GHANA EARTHS HERITAGE DIAGNOSIS

French Embassy in Ghana | FSPI Sankofa
Sebastien Moriset, CRAterre | December 2021
Mission organised by the Cooperation and Cultural Affairs department of the French Embassy in Ghana
And by the Ghana Museums and Monuments Board
CRAterre project code GHA031
Acknowledgements

We would like to thank all the people who enabled us to carry out this participatory diagnosis exercise in Ghana.

**Ghana Museums and Monuments Board (GMMB)**
First of all, we would like to thank Ivor Agyeman-Duah, Executive Director, Bernard Sackey, Principal Curator (Head of Monuments), Francis Kwarayire, Kumasi Regional Director and Kenneth Fomjegeba, Wa Regional Director and all their staff for all the energy invested in the preparation of this mission. We also thank Mahmoud Malik Saako, PhD student and GMMB staff for the information on mosques he sent us before the mission.

**Sankofa project / French Embassy**
We would also like to thank the Sankofa project and the French Embassy for sponsoring this mission and reviving conservation processes. Thank you to Alexandre Foulon, Princewel Eku, Marine Hayem and all their colleagues for making this mission possible and for having done everything possible to ensure that the mission took place in the best possible conditions, particularly in terms of logistics and security.

**Stakeholders**
Above all, warm thanks to the Village Chiefs, Imams, Muezzins, Elders, Assembly (wo)men and all stakeholders in general for their warm welcome of the mission team in their villages.

We thank the Swiss-Liechtenstein Foundation for Archaeological Research Abroad for the precious information provided on the mosques in their various field reports available online.

**CRAterre**
For their technical support in the preparation of this mission, we would like to thank our colleagues Bakonirina Rakotomamonjy, CRAterre Chairperson, Marina Trappeniers, Leandro Carignano and Christele Chauvin from the administrative pole and Bregje Nouwens, secretary. We would also like to thank our documentation specialist Audrey Carbonnelle who compiled the bibliography provided in the appendix.

The statements made in this report are the sole responsibility of the author and not of the above mentioned partners.

For more information, contact:

**CRAterre**
Sébastien Moriset  
International centre for earth construction, National Superior School of Architecture of Grenoble  
CS 12636 - 38036 GRENOBLE Cedex 2 (France)  
Phone: +33 476 69 83 35, +33 646 52 74 35  
sebastien.moriset@grenoble.archi.fr

**GMMB**
Ivor Agyeman Duah  
Executive Director  
Barnes road, Adabraka  
P.O. Box GP 3343, Accra, Ghana  
Phone: +233-302 221633, +233-302 221635  
ivor.agyeman-duah@gmmb.gov.gh

Francis Kwarayire  
Acting Ashanti Regional Head | Site Manager for Asante Traditional Buildings  
Post Office Box 1262  
Ashanti Region, Kumasi, Ghana  
Phone: +233-303 943041, +233-243 784475  
francis.kwarayire@gmmb.gov.gh

**FRENCH EMBASSY**
Alexandre Foulon  
Head of Cooperation and Cultural Affairs department  
Director of the Institut Français in Ghana  
4th Circular Road, Cantonments  
Accra, Ghana  
Phone: +233 (0) 302 21 45 50  
avexandre.foulon@diplomatie.gouv.fr
Contents

1 Introduction
1.1 Background ............................................................................................................ 4
1.2 Terms of reference ................................................................................................ 4
1.3 Description of the activity ..................................................................................... 5
1.4 Photo selection ...................................................................................................... 7

2 Diagnosis of the Asante traditional buildings
2.1 General state of conservation of the Asante Traditional Buildings ..................... 8
2.2 Abirim ..................................................................................................................... 10
2.3 Adarko Jackie ....................................................................................................... 12
2.4 Asawase ................................................................................................................ 14
2.5 Asenemanso ......................................................................................................... 16
2.6 Bodwease .............................................................................................................. 18
2.7 Edwenase .............................................................................................................. 20
2.8 Ejisu Besease ........................................................................................................ 22
2.9 Kentinkrono .......................................................................................................... 24
2.10 Patakro ................................................................................................................ 26
2.11 Saaman ................................................................................................................ 28

3 Diagnosis of 8 Ancient Mosques and Wa Naa Palace
3.1 General state of conservation of the ancient mosques ...................................... 30
3.2 Banda Nkwanta ................................................................................................... 32
3.3 Bole ....................................................................................................................... 36
3.4 Dondoli ................................................................................................................ 38
3.5 Nyole .................................................................................................................... 40
3.6 Larabanga ............................................................................................................ 42
3.7 Maluwe ................................................................................................................ 44
3.8 Nakore ................................................................................................................ 46
3.9 Wechiau ............................................................................................................... 50
3.10 Wa Naa Palace .................................................................................................. 52

4 Conclusions and recommendations
4.1 GMMB and Communities ................................................................................... 55
4.2 Building materials ............................................................................................... 55
4.3 Monitoring and maintenance requirements ....................................................... 56
4.4 Training on decorations repairs .......................................................................... 56
4.5 Urban development and encroachment .............................................................. 57
4.6 World Heritage potential ..................................................................................... 57
4.7 Proposed priorities for the next 4 years ............................................................ 58

5 Appendixes
5.1 Bibliography ........................................................................................................ 59
5.2 Cost estimate to restore Dondoli mosque in Wa .............................................. 62
5.3 Presentation made in Accra at the end of the mission ....................................... 63
1.1. Background

In the framework of the FSPI “Sankofa project”, the French Embassy in Ghana commissioned CRAterre to diagnose some of the ancient earthen mosques on behalf of the Ghana Museums and Monuments Board (GMMB), in order to propose appropriate conservation strategies, and the eventual preparation of a World Heritage nomination file. To carry out this diagnosis, the Embassy funded a two-week mission for 1 CRAterre expert (M. Sebastien MORISET) and 2 GMMB staff members (M. Bernard SACKEY, principal curator based in Accra and M. Francis KWARAYIRE, head of the GMMB Kumasi regional office).

The initial plan was to diagnose only 3 mosques, namely Wa-Dondoli, Bole and Banda Nkwanta. However, during the preparation of the mission, it became obvious that this selection was restrictive and that it would be more appropriate to look at all the mosques in order to better assess the condition of the entire range of properties, rather than a small sample that would not necessarily be representative. Seeing all the mosques also allowed for a better assessment of the World Heritage enlisting potential, following the inscription of the Côte d’Ivoire mosques in July 2021.

Mr Kwarayire, who is responsible for the conservation of the Asante traditional buildings (ATBs) being part of this mission, he insisted that we also take a look at them. Given CRAterre's experience with the ATBs, we could not afford to decline his request. Thus, a mission initially planned to diagnose 3 mosques turned into a mission to diagnose 8 mosques, the Wa palace and the 10 Asante traditional buildings.

1.2. Terms of reference

The terms of reference for CRAterre in the contract were as follows:
- Design of the visit programme
- Assessment of the state of conservation of the mosques of Dondoli (Wa), Bole and Banda Nkwanta, and of the state of craftpeople’s skills around the main mosques.
- Training of GMMB staff (two curators and site managers) on the conservation of earthen mosques
- Writing of a mission report in English including a diagnosis, a conservation strategy and budgetary elements for each mosque.
- Writing of a note presenting the recommendations to be considered for the inscription of all or part of these mosques on the World Heritage List.

---

1 8 Sudanese style mosques in northern Côte d’Ivoire, comparable to those of northern Ghana were inscribed on the World Heritage List during the 44th session of the World Heritage Committee in July 2021.

2 CRAterre has been working on the conservation of the Asante Traditional Buildings since 1996.
1.3. Description of the activity

This mission took place over 2 weeks in December 2021, including 8 days of fieldwork. After a preparation day in Accra, we headed to the mosques with a half-day stop around Kumasi to inspect three Asante traditional buildings (Edwenase, Ejisu Besease, Kentinkrono and Asawase). The next 5 days were spent in the north on the 8 mosques (Banda Nkwanta, Maluwe, Bole, Larabanga, Nyole, Dondoli, Nakore and Wechiau) as well as the Wa Naa Palace. For each of the mosques, we took the time to talk at length with the local custodians in charge of these properties to understand how these properties are currently used, maintained, diagnosed and repaired and how funding is sourced when works are implemented.

In addition to producing a state of conservation report, the idea of this action was to involve as many people as possible in the diagnostic process to familiarise them with this exercise, which should normally take place systematically between the rainy seasons, but unfortunately rarely does. In total, 20 people participated in the diagnosis exercise, with many additional stakeholders at each site. In order to structure the diagnosis and ensure systematic data recording, a diagnostic booklet had been prepared and printed in France beforehand. It was distributed to each participant. This booklet contained 78 pages covering each of the 19 monuments. The participants also received pens and tape measures. For each monument, the following data had to be recorded:

- Date of the Diagnosis / Name of the expert filling the form
- Geographic coordinates
- Contact people Name, role, phone number
- Description of the close environment
- Architectural Description
- Social evolution
- History
- State of conservation (written description)
- Pathologies (to be marked on the plan provided)
- Current conservation/maintenance practices
- Responsibilities
- Immediate threats
- Conservation needs
- Other (free notes)

When the group was too large, which was the case on the 11th and 12th December around Wa, we organised the diagnosis in 4 separate groups and then shared the results of each group in plenary and debated the divergences, when there were any. In this way, each participant could invest in the diagnosis in a small committee without fear of expressing himself or herself in front of a large group.

The mission went extremely well, thanks in particular to the tremendous preparatory work carried out by Alexandre Foulon and the Sankofa Project team to ensure that the GMMB staff members were ready for December. The provision by the French Embassy of a small fund to mobilise people and carry out some work was a great help, and enabled us to achieve much more than we had planned. Materials and equipment were purchased and small emergency works were carried out on the Dondoli mosque to prevent rainwater from stagnating in the ruin. The logistical investment of Ivor Agyeman Duah, Executive Director, Bernard Sackey, Principal Curator, and the two regional directors: Francis Kwarayire in Kumasi and Kenneth Fomjegeba in Wa were noticeable in the smooth running of this mission.
The mission unfolded as follows:

<table>
<thead>
<tr>
<th>When</th>
<th>Where</th>
<th>What</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>Accra</td>
<td>Arrival S. Moriset - CRAterre on flight KL589 at 19:55</td>
</tr>
<tr>
<td>Tuesday</td>
<td>Accra</td>
<td>Meetings with GMMB and French Embassy (joint meeting) Preparations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>of the trip and discussion on the training</td>
</tr>
<tr>
<td>Wednesday</td>
<td>Accra →</td>
<td>Meeting with Francis and preparation of the logistics for the</td>
</tr>
<tr>
<td></td>
<td>Kumasi</td>
<td>departure to the North Visit/Diagnosis of Edwenase, Ejisu Besase,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kentinkrono and Asawase Shrines</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Night in Kumasi</td>
</tr>
<tr>
<td>Thursday</td>
<td>Kumasi →</td>
<td>Diagnosis/survey of Banda Nkwanta and Maluwe mosques Night in</td>
</tr>
<tr>
<td></td>
<td>Maluwe →</td>
<td>Bole</td>
</tr>
<tr>
<td></td>
<td>Bole</td>
<td>Diagnosis/survey of Bole, Larabanga and Nyole mosques Night in</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wa</td>
</tr>
<tr>
<td>Saturday</td>
<td>Wa</td>
<td>Diagnosis of Wa Naa Palace, Dondoli, Nakore and Wechiau mosques</td>
</tr>
<tr>
<td>Sunday</td>
<td>Wa</td>
<td>Nights in Wa</td>
</tr>
<tr>
<td>Monday</td>
<td>Wa → Kumasi</td>
<td>Departure to Kumasi</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Visit/Diagnosis of Kentinkrono, Adarko Jachie, Bodwease, Ejisu</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Besase, Edwenase, Asawase, Abririm and Saaman Shrines Night in</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kumasi</td>
</tr>
<tr>
<td>Wednesday</td>
<td>Kumasi →</td>
<td>Visit/Diagnosis of Asenemanso and Patakro Shrines. Small repair</td>
</tr>
<tr>
<td></td>
<td>Accra</td>
<td>works on Asenemanso wall decorations. Trip to Accra and night in</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Accra</td>
</tr>
<tr>
<td>Thursday</td>
<td>Accra</td>
<td>Work on the condition survey report to present conclusions to GMMB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>on Friday Night in Accra</td>
</tr>
<tr>
<td>Friday</td>
<td>Accra</td>
<td>Presentation on earthen Architecture at the Lycée Français.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Conclusion meetings with GMMB and French Embassy (joint meeting)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Night in Accra</td>
</tr>
<tr>
<td>Saturday</td>
<td>Accra</td>
<td>Work on the report Lunch with Ivor Agyeman Duah, Executive Director,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bernard Sackey, Principal Curator Departure Sebastien Moriset on</td>
</tr>
<tr>
<td></td>
<td></td>
<td>flight KL590 at 22:15</td>
</tr>
</tbody>
</table>
1.4. Photo selection

Diagnosis of the mosques

Diagnosis of the Wa Naa Palace

Diagnosis of the Asante traditional Buildings
2.1. General state of conservation of the Asante Traditional Buildings

The current state of conservation of the 10 Asante Traditional Buildings is on average poor. If three of the shrines are in rather good conditions (Abirim, Ejisu-Besease and Edwenase), all others are in a rather bad state, with collapsed walls and damaged decorations. New threats such as encroachment, deity theft or road widening are more prevalent than ever. As a reminder of the importance of these sites and to simply mark their presence in the landscape, GMMB has installed a dual signage system in December 2021 at each of the 10 Buildings, consisting of a metal road sign of approximately 2.40m in height and 2 small plexiglass information panels screwed onto the walls next to the entrances. The situation is globally alarming. Each of the 10 Asante Traditional Buildings present its own decay processes and needs to be analysed on its own. For each property, the state of conservation depends on a complex combination of factors related to its uses, its intangible values, its geographic position in the village, the level of development of the context in which it is located, its orientation, and so on.

This variety of conservation status requires a multiplicity of preventive and curative approaches to be adopted. In other words, each building suffers from its own diseases and needs to be addressed with a tailored conservation strategy. For some properties there is a need to sensitisce the surrounding population to curb encroachment, for others there is a need to rework the drainage, for others there is a need to replace parts of the roof structure and find a more efficient caretaker, etc. There is no single, universal approach that can be applied everywhere. Decision making is therefore particularly difficult for the Kumasi Regional Director in charge of this serial World Heritage Site.

In addition to the natural and human challenges inherent to the sites, the GMMB regional office faces a severe lack of human and financial resources to maintain these assets. The Regional office building itself is not helping to work in good conditions and decent working tools such as computers, cameras and printers are not available.

In order to facilitate decision making, the following graphic tool (see opposite page) has been proposed. It is a table summarising the state of conservation of the 10 Asante Traditional Buildings. We propose to update this table every year to see how the Asante Traditional Buildings evolve. The colours of this table can be modified with popular softwares that the GMMB staff already uses (Word, PowerPoint). To make the table easier to read graphically, we have limited the number of control parameters to 8 only: 6 tangible and 2 intangible ones. Other parameters can be added in the future such as the respect of the site boundaries or the safety of the shrine users.

The first three parameters: Cleanliness, Drainage and Roofs are some of the first elements that are checked during the diagnosis. A clean and well-drained building with a non-leaking roof offers some guarantee of preserving the earthen structures from moisture. The next three parameters are the state of conservation of the walls, decorations and joinery. These parameters generally depend on the first three. A dirty site with a leaky roof and neglected drainage will inevitably lead to weathering of the decorated surfaces, rotting of the woodwork and possible structural deformations.

The intangible values contribute very strongly to the state of conservation. A lively site such as Abirim with a respected young fetish priestess will always be better preserved than a site that is not used, not even for libations.
## State of conservation of the Asante Traditional Buildings

<table>
<thead>
<tr>
<th></th>
<th>TANGIBLE</th>
<th>INTANGIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cleanliness</td>
<td>Drainage</td>
</tr>
<tr>
<td>Abirim</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adarko Jacie</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asawase</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asenemanso</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bodwease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edwenase</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eju Besease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kentinkrono</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patakro</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saaman</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### How to interpret this table?

The table clearly shows that there is too much orange colour. The fact that only one building houses a priestess is already a disaster in terms of the conservation of intangible values. This heritage is dying physically and culturally.

#### Positive points to note:
- Three properties are in good condition (Abirim, Edwenase and Besease)
- Drainage is working fairly well for all shrines
- One property has a priestess
- 5 other properties are used for rituals despite the absence of a priest(ess)

#### Negative points to note:
- Half of the roofs are in very bad shape
- Many decorations are seriously damaged already mainly due to rook leakage
- Doors and windows are damaged in half of the buildings
- Patakro and Arako Jacie are in an alarming state of conservation
- 9 properties lack a priest or priestess
2.2. Abirim

Latitude: 6°44'42.52"N  Longitude: 1°32'44.36"W
Contact person’s name: Hawa
Responsibility: Fetish priestess
Phone number: +233 54 127 7882

State of conservation

<table>
<thead>
<tr>
<th>TANGIBLE</th>
<th>INTANGIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleanliness</td>
<td>Rituals</td>
</tr>
<tr>
<td>Drainage</td>
<td>Priest(ess)</td>
</tr>
<tr>
<td>Roofs</td>
<td></td>
</tr>
<tr>
<td>Walls</td>
<td></td>
</tr>
<tr>
<td>Decorations</td>
<td></td>
</tr>
<tr>
<td>Doors &amp; W</td>
<td></td>
</tr>
</tbody>
</table>

Description of the context

Abirim remains by far the most interesting of the 10 properties because it allows to fully appreciate the immaterial dimension of these buildings. Ideally, the other 9 Asante Traditional Buildings should be just as vibrant as this one.

A very dynamic young priestess (Okomfo Hawa) officiates there and the temple bears the traces of very frequent rituals. The place is very well maintained. The urban context surrounding the building has evolved enormously. Ten years ago, Abirim was a peaceful village where vehicles were rare. It has become a teeming, noisy suburb where it is difficult to park and where street businesses have multiplied. This represents an opportunity for the priestess to find customers to keep this very roadside temple alive, but it does pose some sanitary problems, especially as passers-by urinate at the back of the building due to the lack of public toilets available.

State of Conservation

The place is very clean. Only a few decorations need some minor repairs. The perimeter drainage is perfect, as is the roof. A few wooden purlins will have to be changed in one or two years.

Current conservation and maintenance practices / responsibilities

The Okomfo (priestess) and her relatives are keeping the place clean.

Immediate threats

None

Conservation needs

Fixing the decorations. 2 days of work.
On the long term (after fixing more urgent problems on the other shrines), the concrete pillars in the courtyard could be replaced or hidden within thicker mud pillars. The concrete lintel could also be covered with traditional decorations.
Examples of damaged decorations
2.3. Adarko Jackie

Latitude: 6°43'25.41"N  Longitude: 1°30'41.01"W
Contact person’s name: Ataa Akosua
Responsibility: Caretaker
Phone number: +233 265 84 53 57

State of conservation

<table>
<thead>
<tr>
<th>TANGIBLE</th>
<th>INTANGIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleanliness</td>
<td>Rituals</td>
</tr>
<tr>
<td>Drainage</td>
<td>Priest (ess)</td>
</tr>
<tr>
<td>Roofs</td>
<td></td>
</tr>
<tr>
<td>Walls</td>
<td></td>
</tr>
<tr>
<td>Decorations</td>
<td></td>
</tr>
<tr>
<td>Doors &amp; W</td>
<td></td>
</tr>
</tbody>
</table>

Description of the context

The building is made of 2 parts, the house in front and the shrine at the back. The general atmosphere is depressing. The wall along the street has collapsed and the roof is held up by battens. The slightest blast of wind can blow it away. This temple seems to be totally abandoned. No trace of use of the shrine is visible. The perimeter is cleared and maintained but the cemetery is getting closer. Two recent graves are visible at the back within 5m of the building. Encroachment threats are real on this temple.

State of Conservation

Although the site is relatively clean, it is in an advanced state of disrepair, especially the house on the road side. The drainage that was done in 2014 is badly eroded on the periphery due to the increasingly heavy rains that wash everything away. These rains have also damaged many of the decorations inside. Decorated surfaces had also been poorly restored and it is noticeable. The first courtyard near the street still has some very beautiful decorations on very fragile walls that have been badly eroded at their base.

Current conservation and maintenance practices / responsibilities

Cleaning is done by one caretaker. This person had blocked the drainage outlet in the courtyard to prevent snakes from entering the building. We cleared the drain and asked her to leave it open. This practice can be catastrophic in the event of heavy rain as the yard will become a water pool and the wet walls can collapse. Snakes can not damage the place.

Immediate threats

- Erosion of the wall bases at the back, wall collapses and loss of precious decorations
- Encroachment by graves or new buildings

Conservation needs

- Drainage of the surrounding (9 trips of laterite required). The most exposed surfaces receiving the roof dripping can be stabilised with cement. The sections receiving all the water under the edges of the roofs can be stabilised. The last few centimetres on the surface should be made with soil stabilised with 5% of cement. This was done at Besase and it proved to be resistant to erosion.
- Reconstruction of the front wall (1 trip of laterite)
- Consolidation of the roofs and extension of the eaves (1 foot) above the exposed decorations
- Restoration of decorations (1 month of work)
- Sensitization of the community
Very fragile roof, eroded drainage slopes, eroded wall bases and damaged decorations.
2.4. Asawase

Latitude: 6°41’09.59”N  Longitude: 1°29’18.66”W
Contact person’s name: Simon Opuku
Responsibility: Caretaker
Phone number: +233 542 048 468

State of conservation

<table>
<thead>
<tr>
<th>TANGIBLE</th>
<th>INTANGIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleanliness</td>
<td>Rituals</td>
</tr>
<tr>
<td>Drainage</td>
<td>Priest(ess)</td>
</tr>
<tr>
<td>Roofs</td>
<td></td>
</tr>
<tr>
<td>Walls</td>
<td></td>
</tr>
<tr>
<td>Decorations</td>
<td></td>
</tr>
<tr>
<td>Doors &amp; W</td>
<td></td>
</tr>
</tbody>
</table>

Description of the context
The place is lively and clean, with part of the building on the road side being inhabited by a family. The shrine is still used for libations and rituals but has no Fetish priest(ess).

State of Conservation
This property is currently being partially renovated by craftsmen supervised by GMMB. They are replacing the roofs. The shrine is generally well maintained and in good condition. The base of the walls have been re-plastered, unfortunately with a thick sand-cement coating which may bring humidity problems in the future. the top of this plinth is also a problem as it is horizontal and water will stagnate on the flat surface and erode the walls.

The narrow space in between the building and the neighbour’s house on the southern side is not well drained and the southern wall of the property is eroded at the base.
Many of the decorations have been badly restored and lack depth. The decoration above the entrance is seriously damaged but was already broken in 2014.

Current conservation and maintenance practices / responsibilities
- Roof restoration under GMMB supervision (December 2021)
- The drainage problem at the back (north-east) mentioned in 2014 has recently been fixed under GMMB supervision
- Regular cleaning by caretaker

Immediate threats
- Collapse of the southern external wall
- Loss of decorations

Conservation needs
- Improvement of the drainage on the Southern side
- Reinforcement of the wall base on the southern side
- Revision of the shape on top of the recently added external plinth (North and East sides) to avoid water stagnation on top of the plinth
- Restoration of the wall decorations (damaged ones and poorly restored ones)
Partially restored roof, inappropriate cement plinth, poor drainage on the southern side badly restored decorations and broken decoration above the entrance.
2.5. Asenemanso

Latitude: 6°42'16.48"N  Longitude: 1°43'12.54"W
Contact person’s name: Dora Adansi
Responsibility: Caretaker
Phone number: +233 273 982 457 / +233 553 215 443

State of conservation

<table>
<thead>
<tr>
<th>Tangible</th>
<th>Intangible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleanliness</td>
<td>Rituals</td>
</tr>
<tr>
<td>Drainage</td>
<td>Priest(ess)</td>
</tr>
<tr>
<td>Roofs</td>
<td></td>
</tr>
<tr>
<td>Walls</td>
<td></td>
</tr>
<tr>
<td>Decorations</td>
<td></td>
</tr>
<tr>
<td>Doors &amp; W</td>
<td></td>
</tr>
</tbody>
</table>

Description of the context
This small one-room property is in average condition. It sits a few meters away from a major road but it is not used for rituals. The site drainage works and the place is globally clean. The site boundaries are clear and there is no sign of encroachment by the cemetery for the moment.

State of Conservation
The roof is in good condition and the site drainage works well. The wooden poles holding the roof start to deteriorate at the base. Many decorations are either damaged or poorly restored.

Current conservation and maintenance practices / responsibilities
Cleaning only

Immediate threats
The main threat is the widening of the road and the destruction of the property. The Regional Director is in discussions with Ghana Highways Authority to have the road widened on the other side.

Conservation needs
- Sign agreement with Ghana Highway Authority to make sure road works will not affect the site
- Restoration of the damaged and poorly done decorations (3 days of work)
- Replacement of the wooden poles in front
- Treatment of the ceiling, doors and shutters with insecticide
Asenemanso

Dangerous proximity to the road, damaged wood and decorations in poor condition because of poor restoration or direct erosion.

GHANA Earthen heritage Diagnosis | December 2021
17
2.6. Bodwease

Latitude: 6°55'04.70"N   Longitude: 1°20'15.10"W
Contact person’s name: Oduro Konadu
Responsibility: Kyeame (Chief’s spokesperson)
Phone number: +233 243 144 414

State of conservation

<table>
<thead>
<tr>
<th>TANGIBLE</th>
<th>INTANGIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleanliness</td>
<td>Drainage</td>
</tr>
<tr>
<td>Green</td>
<td>Yellow</td>
</tr>
</tbody>
</table>

Description of the context

This property is very interesting because it is located in a village that has kept all its serenity, all in a charming green and mountainous setting. The villagers are very proud of the place which has two courtyards, the Chief Palace which also serves as a shrine and the shrine itself which is no longer in use, although it remains very beautiful, with impressive decorated beams. The Chief Palace is the most authentic of all the Asante Traditional Buildings, probably because the conservators worked on the other courtyard building. All the decorations are original and no foreign materials have ever been introduced. It is therefore a rare and precious testimony in terms of fabric that should be treated with the utmost care.

State of Conservation

The roofs of the shrine are in bad condition, which damages some elements of the walls, decorations and wooden elements. Traces of stagnation on the ground show that the roofs are not playing their role. Without the roofs being restored, the damage could accelerate. The fetish tree is impacting the walls and could contribute to causing damage in strong winds. In the Chief palace, the roofs are also defective in places, but their large overhang has protected the walls relatively well. However, a lot of spot damage can be seen on the walls, pillars and decorated surfaces.

Current conservation and maintenance practices / responsibilities

The shrine is hardly maintained at all. The tree is not trimmed and the back of the building, invisible from the street, is a real dumping ground. The Chief Palace "shrine" is maintained and has a true spiritual power unlike the other shrine which seems emptied of all spirit.

Immediate threats

- Roof destruction by the wind
- Destruction of irreplaceable decorations by water erosion or by inexperienced curator

Conservation needs

SHRINE - General cleaning of the back. Discussion with the caretaker who should work better.
- Trimming the tree in the courtyard
- Replacing the roofs, the wooden poles and general wood treatment

PALACE - Monitoring/maintaining the roof
- Work on the decorations (4 days work by highly skilled and experienced conservator) to avoid falsifying this unique testimony
The very authentic Chief Palace, well preserved although many decorations, pillars and beams require slight repairs.

Damaged decorated beam

Abandoned room

Drainage problem

Collapsed structures

Dumping ground

Wooden poles affected by humidity

Drawing by Emily Williamson 2014

Abandoned shrine building and untidy environment
2.7. Edwenase

Latitude: 6°41′19.10″N   Longitude: 1°26′05.56″W
Contact person’s name: Dickson Asare
Responsibility: Caretaker
Phone number: +233 243 318 847

State of conservation

<table>
<thead>
<tr>
<th>TANGIBLE</th>
<th>INTANGIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleanliness</td>
<td>Rituals</td>
</tr>
<tr>
<td>Drainage</td>
<td>Priest(ess)</td>
</tr>
<tr>
<td>Roofs</td>
<td></td>
</tr>
<tr>
<td>Walls</td>
<td></td>
</tr>
<tr>
<td>Decorations</td>
<td></td>
</tr>
<tr>
<td>Doors &amp; W</td>
<td></td>
</tr>
</tbody>
</table>

Description of the context

This is a well-preserved rural property still undisturbed by the noise and pollution of urban development. It is very interesting to visit because of its incredible exterior decoration, but also because of the vast empty spaces that surround it, which allow the visitor to walk around it in complete serenity. The shrine is still used for libations and rituals but has no Fetish priest(ess).

State of Conservation

The property is relatively clean and well preserved but small deteriorations are visible on the walls. The roof has reached the end of its life. It is leaking in several places and many of the decorated surfaces have suffered direct erosion because of these leaks.

Current conservation and maintenance practices / responsibilities

A caretaker is cleaning the building and the surrounding open spaces
Doors are currently being replaced under GMMB supervision

Immediate threats

Deterioration of decorated surfaces

Conservation needs

- Fixing the roof
- Emptying the room at the back to avoid attracting termites
- Restoring the damaged decorated walls (6 days of work)
- Remove the stones from the courtyard
This site is generally clean except one room at the back. The shrine room remains very impressive with its movable heritage in place. The roof is leaking. Many decorations have suffered erosion and need to be restored.
2.8. Ejisu Besease

Latitude: 6°43'25.34"N  Longitude: 1°26'58.55"W  
Contact person’s name: Ntiedu George Yeboah  
Responsibility: Caretaker  
Phone number: +233 548 715 175

State of conservation

<table>
<thead>
<tr>
<th>TANGIBLE</th>
<th>INTANGIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleanliness</td>
<td>Drainage</td>
</tr>
<tr>
<td>Green</td>
<td>Green</td>
</tr>
</tbody>
</table>

Description of the context

The property has changed relatively little over the last 25 years despite the rapid urban development of the area. Multi-storey buildings begin to appear in the neighbourhood. The site is unfortunately also disfigured by electric power lines. But these inconveniences due to poorly planned developments are quickly forgotten when one gets into the courtyard. Surprisingly, the exhibition installed in 1997 is still in perfect condition. The straw roofing, which has been changed twice since 1997, is very resistant due to its low wind resistance. It is definitely more resistant than the thin roofing sheets that are used today. The shrine is still used for libations and rituals but has no Fetish priest(ess).

State of Conservation

The state of conservation is very good. The only problems noted are the accumulation of material on the exterior, along the north and south walls of the property. This is easily reversible. The ground is also eroded in the north-west corner and would benefit from being raised slightly to prevent further gullying.

Current conservation and maintenance practices / responsibilities

A young caretaker is keeping the place very clean.

Immediate threats

Deterioration of decorated surfaces
Encroachment (shops or small structures)

Conservation needs

- Marking the site boundaries with a visually non-intrusive fence (shrubs fence for example) to avoid encroachment
- Discuss with the community to ensure that no encroachment will take place.
- Work with the town planning authorities to ensure that no storey building will be allowed in a 500 m radius.
A well-preserved shrine which is only lacking a priest(ess) to be fully alive
2.9. Kentinkrono

Latitude: 6°41'36.25"N  Longitude: 1°33'10.56"W
Contact person’s name: No caretaker
Responsibility:
Phone number:

State of conservation

<table>
<thead>
<tr>
<th>TANGIBLE</th>
<th>INTANGIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleanliness</td>
<td>Rituals</td>
</tr>
<tr>
<td>Drainage</td>
<td>Priest(ess)</td>
</tr>
<tr>
<td>Roofs</td>
<td></td>
</tr>
<tr>
<td>Walls</td>
<td></td>
</tr>
<tr>
<td>Decorations</td>
<td></td>
</tr>
<tr>
<td>Doors &amp; W</td>
<td></td>
</tr>
</tbody>
</table>

Description of the context

This property is completely abandoned at the tangible and spiritual levels. Nobody seems to care about the place which is dirty, smelly, overgrown with rubbish and vegetation, which is a real shame because this building is beautiful with its interior and exterior decorations. It is also very close to Kumasi and could easily receive visitors. But in the present conditions it is unimaginable. An aggressive person is currently squatting the complex without taking care of it.

State of Conservation

The crocodile decoration on the outside wall is damaged. The other decorations inside are still in good shape. Cement blocks have been stored against the outside walls. All the roofs are in very poor condition with major holes on the eastern side. Despite the widespread dirt, the walls still look sound at the moment. Drainage slopes could not be assessed as all floors are clogged. In any case, the omnipresence of vegetation is not reassuring.

Current conservation and maintenance practices / responsibilities

Absolutely none

Immediate threats

- Roof destruction by the wind
- Multiplication of termites, rats and other animals that could damage the structures
- Collapse of walls

Conservation needs

- Find a proper caretaker and remove the person squatting the place
- Fix the roof
- Clean the whole complex
- Clear the gutter along the road
- Repair the crocodile decoration outside
This beautiful property is currently a real shame. It is not even cleaned and dirt piles up inside and around the buildings. This is a pity.
2.10. Patakro

Latitude: 6°16'48.95"N  Longitude: 1°38'40.69"W
Contact 1: Nana Okyere Taibu Darkwo  Contact 2: Joyce Abena Kwateng
Responsibility: Kontihene (Chief)  Responsibility: Caretaker
Phone number: +233 249 095 547  Phone number: +233 553 685 269

<table>
<thead>
<tr>
<th>TANGIBLE</th>
<th>INTANGIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleanliness</td>
<td>Rituals</td>
</tr>
<tr>
<td>Drainage</td>
<td>Priest(ess)</td>
</tr>
<tr>
<td>Roofs</td>
<td></td>
</tr>
<tr>
<td>Walls</td>
<td></td>
</tr>
<tr>
<td>Decorations</td>
<td></td>
</tr>
<tr>
<td>Doors &amp; W</td>
<td></td>
</tr>
</tbody>
</table>

Description of the context
This property has great spiritual importance as it possesses the most powerful deity amongst all the Asante Traditional Buildings. Even though it does not have a fetish priest(ess), ceremonies known throughout the Asante kingdom are held in this shrine every week. The place has not changed much in the last 20 years. The space in front of the shrine has not been encroached and all the buildings are still standing. The notoriety of the site has unfortunately led to repeated attempts by robbers to steal its deity. This insecurity has led custodians to replace the traditional wooden doors with metal ones. This major transformation raises an aesthetic problem. It has also led to the partial destruction of decorated surfaces to fix the new metal door frames.

State of Conservation
This property consisting of several buildings (the shrine complex + two outbuildings) is in relatively poor condition. The roofs are badly damaged, some roofs are even completely missing (sick wards). Parts of the walls have also collapsed on the outbuildings.
In the main shrine building, the installation of metal doors and frames has led to the deliberate destruction of decorated wall sections. Many decorated surfaces were also damaged by roof leaks. Finally, a number of decorations have been reworked with cement plaster and white paint. This has led to beautifully decorated surfaces being replaced by flat ones.

Current conservation and maintenance practices / responsibilities
- The place is regularly cleaned and looked after by a caretaker.
- The custodians implement works on their own without consulting GMMB
- GMMB is supervising the replacement of the metal doors by strong wooden ones

Immediate threats
- Collapse of walls in the sick wards building as well as in the surrounding buildings
- More deterioration of decorated surfaces
- Theft of the Deity

Conservation needs
- Replacement of the missing roofs
- Restoration of the decorated surfaces
Roofs in poor condition or missing, collapsed walls, inappropriate doors and damaged decorations... but very strong spiritual life in this shrine.
2.11. Saaman

Latitude: 6°46'15.06"N  Longitude: 1°32'32.83"W  
Contact person’s name: Ofilia Prempeh 
Responsibility: Caretaker  
Phone number: +233 545 090 920

State of conservation

<table>
<thead>
<tr>
<th>Tangible</th>
<th>Intangible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleanliness</td>
<td>Drainage</td>
</tr>
<tr>
<td>Green</td>
<td>Green</td>
</tr>
</tbody>
</table>

Description of the context

This property remains quite isolated as it has always been, set back from the road. No one seems to pay any attention to it. It does not receive visitors. It is physically intact and the surrounding area is relatively clean, but recent buildings are approaching the shrine at the rear.

State of Conservation

The property is in poor condition, neglected and exposed to encroachment. It is not used for rituals and gives the impression of being isolated and lifeless. The courtyard is slightly bulging in the centre, causing water to flow and to stagnate along the walls. The peripheral drainage is on the other hand working well. The humidity is very present in the yard. The decorations are very damaged and missing in some places. The roof is also in very poor condition and leaking.

Current conservation and maintenance practices / responsibilities

The site is regularly swept but not maintained in any way.

Immediate threats

- Roof sections blown off by strong winds
- Heavy water leakage from rooftops
- Erosion of eroded surfaces
- Encroachment of the land

⚠️ Conservation needs

- Marking the site boundaries to avoid encroachment
- Replacing the roof
Damaged roofs, poor drainage and damaged decorations.

(Photos on this page by Francis Kwarayire)
3.1. General state of conservation of the 8 ancient mosques and Wa Naa Palace

**Ancient mosques**

Mosques are suffering from the loss of consideration and skills in earthen architecture. The decline of earthen architecture skills is evident throughout Ghana. Fifteen years ago, December was the month of freshly repaired or newly built earthen buildings. Today it is rare to see mud brick production fields or artisans building granaries or mud houses. Villages such as Larabanga have lost almost all of their earthen roof terraces on which people used to dry crops or roll out their mats to enjoy fresh breeze at night. These architectural transformations affect many of the mosques. All repairs are done with sand and cement. When a minaret or mirhab collapses, it is rebuilt with cement blocks (Banda Nkwanta and Nakore mirhabs). The very collapse of these towers seems to be partly due to the fact that the craftsmen have lost that instinctive approach inherited from previous generations that made them understand earthen structures. They do not hesitate, for example, to cut into the walls of the towers, where the stresses are greatest, to integrate a doorway to the mosque reserved for the Imam. These interventions overstress the remaining walls, which give way at the slightest water content increase. This is what apparently caused the Nakore mirhab to fall and could cause the Maluwe one to collapse, with one of the corners seemingly ready to give way. The issue of surface coatings is central and also contributes to deterioration. Many of the artisans we met know that applying sand-cement plaster to the earth is not a good idea because it traps moisture, but they regret that they cannot influence decisions because they often receive direct donations in the form of cement bags. They would be willing to implement other conservation techniques, but they would need the ongoing technical support of GMMB professionals, which they deplore not having on the ground.

**Wa Naa Palace**

As you can read in the detailed description on page 48, the Wa Naa Palace has undergone a very significant transformation. The high tension it once suffered has subsided, which is a very good thing, but the architecture has been literally sacrificed. This magnificent large façade is still in place and has been given greater visibility by extensive landscaping of the square. A boundary wall has been built, the esplanade has been completely paved, a large semi-open space for receptions and ceremonies has been added as well as an enclosed building that could become a museum. The effect is impressive, the façade is well enhanced and the square is protected from encroachment. This conservation effort makes one want to go beyond the façade to see the magnificent palace that one can imagine behind it. Unfortunately, nothing presentable remains behind this somptuous façade. Only the entrance gate is still original, the other buildings at the back have been rebuilt in cement blocks with corrugated iron roofs. Only a few badly damaged fragments of the earthen architecture remain. The intention of the custodians is clearly to get rid of the maintenance of the earthen structures and to gradually replace everything with concrete. Several of the pinnacles of the great façade are already made of cement blocks. Their shape is respected but the original skills and materials are lost. These alterations were carried out without consulting GMMB, despite the fact that their offices are 800 metres away only. All the archaeological information that this work could have revealed is also lost.
State of conservation of the 8 Ancient mosques and Wa Naa Palace

<table>
<thead>
<tr>
<th>TANGIBLE</th>
<th>INTANGIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleanliness</td>
<td>Drainage</td>
</tr>
<tr>
<td>Boles</td>
<td>![Green]</td>
</tr>
<tr>
<td>Nyole (near Ga)</td>
<td>![Green]</td>
</tr>
<tr>
<td>Larabanga</td>
<td>![Green]</td>
</tr>
<tr>
<td>Maluwe</td>
<td>![Green]</td>
</tr>
<tr>
<td>Nakore</td>
<td>![Green]</td>
</tr>
<tr>
<td>Wa Naa Palace</td>
<td>![Green]</td>
</tr>
</tbody>
</table>

How to interpret this table?
This table shows that the situation is unfortunately alarming. More than half of the buildings visited are in poor condition and two mosques are abandoned (Dondoli and Wechiau). The other mosques are still in use but two (Maluwe and Nakore) are weakened by their thick waterproof cement plaster. The Wa Naa Palace is still in use but has undergone profound and totally irreversible architectural transformations.

✔️ Positive points to note:
- Six mosques are still in use daily and are kept very clean inside
- Despite the wrong conservation practices, the mosques are still standing
- Drainage is working fairly well for 5 mosques
- The community can mobilise funds and organise maintenance and repairs

✖️ Negative points to note:
- The structures (walls and roofs) are generally in poor condition
- The community tend to transform the buildings by introducing industrial materials and modifying the shapes
3.2. Banda Nkwanta

Latitude: 8°21'02.6"N  Longitude: 2°08'09.55"W
Contact person 1: Alhaji Alhassan
Responsibility: Chief Imam
Phone number: +233 246 682 827 / +233 500 929 288
Contact person 2: Alhaji Moro
Responsibility: Electrician
Phone number: +233 248 463 683
Use above number for whatsapp

State of conservation

<table>
<thead>
<tr>
<th>TANGIBLE</th>
<th>INTANGIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleanliness</td>
<td>In Use</td>
</tr>
<tr>
<td>Drainage</td>
<td>Abandoned</td>
</tr>
<tr>
<td>Roofs</td>
<td></td>
</tr>
<tr>
<td>Walls</td>
<td></td>
</tr>
<tr>
<td>Wood sticks</td>
<td></td>
</tr>
<tr>
<td>Doors &amp; W</td>
<td></td>
</tr>
</tbody>
</table>

**Description of the context**

This mosque is the most impressive because of the slenderness of its minaret + mirhab and its exposed location on the roadside. It is a real icon for the region. Power lines unfortunately pollute the site. The place is also very noisy because of the shops and the road, but this contributes to create a lively atmosphere. A tree-protected area faces the site on the southern side. This shaded space is part of the ensemble and must be protected to avoid the risk of encroachment by business owners.

**State of Conservation**

The tower collapsed and was reconstructed with cement blocks eight years ago. This modification is invisible from outside. It can only be seen from the roof level.

**Current conservation and maintenance practices / responsibilities**

The property is maintained clean and repaired by the community under the responsibility of the Chief Imam. Maintenance is done once a year. It consists of replacing the broken wooden sticks on the façade, replastering the walls where the plaster is cracked and detached and painting the whole structure white to hide the black humidity stains. They complained that the cost of paint is increasing rapidly. They also face the problem of labour cost, because mobilizing community work is not possible anymore.

They have covered the surface surrounding the mosque with cement. The inside is also covered with a cement slab and ceramic tiles on top. For the roof, they have sealed it with a layer of bituminous felt + concrete slab + ceramic tiles.

GMMB has not been involved in the implementation of works for more than a decade.

**Immediate threats**

- Risk of encroachment of commercial activities on the small square to the south of the mosque
- Deformation of pinnacles and walls due to excess of humidity trapped under all these waterproof layers applied on and around the mosque.
- The community is looking for funds to build a bigger mosque. Work on this new mosque could take away the attention currently given to this old mosque

**Conservation needs**

- Protection of the site to avoid encroachment
- Sensitisation of the craftsmen and donours on adapted conservation techniques
Impressive and well-maintained mosque, although it is being modified. The interior has been tiled and the mirhab is no longer made of earth bricks but of cement blocks.

Survey by Christian de Reynier and Sophie Reynard
3.3. Bole

Latitude: 9°01'42.27"N  Longitude: 2°29'16.09"W

Contact person 1: Abdulaye Nuhu Tamagtey
Responsibility: Chief Imam
Phone number: +233 248 498 138

Contact person 2: Alhassan Seidu
Responsibility: Helping the Chief Imam
Phone number: +233 543 847 226

State of conservation

<table>
<thead>
<tr>
<th>TANGIBLE</th>
<th>INTANGIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleanliness</td>
<td>In Use</td>
</tr>
<tr>
<td>Drainage</td>
<td>Abandoned</td>
</tr>
<tr>
<td>Roofs</td>
<td></td>
</tr>
<tr>
<td>Walls</td>
<td></td>
</tr>
<tr>
<td>Wood sticks</td>
<td></td>
</tr>
<tr>
<td>Doors &amp; W</td>
<td></td>
</tr>
</tbody>
</table>

Description of the context

Although located in the city, this mosque sits in a quiet area with a still very rural atmosphere, with children playing safely. It is not visible from the main roads. The community is very welcoming.

State of Conservation

This mosque is covered with a thick shell of sand-cement plaster that suffocates it. The Chief Imam and his relatives know that it is not working and that the plaster is blackening, cracking, peeling and in need of constant replacement, but they persist in doing so because they have found no other alternative. The generous worshippers also give them bags of cement instead of money, which forces them to continue this "new tradition" that has been going on for more than thirty years. According to the imam, they also received a new loudspeaker and cement bags from GMMB in 2014. The application of white paint costs them about 1000 cedis per year. A similar amount of money is needed to repair the cement crust before painting, which would make the annual maintenance cost 2000 cedis (about 300 euros) when no major repairs are needed.

Current conservation and maintenance practices / responsibilities

The building is maintained and well looked after, but conservation uses the wrong materials and techniques. The community takes full responsibility for conservation. They have tiled the inside floor to reduce dust. The wooden sticks last 5-6 years only. Every year, broken/fragile ones are replaced.

Immediate threats

- Collapse of the top of the minaret
- Collapse of plaster pieces
- Deformation of pinnacles

Conservation needs

- Urgently: remove plaster from the top of the minaret as well as from some pinnacles where it threatens to fall. Replace with stabilised soil mortar before repainting.
- Add soil on the southern side, especially where the roof water is dripping from the gargoyle
- On the long term: remove all the cement crust and replace with stabilised mortar.
This mosque continues to hold up despite the thick crust of cement that traps moisture in the walls, which display many pathologies. The chief imam and worshippers are taking care of it, but better plastering techniques are to be considered in the medium term.
3.4. Dondoli

Latitude: **10°04’00.1”N**  Longitude: **2°29'46.4”W**
Contact person 1 : Ibrahim Issah Luckman  
Contact person 2 : Osman Abdulhamid 
Responsibility: Assembly man  
Responsibility: Opinion leader 
Phone number: +233 246 459 771  
Phone number: +233 241 508 360

<table>
<thead>
<tr>
<th>Cleanliness</th>
<th>Drainage</th>
<th>Roofs</th>
<th>Walls</th>
<th>Wood sticks</th>
<th>Doors &amp; W</th>
<th>In Use</th>
<th>Abandoned</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Description of the context**

This small mosque is currently stuck in an alley. A new building with a gable roof has been erected literally against the ruin, throwing rainwater against the mirhab. This is a disaster for the near future. The mosque has not been used since 1972 according to elders met. It served for several years as a coranic school before being completely abandoned. It is a unique and very rich mosque in terms of size, plan shape, position of the openings and other details.

**State of Conservation**

Although the roof collapsed in 2015, the envelope is almost intact, with most of the pinnacles in place. The damage is serious but there is still time to save this beautiful little mosque. The tops of the walls are damaged, none of the roof beams remain and the mirhab on the east side has no top. A new building is discharging its roof water against the remnants of the mirhab. If this new construction is not destroyed, major damage is expected during the next rainy season.

**Current conservation and maintenance practices / responsibilities**

No one takes care of this structure currently. GMMB organized a cleaning after the mission to remove all the rubbish and soil accumulated inside and create drainage slopes towards the street, to avoid water stagnation inside. The community is willing to engage in the restoration if GMMB also contributes.

**Immediate threats**
- Collapse of the walls
- Complete destruction of the remains of the mirhab

**Conservation needs**
- Destruction of the new house built on the eastern side
- Sensitisation of the community on the importance to safeguard this property
- Reconstruction of the walls, mirhab and roof
- Drainage of the surroundings
Remains of Dondoli mosque. The walls are almost intact but the roof is gone

Removal of the rubbish and work on the drainage in December 2021 (photos by Kenneth Fomjegeba)
3.5. Nyole

Latitude: 9°45'31.14"N  Longitude: 2°29'45.33"W
Contact person’s name: Yusif Sina
Responsibility: Imam
Phone number: +233 248 916 449

State of conservation

<table>
<thead>
<tr>
<th>TANGIBLE</th>
<th>INTANGIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleanliness</td>
<td>In Use</td>
</tr>
<tr>
<td>Drainage</td>
<td>Abandoned</td>
</tr>
<tr>
<td>Roofs</td>
<td></td>
</tr>
<tr>
<td>Walls</td>
<td></td>
</tr>
<tr>
<td>Wood sticks</td>
<td></td>
</tr>
<tr>
<td>Doors &amp; W</td>
<td></td>
</tr>
</tbody>
</table>

Description of the context

This mosque was seen during the trip and was not on the list of sites we had to inspect. It is located in a very quiet rural area on the Bole - Wa road. We could not get any information on when it was built. The interior is entirely open. It does not have massive earthen pillars inside as seen in other mosques of comparable size. The roof is supported only by wooden posts of about 15 cm in diameter.

State of Conservation

Excellent state of conservation. The mosque is clean and in use.

Current conservation and maintenance practices / responsibilities

The Imam and his relatives are taking care of the mosque

Immediate threats

None

Conservation needs

None
Nyole: Nyole mosque in its rural setting

Survey by Sebastien Moriset, Bernard Sackey and Francis Kwarayire
3.6. Larabanga

Latitude: 9°13'13.20"N  Longitude: 1°51'35.77"W

Contact person 1: Alhassan Abdallah Somah  
Responsibility: Revenue Officer  
Phone number: +233 558 047 998

Contact person 2: Draman Mashud  
Responsibility: Management team  
Phone number: +233 558 048 004

Contact person 3: Abu Mohammed Alhassan  
Responsibility: Revenue Officer  
Phone number: +233 241 453 166

Contact person 4: Abubakar Mohamed  
Responsibility: Management team  
Phone number: +233 547 684 227

State of conservation

<table>
<thead>
<tr>
<th>TANGIBLE</th>
<th>INTANGIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleanliness</td>
<td>In Use</td>
</tr>
<tr>
<td>Drainage</td>
<td>Abandoned</td>
</tr>
<tr>
<td>Roofs</td>
<td></td>
</tr>
<tr>
<td>Walls</td>
<td></td>
</tr>
<tr>
<td>Wood sticks</td>
<td></td>
</tr>
<tr>
<td>Doors &amp; W</td>
<td></td>
</tr>
</tbody>
</table>

Description of the context

Larabanga is a lively site with many recent developments. A management committee (1 chairman + 4 officers) has been set-up 10 years ago to oversee the site management in general and the reception of visitors. A reception office has been built to the east of the mosque and prices for visits are clearly displayed. Visitors come in relatively large numbers because Larabanga is the gateway to Mole National Park. The income collected is used to maintain the site and develop certain services to improve the comfort of users. The esplanade to the south of the mosque has been cemented and demarcated by a low wall. A prayer area for women has been built with cement blocks to the west of the mosque, on the other side of the baobab tree.

The village itself has changed dramatically. Fifteen years ago, all the houses were low with terraced roofs that served as a place to dry crops and to sleep during hot season. All these terraces have disappeared and been replaced by much higher pitched roofs. In this context, the mosque no longer has the importance it once had in the landscape, it is no longer a prominent feature.

State of Conservation

By the time of our visit, the mosque was in very good shape.

Current conservation and maintenance practices / responsibilities

The community manages the site. The construction of the women's mosque a few metres from the old mosque was done without consultation with GMMB. Thanks to the revenues collected from visitors, they manage to organise conservation campaigns twice a year nowadays instead of once only before. A project was implemented in 2021 as part of the Sankofa project (French Embassy funding) to do minor repairs and build a toilet block behind the ticket office. This was implemented by AFES, an NGO under the supervision of the GMMB Wa office.

Immediate threats

More intrusive developments / Encroachment

Conservation needs

- Work with the community on a management plan
- Demolish the cement mosque and relocate it at least 10 meters away from the old mosque
A new women’s mosque, toilets, a cemented esplanade, a boundary wall, a visitors’ office, most village houses covered with corrugated iron roofs, etc. Larabanga is evolving very quickly.
3.7. Maluwe

Latitude: 8°40'09.68"N  Longitude: 2°17'29.47"W
Contact person’s name: Baba Youssef
Responsibility: Chief Imam
Phone number: +233 200 196 008

State of conservation

<table>
<thead>
<tr>
<th>Tangible</th>
<th>Intangible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleanliness</td>
<td>Drainage</td>
</tr>
<tr>
<td>[Green]</td>
<td>[Red]</td>
</tr>
</tbody>
</table>

Description of the context
This mosque is located on the roadside. It is highly visible and always used by the religious community. A cement fence was added in 2020, as well as a large covered area made of corrugated iron sheets on the western side. This wide shed is directly attached to the mosque.

State of Conservation
The mosque is in a worrying state. It is very wet due to the thick concrete plaster. The wood is badly deteriorated. The roof beams are in bad state and the roof slab is sagging in different places. A pinnacle has collapsed on the north side and multiple cracks are visible. The most worrying is the tower on the eastern side (Mirhab). The southwest corner of the tower is extremely fragile as it has to support half of the total weight of the tower. We suggest building a thick solid wall on the south side in place of the door to relieve the corner and prevent the mirhab from collapsing.

Current conservation and maintenance practices / responsibilities
The Imam organizes small maintenance works and collects good quality wooden sticks to replace beams or scaffolding sticks.
Major interventions are required now that they can not organise. They need GMMB’s assistance.

Immediate threats
- Collapse of the Mirhab
- Partial wall and roof slab collapses

Conservation needs
- Install propping under the mihrab to reduce stresses on the south-west corner
- Replace the door on the southern base of the mihrab by a thick solid wall to spread the load of the tower more evenly on the base.
Shed built against the mosque

Collapsed buttress (washed away by the water spilling from the shed roof)

Roof sagging

This corner is overloaded as it carries half the weight of the tower. Major cracks visible.

Survey by Christian de Reynier and Damien Pesce

Cement blocks fence

Shed built against the mosque

Sagging roof

Overloaded corner

Worrying state of conservation of this mosque which needs major interventions, especially at the base of the mihrab.
3.8. Nakore

Latitude: 10°01’16.45"N  Longitude: 2°32’50.03”W
Contact person’s name: Yakubu Tahiru Kparisaganaa
Responsibility: Imam / Caretaker
Phone number: +233 248 264 095 / +233 201 847 264

State of conservation

<table>
<thead>
<tr>
<th>TANGIBLE</th>
<th>INTANGIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleanliness</td>
<td>In Use</td>
</tr>
<tr>
<td>Drainage</td>
<td>Lost</td>
</tr>
<tr>
<td>Roofs</td>
<td></td>
</tr>
<tr>
<td>Walls</td>
<td></td>
</tr>
<tr>
<td>Wood sticks</td>
<td></td>
</tr>
<tr>
<td>Doors &amp; W</td>
<td>Abandoned</td>
</tr>
</tbody>
</table>

Description of the context
Of all the mosques visited, this one is certainly the quietest in terms of environment. The mosque is surrounded by large open spaces and trees which make the place very relaxing. The custodians should try to keep this peaceful atmosphere by preventing encroachment. The imam and the chief said that they were considering building a perimeter wall. We advised them to make wide and very low walls like benches alternated with trees so that neither vehicles nor new constructions encroach on it. These benches will also allow the community to sit comfortably and interact in the shade.

State of Conservation
The mosque is standing and in use. The bizarre look of the mirhab is shocking but the mosque is in a rather good condition. The same recurrent problems are however visible: cracks in the walls and roof surface, detached plaster, damaged wooden sticks...
There is also an unsightly garbage heap on the south eastern side.

Current conservation and maintenance practices / responsibilities
The mihrab on the eastern side collapsed in 2017 and was reconstructed in 2018 with mud but it collapsed again. They finally decided to rebuild it with sandcrete blocks this year. The shape is unfortunately wrong at the top. They spent 10000 GHC on the reconstruction. This money was raised by the community.

Immediate threats
- Earth construction knowledge getting lost
- Other parts of the mosque being replaced with cement blocks

Conservation needs
- Reconstruction of the top of the mihrab with the right shape
- Removing the garbage
- Planting trees to avoid encroachment
Mosque regularly maintained by its community but whose mirhab unfortunately collapsed in 2017 and was badly rebuilt this year with the wrong shape using cement blocks.
3.9. Wechiau

Latitude: 9°49'49.6"N  Longitude: 2°41'01.8"W

Contact person 1 : Naa Imori Nandon Gomah   Contact person 2 : Alhaji Alhassan Mahama
Responsibility: Chief   Responsibility: Imam
Phone number: +233 246 605 551 / +233 208 486 768

State of conservation

<table>
<thead>
<tr>
<th>TANGIBLE</th>
<th>INTANGIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleanliness</td>
<td>In Use</td>
</tr>
<tr>
<td>Drainage</td>
<td>Abandoned</td>
</tr>
<tr>
<td>Roofs</td>
<td></td>
</tr>
<tr>
<td>Walls</td>
<td></td>
</tr>
<tr>
<td>Wood sticks</td>
<td></td>
</tr>
<tr>
<td>Doors &amp; W.</td>
<td></td>
</tr>
</tbody>
</table>

Description of the context

This mosque was abandoned after the construction of the new concrete mosque nearby. It is very different from the other mosques in the north, which makes it a unique example that should absolutely be conserved.

State of Conservation

The outer walls are still visible, although parts of them have collapsed. All the roof has collapsed. At this stage, it is still possible to safeguard the structure because all the elements are in place, including the base of the pillars inside. The roof of this mosque is lower than the others, which may explain the absence of wooden sticks on the elevations. It is possible that these wooden sticks existed and were removed when the mosque was plastered with cement.

Current conservation and maintenance practices / responsibilities

None

Immediate threats

- Collapse of the walls

Conservation needs

- Clean the ruins to avoid water stagnation
- Document the remains
- Sentitize the community on the importance of safeguarding the property
- Source funds for complete restoration
Remains of the Wechiau Mosque, whose architecture differs from the other mosques visited
3.10. Wa Naa Palace

Latitude: 10°03'49.6"N  Longitude: 2°30'02.0"W
Contact person’s name: Naa Kadri Ibrahim
Responsibility: Jinpenhi Naa (Chief’s secretary)
Phone number: +233 544 783 880

State of conservation

<table>
<thead>
<tr>
<th>TANGIBLE</th>
<th>INTANGIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleanliness</td>
<td>In Use</td>
</tr>
<tr>
<td>Drainage</td>
<td>Abandoned</td>
</tr>
<tr>
<td>Roofs</td>
<td></td>
</tr>
<tr>
<td>Walls</td>
<td></td>
</tr>
<tr>
<td>Wood sticks</td>
<td></td>
</tr>
<tr>
<td>Doors &amp; W</td>
<td></td>
</tr>
</tbody>
</table>

Description of the context

The Wa Naa Palace gives an excellent impression from the outside, with its redesigned and very neat forecourt, but it is only a ceremonial façade. The façade has been partly rebuilt with cement block pinnacles. The rear part is unfortunately completely destroyed. Out of the 42 organically shaped rooms appearing on the 1980 plan, only 8 still have their earthen terrace roofs. All the others have been either destroyed or replaced by completely different buildings, all made of cement blocks and covered with corrugated iron roofs. A mosque has even been built in the palace itself. There is nothing left from the Wa Naa Palace to show to any visitor apart from this façade which, despite the new materials used for some of the pinnacles, is still very impressive.

State of Conservation

The Wa Naa Palace is undergoing a beautification process rather than a conservation process. All efforts are concentrated on the esplanade and the façade. The effect is spectacular from outside, but the inside of the Palace has undergone dramatic modifications. The only element of impressive traditional architecture left is the façade itself. The ancient rooms behind the façade are in ruins. Some of the pinnacles and parts of the curtain walls in between were rebuilt with cement blocks. There is no directions or management committee, generous donours decide and do what they want. There is a strong opposition from the community to use traditional materials.

Current conservation and maintenance practices / responsibilities

Decisions are managed by the Chief (Naa) and his advisors without consultation with the GMMB regional office, located 800m away. The Naa can count on various communities to clean the place, implement small repairs, obtain materials, etc.

Immediate threats

- Collapse of the few mud rooms remaining (8 rooms only)
- Complete loss of traditional construction knowledge

Conservation needs

- Reinforce collaboration between the custodians and GMMB technicians to share decisions.
- Widen the water channel between the inner courtyard and the esplanade
- Replace wooden window shutters
- Develop a management plan based on a clear vision for this site. Should it just be an wide esplanade with an impressive Palace elevation at the back ? Shlould it be a real Palace again where the chief can display the culture of his Chiefdom ? Should it be a tourist attraction ?
- Identify immovable/movable elements that can be conserved.
Inappropriate destructions/reconstructions

Wa Naa Palace

1980’s

New mosque

2009

before GMMB-CRAterre restoration

2021

8 remaining rooms
The esplanade in front of the courtyard has been paved. The facade is really well enhanced and the esplanade is protected from encroachment by a surrounding wall. The first impression on arriving at the site is overwhelming. The only striking feature is a protruding minaret behind this façade. It is the minaret of a new mosque that has been built in the palace grounds.

Unfortunately, there is hardly anything authentic left on the back of this façade.
Conclusions and recommendations

4.1. GMMB and Communities

The most interesting part of this mission was the focus group discussions with the communities, which showed the complexity of the decision-making processes. We realised that all communities value their heritage, especially when it is still very much alive, as in the case of mosques that are still in use. One of the problems for the sustainability of the properties is to make the right technical decisions for their conservation. We met many skilled craftsmen who had a good discourse on the conservation of earthen architecture. The knowledge is being lost, but it is still accessible to repair a wall, fix a crack, re-plaster a roof, etc. The main problem observed is that these qualified local experts are struggling to be heard by their own community. In the case of mosques, the work is financed by the worshipers who are not experts themselves and think they are doing well by offering, for example, a truckload of cement bags to undertake conservation work. Once the cement is delivered, the craftsmen use it knowing that they are making a technical mistake. This is where GMMB should intervene to ensure that the right decisions are made after each rainy season. The lively and passionate exchanges between GMMB officials and village artisans during this mission were exciting. They have a lot of ideas to exchange, they share a common technical culture and together they can reach very good compromises, but this is only possible if they communicate regularly. GMMB has repeatedly faced accusations from communities that it does not contribute money or staff to the conservation effort. Indeed, GMMB does not currently have a regular budget to finance the preservation of these architectures, but it can still help to discuss the issues and to seek opportunities for solutions with the communities, who are asking for such technical and scientific support. The example of the Wa Naa Palace is a striking one. The Wa regional offices are 800m away from the site only, which means that GMMB conservators drive past the palace every day. Despite this, the chief and his advisors were able to destroy three quarters of the property because there was no exchange. It is too late to save what has been destroyed at the Wa Naa Palace but it is not too late for the other properties.

4.2. Building materials

As mentioned above, communities are making great efforts but using the wrong materials. These earthen architectures need to remain dry to last over time, and the waterproof plasters applied to them have the opposite effect. Cement plasters protect against raindrops, but prevent the evaporation of the moisture contained in the walls which rises by capillary action. This moisture not only considerably reduces the compressive strength of the walls, it also encourages the rotting of the wood embedded in them and the proliferation of termites. This problem is just as prevalent on Asante Traditional Buildings (skirting boards systematically covered with a sand-cement shell) as it is on the mosques of the north (entirely coated with sand-cement). Cement plasters are not only dangerous to structures in the long term, they are also very costly for the communities, which have to pay for the repair of whole sections of detached plaster every year. In some places, they are a danger to children playing at the foot of the walls. We recommend that systematic work be carried out to remove cement-based renderings and apply breathable earth-based renderings. This will require educational work accompanied by convincing technical demonstrations for the community to accept this step backwards. Between the all-earth and all-concrete approaches, compromises exist that allow for spaced maintenance while allowing the walls to breathe.
For the Asante Traditional Buildings, the durability of the roofs is an issue. Commercial roofing sheets are becoming thinner and thinner and are easily torn by the wind. This leads to erosion of decorated surfaces, which will be much more expensive to repair than the cost of the sheet. Consideration should be given to switching to more durable materials on the temples. It is interesting to note that the straw roof of Ejisu-Besease is doing very well. It has certainly been redone twice in the meantime (replacement of the rafia shingles only) but no destruction of the decorations has been reported.

The red clay balls used to re-coat the kitchens, once ubiquitous in the markets around Kumasi, are becoming increasingly difficult to purchase. We recommend that the Kumasi office conduct a survey to find quarries of this clay in order to build up a stock of several bags. We estimate that less than 20kg of this clay is needed per year to maintain the red parts of the decorations.

4.3. Monitoring and maintenance requirements

The conservation of these assets should be conceived as a series of periodic actions that are repeated annually, with gradual improvements over time. GMMB should be the custodian of this knowledge and promote good practices. Acting every 10 years and then letting things go is not the best solution and leads to irreversible destruction. Small maintenance should be done annually to avoid major repairs. It is therefore crucial to set up a regular monitoring programme so that the sites are visited at least once a year and the community gets into the habit of integrating GMMB as an essential partner in decision-making. This requires material and financial resources for GMMB. Technicians can only do this work if they have cameras and computers to store field data. Ideally, a GMMB server accessible to staff, where any agent could find old or recent photos of the different properties in the country would be necessary. The 6-day mission we carried out in December should take place every year after the rainy season, to decide what to do before the next season. This is not currently the case. GMMB should also have a vehicle and basic equipment (wheelbarrows, shovels, etc.) to carry out small works, such as the preventive drainage carried out on the ruined mosque in Dondoli to prevent water from stagnating in the structure. More resources would give GMMB more credibility in the eyes of the communities, who once again expect support, even if it is just intellectual support at the beginning.

4.4. Training on decorations repairs

The conservation of know-how to create or conserve decorated earthen surfaces in the Asante style has been an issue for years. In the 1990s-2000s, conservation was done by Bartholomew Komoah and myself. We always realised that this was not viable and that it was essential to find young talent and train them; proposals for such projects were submitted but no funding was found. Following Bartholomew's death last summer, the need for such a training campaign becomes even more urgent. Once the heavy conservation issues have been dealt with (e.g. re-roofing) we recommend that time be taken to devote several months to training sessions in the villages to revive this lost knowledge. CRAterre can help in this restarting phase to ensure that the procedures are well mastered and that the sticks and the soil used are the right ones before these new conservators tackle the walls of the shrines for which mediocrity of work is not allowed.
4.5. Urban development and encroachment

The Kumasi Regional Director observed that encroachment is becoming a real problem. This was indeed noticeable on several sites, both on the Asante Traditional Buildings and on the mosques. The construction of a house against the Dondoli mosque, for example, with a corrugated iron roof spilling water against the ruins, is not only a problem of encroachment, it is a serious offence by the communities. We therefore recommend that ongoing efforts to document the boundaries be continued and made visible on the ground with milestones, plant fences, permanent benches or any other aesthetically acceptable means depending on the site. The implementation of these boundaries should not block water drainage away from earthen structures.

4.6. World Heritage Enlisting potential

One of the terms of reference of the mission was to consider the possibility for Ghana to propose an extension of the World Heritage Property No.1648 named "Sudanese style mosques in northern Côte d’Ivoire", enlisted by the World Heritage Committee in 2021. In view of the state of conservation observed during the mission, it is unthinkable at this time to compile a nomination file. It has absolutely no chance of being accepted. All the mosques need to be well conserved and in use, including Dondoli and Wechiau. We hope that the situation will not deteriorate further and that the mosques will return to a more stable state of conservation with regular monitoring and maintenance practices implemented jointly by GMMB and the communities, using the right building materials. Getting back to such a situation will require a strong commitment from the Ghanaian state over several years but the challenge can easily be met. Côte d’Ivoire had to struggle for several years to improve the state of conservation of the mosques in the north and to compile both its nomination file and management plan. We recall that these mosques, like the Asante temples, are modest structures and that their conservation requires negligible means compared to the conservation of the country’s road network for example.

In the meantime, these mosques can already be documented. All the work on the history, description, evolution, comparative analysis, etc. can start. The mosques can also be added to the tentative list. Actually, they are not amongst the 6 sites currently inscribed on Ghana’s Tentative List.
### 4.7. Proposed priorities for the next 4 years

<table>
<thead>
<tr>
<th>Year</th>
<th>Asante Traditional Buildings</th>
<th>Mosques</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td>Keep regular contact with the custodians to make sure they take the right decisions</td>
<td>Seal the access door under the Maluwe mirhab with bricks to prevent it from collapsing</td>
</tr>
<tr>
<td></td>
<td>Liaise with Ghana highways authority to ensure that roadworks will not affect Asenemanso shrine</td>
<td>Discuss with the owner of the new house built against Dondoli to ask him to shift the building back</td>
</tr>
<tr>
<td></td>
<td>Change the site caretakers where necessary (especially Kentinkrono)</td>
<td>Help the community in Nakore to rebuild the top of the mirhab with the proper pointed shape</td>
</tr>
<tr>
<td></td>
<td>Implement minimal cleaning/repairs works even if funds available are minimal (cleaning Kentinkrono, clearing soil around Besease, etc.)</td>
<td>Work with the site custodians to estimate the cost of required emergency works on standing mosques + restoration works on Dondoli (almost ready) and Wechiau</td>
</tr>
<tr>
<td></td>
<td>Design + cost a 2 years project to conserve the ATBs based on this report + Kwarayire’s 2021 report (to rebuild collapsed walls, replace damaged roofs, replace pillars, etc.)</td>
<td>Prepare detailed specifications for the works to be implemented at each mosque to avoid the use of sand-cement plasters</td>
</tr>
<tr>
<td></td>
<td>Design + cost a 3 years project to revive the Asante decorations technique with the potential ghanian/foreign technical partners</td>
<td>Use these documents to source funds (Ghana government + external funding)</td>
</tr>
<tr>
<td></td>
<td>Design + cost a project to build a new regional office and equip the staff with decent working tools</td>
<td>Identify selected ghanian/foreign experts to start documenting the mosques for the nomination file</td>
</tr>
<tr>
<td></td>
<td>Send both project proposals to potential donors</td>
<td></td>
</tr>
<tr>
<td>2023</td>
<td>Monitor all sites and re-establish good relations between GMMB and communities</td>
<td>Restore Dondoli and Wechiau mosques</td>
</tr>
<tr>
<td></td>
<td>Complete the mapping work on site boundaries and suggest fence options for each site</td>
<td>Implement repairs on Maluwe and Bole</td>
</tr>
<tr>
<td></td>
<td>Source funds for the fencing</td>
<td>Source funds to prepare the nomination file + management plan</td>
</tr>
<tr>
<td>2024</td>
<td>Work on roofs, drainage and wall reconstruction on 5 ATBs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Implement the training on decoration – session 1</td>
<td>Implement repairs on all the other mosques</td>
</tr>
<tr>
<td></td>
<td>Source funds to prepare the nomination file + management plan</td>
<td>Use the technical information gathered during the conservation works to compile a best practices conservation guide</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Prepare the nomination file + management plan</td>
</tr>
<tr>
<td>2025</td>
<td>Monitor all sites and re-establish good relations between GMMB and communities</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Implement repairs on all the other mosques</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Use the technical information gathered during the conservation works to compile a best practices conservation guide</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Prepare the nomination file + management plan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Submit the nomination file + management plan to UNESCO for potential inscription by the WH Committee in 2026</td>
</tr>
</tbody>
</table>
5.1. Bibliography

GHANAIAN ARCHITECTURE

MOSQUES

WA NAA PALACE
ASANTE TRADITIONAL BUILDINGS


5.2. Cost estimate to restore Dondoli mosque in Wa

This cost estimate was prepared by Kenneth Fomjegeba, GMMB Wa Regional Director with his staff.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT COST</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>SOIL FOR BRICKS</td>
<td>trips</td>
<td>10</td>
<td>300 GHC</td>
<td>3 000 GHC</td>
</tr>
<tr>
<td>2.</td>
<td>SAND</td>
<td>trips</td>
<td>8</td>
<td>280 GHC</td>
<td>2 240 GHC</td>
</tr>
<tr>
<td>3.</td>
<td>STICKS/BUSH POLES</td>
<td>piece</td>
<td>4000</td>
<td>1 GHC</td>
<td>4 000 GHC</td>
</tr>
<tr>
<td>4.</td>
<td>LIME (BINDING AGENT)</td>
<td>bags</td>
<td>70</td>
<td>50 GHC</td>
<td>3 500 GHC</td>
</tr>
<tr>
<td>5.</td>
<td>WINDOW FRAMES</td>
<td>piece</td>
<td>3</td>
<td>75 GHC</td>
<td>225 GHC</td>
</tr>
<tr>
<td>6.</td>
<td>DOOR FRAMES</td>
<td>piece</td>
<td>2</td>
<td>85 GHC</td>
<td>170 GHC</td>
</tr>
<tr>
<td>7.</td>
<td>WINDOW FRAMES</td>
<td>piece</td>
<td>3</td>
<td>28 GHC</td>
<td>84 GHC</td>
</tr>
<tr>
<td>8.</td>
<td>DOOR FRAMES</td>
<td>piece</td>
<td>2</td>
<td>250 GHC</td>
<td>500 GHC</td>
</tr>
<tr>
<td>9.</td>
<td>BITUMEN</td>
<td>gallons</td>
<td>40</td>
<td>65 GHC</td>
<td>1 800 GHC</td>
</tr>
<tr>
<td>10.</td>
<td>SOLIGNUM (wood treatment)</td>
<td>gallons</td>
<td>30</td>
<td>60 GHC</td>
<td>1 950 GHC</td>
</tr>
<tr>
<td>11.</td>
<td>FELT</td>
<td>rolls</td>
<td>6</td>
<td>60 GHC</td>
<td>360 GHC</td>
</tr>
<tr>
<td>12.</td>
<td>PADLOCKS</td>
<td>piece</td>
<td>2</td>
<td>35 GHC</td>
<td>70 GHC</td>
</tr>
<tr>
<td>13.</td>
<td>PAIR OF HINGES</td>
<td>piece</td>
<td>5</td>
<td>20 GHC</td>
<td>100 GHC</td>
</tr>
<tr>
<td>14.</td>
<td>1'*9' WAWA BOARDS (SCAFOLDS)</td>
<td>piece</td>
<td>50</td>
<td>45 GHC</td>
<td>2 250 GHC</td>
</tr>
<tr>
<td>15.</td>
<td>2'* 4' ODUM BOARDS (SCAFOLDS)</td>
<td>piece</td>
<td>30</td>
<td>30 GHC</td>
<td>900 GHC</td>
</tr>
<tr>
<td>16.</td>
<td>LIME WASH or WHITE PAINT</td>
<td>bucket</td>
<td>10</td>
<td>120 GHC</td>
<td>1 200 GHC</td>
</tr>
<tr>
<td>17.</td>
<td>ANTI-TERMITES TREATMENT</td>
<td>litre</td>
<td>6</td>
<td>50 GHC</td>
<td>300 GHC</td>
</tr>
<tr>
<td>18.</td>
<td>EMULSION BRUSH</td>
<td>piece</td>
<td>8</td>
<td>15 GHC</td>
<td>120 GHC</td>
</tr>
<tr>
<td>19.</td>
<td>WATER (10 tanks)</td>
<td>piece</td>
<td>10</td>
<td>75 GHC</td>
<td>750 GHC</td>
</tr>
<tr>
<td>20.</td>
<td>TRANSPORTATION (MATERIALS &amp; WATER)</td>
<td>lumpsum</td>
<td>1</td>
<td>2 500 GHC</td>
<td>2 500 GHC</td>
</tr>
<tr>
<td>21.</td>
<td>BEAMS/ELECTRICITY POLES</td>
<td>piece</td>
<td>5</td>
<td>500 GHC</td>
<td>2 500 GHC</td>
</tr>
<tr>
<td>22.</td>
<td>MATS</td>
<td>lumpsum</td>
<td>1</td>
<td>2 000 GHC</td>
<td>2 000 GHC</td>
</tr>
<tr>
<td>23.</td>
<td>TARPAULIN</td>
<td>piece</td>
<td>4</td>
<td>22 GHC</td>
<td>88 GHC</td>
</tr>
<tr>
<td>24.</td>
<td>TILES (60*60)</td>
<td>box</td>
<td>10</td>
<td>72 GHC</td>
<td>720 GHC</td>
</tr>
<tr>
<td>25.</td>
<td>TILE GLUE</td>
<td>bags</td>
<td>20</td>
<td>54 GHC</td>
<td>1 080 GHC</td>
</tr>
<tr>
<td>26.</td>
<td>BRICK MOULDING</td>
<td>piece</td>
<td>1000</td>
<td>1 GHC</td>
<td>1 000 GHC</td>
</tr>
</tbody>
</table>

| MATERIALS | 33 407 GHC |
| WORKMANSHIP | 9 925 GHC |
| Materials + Workmanship | 43 332 GHC |
| UNFORSEEN EXPENSES 10% | 4 333 GHC |

**TOTAL** | **47 665 GHC**

| **6 804 EUR** |
5.3. Presentation made in Accra at the end of the mission
GHANA Earthen heritage Diagnosis | December 2021

64
Conclusions

Vernacular architecture
Building materials
Earth heritage state of conservation
Coordination of actors: OAMGB vs. Communities
Monitoring and maintenance requirements
Know-how and good practices
Training on decorations
Enforcement
New World Heritage Sites
Francis and Kenneth