

2023 SOC REPORT

Forts and Castles, Volta, Greater Accra, Central and Western Regions (Ghana) (C 34)

1. Executive Summary

The State Party has considered the World Heritage Committee's decision on Forts and Castles, Volta, Greater Accra, Central and Western Regions, Ghana (Decision 45 COM 7B. 125) at the 45th session of the World Heritage Committee (Riyadh, 2023). The following report is a summary of actions taken by the State Party in response to Decision 45 COM 7B. 125; these actions include both scheduled and ongoing tasks at the various components of the Forts and Castles World Heritage Property (FCWHP).

The State Party duly acknowledges the advice and requests by the World heritage Committee as well as recommendations in both Advisory and Reactive Monitoring Mission. The challenges that the FCWHP face are numerous and lack of adequate resources and expertise has prevented the State Party from making significant progress in addressing them. Notwithstanding, the State Party remains committed to addressing the challenges. This commitment by the State Party is evident in efforts to begin the process to delineate boundaries and buffer zones for the FCWHP. Though this has been outstanding for several years, the beginning of the process is a big step by the State Party. The completion of the Integrated Management Plan (IMP) for the FCWHP is also noteworthy. The World Heritage Committee's advice to implement the IMP is very welcomed. The State Party intends to commit resources and necessary support to make the implementation successful.

Deterioration of the integrity of components at the FCWHP is of uttermost concern. The contribution of few skilled and technical staff at GMMB is recognized in the preservation efforts at the FCWHP. This however does not ensure a sustained approach to comprehensively address challenges facing the site and calls for external support beyond the GMMB. The State Party considering this as urgent, welcomes both technical and financial support from international partners to ascertain the condition of each component towards a sustainable approach to managing the FCWHP.

The State Party is confident that together with support from the Centre and Advisory Bodies, preservation of the Forts and Castles, Volta, Greater Accra, Central and Western Regions World Heritage Property will be safeguarded.

2. RESPONSE TO THE DECISION OF THE WORLD HERITAGE COMMITTEE

In response to the World Heritage Committee's decision on Forts and Castles Volta, Greater Accra, Central and Western Regions, Ghana (**Decision 45 COM 7B.125**) at 45th session of the World Heritage Committee (Riyadh, Kingdom of Saudi Arabia), the State Party's considerations are as follows:

2.1 Delineation of Boundaries and Buffer Zones

Decision paragraph 4:

*Also welcomes the application of impact assessments as a tool to safeguard the Outstanding Universal Value (OUV) of this property, the project to **delineate the boundaries and define buffer zones** for the components of the property, and the **survey of the structural condition** of all components of the property;*

The State Party considers as urgent the request to delineate boundaries of the components and their individual buffer zones and has initiated steps to address this concern. Under the Ministry of Tourism Arts and Culture (MOTAC) World Bank funded Ghana Tourism Development Project, a consultant was selected to gather data to commence activities required to delineate boundaries and buffer zones for the property. The project commenced on May 14, 2023 and was originally expected to be completed on September 18, 2023; however, the project is yet to be completed.

A summary of the project is as follows:

		Status	Expected Output
1	A reconnaissance survey of each of the 28 sites to do a physical inspection of the survey demarcation for the boundary and to collate information from the localities to enable the proper establishment of the buffer zones.	Completed	Consultant introduced to all components
2	Establishment of the GMMB recommended site boundaries based on submitted site plans for each of the 28 sites.	Completed	Review and validation of existing site plans
3	Establishment of the Municipal Assemblies with responsibility for settlement planning for the purposes of discussions leading to the establishment of the buffer zones.	Completed	Meeting with selected local government authorities
4	Survey coordinates for each site based on the National Survey Grid system to establish both the site boundaries and buffer zones and to produce the required site plans for onward documentation and registration.	On-going	Site plans indicating proposed boundaries and buffer zones

2.2 Structural survey of the various components

The State Party through Ghana Museums and Monuments Board (GMMB) is yet to conduct a structural survey of all components. The survey report is expected to include prioritization of structural interventions to be undertaken at each site. Recommendations from this survey will guide actions to conduct further structural integrity evaluation of each component of the Forts and Castles World Heritage Property (FCWHP). The GMMB lacks the required expertise and equipment to undertake a comprehensive structural survey. The State Party welcomes advice from the World Heritage Centre on how to seek technical support from international partners to adequately address this matter.

2.2 International Partners

Decision paragraph 5:

Further welcomes the contribution of international partners, in particular the governments of the Netherlands and France, to the State Party's activities, notably for the rehabilitation of the USSher Fort Slavery Museum, the consolidation of Fort Amsterdam and the development of signage at the property's components;

The State Party successfully completed rehabilitation of USSher Fort Slavery Museum and Fort Amsterdam with the support of the governments of the Netherlands and France. Fund mobilization for follow-up interventions is in progress. Through the State Party's partnership with the embassy of France in Ghana, the Ghana Museums and Monuments Board is currently receiving technical support in the area of cultural resource management. The State Party appreciates support from international partners and intends to actively engage support for activities in the implementation of the IMP.

2.3 Implementation of IMP

Decision paragraph 6:

Encourages the State Party to implement the IMP and requests that the State Party provide a report on the effect of this implementation in its next state of conservation report;

The final draft of the Integrated Management Plan (IMP) for the Forts and Castles, Volta, Greater Accra, Central and Western Regions World Heritage Property (FCWHP) has been submitted to the World Heritage Centre for a final review by ICOMOS and Advisory Bodies. Final publication and distribution of the IMP would follow after a final review from ICOMOS and Advisory Bodies. State Party however acknowledges the advice to implement the Integrated Management Plan (IMP). As identified in the IMP, a steering committee to oversee the implementation of the plan will be set up in the first quarter of 2024 and reports on the progress of the workplan would be submitted in the next state of conservation report.

2. 4 Deterioration of the Integrity of components

Decision paragraph 7:

Expresses its concern at the continuing deterioration of the integrity of the components of the property, the continued reports of urban encroachment and inability of the State Party to halt projects that may damage the OUV of the property;

The State Party acknowledges the Committee's concern at the continuing deterioration of the integrity of the components of the property, the continued reports of urban encroachment and inability of the State Party to halt projects that may damage the OUV of the property. Apart from damage to the OUV, safety of visitors to the FCWHP components is also of concern. The government agency directly responsible for the FCWHP – the GMMB, is currently unable to effectively address the matter. A concerted effort to address these concerns at National level is yet to be explored.

2.5 International Assistance

Decision paragraph 9:

Recalling that international assistance could be considered to this effect, also requests the State Party to:

- 1. Create a disaster risk management plan for the property,*
- 2. Provide details of the establishment of the Heritage Fund, or other funding mechanisms for each Fort and Castle,*
- 3. Consider the creation of a scientific and a technical committee to guide the conservation and maintenance of the property,*
- 4. Urgently develop a plan for the stabilization and restoration of the attributes,*
- 5. Implement impact assessment procedures in accordance with the provisions of the Operational Guidelines and general development authorizations in conformity with the Guidance and Toolkit for Impact Assessments in a World Heritage context,*
- 6. Develop a policy to manage urban encroachment,*
- 7. Expedite the development of an inventory that contains documentation and information critical to the maintenance, restoration, and interpretation of the property;*

The State agrees with the advice to consider international assistance to address a number of concerns. The calls for increased mobilization of the international community to provide more financial and technical support to implement the short and medium-term measures to improve the state of conservation of the property is appreciated. This support would propel the State Party to address the impact of lack of technical know-how and resources at the FCWHP.

STATE OF CONSERVATION REPORT - FORTS AND CASTLES OF GHANA

Update on the advice to seek international assistance:

	Issue	Status
a)	Create a disaster risk management plan for the property	Not yet done
b)	Provide details of the establishment of the Heritage Fund, or other funding mechanisms for each Fort and Castle	Not yet done
c)	Consider the creation of a scientific and a technical committee to guide the conservation and maintenance of the property	Not yet done
d)	Urgently develop a plan for the stabilization and restoration of the attributes	Not yet done
e)	Implement impact assessment procedures in accordance with the provisions of the Operational Guidelines and general development authorizations in conformity with the Guidance and Toolkit for Impact Assessments in a World Heritage context	Not yet done
f)	Develop a policy to manage urban encroachment	Not yet done
g)	Expedite the development of an inventory that contains documentation and information critical to the maintenance, restoration, and interpretation of the property	Not yet done

2.6 Reactive Monitoring Mission

Decision paragraph 10:

Reiterates its request to the State Party to urgently invite a joint World Heritage Centre/ICOMOS/ICCROM Reactive Monitoring mission to the property to assess the state of conservation of all the components of the property;

Decision paragraph 11:

Further requests the State Party to develop an overview of all projects being planned in the vicinity of all components of the property and submit this to the World Heritage Centre in advance of the requested Reactive Monitoring mission to the property;

The request by the Committee for the State Party to urgently invite a joint World Heritage Centre/ICOMOS/ICCROM Reactive Monitoring mission to the property to assess the state of conservation of all the components of the property; the efficacy of the protection and management system; the impacts of development projects at the property's components, in particular those at Elmina, Jamestown, Old Ningo and Axim; the progress on the implementation of the IMP; the implementation of the recommendations of the 2019 and 2020 missions; the progress in the delineation and protection of buffer zones; and the progress on the structural survey and planning to implement urgent remedial structural actions is duly noted.

An overview of all projects being planned in the vicinity of all components of the property would be submitted to the World Heritage Centre in advance of the requested Reactive Monitoring mission to the property as requested.

STATE OF CONSERVATION REPORT - FORTS AND CASTLES OF GHANA

Summary overview of projects in the vicinity of the FCWHP as at January 2024:

	FCWHP Component	Planned projects in the vicinity	Expected completion date	Remarks
1	Ft Prinzenstein	<i>unknown</i>	<i>unknown</i>	n/a
2	Ft Fredensborg	<i>unknown</i>	<i>unknown</i>	In use as a building contractor's site yard
3	Ft Vernon	<i>unknown</i>	<i>unknown</i>	n/a
4	Ft Augustaborg	<i>unknown</i>	<i>unknown</i>	n/a
5	Christiansborg	<i>unknown</i>	<i>unknown</i>	n/a
6	Ussher Fort	<i>unknown</i>	<i>unknown</i>	n/a
7	James Fort	<i>unknown</i>	<i>unknown</i>	n/a
8	Ft Good Hope	<i>unknown</i>	<i>unknown</i>	Construction of shed in close proximity of the fort completed.
9	Ft Patience	<i>unknown</i>	<i>unknown</i>	n/a
10	Ft Amsterdam	<i>unknown</i>	<i>unknown</i>	n/a
11	Ft William	<i>unknown</i>	<i>unknown</i>	n/a
12	Ft Nassau	<i>unknown</i>	<i>unknown</i>	Construction of temporary structures within the periphery of the site is ongoing
13	Ft Fredericksborg	<i>unknown</i>	<i>unknown</i>	n/a
14	Ft William (lighthouse)	<i>unknown</i>	<i>unknown</i>	n/a
15	Ft Victoria	<i>unknown</i>	<i>unknown</i>	n/a
16	Cape Coast Castle	<i>unknown</i>	<i>unknown</i>	n/a
17	Elmina Castle	Yes	<i>unknown</i>	Ghana Tourism development Project: Elmina Iconic Project
18	Ft St. Jago	Yes	<i>unknown</i>	Ghana Tourism development Project: Elmina Iconic Project
19	Ft Vrendenburg	<i>unknown</i>	<i>unknown</i>	Construction of temporary structures within the periphery of the site is ongoing
20	The Fort at British Komenda	<i>unknown</i>	<i>unknown</i>	n/a
21	Ft Sebastian	<i>unknown</i>	<i>unknown</i>	n/a
22	Ft Orange	<i>unknown</i>	<i>unknown</i>	n/a
23	Ft Batenstein	<i>unknown</i>	<i>unknown</i>	n/a
24	Ft Metal Cross	<i>unknown</i>	<i>unknown</i>	n/a
25	Ft Dorothea	<i>unknown</i>	<i>unknown</i>	n/a
26	Ft Groot Friedrichsburg	<i>unknown</i>	<i>unknown</i>	Preparatory works for private development within close proximity of the fort is ongoing
27	Ft St Anthony	Yes	<i>unknown</i>	Ghana Tourism development Project: Enhancement Victoria Park. Construction of Pavilions at Victoria Park is yet to commence.
28	Ft Apollonia	<i>unknown</i>	<i>unknown</i>	Construction of private facilities within close proximity of the fort is ongoing

Details of projects at St George Castle and Fort St Anthony

St George Castle at Elmina

The State Party remains committed to the “Elmina Iconic Project” under the Ministry of Tourism Arts and Culture (MOTAC) World Bank-funded Ghana Tourism Development Project. The project aims improve conditions within the immediate environs of Elmina Castle and Fort St. Jago in order to improve visitor experience of the site and to increase the length of stay of visitors at the site. The State Party has considered the recommendations made by ICOMOS and is currently compiling the necessary documentation for submission to the World Heritage Centre.

Fort St Anthony at Axim

A project to enhance Victoria Park in front of Fort St Anthony began with paving of the park in 2020 under an initiative by Ghana Tourism Authority. Work continued with the construction of a roofed platform in 2021, under the Ministry of Tourism Arts and Culture (MOTAC) World Bank-funded Ghana Tourism Development Project. The project is currently halted. Details of the design are currently under revision following GMMB’s advice on the project since February 2022. The State Party will submit details of the work to the World Heritage Centre when revision is complete.

3.1. IMPLEMENTATION OF RECOMMENDATIONS FROM ADVISORY AND REACTIVE MONITORING MISSIONS

The State Party through Ghana Museums and Monuments Board (GMMB) is strategizing to comprehensively address recommendations of both Advisory and Reactive monitoring Missions through implementation of the IMP and other projects.

A summary update of the status of both Advisory and Reactive Monitoring Missions is as follows:

Advisory Mission 2019 Recommendations

Recommendations	Task	Status
Recommendation 1	Halt all current development projects, including projects, at and around any component of the property	<i>James Town Fishing Harbour project and use of Old Ningo site as a Contractor’s yard continues</i>
Recommendation 2	Undertake Emergency Inspection of all the Components (Forts and Castles) of the Property	<i>Completed</i>
Recommendation 3	Assess the Integrity and Authenticity of all the Components (Forts and Castles) of the Property	<i>Not yet done</i>
Recommendation 4	Submit the Tourism Development Project for Elmina to the WHC	<i>Completed</i>
Recommendation 5	Submit the Restoration Project of Fort Amsterdam to the WHC	<i>Completed (Refer to Annex 1)</i>
Recommendation 6	Submit the concrete market project being built near St. George Castle in Elmina, to the WHC	<i>Not yet done</i>
Recommendation 7	Define and submit to the WHC the property boundaries of all the components and their Buffer Zone Proposal	<i>Data gathering to begin the process is on-going</i>

STATE OF CONSERVATION REPORT - FORTS AND CASTLES OF GHANA

Recommendation 8	Identify, prevent and mitigate the impact of factors affecting or that can very soon affect the Outstanding Universal Value of the property	<i>Not yet done</i>
Recommendation 9	Review and update National Heritage Legislation in order to protect the World Heritage Property	<i>Not yet done</i>
Recommendation 10	Develop and implement the Management Plan for the World Heritage Property	<i>Development of the IMP completed. Implement is yet to commence</i>
Recommendation 11	Develop and maintain a proper database of all the components of the property	<i>Not yet done</i>
Recommendation 12	Develop and implement capacity building for GMMB Staff	<i>Not yet done</i>

Reactive Monitoring Mission 2020 Recommendations

Recommendations	Task	Status
Recommendation 1	Reassess the serial property in its entirety by considering the integrity and authenticity of each component	<i>Not yet done</i>
Recommendation 2	Definition of property boundaries and buffer zone	<i>Data gathering to begin the process is on-going</i>
Recommendation 3	Conduct a structural integrity evaluation	<i>Not yet done</i>
Recommendation 4	Disaster risk management including impacts of climate change	<i>Not yet done</i>
Recommendation 5	Need for a conservation	<i>Not yet done</i>
Recommendation 6	Allocation of a permanent fund for each fort & castle	<i>Not yet done</i>
Recommendation 7	Creation of a scientific & technical council	<i>Not yet done</i>
Recommendation 8	Need for long-term stabilisation and restoration	<i>Not yet done</i>
Recommendation 9	Improving management effectiveness	<i>Not yet done</i>
Recommendation 10	Halt all current development projects, including projects, at and around any component of the property	<i>James Town Fishing Harbour project and use of Old Ningo site as a contractor's yard continues</i>
Recommendation 11	Development authorisations	<i>Not yet done</i>
Recommendation 12	Need for capacity building	<i>Not yet done</i>
Recommendation 13	Need for a strategic vision	<i>Not yet done</i>
Recommendation 14 –	Interpretation and presentation of each component	<i>Not yet done</i>
Recommendation 15	Engage in strengthened involvement in UNESCO's slave route project	<i>Not yet done</i>
Recommendation 16	Need to create a database, documentation and research	<i>Not yet done</i>
Recommendation 17	Need to expedite the review of the existing legislation	<i>Not yet done</i>
Recommendation 18	Reactive monitoring mission in 2022	<i>Not yet done</i>

4. CURRENT CONSERVATION ISSUES IDENTIFIED BY THE STATE PARTY WHICH MAY HAVE AN IMPACT ON THE PROPERTY'S OUTSTANDING UNIVERSAL VALUE

The State Party identifies the following as the main threats affecting the FCWHP in general:

STATE OF CONSERVATION REPORT - FORTS AND CASTLES OF GHANA

- Lack of boundaries and buffer zones

Encroachment activities continue to take place in close proximity to the sites as a result of an absence of well-demarcated site boundaries and buffer zones. These encroachment activities around the components, threaten the safeguards of the FCWHP. This situation has fostered unplanned activities and developments as the demand for land use intensifies around the property's components.

- Urban development pressure

Land use along the coast is rapidly increasing and different development projects and activities are sprawling around some of the sites. Although the forts are undoubtedly the pull factor, these projects and activities are unguided and unregulated thereby posing a threat to the setting and landscape of the sites.

- Inadequate funding

Funding to support routine maintenance and repair of deteriorating components of the property is inadequate. This makes it difficult for GMMB Staff to engage in conservation works which results in further deterioration of components. Furthermore, GMMB Staff lack technical know-how which would have been gained from undertaking routine maintenance and conservation works. Monitoring, which is essential in monument conservation and heritage management and other operations of FCWHP, is affected.

- Lack of skilled personnel

The required expertise in managing and conserving the site is lacking. The situation does not allow for appropriate and desired decision-making processes and promotion of the Site as a World Heritage Property.

- Lack of research and documentation

The absence of research, documentation and archiving of conservation works and procedures impedes continuity of works, and the transfer of information. This also creates a problem in the development of standards in conservation practice and heritage management of the FCWHP.

- Effect of Climate Change

The change in weather patterns and its impact of the physical components of the FCWHP is of concern. The site is currently experiencing an extensive rainy season characterized by heavy rainfall and strong winds. As a result of the infiltration of water and the dampness of the structure, the rate of deterioration has intensified and could impact the OUV of the components.

5. PUBLIC ACCESS TO THE STATE OF CONSERVATION REPORT:

The State Party requests the full Report should be uploaded.

6. SIGNATURE OF THE AUTHORITY

KINGSLEY OFOSU NTIAMOAH
ACTING EXECUTIVE DIRECTOR

PROJECT REPORT

STABILIZATION AND CONSOLIDATION OF FORT AMSTERDAM ABANDZE CENTRAL REGION

GHANA MUSEUMS AND MONUMENTS BOARD

UNESCO



ETHNIK INTERNATIONAL
DEVELOPMENT CONSULTANTS

P.O. BOX SD78 SPORTS
STADIUM ACCRA

TEL/FAX : 233(021)508504
MOBILE : 024378186

E-MAIL: kojoderban@hotmail.com.
WEBSITE:

FORT AMSTERDAM

CONTRACTOR'S STATEMENT

On 20th October 2022, Ethnik International was awarded the contract for the stabilization and consolidation of Fort Amsterdam, one of Ghana's forts and castles in the Central region of Ghana. The 400-year-old Fort had been diagnosed with structural problems which needed urgent attention. Through a competitive bidding process organized by the Ghana Museums and Monuments Board, the firm was selected, awarded and approved by UNESCO to perform the task of undertaking conservation interventions to prevent further deterioration of the Fort. We were honored to accept the contract services (No,4500475094) from UNESCO for the implementation of the above project. We agreed to all terms and conditions. We worked with the Ghana Museums and Monuments Board who supervised and guided the project according to the conservation principles of World Heritage Convention with the aim of securing its structural integrity of the fort.



Arc. David Kojo Derban

Ethnik International Ltd.

ACKNOWLEDGEMENT

The consolidation and stabilization of Fort Amsterdam has been made possible by diverse assistance, cooperation and support of stakeholders. Their support is deeply appreciated.

International Assistance

UNESCO Paris Office

Embassy of France

Ghana Museums and Monuments Board (GMMB)

Kingsley Ofori Ntiemah, Acting Executive Director

Bernard Sackey, Head of Monuments Division

Natalyn Oye Addo, FCWHS Sites Manager

Community Stakeholders

Nana Kwesi Atta VChief of Abandze

Okyeame Kofi Ayinesa Chief's linguist

Supi Abaka Kuntu Former Regent

Supi Ekow Yeboah..... Assembly man

Okyeame Ekow Wonaee Omankyeame

Joseph Kobina Anyin..... Representative of royal family

CONTENTS

1.	PROJECT BACKGROUND.....	5
2.	A BRIEF HISTORY OF FORT AMSTERDAM.....	6
3.	STATE OF FORT AMSTERDAM PRIOR TO WORKS.....	12
4.	WORK TO BE DONE.....	16
5.	MEETING THE COMMUNITY LEADERS.....	19
6.	PROJECT BRIEFING.....	20
7.	MATERIAL SUPPLY ORGANIZATION.....	21
8.	MATERIAL HAULAGE.....	22
9.	WALKWAY-APRON CONSTRUCTION	24
10.	REMOVAL OF VEGETATION.....	24
11.	REPAIR OF CRACKS.....	33
12.	COURTYARD FILLING.....	37
13.	BASTION TOP AND FIRST FLOOR WALKWAYS WORKS.....	38
14.	RECOMMENDATIONS.....	41
15.	FINAL COMMENTS.....	42
16.	SUGGESTIONS FOR THE FUTURE.....	43

1. PROJECT BACKGROUND

Fort Amsterdam perched at 100 feet above sea level on a coastal hill , has a history of damage first due to conflicts between the English and Dutch in the 17th century and suffered hostility from the locals hence has been a ruin as early as since 1811. From then on it was left to the vagaries of the coastal weather for almost 130 years. It came under the Ghana Museums and Monuments Board (GMMB) and in 1951 efforts were made to repair and restore the collapsed North western Bastion under the A.W Lawrence, a famed archaeologist and first director of GMMB . The ruin was enlisted was inscribed along with 15 other Forts and 3 Castles onto the World heritage List in 1979 . A number of conservation plans have been drawn up for its conservation . However these have been slow to fully materialize fully, resulting in the increase of threats such as erosion, structural instability, encroachment, salty atmosphere and high winds. In 2019 and 2020 , the State of Conservation (SOC) reports highlighted these as the basic factors causing the degradation of the cause. In that same year, a group of archeologists from the university of Rochester USA, conducted studies on the fort and prepared a survey of the structural defects revealing how endangered the building was. It was based on this report that the GMMB prioritized plans to consolidate and stabilize the fort to prevent it from further deterioration.



Restoration work at the Fort in 1951 by AW Lawrence. A view of the North Eastern Bastion before and after it was restored

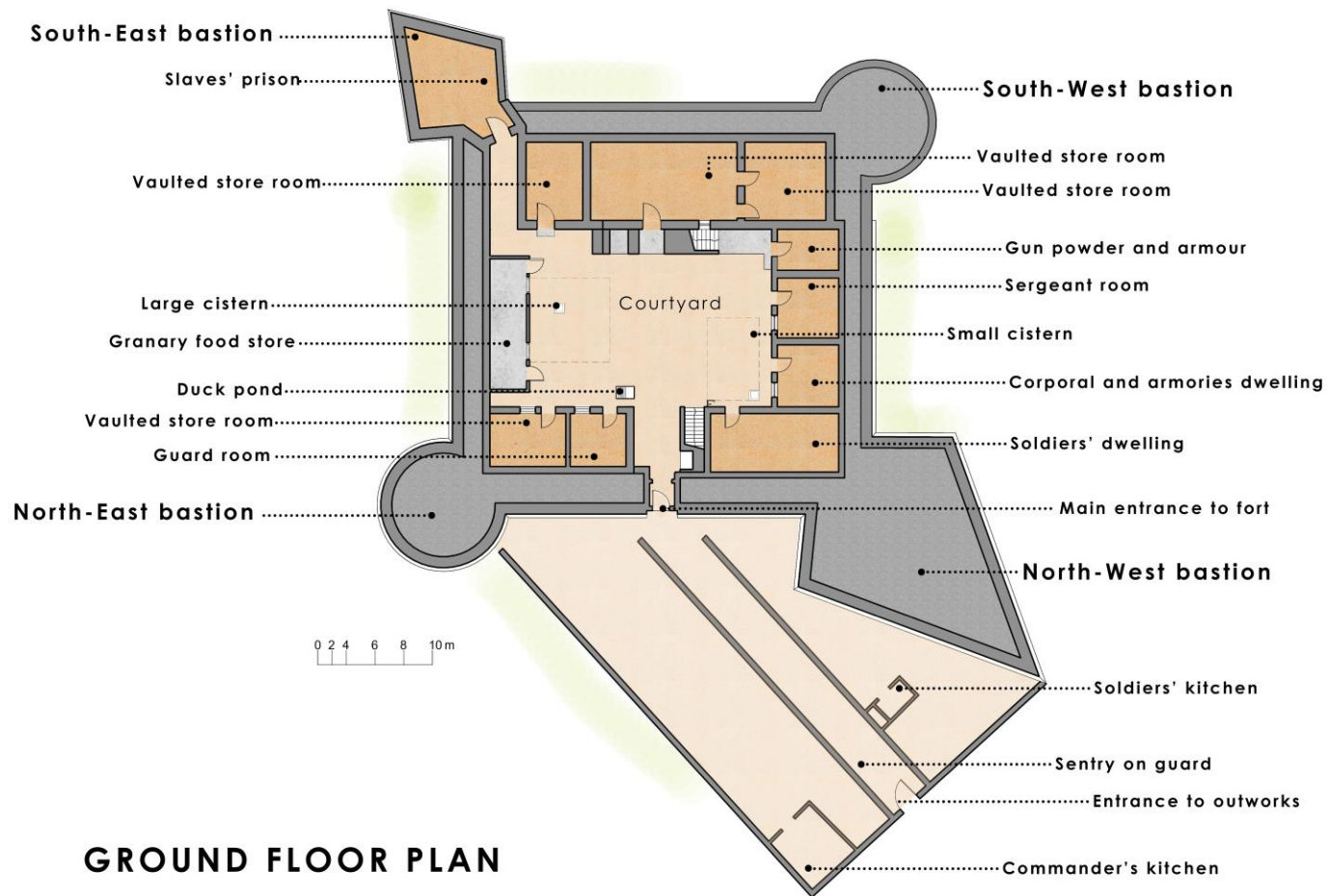
2. A BRIEF HISTORY OF FORT AMSTERDAM

Originally named Fort Kormantine, it was built by the English in about 1600 as the headquarters of English possessions on the Gold Coast by the Royal African Company until the headquarters was removed to Cape Coast Castle. Before it was taken over by the Dutch in 1665 in an attack, it served as a trading post for representatives of the company, an army base for soldiers, and stores for goods namely alcohol and guns, and other merchandise to be sold for slaves.



ARCHITECTURE

Fort Kormantine is a 24-gun fort with two lozenge-shaped bastions and two circular bastions. The fort consisted of two double-story buildings attached to the Northern inner curtain wall. These housed the soldiers and mainly stores for merchandise. The southern curtain was essentially a long two-story block and partially three stories in height to serve as a council room or hall with a larder and a staircase to a watch. The fort served as the headquarters of the English and would have a governor and the representatives of the company and the merchants who would come to oversee trade from time to time. The rooms for the captains were attached to the western curtain under the walkway. The layout leaves a courtyard under which there are 2 large water cisterns.



MERCHANDISE AND SLAVES

Merchandise brought on merchant ships to be sold to Africans included; textiles, muskets, barrels of gun powder iron bars, alcohol, tobacco, English Perperuana cloth, calico, and weaving yarn all in exchange for Slaves, ivory, gold, and palm oil. They also kept their supply of wheat, butter, pork, salted beef, beer, wine, and brandy. Important commodities obtained from other parts of Africa for storage en route to Bristol were Red wood from Sierra Leone (from which a dye is obtained) sugar from Sao Tome and slaves from the Bight of Benin awaiting specialized slave ships bound for plantations in Jamaica.

Though it would be difficult to tell where a great number of slaves would be held for months in this small fort, the fort certainly had a notorious reputation in the Caribbean where it was noticed that the Cormantine slave, Kormantees or slaves from ships that bought slaves from Fort Kormantine were particularly exceptionally rebellious and so the plantation owners cautioned themselves not to purchase them. Several full-scale plantation rebellions in Jamaica were led by slaves of Kormantine origin which was Akan. In 1739, the leader of the Koromantee Maroons named Cudjoe (Kojo) signed a treaty with the British ensuring the Maroons would be left alone provided they did not help other slave rebellions. (Wikipedia)

ANGLO-DUTCH HOSTILITIES

Between the 17th and 19th centuries the rivalry on the Gold Coast among the European nations was at an all-time high, especially on the shores of the New World and the Mediterranean. On the West African coast, the English pressed their efforts into increasing their portion of the gold trade and dominating the slave trade. Attacks on castles and forts by rival nations supported by natives were not uncommon. The English decided to forcibly extend their influence through military might. In 1664, The English led by Admiral Robert Holmes attacked and captured the Dutch forts belonging to the Dutch West India Company and began to attack, harass and capture Dutch ships on the high seas.

The English used this time to attack the vulnerable Dutch-controlled forts of El-Mina, Axim Mori, and Butri. In October 1664, A Dutch admiral of high repute by the name of Admiral De Reuyters (1607 -1676) on campaign in the Mediterranean and was given instructions to go down to West Africa and take back all the siezed forts and more. (Albert Van Dantzig; Forts and castle of Ghana).

Admiral De Reuyters nicknamed the 'terror of the seas' sailed down to the West African coast in a convoy of battleships with a fearsome reputation for devastation in naval battle; an 80-gun, fully rigged war vessel named *De Zeven Provinciën* , a (46 m) long and (over 12 m) wide ship of the line ship. It was 1600 tons and had a crew of 420 and was fully armed with twelve 36-pounders weighing in at 3.5 tonnes and capable of firing at a muzzle velocity of 487 meters per second. It could be a hypothesis that the southern bastions of the fort and the curtain would stand no chance of standing if the firepower of the ship was unleashed against them. The Second Anglo-Dutch War 1665- 1668 had begun. The reprise attack took place on 22 October 1664. The English lost Fort Kormatine and the Dutch took over and renamed it Fort Amsterdam.

TRADE AT FORT AMSTERDAM 1655- 1800

Under the Dutch company West India Company, the business run into difficult times. The local chiefs claimed the land for the castle was given to the English and not the Dutch. That was the basis of the decline of trading at Fort Amsterdam. The partially hostile and unpredictable behavior of the fates led to unstable prices of slaves, blockades of paths, detaining and hoarding of slaves, and therefore a cutoff of good profits that had been gained before. The situation only got better when the Dutch paid heavy bribes and gave gifts to the chiefs (AV Danzig)

Besides the situation at Kormantine, the whole Gold and slave industry was taking a beating from the menace of piracy, and therefore there was the need to spend extra on naval protection and patrol escort. The chances of the full cargo of slaves reaching their destinations were slim as conditions on board were cruel, ghastly, and deplorable leading to disease and death and loss of mental faculties, eyesight, and suicides. Then the castles and forts were getting more expensive to maintain. (Paul Helen Julia 2009))

Compared to the operation of the free merchants who had no forts and operated only from ships, the slave fort seemed unnecessary where profits were concerned. Relations between the Europeans and natives were unstable. Native attacks on forts were not altogether unusual. Taking advantage of the perpetual feuding Europeans, they often picked which side to support based on monetary promises. (I Ephson)

By the end of the 16th century, Fort Amsterdam had been facing frequent periods of low business. It became vulnerable to petty thievery, robbery, and mild attacks by natives. The occupation life of the fort came to an end when it was heavily attacked by the people of Anomabu in 1811 in revenge for an attack on the English who were their longtime allies. Then it remained abandoned till 1951 when the Ghana Museum and Monuments Board took charge of it to restore the ruins. (K.J Anquandah)



Fort Amsterdam today

3. STATE OF FORT AMSTERDAM PRIOR TO WORKS



The fort as at 5th January 2023



The defects of the fort are numerous and are caused by varying factors including earth tremors. Several cracks are clearly visible on the full height of the bastions walls. The cracks that are present on the top of the bastion and the walkways allow rain penetration which have caused large cracks in the bastion walls. These have caused the separation of the bastion from the floor at the edges.





The courtyard of the fort has undergone erosion leaving the foundation walls of the inner building's exposed. This revealed that the water run off the surface and gathered in the soldier's rooms during a down pour. Since there are no outlets the water sinks into the foundation causing instability to the structure. The vegetative growth on the walls have grown strong roots causing large cracks in the bastions . The vines that grow within the bricks need specialized attention as the roots fuse with the earth brick and cant be removed without damaging the walls.





The Eastern curtain wall is inundated with vegetative growth fed by water seeping in at the top of the walkway and cervices within the walls. The sloped nature of the walls also allow it to collect sand material in which seeds germinate.

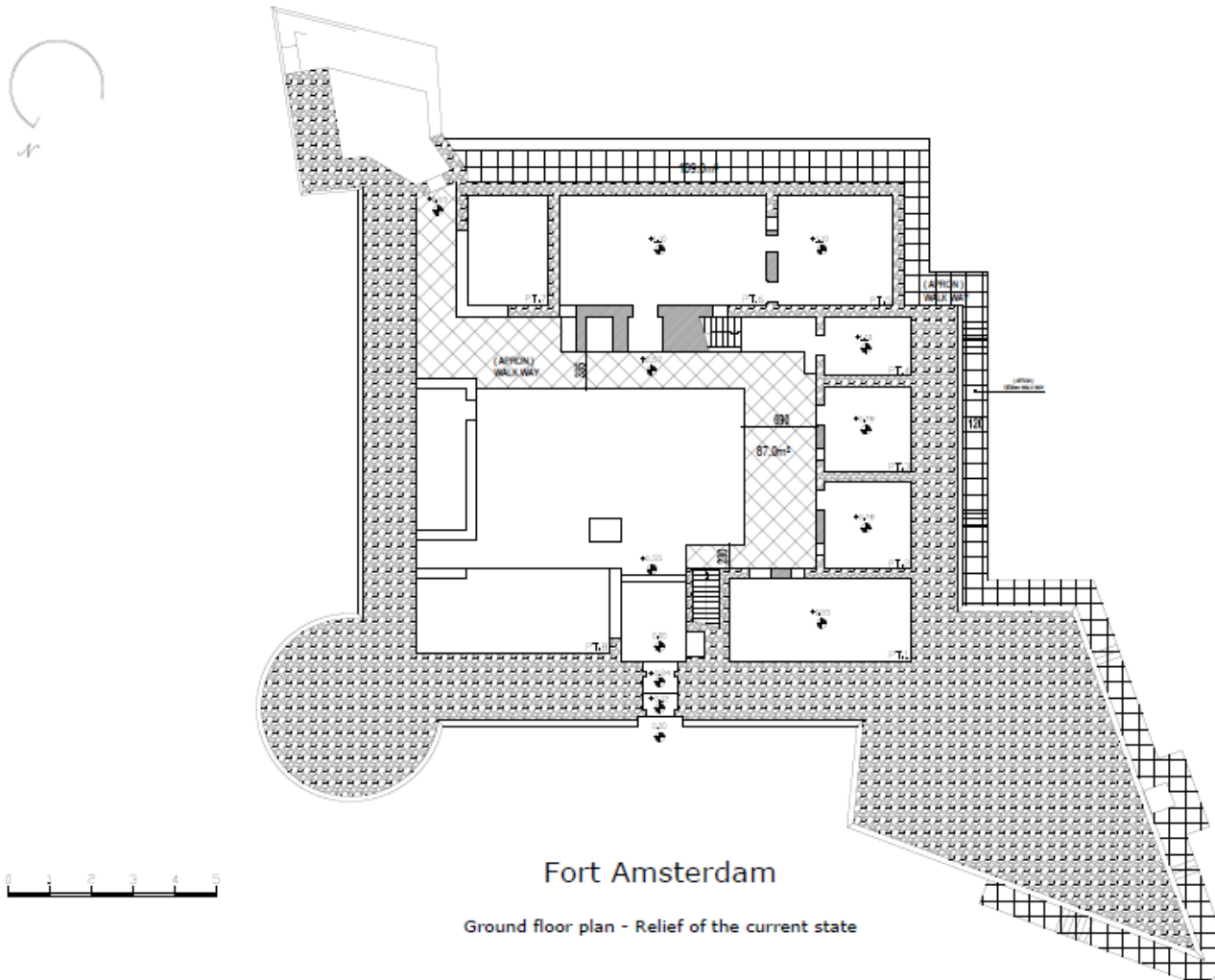


The missing southern walkways and bastions have left the inner foundation walls exposed . Without the support of the walkway, the walls are developing long cracks at various places. High winds and driving rain have also played their role in destabilizing the walls.

4. WORK TO BE DONE

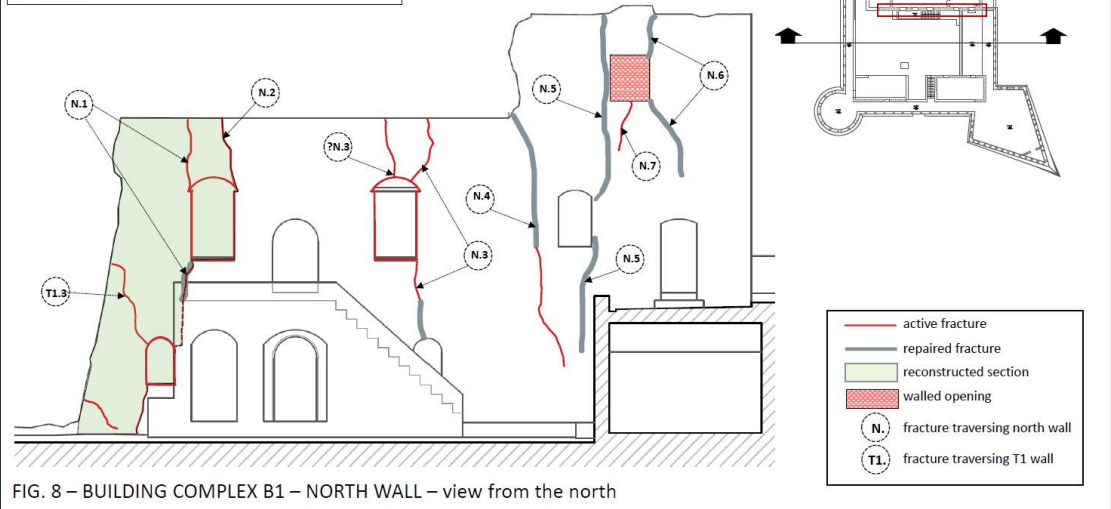
- **Consolidate the base of the fort** with an outer apron of 1meter width of varied heights around the Western and Southern walls to combat the erosion and wall movement.
- **Clear all Vegetation** / stumps on the bastion walls on the east and western walls of the fort. This should be done with precision. Various weedicides and chemicals should be employed to kill the plants without forceful removal. This is to be done over several weeks for the parasite to be completely detached from wall..
- **Repair all cracks** on the walls Repairing cracks will involve injection of a special lime grout into the cracks by a pump action pressure gun to achieve maximum penetration. The work executors will need ladders and scaffolds that will have to be firmly attached to the walls without perforation. Specification will be provided by the engineer
- **Fill the interior ground surface** of the fort with laterite and surface finishing with stone cladding to prevent rain-water filtration to dump the foundation to crack.
- **Reconstruct the bastion tops**, remove the stone and relay sloping towards the edges to allow rain to drain and avoid stagnation and seeping on the bastion.

DRAWINGS

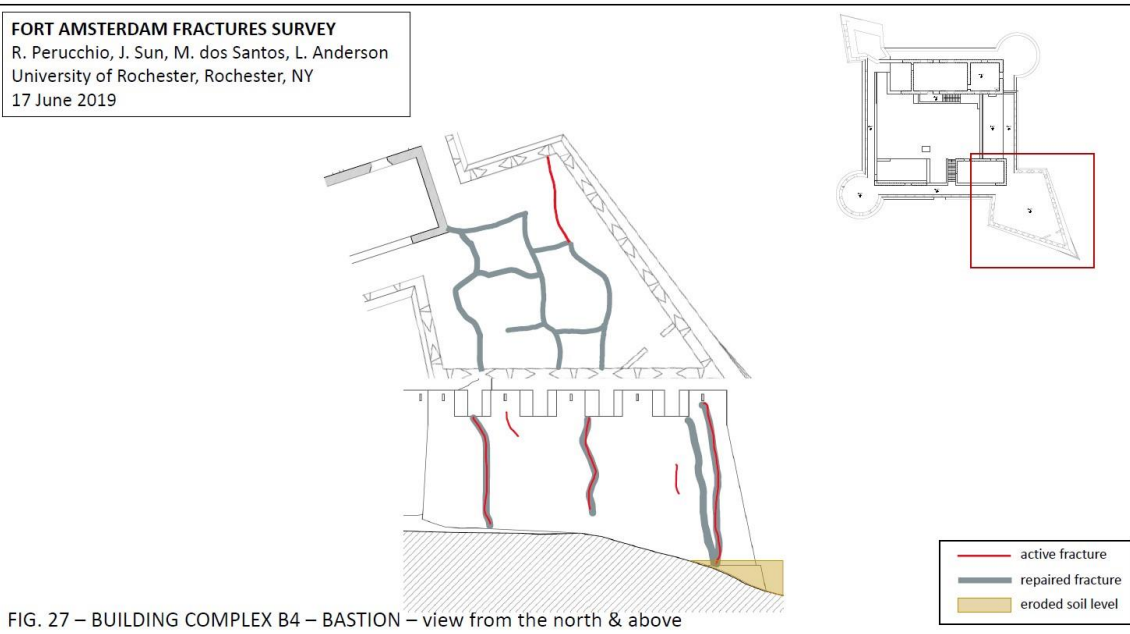


Surveys of cracks

FORT AMSTERDAM FRACTURES SURVEY
R. Perucchio, J. Sun, M. dos Santos, L. Anderson
University of Rochester, Rochester, NY
17 June 2019



FORT AMSTERDAM FRACTURES SURVEY
R. Perucchio, J. Sun, M. dos Santos, L. Anderson
University of Rochester, Rochester, NY
17 June 2019



5. MEETING THE COMMUNITY LEADERS



We were welcomed by the Chief and elders of Abanze. After introductions Mr. Morgan presented schnapps and some money on behalf of the team to the chief and his elders for hosting us. He then briefed them of the project and our intentions. He asked for their support and help to conscientize the community on sanitation around the fort and to help secure labor on the works during the project period. Project contractor Arc. David Derban, who also gave a detail description of his role on the job and the help he would need from the community to help complete the project as scheduled. The site manager for the forts, from GMMB, Natalyn Addo, also added explained further on their intentions to preserve and consolidate the fort.



6. PROJECT BRIEFING



Mr. Sackey, Head of the Monuments division of GMMB gave a briefing of the project and its expectations to the contracting team, and workers . Mr Derban , contractor responded promising to deliver the work according to the directions of the conservators of the project.



7. MATERIAL ORGANIZATION SUPPLY



Stone was the main material for the project . Samples of loose stone and rocks were taken from the building site to prepare a color match for the walkway . Materials to be used for the project was obtained locally. Stones and small boulders hewn from the coast at low tides were plentiful in supply. However , the color and size varied . They also varied in porosity . The non-porous ones which were darker in color were used for the foundations.



8. MATERIAL HAULAGE



The cost of material haulage up hill was significant part of the budget. Tons of material had to be carried up manually by head-load count and pay method . Bags of cement and lime, stones and boulders, river sand , rough sand and water were hauled up-hill by a group co community volunteer usually women form the locality who offered their services during low fishing season.



8. ORGANIZATION AND PREPARATION



Before construction of the walkway-apron began, the site was cleared and a survey of lines taken to determine how high the foundation walls would be at various points along the slopes. Clearing was done around the lost round bastion. Safety wear and gear was provided for the workers . Various test mixes for lime-sand consistency and suitability for foundation stones were done .



9. WALKWAY-APRON CONSTRUCTION



After setting out the lines for the foundations of the walkway, community volunteers provided digging services . Foundations of widths of 2 feet on the average were dug up to depths of 8 inches to 1 foot . The depths varied depending on the height of the wall to be built. The width of the walkway away from the fort walls was altered at different points ensure that the walkway walls were not too high needing more materials.





A foundation concrete mix of sand: lime: cement (S:L:C) 8:6:8 head-pan proportions was laid at a thickness of 6 inches within the foundation trenches. Large size boulders delivered by head-load and wheelbarrow were used for the foundation walls below ground level. Cement sand lime mixes of ratios were used to bind the boulders. Men from the community supported with the labor as carriers of stone.





A decision was made to recover the memory of the round south-west bastion by extending the walkway around the remnant of stones left from it positioned in the valley. The foundations of the walkway dug and stones laid to mark it. It was designed with descending and ascending steps to give a sensation of experience . The foundations were now filled laterite and sand and given a firm compaction to prepare it for the laying of flat stones.

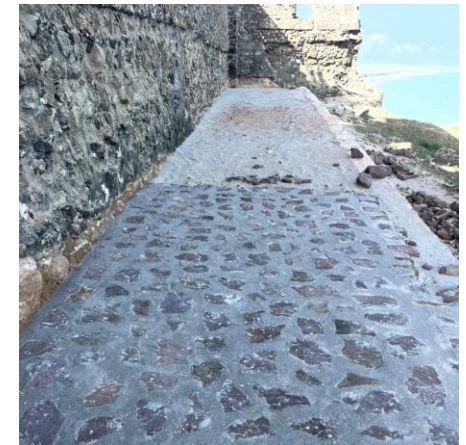


Flatter stones to act as flagstones were selected for the top of the walkway and carefully and meticulously arranged on the compacted walkway bed. An S:L:C mix of 6:6:1 was to lay the walkway. It was noted that slightly increased cement content helped to make a more stable walk way. The manufactured lime mortar proved weaker on horizontal surfaces compared





Much care was taken to provide a walkable surface. Checks were done on the surfaces week after week to make sure that the application of lime mortar was suitable. Loose flagstones were replaced. Strengthening the remains of the lost south-western bastion. Paving the southern walkway, topping up the fill with sand to level and sloping it so rainwater would not settle on it.





Completion of the southern walkway –apron around the lost bastion



Northern parts of the walkway –apron complete

10. REMOVAL OF VEGETATION



The removal of vegetation was not as simple as assumed. The roots were buried so deep into the bastion that it was impossible to remove. The decision was to cut the branches and regularly apply the recommended chemical such as Champion , a brand of weed killer which must contain 2,4-D, triclopyr, MCP, glyphosate. This was done for all grown vines along the walls



Some of the vegetation removed from the wall had different system of roots than expected . Some were light and had not penetrated deep into the walls. Others had a netlike system of roots that spread with the cervices. Others were small grasses growing on top of highest point of the ruins which was dangerous and difficult to reach.



11. REPAIR OF CRACKS



In preparing to fill the cracks with lime mortar, it was realized that some of the cracks were deeper and long . It was not sufficient to patch them at the surface as had been done in previous time. We devised a way to fill the cracks using power pumps that would pump grout deep into the fissures and cracks at high pressure . The company invested in a power operated grout pump for use in filling smaller cracks. However its use was limited due to power fluctuations at the fort. The company alternatively had a custom manually operated pump manufactured at Agbogloshie in Accra and used it extensively in filling cracks .



A mix ratio of S:L:C 6:6:1 was pumped at high pressure into deep cracks that could not be easily filled by trowel. Other large cracks were filled manually by trowel.





Crack repairs continued intensively . It was realized that different parts of the forts needed different mixes of mortar. This is because of the inconsistency of materials used in constructing the fort at different times.





The nature of the stones in the eastern bastion demanded a more binding material for the lime mortar hence the addition of minimal Portland cement.



12. COURTYARD FILLING



The courtyard was filled with laterite from the surrounding hillside. The level was raised to cover the bases walls in the interior which had been washed by rain water flow. The filling was sloped slightly to allow heavy rain to flow toward the entrance instead of gathering in pools in the corners of the yard. The soldiers room was also filled as water gathered there seeped into the foundation creating perpetual dampness.

13. BASTION TOP AND FIRST FLOOR WALKWAYS WORKS



The bastion tops posed a great problem . The edges of the bastion floor had separated from the walls leaving a deep cervices through which water would pass. The depressions were marked and levels taken .After removing parts of it, we found that the sand fill had sunk behind under the flagstone top and created spaces within which water would seep and flow to the edges of the bastions causing cracks and feeding the plants that grow on the external of the bastion. We believe that repairing the cracked bastion floors would eventually solve the long cracks in the bastion walls.

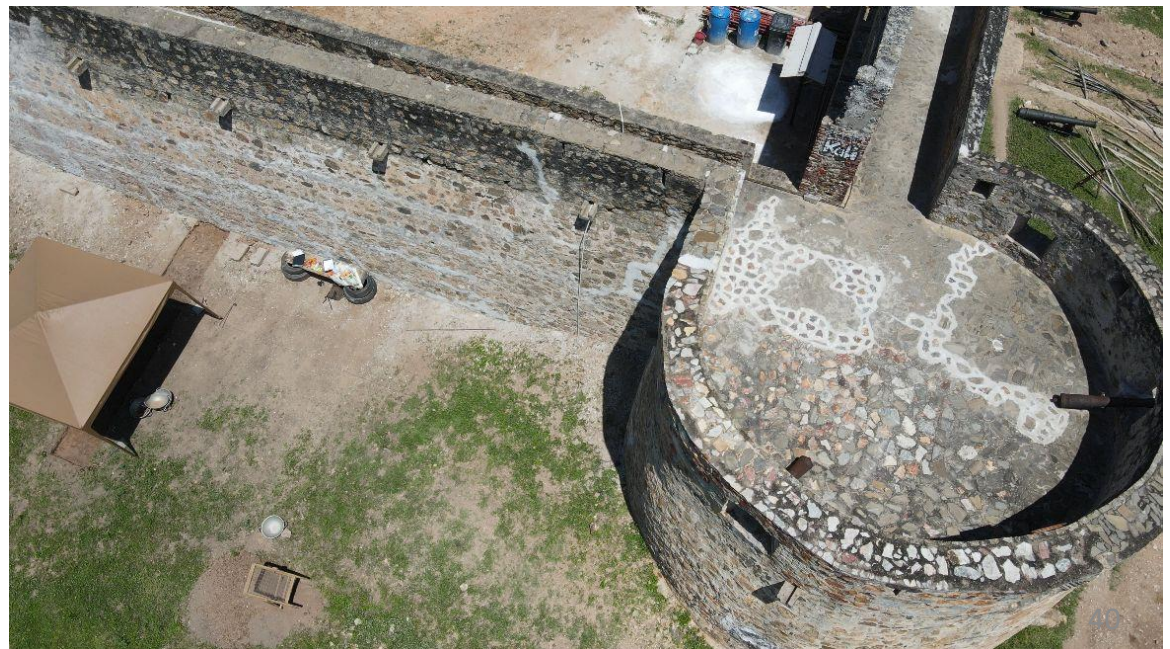


Much of the top had to be removed , refilled and re-laid to slope towards the spouts. It was necessary to remove and fill parts of the walkways and align them to the new slopes. S:L:C 6:6:1 was used to reset the flagstone on the bastion floor





The repaired north-western bastion floor.



The repaired north-eastern bastion floor.

14. FINAL COMMENTS

- The Monuments division of GMMB, its construction crew and supervisors deserve commendation for their hard work on the project, working with us in a spirit of collaboration, sharing experiences, taking decisions together and finding solutions for every difficulty faced. They put in a tremendous amount of physical effort excavating, selecting, lifting, cracking and shaping stone to fit. Their morale and enthusiasm was generally high throughout the duration of the project making the journey devoid of disputes, disagreements commonly found on construction sites.
- The organization and system of payments between our offices in Accra and the workers also run smoothly without any encumbrances or delays. A combined system of transfers using banks, and mobile money platforms worked best for prompt payment for labour every Friday and payment for materials whenever needed. This largely contributed to the success of the project.
- The project began in mid January 2023 and was completed in June 2023, with a 3 week break in April. The time schedule was prolonged due to the peculiarities of the terrain and the pains taking nature of the work. The project was manually intensive. No equipment was used for haulage up hill.
- The large quantity of stones needed to be hewn from the shore and transported up hill by head load to be delivered to the around the cliff edges' demanded care for safety.
- The new walkway /apron on the western and southern parts of the fort has allowed access to previously inaccessible parts of the fort. Apart from protecting the fort from erosion and stabilizing the movement of the wall, it offers a walk way for tourist and visitors giving them a more holistic appreciation of the ruin. This was not possible previously due to the steep gorge close dangerously close to the southern wall of the fort.
- The new walkway now allows visitors to appreciate the “vanished” circular south-west bastion of which there are some stones still in place.

15. RECOMMENDATIONS

These observations and recommendations are being made from the viewpoint of a contractor as suggestions to improve delivery of conservation and preservation practice. This project can be considered the first steps in a series of efforts to mitigate the threats and fully conserve the fort and setting a path to the realization of its tourism potential.

1. GMMB should employ a new strategy for Research and development and set up a research station . It was realized during the work that one prescribed lime-mortar mix could not be used for the whole of the project as specified. Different parts of the fort, different stones and bricks needed different mixes and techniques of application. Similarly the weather along the coast is not consistent. The hill top fort requires different materials and methods of conservation. It is suggest that attention be given to scientific research analysis and development of materials, chemicals, tests, experiments and monitoring of results on site. This can be used to solve peculiar problems of a fort. This should precede any intervention. For example , a special waterproofing chemical needed to protect the walkways and bastion surfaces from rain penetration should be researched into.
2. At the end of the project, an archaeological team was on site led by Professor DeCourse who had worked on the Fort previously. His advice was that GMMB should involve other professionals; archaeologists, conservators , Heritage building engineers and historians in drawing up conservation plans and strategies. This interaction and information sharing can inform budgets for preservation and avoid wasted efforts.
3. It was difficult to find previous records of works done on the fort. The Monuments division of GMMB should reorganize its databases: documentation , records keeping obtained through regular monitoring for reference by future intervention.

16. SUGGESTIONS FOR THE FUTURE

These are some suggest future works to enhance the tourism potential of Fort Amsterdam.

- **IMPROVED SANITATION:** An appeal should be made to the chiefs, elders and community leaders to ban the pouring of trash , bathing and defecating on the cliff behind the Fort.
- **ELECTRICAL EXTENSION AT THE FORT. :** This would include a new lighted signage at the side of the hill . The fort has no security lighting at all. It would be advisable to have lighting at vulnerable parts especially at the sea ward parts which are pitch dark at night.
- **NEW DOORS FOR SECURITY:** New doors of entry to the fort should be manufactured and installed improve security at night .
- **OFFICE FOR GUIDE:** One room in the fort can be converted to be an office for GMMB equipped with a phone. It can also have a small display area for important artifacts found by various archaeological teams who have worked on the area in and around the fort..
- **SEATING :** At the moment there is no place for visitors to sit or rest at all. The maximum time spent by visitors is 15 minutes . It is suggested that long benches or seats be made and places at various places to allow visitors to enjoy views.
- **TRASH BINS:** As required, tourist places must have trash bins where used bottles and other waste can be disposed.
- **ENHANCING SURROUNDING LANDSCAPE :** After the determination of the buffer zones, a landscape plan should be designed to enhance the surroundings of the fort to stop erosion of the hillside and to keep intruding animals away .
- **A WATER SYSTEM :** This includes repairing the leaking water cistern and drawing pipe borne water to the vicinity of the fort.
- **VISITOR REST AREA AND WASHROOMS :** This provision is to be further discussed .