Midlands State University
Established 2000
Our Hands, Our Minds, Our Destiny

FACULTY OF ARTS

DEPARTMENT OF ARCHAEOLOGY, CULTURAL HERITAGE AND MUSEUM STUDIES.

HONOURS DEGREE DISSERTATION

Management of in-situ surface collections at Great Zimbabwe World Heritage Site.

BY

CHAMANGA DEAN T

R141703X

YEAR 2017

APPROVAL FORM

The undersigned certifies that he has read and recommended this dissertation to the Department of Archaeology, Cultural Heritage and Museum Studies at Midlands State University for acceptance as a research project entitled:***Management of in-situ surface collections at Great Zimbabwe World Heritage Site***,in partial fulfilment of the requirements for the award of a Bachelor of Arts Honours Degree in Archaeology, Cultural Heritage and Museum Studies in the Faculty of Arts.

……

Date

…….

Mr. M. Mabgwe

(Supervisor)

Stamp

RELEASE FORM

Name of Author: Chamanga Dean Tinashe

Title: Management of in-situ surface collections at Great Zimbabwe World Heritage Site.

Degree Programme: Bachelor of Arts Honours Degree in Archaeology, Cultural Heritage and Museum Studies

Permission is hereby granted to Midlands State University to reproduce or publish this research if ever the institution deems it necessary. No reservations are held by the author against the Department of Archaeology, Cultural Heritage and Museum Studies and the entire institution at large as long as their motives fall within the Zimbabwean Copyright and Intellectual Property Acts.

Signature **.....** Date .....

Permanent Address House no: 13325

Kuwadzana Extension Phase 4

Harare

Zimbabwe

Contact Number +263776259912

Email chamangadean@gmail.com

DECLARATION

I declare that the dissertation entitled, '**Management of in-situ surface collections at Great Zimbabwe World Heritage Site'** is my own work and has not been submitted for any degree or examination in any other university. I declare that all sources I have used have been indicated and acknowledged as complete references.

Name of Student: Dean T. Chamanga

Signature ……

Date…….

Name of Supervisor: Mr M. Mabgwe

Signature……

Date……

ACKNOWLEDGEMENTS

I would like to express my gratitude to as all the people who helped in this project if it was not for you this project would have been a futile exercise. Special thanks to my supervisor MrMabgwe for his patience, direction and guidance and for believing in me to see the completion of this project.

My deepest gratitude to all Great Zimbabwe staff namely Mr Mandima (Regional Director), Mr Sagiya (Curator), Miss Zihove, Mr Sibanda, Mr Mashamaire, Mr Mugabe H, Mr Mudawose, Mr Chikumbu and many others I could not mention by names your efforts and contribution to this project is greatly appreciated. I also thank the local community members for their remarkable participations.

I also thank my family members and relatives and friends for their emotional and financial support and not forgetting the Tsingo family who accommodated me during my data collections. Constance, Pardon and Payne your efforts and support in the project to be a success is greatly appreciated.

DEDICATION

To my beloved parents Harrison and TsitsiChamanga. Thank you for making it easy and possible for me to get here.

ABBREVIATIONS

NMMZ	National Museums and Monuments of Zimbabwe
WHS	World Heritage Site.
ICOMOS	International Council on Monuments and Sites.
GZWMP	Great Zimbabwe World Heritage Management Plan
UNESCO	United Nations Educational, Scientific and Cultural Organization

Definition of key terms

Material culture - Cliffsnotes (2016) defines material culture as the physical objects, resources and spaces that people use to define their culture in the archaeological record. These include ceramics, flora and fauna assemblages, metals and dagga structures and so on.

Surface collections – refers to archaeological finds/material culture that are found and gathered from the ground surface of archaeological sites (Archaeology wordsmith 2017).

Management – Williams and Van de Dries (2007) defines management as the application of supervising skills to preserve important parts of our cultural heritage for the benefit of the public today and future.

Policies – US (2016) defines policy as a deliberate system of principles to guide decisions and achieve rational outcomes. However for the purposes of this research policies are deliberate guidelines and protocols intended for sole purpose guiding objective of management surface collections in situ.

Fireguard – According to the Commercial Farmers Union of Zimbabwe (2017) it is a belt of land that is cleared of all inflammable material which is at least 9m wide in order to control the spread of veld fires.

Development - Development can be defined as the modification of the biosphere and the application of human financial living and non-living resources to satisfy human needs and improve the quality of human life (World Conservation Strategy 1980). These development include infrastructural development, tourism development, road constructions, fireguard trails and so on.

Table of Contents

LIST OF FIGURES

List of Tables

ABSTRACT

The study sought to investigate the policies and protocols of managing in-situ surface collections at Great Zimbabwe WHS. The research employed a number of methodological approaches that included surveying, mapping, observations, interviews and review of documents such as site conservations reports and memorandums to understand and collect data for the management of in-situ surface collections at Great Zimbabwe which was essential in addressing the research objectives. The research objectives were to identify the policies and protocols and the role of managing in-situ surface collections. To identify the variability, density and distribution of surface collections and to assess the impact of fireguards to in-situ surface collections.The study confirms that indeed there are policies in the management of in-situ surface collections at the site and that there is a great deal of surface collections found in variability across the Great Zimbabwe landscape the include potsherds, glass beads and dagga structures which play a significant role in the reconstruction of past activities at Great Zimbabwe World Heritage Site. The study also indicated negative impact of fireguard clearance to in-situ surface collections. Consequently this study relatively suggests that these policies formally recognize the international, national and local interests in the preservation of in-situ surface collections. However NMMZ is failing to be assertive and to effective in implementing these policies in some cases of development at the site which has a detrimental effect in the management of in-situ surface archaeological deposits.

KEY WORDS: Development, fireguards, Great Zimbabwe, NMMZ, management, policies, surface collections.

CHAPTER 1

1.0 Introduction

"*The concentration on aspects like stone walls fails to realize that this monument is much more than dry stone structures"* (Ndoro2001:78).

This study seeks to investigate the policies and protocols of managing in-situ surface collections (material culture) at Great Zimbabwe World Heritage Site. Zimbabwe possess over 300 dry stone walls across the Zimbabwean plateau including Great Zimbabwe Monument (Mawere et al 2013, Garlake 1982, 1992). In most cases these sites possess material culture in situ found scattered across these cultural landscapes and in stratigraphic layering consisting of both surface and subsurface collections. This material culture include ceramics, faunal and flora assemblages and metal deposits. All these archaeological remains have been critical for better appreciation of pastsocieties that resided within these archaeological sites in aspects that include trade networks, social classes and spatial patterns.

However, due to the increased realization of the benefits that these archaeological sites bring especially throughcultural tourism, heritage managers globally are faced with the need to develop sites so as to ensure accessibility, visitor enjoyment and accommodate visitors. At Great Zimbabwe for instance most of the facilities which include lodges, car park, rondavels and fireguards. However these developments are taking place and continue take place in an archaeologically sensitive area in which in-situ surface collections are found and being the most vulnerable layer in the archeological record. Prior to these new management problems in the management of in-situ surface collections, major threat to the preservation of in-situ surface collection came only fromnatural elements and scientific researches that involved excavations (UNESCO 2013). Concurrently,owing to the success of the preservation and proper management ofin-situ scheme, policies should be available particularly where development does take place over archeologically sensitive landscapes to minimize the harm to the significance of sites (Historic England 2016).

1.1Back ground of study

The dominance of archaeological perspectives on Great Zimbabwe's past is not only apparent in the academic literature and in the site museum, it is also reflected in the management of the site itself (Fontein 2006). Conservation has evolved as a result of modern pressures such as tourism on archaeological sensitive landscapes(UNESCO 2013). Many studies on material culture have labelled archaeological remains asthe most unpararelled visible forms of archaeological evidence that have beenanalyzedby archaeologist to address the cosmological arena were socio-economic and political changes of prehistoric and historic relationship and structure are displayed and recreated in the archaeological record(Schlereth 1987). Characterization and study of material culture have been radiantly studied to also establish culture dynamics, technological changes and issues of originality at Great Zimbabwe based on material culture such pottery and metals deposits. However, it appears that much that literature concerning the preservation of material culture has been mainly focused on the already excavated archaeological materials (Schlereth1987). More so, in Zimbabwe heritage sites such as Great Zimbabwe and related monuments the significance of dry stone walls is central(ICCROM 2005;Ndoro 2005) and yet monuments largely rely on the material culture in situ to make meaningful interpretation and presentation.

Similar ideologies were echoed by Bisson (2015) who openly stated that Great Zimbabwe is the most abused archaeological site in the world due to improper management policies, incorrect speculation and especially physical destruction beginning with colonialists who worked at the site and it stand subject to more since it has become one of the most actively used site. Beginning of 1890 came a more devastating incursion as fortune hunters and English settlers lured by the promise of African gold flooded at Great Zimbabwe. By early 1900's Theodore Bent scavenged surface collection and subsurface collections as he dug a trench around the base of the conical tower destroying important sections of the stratigraphy of the Great Zimbabwe (ICCROM 2005). He recovered a few Persian beads but ignored and threw away thousands of artefacts which he believed to be of a later date (ICCROM 2005; Bent 1892). More damage was to follow with the

creation of the Rhodesia Ancient Ruins Companyunder the curation of Richard Hall who had a racist attitude had no regards for the preservation of material culture at the site.Hall had no archaeological training but he had previously headed the Ancient ruins company a colonial enterprise created to quarry African ruins for gold objects. In his eagerness to find evidence that attested for foreign origins, effectively scrambled the ruins of all their African artifacts as he removed layers and layers of debris from the Great Enclosure (***see figure 1 below***) and what was left of the hill complex as he termed it Kaffir rubbish (Ndoro 2005).

Figure 1 – 1902 image showing the extent of damage to material culture caused by Hall.(Adopted from GZ conservation photographic collections).

By 1960s the potential of Great Zimbabwe monuments to become a major visitor attraction had been realized. The number of visitors was growing each year and soon it became the second most popular attraction in the country after the Victoria Falls. As a result, visitor facilities such as a site museum, a curio shop and a traditional village were erected.Most of the facilities were randomly located and no consideration was given to the archaeological deposits (surface collections) on thesite (ICCROM 2005). What mattered mostly were the dry stone walls. No

respect was given to the archaeology or cultural significance of the site (Ndoro 2005). In any case the visitors were mainly of European origin, who had no cultural affiliations to the site. Part of the monument was even turned into a golf course. To indicate the lack of any proper management the monument at one stage had to be looked after by prisoners who had no training in the maintenance of such structures. Its management was under National Parks, an organization whose main concern was wild life rather than cultural property. Even the research archaeologists like Robinson and Summers, who were under the Historic Monuments Commission, operated from the Natural History Museum in Bulawayo, more than 300 km away from the site(Ndoro 2005).

An important consequence of the Zimbabwe Controversy was the adoption of a policy that the preservation of archaeological remains should be the responsibility of someone with archaeological training (Fontein 2006; Collet 1998). Indeed, by the mid-1980s, site monitoring, preservation, and conservation had become the primary functions of National Museums and Monuments of Zimbabwe (NMMZ) archaeologists at Great Zimbabwe. To its credit, since the early 1980s and especially following Great Zimbabwe's inscription on the World Heritage List in 1986, NMMZ has become a very 'professional' and 'modern' heritage organization, with a great deal of expertise in the continual surveillance, monitoring and preservation of dry-stone walls (UNESCO 1986). It has also achieved some quite impressive reconstruction works; the 1995 reconstruction of the Western Entrance of the Great Enclosure being perhaps its pinnacle achievement. Yet throughout the gradual 'professionalization' of the management of Great Zimbabwe, management of surface collections still seem to be rigid and have not been given a place the site management portfolio against developments and tourist activities.

In addition, over the years archaeologists have been obsessed with the core zone area of Great Zimbabwe as many research has been focused on the Hill complex, valley ruins and great enclosure. The three areas discussed above constitute the main core area of stone building, but in terms of area it is about 10 % of the whole estate declared a monument. There are a number of peripheral enclosures and settlements within the monument and immediately outside it. These are situated around the ring of hills that encircles the core or central Great Zimbabwe. These areas have stonewalling, terraces, dhaka structures and various features of archaeological

importance. Usually these areas are neglected in terms of research and effective management (Uppsala University 2001; ICCROM 2005; Ndoro 2001). Contemporary scholars like (Chirikure 2016) now argue that there is need to move away archaeological research away from the core zone area at great Zimbabwe to peripheral settlements so as to fully understand the human behavior at great Zimbabwe as a whole not in partial parts. However it is in these areas where development continue to happen such infrastructural development and the annual clearance of fireguards which pose great threats to in situ surface collections. Consequently the fate of surface collections at the site seems to be questionable whether the present management system presents a holistic preservation process for surface collections considering that a lot of activities have gripped at the site.

Given this background the research hopes to investigate the management policies and regulation for the management of surface collections at Great Zimbabwe.

1.2Physiographic study of the research area.

Great Zimbabwe heritage site is locatedprecisely30km (19miles)southeast of present day Masvingo formerly Fort Victoria) with geographical coordinates 20º 16'S 30º 56' E (Britannica 2017). The site covers an area of 720 hectares of land and the central area of the ruins extends about 80 hectares making Great Zimbabwe the largest of more than 150 stone ruins scattered across Zimbabwe and presumably Mozambique (Mckenna 2010, Britannica 2010;2017). The topography is characterized by rolling plains interrupted by hills and bare rock surfaces called *maware* (plural for *ruware*) in Shona (a variant of the Bantu language). Great Zimbabwe was constructed on one of these steep-sided rocky granite hills and spreads into the adjacent valley at the edge of the south-eastern extension or scarp of the Zimbabwean plateau. The Zimbabwe Plateau is a belt of highland area over 1000m above sea level adjacent to the middle and low-velds (GZWHS Management Plan 2012).

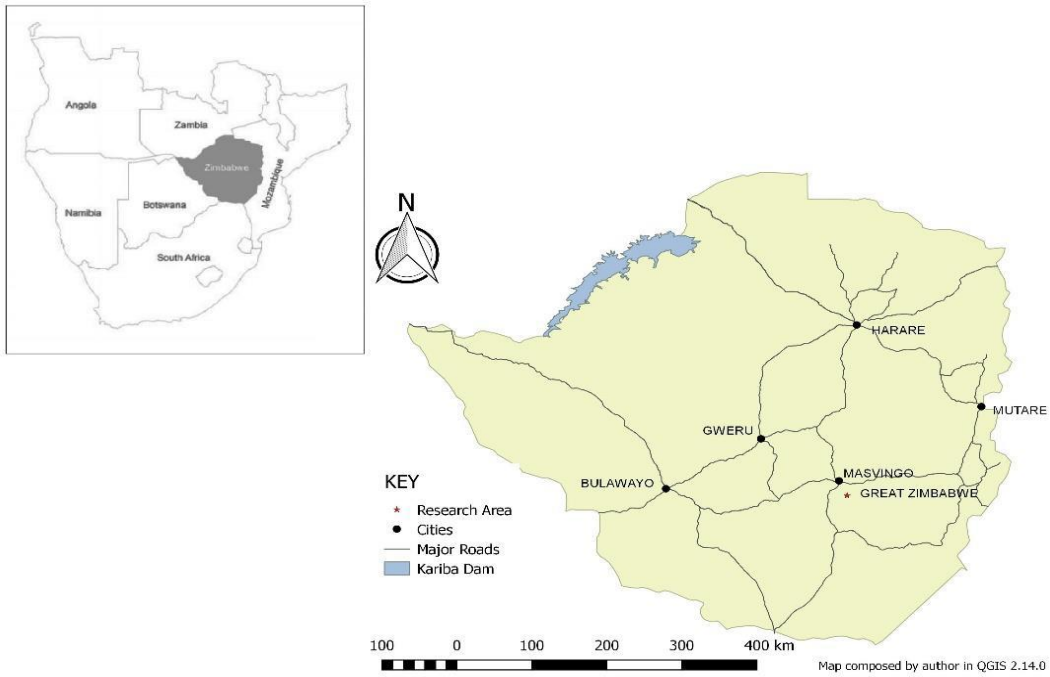

*Figure 2*Map of Zimbabwe showing the location *in Southern Africa and the location of Great Zimbabwe. (Adopted from Britannica 2016)*

1.2.1Climate

The impressive ruins are situated in south-central Zimbabwe which falls in the New Natural Region 3 (Mugandani et al 2012). The site enjoys a circumscribed environment with rainfall relatively higher than that received in the surrounding region of south-central Zimbabwe. South-easterly winds precipitate moisture that results in days of mists (locally known as *guti*) and drizzle throughout the year recording a high mean precipitation of about 750mm and minimum 550mm per annum.

Table 1Criteria used for the classification of the New Natural Regions (adopted from Mugandani et al 2012).

Parameter New Natural region 3 at Great Zimbabwe

	Min	**Max**
Rainfall	550mm	750mm
Temperature	11ºC- 15ºC	23ºC -26ºC

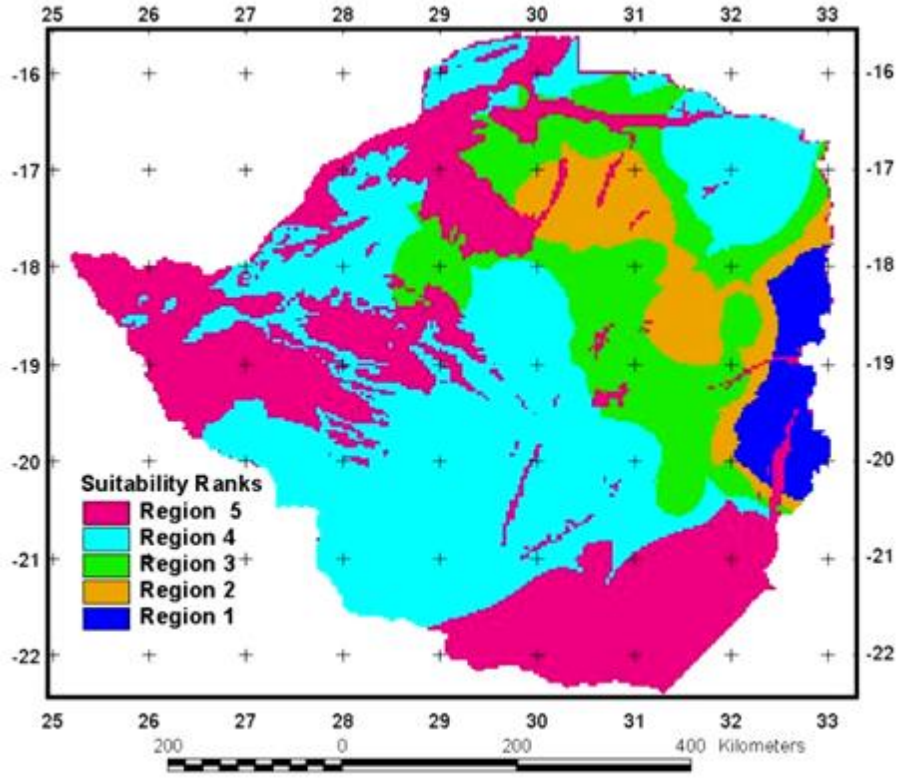

Figure 3: Map of Zimbabwe showing the new Natural Regions generated from (Mugandani 2012)

The mean annual temperature at Great Zimbabwe National Monuments has been ever changing and now it ranges between 18ºC – 22ºC, whilst the mean maximum temperature ranges between 23ºC -26ºC and the mean minimum temperature ranges between 11ºC- 15ºC (Wuta and Mundagani 2012).

1.2.2Geology

According to the GZWHS Management Plan (2012) geologically Great Zimbabwe World Heritage Site is characterized by granite rocks that have yielded light sandy soils. Granite pre-dominates rock materials in the construction of the drystone walls ahead of dolerite and iron-stone. This explains the name Zimbabwe (dzimbahwe) which is Shona for houses of stone. The hills northwards of the site are part of the gold-belt of the metamorphic rocks that produce heavy fertile red soils. A combination of fairly reliable rainfall and the heavy basic soils no doubt

supported viable crop production, notwithstanding considerable pressure that was inevitably exerted upon this fundamental resource.

1.2.3Vegetation

The Great Zimbabwe Cultural Landscape is mainly dominated by deciduous Miombo Savanna Woodland namely Brachystegiaspiciformis, Julbernadiaglobiflora, Brachystegiaboehmii, lantana camara and Brachystegiaalleni (Bannerman 1982). The spread of vegetation such as lantana camara threaten the stability of dry stone walls (World Heritage Fund 2016).Underneath the canopy of these trees is very sparse grass cover of the genera Eragrostis, Aristida, Hyparrhenia and Heteropogon. As is the case with present-day communities surrounding Great Zimbabwe, inhabitants of the site could have used these tree and grass species as raw materials for construction of pole and dhaka houses with grass-thatch. Presently, Great Zimbabwe WHS boasts of a relatively pristine and serene natural environment in terms of a variety and quantity of flora and fauna as compared to the surrounding region with the exception of the Mutirikwi National Park which is located northwards of the monument.

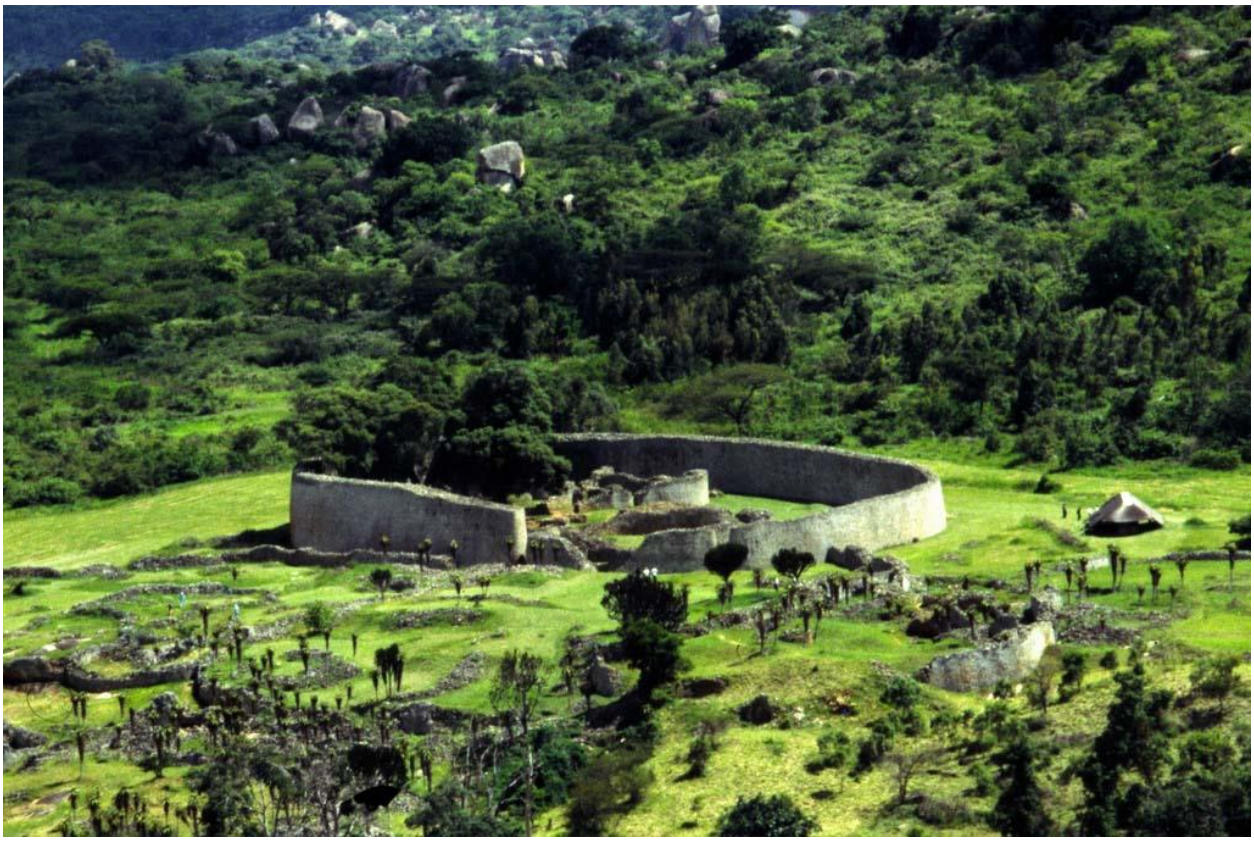

Figure 4: Showing the natural landscape of the Great Enclosure and valley ruins. (Adopted fromVermeulen 2009).

1.3 Statement of the problem

Great Zimbabwe which is a world heritage site that reflects creative human genius, possess diverse historical and archaeological material remains which is at the center of the interpretation of the Zimbabwean history. Over the years it has become one of the major visitor attraction and has triggered spectacular archaeological researches in Southern Africa. However, several infrastructural developments have taken place and continue to take place to establish visitor facilities which include lodges, curio shop, car park which were erected to accommodate and bring visitor enjoyment to the site and including the recent established fireguard trails that crisscross around the site to guard against veld fires. Despite the advantages of these developments, these facilities and infrastructural developments were randomly located and the fireguard trails were cleared without consideration being given to the surface deposits. From this standpoint surface collections are greatly endangered and compromised. Hence the study

attempts to explore protocols and policies employed in the management of surface collections in actively used spaces at Great Zimbabwe.

1.4 Aim:

The researcher aims to investigate the policies and protocols of managing in-situ surface collections on archaeologically sensitive cultural landscapes such as Great Zimbabwe.

1.5 Objectives

The following objectives were crafted towards fragmenting the whole scope of the research into achievable units, as a result the researcher was mandated to respectively:

- Identify the policies and protocols in the management of in-situ surface collection.
- Explore the role of managing in-situ surface collections at Great Zimbabwe National Monument.
- To identify the variability, density and distribution of in-situ surface collection in the fireguard trails.
- Assess the impact of the concept of fireguardsto in-situ surface collections.

1.6 Research questions

In order to achieve this research project, the following questions have to be addressed:

1) What are the standing guidelines for the management of in-situ surface collections?
2) Is there any difference in the management of surface collections in actively used spaces and non-actively used spaces?
3) How does infrastructural development and establishment of fireguards pose threat or affect surface collections?
4) What have been the attempts to make impact assessment and rescue archaeology of material culture during infrastructural development or fireguard clearance?

5) How best can we protect valuable material culture found within the site especially in actively used spaces?

1.7 Significance of study

1.7.1. To NMMZ: Material culture studies undertaken across the world have revealed that they can help shape the archaeological record to understand past societal activities and cultural identities Huffman (1980). This research will allow heritage practitioners to reaffirm the importance of conservation and preservation of heritage sector as a whole and develop a holistic national cultural policy to suit the type of heritage under their management. By looking at the management of materialculture found within heritage sites during development or any other activity which can affect that material culture will have implications on the manner in which heritage managers' draft and implement management policies concerning the preservation of both in-situ surface collections and subsurface collections within different archaeological contexts on other heritage sites similar to Great Zimbabwe.

1.7.2 To Great Zimbabwe staff: Since Great Zimbabwe staff have the ultimate responsibility in managing Great Zimbabwe's rich cultural resources. It will affect their regional policy making by presenting a theoretical base that influence their view and protocols concerning the management practices at the site.

1.7.3 Local Community:this study will be a significant endeavor in promoting preservation of cultural identity for the local community that have a direct link to the site. There is a perceived solid relationship between the Mugabe clan and Nemwana clan to the founders of Great Zimbabwe Site, therefore there is a link between these local communities and material culture found at the site. Hence management of in-situ surface collections becomes a means in which their rich and cultural identity.

1.7.4 Researchers and Archaeology students: The research will open new avenues of looking at material culture studies in the discipline of archaeology and heritage management concerning the importance of considering policies in relations to the management of surface collections during development and day to day use of archaeologically sensitive areas manifested with material

remains. By safeguarding surface collections it means protecting the archaeological record that will enable current researchers and future to have a platform to re-interrogate the previous researches at the site. Most researches done at Great Zimbabwe have been narrowly focused on the core zone area (Great Enclosure, Valley Ruins and Hill Complex) which constitutes only 10% of the whole estate that make up Great Zimbabwe neglecting the peripheral sites within the proximity of the site in which some of the developments have took place such as establishment of fireguards and the traditional village. Currently researches done at the site can be ranked to have only covered only a third of what Great Zimbabwe is, hence by safeguarding material culture found within those areas will allow and encourage future archaeological research to be conducted by current archaeologists and upcoming generation of archaeologists.

1.8 Assumption of the study

This study assumes that there are in-situ surface collections exposed to the surface within Great Zimbabwe monument estate. The focus of the research is to enable the protection of surface collections at the site, the absence of surface collections within the site render this study invalid and irrelevant. It also assumes that within the Conservation Department at Great Zimbabwe there are participants who can provide relevant and reliable information on the policies and protocols for the management of surface collections. Unavailability of such participants in the research will affect the data collection and presentation which is critical to validate the research to be fruitful. Therefore this is the motivation behind this study to verify the regulations pertaining the management of surface collections.

1.9 Limitation of the Study

Potential limitation of the study is that the research is confined to the purposive/judgmental sampling methods to fully satisfy the objectives of the research since it has a limited population sample who carry relevant required information about management of surface collections as opposed to the other sampling techniques such as random and convenience sampling which require a larger population sample to yield positive results. Though Great Zimbabwe have 5

distinctive departments however it is only within the Conservation Department which consists of employees with the potential to have knowledge on the subject matter.

Another limitation is related to time to conduct interviews considering Great Zimbabwe is one of the most visited tourist destinations and this means most of the time conservators at the site may be required to monitor the state of conservation of the site especially during festive seasons where visitor ship will be very high. However, to overcome this limitations the researcher will book for the interviews before arrival so as to minimize constrains in the research and yield fruitful results.

1.10 Delimitations

Geographically the research is confined to Great Zimbabwe National Monuments in Masvingo as the ideal research area.

Population and interviews will confined only to the Great Zimbabwe conservation department staff and the people from the local community that normally take part in the clearance of fireguards annually. As opposed to the use of questionnaires which generate limited/general data and insights concerning this research which has a bearing on satisfying the research objectives for this study.

1.11Project structure

Chapter 1

The chapter is a general introduction to the motivation behind the study. Showing the background information concerning the management of in situ surface collections at Great Zimbabwe World Heritage Site.

Chapter 2

The chapter reviews related literature where the material culture studies is discussed and its role in reconstructing human behavior in past societies paying particular attention to in situ surface collections. It also reviews the different development processes that occur at heritage sites and their impact on the management of surface collections, ultimately narrowing down to Great Zimbabwe's management of in situ surface collections.

Chapter 3

The chapter gives a detailed account on the research methodologies used for data collections for this study where research designs, population, research sample, data collection methods are discussed.

Chapter 4

The chapter provides a detailed synthesis of the data collected and its analysis. The data collected through field survey, documentary sources and interviews is pertaining to the management of in situ surface collection at Great Zimbabwe is coded and evaluated.

Chapter 5

This is the last chapter which presents the in depth discussion, conclusions and recommendations of the results drawn from the investigation on the policies and protocols in the management of in situ surface collections.

1.12 Chapter Summary

This chapter provided an introductory foundation of various aspects that prompted the researcher to have further investigation on the protocols and policies of managing surface collections at Great Zimbabwe. It also outlined the skeletal theoretical framework that shape up the research on the management of material culture.

CHAPTER 2

Literature Review

2.0 Introduction

The chapter reviews the role of in situ surface collections towards understanding human activities of past societies that transpired in the archaeological record and the need to manage such a resource within its respective archaeological context at heritage sites. This is explored from a global perspective where development has taken grip of archaeological sites which threaten the preservation of in situ surface collections. Ultimately narrowing to the need for developing policies for management of in situ surface collection in archaeological sensitive landscapes especially in the 21st century towards achieving a holistic and sustainable management at archaeological sites in the face of development processes.

Conceptual framework

2.1The role material culture

Material culture refers to any physical entity, manifestation and product of culture created by human beings (Caple 2006).The emergence and development of material culture studies within archaeology is associated with a range of theoretical literatures which include Culture historical archaeology, Processual archaeology and Post Processual archaeology(Mukwende 2016). Through all these theoretical frameworks the value of material culture has ever been increasing as archaeologists have become aware and continue to discover the tremendous symbolism of material culture in reconstructing past societies. Despite all these theoretical developments in archeology there is one crucial fact that remained, that archaeology is entrenched on inferring material culture found on archaeological sites (SAA 2011).

Societies and communities in their quest for human survival they tend to interact with the environment around them and in turn they produce material objects intended for a variety of use

(Miller 1987). These material objects were used for different purposes such as for commercial trade, religious and domestic (day to day) functions. By extension (Schelereth 1987) notes that material culture is a research guide into the past activities and a material testimony of the producers and users of these objects. There are many questions about human behavior, interrelationships and adaptations that we cannot answer without studying how past cultures lived (Cohan 2004). For example at Great Zimbabwe material culture recovered from the site points to a number of economic activities that helped sustain the state, including cattle herding, local and international trade, gold mining, metal working, farming and hunting, among other activities (Garlake 1973; 1978; Sinclair *et al.* 1993b; Pikirayi 2001; 2006). It is in this light that material culture can enlighten us on the cosmological arena were the socio-economic, political and religious changes of prehistoric and historic societies in the archaeological record.

Archaeologists have always been concerned with where objects are found. For the archaeologist, it makes a huge difference whether something is found in an ancient midden or inside an enclosure. It is these spatial insights that really tell the archaeologist how and in what way certain artifacts were used, discarded and by whom.Patrik (1985) notes that the archaeological record is at the core of archeology and is usually found in stratigraphic structuring. The archaeological record consists of the earliest ancient findings as well contemporary material culture (***see figure 3 below***). Stratigraphy has become a key concept to archaeological theory and practice. Right from the past to contemporary excavation techniques are based on stratigraphic principles (Harris 1989). A concept derived from the geological use of the idea that sedimentation takes place in uniform principles. When archaeological finds are below the surface of the ground, the identification of the context of each find is vital in enabling the archaeologist to draw conclusions about the site and about the nature and date of its occupation.Typically each stratigraphic layer represents a historical cultural timeline (Lipe 2012).Carandoni (1991) notes that it is the archaeologist's role to attempt to discover what contexts exist and how they came to be created.

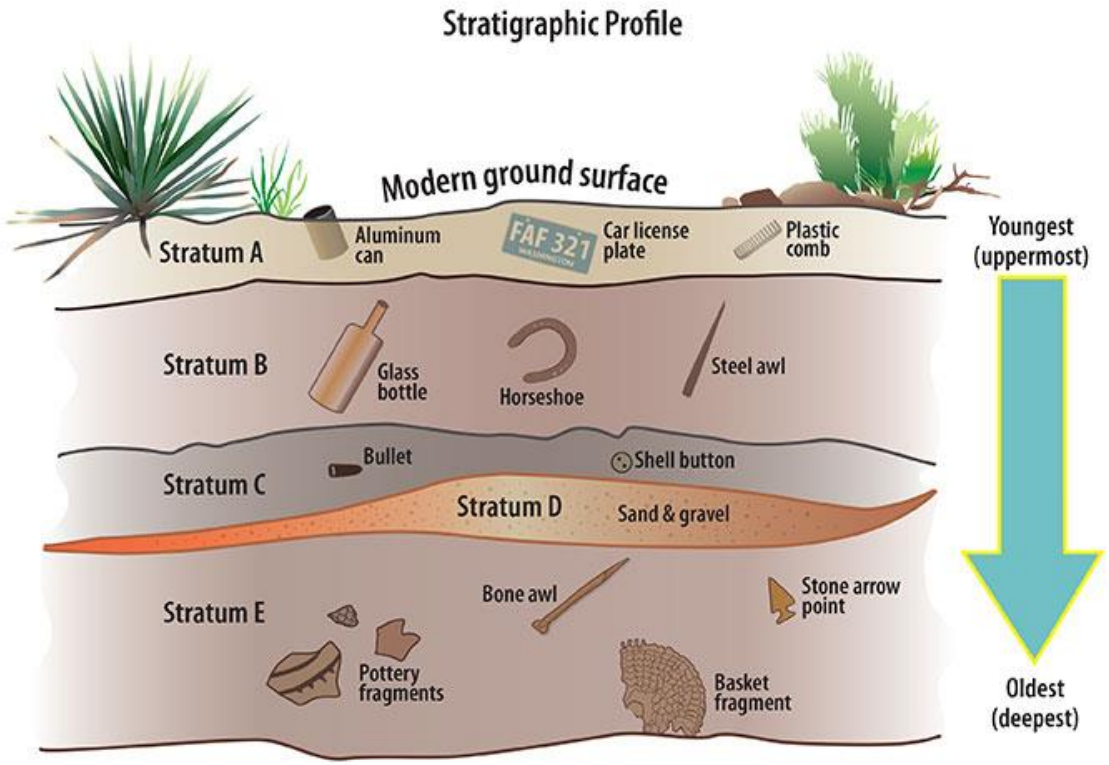

Figure 5: showing the archaeological stratigraphic profile of the archeological record. (Adopted from Crow Canyon archaeological center 2017).

By examining material in stratigraphy archaeologists relate and understand cultural changes of prehistoric societies in association. However in archaeology surface collections in situ is the most fragile and vulnerable layer in the archeological record especially in the face of development at archaeological sites. Over the years different human developments such as agriculture and land development have taken grip at archaeological sites. Concurrently, destruction of the archaeological record increased as population growth, economic development, and looting has taken a rising toll at heritage sites (Getty Conservation Institute 2000;Lipe 2000). It is in this light that there is need for policies to balance between development and protection of archaeological resources as such surface collections in situ.

2.2Management of Material Culture

Archaeological resources are of increasing value to local, national and international communities today. Why this is so is not entirely clear but probably it has to do with the increasing speed and the scale of change in society. In such circumstances, evidence of past societies can provide a sense of belonging and security to modern societies and be an anchor to the changing world (UNESCO 2013:2). In many societies material evidence can be an important tool for defining social identity. Today there is a recognition that management of archaeological resources have become very complex because of the increasing pressures of the modern world on archaeological sites such as infrastructural development, scientific research and tourism (UNESCO 2013).Prior to this effect major threats to archaeological resources mainly came from natural causes such as climatic changes and weathering processes. It is in this light that there is need to be more precise and management approaches must now accommodate the shift (which has only emerged very recently in many parts of the world) to a wider and more holistic approach to archaeological sites.

Lawrence (1998) notes that material culture is found in different management contexts such as museums, conservation store rooms and in situ at archaeological sites. Although most of the material culture is found in situ and in most cases museums and conservation store rooms only house a few collections deemed important due to their limited storage spaces. Over the years most literature on management of material culture has been central on material culture that have been already excavated from their archaeological contexts, especially in the discipline of museology (Schlereth 1987;Ames 1977). In museums once material culture is collected there are principles and guidelines put in place to ensure a sound management of those collections that include documentation, cataloguing and establishment of conservation policies and so on (Volk 2001). On an archaeological perspective material culture in situ is far more important than material culture that is already removed from its archaeological context in the archaeological record since archaeological work revolve around context. That is, the whole (the artifacts *in situ)* is greater than the sum of its parts (the artifacts separated from one another) (Cohan 2004).

Over the years they have been a general realization of the importance and potential benefits of cultural heritage in the development sector especially through cultural tourism. As a result there has been an increase on the activities that take place at heritage sites such as infrastructural development, road and trail guide construction to facilitate and improve tourist enjoyment at cultural heritage sites. UNESCO(2012) outlined that it is in World Heritage sites where most of these developments have been taking place. Despite the benefits brought about through tourism as such as income generation, also these developments have attracted a lot of management problems and management at heritage sites have become very complex (***see Figure 4 below***).

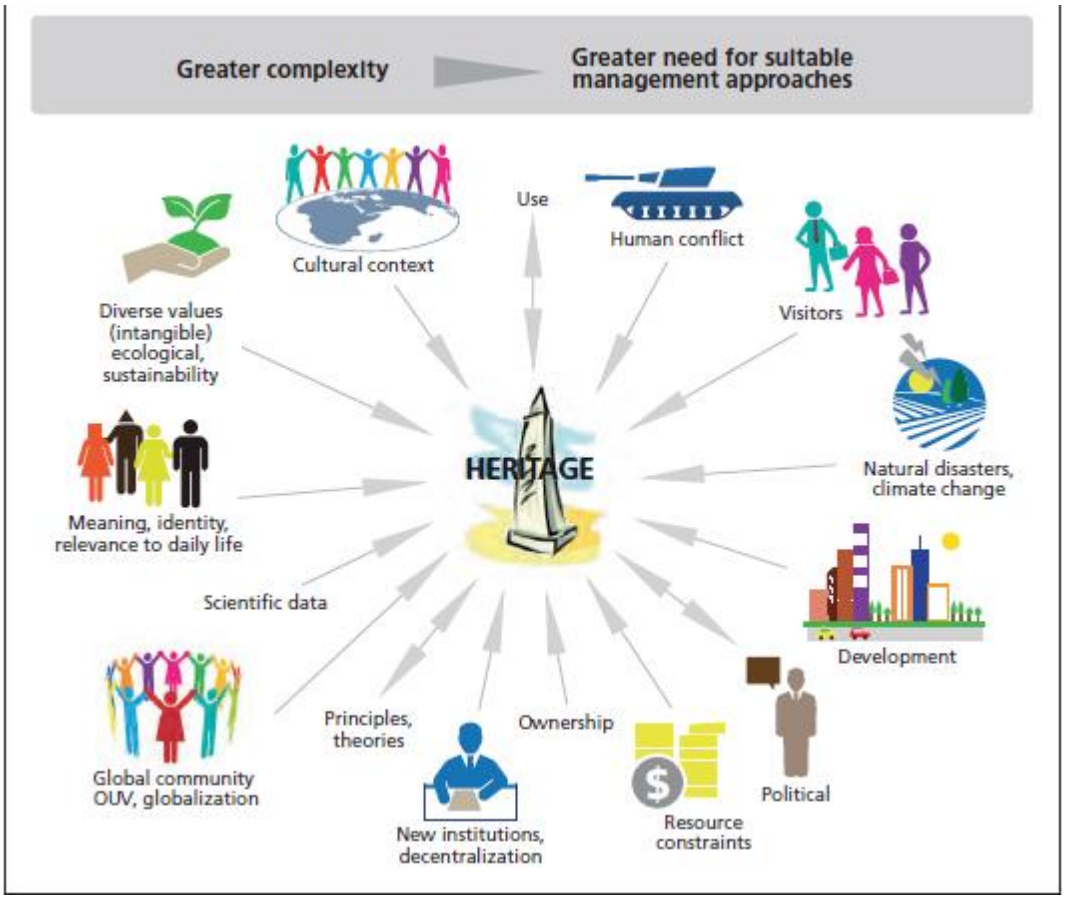

Figure 6:*showing old and current management issues in heritage management. (UNESCO 2013)*

However, most efforts to preserve and present the archaeological heritage in Southern Africa suffer from a failure to fully understand the significance and complexity of cultural heritage management (Ndoro 2001). The early archaeological works and management at Great Zimbabwe had a major impact on the integrity and protection of material culture precisely in-situ surface collections at the site. The link of Great Zimbabwe with Ophir and King Solomon's mines had

unfortunate implications as many fortune seekers ransacked the ruins (Ndoro 2001). During the early 1900's Theodore Bent scavenged in-situ surface collections and subsurface collections as he dug a trench around the base of the conical tower destroying important sections of the stratigraphy of the Great Enclosure. He recovered a few Persian beads but ignored and threw away thousands of artefacts which he believed to be of a later date. More damage was to follow with the creation of the Rhodesia Ancient Ruins Company. The 1902 legislation to protect the monument had no effect on Bent for he continued the destruction of viable archaeological material. He threw away layer after layer of what he termed kaffir rubbish, (Ndoro 2005). . The episodes of vandalizing and destroying surface and subsurface collections in situ raise more questions about management and usage of such archaeological resources at the site. Since archaeologists much prefer to study artifacts in the environment where they are found because removing artifacts results in a large loss of information. Archaeological work is just like a detective's job at a crime scene, only by carefully studying the positioning of objects can archaeologists develop theories about what happened. Once objects are moved, the true story of what happened is lost (Cohan 2004).

At Great Zimbabwe however it remains not clear whether the management of surface collections in situ have yet been considered within the management curriculum of the site considering a number of development have taken grip of the world heritage site and continue to take place at the site. Most archaeological researches done at Great Zimbabwe, material culture have been collected and stored in the Conservation Store Room and some showcased in the site museum where they are maintained. However most of the collections in the store rooms is the material culture collections collected from the great enclosure, hill complex and valley ruins, ideally only 10% of what constitute the site (Ndoro 2001). Chirikure(2016) have argued that for us to fully comprehend the prehistoric activities of the whole society that lived at great Zimbabwe there is need to carry out researches outside the concentric zones namely the great enclosure, hill complex and valley ruins to peripheral sites found within the vicinity of the site.

Yet this is where developments have taken place and continue to take place such as the clearance of fireguards that occur annually at the site. It is a fact that archaeologists cannot collect everything they come across however this doesn't suggest that there should be destruction of such materials during developments. For instance when the concept of fireguards was introduced

it was meant for agricultural landscapes which had no manifestations of archaeological materials(Commercial Farmers Union of Zimbabwe 2017). However when it was adopted within the spheres of heritage sites it is not clear whether consideration was given to surface collections in situ as these annual clearance of the landscapes pose great danger to the existence of surface collection in situ since it is the most sensitive and vulnerable layer in the archaeological record. This therefore suggests that the manner in which developments should take place at archaeological sites should be different to that of non-archaeological sites despite their immediate merits in the socioeconomic spheres and environmental management. If holistic management at heritage sites is developed there is great danger to lose certain portions of archaeological resources typically which are non-renewable resources.

2.3 Effects of not managing surface collections (material culture)

Cohan (2004) notes that there are many questions about human behavior, interrelationship and adaption that we cannot answer without studying how past cultures lived. By examining the past through material culture in situ archaeologists increase the social scientist perspective to encompass thousands years of human experience. Reconstructions of past societal activities at cultural heritage sites rely on archaeology's inferring of material evidence as these go beyond the scope of oral traditions, ethnography or in some cases written records. Oral traditions cease to reliable beyond 300 years and written records are few, selective and in most cases biased and located with prejudice. It is these instances that material culture in situ plays a significant role in giving account of the traces left behind by different communities through time (Katsamudanga and Manyanga 2013).

As highlighted earlier, surface collections in situ represent typically a historical timeline of cultural activities of past societies. Chirikure and Pikirai (2001) notes that the assemblages of artefacts and other cultural material in situ are crucial not only for endorsing the architectural and stratigraphic sequences but for proper interpretation of the different activities in each part of the site. Museum curators understand that destruction to authentic cultural collections within the confines of their repositories and showcases so does the story embedded within those objects (Lawrence 1998). Hence improper management of and destruction to surface collections in situ is good as destroying a timed story line embedded within the different classes of material found

in the most sensitive and vulnerable surface layer of the archaeological record. For instance in the Tikal Temple 33 was destroyed in 1965 by archaeologists who completely dismantled the final version of the large pyramid uncovering the earliest phases of construction. It was believed that the temple 33 represented a three consecutive phases that transpired during the king's funerary shrine which took place over centuries (Coe 1967; Martin and Grube 2000). Stenning (2015) notes that this destruction represents not just destruction of these immediately monuments but of the entire historical timeline of a generation.

Largely at Great Zimbabwe archaeologists have been obsessed with the core zone area of Great Zimbabwe as many research has been focused on the Hill complex, valley ruins and great enclosure (Ndoro 2001). However these three areas only constitute a small portion of the whole estate of the site. Other areas are characterized with peripheral enclosures and settlement with Dhaka, terraces and stonewalling and various features of archaeological importance in situ typically related to the core zone area. Usually these areas are neglected in terms of research and effective management (Ndoro 2001). (Chirikure 2016) have seen the shortfall and began to propound on the ideology that over centrality on the core zone area doesn't give a wholesome picture of the lives of all the inhabitants that once lived at Great Zimbabwe hence there is need to move away from the core zone area to peripheral zone of the site. This is also the reason that makes the material culture in situ of these areas valuable and in need for proper management to allow for proper interpretation of the site. It is unfortunate that it is in these areas where most of the developments have taken place without taking into consideration of the importance of surface collections in situ such the establishment of lodges and rondavels(Pwiti and Ndoro, 1997) and where fireguards have been established are found crisscrossing. These prescribed fireguard clearance is done annually directly and posing great threat to the in-situ surface collections found in these areas. As such these developments threaten the material culture in situ which can help archaeologists to discover and reconstruct the prehistoric activities around Great Zimbabwe more broadly beyond the Great enclosure, hill complex and valley ruins.

Literally there is not much that has been interpreted in relation to the Great Enclosure at Great Zimbabwe World heritage site as a result of these unsustainable management of surface collections and subsurface collections in situ. The early archaeological work at the site was

disastrous marked with excavations that was unsystematic without proper registration procedures (Garlake 1973: 65-73). It was (Hall 1905) who caused the greatest damage by removing some 3.5m of the archeological deposits from the enclosure and he also removed 0,51m of soil directly affecting the stratigraphic sequence of the Enclosure (Summers 1961: 286). To a large extent surface collections was spoilt for future examination. Yet archaeological work revolve around inferring stratigraphic layers of the archaeological record for a more sound and authentic interpretation of the material culture found in association. At present date the Great Enclosure does not contain anything like the sequence in the Hill Ruin.

2.4 Sustainable development and archaeological resource management

Sustainable cultural heritage management correlates between conservation and use at heritage sites (Gurira 2015). When the concept of sustainable development was introduced the main focus was on economic, social and environmental development and culture was overlooked in the sustainable development paradigm. Cultural Heritage was long absent from the mainstream sustainable development debate despite its crucial importance to societies and the wide acknowledgment of its great potential to contribute to social, economic and environmental goals (UNESCO 2017).After the realization of that potential benefits of cultural heritage tourism many nations around the world have embarked on developing these places so as to attract, facilitate and insuring good visitor experience and these development continue to take place.

Development which can be defined as the modification of the biosphere and the application of human financial living and non-living resources to satisfy human needs and improve the quality of human life (IUCN1980; Bernstein 2012). Some of these developments at heritage sites include infrastructural development around and within the site such as visitor accommodation facilities, car parks for public inconvenience. It is a fact that the public should get a chance of enjoying their heritage hence heritage managers are required to make heritage resources as accessible as possible to the public. The World Commission on Culture and Development (WCCD) recognizes tourism is fast becoming one of the biggest industries in the world and cultural heritage provide much of its life-blood (WCCD, 1995). That is supported by (Bokova 2011; Gurira 2015) who

points out that cultural heritage sites especially those listed as World Heritage sites generate a lot of revenue and in most cases some of this revenue have been used to conserve these heritage sites. (UNESCO 2015) states that throughout the past decade, statistics, indicators and data on the cultural sector, as well as operational activities have underscored that culture can be a powerful driver for development, with community-wide social, economic and environmental impacts. Of particular relevance is the cultural sector's contribution to the economy and poverty alleviation. Cultural heritage, cultural and creative industries, sustainable cultural tourism, and cultural infrastructure can serve as strategic tools for revenue generation, particularly in developing countries given their often-rich cultural heritage (UNESCO 2012). Tourism also can contribute to the protection and restoration efforts if the right balance is struck between economic gain and negative impacts (Pederson, 2000:7). Hence there is need to develop heritage sites so as not to short change the public by denying them the chance to fully access and fully appreciate their heritage property.

However at Great Zimbabwe it is these same spaces where development is taking place where material culture is found. (Cleere 1989) notes that while development has brought much needed improvements, it has also created further threat to the archaeological past and the problem is especially pressing in developing countries. Yet Without this material culture these heritage sites are meaningless as highlighted earlier archaeologists rely on material culture in situ to make meaningful interpretation of what transpired in the archaeological record. It is under these notions that there is great need to balance between management, use and development at landscapes with imminent, unreplaceable and non-renewal material evidence of past societies.

Gurira and Ngulube (2015) notes that many cultural heritage sites are under threat as a result of development targeted at promoting or enhancing cultural heritage tourism products. For example, in sub Saharan Africa Robben Island in South Africa and the Victoria Falls in Zimbabwewere threatened by uncontrolled tourism infrastructural development and the effects of mass tourism (Bourges, 2011:8 and Gurira 2015). The bulk of all threats, however, is not due to natural disasters or armed conflicts, but to human-induced destruction driven by development pressures resulting from a variety of sources such as the unprecedented social imbalance in power and wealth, and misguided responses to the real estate and infrastructure needs of

exploding cities. (ICOMOS 2011). Thus the introduction of sustainable cultural heritage tourism which seeks to balance the adverse effects of tourism on the cultural heritage and its sustainability cannot be underestimated. (UNESCO 2013) highlights thatthe complexity surrounding heritage should therefore compel society to engage in its holistic management rather than to conserve only specific structures, as happened in the past. With the greatly widened scope of what is regarded as heritage, the increasing complexity of the problems facing it, and the need to use it sustainably, whether for tourism or for other purposes

2.5 Summary

Material culture studies across the world and in Zimbabwe at large have revealed that it can aid archaeologists to reconstruct the social, economic, political and religious aspects of prehistoric societies. It is evident that heritage management has become more complex and archaeological resources especially in situ surface collections face imminent risk of destruction form different developments that have overtaken at archaeological sites and there is great need for sustainable practices and management. However, no studies have been undertaken to confirm the management of surface collections at Great Zimbabwe in actively used spaces. Therefore this research sought to cover this gap by exploring the intertwined relationship between management and development at Great Zimbabwe World Heritage Site.

CHAPTER 3

Methodology

2.0 Introduction

This chapter is mainly consisting of a research design, target population, research sample procedures, data collections methods and data analysis procedures and presentation concerning the management of in-situ surface collections at Great Zimbabwe WHS.

3.1 Research design

According to De Vaus 2001 and William 2006 the research design refers to the overall strategy that the researcher choose to integrate the different components of the study in a coherent and logical way to effectively address the research problem. It mainly constitutes the blueprint for the collection, measurement and analysis of data.In this study the research was based on mixed methods/triangulation whereby both qualitative and quantitative approaches were used.

Quantitative method is basically concerned with statistics and verification of facts of defined variables (Wyse 2011). Quantitative methods were adopted in field surveys to verify and clarify the distribution, density and variability of in-situ Surface Collections and disturbances caused by development processes. Whilst qualitative method is primarily concerned with developing explanations and gaining understanding and provide insights into the problem helping develop ideas and hypothesis (Key 1997 and Wyse 2011). Qualitative methods were adopted to explore in depth through interviews concerning the standing guidelines and policies in the management of in-situ surface collections in the face of development processes and participation observations during the fireguard clearance to shed more light on how it is currently being done.

Thus both quantitative and qualitative methods enhanced the research by integrating data from different angles in the understanding of the management of in-situ surface collections at Great Zimbabwe.

3.2 Research sample

To ensure a systematic investigation on the management of in-situ surface collections. The researcher used a combination of sampling techniques that included purposive sampling and systematic sampling. Where purposive sampling was used to get insights on the standing guidelines in the management of in-situ surface collections and how it has been managed at the site through an interview guide and interview schedule. Purposive sampling which is the deliberate seeking out of participants with particular characteristics according to the needs of the research and study (Michael et al 2004; SAGE 2004).The researcher chooses subjects of interest with the needed characteristics. Thus in this research purposive samples were drawn from the Conservation Department at Great Zimbabwe and members from the local community who were interviewed. The number of participants in this study was 10, (6) employees from the Conservation department at Great Zimbabwe and (4) local community members. The (6) Great Zimbabwe employees were chosen on the basis of their working experience of 5years and above and knowledge of the subject matter and the (4) local members were chosen based on how often they participate in the fireguard clearance project at least twice and more.

On the other hand systematic sampling was adopted in the archaeological field survey in the fireguard trails at the site using the 150 pacing interval methodology to understand the distribution, variability and density of in-situ surface collections and horizontal disturbances to surface collections due to fireguard clearance.

3.3 Target population

Target population refers to the entire set of units in the study for which data are to be used to make inference Lavrakas 2008;2011).The target population for this study was largely derived

from employees in the Conservation Department at Great Zimbabwe and members from the local community from Nemanwa, Mugabe and Murinye Clans who live near the site. The population from the Conservation Department mainly consisted curators and site maintenance team whilst members from the local community mainly consisted of all those who often participate in the fireguard clearance annual project hence contract forms were relied upon to identify these local members. These various groups were chosen following their competence in the subject matter.

3.4 Research instruments

In this study, the researcher concentrated first on tracing how in-situ surface collections have been managed at Great Zimbabwe and querying of maps to identify areas where developments have occurred at the site. This was done mainly relying on documentary sources which include memorandums, conservation and management reports that revealed various development processes that have occurred at the site. This was followed by a one day archaeological survey in the actively used spaces and developed areas to verify the presence of in situ surface collection including their and distribution and density capturing data through photographing and sketch map drawing. For the overall understanding of the current standing guidelines and how in situ surface collections are to be managed in the face of development was learnt through interviews conducted to employees of Great Zimbabwe in the Conservation Centre and members from the local community and also through a participatory observation on how the clearance is done. These interviews and observations served to shed light and insight on the current situation concerning the management of surface collections.

3.4.1 Desktop survey

The researcher consulted documentary sources in order to appreciate the importance of in-situ surface collections in the understanding of past societies and how surface collections have been managed through time. A number of information centers and platforms were consulted. This

included the internet, MSU Library and Great Zimbabwe national monuments library, management reports, memorandums and site publications and conservation reports.

3.4.2Interviews

In this study the researcher used interviews based on an interview schedule and interview guide. These were carried out so as to understand the policies and protocols of managing in situ surface collections at Great Zimbabwe. The main thrust was to collect data that would assist in verifying the standing guidelines for the management of in-situ surface collection and how it has been managed over the years in the face of development. These interviews were carried out on respective employees of Great Zimbabwe Conservation Department and members from the local community. The interviewees that constituted the employees at Great Zimbabwe were internationally chosen according to their working experience and knowledge in the subject matter and job specialization. Whereas interviewees from the local community were chosen on the basis of their level of participation in the fireguard clearance project to fully understand whether they are aware of the importance of in-situ surface collections and guidelines they are told prior to the clearance that favor management of archaeological deposits. A total of 10 participants (6) who were Great Zimbabwe employees and (4) members from the local community were identified as potential candidates and were interviewed through a set of questions (see interview guide Appendix 1 and Appendix 2). Documentation of these interviews were done through note taking and tape recording.

3.4. 3 Archaeological Field survey

In this study an archaeological field survey was carried out in the form of field walks to assess the impact of fireguard clearance to in-situ surface collections and also to verify the presence of in-situ surface collections and determine their distribution and density and variability in actively used spaces such as fireguard trails. Data capturing was done through mapping and photographing and use of a GPS andfield data sheet (see Appendix 3).

3.4.4 Mapping

In addition the researcher drew some sketch maps. These sketch maps were specifically drawn to show the distribution of fireguards trails and also to take into account the various development at the site. Google earth software was largely relied to produce the maps

3.4.5 Photographing

The researcher took various photographs using a Samsung camera with a 16 Mega Pixels. The photos were taken to shed more light about the distribution on in-situ surface collections in actively used spaces and visual evidence of the impact of fireguard clearance.

3.4.6 Participation observation.

The participatory observations were carried out during the fireguard clearance project which occurred from July to August. The plight of the observation was to have a first-hand experience on how the fireguard clearance is done, taking into consideration what tools and what guidelines are the local hired contractors are made aware of during the clearance procedure. Documentation was through note taking and photographing.

3.5 Ethical consideration

According to David and Kramer (2001) the researcher must consider ethics when conducting their research. Therefore the following ethical considerations were taken into consideration during the research.

- Seeking authority to carry out the research from responsible authorities at Great Zimbabwe National Monument and from the local community chiefs.
- All participants were to participate willingly.
- Seeking informed consent from all participants before and during the research.
- Maintaining privacy and confidentiality of the information from participants.

3.6 Data analysis procedure.

According to Hancook (1998) data presentation involves summarizing the mass of data collected and presenting results in a way that communicates the most important factors and attributes of the research so as to bring out the broader picture or major findings. Data was presented according to the approach used to gather. In this respect data from the interviews, participation observation and documentary sources was first presented then followed by data derived from the archaeological field survey. The data was presented using Microsoft word, excel programmes.

3.7 Summary

This chapter overally discusses the researcher design, the population representative sample and sampling techniques, the data collection procedures. The data collection procedure was examined, the data collection instrument was described.

Chapter 4

Data presentation and analysis

4.0 Introduction

This chapter mainly focuses on the presentation and analysis of major findings from the study. The chapter projects the triangulation findings collected from interviews, archaeological field survey and documentary sources. The Great Zimbabwe employees were inquired based on their working experience to get in-depth understanding on the standing guiding policies on managing is-situ surface collections and how it has been managed in the face of development and propagate on how best it can be managed in cases of development. The local community members were interviewed based on how often they participate in the fireguard clearance project in order to get insight on how they are required to carry out fireguard clearance annually and what they are told prior clearance concerning in-situ surface collections. In addition participation observations and documentary sources such as the company memorandum, reports and publications were reviewed to complement findings from interviews. Whilst the archeological field survey was meant to verify the presence of in-situ surface collections in the fireguard trails at the site and ascertain the distribution, density and variability of in-situ surface collections in the fireguard trails at Great Zimbabwe world heritage site.

4.1 Distribution and density variability of in-situ surface collections in the fireguard trails

The field survey revealed that in-situ surface collections are actually distributed in varying densities over the entire cultural landscape. From the 3 sampled areas from the fireguard trails, the trail in the North east of the Great enclosure in –situ surface collections were evenly distributed and material culture was found in substantial amounts potsherds being the most dominant. From the last 2 areas sampled in the mujeje road, North east of the Shona village and North West of the curio shop near the hill complex revealed material were in low density across the trails. The survey also revealed that there are a variety of in-situ surface collections exposed

to the ground in the fireguard trails. A number of archaeological materials on the surface were identified which included faunal remains, potsherds, and glass bead and dagga structures.

4.1.1 Ceramics

A number of potsherds were found on the surface and potsherds were the most visible archaeological remains found on the surface in the fireguard trails. Most of the potsherds was brown without decorations. An analysis of the potsherd suggested that the ceramics belonged possibly to period IV and V (Huffman 2009a, 2011).

GPS 20º16'25, 82333''S 30º56'8, 84145''E

Figure 7: Showing a potsherd in the fireguard trail in the North East of the Great Enclosure.

4.1.2 Dagga structures (middens)

A number of dagga structures were discovered in the fireguard trailsurrounding the Great Zimbabwe staff quarters which is about approximately 500m North-west from the hill complex and it was the largest and most visible dagga structure of the surveyed areas (***figure 9 below***). The other structures were identified in themujeje road, close to the mujeje two dagga structures that showed evidence of two complete foundations of middens.

Figure 8:showing a dagga structure in the fireguard trail near the staff quarters 500m north-west of the hill complex.

4.1.3 Bead

During the survey only one opaque green colored glass bead was found on the surface in the fireguard North-East of the Great Enclosure and close to the Eastern ruins. The glass bead was spheroid shaped with a diameter estimated to be 5.5mm to 7mm. all the attributes on the glass bead suggest that the glass bead belonged to the Khami Indo-Pacific (Khami-IP) that spanned between the 15thup to the 17th century (Wood 2011).

GPS 20º16'11.13121''S 30º56'18.719''E

Figure 9: showing a green glass bead possibly that belonged to 15th and 17th century khami-indo pacific phase.

4.2 Standing guidelines for the management of surface collections

The interviews and desktop survey reviewed that there are a number of standing of guidelines in place to guard and guide the management of archaeological resources at the site however not specifically for in-situ surface collections. According to one of the employee in the conservation department at Great Zimbabwe highlighted that;

"*yes in terms policies they are there covering such aspects but not specifically for in situ archaeological deposits but in terms in covering all other different archaeological aspects of the site for example we have a got a site management plan which is on its own is a policy since when we are talking about policies we are talking about guiding documents that being used in looking after cultural property. In terms of what we have now the* ***Management Plan*** *is one of our document that guides in what we should do and should not do when it comes to in-situ deposits but in relations to that we have our heritage legislation which is the* ***National Museums and Monument act 25:11****, which have got certain sections which are relevant to the management of in-situ archaeological deposits. For instance it says no one is allowed to alter or damage any piece of the monument so that on its own it's a guideline and both employees and the public have to make sure they don't temper around with archaeological deposits. In relations to that with also have a* ***Site Master Plan****which is a document that was takes into consideration of archaeological resources for example if there is an additional development to take place it gives guidelines on how best it should be done. So the master plan help suggest the feasible areas where development should take place with minimum damage of in situ archaeological deposits for instance where now the Shona village is located archaeologically speaking there isn't anything that is threated because it's on top of a granite rock which is less likely to have archaeological deposits. Overall our reaction to archeological materials in guided by a number of principles and policies from the international to the local situation since Great Zimbabwe is a world heritage site we respect international conventions and charters. A number of such is related to preservation archaeological resources whether in situ or any other different contexts such as* ***the International guidelines for the protection, development, management, presentation of historic and cultural heritage sites (ICOMOS 1990)***.

All these policies go a long way in managing archaeological materials at the site at different levels to achieve sustainable practices.

4. 3 Guiding policies for fireguard clearance to hired contractors

The interview both to Great Zimbabwe and local members reveal that guiding policies for the fireguard clearance is quite controversial. During a participation observation of the fireguard clearance revealed that when it comes to fireguard clearance there are no guiding policies and instructions on how to do it and what to do when you come across surface material culture. Interviews with both Great Zimbabwe employees and local community members who normally participate in the fireguard clearance complemented the observation to reveal that in as much as they are guiding principles and policies in the management of archaeological resources at the site when it comes to the fireguards clearance it is a different story altogether. One employee with a 30 year experience and who have worked immensely in the fireguard projects ever since the Great Zimbabwe monuments was still under the management of National parks highlighted that within the fireguard there are no instructional guidelines on how to carryout fireguard clearance. In addition to that another employee also revealed that:

"During that during his 5 year working experience at the site, when it comes to fireguards clearance of course people are encouraged not to dig very deep underground but that exercise is never monitored, how deep a hired contractor would have dug during the clearance process. In addition to that the hired contractors have never been made aware that they may come across importance archaeological deposits during the clearance process. Currently there is a proposal to use a tractor in the fireguard only that the hindrance is the tree logs in the fireguard trails that hinder access to the tractor. So in other words no-one has looked into the consideration of the archeological impact because a harrow disc may even pose more threat to the archaeological deposits".

According to organizational memorandum it also showed that in some cases in the past fireguard clearance was done using a tractor and a harrow dish in accessible areas of the fireguard trails with a tractor. Interviews with all the 4 local members who had at least participated twice and more in the fireguard clearance project admit that there is nothing that they are told concerning

what to do when they come across in-situ surface collections, or told how to do it, all what they are told is only where to clear and this has resulted in lateral disturbances to the in-situ surface collections..

4.4 Impact assessment and rescue archaeology of in-situ surface collections during development process.

In answering the question whether there has been attempts to make impact assessments and rescue archaeology during development of infrastructure and fireguard clearances. One GZ employee indicated positively that there have been instances where impact assessments and rescue archaeology have been done at the site except in some instances such as in the fireguards. He went on further to indicate that for instance when recent lodges were erected an impact assessment was done except for the old lodges, rondavels and staff quartiers which were built by the National Parks. One rescue excavation report showed a clear rescue excavation at the actively used car park in 2015 done by a team of archeologists from University of Cape Town in conjunction with NMMZ and a number of in situ surface collections were collected and examined. The report also showed that the management of archeological deposits at the site over a century have been focused on the core zone area of the site and not much consideration to the material culture found in the unwalled areas such as the fireguard trails where neither an impact assessment or rescue archeology have been conducted as of yet.

Another employee revealed that when the concept of fireguard was adopted at the site during the colonial era under National Parks no impact assessment was done even the recent established inner fireguards. While the site was still being managed by the National Parks clearance was done by prison convicts who were neither made aware of the importance of in-situ surface collections nor had any archaeological background. He also indicated that the management board itself at that time had no appreciation of archaeological deposits (surface collections) rather their interest was on the management of the biodiversity of the area and stone walls. As such what

mattered was just the clearance not the preservation of material culture. He went further to elaborate that currently the similar trends seem to occur at the site even under the custodianship of NMMZ for instance the eastern enclosure the current Shona village there are a number of in-situ surface collections but still the area is still under subjection to damage through ground clearing.

4.9 Impact of fireguard clearance on in-situ surface collections

From the archaeological field survey revealed that there are possible negative impacts of fireguard clearance to in-situ surface collections. Evidence of lateral movement disturbances of in-situ surface collections were observed. The survey also revealed that a heap of top soil is constantly being removed from the trails to the side edges of the trails (***see figure 10 below***) were also a number of material culture were observed and photographed (***see fig 11 below***).

GPS 20°16'28.09924''S 30°56'5.82257''E

Figure 10:showing the amount and height 0.25m (yellow marker) of top soil moved to the side edges of the trails.

GPS 20°16'28.09924''S 30°56'5.82257''E

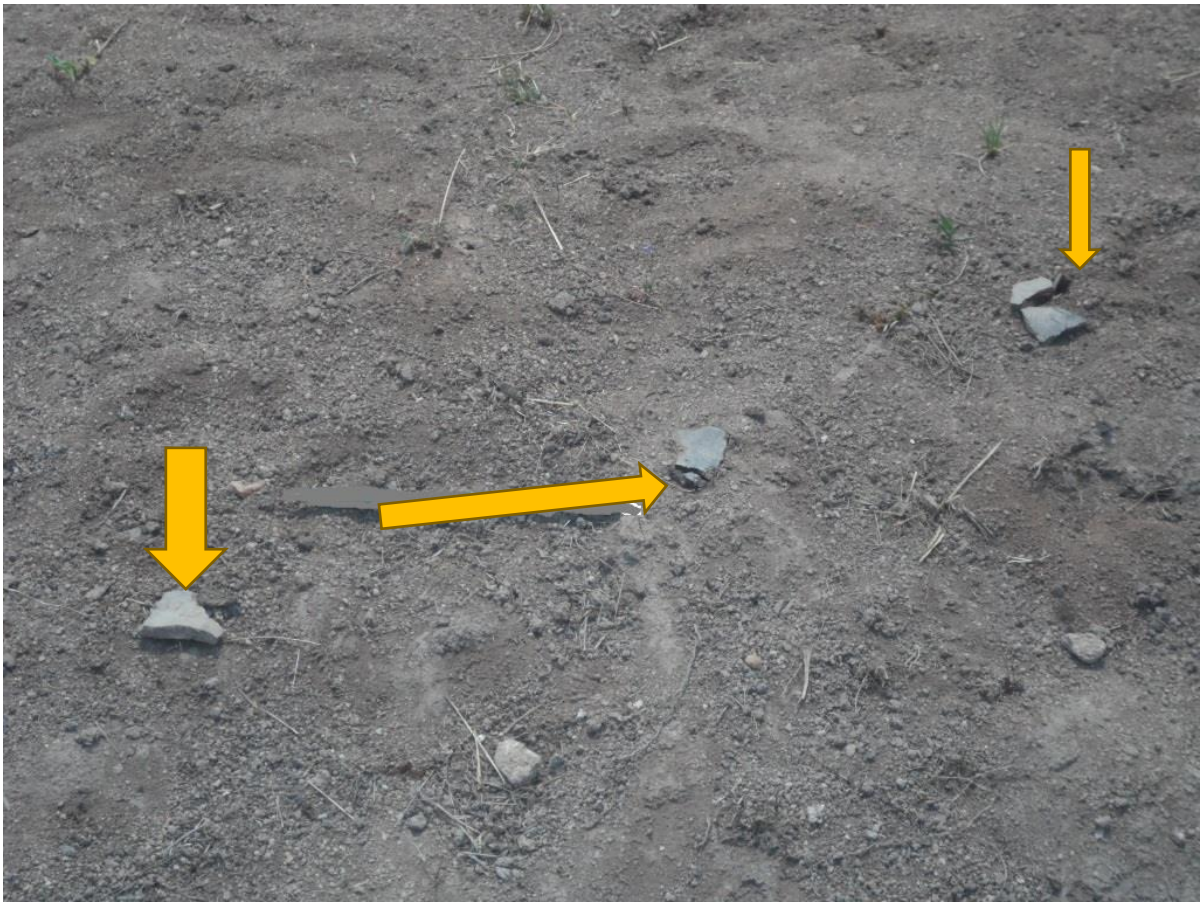

*Figure 11:**showing material evidence found at side edges of the fireguard trails shown by yellow arrows***

Desktop survey inquiry on site maps in conjunction with the archeological field survey also showed that of all the 720 hectares of the site which when converted into square kilometers (km^2) is 7.2km^2. However it is only within 0.72km^2 (72 hectares) where proper archaeological research have been carried out at the site which is only 10% of what constitute of Great Zimbabwe site estate (Ndoro 2001). The survey also reviewed that it is 648 hectares of the area which has not been properly researched where fireguards are found crisscrossing covering a space length of 21km which is 0.21km^2 (21 hectares) and also these fireguards also have a width of 10m(**seefigure 12and 13 below)**.

Figure 12 showing the fireguard trail North-East of the Great Enclosure.

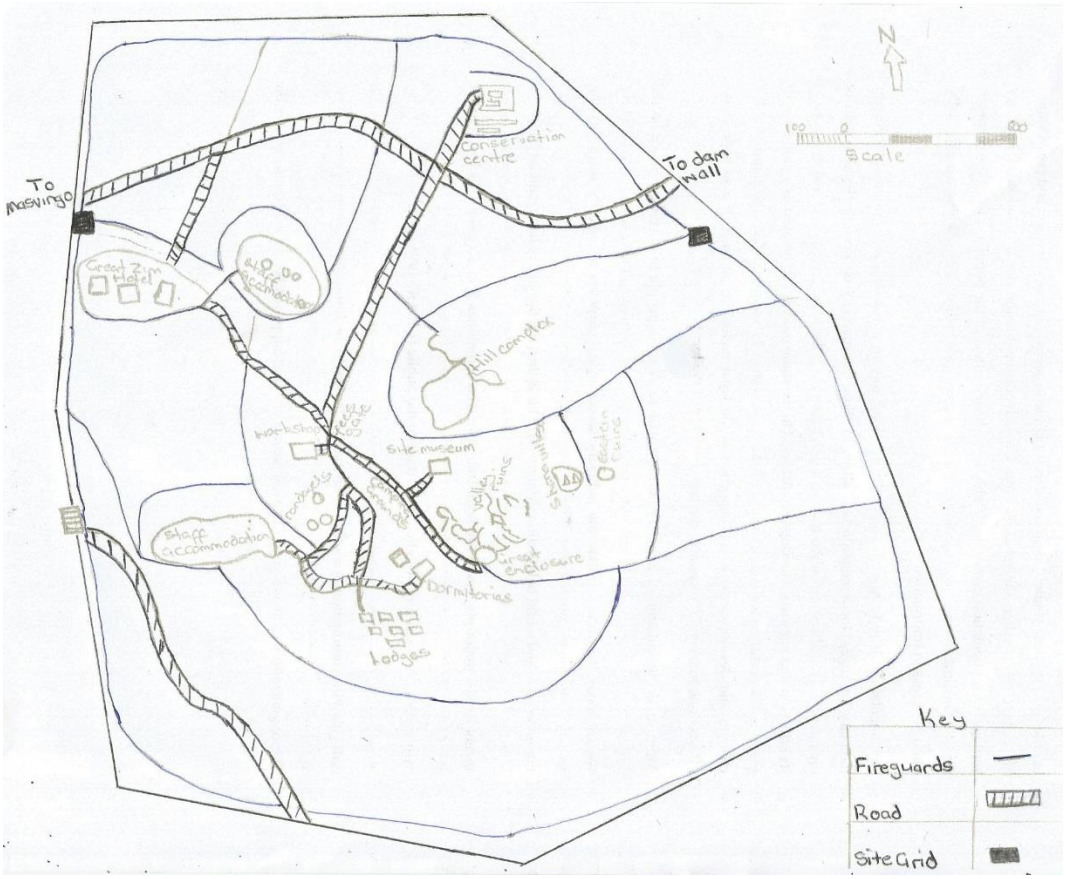

Figure 13 map showing spatial distribution of fireguards in the Great Zimbabwe Estate.(Adopted from GZ survey unit and edited).

4.5 chapter summary

In an overview this chapter concentrated on examining and presenting data gathered during the research so as to ascertain the standing policies that govern the management of in-situ surface collections. Various indices were explored to understand how in situ surface collections was being managed and is being managed in the face of development processes at Great Zimbabwe heritage site.

Chapter 5

Discussion, Recommendations and conclusion

5.0 Introduction

The chapter is on synthesizing the standing policies and protocols in the management of in-situ surface collections at Great Zimbabwe WHS. Results from interviews, documentary sources and observations concerning the management of in-situ surface collections are critically discussed. Factors derived from the field survey on the variability, density and distribution of surface collections and the impact of fireguard clearance is reviewed critically. All this data and information collected and examined discloses the reaction of NMMZ towards the management of in-situ surface collections in the face of development processes. Lastly the chapter ends by highlighting possible areas to be researched in the future concerning Great Zimbabwe World Heritage Site.

5.1 Standing policies and protocols in the management of in-situ surface collections

Management practices at Great Zimbabwe are guided by frameworks that range from international level, national level to regional level. These policies include;

- **International guidelines for the protection, development, management, presentation of historic and cultural heritage sites ICOMOS.**
- **NMMZ ACT 25/11 OF 1972**
- **Site Master Plan by (Collet 1988)**
- **Great Zimbabwe Management Plan.**

5.1.1 International guidelines for the protection, development, management, presentation of historic and cultural heritage sites (ICOMOS 1990).

Protection and Management of Archaeological Heritage 1990, Article 6, states that the overall objective of archaeological heritage management should be the preservation of monuments and sites in situ, including proper long-term conservation and curation of all related records and collections etc. Any transfer of elements of the heritage to new locations represents a violation of

the principle of preserving the heritage in its original context (Cohan 2004). This principle stresses the need for proper maintenance, conservation and management. It also asserts the principle that the archaeological heritage should not be exposed by excavation or left exposed after excavation if provision for its proper maintenance and management after excavation cannot be guaranteed.

5.1.2NMMZ ACT 25/11 OF 1972

The parameters contained in the NMMZ Act of 1972 in relation to the preservation of in-situ surface collections is surprisingly strong. It makes it a national offense to destroy, alter or damage or remove any archaeological resource without approval of the Executive director of NMMZ. The act also requires the public to notify NMMZ if they come across any archaeological site or resource. The penalty for latter offense is up to five imprisonment and a fine up to Z$2000.00. The act however, does not explicitly make mention of the pre-development impact, rescue archaeology that should be undertaken to protect material in-situ during development processes. Though the Act is outdated and does not make mention of some current aspects in the management of archaeological resources it makes efforts to ensure preservation of archaeological resources in-situ including surface collection from deliberate human alteration and destruction.

5.1.3Site Master Plan (Collet 1988)

The master plan states that development and tourism activities should be managed well to minimize damage to archaeological resources. It is the only document at national level that make mention of pre-developmental impact assessment and rescue excavation which is a critical aspect to the management of in-situ surface collections. As highlighted in (Chapter 2) that development is always bound to occur at heritage sites so as not to shortchange the public however this does not imply that there should be destruction of archeological deposits.Rather to ensure preservation of archaeological deposits there is always need for impact assessment to measure the extent and

impact that development will have to in-situ archaeological deposits. Therefore the site master is essentially in ensuring the preservation of in-situ surface collections.

5.1.3 Management Plan (2012).

Good cultural heritage management should correlate between use and conservation (Gurira 2015). The management plan takes into consideration the different management issues that range from tourism activities, community use and access and infrastructural development that threaten the existence of material culture in-situ and stability of dry stone walls. The management plan provides a detailed scheme to achieve sustainable use, access and conservation to Great Zimbabwe WHS.

All these policies though specifically not tailor made for the management of in-situ surface collection they go a long way in insuring that there are sustainable practices at the site including the archaeological deposits in situ {sub-surface collections and surface collections} found at the site. For instance the Site Master Plan take into cognizance of archeological deposits if there is an additional development to take place it helps examine to what would be the extent of damage that would be done to the site as a result of that development. So the master plan suggest the feasible areas where development should take place with minimum damage of in -situ archaeological deposits.

Despite the availability of these guidelines their implementation on Great Zimbabwe seems to be controversial as research findings reveal that these policies seem to be in some instances and not in some cases of development processes. The desktop survey revealed that there are a number of instances were in-situ surface collections were taken into consideration. In 2015 after the perceived threat to the material culture at the Site car park due to tourism activities a rescue excavation was done by (Chirikure 2015) and both in-situ surface collections and subsurface collections were collected. These materials were analyzed and the results help shed light on the life of the commoners that assumed to have lived in the area, also showing that indeed in-situ surface collections play an important role in the reconstructions of past activities at Great Zimbabwe as a whole.

However when it comes to fireguard clearance these policies seem to be dormant and not in effect which pose detrimental effect to the management of in-situ surface collections. The interviews carried out with the local members revealed that indeed the people who normally participate in the annual fireguard clearance are neither aware of the importance of in-situ surface collections found in the fireguard trails nor told on how to go about the clearance procedure in order to protect the in-situ surface collections all they are aware is the area in which they are supposed to clear. This clearly contradicts the concept of sustainable management which entails that there should be a balance between use, development and protections of archaeological resources on archaeological sites as highlighted in (*chapter 2*).

5.2 Impact of fireguard clearance to in-situ surface collections

Due to the different threats that threaten the existence of many cultural heritage sites across the world and Zimbabwe as nation, as result many heritage organizations such as the NMMZ are faced with the plight to balance between use, development and protection of sites. The establishment of fireguards has become a common way to protect landscapes and estates used by different organization to guard against veld fires. Concurrently it has become one of the strategies in which heritage managers employ to guard their heritage resources from these veld fires. . However the archaeological field survey and documentary sources revealed that despite the remarkable advantage of these fireguards they are found within an archaeological sensitive landscape where in situ material culture is found and yet not even an impact assessment was done or rescue archaeology in the presence of those in-situ surface collections.

Evidence from the interviews and documentary sources showed that When the fireguard trails were established when the management of the site was still under National Parks of Zimbabwe no consideration was given to the archaeological deposits found at the site their main concern was the protection of the biodiversity of the estate. Even under the NMMZ the same trends seemed to have continued as findings in the study showed that the establishment of recent inner fireguard trails and its clearance was for some time the clearance was done by prison convicts who had no archaeological background or where told on the importance of archeological

deposits and conservation reports at the site also revealed that clearance was also done by a tractor and harrow dish which cause great damage to the in-situ archaeological deposits.

The archaeological filed survey revealed that these fireguards are found crisscrossing the whole monument estate with a length of 21km and 10meters wide which is substantial a big area considering that it is an archaeological sensitive area and these clearances continue to take place annually.

The field survey also revealed that these fireguard clearance tend to have a negative impact substantial amount of moved top soil from the trails to the edges of the trails was observed and some which measured 0.25m in height and evidence of material culture was discovered in that moved soil showing the lateral movements of in-situ surface collections as a result of fireguard clearance. This has great implication on the integrity of surface collections and it also alters the original context in which these in- situ surface collections are found in the fireguard trails. Yet archaeologists are always concerned with where objects are found to make a sound interpretation as highlighted in (*chapter 2*) that to archaeologists material culture in situ is far more important than material culture that is already removed from its archaeological context in the archaeological record since archaeological work revolve around context. That is, the whole (the artifacts *in situ)* is greater than the sum of its parts (the artifacts separated from one another) (Cohan 2004).

5.3. Variability, density and distribution of in-situ surface collections.

Evidence from the field survey showed that indeed there is in-situ surface collections at the site which found in variations and varying densities at the site. These in-situ surface collections which include potsherd, dagga structures and beads can help us understand past activities within the context in which these material remains are found.There are many questions about human behavior, interrelationships and adaptations that we cannot answer without studying how past cultures lived (Cohan 2004). A number of excavations done at the site including the 2014 rescue excavation at the car park surface collections were taken into consideration its role have always been substantial in shedding light in the activities of both the elite and assumed commoners at

the site. Previous researches at Great Zimbabwe all these archaeological materials have helped archaeologist to understand to understand broadly on issues of origins, trade, diet and so on. For instance (Huffman 2007 and 2009) analyzed ceramic remains to understand the different cultural identitiesportrayed by the ceramics that make the so called Zimbabwe tradition. Analysis of dagga structures in the hill complex by (Caton-thompson 1929; 1931) settlement patterns at the site.

Management of these in-situ surface collections is critical especially in these areas where developments are taking place considering most researches at the site have always been central to the core zone area which consists of the great enclosure, hill complex and valley ruins as suggested by (Ndoro 2001). Most of these researches done in these three area have always been linked with the elite and researches on the commoners at the site have not been well represented in the literature at Great Zimbabwe.

5.5Recommendations

The people who participate in the routine annual fireguard clearance need to be continuously made aware of the importance of material culture in situ. Raising public awareness is critical to achieve sustainable management at heritage sites as it disseminates knowledge to people and help guide people to take part in the protection of these sites. As long people are not aware of the importance of such materials harm continue to occur to these non-renewable archaeological resources.

In addition NMMZ should be more specific and assertive when it comes to approaching management issues at heritage sites especially in the context of development since they have the sole responsibility to ensure sustainable measures and practices are put in place to manage different archaeological resources. Especially when it comes to establishment of fireguards there should be proper impact assessments as well as rescue excavationsso as to minimize the impact of fireguard clearance. As (Collet 1988) suggests that sites that are under threatened with destruction through either natural or human agencies can be preserved through systematic and well documented excavation. This may seem like a contradiction because excavation means

destruction of archaeological deposits. However it should be noted that excavations records provide a detailed description of the stratigraphy, context and material in associated materials.

5.6. Conclusion

The research successfully managed to achieve and address all the set objectives of the study. The research has showed that there are in-situ surface collections at Great Zimbabwe World Heritage landscape that included potsherds, beads and dagga structures that play asignificant role in interpretation of Great Zimbabwe. Management at Great Zimbabwe has become very complex and is guided by a number of policies that act to ensure that there are sustainable practices at the site which confirms that in-situ surface collections are an important aspect in the reconstructions of the archaeological record. However in as much as there are guiding policies and protocol in the management of in-situ surface collections NMMZ is failing to be assertive in implementing the policies and protocols in managing in-situ surface collections at the site in the context of some developments at the site. Therefore this has greatly compromised the concept sustainable management to be achieved at the site which entails that there should be a balance between use, development and protection of archaeological resources at a site. This has resulted in a negative impact on the management of both in-situ surface collections and sub-surface collections such as in the fireguard trails at the site and this has a bearing on the authenticity and integrity of current and future archaeological researches at the site in this area considering that archaeology is hinged upon context in which material culture is found and alterations to it affects the effective interpretation of the archaeological record.

5.7. Future prospects

There is need for future research on the effects of soil type, quality and vegetation cover, on the preservation of in-situ material culture in heritage sites. Material culture is not only affected by development processes but also by natural factors that need to be fully appreciated and understood to achieve a holistic management for in-situ archaeological deposits.

REFERENCE LIST

Archaeology words smith. (2017). *Surface Archaeology.* https://archaeologywordsmith.com/lookup.php?terms=archaeology.[Accessed 27 September 2017].

Beach, D. (1998). "*Cognitive Archaeology and Imaginary History at Great Zimbabwe". Current Anthropology*. **39**: 47. doi:10.1086/204698 .

Bent, J. T. (1892). *The ruined cities of Mashonaland*. London: Routledge.

Bent, J.T. (1896). *The ruined cities of Mashonaland: Being a record of excavation and exploration in1891*. London: Longmans Green.

Bent, T. (1892). *The ruined cities of Mashonaland*. Bulawayo: Books of Rhodesia.

Berstein, S. (2012). *The compromise of liberal Environmentalism Columbia international affairs*. Columbia: Columbia University press.

Bisson, M. (2015). *Lost ancient civilization of Great Zimbabwe*. Documentary. Discovery channel.

Caple. C. (2006). *Objects: Reluctant witnesses to the past*. London: Routledge.

Caton-Thompson, G. (1931). *The Zimbabwe Culture: Ruins and reactions*. Oxford: Clarendon.

Chirikure, et al. (2016). *The production, distribution and consumption of metals and alloys at Great Zimbabwe*. Archaeometry DOI:10.1111/arcm.12248.

Cliffnotes (2016). *Material and non-material culture*, Houghton. https://www.cliffsnotes.com/study-guides/sociology/culture-and-societies/material-and-nonmaterial-culture.

Cliffnotes (2016). *Material and non-material culture*. Houghton. www.cliffnotes.com/study-guides/sociology/culture-and societies/material-and-nonmaterial-culture. Accessed [15 September 2017].

Coe, W. R. (1988). Tikal: Guía de lasAntiguasRuinas Mayas [Tikal: Guide to the Ancient Maya Ruins]. *Guatemala: Piedra Santa. ISBN 84-8377-246-9. OCLC 21460472*.

Cohan, J.A. (2004). *An examination of archaeological ethics and the repatriation movement respecting cultural property* (part one.

Collet, D. (1998). *The master plan for conservation and resource development of the archaeological heritage*. Harare: NMMZ.

Collet, P. (1988). *A Master Plan for resource conservation and development*. Harare: UNDP and UNESCO Project Zimbabwe.

De Vaus, D. A. (2001) *Research Design in Social Research*. London: SAGE,;

Fontein, J. (2006). *Silence, destruction and closure at Great Zimbabwe: Local narratives of desecration and alienation*. London: Routledge.

Garlake PS (1973). *Great Zimbabwe*. London: Thames & Hudson.

Getty Conservation Institute (2000) *Conserving the In-situ archaeological record*. Paul Getty Trust.http://www.getty.edu/conservation/publications_resources/newsletters/15_1/feature1_5.html.

Great Zimbabwe (11th–15th century) – Thematic Essay" . The Metropolitan Museum of Art. Retrieved 12 January 2009.A. Carandini, Storiedalla terra. Manuale di scavoarcheologico, Torino, Einaudi, 1991.

Gurira, N and Ngulube P. (2015). *Conservation of Architectural Heritage, Using contingency valuation approaches to assess sustainable cultural heritage tourism use and conservation of the outstanding universal values (OUV) at Great Zimbabwe World Heritage Site in Zimbabwe*. Gweru: Midlands State University.

Hall, R.N. and Neal, W.G. (1902). *The ancient ruins of Rhodesia*. London: Methuen.

Harris, E. C. (1989) *Principles of Archaeological Stratigraphy*, 2nd Edition. Academic Press: London and San Diego. ISBN 0-12-326651-3.

Huffman, T. N. (1980).*Ceramics, Classification and Iron Age Entities*. African Studies 29 (2):

Huffman, T.N. (1982) *Archaeology and ethnohistory of the African Iron Age*. Annual Review of Anthropology 11: 133–150.

ICCROM and Ndoro, W. (2005). *The preservation of Great Zimbabwe, Your Monument our shrine.* Rome:ICRROM.

IUCN, (1980). *The World Conservation Strategy, (Geneva: International Union for Conservation of Nature and Natural Resources, United Nations Environment Programme, World Wildlife Fund, WWF is now The Worldwide Fund for Nature, IUCN now the World* Conservation Union - IUCN.

Katsamudanga, et al. (2013). *Zimbabwean archaeology in the post-independence era*. Harare: SAPES Books: 117-142

Key, J. (1997). *Research Design in Occupational Education*. Available at http://www.okstate.edu/. Accessed on 20/09/17.

Klamer, A., Throsby, D. (2000). *"Paying for the Past: the Economics of Cultural Heritage," World Culture Report*: New York: UNESCO, pp. 130–45.

Lavrakas, P.J. (2008) *Survey research methods*, Sage. http://dx.doi.org/10.4135/9781412963947.n571

Lawrence, S. (1998). *The role of material culture in Australian Archaeology*: Australian society for historical archaeology.

Lipe, W. (2012). *Conserving the in-situ archaeological record*..http://www.getty.edu/conservation/publications_resources/newsletters/15_1/feature1_5.html.

Mckenna, A. and Britannica (2010). *The History of Southern Africa*. Britannica Education Publishing.

Michael, et al. (2004).*Social sciences researchmethods: Sage.*

http://dx.doi.org/10.4135/9781412950589.n774

Miller, D. (1987*). Material Culture and Mass Consumption*. Oxford: Basil Blackwell.

Mugandani, R. et al. (2012). *Reclassification of agro-ecological regions of Zimbabwe in conformity with climate variability and change*. Harare: African crop science society.

Mukwende,T. (2016). *An archaeological study of the Zimbabwe culture capital of Khami, south western Zimbabwe*. Cape Town: University of Cape Town.

Ndoro, W. (2001). *Your monument our shrine: The preservation of Great Zimbabwe*. Uppsala University.

Ndoro, W. (2005). *The preservation of Great Zimbabwe: your monument, our shrine*. Rome: ICCROM.

Patrik, L.E. (1985). *Is there and archaeological record? Advances in archaeological method theory*. 8:27-62 Jstor 20170186.

Pikirayi, I. (2001). *The Zimbabwe Culture: origins and decline in Southern Zambesian states in Southern Africa*. Walnut Creek: Altamira Press

Pikirayi, I. (2006). *The demise of Great Zimbabwe, AD 1420–1550: an environmental reappraisal. A. Green and R. Leech (eds) Cities in the World, 1500–2000. The Society for Post-Medieval Archaeology Monograph 3, Leeds*, UK: Maney Publishing: 31–47

Randall-MacIver, D. (1906) *Mediaeval Rhodesia*. London: Routledge.

Rathje, W.L. (2001). *Why the Taliban are Destroying Buddhas,* http://www.usatoday.com/news/science/archaeology/2001-03-22-afghan-buddhas.htm

Schlereth, T. (1987) *Material culture: A research guide*. Canada: Archaeological Institute of America.

Schlereth. T. (1985). *Material Culture and Cultural Research. In Culture*: A Research Guide. University of Kansas: Press.

Stenning, S. (2015). *Destroying cultural heritage: more than just material damage*. British council.

Strasser, P. (2002). *"Putting Reform Into Action"—Thirty Years of the World Heritage Convention: How to Reform a Convention without Changing Its Regulations," International Journal of Cultural Property*, 11(02), 215–66. doi: doi:10.1017/S0940739102771427

Summers R, et al. (1961) *Zimbabwe excavations. Occasional Papers of the National Museums of Rhodesia*, 3(23A:), 15–332.

UNCTAD. (1985). *Handbook of International Trade and Development Statistics Supplement* .New York:

UNESCO (2013) *Managing cultural world heritage*. Paris: UNESCO.

William M.K. (2006). Research Methods Knowledge Base. London: SAGE.

Wood, M. (2011). *A glass bead sequence for Southern Africa from the 8th to the 16th century AD.* Research gate.https://www.researchgate.net/publication/274414995.

Consent form

Consent Form

I confirm that I have been informed about the nature of the study and I have had the opportunity to ask questions about the research.

I voluntarily agree to participate in the project.

I understand I can withdraw at any time without giving reasons and without negative consequences.

I, along with the Researcher, agree to sign and date this consent form.

Participant:

_____	_____	_____
Name of Participant	Signature	Date

Researcher:

_____	_____	_____
Name of Researcher	Signature	Date

Appendix 1

INTERVIEW GUIDE

I want to thank you for this opportunity and for sacrificing your time to meet with me today. My name is Dean TinasheChamanga and I'm a final year student at Midlands State University studying towards the attainment of a Bachelor Honors Degree in Archaeology, Cultural Heritage and Museum Studies. In partial fulfilment of the degree requirements lam currently carrying out a research project entitled: ***management of in-situ surface collections at Great Zimbabwe World Heritage Site.***

I would like to interview you about your experiences in the management of in-situ surface collections at Great Zimbabwe. The main objective of this interview is to get insights on the standing guidelines in the management of surface collections and how it has been managed in the face of development processes over the years.

This interview will not take much of your time therefore will you allow me to digitally record the session because I do not want to miss any one word from you and at the same time I cannot write fast enough to get everything on paper.

I will make sure that all the information l will get from you will be treated as confidential and only used for academic purposes and not any other. This means that your interview responses will only be shared within the research members and if necessary l will ensure that any information l include in my report does not identify you as the respondent. Remember you do not have to talk about anything you do not want to since the interview is purely voluntary and you may end it when deem necessary.

Interview questions (GREAT ZIMBABWE EMPLOYEES)

1) What are the standing guidelines for the management of surface collections?
2) Is there any difference in the management of surface collections in actively used spaces and non-actively used spaces?
3) How do you determine the first layer in stratigraphy?
4) What have been the attempts to make impact assessment and rescue archaeology of material culture during infrastructural development or fireguard clearance?
5) Is there any requirements addressed to local hired contractors on what to do in cases where they come across surface collections during fireguard clearance and what sort of equipment are they encouraged to use during the clearance process?
6) How best can we protect valuable material culture found within the site especially in actively used spaces?

APPENDIX 2

Interview questions (LOCAL COMMUNITY)

1) How often have you participated in the fireguard clearance?
2) Before you start clearing the field are you told anything in regards how to clear the fireguards?
3) Is there anything you are encouraged to do in cases you come across surface material culture whilst clearing of fireguards?
4) What sort equipment are you encouraged to use?
5) Are you always monitored during the fireguard clearance process?

APPENDIX 3

FIELD SURVEY DATA SHEET DATE …../…./…….

PHOTO NUMBER	GPS	LOCATION
MATERIAL TYPE	COLOR	OTHER ATRIBUTES
DENSITY		
DESCRIPTION		