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Conservation and Site Management Plan for Manya Hill, Ghana.

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Abstract

Protection of the past is essential and important to every society, community or nation. This is because preserving the historical and cultural materials that give information about the past is a great aspect of the work of an archaeologist or any historian. This makes conservation very important at a place where cultural, historical or archaeological materials are found, since these materials tell us more about ourselves as a people. In as much as these are important to us, many historic sites in Ghana have been left to their fate where little or nothing is done in an attempt to protect these important materials or valuables from destructions. This research was undertaken to identify the natural and human threats to the dry-stone terraces and building foundations found at Manya Hill in the Shai Hills and prescribe possible strategies to help reduce and prevent further deterioration. The Manya Hill is a cultural and historical site located in the Shai Hills Resource Reserve. The hilltop sentiments were home to the Se people, including the Manya Jorpanya people until 1892 when they were ejected from their homes by the British authorities in the Gold Coast. This imperialist action resulted to settling at locations like Manya Jorpanya, Dodowa, Kordiabe, Agomeda, Doryumu and Manya Jorpanya. This research focused on the threats that are causing the destructions of the dry-stone terrace walls and building foundations on the Manya Hill site which give evidence of Human settlement on the site. This research also suggests ways and measures to put in place to curb current threats and also to prevent future destructions of the dry-stone terrace walls and building foundations at Manya Hill archaeological site. For decades, the Manya and other Se ancestral sites in the Shai Hills have become pilgrimage sites for the descendants and many local and foreign tourists for educational purposes.

1.0 Introduction

Protection of the past is essential and important to every society, community or nation. This is because preserving the historical and cultural materials that give information about the past is a great aspect of the work of an archaeologist or any historian. This makes conservation very important at a place where cultural, historical or archaeological materials are found. Conservation according to Aplin (2002; 69) is defined as “all the processes of looking after a place so as to retain its cultural significance. It includes maintenance and may according to circumstance include preservation, restoration, reconstruction and adaptation.” It is further explained as the overall process of caring for the natural and/or cultural significance of a place so as to retain that significance. If heritage sites are not adequately cared for or conserved, they can easily lose their significance as building fabric deteriorates; weeds or plants invade

in natural area. Conservation therefore can be defined as safeguarding a place of importance significance for future generation, it either be in a form of renovation, preservation and reconstruction.

There are numerous groups of people, societies or communities in Ghana that protect their past and heritage through various means, to make it available for the future generation and for the benefit of the community and nation as a whole. Some of these heritage sites that have been conserved include the Asante Traditional buildings, and Salaga Slave Market.Manya Hill is one of the hills the Se people settled and it is the most visited cultural and historical site at the Shai Hills Resource Reserve (Shai hills Parkhistory,2014). It is seen as an ancestral home and heritage site of the Manya -Jorpanya people who are one of the major divisions of the Se people. Manya Hill also contains a lot of archaeological and cultural materials like stone terraces, pottery, rocks, grinding stones, mounds among others. Manya Hill was the ancestral home for the Manya-Jorpanya people of whom some of them moved from Manya-Jorpanya to settle at Kordiabe, Doryumu, and Dodowa.

This study focuses on documenting the cultural and archaeological materials, most importantly, the dry-stone terrace walls on the Manya Hill, locating threats that are caused to these cultural and archaeological material and prescribing conservation strategies that can be adopted and practiced to prevent further deterioration of these materials as well as suggesting ways to preserve them for the benefit of future generation, education and tourism development project.

Figure 1: Tourists at the Manya Hill site. (Source: Dr. Gblerkpor, 2019).

MAP 1: MAP OF GHANA AND DANGME WEST DISTRICT SHOWING THE STUDY AREA (Source: Retrieved from Google map on 24/07/2020).

1.1 STATEMENT OF RESEARCH PROBLEM

One objective for Wildlife Protected Areas in Ghana is to safeguard and maintain cultural resources, yet the priorities of every government is shifted to sectors of the economy that are considered to be more essential in enhancing the standard of living of the general populace: food production, provision of shelter, education, health care, security and their associate infrastructure, which contribute to many developing countries facing developmental challenges and Ghana is no exception to the above stated problems.

Even though successive governments have recognized the potential contributions of the tourism sector to the national development, the competition for scarce financial resources by the essential services listed above means that less attention is paid to the development of tourism. The limited attempts that

have been made to promote the tourism industry in Ghana include the implementation of tourism development plans that do not attach much attention to heritage resources management especially archaeological heritage sites. The implication is that the conservation and management of heritage sites face a lot of problems and challenges and the Manya - Jorpanya ancestral home is apparently no exception. The primary challenge of the Manya Hills is the lack of scientific research data on the site and its archaeological and heritage assets. Funds to ensure proper management and the conservation of the site are also lacking. As a result, the site is exposed to several vulnerabilities; prominent among them is exposure to heavy rainfalls leading to the erosion of the topsoil and unearthing of some of the buried archaeological remains which may cause deterioration of such remains. Root pry is also one of the vulnerabilities, this is the roots of trees penetrating and causing destruction of stone terraces and breakable artefacts like pottery, looting of artefact and exposure of the site to tourists also contribute to the vulnerabilities.

Figure 2: A damaged terrace wall. (Photograph by Miss Odarkor Ankrah-Addison, July, 2020).

With the indispensable role heritage sites play in the tourism industry, it is imperative that the vulnerabilities and threats that endanger these heritage sites are reduced to the barest minimum or at best removed. The ultimate aim being the preservation of tangible material culture at the Manya Hill site that the Archaeologist or other disciplines can relate to. It is only by making available tangible materials that the intangible can be well understood and, also in vice versa manner the intangible gives meaning to the tangible (Comer, 2012).

Having this background, the question that arises is, has there been any management plan or management project that seeks to protect and preserve the Manya Hill site? This question arises because there have been little or no improvement in the

preservation of artifacts and the general maintenance of the site. On face value, there seems to be lack of funds and a dearth of technical know-how on how to preserve the site. The answer to this question is of interest to the Manya Jorpanya people who want to safeguard their heritage for present and future generations and to the country at large who wants to promote the tourism industry.

Also, it is to answer that question that the researcher decided to work on identifying the wall terraces with eminent threats and propose conservation and site management strategies for Manya Hills, Ghana. The focus of this research is mainly on the terraces walls because students from the Department of Archaeology and Heritage Studies have worked on the threats to cultural materials at Manya Hill in general. One of such students is Theresah Aryertey, who wrote a concept paper on how to conserve cultural materials on the Mnaya Hill.

1.2 AIM OF THE RESEARCH

The aim of this research is to identify the natural and human threats to the dry-stone terraces and building foundations found at Manya Hill and prescribe possible strategies to help reduce and prevent further deterioration.

1.3 RESEARCH OBJECTIVES

- To identify and systematically document/record the dry-stone terrace walls and building foundations at Manya Hill.
- To document various threats on the terraces identified.
- To identify the number of dry-stone terrace walls that are at risk.
- To identify the causes of the threats and vulnerabilities on the terrace walls.

Propose conservation strategies and techniques that can be employed to help reduce the threats, aid in the preservation of available terraces and also plans that will aid in the restoration of the already destroyed ones.

1.4 RESEARCH QUESTIONS

To aid in achieving the above stated objectives, the following research questions have been posed.

 What are the imminent threats to the sustainability of the dry-stone terrace walls and building foundations at Manya Hill?

How can the identified risks or threats be eliminated or reduced to prevent further destruction?

1.5 RESEARCH METHODS

Reconnaissance survey (surface walking, observation, measurements, photography, and descriptions), photomapping, GPS mapping and also interviewing researchers and Park Management staff were the

major methods and strategies employed to carry out this research. These methods were used because this research is an on-site research of which majority of the data were gathered on the site.

Reconnaissance Survey

This required the researcher walking over the site, which aided in knowing and identifying the total number of dry-stone terrace walls available at Manya Hill as well as the building foundations that are present on the site. It also helped in identifying the number of dry-stone terrace walls and building foundations that are on the verge of losing their significance.

Photography

This required taking pictures of all the dry-stone terrace walls which will provide evidence of the state of the dry-stone terrace walls that are present on Manya Hill Archaeological site. It helped provide clearer picture of every activity that happened on the site, as well as providing details of the total number of walls and building foundations that are present on the site. It also provided evidence of the causes of the threats to the dry-stone terrace walls either it being natural or human factors. Lastly, it aided in the documentation of the threats associated with the walls as well as the total number of dry-stone terrace walls available on the site and out of the total, the ones that are under destruction or on the verge of losing their significance.

Measurement

This required measuring the height and breadth of the dry-stone terrace walls, it provided clue on the extent to which the threats have caused damage to the walls. Knowing the full length of the walls by measuring the available foundations, it can help predict how intense the destruction is on the walls.

Mapping

This was done by taking GPS coordinates of the site to generate a map for the study area. It will help in connecting the walls on the site by linking them to see how close they are to each other. In connection with the walls, readings were taken for threats like trees that are growing to be able to see how close they are to the stone terrace walls and to predict how they can be eradicated. GPS coordinates were taken for both dry-stone terrace walls and the trees that are found on the site to be able to predict how close or far they are and their possibility of causing havoc to the walls.

Interviewing

Gathering information from the park management team helped in knowing the state of the dry-stone terrace walls before the threats persisted. It was also communicated how long the place has been before the threats and what they have done about the threats.

1.6 SIGNIFICANCE OF THE RESEARCH

- This research provide basis for additional work on Manya Hill to develop more comprehensive site management plan for the Manya Hill site, and also be used in the general management plan for the whole Shai Hills Resource reserve and other forest reserves with cultural materials in the country and other countries as well.
- The research will serve as a reference guide on various conservation strategies or techniques and site management which will be of use to policy makers, students and other researchers.
- The research will help in the conservation of Manya Hill heritage site for present and future generations, being it educational purpose, recreational and tourism development purpose.
- The Research will make available the various cultural divisions on Manya Hills.

1.7 ORGANIZATION OF THE RESEARCH

This research is composed of five chapters. Chapter one entails the Background information (Introduction). It gives the Statement of the Problem, outlines the aim of the Research, the Objectives of the research, Research Questions, Significance of the Study, and the Research Methodology which also put emphasis on the data collection methods employed and how it will be analyzed. Chapter two addresses the review of relevant literature. Chapter Three and Four will deal with presentation and discussion of results respectively. The final Chapter draws the conclusion of the study and recommendations made based on the conclusions.

2.0 INTRODUCTION

According to Gionata Rizzi, (2007, xix-xxii) ruins around the globe form a greater part of the world architecture heritage and as a result some have been placed on World Heritage List. Their preservation and maintenance due to their significance, value and meaning have led to the attraction of visitors to archaeological remains despite their physical condition. He further emphasized that, the reason much concern is placed on archaeological remains is “far beyond the historical and artistic importance of the remains of a given building may have; as ephemeral traces of the human activity on earth, ruins actually among the evocative icons of the time past.”

2.1 THEORIES AND IMPORTANCE OF CONSERVATION

The conservational theories propounded by the early scholars on how to conserve monuments of historic importance together with international charters aimed at protecting cultural heritage properties, as a result of the destruction of heritage properties caused by the First and Second World Wars did help to shape cultural and natural heritage around the world.

One unique thing about the 20th century was the contribution of non-European traditions which produced guideline documents such as the Burra Charter and Nara document of Authenticity. These guideline documents threw light on the significance of taking into consideration different cultures and approaches when dealing with heritage conservation and management (Wallace, 2015). As Silva(1983) stated, the Venice Charter, was a Magna Carta tool for the safeguarding of heritage properties from which other international charters took inspiration. It became "the ten commandments of conservation where it specifically says, thou shall not destroy." The concept of preservation of cultural heritage properties was broadened to include the day to day building of structures. It further expanded the length and breadth to include the preservation of the immediate surroundings (Silva, 1983). The preamble of the Venice Charter commented on the importance of preserving and restoring ancient monuments: the historic monuments of generations of people remain to the present day as living witnesses of their age-old traditions. People are becoming more and more conscious of the unity of human values and regard ancient monuments as a common heritage. The common responsibility to safeguard them for future generations is recognized. It is our duty to hand them on in the full richness of their authenticity (Venice Charter, 1964).

The UNESCO World Heritage Convention organized in 1972 became a turning point as it deals with sustainable conservational strategies and policies on cultural and natural heritage. With the involvement of many countries, it came out with the selection criteria for selecting heritage properties onto the World Heritage List based on their outstanding universal value. It has become the standard and continues to have significant impact on other heritage properties not on the world heritage list (Jokilehto, 2007).

Conservational theories during the period of enlightenment took into account how to conserve material or monument in its authentic state, but in a different approach. The word authentic has evolved and sometimes used as a synonym for words like 'original and genuine'. According to Wallace (2015), one of the major problems of the Venice Charter and UNESCO World Heritage Convention is that both conventions failed to embrace other cultures. Both conventions mentioned above were based on western cultures. This partly prompted the development of the Nara Document to address the definition of authenticity taking other cultures into consideration. The Venice Charter statement on restoration of a monument of historical importance: The process of restoration is a highly specialized operation. Its aim is to preserve and reveal the aesthetic and historic value of the monument and is based on respect for original material and authentic documents (Venice Charter, 1964). This statement means that authenticity is relevant in the conservation processes. However, it was limited to architectural conservation.

According to Ashust (2007) 'authenticity means that a historic building should be seen as a true testimony of the culture or traditions that it represents'. Therefore, there was the need to explore the definition and application of the theory of authenticity in relation to other cultures. The Nara Document

looking at it from the wider perspective states that: The understanding of authenticity plays a fundamental role in all scientific studies of the cultural heritage, in conservation and restoration planning, as well as withinthe inscription procedures used for the World Heritage Convention and other cultural heritage inventories (article 10) and continue in (article 11) that, All judgements about values attributed to cultural properties as well as the credibility of related information sources may differ from culture to culture, and even within the same culture. It is thus not possible to base judgements of values and authenticity within fixed criteria. On the contrary, the respect due to all cultures requires that heritage properties must consider and judged within the cultural contexts to which they belong (ICOMOS, 1994).

The adoption of the Nara Document in 1999 by the ICOMOS generally made it a global accepted document for professionals in the heritage conservation and management field (https://whc.unesco.org/en/events/443/). The authenticity of the heritage assets are one of the tools UNESCO considers before a heritage property could be nominated on to the world heritage list and has become part of the framework of which heritage professionals use to ensure that, authenticity of the property is not destroyed when managing heritage. Our effort to comprehend values attached to heritage depends on the level of information source associated with these values as seen as credible or truthful, which form the 'basis for assessing all aspects of authenticity' (https://whc.unesco.org/en/events/443/).

Also, for a heritage property to be enlisted or nominated into the World Heritage List, integrity is one of the conditions used to assess the eligibility of the World Heritage property. The condition of integrity is stated in the 'Operational Guidelines for the Implementation of the World Heritage Convention (2005): Integrity is a measure of the wholeness and intactness of the natural and/or cultural heritage and its attributes. Examining the conditions of integrity, therefore requires assessing the extent to which the property; a) includes all elements necessary to express its outstanding universal value; b) is of adequate size to ensure the complete representation of the features and processes which convey the property's significance;
c) suffers from adverse effects of development and/or neglect. Jokilehto, (2006) is of the view that integrity of heritage must be related to the qualities that are valued in a particular heritage property. Jokilehto continues to divide integrity into three main primary groups:

Social -functional integrity referred to the identification of the functions and processes on which the development of the heritage property has been based over a certain period of time.
 Structural integrity referring to what has survived from the heritage property
evolution over time and the element that provide a connection to the creative and spatial environmental whole of the area.

 Visual integrity refers to aesthetic aspects represented by the area.
It is the dimensions of integrity that heritage professionals can apply to help develop a management system that will conserve the values associated with the site (Jokilehto, 2006). The idea of introducing integrity in the World Heritage Convention was initially been meant to be an inscription condition for national heritage sites. However, due to its growing significance, integrity is now used in a broader context and has captured cultural heritage sites (Wallace, 2015).

The concept of authenticity and integrity is relevant when it comes to archaeological remains or ruins. The purpose of mentioning authenticity and integrity in this chapter is that, though the Manya Hill does

not have outstanding universal value, authenticity and integrity has become model heritage site managers consider when taking a decision about the heritage attractions being managed. It is to bring to light that whenever taking a managerial decision, the authenticity and integrity of the site should not be compromised or overlooked. Most often, our quest to increase visitation and development at the site tends to overlook authenticity and integrity which affect the value attached to the property. This therefore provides the need and importance to conserve the site.

The cultural and historical evidences present on the Manya Hill Archaeological site make the site so unique and authentic, and it also makes it the most valuable cultural site in Shai Hills Resource reserve among the other sites like Hioweyo site, Adwuku and Mogo Hill among others.

2.1 CULTURAL RESOURCES AND ARCHAEOLOGICAL HERITAGE MANAGEMENT

Cultural resource management comprises of various disciplines including archaeological heritage management and archeological site management. Archaeological heritage management came as a result of the many threats to archaeological resources and therefore, there was the need to find ways of reducing their impacts by coming out with laws and policies that will help in the development of archaeological heritage sites through tackling illicit trafficking, professional training in the field and educating the masses on the need to protect, conserve and preserve archaeological heritage sites (Demas, 2003). Archaeological heritage management deals with policies which focus on the regional and national level,

whilst archaeological site management is more concerned with a single or group of sites under one management scheme.

Manya Hill which is considered as a cultural and historical site for the Manya Jorpanya people needs to be managed to help preserve the site and also reduce the rate of destruction of the cultural evidences that are available on the site. Management of Manya Hill will help conserve the heritage site for future generations and also serve as a tourism site and a field research site not only to the Manya Jorpanya people but to the nation as whole.

2.2 TYPES OF THREATS

Palumbo (2002), analyzing Threats and Challenges to the Archaeological Heritage in the Mediterranean identified a number of threats and challenges that almost affect archeological heritage site in the world, these threats can be grouped into two: man-made and natural threats. These threats cannot be eradicated; however, they canbe reduced to the bar less minimum. Threats that are associated with archaeological sites are; developments, tourism, archaeological excavations, inappropriate interventions, natural disasters and lack of financial and human resources.

2.3 TECHNIQUES AND METHODS FOR PROTECTION

There are various methods and techniques that are used for the protection and stabilization of

archaeological sites. Demas (2002), some methods of protection and stabilization use in the long and short term conservation measures of an archaeological site are as follows:

A. Reburial or backfilling: it is the practice whereby an excavated site is returned to its normal state due to lack of resources to conserve the structure or feature. According to Demas (2003), it has been one of the most flexible and viable methods in recent times for conserving archaeological remain.

B. Erosion control and site stabilization: this method helps to reduce the rate at which objects are transferred from their original location to other places through the removal of the topsoil by heavy rainfall and winds.

C. Consolidation and stabilization of structures: it involves techniques such as capping of wall, limestone technology, chemical consolidants and other methods aimed at stabilizing archaeological structures which are in vulnerable state.

D. Protective roofing and shelters: It is a technique that uses shelter or roofing structures for temporary or permanent protection of archaeological remains at the site which are mostly open to the general populace.

E. Vegetation control: it involves uprooting of vegetation growth that are seen as destructive or contributing to the deterioration of archaeological remains at the sites.Therefore, grass and bushes which contributed to material decay at the site are uprooted in order to preserve the object.

The various methods and techniques that are used for the protection and stabilization of archaeological sites according to Demas (2002) are very relevant to this research considering the topic and problem statement at hand. With the exception of his first point which talks about 'Reburial and backfilling' which will not be of use to this research work all other points stated is be useful and will be of good help in the conservation of the Manya Hill archaeological site.

3. RESEARCH METHODOLOGY

The methods that were employed to gather data for this research were through both primary and secondary forms of data collection whilst the data recorded or retrieved were analyzed and interpreted by explaining the data generated. Primary data is "data that is collected by a researcher from first - hand sources, using methods like surveys, interviews or experiments" (http://www.statisticshowto.data.sciencecentral.com).
Primary data for this research were derived from interviews, observations, reconnaissance survey, mapping, measuring and photography.

Secondary data on the other hand can be defined as data retrieved or gathered from surveys, books and articles that have been run by other people or scholars or from other research (htttps://www.statisticshowto.data.scciencecentral.com). Secondary data that were used in this research focused on or were derived from books and articles from the Department of Archaeology and Heritage Studies, and also published and further studies that have been done by students and scholars of the Department of Archaeology and Heritage Studies and also from Shai hills Resource Reserve.

Interviews are particularly useful for getting the story behind a participants experience and pursuing in-

depth information around a topic (McNamara, 1999).

Interviews can be defined as "essentially a structured conversation where one participant asks questions, and the other provides answers or interview refers to a one-on-one conversation between and interviewer and interviewee towards asking and answering questions (https://en.m.wikipedia..org/wiki/interview). In this research, people who were interviewed include the Tour guides for the Reserve, Chief and people of Manya Jorpanya which aided in gathering information about the research topic and area. There was an engagement of the Ex-Manager of Shai Hills Resource Reserve, and William Narteh Gblerkpor, PHD from the Department of Archaeology and Heritage Studies, University of Ghana. Dr. Gblerkpor is the PI of the Shai Hills Archaeological Research Project, and my work falls under the research initiative.

Reconnaissance survey is defined by the department of archives and history as "an examination of all or part of an area accomplished in sufficient detail to make generalization about the types and distributions of historic properties that may be present". Reconnaissance survey is done by walking across the land to identify cultural or archaeological materials on an archaeological site.

Reconnaissance survey can be defined as a systematic way of looking out for cultural evidence being it features, ecofacts or artefacts on a site by carefully walking laid out grid systems or transect and it can also be done unsystematically when an archaeologists randomly search an area by walking through the site for artefacts, ecofacts or features which provides evidence of settlement (Renfrew, C. & Bahn, P. 2015, p.70).

With respect to the research topic, the researcher with her team walked across the Manya Hill site to identify dry-stone terrace walls present on the site, and wherever a terrace is located, it was labeled with number. This was the routine that took place on the site till the 43rd terrace wall which is also the last recorded terrace wall by the researcher and her team was recorded.

Since the main focus of this project is the wall terraces at Manya Hill of Shai hills and resource reserve; all the wall terraces at Manya hill will be identified and tagged. They will be counted to know the number of terraces at the site. After getting the total number of terraces, the ones that are destroyed and those on the verge of destruction will also be identified, counted and tagged or flagged with different tags to differentiate them from the ones that are whole.

Mapping is defined by Archaeology Wordsmith as "the scaled recording of the horizontal position of exposed features and, in some cases, artefacts and ecofacts using standardized symbols" (archaeologywordsmith.com/lookup.php?terms=mapping). With this form of data collection, a Global Positioning System (GPS) was used to take the coordinates of the various terrace walls that was recorded on the site as well as some notable places on the site like the Maternity ward and community shrines for easy identification as well as using the coordinates to generate a map showing the distribution patterns of the terrace walls and the notable places as well.

Measurement is defined by Oxford Learners Dictionary as "the act or process of finding size, quantity or degree of something or knowing the size, length or amount of something." Measurement was employed in this research to know the length, height and quantity of cultural materials most especially the dry-stone terrace walls on Manya Hill site. So with this, all the terraces on Manya Hill was counted to know the number of terraces that was recorded on the site, the ones that are destroyed or on the verge of

destruction and ones that have little or no threats were also counted. Also the trees that are growing in the midst of the terraces will be identified. Measurements were taken to know the length, breadth and height of all the terraces and also the ones that are destroyed or on the verge of destruction. These measurements were taken with the help of a ranging pole and measuring tapes.

Photography is a very key or an important method of data acquisition or retrieval in this research. Photography is defined by the Oxford Learners dictionary as "a picture made using a camera, in which an image is focused on to light-sensitive material and then made visible and permanent by chemical treatment, or stored digitally". Photography in this research is showing or depicting the exact condition of the dry-stone terrace walls on Manya Hill in the form of pictures. It is also display other cultural materials in association with the wall terraces in their original form and context; that is photography brings accurate representation of artefacts. Photographs were also taken of the tree species that are destroying the wall terraces. Some of the tools that were used to take photos are photographic scales, north arrows, ranging poles and camera as well as smartphone.

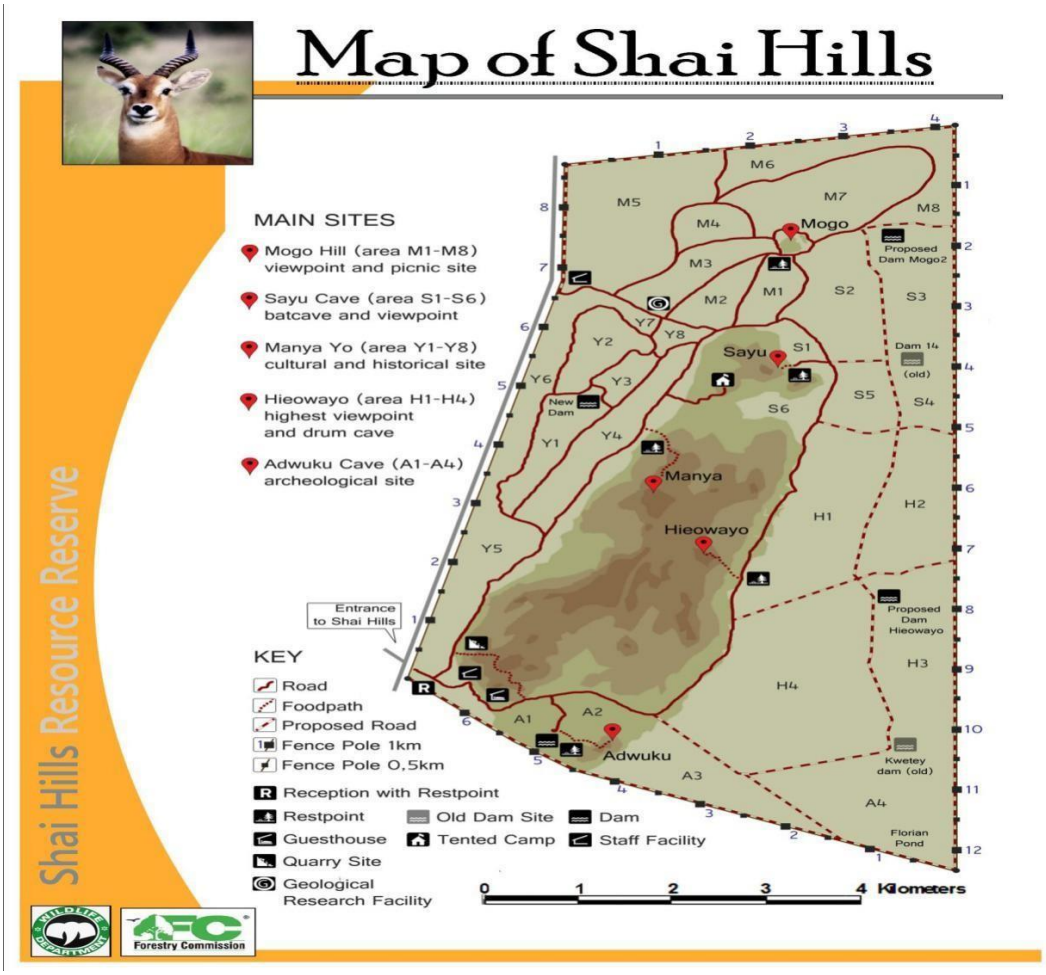
Figure 3: Pictures showing other cultural materials that were captured on the Manya Hill archaeological site. In the first picture are grinding stones and the second picture showing pots and Lateritic stone believed as one of their ancient god (Photographs by Miss Odarkor Ankrah-Addison, July, 2020).

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.0 INTRODUCTION

This chapter consists of data presentation and analysis or interpretation gathered or recorded from the research site. It encompasses the map of the study area, presentation of data which focuses on achieving the aim and objectives of this project and data analysis.

MAP OF SHAI HILLS RESOURCE RESERVE SHOWING MANYA HILL SITE



From the map above, the part labeled Y1-Y8 is the research area (Source: Poster at Museum of Cultural and Natural Heritage, Shai Hills, 2020).

4.1 DOCUMENTATION AND IDENTIFICATION OF WALLS

Manya Hill is believed to be one of the settlement hills in Shai Hills Resource Reserve, which has incredible evidence of human settlement on the hill top. Some of these evidence on the hill that depict or portray that human have lived on this hill include cultural materials like grinding stones, pots in different shapes and sizes and to top it all dry-stone terrace walls and building foundations, which happens to be the main focus of this research.

Through the reconnaissance survey that was done at the Manya Hill Archaeological site, a total number of forty-three (43) dry-stone terrace walls and building foundations were recorded, which represent 100% of the recorded terrace walls. Out of the total number of the dry-stone terrace walls and building foundations that were recorded, thirty-five (35) of these walls are with threats whilst only eight (8) out the total are without threats. Below is a chart distribution that represents the above statements.

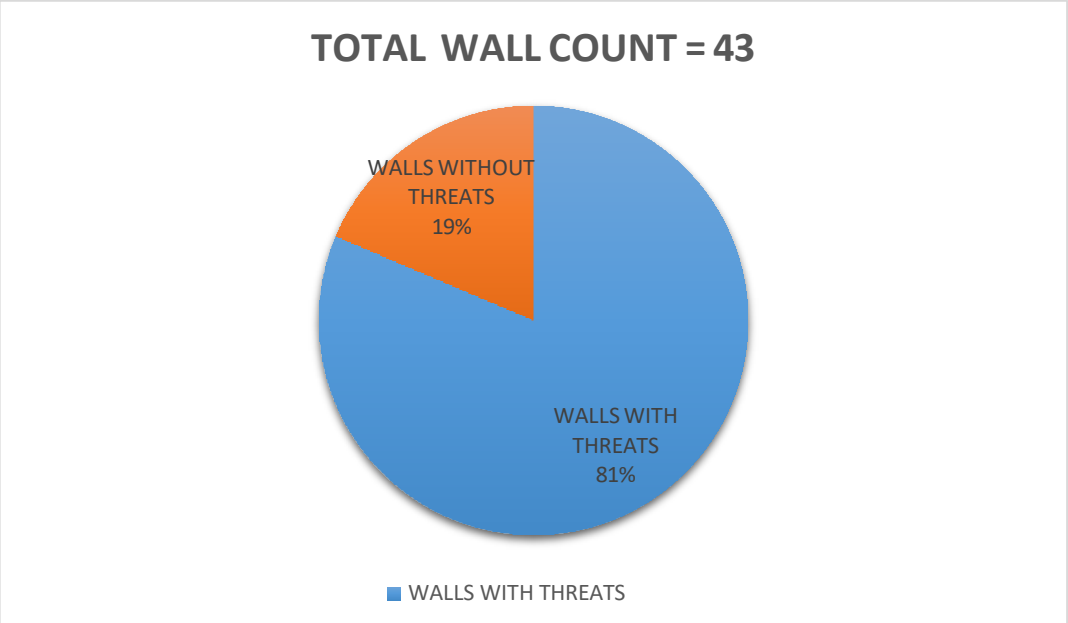


Chart 1

4.2 TYPES OF TERRACE WALLS

The walls that were recorded on the Manya Hill archaeological site come in different types. Some were identified as building foundations whilst others were also identified as retaining walls. These walls had some of its layout to be rectangular in shape whilst some also had theirs to be in the form of a square. During the reconnaissance survey, it was observed that most of the terrace walls that had their layouts in the shape of a rectangle were mostly retaining wall that were raised to check erosion and also bigger walls that had compartments of rooms within it, and the ones that were in the square shapes were building foundations. Out of the forty-three (43) total number of terrace walls that were recorded, thirty (30) have their layouts to be in the shape of squares whilst the remaining thirteen have their layouts to be in the form of rectangle. Below is a chart that shows the proportion of the walls in the form of rectangles to the ones that have their forms in squares.

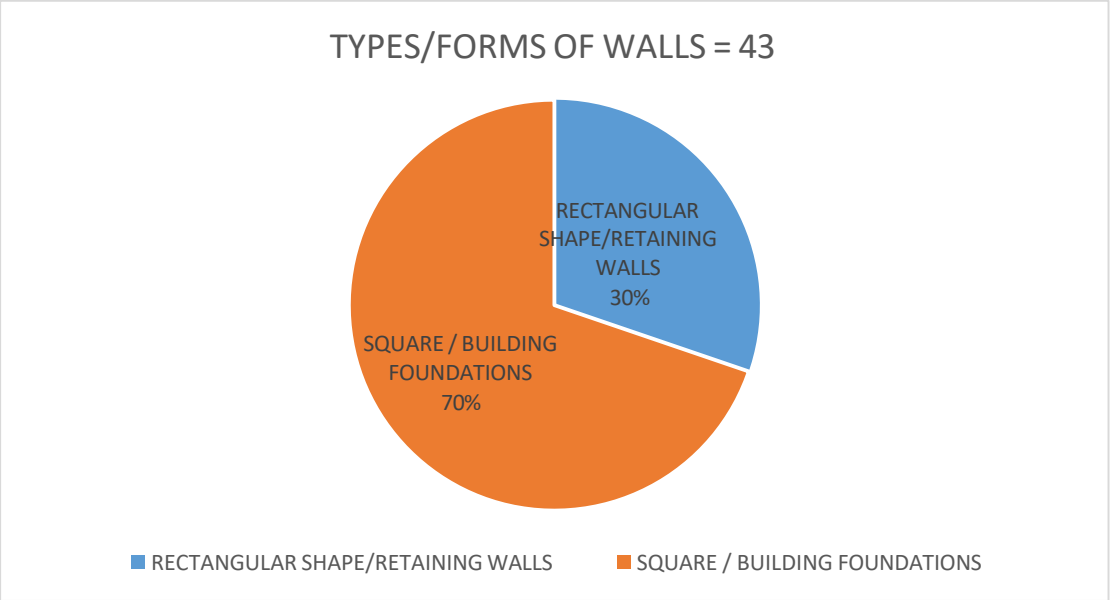


Chart 2

It was also identified that the walls with the layouts in the form of a rectangle are relatively taller in heights as compared to the walls in the shape of a square. Below are some pictures showing the heights and types of some of the recorded terrace walls.

Figure 4: A picture of a terrace wall in the shape of a rectangle with height of 0.9 metres. (Photograph by Miss Odarkor Ankrah-Addison, July, 2020).

Figure 5: A terrace in a rectangular shape with a height of 1.3metres long (Photograph by Miss Odarkor Ankrah-Addison, July, 2020).

Figure 6: A rectangular shaped terrace wall with height of 1.4metres long (Photograph by Miss Odarkor Ankrah-Addison, July, 2020).

Figure 7: Another picture showing a terrace wall in a rectangular shape layout with height of 0.9metres long (Photograph by Miss Odarkor Ankrah-Addison, July, 2020).

Figure 8: A picture showing a terrace wall that is in the shape of a square with height of 0.63metres long (Photograph by Miss Odarkor Ankrah-Addison, July, 2020).

Figure 9: A picture of a square shaped terrace wall with height of 0.67metres long (Photograph by Miss Odarkor Ankrah-Addison, July, 2020).

Figure 10: Another picture of a square shaped terrace wall with height of 0.44metres (Photograph by Miss Odarkor Ankrah-Addison, July, 2020).

This above information is represented in the table below

FIGURE	SHAPE	HEIGHT (meters (m))
Figure 4	rectangle	0.9
Figure 5	rectangle	1.3
Figure 6	rectangle	1.4
Figure 7	rectangle	0.9
Figure 8	square	0.63
Figure 9	square	0.67
Figure 10	square	0.44

Table 1

4.3 TYPES OF THREATS

Threats on the Manya Hill Archaeological site can be categorized or grouped into two

(2) main types. These are Natural or Environmental threats and Human or cultural threats.

4.3.1 NATURAL THREATS

These are the threats to the various dry-stone terrace walls and building foundations that are caused by natural or environmental factors like rainfall, plants, animals and erosion. Below are pictures depicting some natural threats to the various dry-stone terrace walls and building foundations that were recorded on the site.

Figure 11: A picture showing how roots and branches of trees pulling and falling stones from their original position to the ground (Photograph by Miss Odarkor Ankrah-Addison, July, 2020).

Figure 12: A picture showing how roots of trees have caused the complete removal of all the dry-stones from their original position to the ground (Photograph by Miss Odarkor Ankrah-Addison, July, 2020).

Figure 13: Another picture showing how the roots of trees outside of the terrace pulling down the stones of the terraces (Photograph by Miss Odarkor Ankrah-Addison, July, 2020).

Figure 14: A picture of terraces being brought down by the presence of trees (Photograph by Miss Odarkor Ankrah-Addison, July, 2020).

Figure 15: This picture shows the wearing out of the dry-stone terrace walls due to a big tree growing by its side causing the roots to penetrate through the wall (Photograph by Miss Odarkor Ankrah-Addison, July, 2020).

4.3.2 CUTURAL OR HUMAN THREATS

These are the several threats caused by human who visit the Manya Hill Archaeological site either for the purpose of tourism or for traditional celebration reasons. It was observed during the reconnaissance survey that some stones were removed and placed by the sides of some terrace walls whilst footpaths were also created through some dry-stone terrace walls which are causing those walls to lose their cultural values that they depict on the site. Below are some pictures showing threats that are caused by humans.

Figure 16: This picture shows how a footpath has been created with the stone terrace (Photograph by Miss Odarkor Ankrah-Addison, July, 2020).

Figure 17: This picture is a demonstration by the tour guide, Mr. Eliezer Ozor and Mr. John Osardu, one of the research assistant showing how tourists sit and relax on some of the dry-stone terrace walls which as a result make them loose their original position and fall of the ground (Photograph by Miss Odarkor Ankrah-Addison, July, 2020).

4.4 SEVERITY OF THREATS

Even though there are numerous threats which are presented either by natural or environmental factors and human or cultural factors to the dry-stone terrace walls and building foundations which when measures are not put in place will result in losing some vital cultural and historical information of the Manya-Jorpanya people. But these threats come in different forms rating from severely damaged to partly damage and to slightly damage. With respect to the ratings, severally damaged has to do with threats which have caused almost a whole terrace wall's destruction leaving just a little of evidence that there was a terrace wall or building foundation on the particular part of the site, whilst partly damaged refers to threats that have caused part of a terrace wall or building foundation deteriorated and slightly damaged refers to the walls with a little evidence of destruction. Below are some pictures that show the various divisions of the severity of threats to the dry-stone terrace walls and building foundations on the Manya Hill Archaeological site.

Figure 18: Partly damaged wall (Photograph by Miss Odarkor Ankrah-Addison, July, 2020).

Figure 19: Partly damaged wall.

Figure 18 and Figure 19 above have their severity of the terrace wall to be partly damaged (Photographs by Miss Odarkor Ankrah-Addison, July, 2020).

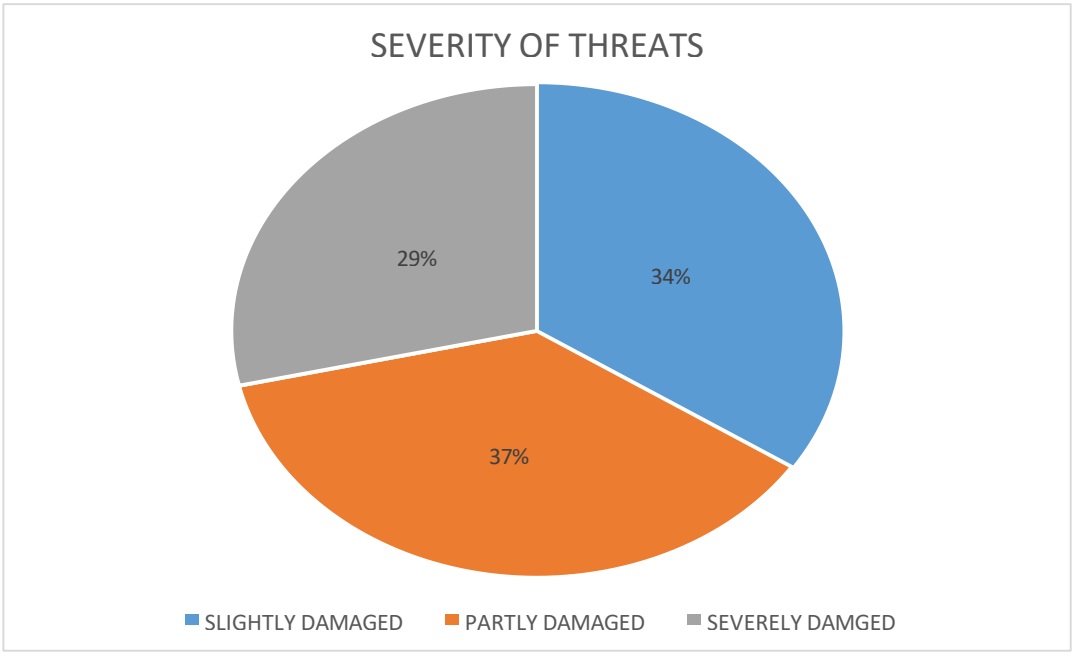
Figure 20: Slightly damaged wall.

Figure 21: Slightly damaged wall.

Figure 20 and figure 21 above also have their severity to be slightly damaged (Photographs by Miss Odarkor Ankrah-Addison, July, 2020).

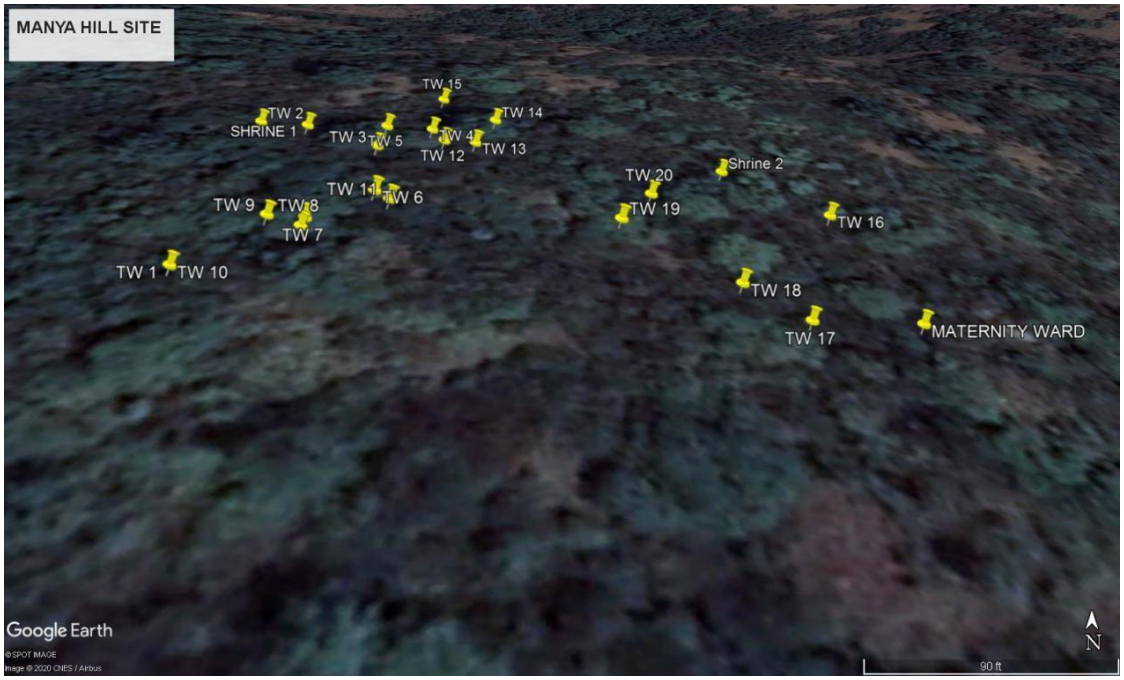
Figure 22: this terrace wall has its severity to be severely damaged (Photograph by Miss Odarkor Ankrah-Addison, July, 2020).

Out of the total number of thirty-five (35) threatened terrace walls and building foundations that were recorded at the Manya Hill Archaeological site, twelve(12) had their severity of threat falling under slightly damaged, whilst thirteen(13) falls under partly damaged and the remaining ten(10) also falls under severely damaged. The percentage of each of these ratings has been represented in the chart below.



4.5 GEOGRAPHICAL DATA

MAP SHOWING THE DISTRIBUTION OF TERRACE WALLS



MAP 1: a map showing the distribution of some of the terrace walls that were recorded (Map was created by Researcher, July, 2020).

The map above shows G.P.S coordinates that were recorded on the Manya Hill Archaeological site in connection with dry-stone terrace walls and building materials with some significant places on the site as well. The table below shows the readings for the various points on the map above.

IDENTIFICATION	LATITUDE (N)	LONGITUDE (E)	ELEVATION (M)
Terrace wall 1	05°54'56.0"	000°03'53.2"	214
Terrace wall 2	05°54'56.2"	000°03'52.9"	215
Terrace wall 3	05°54'55.9"	000°03'53.7"	204
Terrace wall 4	05°54'56.3"	000°03'54.0"	203
Terrace wall 5	05°54'56.3"	000°03'53.7"	204

Terrace wall 6	05°54'55.2"	000°03'53.8"	201
Terrace wall 7	05°54'54.8"	000°03'53.5"	212
Terrace wall 8	05°54'54.7"	000°03'53.5"	213
Terrace wall 9	05°54'54.8"	000°03'53.3"	212
Terrace wall 10	05°54'54.2"	000°03'53.0"	217
Terrace wall 11	05°54'55.1"	000°03'53.9"	196
Terrace wall 12	05°54'56.1"	000°03'54.1"	193
Terrace wall 13	05°54'56.1"	000°03'54.3"	193
Terrace wall 14	05°54'56.6"	000°03'54.4"	192
Terrace wall 15	05°54'57.0"	000°03'54.0"	197
Terrace wall 16	05°54'55.5"	000°03'56.5"	192
Terrace wall 17	05°54'54.2"	000°03'56.1"	192
Terrace wall 18	05°54'54.5"	000°03'55.8"	196
Terrace wall 19	05°54'55.1"	000°03'55.2"	198
Terrace wall 20	05°54'55.5"	000°03'55.4"	198
Shrine	05°54'56.2"	000°03'53.2"	206
Maternity wall	05°54'54.3"	000°03'56.7"	193
Shrine 2	05°54'56.0"	000°03'55.9"	194

Table 2

From the table above, the part labeled Identification is used to represent both dry-stone terrace wall and building foundations which have been represented by 'TW' on the study map above.

4.6 CONSERVATION STRATEGIES AND TECHNIQUES

There are many ways or strategies that can be employed to conserve an archaeological site, the following are some techniques or strategies that can be adopted to help reduce the threats associated with the dry-stone terrace walls and building foundations that are on the Manya Hill archaeological site.

4.6.1 Felling of trees; this can be done by removing the trees that are very close to the dry-stone terrace walls and building foundations on the site. The disambiguation of trees can be done by using chainsaw to fell the tree, also after the felling of the tree, all the trees must be bucked and the logs taken away from the site.

Even though most of the dry-stone terrace walls and building foundations that were recorded are being threatened mostly by tree are and within its premises, not all the walls and building foundations can be saved because some of the trees that are causing the threats are very big and cannot be fell, since felling of trees are not allowed in Resource reserves. But for the sake of cultural and historical reasons, walls that are being threatened by smaller trees can be saved by felling those trees to help save the cultural and tourism relevance as well as the historical value of the dry-stone terrace walls and building foundations. Below are some pictures showing some of the terrace walls and building foundations that can be saved and those that cannot be saved.

Figure 23: this picture is showing a tree growing in front of a terrace wall and its root causing havoc to the wall. This wall can be saved by felling this tree and removing all of its roots that are penetrating though the walls (Photograph by Miss Odarkor Ankrah-Addison, July, 2020).

Figure 24: from this picture, it can be seen that the wall is not threatened but trees are growing within and around the terrace wall (Photograph by Miss Odarkor Ankrah-Addison, July, 2020).

This wall can be saved from future threats that may be caused by these trees by removing these smaller trees growing around and within it.

Figure 25: this image is showing a very big tree (Ebony (diospyros sp)) and smaller ones growing around. This particular dry-stone terrace wall cannot be saved but be left to its fate since the big tree cannot be fell.

4.6.2 PROVISION OF ROAD-MAPS ON THE MANYA HILL SITE

It will be necessary for the Park Management to provide sign posts showing directions and the actual or original walk-paths within the Manya Hill archaeological site to help prevent tourists from walking across some of the dry-stone terrace walls and building foundations on the site.

4.6.3 RESTORATION STRATEGIES

Already destroyed terrace walls and building foundations should be restored with their original materials. Looking at old pictures that were taken before present, there will be an idea of how the wall or building foundation looked before it was being threatened and destroyed. This will provide clearer idea of how the wall looked like to help in restoring these walls that have been destroyed and are on the verge of losing their historical or cultural relevance.

4.6.4 REMOVAL OF ANT-HILLS

To help prevent further and future deterioration, it is best to remove or destroy all ant hills or mounds that are built by the animals on top of the walls and are causing shifts and destruction of dry-stone terrace wall on the Manya Hill site. The picture below shows an ant hill on a terrace wall that was recorded on the site.

Figure 26: even though in this picture there is a presence of a tree, the ant hill built on top of the terrace wall is also adding up to the destruction of the wall.

4.6.5 GROWING OF CREEPING WEEDS OR GRASSES

Some grasses or creeping crops can be introduced to the Manya Hill archaeological site to help check erosion which will also contribute to decreasing the rate at which erosion is causing havoc to cultural materials on the site.

4.7 CHALLENGES

This research is not without challenges and so some of the challenges that were encountered during this research were;

- Insufficient time; due to the outbreak of corona virus pandemic in Ghana, the time frame given for this research to carried out was limited.
- Because the data collection stage or the site work was carried out during the rainy season, there a lot of weeds that covered the surface of the land which hindered the researcher from identifying, recording and documenting most of the dry-stone terrace walls and building foundations on the Manya Hill archaeological site.

5.0 INTRODUCTION

This chapter consists of the summary, conclusion and recommendations of the Research topic.

5.1 SUMMARY

This research identified threats that are causing destruction or deterioration of cultural materials, most especially dry-stone terrace walls and building foundations on the Manya Hill archaeological site and also proposed conservation strategies and techniques that can be adopted to curb or prevent further deterioration and future destruction of the dry-stone terrace walls and building foundations that are present on the site. The Manya Hill is a very prestigious hill to the people of Manya Jorpanya as that is their ancestral home. This is because the hill portrays evidences that indeed their ancestors had once lived on the hill top. As a result of that, there is a yearly pilgrimage by the Manya Jorpanya people to the hill. This annual pilgrimage to the Manya Hill site became very significant and attracted the interests of Archaeologists, hence the need to preserve the site. As an Archaeologist would say “materials speak for themselves”, hence the urgent need to conserve cultural materials available on the site, most especially the dry-stone terrace walls and building foundations which depicts that indeed people once lived on the site, to prevent destruction or deterioration of the prime evidences from falling apart and losing their cultural and historical significance.

5.2 CONCLUSION

In concluding, it must be noted that protection of the past is essential and important to every society, community or nation since cultural heritage of every society, is very paramount as far as history and Archaeology is concern. This is because preserving the historical and cultural materials that give information about the past is a great aspect of the work of an archaeologist or any historian. This makes conservation very important at a place where cultural, historical or archaeological materials are found.

One of the ways through which a society, community or nations culture can be preserved is through the study of their material culture. The Manya people even in their present communities have most of their building foundation being arranged stones before any block work is done even though with that they add some binding agents to hold the stones together to get a firm foundation, one of the common cultural materials found on the Manya Hill site are dry-stone terrace walls and building foundations.

Unfortunately, these dry-stone terrace walls and building foundations are being threatened by some

natural factors like trees and also human factors like tourists and indigenous people who visit the site walking on some of these walls, causing the destruction of these walls and building foundations which will in return make them lose their cultural and historical significance.

These cultural materials like the dry-stone terrace walls and building foundations are left on the mercy of no or poor maintenance and improper conservation. The dry-stone terrace walls and building foundations are left to be trampled on by chunk people who visit the site and trees are causing their own threats to the walls. This maybe as a result of lack of public education on the cultural significance of the materials on the site.

Lack of effective collaboration between the wildlife division of the Forestry Commission and the local authorities may also be a contributing factor to the harm done to these precious materials on the site.

It is therefore very important that all stake holders, agencies and bodies responsible for the preservation and conservation of cultural materials come together as one body to conscientize the general public on the importance to keep our past cultural materials for posterity purpose.

5.3 RECOMMENDATIONS

In the researcher's quest in trying to find control and solution to the destruction of the dry-stone terrace walls and building foundations on the Manya Hill archaeological site, the following recommendations have been proposed.

- It is recommended that restoration actions be taken. There should be certain restoration techniques like Anastylosis, which will aid in the re-erection of the ruined terrace walls and building foundations on the Manya Hill site since the original materials are still available on the site.
- There should be photo-mapping of all the dry-stone terrace walls and building foundations that cannot be saved and preserved from the threats on the site. This can be done by taking photographs of all those walls and also taking their G.P.S coordinates, so that in the near future when those ones are totally perished and are not visible on the site the pictures taken can be used to explain and communicate to tourists and researchers as well.
- It is also recommended that there should be regular checking of the terrace walls to help stop any threats that show up at an early stage.
- Furthermore, it is recommended that permanent pathways be created in the forest especially on the Manya Hill site for visitors and tourists to help curb the attitude of these people being walking anyhow on unapproved routes. This will help to reduce the rate at which humans destroy these walls.

REFERENCES

1. Aplin, G. J. (2002). Heritage Identification, Conservation and Management, p.69. Oxford University Press.
2. Gblerkpor, W. N., 'Archaeological Indications of Past Lifeways on the Krobo Mountains, Ghana', Ghana Social Science Journal, vol.5 (1-2), 2011,pp. 152-187.
3. Gblerkpor, W. N. and Nkumbaan, S. N. , 'Cultural Resource Management Archaeology in Ghana' in J. Anquandah, B. Kankpeyeng, and W. Apoh,(eds), Current Perspectives in the Archaeology of Ghana, vol.6, Legon-Accra,pp. 276-292.
4. Jokilehto, J. 'Conservation Concepts' in J. Ashurt (ed), Conservation of Ruins (ss. 3-90. Oxford, 2007.
5. Jokilehto, J. 'Considerations on Authenticity and Integrity in World Heritage Context'. City and Time, 2(1), 2006, pp 1-16.
6. N. ICOMOS. The Nara Document on Authenticity. Retrieved April 15, 2020 from
7. https://whc.unesco.org/archive/nara94.htm (accessed 15/04/2020).
8. Palumbo. G. 'Threats and Challenges to the Archaeological Heritage in the Mediterranean' In Teutonico, J. L. and Palumbo, G. (eds), Management Planning for Archaeological Sites. Proceedings of International workshop organized by the Getty Conservation Institute and Loyola Marymount University, 19-22 May 2000, Corinth, Greece. Los Angeles, 2002, pp.3-12.
9. Renfrew, C. and Bahn, P. 2015 (3rd Edition), Archaeology Essentials: Theories, Methods, and Practice, pp.66-70. London: Thames and Hudson.
10. Rizzi, G. 'Preface' in Ashurt,J.(ed), Conservation of Ruins, Amsterdam,2007.
11. U. W. H. Center (n.d.), Meeting on Authenticity and Integrity in African Context.
12. Retrieved April 15, 2020, from https://whc.unesco.org/en/events/443/ (accessed
13. 15/04/2020).
14. V. Charter, International Charter for the Conservation and Restoration of MonumentsandSites.Retrieved April 15,2020,from https://en.wikipedia.org/wiki/Venice_Charter (accessed 15/04/2020).
15. https://archaeologywordsmith.com/search.php?q=mapping (retrieved 20/03/2020).
16. https://www.lexico.com/en/definition/measurement (retrieved 20/03/2020).
17. https://www.lexico.com/en/definition/photography (retrieved 20/03/2020).
18. https://www.researchgate.net/figure/Shai-Osudoku-District-Map-where-Asutuare-Are
19. a-Council-lies-Source-Shai-Osudoku_fig1_305415749 (retrieved 24/07/2020).
20. https://www.statisticshowto.com/primary-data-secondary/ (retrieved 20/3/2020).