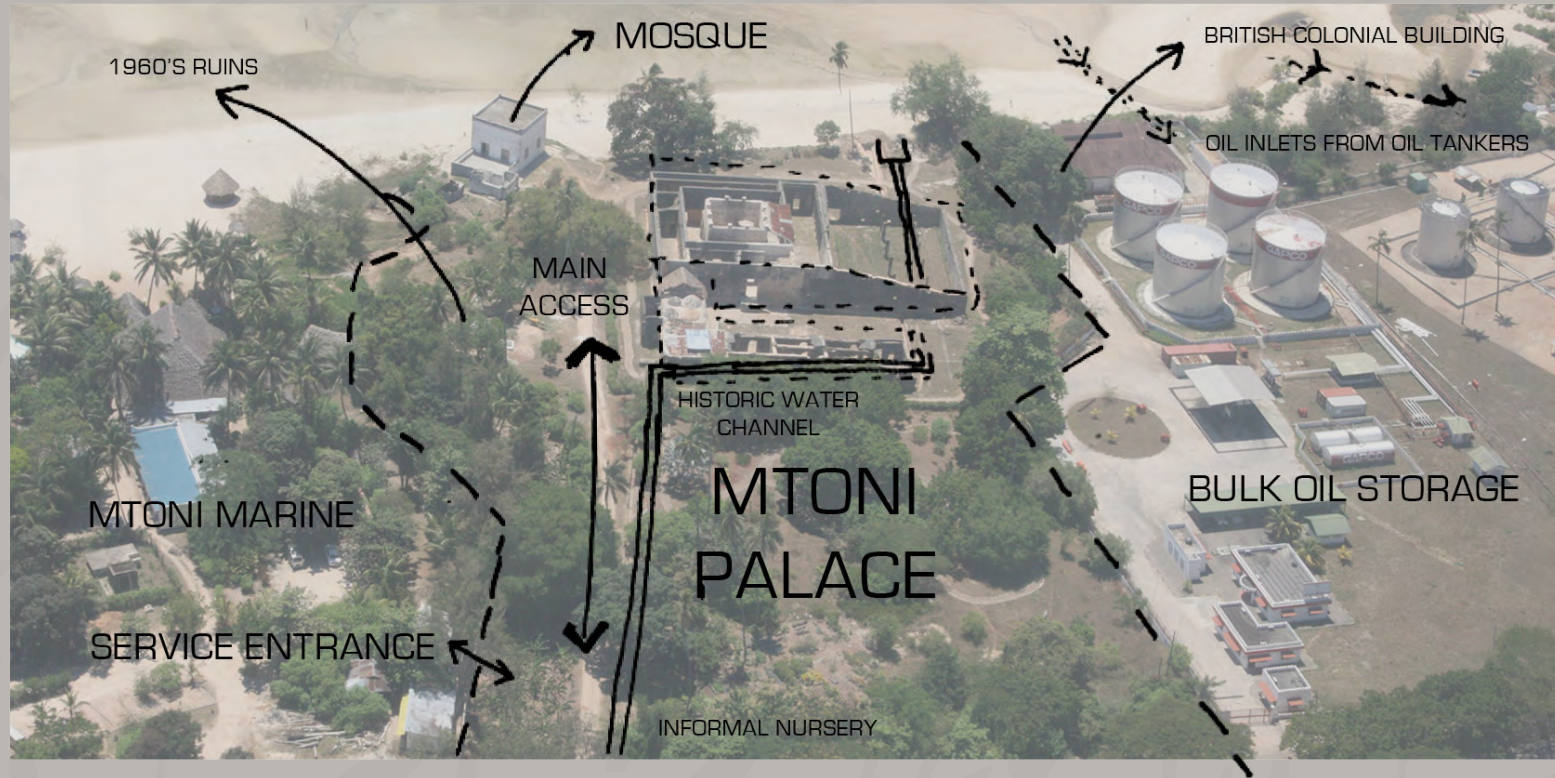
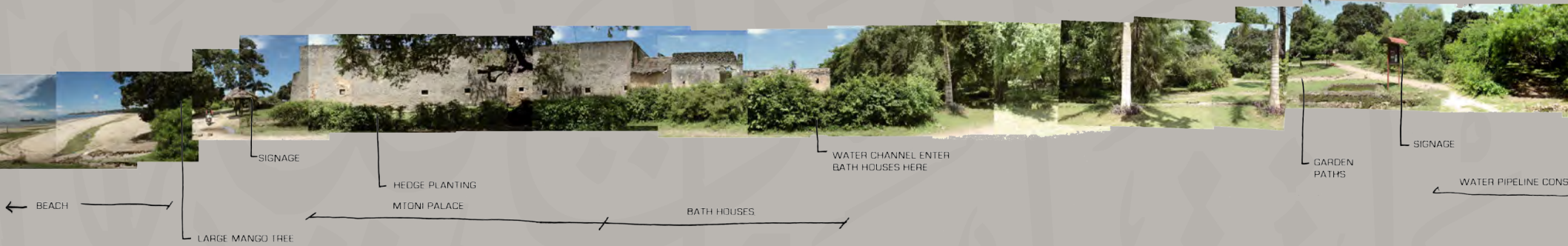


Fig. 37 Site situation of Mtoni Palace (Author, 2014).



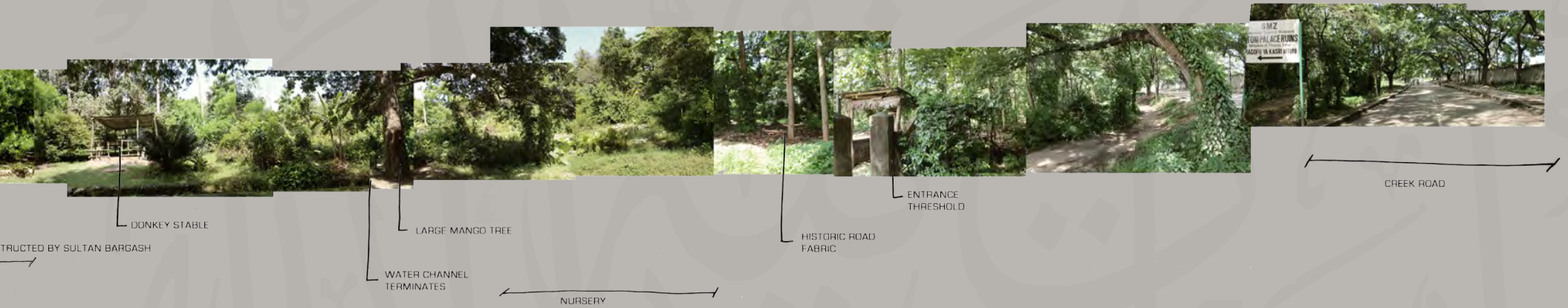


Fig. 38: Photographic site section of Mtoni Palace from West to East (Author, 2013).



Fig. 39: Panorama of the Mtoni surrounds from the beach (Author, 2013).





Fig. 40: Panorama of Mtoni Palace front landscape and beach (Author, 2013)



Fig. 41: Panorama of Creek Road South, Mtoni Palace grounds, Oil Storage and Creek Road North (Author, 2013)



Mosque (a)

Weddings (b)

Fishing (c)

Stable (d)

Multitude of activities (e)

Palace concerts (f)

Mosque (g)

Water channel (h)

Main access to beach (i)

Running (j)

Relaxing & Smoking (k)

Nursery (l)

Washing cars (m)

Swimming (n)

Museum (o)

Cattle training (p)

School tours (q)

Fig. 42: Current activities on site (Author, 2014).

Exercising (r)

Dinner (s)

Games (t)

Mtoni marine service gate (u)

Fashion Shows (v)

5.4. The built fabric of Mtoni Palace

Historically Mtoni Palace consisted of multiple buildings of various uses and shapes. Figure 43 indicates the situation in the 19th Century with Figures 44 & 45 showing three dimensional models of Mtoni Palace during the same period.

Figures 46 - 49 indicates the elevations of Mtoni Palace as proposed by TUDELFT with photographic comparison of the situation in 2007.

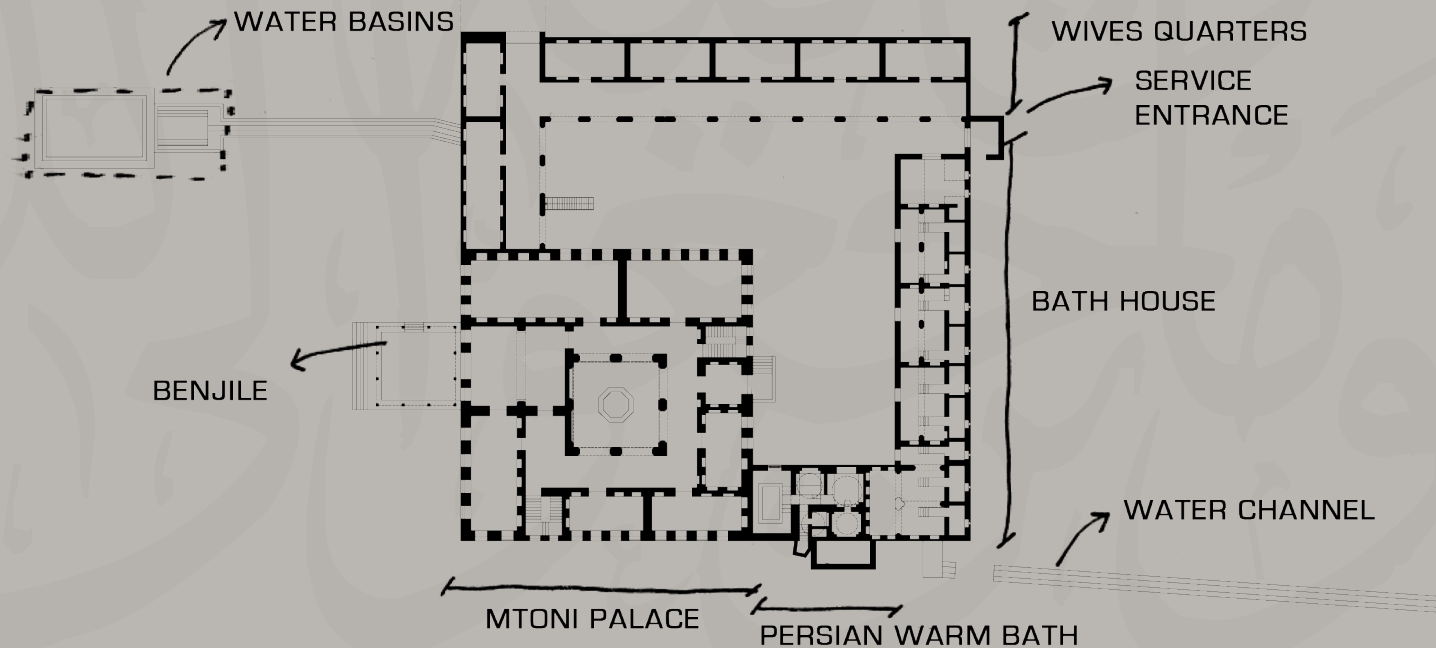


Fig.43: Plan of Mtoni Palace in the 19th Century (TUDELFT, 2007).



Fig. 44: Model of the front of Mtoni Palace in the 19th Century (FBW Architects, 2007).

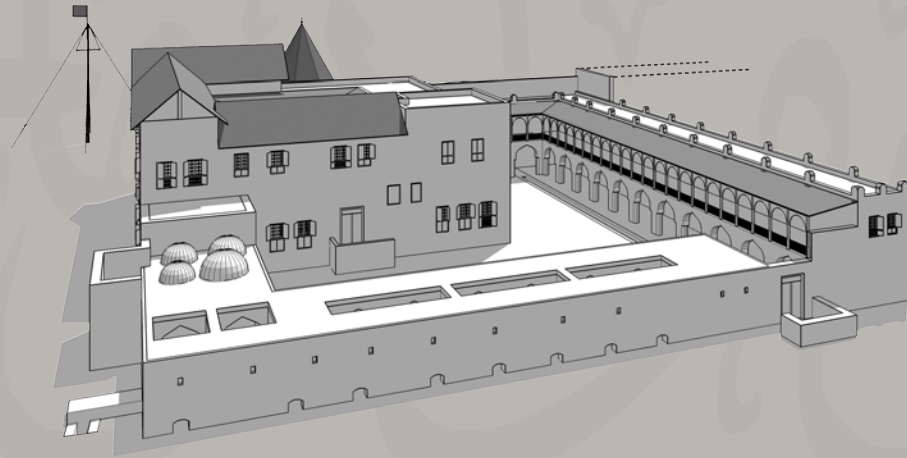


Fig. 45: Model of historical Mtoni Palace looking Westward (FBW Architects, 2007).

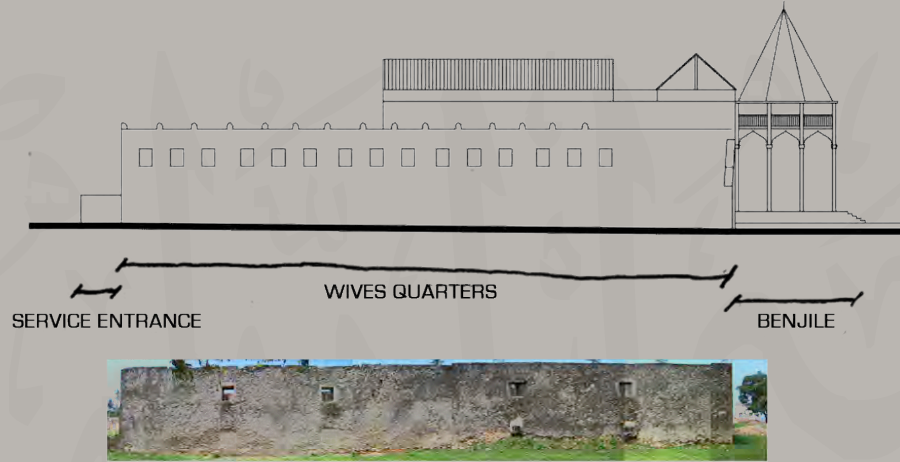


Fig. 46: North East elevation of Mtoni Palace (TUDELFT, 2007).

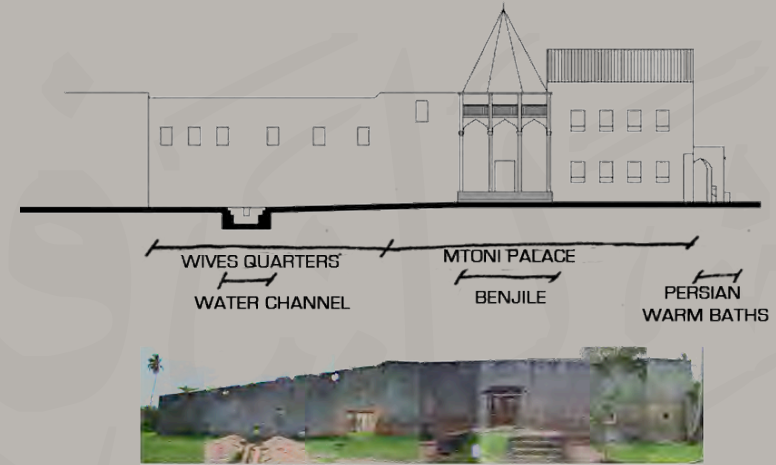


Fig. 47: North West elevation of Mtoni Palace (TUDELFT, 2007).

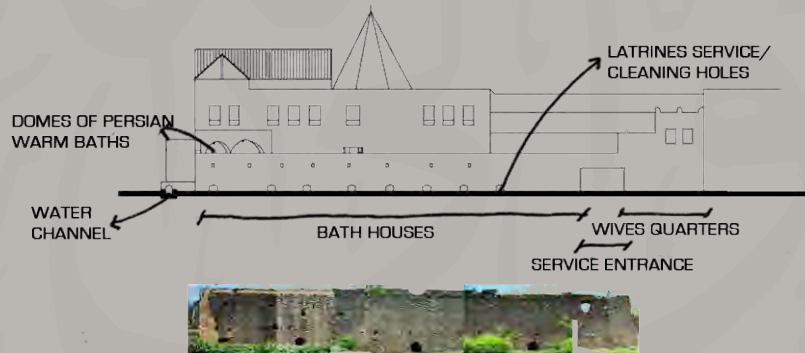


Fig. 48: South East elevation of Mtoni Palace (TUDELFT, 2007).

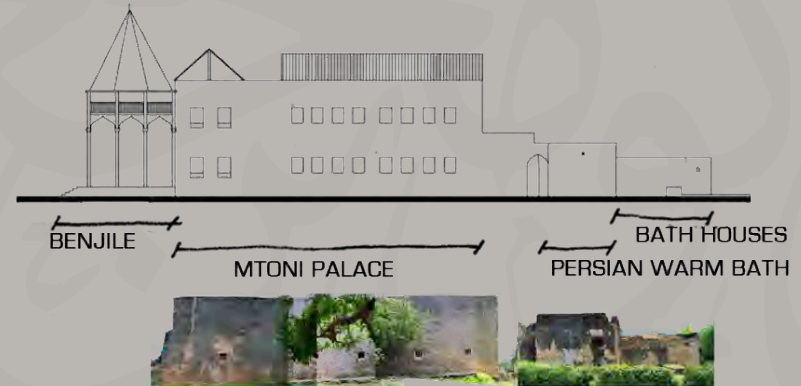
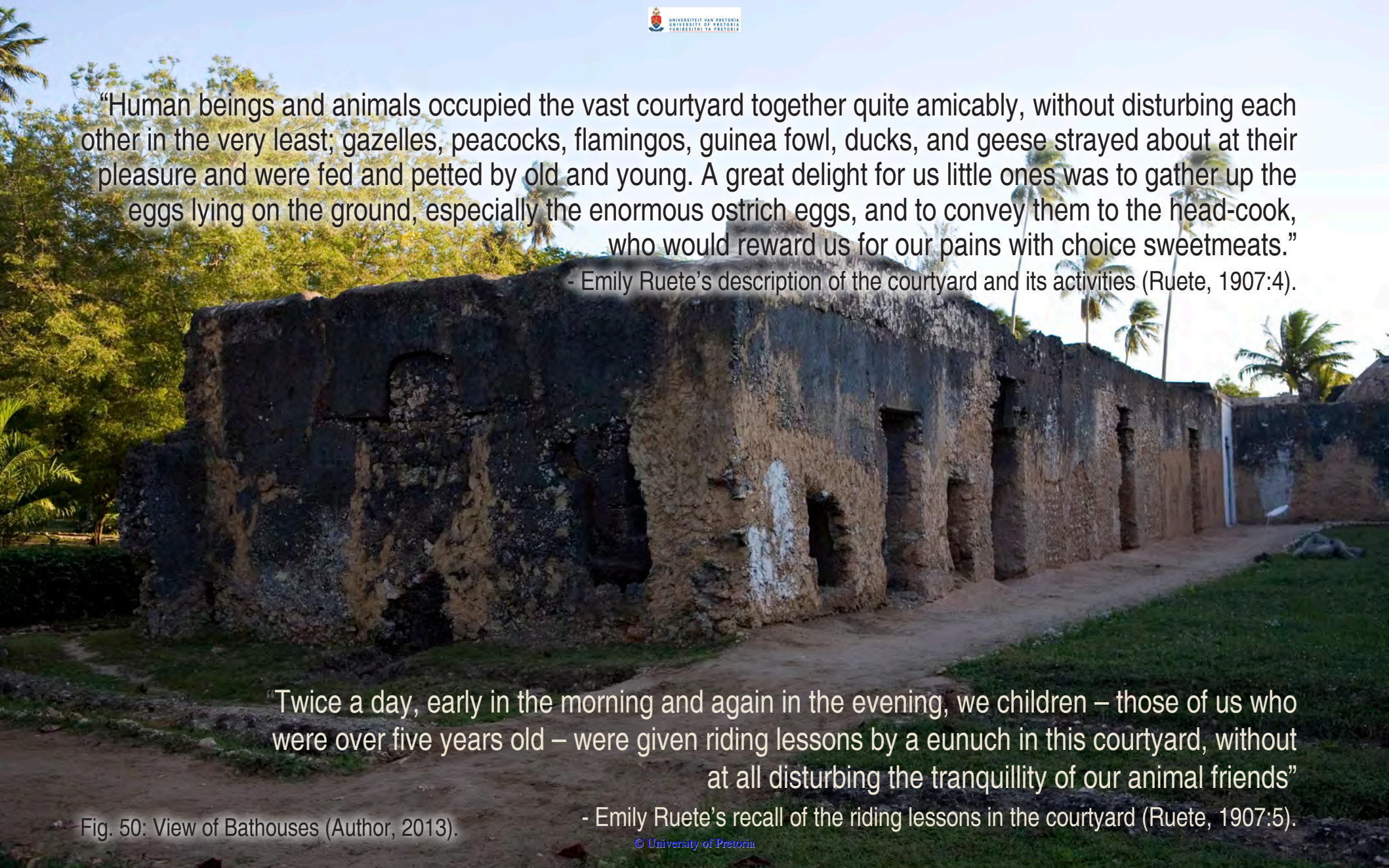


Fig. 49: South West elevation of Mtoni Palace (TUDELFT, 2007).

“Human beings and animals occupied the vast courtyard together quite amicably, without disturbing each other in the very least; gazelles, peacocks, flamingos, guinea fowl, ducks, and geese strayed about at their pleasure and were fed and petted by old and young. A great delight for us little ones was to gather up the eggs lying on the ground, especially the enormous ostrich eggs, and to convey them to the head-cook, who would reward us for our pains with choice sweetmeats.”
- Emily Ruete’s description of the courtyard and its activities (Ruete, 1907:4).



“Twice a day, early in the morning and again in the evening, we children – those of us who were over five years old – were given riding lessons by a eunuch in this courtyard, without at all disturbing the tranquillity of our animal friends”

- Emily Ruete’s recall of the riding lessons in the courtyard (Ruete, 1907:5).

Fig. 50: View of Bathouses (Author, 2013).

5.5. Open space

5.5.1. Historically

Historically there was a single courtyard (Figure 53 - 56) associated with Mtoni Palace. Ruete writes that:

“a single, spacious courtyard was allotted to the whole body of buildings that compose the palace, and in consequence of the variety of these structures, probably put up by degrees as necessity demanded, the general effect was repellent rather than attractive” (1907:3).

The open space in front of the Palace used to have a formal entrance. Two credible sketches (Figures 51 and 52) of Mtoni Palace indicate certain lines of movement, planting and fences. It was a formal, ceremonial approach lined with trees (Figure 55).



Fig. 51: View of Mtoni Palace (Guillain, 1846).



Fig. 52: View of Mtoni Palace from the West (Guillain, 1846).

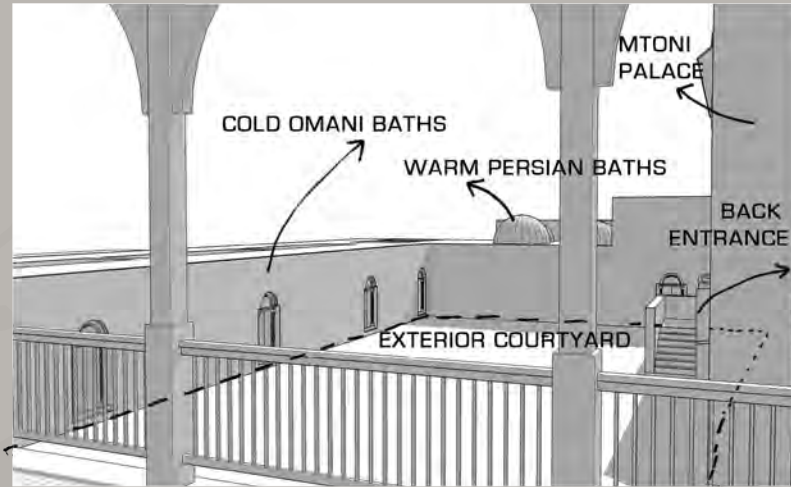


Fig.53: Model of the historical courtyard arrangement (FBW Architects, 2007).

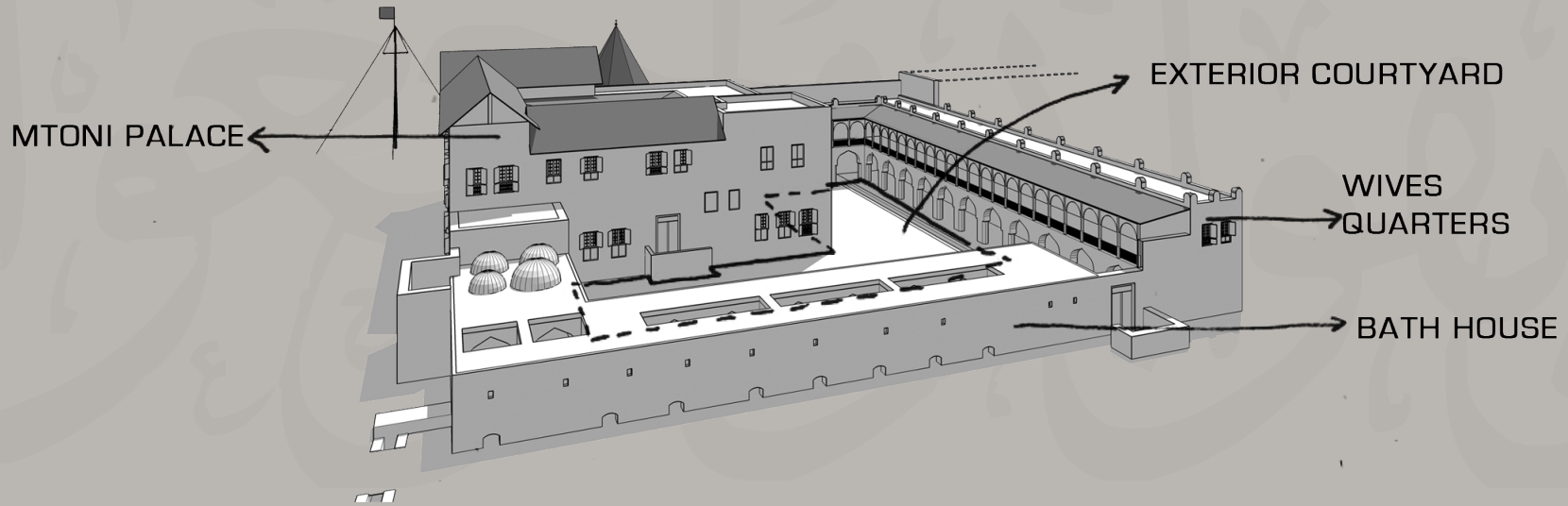


Fig. 54: Model indicating exterior courtyard of Mtoni Palace in the 19th Century (FBW Architects, 2007).

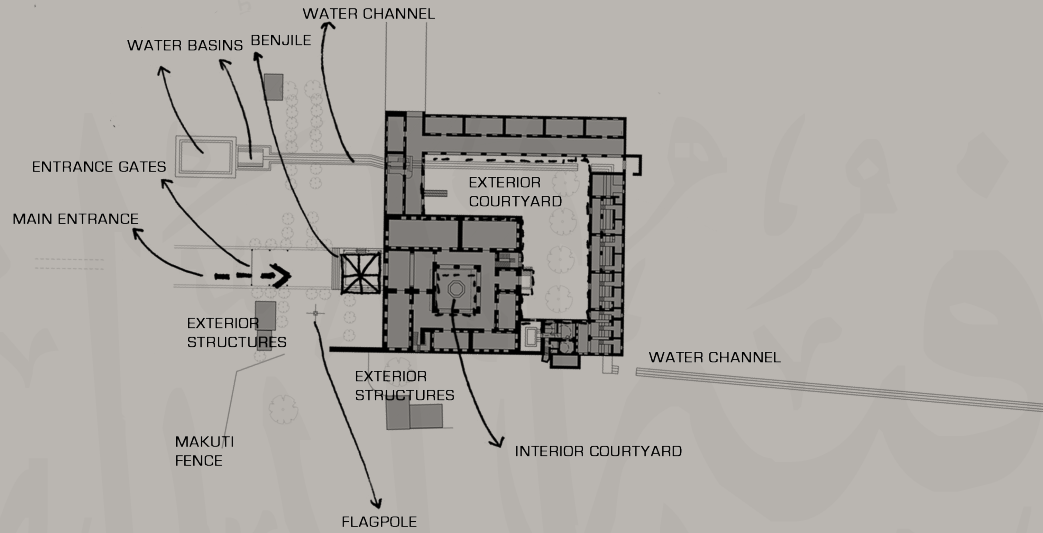


Fig. 55: Plan indicating the known open space arrangement during the 19th century (Author, 2014).

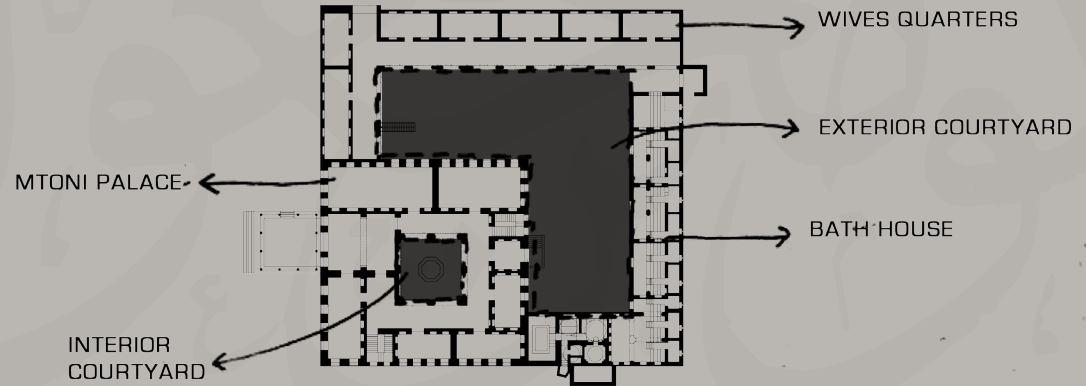


Fig. 56: Plan indicating the interior and exterior enclosed courtyards of Mtoni Palace (Author, 2014).

5.5.2. Open Space Status Quo

Today two separate courtyards exist as seen in Figure 54. In 1916 the wives quarters were partially demolished and a wall

erected to carry a monopitch roof for the storing of oil barrels (Figures 57 and 58).



Fig. 57: Axonometric view of Mtoni Palace (Antoni Folkers, 2008).



Fig. 58: Plan indicating current situation on the site (Author, 2014).



Fig. 59: Southern view of the courtyard showing the 1916 wall (Author, 2013).



Fig. 60: Northern view of the courtyard showing 1916 wall (Author, 2013).

5.6. Access to Mtoni Palace

5.6.1. Historically

During the time of Seyyid Said the main access to Mtoni Palace was by sea (Folkers et al., 2010:8), with a formal entrance to Mtoni Palace (Figure 61). In her *memoirs* Sayyida Salme describes that there were mere tracks to Stone Town and the streams were only passable on horseback or by using a donkey (Folkers et al., 2010:38).

John Studdy Leigh, who visited Seyyid Said at Mtoni Palace on several occasions, made a note on 25 June 1838 stating that “near the beach...there is a stone platform or jetty from the entrance” (Leigh & Kirkman, 1980:286).

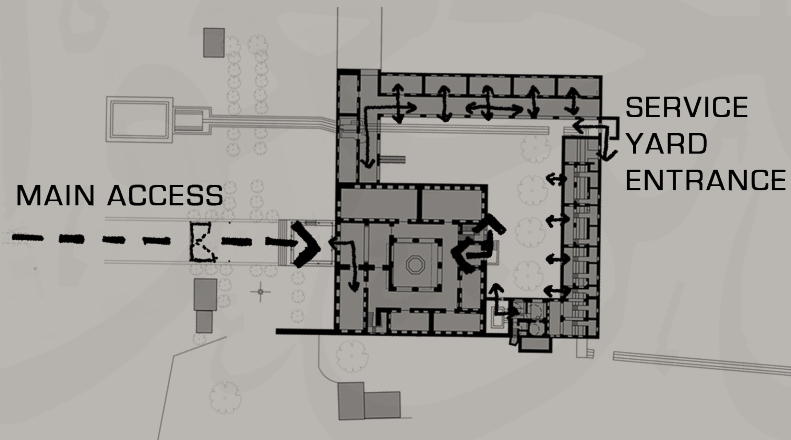


Fig. 61: Historic access diagram (Author, 2014).

“Opposite the benjile the warship *Il Ramahni* lay at anchor the year round, her purpose being to wake us up early by a discharge of cannon during the month of fasting, and to man the rowboats we so often employed. A tall mast was planted before the palace, intended for the hoisting of the signal flags that ordered the desired boats and sailors ashore” (Ruede, 1907:14).

Figure 62 was taken from the British Government Buildings many years after Seyyid Said’s death. It provides context about the port of Zanzibar up to the 1890’s, when ships still laid

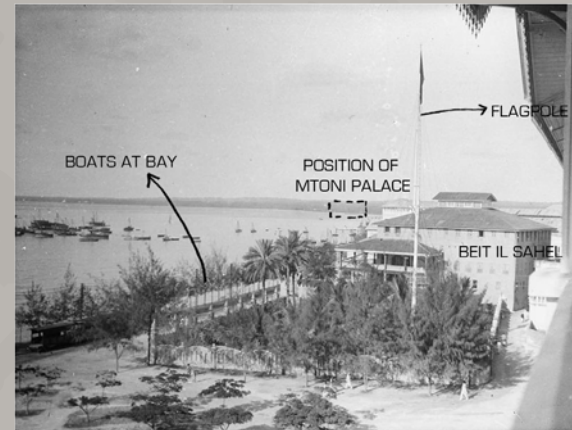


Fig. 62: Photograph of Beit el Sahel somewhere between 1914-1918 (Imperial War Museum, c1880).

out at sea as they would have during the reign of Seyyid Said. Figure 62 shows the flagpole at Beit el Sahel, Seyyid Said's town palace. Sayyida Salme writes of the signalling flagpole at Mtoni Palace. This would have been the case at Mtoni Palace during Seyyid Said's time as well.

The view from Mtoni Palace towards Stone Town was important as it gave Seyyid Said full view of the port of Stone Town, allowing him full knowledge of who arrived and left from Stone Town. The view today from Mtoni Palace can be seen in Figure 39.

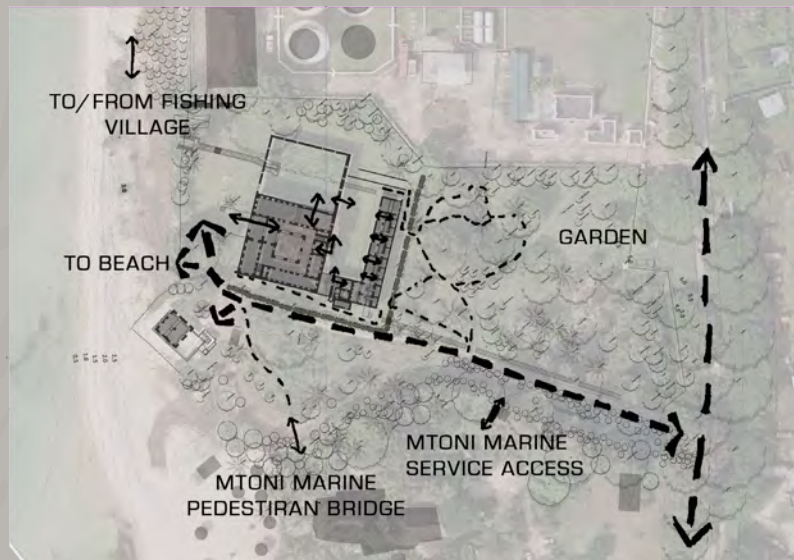


Fig. 63: Status quo access (Author, 2014).

5.6.2. Status Quo

Mtoni Palace is situated on the main North-South Road known as Creek Road. It is a single lane road in either direction and links Stone Town to Bububu and beyond. The main method of transport is public transport which is a Dala-Dala. Locals also make use of bicycles, donkeys or a scooter-taxi (Figure 65). Tourists prefer private taxis, even though they are expensive, because the taxis take them directly to their destination.

Occasionally a private car or taxi arrives at Mtoni Palace. Many of the users of the beach at Mtoni Palace arrive from the surrounding settlements by foot or by bicycle. Fishermen use wooden boats with electrical motors and sometimes the traditional *Dhow* - a wooden boat with an iconic sail that has been used for centuries on the East African coast.

Mtoni Marine built a bridge across the storm water channel (Figure 64) so that the guests have pedestrian access to Mtoni Palace for events. Figures 63 & 65 is a diagram indicating the access to Mtoni Palace today.



Fig. 64: Pedestrian bridge towards Mtoni Marine (Author, 2014).

Fig. 65: Status Quo access and mobility (Author, 2014).



From Mtoni Marina (a)



From beach (b)



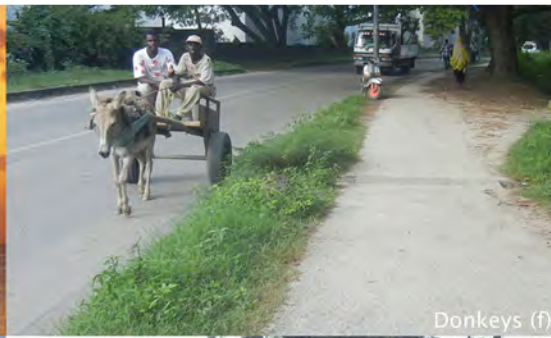
From Creek Road (c)



Into Mtoni Palace (d)



Dhows (e)



Donkeys (f)



Dala-Dala (g)



Bicycles (h)



Boats (i)



Cows (j)



Dala-Dala (k)



Vehicles (l)



Light cargo vehicle (m)



Taxis (n)



Boats (o)



Scoters (p)

5.7. Climate

Zanzibar is located at longitude 6°08'07.988"S and latitude 39°12'48.60"E and, therefore, experiences a tropical sub-humid climate dominated by a bimodal pattern of rainfall which is influenced by the prevailing monsoons (Figure 66).

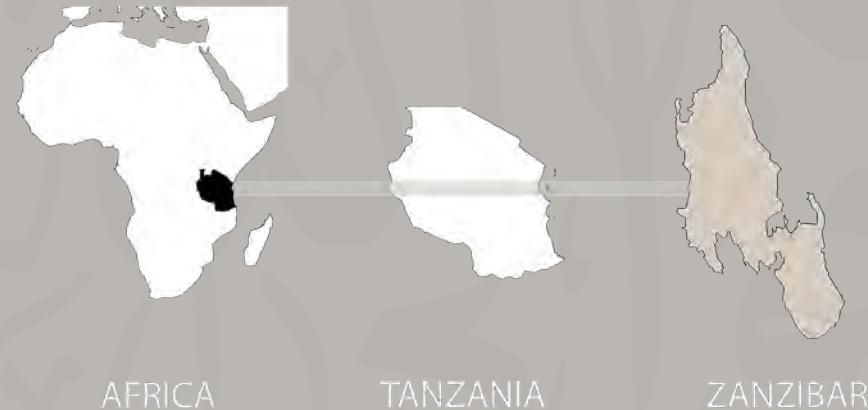


Fig. 66: Locality maps (Author, 2014).

Figure 67 shows the Northeast monsoon that brings hot and humid weather from November to February; while the Southeast monsoon brings much drier, cooler weather from June to September (Zanzibar: Commission of Agriculture, Research and Extension, 2005:1).



Fig. 67: Monsoons of the Indian Ocean (Aga Khan Trust for Culture, 1996).

Rainfall throughout Zanzibar varies within the range of 1000 - 2500 mm/yr. Mean annual rainfall for the island is 1700 mm. The Zanzibar climate is characterised by four distinct seasons:

Kaskazi: The hot, dry season from January - February, with little or no rainfall.

Masika: The long rains from March - May accounts for almost half of the annual total rainfall, and;

Mchoo: A relatively cool dry season, from June - September, when light showers may occur.

Vuli: The short rains from October - December, with the most rainfall in mid November.

The average temperatures for Zanzibar are in the mid 20 degrees Celsius (Table 1). This provides a year-round warm climate, which tourists are looking for.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
Temp in C	27	27	27	26	26	25	24	24	25	25	26	27
Rain in mm	76	76	127	381	254	51	51	51	51	76	228	152
Days of Rain	7	6	12	19	14	4	5	6	6	7	14	12

Table 1. Average Temperatures of Zanzibar (Mercer, 2009:11).

5.8. Topography

Zanzibar is 85 km long and 25 km wide ‘across the waist’. It is split into two parts by central high ground running North-South. Ungunja is geologically still part of the Mainland Africa (Mecer, 2009:8) and the Zanzibar Channel varies only 20 - 60 m in depth. It has several broad ridges in the West and North West. Its highest point is only 120 m above sea level with two thirds of the island low-lying (Figure 68).

The Eastern side of Zanzibar consists of exposed coral and is much more arid, whereas the Western side of the island is made up of fertile soil and is, therefore, densely vegetated (Mercer 2009: 9).



Fig. 68 :Topographical map of East coast of Zanzibar (Zanzibar Archives, 2013).

5.9. Hydrology

In arid Oman the supply of water is a living necessity and is also used for the extensive bathing culture. Water is central to the planning of gardens and landscape in the Islamic culture (Folkers et al., 2010:43). Even though Zanzibar has an abundance of water, the landscape at Mtoni Palace still has a formal arrangement and it is, therefore, assumed that the ceremonial significance was passed on from Oman to Zanzibar (Folkers et al., 2010:44).

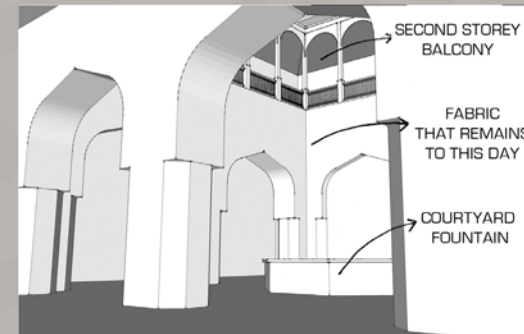


Fig. 69: Interior courtyard fountain (FBW Architects, 2007).

Initially Mtoni Palace was supplied with fresh drinking water by a well situated in the main court of the palace. The construction of an aqueduct from the Chem-Chem spring in 1835 extended the water reticulation into a more elaborate system with bathhouses and water features.

Historically it would have worked as per Figure 70 with the channel as per Figure 72.

Most of the water reticulation system is still intact to this day and Figure 71 clearly shows the historic water channel.



Fig. 71: Original aqueduct fabric still visible on site (Author, 2013).



Fig. 70: Historic Water Reticulation in context (Author, 2014).

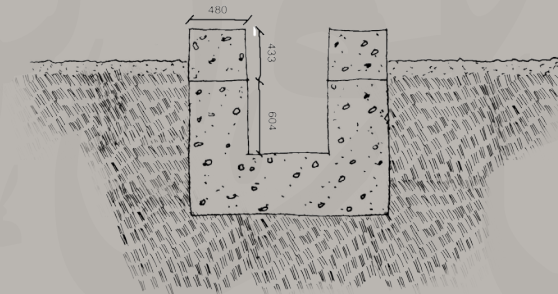
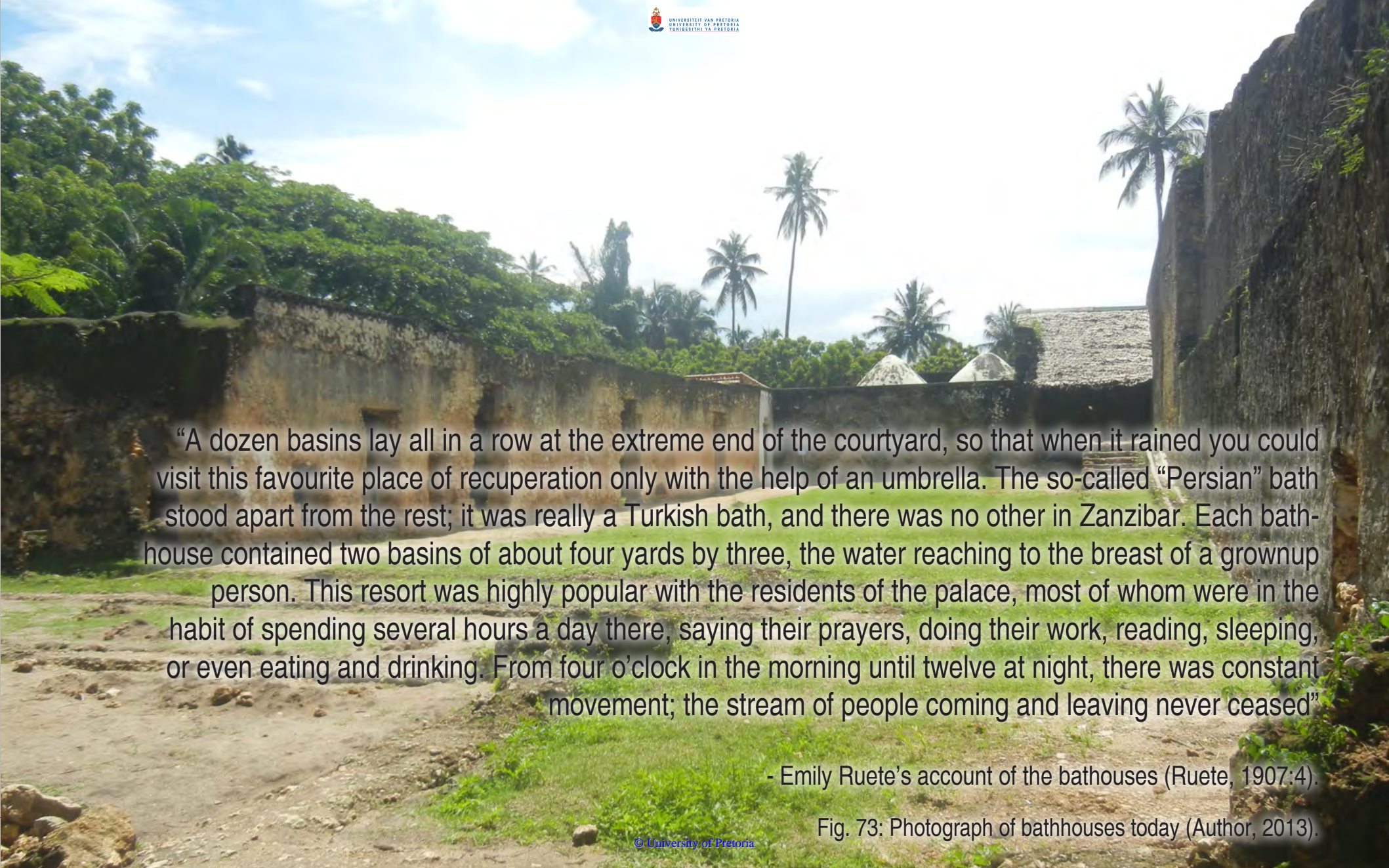


Fig. 72: Historic Water channel detail (Author, 2014).



“A dozen basins lay all in a row at the extreme end of the courtyard, so that when it rained you could visit this favourite place of recuperation only with the help of an umbrella. The so-called “Persian” bath stood apart from the rest; it was really a Turkish bath, and there was no other in Zanzibar. Each bathhouse contained two basins of about four yards by three, the water reaching to the breast of a grownup person. This resort was highly popular with the residents of the palace, most of whom were in the habit of spending several hours a day there, saying their prayers, doing their work, reading, sleeping, or even eating and drinking. From four o’clock in the morning until twelve at night, there was constant movement; the stream of people coming and leaving never ceased”

- Emily Ruete’s account of the bathhouses (Ruete, 1907:4).

Fig. 73: Photograph of bathhouses today (Author, 2013).

The aqueduct ran through the bathhouse. All the rooms were built on the same plan and were laid with finely woven matting, for praying and resting on.

Narrow colonnades ran between the platforms and the basins, which were open to the sky. Arched stone bridges and steps led to anterior rooms that were used as lavatories.



Fig. 74: The Bathhouses (Author, 2013).

In 1872 Sultan Bargash built a water pipeline from Bububu Spring to Stone Town (Figure 75). The layout of the pipeline went through the Mtoni Palace grounds (Figure 76).

In order to construct the pipeline, a 2m piece of the historic aqueduct was broken and can be seen in Figure 77

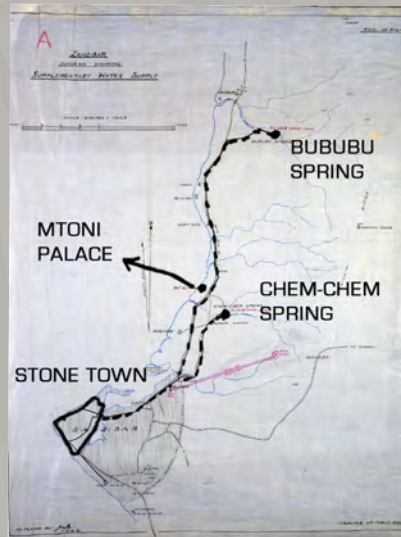


Fig. 75: Sultan Bargash pipeline construction (Kew National Archives, 2010).

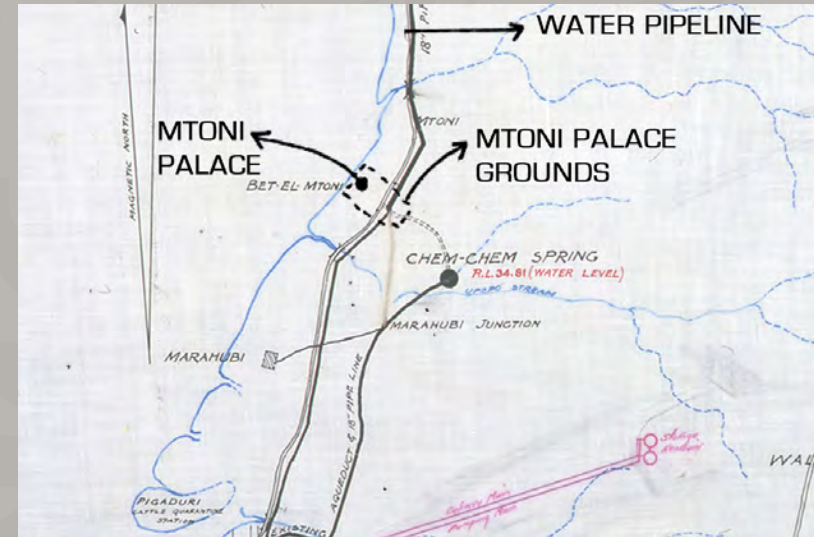


Fig. 76: Pipeline in Mtoni Palace grounds (Kew National Archives, 2010).



Fig. 77: Photograph showing the break in the historic aqueduct (Author, 2013).

Beach erosion

Figure 78 is a historic sketch of Mtoni Palace that shows there was a large water feature with two basins in front of Mtoni Palace.

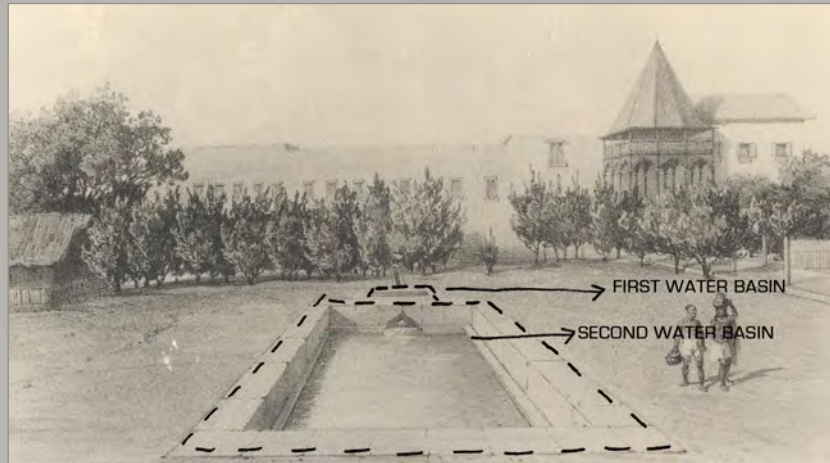


Fig. 78: Historic sketch of landscape with the water basins (Guillain, 1846).

This photographic comparison clearly shows that the first basin still remains partially and the second basin no longer exists. It can therefore be deduced that the land in front of the palace was much larger in the 19th Century, and that significant erosion has taken place. This has cut the shoreline back, moving it closer to Mtoni Palace.

Figure 79 clearly shows the current extent of the water basin and the erosion of the beach in front of Mtoni Palace.



Fig. 79: Status quo of the water basin (Author, 2013).

5.10. Vegetation

Even though no historical vegetation remains today, there are multiple accounts that provide clues to the atmosphere and planting at Mtoni Palace during the time that Seyyid Said resided there.

Leigh & Kirkman writes: “It is an old, but picturesque building, beautifully ornamented in the Oriental Style, and partially hidden in a grove of cinnamon, orange, clove and mango trees” (1980:286).

Seyyide Salme writes:

“Orange trees, as tall as the biggest cherry trees here in Germany, bloomed in profusion all along the front of the bath-houses, and in their hospitable branches we frightened children found refuge many a time from our horribly strict school-mistress! Human beings and animals occupied the vast courtyard together quite amicably, without disturbing each other in the very least; gazelles, peacocks, flamingos, guinea fowl, ducks, and geese strayed about at their pleasure, and were fed and petted by old and young” (Ruete, 1907:4).

Figure 80 is a historic sketch that shows the scale of Mtoni Palace with the surrounding landscape and shows the formal landscape design of Mtoni Palace.

The only clue to the land use of the Eastern side of Mtoni Palace is a photograph taken between 1885 and 1890 (Figure 81) showing that the land was used for agricultural purposes with trees visible in the Palace Courtyard.

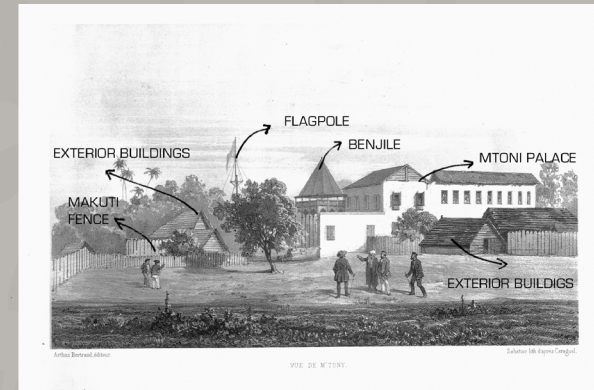


Fig. 80: Historic sketch of Mtoni Palace (Guillain, 1846).

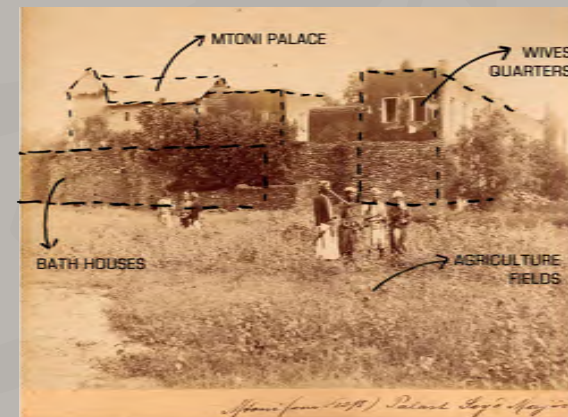


Fig. 81: Historic photograph (ca. 1885 -1890) of the Eastern landscape (Zanzibar Archives, 2010).

Mtoni Palace was self-sustainable: it produced its own food, had its own ship yard and relayed its own water (Folkers et al., 2010:42; Leigh & Kirkman, 1980:286).

Figures 82 and 83, taken in 1977 and 1989 respectively, indicate the vegetation around Mtoni Palace, before the construction of Mtoni Marine, as well as during the construction of Mtoni Marine and other industrial buildings still present today.

In 2005 the Mtoni Palace Conservation Project was launched and as part of that, the gardens were redesigned by Flo Montgomery. No plans are available but Figures 84 and 85 and the site survey best communicates what the design intent was.

Figures 86 and 87 is the final in-depth site vegetation mapping that was done in 2013 during the site visit.

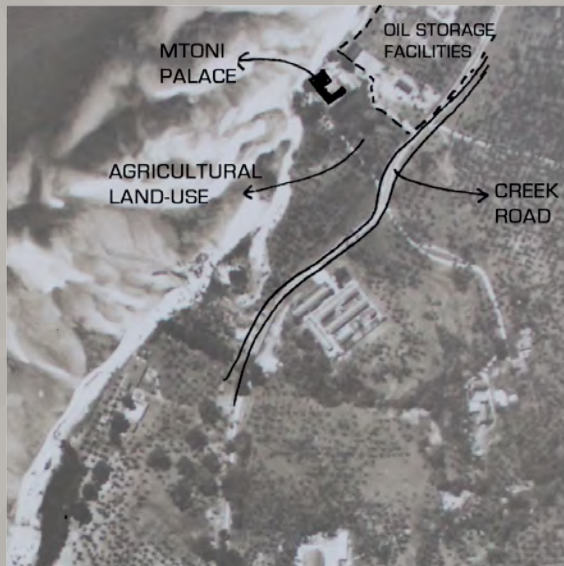


Fig. 82: Aerial photograph taken in 1977 (Department of Urban Planning, 1977).



Fig. 83: Aerial photograph taken in 1989 (Department of Urban Planning, 1989).

Status quo





Fig. 86: Site vegetation mapping (Author, 2014).

SHRUB SPECIES



Guava
Psidium guajava

Frangipani
Plumeria rubra

Ilang-Ilang
Cananga odorata

Jumbie
Abrus precatorius

Iodhe
Vismia ferruginea

Current growth composition

Jjoba
Simmondsia chinensis

Hibiscus
Hibiscus rosa-sinensis

TREES SPECIES



Indian Almond
Terminalia catappa

Hennia
Lawsonia inermis

Cassuarina
Casuarina equisetifolia

Tamarind
Tamarindus indica

Neem
Azadirachta indica

Neem
Azadirachta indica

Albezia
Azadirachta indica

Teak
Tectocopsis elata

LARGE TREES



Mango tree
Mangifera indica

Mango tree
Mangifera indica

Mango tree
Mangifera indica

Mango tree
Mangifera indica

Tamarind tree
Tamarindus indica

Tamarind tree
Tamarindus indica

Flame tree
Delonix regia

OTHER PLANTING



Mangrove spp.

Cycad
Encephalartos spp.

Bamboo spp.

Royal Palm
Roystonea regia

Royal Palm
Roystonea regia

Coconut Palm
Cocos nucifera

Bismark Palm
Bismarckia nobilis

Oil Palm
Elaeis guineensis

Borassus Palm
Borassus flammifera

ON-SITE NURSERY



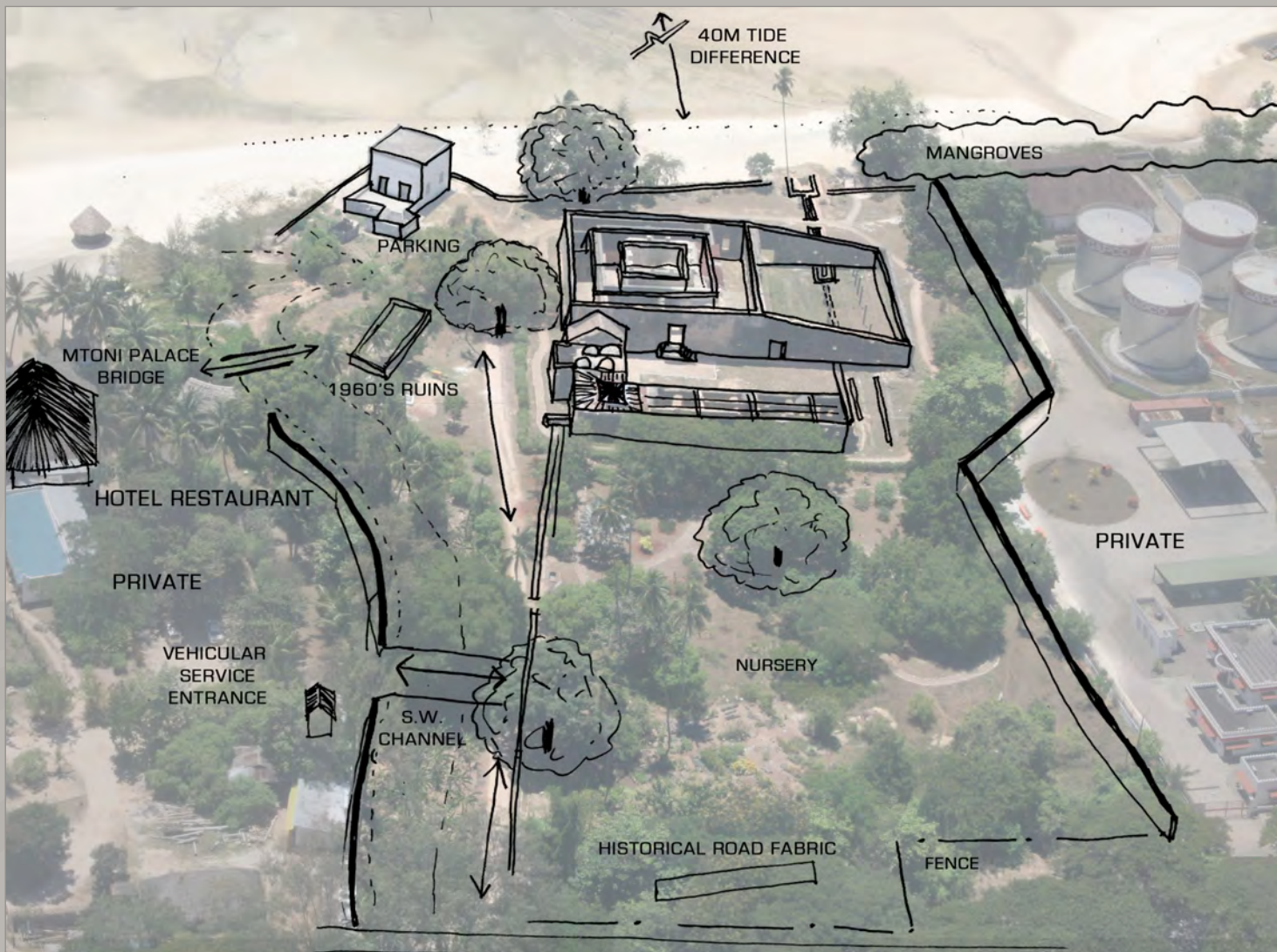


Fig. 88: Status Quo site survey drawing (Author, 2014).

5.11. Maintenance

The Mtoni Palace concerts currently generate enough money, on a monthly basis, to maintain the palace grounds. The maintenance team consists of two members, as can be seen in Figure 89.



Fig. 89: The maintenance team (Author, 2013).

5.12. Conclusion

Today Mtoni Palace is only a remnant of the once exuberant royal lifestyle and impressive water management system. Nothing of the original Palace gardens survived but historical sketches, photographs and the autobiography of Emily Ruete, allow some insight into the daily life at Mtoni Palace, and on the palace estate during the 19th century.

Figure 88 is a basic site drawing, mapping the important elements, movement and bio-physical factors.

5.13. SWOT Analysis

STRENGTHS:	WEAKNESSES:
Location: close to Stone Town.	Site not used to full potential.
Climatic conditions & Vegetation = lush/tropical.	No public facilities e.g. rest rooms.
A listed national monument.	Poor parking facilities.
Great ambience.	Anti-social behaviour on site: smoking of marijuana.
Political will power to make this work - Mtoni Marine and Department of Antiquities Public Private Partnership.	Erosion of sea wall due to wave action.
Site has important historical influence on Zanzibar: Seyyid Said and Sayyida Salme.	No identity to the place - other than Palace as ruin.
Recognized tourist attraction in tourism literature.	
Beach is well visited by locals.	
Robust fabric of the ruins.	Historical value forgotten by Zanzibari's.
Already used as events space.	No structure in the landscape.
Inherent value.	No original historical vegetation left.
Setting - sea, beach, vegetation, ruins.	Mosque not used well.

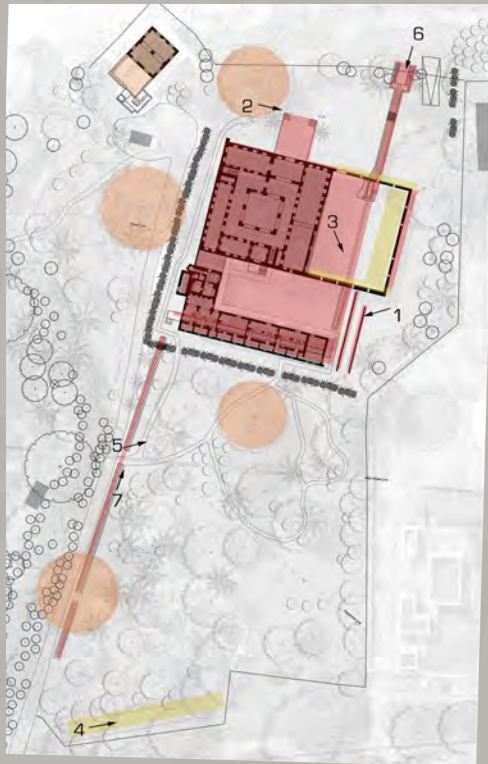
OPPORTUNITIES:	THREATS:
Beach/public open space/recreational zone.	Lack of Funding to develop Mtoni Palace.
A well used heritage site.	
Economic upliftment through business opportunity and empowerment on site.	Vandalism of the Ruins and other things on site..
Food production (agriculture) and education opportunity.	A decline in Mtoni Palace concerts: no money to maintain Mtoni Palace.
Create a true Islamic garden that is based on local precedents to enrich the local culture.	
Community involvement and development.	Tourism industry declining in Zanzibar due to world wide economic crisis.
Community upliftment: library, internet, space to do homework, learning centre, night school.	
Job creation / Income opportunities: market, food stalls.	Ecological damage if a petroleum pipe bursts.
Commemoration and memorialising.	
Events: movies, fashion show, conferences, shows.	Loss of land due to beach erosion.
Restore water reticulation.	
Celebrate the culture of bathing.	Loss of historical evidence
Cannon blast during the month of Ramadan.	
More activities focused on locals.	Dissolving of the local culture.
Coffee/Tea shop.	

Table 2: SWOT Analysis (Author, 2014).

5.14. Levels of Significance

The Heritage legislation of Zanzibar, known as the Ancient Monument Act, is written in a different manner than the South African Heritage Resources Act. The latter makes provision for the resource to be classified at a local, regional, or national

level of significance. The Ancient Monument Act has no levels of classification and therefore, if a building is listed as a Monument, it is protected and valued as a national monument.



HIGH significance

- Entrance steps
- Courtyard
- Mtoni Ruins
- Aqueduct system
- Cocunut palms
- Access and view onto beach

MEDIUM significance

- 4 large trees on site
- Mtoni mosque

LOW significance

- Concrete slab
- Remains of built fabric for oil storage facilities



Fig. 90: Levels of Significance (Author, 2014)

5.15. Statement of Significance

Mtoni Palace is a National Monument and the cultural significance of the palace is an invaluable heritage resource of national importance to Zanzibar.

Mtoni Palace was home to the Sultan of Zanzibar, Seyyid Said, a figure of international importance for the development of the East African coast, Zanzibar and the cultural development of the Swahili nation.

The development of Zanzibar in the 19th Century was based on a twin foundation: slave trade and cloves. Zanzibar is notoriously known for its part in the slave trade and Seyyid Said played a significant role by expanding the slave routes and encouraging international businessmen to invest in the market.

The first clove trees were introduced at Mtoni. It was Seyyid Said that later made it law to plant clove trees on the island. No clove trees exist today on Mtoni Palace, but this resource led to the development of the spice industry in Zanzibar - an important aspect of the Zanzibari identity and the economy today.

The architecture, construction methods and the developmental layers of Mtoni Palace are of significance to understand the narrative of Mtoni Palace and the influence thereof on the Zanzibari architectural development.

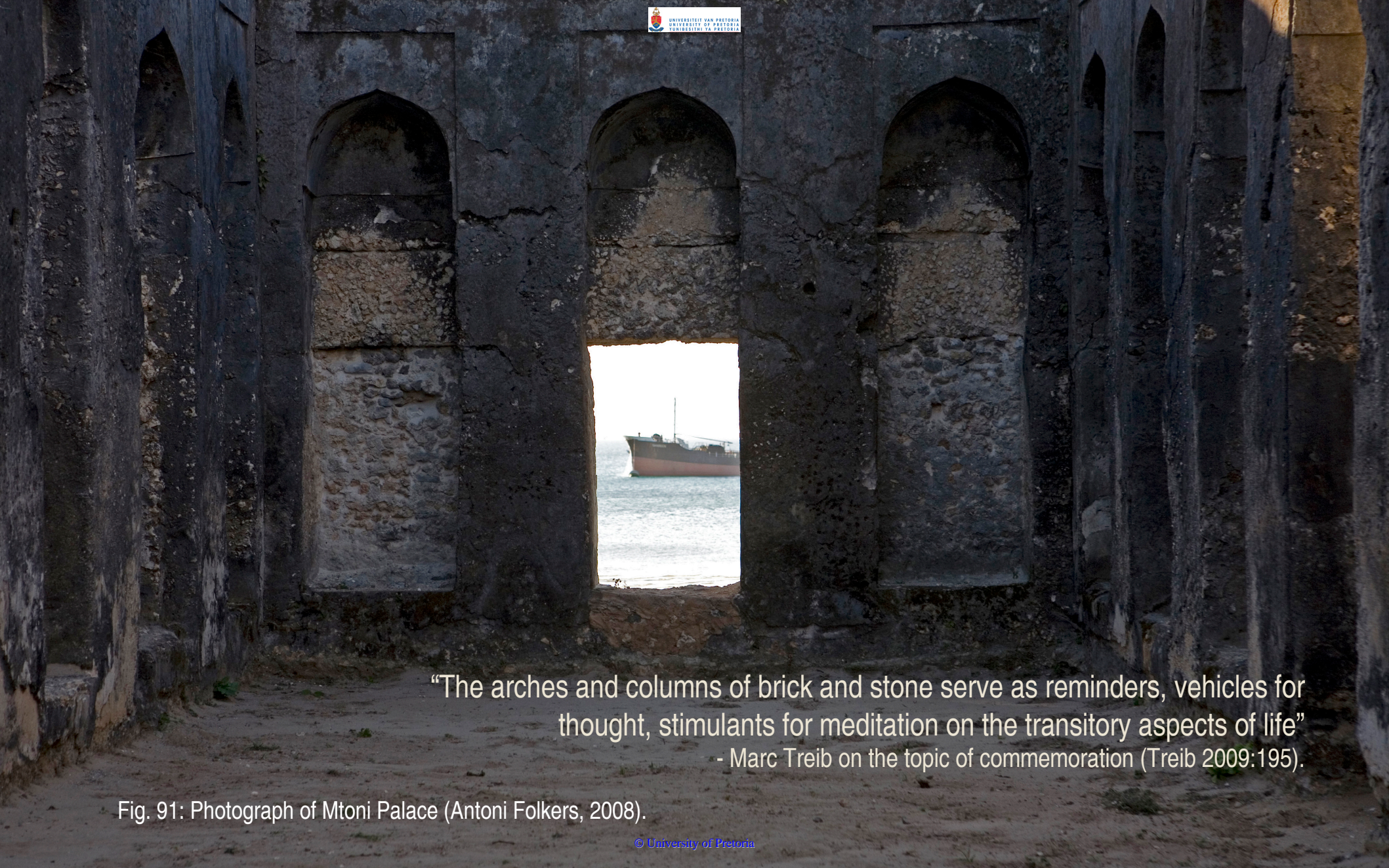
The Islamic principle of using water to structure the landscape, together with the water management system using water channels, is of utmost importance as it was a critical part of the daily life at Mtoni. Water was a valuable resource and was used for its aesthetic value as well.

The Mosque on site, even though it was not built during the time of Seyyid Said, still contributes to the ambience of the site and creates a space for worshippers to go. It also proclaims the Islamic culture of Zanzibar.

The open space arrangement includes the historic ceremonial approach from the sea, the courtyard with its multitude of daily activities and the landscape beyond with its agricultural and environmental value. Visitors always praised the gardens with their vegetation at Mtoni Palace. Important historical species include coconut palms, orange trees and mango trees.

In a society with an active seaborne culture, Mtoni Palace is a remnant of a place once only accessible from the sea. The public beach, with its multitude of activities, contributes to the cultural development of the Zanzibari nation.

Mtoni Palace can educate the public about the its history, Seyyid Said and Sayyida Salme. It can become a catalyst towards nurturing identity through commemorating the history of Mtoni Palace.



“The arches and columns of brick and stone serve as reminders, vehicles for thought, stimulants for meditation on the transitory aspects of life”
- Marc Treib on the topic of commemoration (Treib 2009:195).

Fig. 91: Photograph of Mtoni Palace (Antoni Folkers, 2008).

6 DESIGN DEVELOPMENT

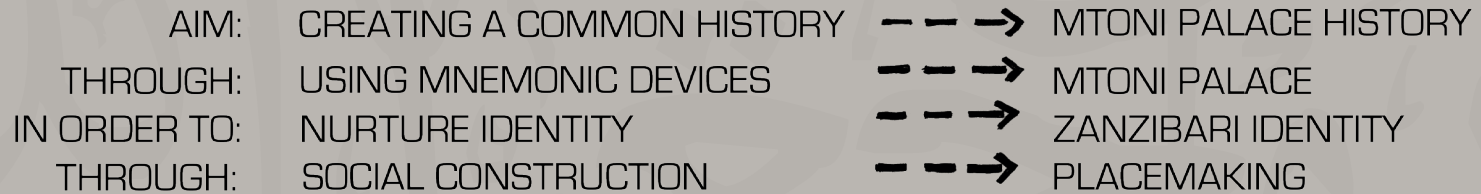


Fig. 92: Design strategy (Author, 2014).

The design strategy as developed in Chapter 3 (Figure 92) shows the aim of the design proposal should be to create a common history by using mnemonic devices. The common history will then nurture identities through social construction.

Mnemonic devices include anything that serve as a stimulus in the present, that reminds a person of something from the past. This act of remembering is called commemoration and is aimed at the living instead of those who are or what is being remembered (Wolschke-Bulmahn, 2001:81).

6.1. Commemoration

The act of Commemoration lies with those who are remembering and not so much about what or who is being remembered.

The commemorative paradigm is best described by the German word for monument, *denkmal*, which literally means “a means to thought”. The Latin word *monumentum*, meaning “that which recalls remembrance” also puts the emphasis on remembering (Treib, 2009:241). It is thus the designers’ role to guide the user to remember and think.

According to Treib (Wolschke-Bulmahn, 2001:81) there are three ways to commemorate:

- Preserve: maintain the historical form of the landscape.
- Retain: retain the noteworthy elements of the original landscape - a particular plant species or a building typology, while the order and use of land is allowed to develop.
- Refer: references to the past are used more actively and more acutely. Landscape elements and the selection of certain species can be used symbolically.

There are three important factors that contribute to the success of commemoration spaces, and these include: legibility, the engaging factor and regionally appropriateness.

In order for something to give meaning, it is important that the user is able to understand the inscribed message. This is achieved by being responsive to the viewer’s identity and their self constructs. Commemoration spaces should, therefore, accentuate “particular values and emphasise selected constructions of the community and the individual, in order to engage the user to think, to remember and to react” (Wolschke-Bulmahn, 2001:189).

6.2. Ruins

A ruin is a fragment of a whole that embodies a sense of history. Its incompleteness suggests a greater entity that once was whole and contributed to society (Treib, 2009:212).

Our memories are provoked by the mnemonic function of a building, but this function must transcend individual purposes and become useful for the construction of a collective identity (Treib, 2009:242).

The ruin slows time and grasps the past as part of the present, as it inserts the present within the past, but true appreciation is often dependant on education.

Richard Payne Knight explains:

“Ruined buildings with fragments of sculptured walls and broken columns, the mouldering remnants of obsolete taste and fall magnificence, afford pleasure to every learned beholder, imperceptible to the ignorant and wholly independent on their real beauty” (Treib, 2009:196).

We use ruins as a - *Lieu de memoire* - or to retard the fading of memory (Treib, 2009:197).

Good examples of re-appropriated ruins are Coventry Cathedral in the United Kingdom and Fort Klapperkop in Pretoria.

Coventry Cathedral, United Kingdom:

Coventry Cathedral (Figures 93 & 94) was built in 1918 and dedicated to St Michael. It was on the night of 14 November 1940, during World War II, that the Germans bombed the town of Coventry. The cathedral was bombed several times.



Today the ruins of the cathedral act as a memorial space for World War II, and the immense devastation that was caused. It is also used as an open air events space, and often as a filming background.

The winning-architect of the redesign, Basil Spence, explains his first encounter of Coventry Cathedral: “As soon as I set foot on the ruined nave I felt the impact of the delicate enclosure. It was still a cathedral. Instead of the beautiful wooden roof it had skies as a vault” (Treib, 2009:201).

Fort Klapperkop, Pretoria:

With the Boer Republic wanting to protect their capital, they built four forts around Pretoria, of which Fort Klapperkop was one. Fort Klapperkop was built in 1898 but was never used and fell into disrepair in the early 20th Century.

In 1966 it was reopened as a military museum and that is its main exhibition to this day. Today, Fort Klapperkop is used by local residents and tourists for musical events (Figures 95 & 96) and offers great views of the city (University of Pretoria, 2014).



6.3. Islamic culture and design principles

6.3.1. Development of the Islamic landscape

The historic Islamic society was skilled at acquiring and transporting water for agricultural use and this “not only transformed the economy, but also became a powerful form of cultural expression” (Ruggles, 2008:13).

Agriculture became an important economic sector. Tax was paid on a percentage of the yield and, therefore, land owners and the government paid close attention to the recording of agricultural practises (Ruggles, 2008:20).

With the expansion of Islam more Muslims started learning Arabic - the language of the mosque and the government - and people living in Islamic kingdoms often absorbed the culture to such an extent that they adopted Islamic cuisine, music, dress, architecture and literature without professing the Muslim faith (Ruggles, 2008:4).

6.3.2. Memory and meaning

The naming of places is used to evoke memory. By referring to other significant places the memory or association with that place is transferred to the new place. The name *Mtoni* means House by the Creek and Seyyid Said’s palace, just outside of



Fig. 97: Baif al Falay (www.tripadvisor.com, 2014).



Fig. 98: Baif al Falay (www.tripadvisor.com, 2014).

Muscat that was built in 1845 is named Baif al Falaj (Figures 97 & 98), which also means House at the Creek.

In this same manner, landscapes have inscribed meaning due to past visits/previous memories. Ruggles goes further, “unlike architecture and painting, the work of designing and building landscapes and gardens begin on terrain that already has contour, temperature, moisture, and sunlight and our attribution of meaning to these characteristics is socially produced by events and memories” (Ruggles, 2008:11).

6.3.3. Landscapes

The garden was not an exclusively Muslim production; but developed as a response to a specific climate. It reflected regional concerns that were common to most people living in similar landscapes (Ruggles, 2008:x).

The landscape is always influenced by its climate and ground water systems, coupled with irrigation systems, would have been the main factor in deciding the gardens’ layout. This need developed into the *Chahar bagh*, or the four part garden, that is seen as the formal layout for Islamic gardens (Ruggles, 2008:xi).

In secular gardens and ordinary house gardens, the space can be as simple as a paved courtyard with a fountain or sunken basin surrounded by potted plants (Ruggles, 2008:39).

Whether adhering to the quadripartite model or not, gardens in all other areas of the Islamic world have a strong sense of geometrical order (Ruggles, 2008:49). It is always mathematically proportioned and human in scale.

Birds, scents and the beauty of flowers were always present in the garden. “A great many trees and plants were cultivated in gardens, not only for their appearance but also for their pleasing perfume and the taste of their succulent fruit” (Ruggles, 2008:5).

The paradise garden in its purest form, was a square garden enclosed against a hostile environment with water channels dividing the square: symbolic of the four rivers of heaven (Jellicoe & Jellicoe, 2006:23).

Landscapes are living systems and the diurnal, seasonal and longer life of the landscape changes, and should, therefore, be considered when designing.

The garden is the representation of the Quranic Paradise that is to be enjoyed first and foremost. Appreciation of the garden and of nature will lead to discernment.

6.3.4. Islamic landscape design principles:

- Water is the determining factor in layout of the landscape.
- Naming of places are used to evoke memory.
- Always have a geometrical layout.
- Gardens are representations of the Quranic Paradise - to be enjoyed and this will lead to appreciation, which then leads to discernment.
- Should always be full of colour.
- It is an olfactory experience.
- Have a courtyard as a climatic response to the harsh environment and also provides privacy.
- The landscape serves as a foretaste of paradise for the faithful.
- Regionally appropriate.
- Water should always be present.

6.4. *Design guidelines*

Mtoni Palace is classified as a National Monument by Zanzibari law, but by international standards, it can be classified as a historic building, as well as a cultural landscape with tangible and intangible factors.

Cultural landscapes are defined as “any geographical area that has been modified, influenced, or given special cultural meaning by people” (Canadian Heritage, 1995:19).

Cultural landscapes are of great importance and need to be safeguarded. The United Nations Economic, Scientific and Cultural Organisation (UNESCO) and the International Council on Monuments and Sites (ICOMOS) have developed multiple documents, guidelines, declarations and charters regarding cultural landscape and cultural heritage over the last few decades.

It is only in the last decade, however, that ‘landscape’ has become an integral component or layer within global heritage legislature. The Florence Charter (1982), the Burra Charter (1999), Yamato Declaration (2004), the Xi’an Declaration (2005), the Vienna Memorandum (2005), the Teemaneng Declaration (2007) and the Ename Charter (2007) have been pivotal in the development of our understanding and interpretation of cultural landscapes. Together these documents offer heritage managers an extensive body of information and guidelines on how to manage and design within a cultural landscape.

Guidelines that will be followed:

- Do as little as possible and as much as needed BURRA Charter (ICOMOS, 1999a).
- New work should be easily readable as such - BURRA Charter, (ICOMOS, 1999a).
- Adaption is acceptable only where the adaption has minimal impact on the cultural significance of the place - BURRA Charter (ICOMOS, 1999a).
- A new compatible use should not detract from the original programme or building - Ename Charter (ICOMOS, 2007a).
- Adaption should involve minimal change to significant fabric, achieved only after considering alternatives - Burra Charter (ICOMOS, 1999a).
- The garden, landscape and setting is inseparable from the architectural work and should be interpreted as part of the cultural significance - Vienna Memorandum (UNESCO, 2005).
- If no original gardens exist, then a reconstruction cannot be considered a historic garden - Florence Charter (ICOMOS, 1982).
- Cultural significance is not always easily readable and should, therefore, be able to be interpreted. The interpretation should enhance the understanding and enjoyment, and be culturally appropriate - Ename Charter (ICOMOS, 2007a).
- The site needs to be managed in a sustainable manner and the site should be inclusive in its design and programme - Ename Charter (ICOMOS, 2007a).

Mtoni Palace is also a tourism destination that will attract international visitors and, therefore, the International Cultural Tourism Charter (ICOMOS, 1999b) is also of importance.

The following principles were taken from this charter:

- It should be physically, intellectually and/or emotively accessible to the general public.
- The physical attributes, intangible aspects, contemporary cultural expressions and broad context should be protected and conserved.
- The retention of the authenticity of heritage places and the collections is important - this includes the physical material, collected memory and intangible traditions that remain from the past.
- Programmes should present and interpret the authenticity of places and cultural experiences to enhance the appreciation and understanding of the cultural heritage.
- Conservation management and tourism activities should provide equitable, economic, social and cultural opportunities to the men and women of the host community, at all levels, through education, training and the creation of full-time employment opportunities.

6.5. Precedents

Forodhani Park - Stone Town, Zanzibar.

Open space in urban Zanzibar is little and of bad quality. The Aga Khan trust has been involved in Stone Town with the aims of improving the urban experience of Stone Town and to preserve decaying buildings.

Forodhani Park (Figures 99 & 100) was a recent re-development and is part of a larger sea-front improvement initiated by the Aga Khan trust with the revolutionary government of Zanzibar.

Regional design elements such as *barazza's* (seating), market space and the reaction to the sea were investigated. The use of plant species and the hardscape and softscape balance informed the design.

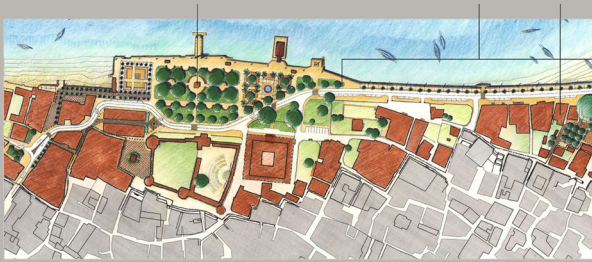
Forodhani is a pivotal point of reference for any person that visits Stone Town and is the heart of Stone Town inhabitants at night. The market, festivals, sea and play area provide a much needed public open space and allows tourists to experience multiple Zanzibari cultural elements.

Al Azhar Park - Cairo, Egypt.

This urban park is a recent development in a highly Islamic region and has had a wide spread impact on the life of city dwellers in Cairo (Figure 101 & 102).

The park is designed on Islamic design principles, with geometrical layouts, many flowers and colourful mosaics, multiple water features and multiple pockets of spaces. Water is ever present in the landscape and was instrumental in the layout of the park.

Water is used as an aesthetic feature, as a recreational element and is used as a resource to irrigate the landscape. An axial promenade links the whole park together with multiple water experiences situated along the promenade.



Forodhani Park, Zanzibar.

Fig. 99: Forodhani Park Plan (Aga Khan Trust for Culture, 2010).



Bird's Eye View (a)



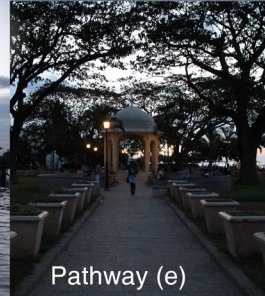
Barazza's (b)



Seating (c)



Public space (d)



Pathway (e)

Fig. 100: Forodhani Park (Author, 2014).



Al Azhar Park, Egypt.

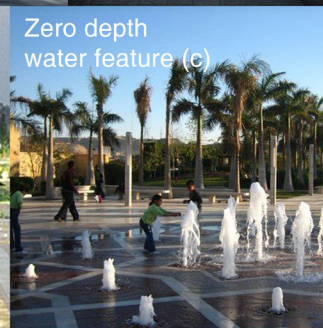
Fig. 101: Al Azhar Park Plan (www.alazharpark.com, 2014).



Axial Pathway (a)



Water feature (b)



Zero depth water feature (c)



Site overview (d)



Paving (e)



Formal Garden (f)

Fig. 102: Al Azhar Park (Author, 2014).



Fig. 103: Babylonstoren Photos (Author, 2014).

Fields layout (a)

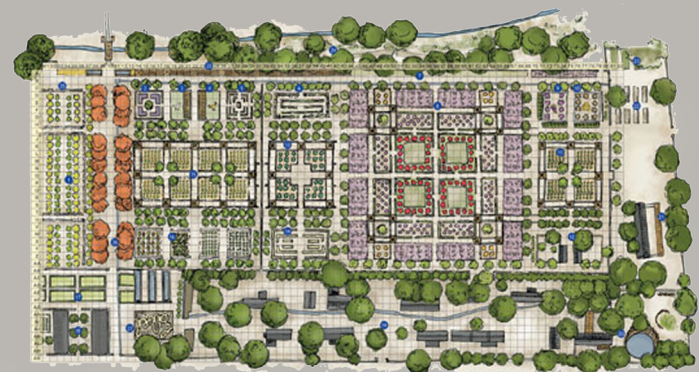
Paths (b)

Lunches (c)



Axial approach (d)

Water channels (e)



Babylonstoren, RSA.

Fig. 104: Babylonstoren Plan
(www.babylonstoren.com, 2014).



Fig. 105: President's House (Author, 2014)

Exhibition (a)

Layout (b)



Robust signage (c)

Plan (d)

Lighting (e)

© University of Pretoria



President's House, USA.

Fig. 106: Photograph of President's House
(www.tripadvisor.com, 2014).

Babylonstoren - Cape Town, RSA.

Babylonstoren is a farm in the Western Cape Province and is based on the layout of the historical Dutch East India Company gardens in Cape Town (Figures 103 & 104).

It is a working farm with a strict geometrical layout and has successfully created a place where people can experience the farm, the produce and the fresh air. A passive irrigation system adds to the ambience of the gardens, as this is how it would have originally worked when Cape Town had no electricity.

Lunches are held within the agricultural fields and bring the users close to the agricultural process. Other parts of the garden are more natural, with organic dirt paths with plants growing wild along the route. This allows the user to explore nature in a non-organised manner and engage with nature in an intuitive way.

Babylonstoren shows that a working farm can become a place of interest and engage users to explore nature and the processes of agriculture in order to communicate the way in which the early settlers organised and operated the Company Gardens.

President House - Philadelphia, PA. USA.

This outdoor museum in the heart of Philadelphia acts as a 24-hour open air museum to experience the house of George Washington, who was the first president of the USA (Figures 105 & 106).

Information and video feeds are accessible at all times in the recreated floor layout of the house, with the actual ruins visible through a glass panel 2 meters below the current floor level.

This museum gives understanding to an, otherwise, very dull subject and has successfully created a museum in an open-air situation. Signage and information tools have been fixed to the walls and were designed in a robust manner that can withstand harsh weather conditions.

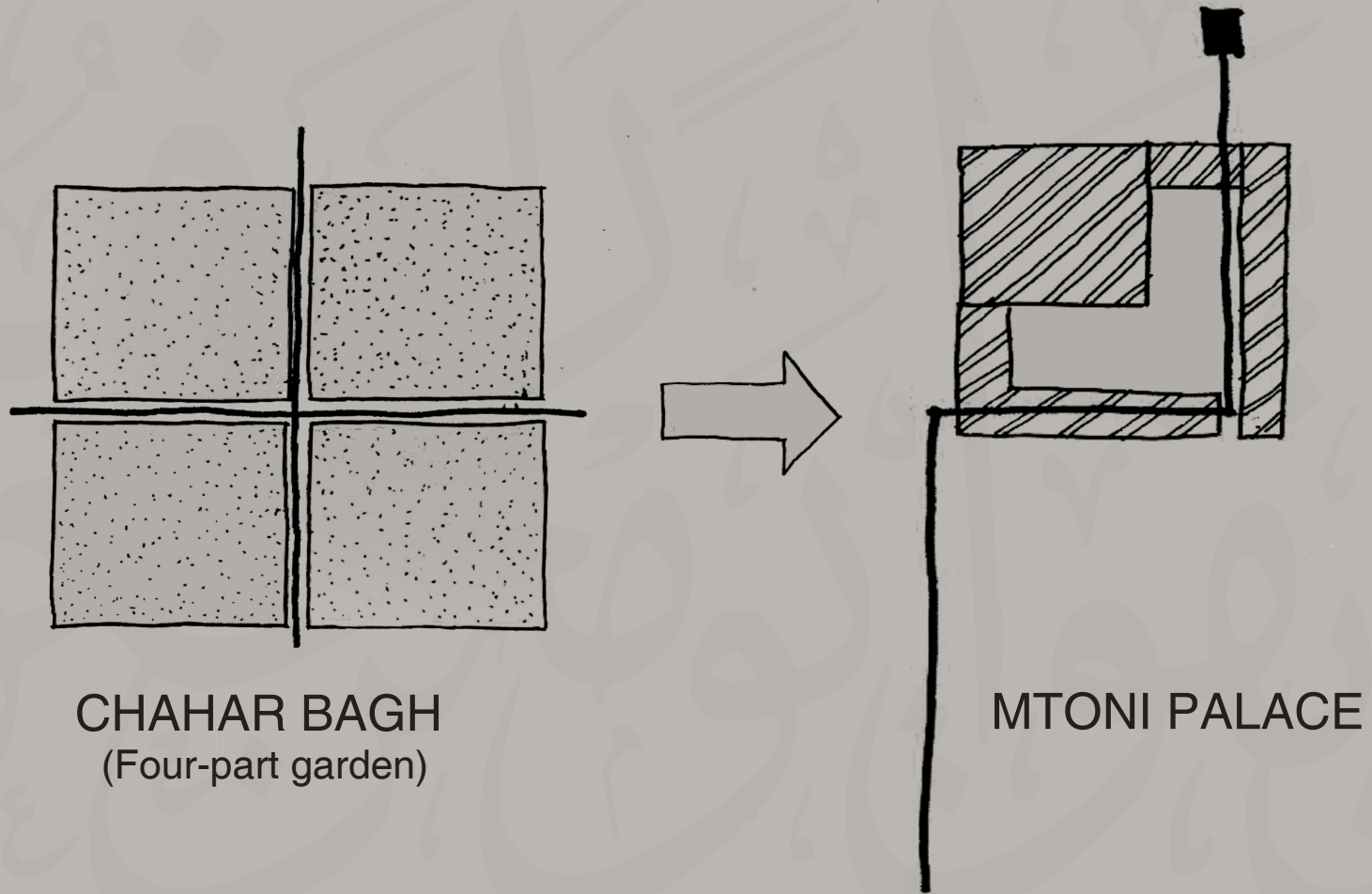
6.6. Design process

Element	Historic Context	Significance	Statement of Significance
Beach	Army ships lay at bay; Main access and approach to Palace; Flagpole to signal ships - communication & beacon; Access to Stone Town; Monsoons; Sea culture; Trading; Dhows.	High	Active seaborne culture.
Historical Approach from sea / Landscape in front of Mtoni Ruins.	Ceremonial approach from sea - only formal access from Stone Town. All Royal guests and royal residents entered Mtoni this way	High	Only accessible from the sea.
Mtoni Ruins	Palace of Sultan, Official meetings, Power of Zanzibar, Building techniques with no resources, cooking, Coffee on belvedere, Schooling, Praying	High	Home of Seyyid Said: cultural development of Swahili nation; Expanded slave trade and clove exports, can educate public about historical importance; Understand narrative of Mtoni Palace.
Bathhouses	Women spent a lot of time in bathhouses relaxing; Water came from 2000 yards away; Praying; Small woven mats; Lavatory system with vent holes to the back.	High	Water management system; Bathing was part of daily life.
Mosque	It was built after the death of Seyyid Said's death. Seyyid Said was a dedicated Muslim.	Medium	Creates ambience, Building as symbol of Zanzibari Islamic culture.
Courtyard	Activity space of Palace; Connecting space between Palace, Houses and Bathhouse; Playarea; Shade; Large Orange trees in front of Bathhouses; Educational space: horse lessons and school classes.	High	Open space arrangement was important as it was the main open- and activity space of Mtoni Palace.
Water channel	Water was transported 2000 yards from a spring in this piece of remaining aqueduct. Fresh drinking water was the most precious resource for survival	High	Water structures the landscape; water management system is important; Functional & Aesthetic value.
Gardens	Coconut Palm trees important - many planted at Mtoni Palace; Agriculture - self sustainable site; Structured landscape; Horse riding; large estate; Hunting; Boatyard.	Open space - HIGH (Last remaining open space of Mtoni Palace Estate); Palms as icon - MEDIUM; Large trees - Low	First clove trees introduced at Mtoni; Development of spice industry by Seyyid Said; Visitors always praised the beautiful gardens; Important species: Coconut Palms, Mango, Orange, Cloves.
Road & Road interface	No historical context - only connection to Stone Town by horse/donkey through water or by boat.	-	-
Historic Road fabric	Was the connection between Stone Town and North of Zanzibar.	Low	-
Axis Entrance Walkway	None - only connection to Stone Town by horse or donkey through water or by boat.	None	-

S.W.O.T.	LANDSCAPE STRATEGY
Great recreational space; Well used by locals; No public ablutions; Anti-social behaviour; Erosion of beach wall and loss of land; Blast of cannon during Ramadan; Ecological damage if a oil pipeline bursts.	Use beach to full potential; Celebrate sea culture; Create a beacon; Communicate seafare history.
Can accentuate Mtoni Palace entrance; Remember sea access and approach.	Restore historical approach; Emphasize Mtoni Palace Entrance; Restore due to spatial arrangement importance.
National monument; Not used much by locals; Great ambience; Important historic fabric; Most important element on site; Robust fabric; Inherent value; Mtoni Concerts are a good tourist attraction; Lack of funding if people do not attend concert	Retain character and ambience; Use ruins as is; Accentuate as the most important element on site; Open air museum with narrative of Mtoni Palace; Increase functionality.
Can create space for women to recreate; Robust fabric; Celebrate bathing culture; Restore reticulation.	Restore bathing culture; restore water reticulation; Create space for female recreation; Re-use lavitory system.
Retaining wall in danger; Icon and ambience important; Frequency of use is low.	Retain ambience created by Mosque; Retain iconic placement on beach; Encourage use and dedicated Muslim lifestyle; Surrounding landscape to lead believer towards discernment.
Important historic open space arrangement not intact anymore; Great potential event space; More events focussed on locals.	Replant orange trees in front of Bathhouses; Restore open space arrangement by building a resource centre; Event space; Create a daily used space for the locals; remember monopitch walls and roof; Daylight the water channel.
Could tell the story of water reticulation; Water was very important for life at Mtoni; Mtoni means river; Restore water reticulation.	Restore reticulation; Daylight the water channel in the courtyard; Place emphasis on water in the landscape; Create new interaction with water.
Cloves planted in Mtoni gardens first; Important species - orange and mango trees; No structure in the gardens; No historical vegetation left; Agricultural opportunities.	Create a Spice garden with Clove trees as a feature plant; Create a beautiful garden that incorporates the Islamic principles; Plant Mango and Orange trees; Use garden as space for achievement of discernment.
Imporant North-South access on Zanzibar; Commercial potential; lay-by's for safety, Close to Stonetown; Trees create great atmpshpere.	Create a commercial node; Retain tree canopy; Create appropriate traffic response: lay by's & parking; Create a space that announces Mtoni Palace.
-	Retain
-	Main access to Mtoni Beach, Axis from road to Beach; Multifuntional spaces

Table 3: Landscape Strategy Development (Author, 2014).

6.6.1. Concept generation



CHAHAR BAGH
(Four-part garden)

MTONI PALACE

Fig. 107: Concept generation (Author, 2014).

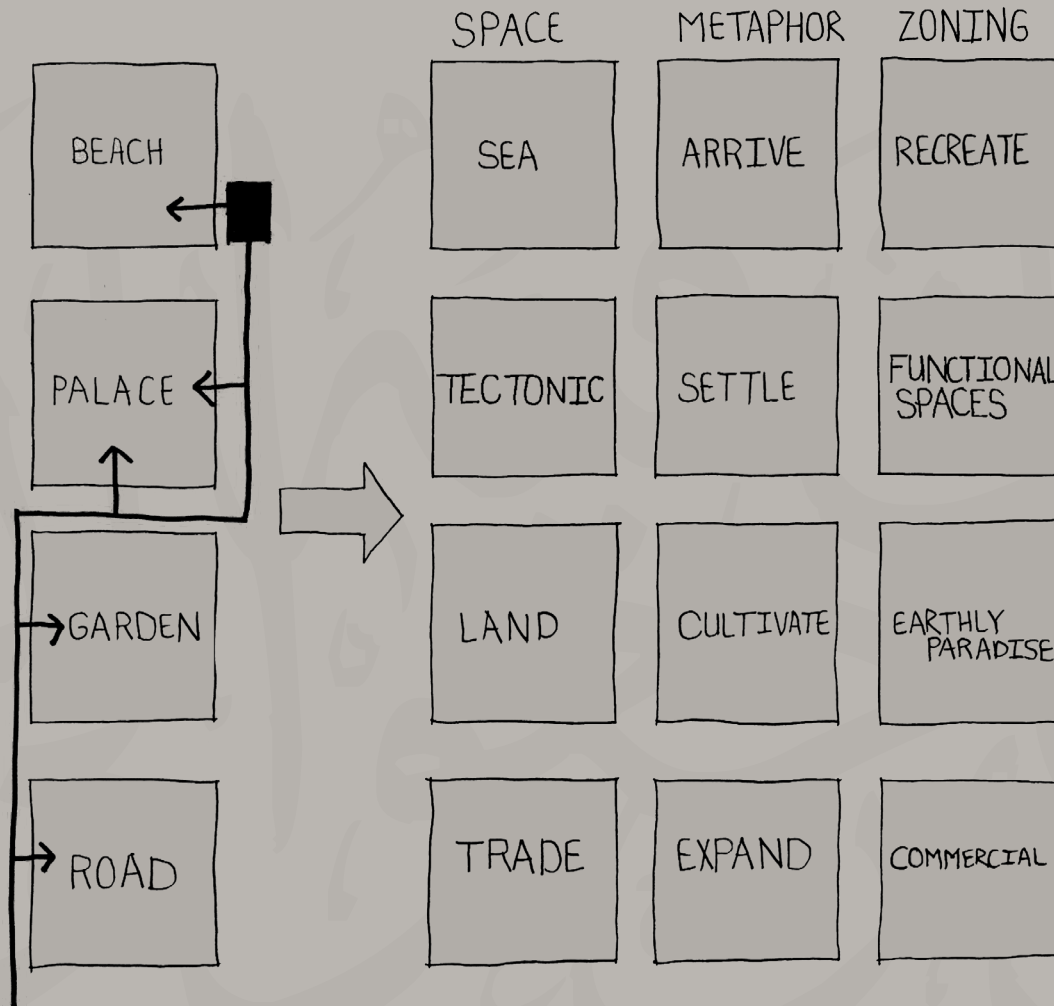


Fig. 108: Concept (Author, 2014).

6.6.2. Concept development

The different zones are superimposed on the site. Figure 109 shows the development of the concept and the relationship between spaces and functions on Mtoni Palace.

6.6.3. Spatial and functional relationship diagram

The result of the concept development (Figure 109) is the spatial and functional relationship diagram (Figure 110). This diagram shows important design considerations and informants, in order to produce a well-founded design proposal for Mtoni Palace.

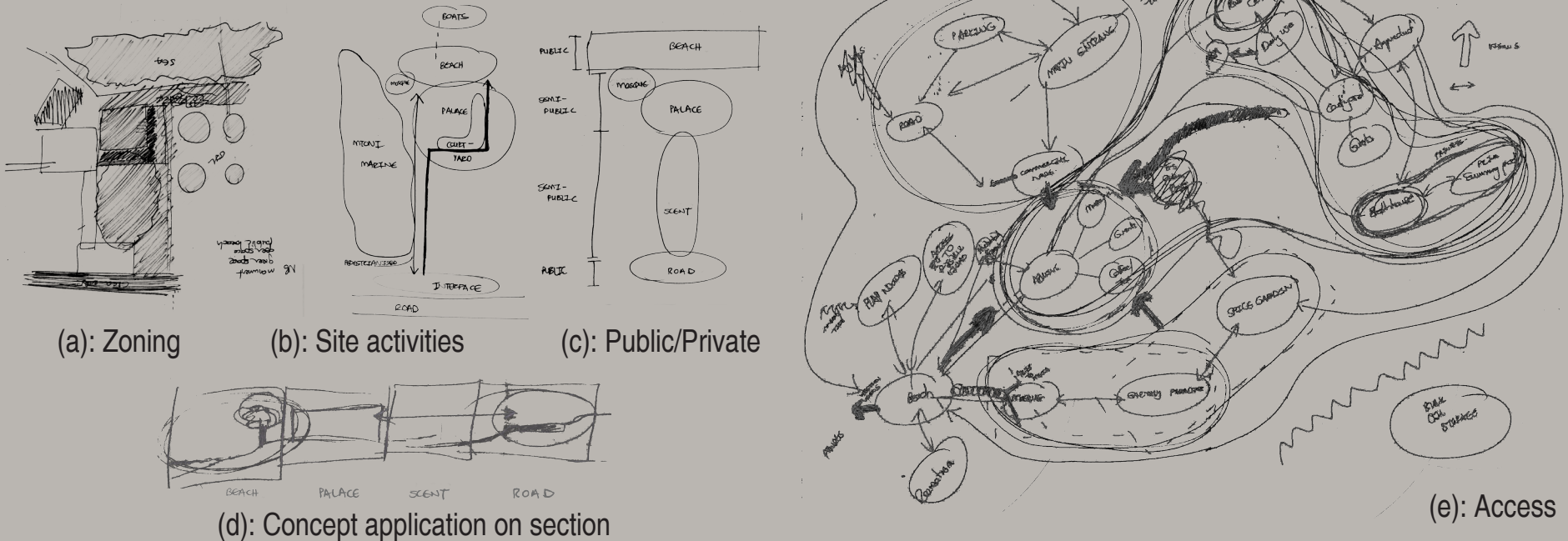


Fig. 109: Concept development (Author, 2014).

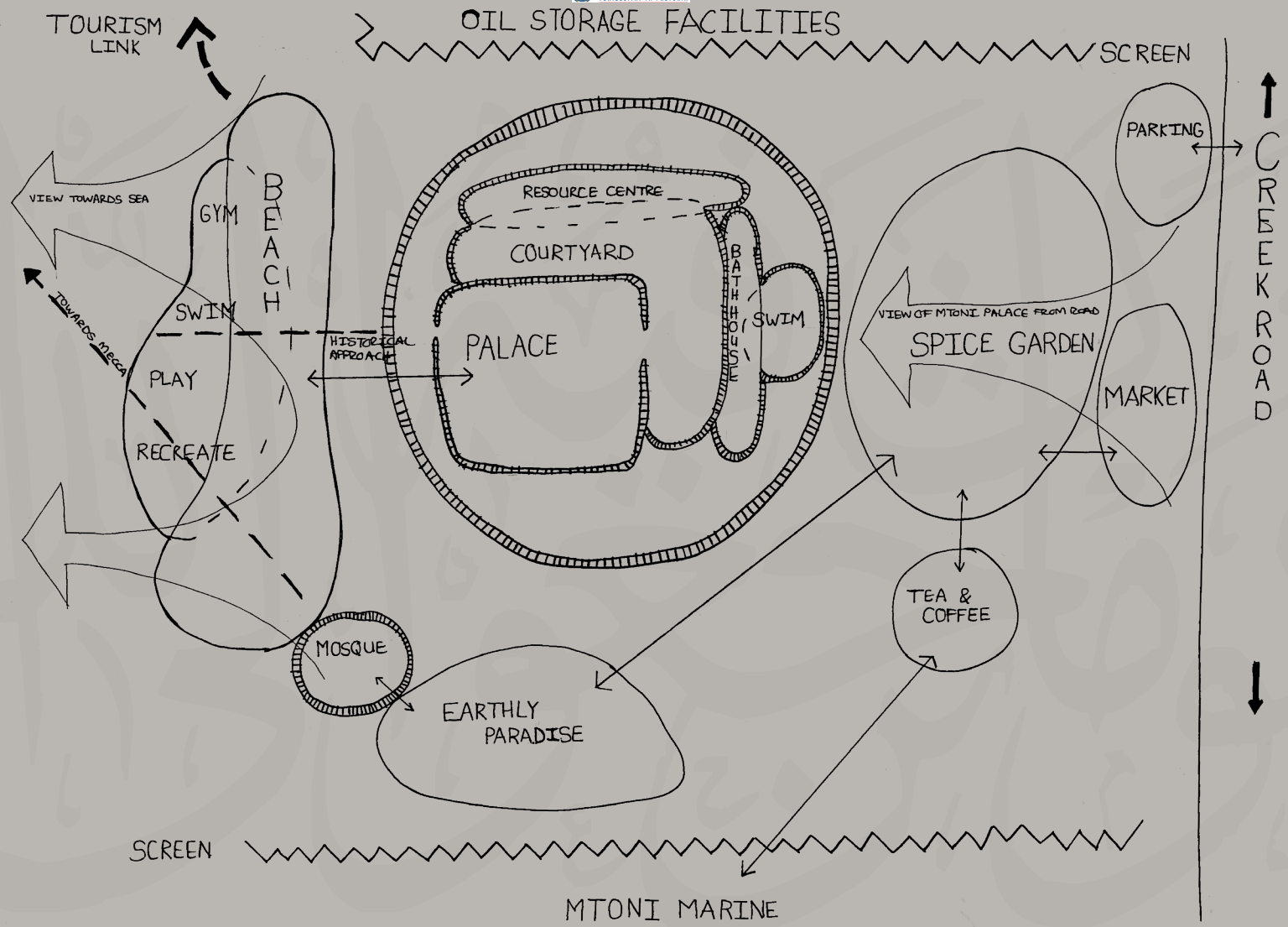


Fig. 110: Spatial and Functional Relationship Diagram (Author, 2014).

ELEMENT	LANDSCAPE STRATEGY	SPACE	METAPHOR	ZONING
Beach	Use beach to full potential; Celebrate sea culture; Create a beacon; Communicate seafare history.	SEA	ARRIVE	RECREATE
Historical Approach from sea / Landscape in front of Mtoni Ruins.	Restore historical approach; Emphasize Mtoni Palace Entrance; Restore due to spatial arrangement importance.			
Mtoni Ruins	Retain character and ambience; Use ruins as is; Accentuate as the most import element on site; Open air museum with narrative of Mtoni Palace; Increase functionality.	TECTONIC	SETTLE	FUNCTIONAL SPACES
Bathhouses	Restore bathing culture; restore water reticulation; Create space for female recreation; Re-use lavitory system.			
Mosque	Retain ambience created by Mosque; Retain iconic placement on beach; Encourage use and dedicated Muslim lifestyle; Surrounding landscape to lead believer towards discernment.			
Courtyard	Replant orange trees in front of Bathhouses; Restore open space arrangement by building a resource centre; Event space; Create a daily used space for the locals; remember monopitch walls and roof; Daylight the water channel.			
Water channel	Restore reticulation; Daylight the water channel in the courtyard; Place emphasis on water in the landscape; Create new interaction with water.	LAND	CULTIVATE	EARTHLY PARADISE
Gardens	Create a Spice garden with Clove trees as a feature plant; Create a beautiful garden that incorporates the Islamic principles; Plant Mango and Orange trees; Garden as space for achievement of discernment.			
Road & Road interface	Create a commercial node; Retain tree canopy; Create appropriate traffic response: lay by's & parking; Create a space that announces Mtoni Palace.	TRADE	EXPAND	COMMERCIAL
Historic Road fabric	Retain			
Axis Entrance Walkway	Main access to Mtoni Beach, Axis from road to Beach; Multifuntional spaces	Appropriate design within each zone.		

INFORMATION	PROGRAMME	LANDSCAPE ELEMENTS
One of the last public beaches in the area, Coral reef about 100m from Mtoni Ruins; Locals use the beach extensively for running, swimming exercising, training of cows, fishing.	Recreation: play, swim, gym; Series of experiences along the beach; Boats for playing/jumping; Boardwalk to connect fishing village.	Folly on beach, gym and play stations along beach, open ended beach use; Boardwalk; Seating space along beach edge; Possible swimming pool; Lighting.
Main approach to Mtoni Palace in 1800's; No clear approach today.	Main entrance for Mtoni Palace.	Create visual axis and open view towards the sea; Restoration of wate basin.
Can't restore the ruins; Already in use as event space: concerts and weddings; Provides great ambience.	Museum for people to walk through and learn about Mtoni in detail; Event space.	Signage panels; Narrative of Mtoni Palace; Ruins as landscape element.
Women are not allowed to swim in public places and must wear full clothing; Girls never allowed to go to beach alone.	Space for women to recreate and swim.	Private swimming pool; Screen planting for privacy; Seating space; Restore large orange trees.
Not used to full potential by locals; Creates a great ambience; Daily call to prayer can be heard from Mtoni and adds to the ambience.	Surrounding landscape to act as extension of Mosque and Prayer space; Surrounding landscape to be a symbol of the Earthly paradise.	Paths; Seating; Fountain; Screen planting for privacy.
Reute explains the use of the courtyard in detail and mentions large orange trees in front of the bath houses.	Space for daily use (playground, night market, homework); Event space; Interactive water activities; Resource Centre with education related activities: agriculture centre, cooking classes, edu games, library, internet, conference rooms.	New double storey building; Water channel for interaction; Play equipment; Seating for events and everyday use; Open space for events; Restore large orange trees.
The water channel provided Mtoni Palace with fresh water from the Chem-Chem spring a few kilometres away (Figure 25).	Interactive water features; Activities on site follow the water channel.	Interaction opportunities; Crossing of water channel; Restore reticulation; Use of water basins; Functional uses along the length of the channel.
The Islamic principle of discernment; Scent of flowers important; Four layers of agriculture: coconuts, trees, shrubs, groundcovers.	Spice garden; Seating for enjoyment; Meandering paths; Spice experience.	Planting; Seating; Signage; Interactive spice tours; Meandering paths; Forest-like planting.
Main North-South Road on island	Market; Parking; Lay-by's; Announce Mtoni Palace.	Market stands; Road design; Bollards; Views towards Mtoni Palace; Trees; Seating; Hard surface.
This is part of the original North-South Road.	Integrate with the market space.	New hard surface finish to visually differentiate.
Axis created by water channel and ruins, as well as the current access pattern to the beach.	Coffee/Tea experience; Viewpoint at end of walkway; Interactive water experience; Seating.	Axis between road and beach; Line of palm trees; Seating; Water channel interaction; Lighting,

6.6.4. Zoning

The spatial and functional relationship diagram is applied to the site dynamics and components. Figure 111 shows the development of access, views, buffers and functional relations of site elements.

6.6.5. Design inspiration

Figure 112 shows multiple theme images that had a direct impact on the design proposal of Mtoni Palace. This process has informed the designing principles and certain construction solutions.

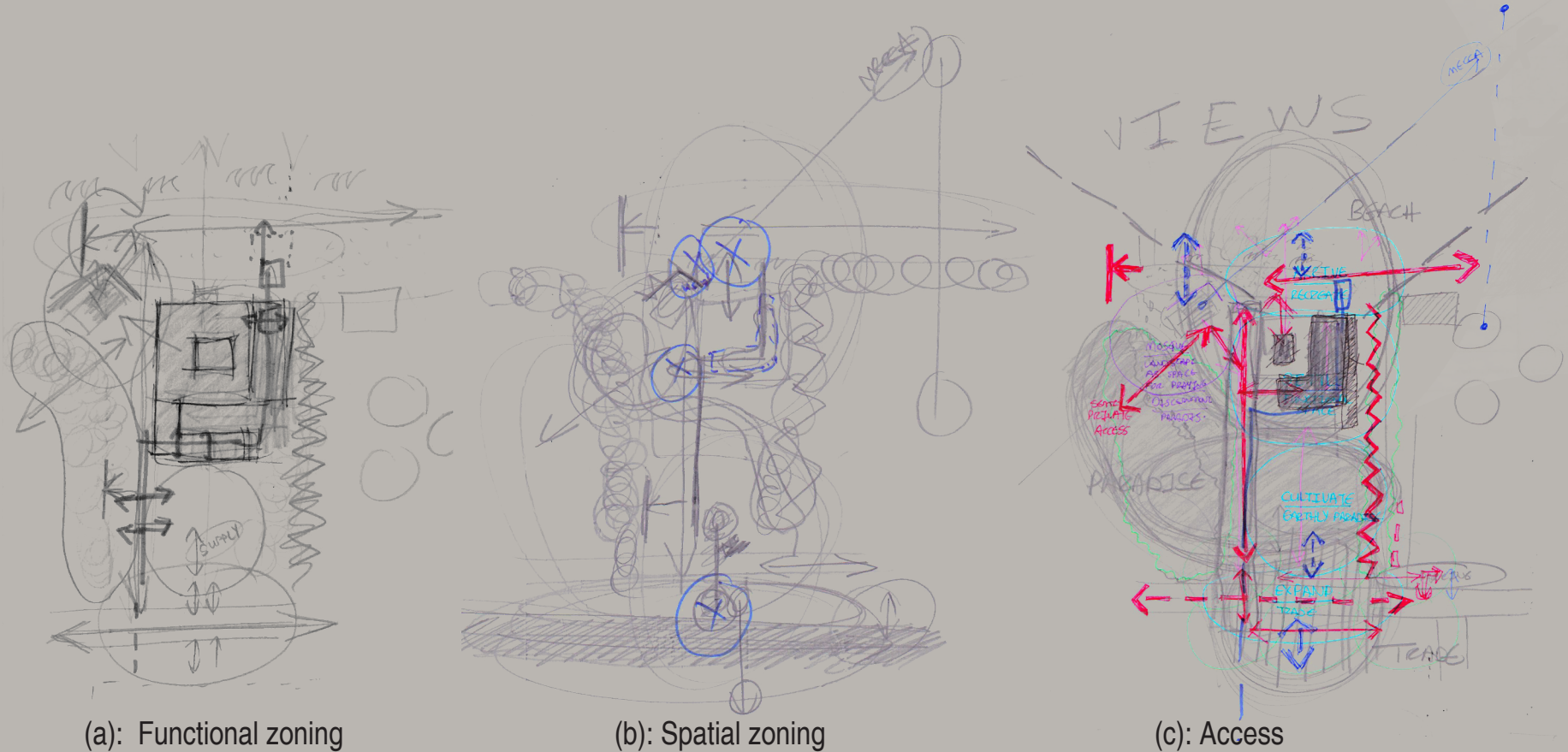
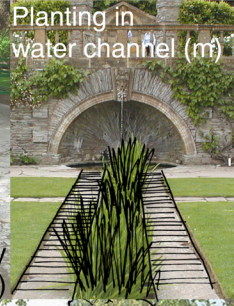
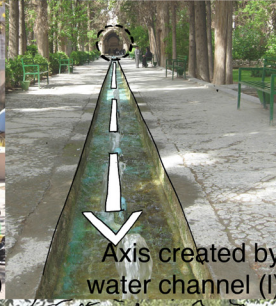


Fig. 111: Zoning Diagrams (Author, 2014).

Fig. 112: Design theme images (Author, 2014).



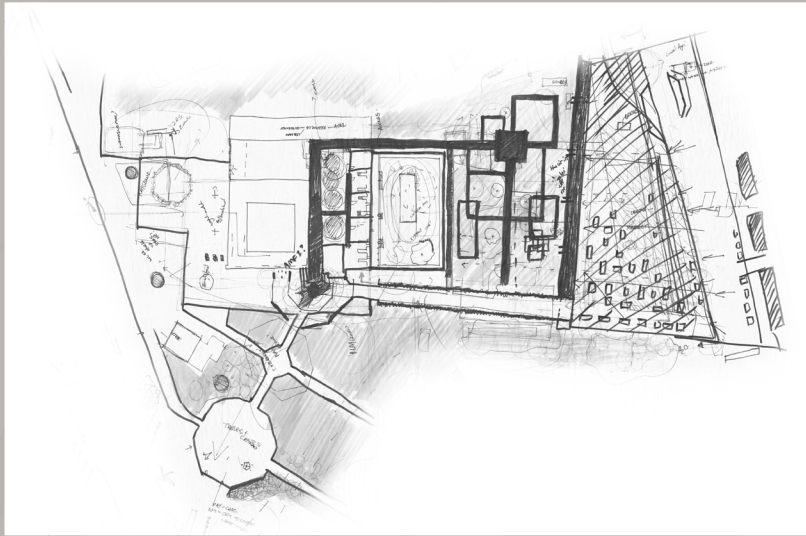


Fig. 113: Process Plan 1 (Author, 2014).

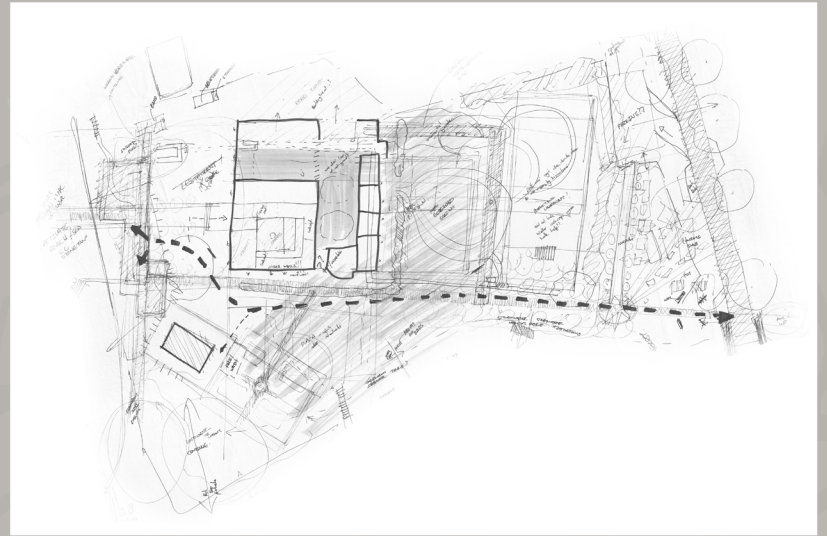


Fig. 115: Process Plan 3 (Author, 2014).

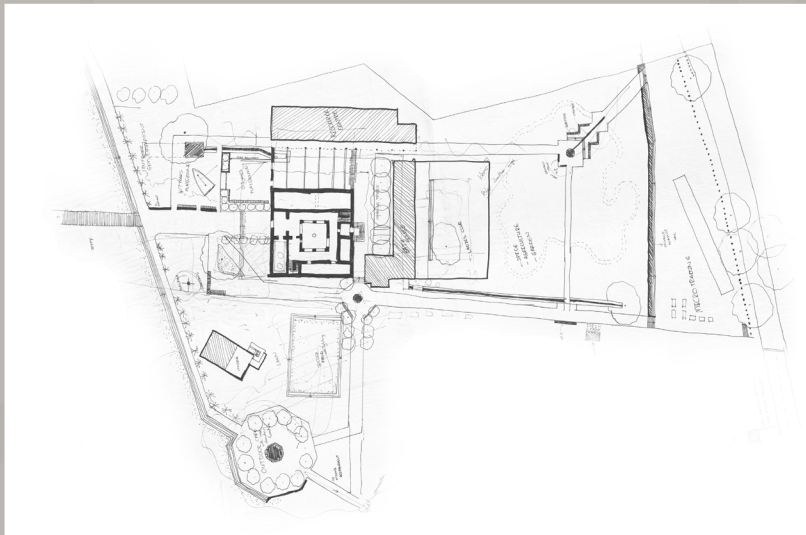


Fig. 114: Process Plan 2 (Author, 2014).

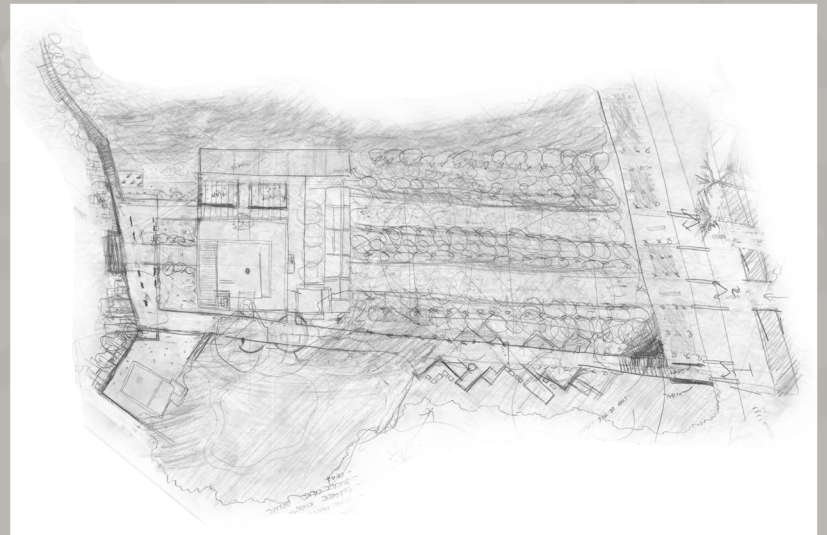


Fig. 116: Process Plan 4 (Author, 2014).

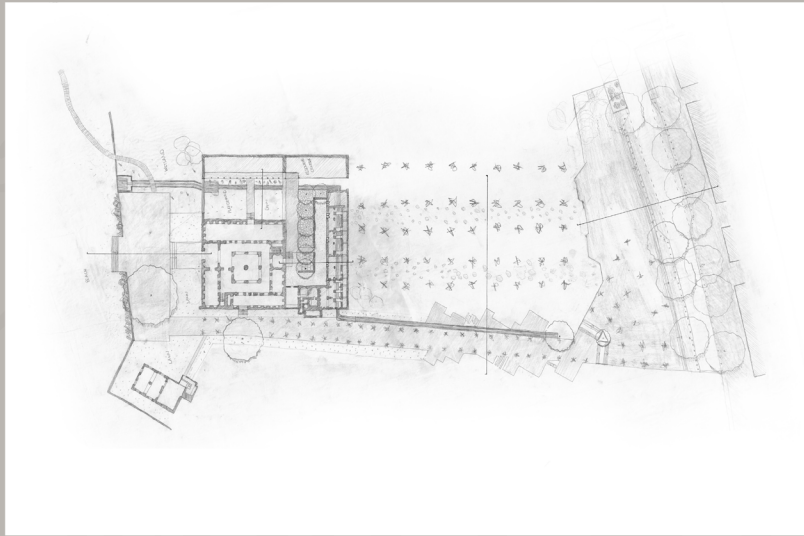


Fig. 117: Process Plan 5 (Author, 2014).

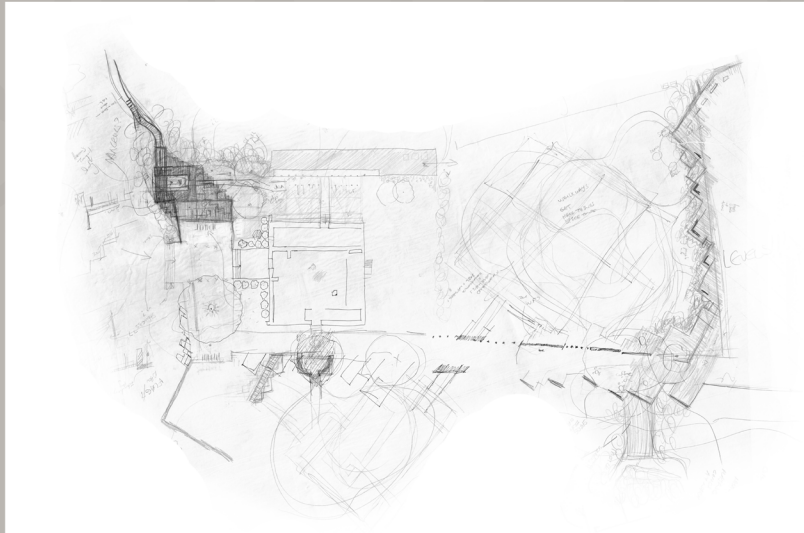


Fig. 118: Process Plan 6 (Author, 2014).

6.6.6. Design development

The development of the design was an iterative process throughout (Figures 113-118). Several factors created parameters: heritage significance, tidal changes, the impact of wave action, the defined boundaries on all sides and the theoretical aim of the study.

The design underwent a metamorphosis as an understanding of the local identity and culture expanded, Islamic design principles were applied and when the methodical understanding of each site element revealed the landscape strategy and programme.

6.7. Conclusion

The aim is to create a public open space that nurtures the identity of the Zanzibari nation by acting as a mnemonic device. This will be achieved by creating functional spaces that celebrate Zanzibari culture and lead the user to commemorate the history of Mtoni Palace. Using local building materials and techniques, applying Islamic design principles, and meeting the needs of the user will all contribute towards achieving a regionally appropriate design. Water will act as an important element in the landscape as it was historically, and activities will be focused around water and the water channel.