DEPARTMENT OF INFORMATION STUDIES, FACULTY

OF SOCIAL SCIENCES,

UNIVERSITY OF GHANA, LEGON, ACCRA

# DOCUMENTATION AND MANAGEMENT OF CULTURAL PROPERTY AT THE ACCRA MUSEUM

BY

DELALI AHIABLE-ADDO

B.A. (HONS)

LEGON

SEPTEMBER, 2003

# DOCUMENTATION AND MANAGEMENT OF CULTURAL PROPERTY AT THE ACCRA MUSEUM

BY

DELALI AHIABLE-ADDO
B.A (HONS)

A DISSERTATION SUBMITTED TO THE DEPARTMENT OF INFORMATION STUDIES, UNIVERSITY OF GHANA, LEGON, IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF ARTS DEGREE (M.A) IN ARCHIVES ADMINISTRATION

LEGON

SEPTEMBER, 2003

## DECLARATION

I hereby declare that except for references to other peoples' work, which I have duly acknowledged. this dissertation is the result of my own research work and that it has neither in part or wholly been presented elsewhere for another masters degree.

Signed _____

CANDIDATE

Date 16 - 10 - 03

Counter signed _____

MR. MUSAH ADAMS

(SUPERVISOR)

Date 16 - 10 - 03

## DEDICATION

This work is dedicated to my loving and supportive parents, the late Dr. Cosmas Hope Ahiable-Addo and Gladys Adzo Ahiable-Addo.

My loving siblings, Edem, Kafui, Awuku, Selim and Mawuli.

Finally to my beloved fiancée, Bernice Adwoa Cooper.

## ACKNOWLEDGEMENT

I am grateful to the Almighty God for giving me the strength and ability to undertake this Master of Arts Degree program and for seeing me through this research work.

I am also greatly indebted to Mr. Harry Akussah, who first suggested the topic and gave me useful material to guide me in the research work.

Immeasurable thanks also goes to MR.MUSAH ADAMS, my supervisor, who through his meticulous supervision and constructive criticisms, trimmed and shaped the work, ensuring that it emerged with a few defects as possible, and in doing this, he had to accommodate the snails' pace at which I moved.

My special thanks also goes to Mr. Victor Mante, the chief curator at The Ghana National Museums for the immense assistance he patiently gave to me during my research.

To Timothy Kopah, my good friend at the University of Ghana, I say thank you for typing the manuscript.

Finally, I take responsibility for any shortcomings, which may be detected in this project work.

## ABSRACT

he range of items which can be regarded as cultural property is vast. Unfortunately day, efforts to preserve or to restore cultural property in museums is unsatisfactory. his calls for the need for guidance as to how best to manage and conserve these ultural artefacts.

his study investigated the documentation, conservation and restoration practices at are carried out at the Ghana National Museum and provides measures which n be employed to ensure the longevity of the cultural properties for exhibition and research work.

survey was conducted and data collected through questionnaires from a random mpled population of 200 artefacts, comprising 17 easel paintings, 22 stone works, wood artefacts, 19 metal works, 18 leather works, 21 wall paintings, 23 archival aterials, 17 Bone and Ivory works, 20 pottery works and 19 textile artefacts.

ie survey was based on examining what quantity of artefacts were in good ndition, bad condition and also the quality of documented and undocumented efacts at the museum.

e results obtained after analysis have established for instance that 66% of the total efacts that were examined were in good condition while 34% were in bad ndition. It was also realised that 57.8 % of the total artefacts were documented us leaving 42.2% undocumented.

far, the main factor militating against effective conservation, documentation and inagement practices at the museum is funding which has resulted in the inability of e museum to acquire laboratory equipment and to train adequate staff to properly anage these cultural properties.

order to efficiently preserve these artefacts, many recommendations have been ade. Amongst these recommendations is to have on the staff of all museums and

services in charge of the protection of monuments, fully trained specialists in

conservation techniques.

TABLE OF CONTENTS

# CHAPTER ONE



## 1.1 INTRODUCTION

The Ghana National Museums and Monuments Board was established in March 1957 when the Monuments and Relics Commission and the Interim Council of the National Museum of the then Gold Coast were merged. Its present governing decree is N.L.C.D 387".

Amedekey (1970), stated that; "in an age when European civilisation is speeding through Africa and is being absorbed into the cultural life of the people, thus, tending to oust so much of the African's own culture, it is essential, if not imperative, for research to be made into African history and culture."

Such research would save the African way of life from dying out completely and would provide a priceless legacy for the present generation to leave behind for their children and for their children's children."

In this sense, culture needs to be considered in general term as the secondary environment which man recognizes over and above the natural, i.e. talking about traditions, societal organisations, believes, values and language. Culture does not involve custom alone; it is when these are seen in connection with beliefs that we realise culture in its true perspective.

However vast or rich a nation's culture may be, it lies dormant and unnoticed until it is discovered, it is thereafter that people start to appreciate and preserve it.

Over the years, a large number of newly independent states have emerged. In many countries also, rapid social and political changes have been taking place. As a result, in

the desire to document and preserve the major elements of their cultural tradition, museums and services concerned with the preservation of cultural property have been given responsibilities that impose a considerable strain on their staffs and resources.



The range of items that can be considered as 'cultural property' is enormous. Previously and unfortunately up to date, diverse efforts to maintain or to restore cultural property sometimes ends in adversity. In many cases, the results, while not enthusing, could be improved upon by the use of up to date techniques and materials. In this line, there is a constant and growing need for guidance as to how best to care for cultural property for which institutions or public services are responsible.

Considering this from technical and administrative points of view, it should be a standard measure that careful documentation is kept of anything done to cultural assets under the headings of protection, repair or restoration. If an item of cultural property is in a good state, all that is required is sufficient maintenance. Cultural property that is stored or exhibited with safety measures against damage can be conserved for many years.

When an item of cultural value is not in good condition, a problem arises concerning the degree to which treatment should be carried out. It becomes important to do only what is required for its survival. But what if such treatment should leave it deformed? To what extent should restoration be undertaken? This should take account of both written records with dates and names of individuals in charge and photographic documentation. In the case of treatment requiring a good deal of work, whether for conservation or in particular restoration where the appearance may be altered, photographs should be taken before, during and after treatment.

Thus in the interest of historic and scientific research all of the changes to which the cultural property has been subjected will be an issue of evidence and this information should be readily accessible.

the desire to document and preserve the major elements of their cultural tradition, museums and services concerned with the preservation of cultural property have been given responsibilities that impose a considerable strain on their staffs and resources.



The range of items that can be considered as 'cultural property' is enormous. Previously and unfortunately up to date, diverse efforts to maintain or to restore cultural property sometimes ends in adversity. In many cases, the results, while not enthusing, could be improved upon by the use of up to date techniques and materials. In this line, there is a constant and growing need for guidance as to how best to care for cultural property for which institutions or public services are responsible.

Considering this from technical and administrative points of view, it should be a standard measure that careful documentation is kept of anything done to cultural assets under the headings of protection, repair or restoration. If an item of cultural property is in a good state, all that is required is sufficient maintenance. Cultural property that is stored or exhibited with safety measures against damage can be conserved for many years.

When an item of cultural value is not in good condition, a problem arises concerning the degree to which treatment should be carried out. It becomes important to do only what is required for its survival. But what if such treatment should leave it deformed? To what extent should restoration be undertaken? This should take account of both written records with dates and names of individuals in charge and photographic documentation. In the case of treatment requiring a good deal of work, whether for conservation or in particular restoration where the appearance may be altered, photographs should be taken before, during and after treatment.

Thus in the interest of historic and scientific research all of the changes to which the cultural property has been subjected will be an issue of evidence and this information should be readily accessible. (UNESCO. 1070)

## 1.2 STATEMENT OF THE PROBLEM



The Ghana National Museum has the duty to primarily exhibit, preserve, conserve, document and to restore artefacts and research material at the same time making them accessible to the general public.

However, the level of management of the museum's holding is so poor that most of the artefacts in the museum do not even have dates or traces of their origin. Their storage and preservation is thus a big problem.

This study intends to find out how management of the museum's holding is being carried out to ensure the safety of the artefacts and to make them accessible and ideal for exhibition.

## 1.3 PURPOSE OF THE STUDY

This study intends to investigate the quality of documentation and conservation level of artefacts of the museum's holdings and to educate researchers and traditional craftsmen on the need to preserve our cultural heritage.

## 1.4 OBJECTIVES OF THE STUDY



The main objectives of this research are;

-To unearth and classify what materials are of cultural value and should be exhibited in the museum.

-To delve into the kinds of damage that occur to cultural property in our tropical condition which hinders them from serving the purpose of posterity and the measures that should be employed for their maintenance.

-To show the various methods of artefact preservation so as to make them withstand internal and external deterioration.

-To bring to light the need to centralize the administration of cultural property under a single ministry.

- The results of the study will also assist researchers who would want to learn about the artefacts and their values as cultural materials in the museum.

## 1.5 SIGNIFICANCE OF THE STUDY

This study is essential to carrying out documentation and management exercises on each and every cultural property that the museum acquires. It is also important to list the authentic and interesting artefacts and to arrange them in some chronological order for easy access for researchers who need information about their originality and authenticity, which is what this research seeks to do.

This study is also significant in that, it brings together all works of cultural value that may be widely spread geographically and making their locations known and a permanent record maintained on them to ensure their physical protection by law.

## 1.6 SCOPE OF THE RESEARCH



It would have been ideal to cover a cross-section of all museum artefacts across the country thus having a larger sample so that the study could be more generalised in the national contest.

However, constraints could not make this possible. Constraints of time, finance and materials also narrowed the choice of region and sample. All these constraints compelled me to limit myself to the National Museum in Accra; thus limiting the population and sample used for the study even though larger numbers increase reliability of information.

## 1.7 METHODOLOGY

The following items were considered when conducting the interview with members of staff of the museum and when examining the artefacts at the museum;

(A) Unstructured verbal interviews with 10 members of staff of the museum, which will include;

-The Director of the Ghana National Museum,

-Three curators or keepers of the artefacts in the museum,

-Three staff members from the documentation department of the museum and

-Three members of staff from the exhibition centre of the museum.

Though the total staff strength of the Institution as at January 2002 was 374, only 10 members were interviewed due to the varied and large nature of the target population. However, the 10 members of staff interviewed, were selected from the core areas of operation of the Ghana National Museum and Monuments Board

(B) 10% of 2000 pieces of artefacts was taken as the sample size, which amounted 200 artefacts.

The 200 pieces of artefacts ranging from presidential items, chieftaincy items, and acquisition from Volta, Ashanti, Northern, Eastern and Central regions of Ghana were examined.



These items are in the form of Leather works, Bone and Ivory, Pottery, Wood works, Archival materials, Metal artefacts, Textile artefacts, Easel paintings, Wall paintings and Stone works.

## ANALYSIS AND PRESENTATION OF DATA

Every information and data that is obtained from the interviews and examinations will be synthesised into a coherent report or explanation by the use of SPSS.

Statistical tables including percentages, frequencies and cross-tabulations will be used to support the findings.

## RECOMMENDATIONS AND CONCLUSSIONS

Recommendation and conclusion of this study will be based on the outcome of the analysis that will be deduced from interviewing staff and examinations of artefacts in the museum.

## 1.10 ORGANISATION OF THE STDUY

The study is aimed at having five chapters.

| | |
|---|---|
| CHAPTER ONE; will include | Introduction to the study |
| | Statement of the problem |
| | Purpose of the study |
| | Objectives of the study |
| | Significance of the study |
| | Scope of the research |
| | Methodology |
| | Analysis and presentation of data |
| | Recommendations and conclusions |
| | References |
| CHAPTER TWO; will form the | Institutional background of Ghana Museums and Monuments Board |
| CHAPTER THREE will comprise | Literature Review |
| CHAPTER FOUR will include | Methodology And Analysis |
| CHAPTER FIVE will comprise | Summary of findings, and Recommendations |

## REFERENCES



Armah, N. , ( 1958 ) History of the Ghana National Museum. Accra: Unpublished manuscript

Amedekey, E.Y. , (1970 ) The Culture of Ghana. Illinois: Northwestern University Press, p ix

Akussah, H. , ( 1993 ) Calendar of Kwame Nkrumah's Papers in Africa.
A Journal of the standing Conference on Library material in Africa.
Brentwood: Pergomon Press: pp 12-13

Coremans, P. , ( 1960 ) Conservation and Restoration. New York: Unesco, pp 21-22

Coremans, P. , ( 1969 ) The Conservation of Cultural Property. New York: Unesco, p 5

Coremans, P. , ( 1965 ) Keeping Records. New York: unesco, pp 12-14

Coremans, P. , (1966 ) Scientific Study, Conservation and Restoration.New York:Unesco, pp 11-13

El - Hadi, H. M, (1982 ) National Trade Information. Geneva: Peldway Press, p 1

# CHAPTER TWO



# INSTITUTIONAL BACKGROUND OF THE GHANA MUSEUMS AND MONUMENTS BOARD

## 2.1 INTRODUCTION

The Ghana Museums and Monuments Board was established under the National Liberation Council Decree (NLCD) 387 of 1969. This was further strengthened by the Executive Instrument (E. I.) 29 of 1973. These instruments made the Ghana Museums and Monuments Board the legal custodian and manager of Ghana's material cultural heritage. The draft review of these legislations as well as restructuring of the Institution are before government for consideration.

## 2.2 COMPOSITION

The Institution comprises two main divisions; the Museum and the Monuments. The museums division is made up of the National Museum, Accra (1957), the Museums of Science and Technology (MST) Accra (1963), the Volta Regional Museum, Ho (1973), the Cape Coast Castle Museum (1974), the Upper East Regional Museum, Bolgatanga (1991) and the Elmina Castle Museum (1997).The Institution also gives technical assistance to the WEB Dug Bois Centre Museum and the Kwame Nkrumah Memorial Park Museum, both in Accra.

The Monuments Division comprises the Forts and Castles, the Asante Traditional Buildings, the ancient Mosques and Palaces of Northern Ghana and some selected Architecture and cultural sites

## 2.3 WORLD HERITAGE LIST



The Forts and Castles and the Asante Traditional Building have been placed on the World Heritage List on account of the unique architecture as well as their universal value to humankind.

The Board in 1999 submitted a tentative list of fourteen of the nation's natural and cultural heritage sites to the World Heritage Committee for listing and final inscription as world heritage properties. Of the number, the Navrongo Old Catholic Cathedral and the Kakum National Park have since January 2000 been listed on the World Heritage List. The Tongo-Tengzuk- Tallensi Settlement may soon be included to give Ghana a total of five World Heritage Properties.

## 2.4 INSTITUTIONAL AFFILIATIONS

The Board is affiliated to the following international bodies; International Council of Monuments (ICOM), Paris, International Council on Monuments and Sites (ICOMOS), Paris, West Africa Museum Programme (WAMP), Dakar, Senegal, Commonwealth Association of Museums (CAM) Calgary, Canada, International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM), Rome, Italy.

## 2.5 STAFF POSITION



The total staff strength of the Institution as at January 2002 is 374 comprising the National Museum/Head Office, Accra ,Central/Western Regional Office, Cape Coast, Museum of Science and Technology, Accra, Volta Regional Museum, Ho, Upper West Region, Wa, Upper East Regional Museum, Bolgatanga, Ashanti Region, Kumasi, Of these figures, there are only 30 mainline professionals, i.e. Curators, Architects, Artists, Historians, Archaeologists, Anthropologists and Ethnographers. 76 are middle level worker while as many as 268 are in the Junior Staff rank. This trend is hampering the growth of the institution and needs urgent attention.

## 2.6 MONUMENTS DIVISION

### 2.6.1 Castles and Forts

Seven out of about forty-two Castles and Forts that dott our coast from Keta in the East to Beyin in the West at the turn of the 19th Century are standing at the moment.

Some of them are fairly strong and in good shape while others need urgent rehabilitation.

The remaining twenty-five are in ruins but are recognised as heritage sites.

Through the support and assistance from the following International Donor Agencies and Institutions, GMMB has been able to conserve and stabilise the Cape Coast and Elmina Castles: United States Agency for International Development (USAID), Midwest Universities Consortium for International Activities (MUCIA), Smithsonian Institution (S.I), Conservation International (C.I), Central Regional Development Commission (CEDECOM) and United Nations Development Project (UNDP).

### 2.6.2 Usher Forts (Documentation Centre)



The World Heritage Centre of Unesco is currently helping the Board to set up a Documentation Centre at the Ussher Fort to serve the West Africa sub-region as part of the Africa 2009 programme.

### 2.6.3 Asante Traditional Buildings

Unesco Through the World Heritage Centre is assisting Ghana Museums and Monuments Board in the form of in-situ training and the restoration of the traditional building in the Asante Region. Six of these were given emergency conservation treatment in 1997. In 1999, the Taa Yaw shrine house was fully restored and has become a major tourism site in Ghana. The Board is pursuing avenues for both external and internal funding for the restoration of the other remaining traditional buildings.

### 2.6.4 Publications

With financial support from Ghana government and the French Embassy, two books on the two World Heritage Properties have been published; the Castles and Forts and the Asante Traditional Buildings. These are on sale to the public.

## 2.7 MUSEUMS

Financial constraint has greatly affected operations in the areas of research, acquisition, documentation, conservation and exhibitions, which form the core of the museum work. Consequently, the Board has largely depended on donation of artefacts from individuals as well as embassies and artists. The Museums have been collaborating with individuals artists, groups and especially the Embassies in mounting exhibitions in the museum galleries.

When funding is secured, the Museums mount exhibition on topical issues.

To ease the above constraints, the Board is considering putting in place a 'FRIENDS OF THE MUSEUMS AND MONUMENTS CLUB' (FOMM), which is hoped would assist to mobilise both internal and external funding for the Institution.



### 2.7.1 Museum of Science and Technology (MST) Building Project

This building is about 80% complete. It was started in 1972 and the current assessment of the remaining work is estimated to cost ¢10.5 billion

### 2.7.2 The National Museum Complex

This building was designed to house a modern museum complex, with galleries, laboratories, libraries offices. However, work on it stopped in 1972, due to lack of funding from government.

### 2.7.3 National Museum Gift Shop

The Swiss Embassy in Accra has sponsored the construction of a gift shop in the gallery to serve visitors. The Embassy again funded the construction of additional place of convenience at the gallery.

## 2.8 GMMB PROPERTIES ON LEASE/ RENT

### 2.8.1 Museum of Science and Technology Land

The peripheral land of the MST is being developed into craft emporia to give interpretative meaning to the work of the Board, enhance tourism and to generate income.

So far, thirty individuals and groups are pre-financing the project. Tenancy agreement is yet to be prepared.

A group of craft sellers and a chop bar operator have also been given temporary space to ply their trade at a fee.

### 2.8.2 Restaurant

The National Museum Canteen has been rented out to Edvy Restaurant limited since 1986 . Due to the refusal of the proprietress to pay her rent regularly, and obey the tenets of the tenancy agreement, management wrote to Edvy Restaurant to quit. After agreeing to leave by 31/12/98, the proprietress has since sent the Institution to court. The case is however still pending.



### 2.8.3 Cape Coast and Elmina Castles

Sections of the Cape Coast and Elmina Castles have been rented out to individuals and organisations, which are operating gift shops and tour services.

### 2.8.4 Fort Good Hope (Senya Bereku)

This fort has also been rented to Kweiba Enterprises, who are using it as a guest house, restaurant and gift shop.

### 2.8.5 Fort St. Antonio (Axim)

Until recently, this fort being used by government agencies as offices. However their departure has really exposed the quantum of decay that has set in. There is an urgent need for the Board and the District Assembly to come together to save this fort from collapse

### 2.8.6 Fort St Sebastian (Shama)

This is currently being used by government Agencies such as the Ministry Of Health, Local Councils, Judiciary and Postal Services as offices and no rent is being paid to the Board.

**2.8.7** Fort Appollonia, Beyin

The Board has signed a five year (renewable) agreement with the chair of Ethnology and Archaeology, University of Pisa, Italy to use Fort Appollonia At Beyin in the Western Region as centre for research into the Nzema Culture. This agreement is due for review next year.

**2.8.9** Budgetary Allocation

The annual budgetary allocations to the Board has for the past years not been commensurate or corresponding with statutory work. Since 1992, there has not been any budgetary allocation for the conservation of any of the monuments and artefacts in the museums.

**2.9.1** Communication and Equipment

The entire institution has only four computers at the Head Office. Unesco has however promised to give two more computers for use at the Documentation Centre at Ussher Fort. The Institution has one broken down photocopier also at the Head Office. The Board has no facsimile facility and even though there is e-mail, it has not been operational for some time now due to non-payment of telephone bills.

Owusu, K., (1999) Institutional History of the Ghana Museums and Monuments Board. Accra: Unpublished manuscript.

## LITERATURE REVIEW

Several authorities in the field of property management have variously defined "documentation".

Perry and Kent (1982) defined documentation as; "The assembling, coding and dissemination of records knowledge, comprehensively treated as an integral procedure utilizing semantics, psychological and mechanical aids, and techniques of reproduction including microfilm and micro facsimile, for giving documentary information maximum accessibility and usability."

This study was intended to review the literature on the collection and documentation of Dr. Nkrumah's personal papers by Akussah (1993), and also seeks to look at the 'Scientific Study, Conservation and Restoration" by Coremans (1965). The review will be centred on general and specific issues as well as deficiencies and extensions in other literatures with respect to this study.

Quite a number of researches have been done on the documentation of very authentic materials. In one of such research or projects, Akussah (1993) in his published article on the personal library of Dr. Kwame Nkrumah, stated that; 'the potential private papers as primary sources for research cannot be overemphasised'. Unlike other archives, private papers can give researchers closer contact with their subjects since such papers frequently reflect natural human prejudices and conditions. According to his research, in 1961, The National Archives of Ghana, in realising the immense value of private papers instituted a special programme to systematically acquire and process papers relating to the Ghanaian president, Dr Kwame Nkrumah from all over the world.

This laudable effort succeeded in enriching the stock of the Archives with Nkrumah's papers from both the USA and Britain. Akussah stated also that; 'in addition to those papers were his books and other documentary materials'. A critical look at his study however, reveals that there is less than enough information on Nkrumah's correspondence with local or traditional friends, colleagues and relatives in the Gold Coast {now Ghana}. Also missing from that collection were papers of the period of his exile in Guinea until his death. The only documentation for the exile period in the National Archives of Ghana is an album of pictures donated by a presidential photographer who followed him into exile.

Akussah (1993) "a selection of Nkrumah's personal correspondence is listed for the period 1956 to 1971". This he said, to a large extent satisfies the yearning absence of records of Nkrumah's life and work during the years of his exile in Guinea.

In 1990, the Documentation Centre of the Institute of African Studies was presented with a series of original correspondence of Kwame Nkrumah with some of his close associates, close friends and relatives in Ghana and covering the period between 1935 and 1948. The very rich collection deals with such areas as finance, business, politics, education, family matters etc. Akussah stated that, what is unique about this collection is that; unlike the reproduced copies of Kwame Nkrumah's papers in the National Archives of Ghana this is original correspondence, which provides all the authentic touches any researcher would appreciate. Again he stated that the research value of the series is further enhanced by the fact that it is complementary to the collection in the National Archives of Ghana, particularly as some of the correspondence is in response to letters, copies of which can be found in the NAG collection. Thus the two collections portray a comprehensive account of the life and work of Nkrumah for the period 1930 to 1948."

From the general analysis of the research on the documentation of papers on Kwame Nkrumah, there is no doubt that the main focus of the documentary exercise is centred on the collection of his personal files, which is of an immense value to scholarship. However, documentation should not be limited only to materials that are meant for the archives a lone. Items of cultural value such as original antique paintings of very famous artists or archaeological remains must also be documented. Based on this idea, a need arises for the documentation and management of cultural Property as this project seeks to do.



Secondly, according to Coremans (1979), The International Institute of Monuments and practically all national organizations have agreed that scientific study must be the basis for all conservation and restoration work. He mentioned however that this does not mean in the least that less importance is attached to the skill, the knowledge, and experience of the craftsmen in charge of repair, consolidation and restoration; it simply means that the ageing of cultural material is basically a scientific problem and that modern science (mainly chemistry and physics) and technology have made available new techniques for exploring the composition, structure and alteration of the cultural materials to be preserved. It also means that the craftsmen of the workshop (having acquired a general understanding of the various ageing processes) must work together with the scientists of the laboratory who in turn should not forget that real knowledge can always be expressed in simple words.

Conservation seems to be an acceptable term for the working unit, which does the theoretical study, and the practical work concerned with preservation of the cultural heritage, whether with respect to archaeological objects, works of art or materials of monuments.

This indicates that the conservation section of the museum should be the technical advisory body of maintenance in general, for example in all problems concerning

lighting, climate and air-conditioning. It should also assist the excavation section by drawing its attention to the consequences of a sudden change of physical environment, as when buried objects are brought into contact with the outside air, and its services can be invaluable in problems of packing and transporting such objects to the museum.



As regards the conservation of objects in museums, it is known but not always fully understood that simple remedies to work against the effect of high humidity can often do more for the preservation of collection than complicated and expensive treatments. Cormans (1979).

There is no doubt that the restoration processes cannot be carried out effectively without knowing about what the material is made of. From Coremans' analysis, it is obvious that his study is based mainly on how to restore culturally valued items for posterity, thus the knowledge of restoration is of immense importance. However, his study did not further include the documentation exercises that must be adopted to ensure easy access of these items in the museum.

The purpose of this study is therefore to suggest possible means of documenting all items, which will come to the museum.

### 3.1.1 THE SIGNIFICANCE OF CULTURAL PROPERTY



Daifuku (1965) defined cultural property as designations that would include all kinds of material objects associated with cultural traditions. This, he said, is gradually coming into common usage.

Cultural property that are often kept by museums are frequently classified in two major categories.

These are;

-Movable works of art such as books manuscripts, other objects of artistic, historic or archaeological origin, including scientific collections.

-Immovable works; which includes monuments of architecture, art or history, archaeological sites, and buildings of historic or artistic interest.

### 3.1.2 VALUES GIVEN TO CULTURAL PROPERTY

Cultural property is very much seen and appreciated by people due to values that are attached to them by individuals. However, Daifuku (1966) stated that the distribution between the categories of cultural property is a relative one as a building or other monuments which is classified as immovable, can in fact be moved , given sufficient reason. He emphasised that attitudes towards objects which come under the term cultural property can differ widely in the sense that something which is considered to be a great value to someone or to a particular age may be considered later as worthless.

Along the same line, one can say that the converse may also occur when objects in common use among one people are considered as valuable varieties by another or by later generations of the original people

Among all known cultures, however, individuals consider some objects or artefacts as being valuable. It is very possible that our early ancestors also had this trait. For example, it is not improbable that some early tool-making hominid might consider a particular flint 'fist-axe' to be superior to others made in the same tradition.



Daifuku(1965) also argued that in later times, a sword could be personalised and named and thought to have special characteristics which set it apart from others. The same fist-axe, he said, during the mediaeval ages in Europe was thought to be a spent thunderbolt. Today the uninitiated may simply pass it by as 'it lies in a gravel bank lost among other pebbles. Looking at Daifuku's point of view, it can be said that any archaeologist who finds that same fist-axe would attach a scientific interest to it because for him, the place where it was found, its probable date, its associations with other artefacts would be important clues to the understanding of early cultures.

Thereafter, it can be placed in a storage collection or on exhibition as an example of an artefact made in a given tradition.

Most people would perhaps give it only a cursory glance but some may examine it more intently gain an appreciation of the relatively immense span of time separating the cultures of early hominids from the present. The existence of this simple artefact and its distribution in time and in space may be the only information available. It will not reveal anything about the social organization, the language or very much about the non-material cultures of the species of man responsible for the traditions which led to its manufacture. Daifuku (1965) also stresses that in contrast, there is a vast amount of information available about many different cultures in the historic past and those that are still alive today because books, archival records, collections held privately or in institutions, sites and monuments held in public domain present, at first sight, an almost overwhelming amount of information.

### 3.1.3 THE PROBLEM OF CHOICE



Artefacts or materials that are kept by museums must be clearly stated. Daifuku (1965) in a study he conducted regarding terms considered as cultural value stated that "it is obviously neither possible nor desirable to preserve all the elements of the past". He stressed on this based on the fact that modern technology in terms of increased production, better health measures, education, etc., had contributed to higher standards of living. This assumption indicates that in their desire to attain these goals, people often speak of the "dead weight of the past", or in seeking to accumulate the fruits of industrialization, they deliberately or unthinkingly destroy much of what is valuable of old traditions.

What should be preserved therefore becomes at least one example of each type of object. For natural history museums, particularly those dealing with the smaller species, this would mean acquiring the most complete collection of type specimens (taxonomy) possible, and the fullest data on their distribution and relationship with their environment.

Daifuku's findings indicate that it is equally justified for scientific purposes to have not only a collection of type specimens but also, in specialized areas of research, of the variations to be found within a given species. Daifuku (1965) also stated that "Ethnographic and art museums may also have such complementary goals", but for larger items, particularly those classified as immovable, it would be impractical even to attempt to attain them.

It can be realised from Daifuku's discussion that the first decision then concerns the problem of choice, a comparatively simple matter in the case of natural history and ethnographic collections. In respect of immovable which usually take up a good

deal of space and entail large budgets for protection and maintenance the problem is much more difficult in countries having a system for the classification of monuments and buildings, outstanding examples are probably already protected by law. Daifuku (1965).



### 3.1.4 LEGISLATION

With regards to documentation and management of cultural property, legislation is very significant. It is required to protect all cultural property, and the establishment of national museums for the collection, preservation and exhibition of movables is one important step. These museums must also have staff and adequate budget to ensure that they accomplish their purpose of preserving objects and carry out their programmes of research, publication, and exhibition.

Daifuku (1965) stated that "immovable cultural properties also need to be protected by legislation"; and that "economic and social factors have frequently been responsible for short sighted measures which have led to the destruction of buildings and the obliteration of sites, in the name of progress". In view of Daifuku's statements, it is possible however to state that neglect which can also lead to destruction, and vandalism, whether careless or deliberate, is a further danger.

According to Unesco's report (1968), many countries have enacted legislation for the protection of important sites and monuments and, in some cases, small communities characterised by a unique architectural style or historic quarters within a city are given the same protection. The report added that many successful examples of legislation also contain clauses which call for the repair of and destruction or impose punitive fines for the theft or destruction of cultural property.

Zoning laws protecting a historic quarter usually mean that while a building may be removable and facilities modernized, its character and that of its neighbours of historical value must not be destroyed. In addition, the state may assist the owner indirectly though tax exemption, directly by underwriting part of the costs involved, or by supplying technical advice. (Unesco,1968).



### 3.1.5 KEEPING RECORDS

Carrying out documentation exercises as an act of managing information about culturally valued items cannot be left out when it comes to record keeping.

Plenderleith (1965) found out that in particular, where reconstruction is called for, photographs should be taken during the progress of the work. He again stated that "when the person in charge has at hand the services of laboratories and a wide range of other specialists to consult, he need no longer bear the sole responsibility of determining the course of treatment to be followed. Thus, the suggestions and comments made concerning a problem arising in connection with a rare or important item should be retained in the dossier of the object in question. Information regarding the different phases of conservation, restructuring or repair must however be readily available.

Plenderleith mentioned further that many national services may also have bulletins or other publication in which articles can be published describing the work done. For important items it may be possible to have the article published in specialized national or international periodicals which have a wide distribution.

### 3.1.6 CONSERVATION AND THE PUBLIC



Nature's threat to cultural property, the effects of weathering, vegetation growth and insects are part of the endless cycle of tearing down and building up found on earth. The report stated also that "less constant but equally harmful are earthquakes, hurricanes, floods and volcanic eruptions". But it can be observed that however serious nature's threat may be, they pale into insignificance beside the destruction caused or provoked by man himself. (Unesco,1965)

War, vandalism, the very growth of human civilization, involving as it does the building of dams, highways, airports, pipelines and the accompanying urban renewal programmes, can and usually do affect cultural property adversely. Daifuku (1965) mentioned that any threat to cultural property from similar factors as stated by Unesco (1965), report is enormous and few national or governmental services and institutions have sufficient resources to carry out conservation programmes on their own. He stated further that "public interest and support are thus indispensable for the success of any programme, and in order to attract support, educational programmes, either through direct methods through participation in conservation activities, have proved to be among the most effective means.

Publicity in the form of articles in newspapers and radio or television programmes is also a means of attracting public support and is possibly the most efficient means of combating vandalism. Museums which have well-organized exhibition programmes and other public services and monuments and sites which are well preserved are important tourist attractions and economically they justify the expense involved in preservation work.

### 3.1.7 CONSERVATION AND RESTORATION



Adequate maintenance of cultural property preserves it for posterity. Plenderleith, (1965) remarked that in Japan, the Golden Hall (Kondo), the pogoda, a roofed gallery and the gate of the monastery of Horyuji, have lasted for more than 1,200years. He said the monastery was founded in A.D. 607 by the Empress Suiko (according to some documents it was destroyed by fire in 670 and rebuilt in 780, but most of the original stationary is said to have been saved) and the Kondo is today perhaps one of two buildings in the T'ang style still extant, and is probably the oldest wooden building in the world.

Boustead (1965) has remarked that: 'it is far from easy to trace a broad outline of the history of restoration without referring to the very earliest stages'.
Coremans ( 1965 ) also mentioned that in the past, craftsmen or restorers worked alone in their private workshops. He said they applied their art, and discovered new methods of conservation and restoration.

Various forms of aesthetic surgery were also applied to damaged works of art and it will give a work of art a pleasant appearance even if such a surgery greatly accelerated its deterioration.

Many researchers have carried out, various degrees of restoration measures on materials or items which have historical importance. Coremans (1965) mentioned that the example set by Violet-le-Duc (1814-79) was responsible for much of the early interest in the restoration of historic monuments. He mentioned further that "the degree to which Violet-le-Duc carried out restoration (including the insertion of structural elements which may have existed in original plans, but which were certainly not part of the historic structure)

provoked a reaction against restoration in favour of the stabilization of sites and monuments.



Similar differences in practice can however be cited in the case of movables. For instance a pot recovered in an excavation was once restored to the point where only detailed examination would show which areas were original and which restored. In deed it was not uncommon for skilled restorers to combine direct pieces of pots or sculptures into a composite, thus producing a spurious object. In reaction, for a certain period, pots or statuary were repaired in such a way as to make the restored section strikingly apparent.

Unesco (1965) compiled a few examples of such restored works (e.g. sections in white plaster on a polychrome pot). It stated that such a practice was also followed in the restoration of buildings. With time, however, a middle course is being followed for the most part. Printings, for example, are longer restored to the degree mentioned by Coremans. On the other hand, they are no longer left covered with old darkened varnish which obscures the work of art in a manner not conceived of by the artist. In a pot, the restored sections are now tinted so that they do not offer a glaring contrast to the original. However, even on superficial examination, it will be clear to the viewer where the original ceases and where the restoration was carried out.

### 3.1.8 STAFF

Muller-Beck (1960) mentioned "staffing" as a very sensitive issue when dealing with conservation. He stated that "in all institutions involved in the conservation of cultural property, an adequate and trained staff is a prerequisite for a successful programme". He argued also that lack of technical knowledge and the use of out-dated methods can frequently do more harm than good. Indeed, some of the conservation

measures used at the turn of the century have led to greater damage to cultural property than would have occurred had such property been left alone and simply sheltered.



Muller-Beck, further argued that, even for trained staff, means should be found to maintain contacts and exchange views with colleagues abroad so as to keep abreast of the latest developments.

Among some suggestions he made regarding training of staff is that intellectual isolation is no excuse today when so many means exist for the interchange of information. Muller cited the International Centre for the Preservation and Restoration of Cultural Property ('Rome Centre') as one. Others include various international non-governmental organizations such as ICOM (International Institute of Conservation), etc.

One of the most effective means of managing cultural property is by placing the administration under a single ministry. This was mentioned in a Unesco report (1960), it stated that "The administration of cultural property is centralised in many countries under a single ministry. In others, separate services are responsible for movable cultural property (primary museum collection, but also rare book libraries, depositories, etc.)" The report stated for historical reasons, in some countries, several independent administrations may be in charge of different aspects of conservation, preservation or restoration of cultural property, and there is sometimes little co-ordination or co-operation among them.

It discussed further that in pursuit of common goals, however, some sort of co-ordination is advisable and various solutions have been adopted, including, in some cases, the establishment of a commission or advisory body to the minister, on which the directors of the institutions or services are represented. Indeed, "The sharing of some

services, such as laboratories for conservation, can lead to significant economies in equipment and staff. Whatever the service, in all countries, the recruitment of adequate staff presents problems. Trained architects, for example, can usually earn a great deal more in private practice than in government employment". Daifuku (1960).



Coremans (1965) pointed out that the problem of recruiting qualified staff in most of the countries undergoing rapid development in the tropics is a severe one; a chemist or a physicist (preferably having a Ph. D or a D. Sc) may be sought as the head of a central conservation laboratory, but it is highly probable that he would be eligible for a better-paid job with commercial firms.

He then suggested the creation of a central national laboratory serving both monuments and museums, thus building up a sufficiently large and important institution to justify upgrading such posts to competitive levels.

### 3.1.9 MANAGEMENT PRINCIPLES OF CULTURAL PROPERTY

Conserving and managing cultural property require a broad knowledge of materials and of how these are affected by the various environmental factors that individually, or in consort, tend to bring about their destruction.

Plenderleith (1966) has stated that chemistry and physics, engineering and the study of architecture, sympathetic appreciation of artistic and archaeological values all come into play. According to him, such considerations form an essential background, however, today, it is seldom essential to invoke the pure sciences in the task of conserving cultural property. Accordingly, he mentioned that this has already been done thoroughly and in large measure in the museum laboratories and by architects throughout the world and as a result, a special new form of applied science has come into existence.

techniques have been perfected to cover most requirements and a very worthy profession has developed out of all this, securely based as a matter of course on science and offering the services of personnel trained in conservation and to a degree determined by their knowledge, skill and experience.



Beyond this, the main characteristic of a professional restorer is his integrity, that is his, honesty of purpose in aiming to conserve all that is authentic without introducing materials or using processes that might in future lead to possible confusion with the genuine work of art or antiquity with which he is mainly concerned. "New ground has been opened up by Unesco in extending conservation to meet the requirements of tropical countries. (Daifuku, 1963)

A basic requirement in planning for the conservation of cultural property in all standards is that full information should be available regarding the works to be preserved.

Mora (1968) mentioned that drawing up a systematic inventory, which will serve, as a basis for recording their location and relative importance, their condition and the degree of urgency regarding any preservation treatment that may be required is very necessary. He also stated further that it is after this step that it can be deduced whether, in any given cases, it is safe to leave an item to be protected in some other form or to transfer it to a museum or gallery.

Apart from considerations of physical structure, there are also the risks to which murals may be exposed by casual visitors who use abandoned structures for shelter and causing damage by lighting fires or even by scratching graffiti on walls.

Photographers have also been known to wet paintings to make them more apparent, often with disastrous results.

When drawing up an inventory it will be seen that certain works require special attention. A primary documentation must however be assembled, including photographs and perhaps even micro-samples taken for laboratory testing.



### 3.1.10 INDOOR MANAGEMENT OF CULTURAL PROPERTY

The preservation of archaeological and artistic treasures indoors – as in many museum buildings must be studied in relation to the confined microclimate produced by the surrounding walls, roofs, vaults or showcases.

The damaging effect of climate is of course less to be feared indoors, particularly in regions of moderate or cold climate where the exhibition rooms and storage spaces of museum buildings are almost completely isolated from the outside air.

Coremans (1966) stated that since atmospheric stability is the most important factor in conservation, indoor museums conditions are obviously much safer that the continuous exposure to which most ancient sites are subject. He further mentioned that in regions nearer the tropics and the equator, it is common practice to build museums with less effective insulating materials, the consequence often being that the purity and the air inside the museum scarcely differ from the outside atmospheric conditions and also because tropical climates normally have high temperatures and relative humidity, chemical, physical and biological disintegration is to be feared more and taken seriously into consideration.

### 3.1.11 INVENTORY AND CATALOGUING

Satisfactory conservation requires the organization of a section responsible for establishing an inventory or catalogue of the cultural property contained within the site and of the natural features which give it character. This must be prepared not only for purposes of specialized study and in order to furnish exact information to those who may be interested, but also in order to safeguard the material and provide documentation of the ensemble.



De Andrade (1970) stated clearly that the inventory should be an organised collection of documents, aimed at assembling all the available records relating to the area under protection. He mentioned again that, of particular interest are topographical plans indicating the general configuration of the cultural property or cultural item.

In addition, he said, photographic records should be kept of the items accompanied by their more valuable contents.

Andre, also mentioned that buildings classified as public and religious monuments must be very carefully inventoried separately (altars, decorated ceilings, murals, etc.). According to him, the documentation should be such, in its detail coverage, as to provide not only a sound basis for the task of conservation, but a complete record from which an exact reconstruction of the whole site could be made if it should be destroyed by some catastrophe.

### 3.1.12 CLIMATE AND THE DETERIORATION OF CULTURAL PROPERTY



Copper and bronze objects that had been kept for many centuries in a cave with an even, non-corrosive atmosphere have been found without a real corrosion layer. Coremans (1966).

Old paintings that have always remained in the same collection and have never travelled are often preserved without the characteristic cracks. Archaeological remains can be in an excellent state when extracted from the soil where the physical conditions are ruined forever after a few minutes' contact with the air.

Coremans (1966) stated that it is universally agreed that the best way of preserving cultural objects is to air-condition the museum room, thus maintaining around them conditions of constant temperature and humidity with an acceptable degree of atmospheric purity. He continued to say that all this stresses the importance of climate, to be considered as the main factor affecting the decay or preservation of cultural property; and that its effect is ever more marked in the tropical zone than at higher latitudes.

According to Coremans (1966) the general influence of temperature, humidity and impurities in the air are very destructive climatic agents that affect cultural property whether exposed to the atmosphere or in the enclosed premises of museums, collections, or other buildings.

### 3.1.13 CENTRAL ADMINISTRATION

Coremans (1965) stated "the greatest difficult of setting up a central administration is to find a suitable leader of high standing, qualifications and experience to carry out the very complex responsibility of running a working concern depending for its efficiency on the co-operation of specialists in widely different fields, such as archaeologists and art

historians, physicist and chemists, architects and engineers, and technicians in excavation, conservation and photography".



An independent annual budget is a necessity. It is essential that the director of the national service should have the full confidence of the higher administrative authorities and that he should be provided with the financial means to develop his service gradually over a long period of years.

Coremans remarked also that another point that should be considered is that of collaboration, within the national service itself, of civil and religious authorities.

In many countries the situation is such that the government is responsible for the national cultural heritage but this responsibility is not clearly defined for religious buildings – which constitute by far the majority of ancient monuments – whether they are still in use or have long been abandoned. He said, confusion on this point leads to difficulties of all kinds, usually insoluble, and the result is that ancient sites of possibly immense importance are just left as they are.

Furthermore, Coremans suggested that the possible solution is the creation, within the national service of an advisory committee on which both religious and civil authorities at the highest possible level, can meet and review such problems quietly.

This kind of arrangement has produced excellent results in more than one country.

Coremans (1965).

## References



Akussah, H., (1993) Calendar of Kwame Nkrumah's Papers in Africa. Brentwood : Pergomon Press. pp 12,13

Armah, N., (1958) History of the Ghana National Museum. Accra: Unpublished manuscript

Boustead , W . , (1970) Conservation of Easel Paintings. Newcastle: Oxford University Press, pp. 47,48,49

Coremans, P., (1960) Conservation and Restoration. New York: Unesco, pp 21-22

Coremans, P., (1965) Keeping Records. New York: Unesco, pp 12,14, 16, 17

Coremans, P., (1965) The Conservation of Cultural property. New York: New York: Unesco p 5

Coremans, P., (1979) Climate and Microclimate. New York: Unesco, p.30

Daifuku, H., (1960) Preservation of Monuments in the Tropics. New York :Icom, p.15

Daifuku, H., (1963) Typical Equipment furnished by Unesco. Rome: p.6

Daifuku, H. , (1965) The Significance of Cultural Property. Rome: Unesco, pp 19,20

Daifuku, H. , (1966) Conservation and Restoration. Rome: Unesco, p.21

Mora Paolo . , (1968) The Conservation of Wall Paintings. Sydney: Oxford University Press, pp 169, 170

Muller – Beck (1960) Management and Skills in Organisations. London: Oxford University Press. p.16, 31, 47, 48, 49

Perry and Kent, (1982) Inventory and Cataloguing. Chicago: University of Chicago Press, p.7

Plenderleith, H. J., (1965) Practical Advice on Conservation. London :

Oxford University Press, P.16

Plenderleith, H. J. , (1966) Documentation of Artefacts. Rome: Unesco, p.6

U.N , (1960) Cultural Property Endangered by the Public. Rome: Unesco, p.9

U.N , (1968) A Handbook on the Organisation of Museums. Rome: Pergomon Press, p.11

## CHAPTER FOUR

# CHAPTER FOUR



## 4.1 METHODOLOGY AND ANALYSIS

### 4.1.1 INTRODUCTION

A Research approach is determined using the nature by which data of the variables regarding the research were collected and the problems concerning the research.

The word method was derived from the Greek word 'meth', which means after, and 'odos' which means way. A method is therefore 'the following after, or the means by which someone found to be effective in solving a problem'; or 'reaching an objective by getting a job done.' (Leedy 1993)

Methodology is said to be either qualitative or quantitative. When the data is verbal in nature, the methodology is termed qualitative; and quantitative when data regarding the research is numeric.

This study however employed the quantitative method of data collection due to the heterogeneous nature of the materials and also the convenience that it provides.

### 4.1.2 RESEARCH DESIGN

According to Agyedu (1990), a research design is necessary when carrying out an investigation because it concerns the application of findings and evaluating those findings. He stated also that a research design implies the judgement, relevance and efficiency of a process in terms of carefully defined and agreed-upon objectives or values which involves recommendation for action. The questions regarding the

research are usually directed to only a portion of the population, in other words, surveys deal with sample rather than the entire population.



There are two major types of survey that can be conducted during research; cross sectional survey which involves the collection of information at just one point in time from a sample that has been drawn from a predetermined population; and longitudinal survey which deals with data collection at different points in time in order to study changes over time. (Frankel and Wallen, 1993)

With respect to this study, the researcher adopted the cross sectional method with the focus being on artefact management at the Ghana National Museum.

### 4.1.3 POPULATON OF THE STUDY

Population refers to the items or artefacts or people from which information is being sought. According to Alreck and Settle (1985), the selection of a population or respondents for a survey is usually based on two criteria; first and foremost, the respondents must possess the needed information; secondly, they may also need to have certain attributes or characteristics to make their responses meaningful.

In relation to this study, the researcher is dealing with population of the museum artefacts that are on exhibition at the National Museum. In view of the documentation and management practices that the artefacts undergo, it has made it possible for the researcher to obtain useful information for this research.

The artefacts range between easel paintings, stone artefacts, wood artefacts, metal artefacts, leather works, pottery, textile artefacts, archival materials, wall paintings and bone and ivory artefacts.

A stratified sampling was carried out during the investigation. The samples have been categorised into 10 units with each unit appearing in one stratum.

POPULATON SIZE



| NO. OF ITEMS | NO. OF ITEMS IN GOOD CONDI-TION | % OF ITEMS IN GOOD CONDI-TION | NO. OF ITEMS IN BAD CONDI-TION | % OF ITEMS IN BAD CONDI-TION | NO. OF ITEMS DOCUMEN-TED | % OF ITEMS DOCUMEN-TED | NO OF UNDOCUMEN-TED ITEMS | % OF UNDOCUMENTED ITEMS |
|---|---|---|---|---|---|---|---|---|
| 17 | 12 | 70 | 5 | 30 | 10 | 58 | 7 | 42 |
| 22 | 15 | 68 | 7 | 32 | 10 | 45 | 12 | 55 |
| 24 | 14 | 58 | 10 | 42 | 14 | 58 | 10 | 42 |
| 19 | 13 | 68 | 6 | 32 | 12 | 63 | 7 | 37 |
| 18 | 12 | 66 | 6 | 34 | 11 | 61 | 7 | 39 |
| 21 | 16 | 76 | 5 | 24 | 15 | 71 | 6 | 29 |
| 23 | 17 | 73 | 6 | 27 | 15 | 65 | 8 | 35 |
| 17 | 11 | 64 | 6 | 36 | 12 | 70 | 5 | 30 |
| 20 | 13 | 65 | 7 | 35 | 7 | 35 | 13 | 65 |
| 19 | 10 | 52 | 9 | 48 | 10 | 52 | 9 | 48 |
| 200 | 133 | 66' | 67 | 34% | 116 | 57 6% | 84 | 42 2% |

Two hundred copies of designed questionnaires were issued in all. Each artefact was assigned a questionnaire.



Every single artefact was examined and observed by the researcher to find out how many works were damaged and also the number of artefacts, which had been documented.

### 4.1.5 SAMPLING DESIGN

Sampling simply means 'taking part of some population to represent the whole population'. (Alreck and Settle, 1985)

Alternative to sampling is the counting of the entire population. This alternative can be very tedious and expensive, the major reason for sampling is to economise resources. In other words, sampling reduces expenses in terms of time, money and personnel. It is not very necessary to examine every single item in a large population when only a small fraction of that population can provide sufficient representation of the group and enough accurate information upon which one can make confident conclusions. (Alreck and Settle, 1985).

In view of this, the researcher selected 200 artefacts, which is 10% of the entire population of 2000 artefacts.

In addition to these, an unstructured verbal interview was conducted with 10 members of staff of the museum.

### 4.1.6 INSTRUMENT AND MODE OF DATA COLLECTION

The survey research is noted for the use of questionnaires and interviews; the two most common types of instruments for data collection.

The researcher employed the questionnaire method to obtain information about the documentation and management practices of the artefacts.

Data collection requires contact with respondents and this can be accomplished by administering the survey instrument to respondents by mail, telephone, or through face-to-face interviews. (Frankel and Wallen, 1993).



The fundamental difference among these modes of data collection is based on the intensity of contact between the researcher and the respondents (Alreck and Settle,1985).

The questionnaire was primarily used to collect the necessary data for the study. Since it was designed based on the aims and objectives of the study, it is hoped that the questionnaire would best help to obtain the necessary information fro the research.

For other necessary information, which could not be captured on the questionnaire, the interview schedule helped catered for that. Some information were either sensitive or required an extensive explanation and an in-depth knowledge in this regard. The researcher therefore used the interview method in addition to the questionnaire in order to obtain a complete data or information for the study. The advantage of the interview method, according to Fraenkel and Wallen (2000), is that the interviewer can clarify any questions that are obscure and can also ask the respondent to expand on answers that are particularly important or revealing. Even though the interview method is criticized for taking much longer time than the use of questionnaire and also the presence of the researcher may inhibit the respondent from saying what they really think. This is why the researcher used both the interview and the questionnaire method to cater for such situations.

A face-to-face personal interview method was also carried out by the researcher to obtain information from 10 members of staff of the museum. They are made up of;

The director of the Ghana National Museum,

3 curators of the museum,

3 members of staff from the documentation centre of the museum, and

3 members of staff from the exhibition centre of the museum.

This was done by the researcher to ascertain and to justify the existing problems being faced by the museum.



### 4.1.7 ADMINISTERING OF QUESTIONNAIRE

According to Kumekpor (1991), a questionnaire as the name implies is a document containing a particular theme, problem, issue or opinion to be investigated. He stated further that the questions asked usually intends to be answered by a specific group or individual deemed to be knowledgeable about answers regarding the questionnaire.

The questionnaire designed for this study however contains questions meant to assess the general storage, management and documentation conditions of museum artefacts in the custody of the Ghana National Museums and Monuments Board.

The researcher used a questionnaire to serve as a guide in investigating the artefacts and to solicit more information as a follow up of the interviews he had already conducted.

### 4.1.8 PROBLEMS ENCOUNTED AND RESPONSE RATE

The response rate to answering of the questionnaires was very high even though the director of the museum was almost all the time on a national assignment and so could not make time to go through the questionnaire.

The researcher was helped in diverse ways during the observation and investigations that were carried out on the conditions of the artefacts. However, it was realised that not all the questions could be answered readily. The curators advised the researcher to look out for damaged items and documented items only, rather than asking

questions which demanded chemical testing for which they fall short of in terms of equipment needed for the testing.

## 4.2 ANALYSIS



All the information and results that the researcher obtained from the observation carried out on the conditions of the artefacts including checking for documentation have been analysed. Results obtained from each category of artefact has been described as it appears in the table.

### 4.2.1 Easel Paintings

During careful examination of easel paintings, it was observed that 12 out of a total of 17 works were in good condition. This means that 70% of the paintings were in good condition for exhibition. Five were however found to be in bad state and this represents 30% of easel paintings which were in bad state.

The researcher observed that they were placed in damp, dark, unventilated basements or cellars, where conditions are ideal for mould growth. They were also found to be stacked one against the other thus causing the damages.

### 4.2.2 Documentation of easel paintings

It was also observed that 10 out of the easel paintings were documented. This represents 58% of easel paintings that were documented. Seven were undocumented and this represents 42%.

### 4.2.3 Stone Works

Twenty-two stone artefacts were carefully observed. 15 of them representing 68% were found to be free from cracks, free from dust layers and free from disfiguration. Their aesthetic values were still visible and they were ideal for exhibition.

Seven however were found to be in bad condition. They had visible cracks, some of them were disfigured and had thick layers of dust all over them. The 7 constitutes 32% of all the stone works which were in bad condition.


### 4.2.4 Documentation of stone works

Ten of the artefacts were found to be documental and this represents 45% of the total whilst 12 were undocumented. The 12 represents 55% of undocumented artefacts.

### 4.2.5 Wood artefacts

Out of the 24 wooden artefacts which were observed, 14 were found to be physically strong. There were no signs of shrinkage and discolouration. They had no broken parts and were ideal for exhibition. The 14 artefacts constitutes 58%.

However, 10 out of the 24 wood works were found to be in bad condition as a result of uncontrolled atmospheric conditions. It was observed that the 10 artefacts had suffered major damages due to action of fungi or insect attacks. Most of them had also lost adhesives used in joining their parts together. The 10 bad ones constitute 42% of the total.

### 4.2.6 Documentation of wooden artefacts

It was found out that 14, which represents 58% of wood artefacts were documented while 10, which forms 48% were left undocumented.

### 4.2.7 Metal works



Nineteen metal works were observed to check for damages. 13 which represents 68% were found to be in good condition. They had no signs of corrosion from moisture, disfiguration or dents.

Six of them were found to be either disfigured or corroded. Some had become tarnished on exposure to air due to the actions of oxygen and other gaseous sulphur compounds. Theses damaged metal artefacts represent 32%.

### 4.2.8 Documentation of metal artefacts

In terms of documentation, 12 of the artefacts were documented and this represents 63% of the total. 7 were undocumented thus representing 37%.

### 4.2.9 Leather artefacts

A total of 18 leather artefacts were observed critically. It was found out that 12 of them were in perfectly good condition for exhibition. The 12 good leather works represents 66%.

Six were however found to be in deteriorating state, and were not ideal for exhibition. They were physically damaged coupled with mould growth and dirt whiles the rest have been attacked by insects. The 6 bad artefacts represent 34% of the total.

### 4.2.10 Documentation of leather artefacts

Eleven of the 18 works which were exhibited had been documented and this represents 61%. The 7 which were undocumented represents 39%.

### 4.2.11 Wall Paintings



Among the 21 wall paintings which were observed, 16 of them were found to be free from dust, fungi or mould growth. Their colour was still original and they were strong and ideal for exhibition. The 16 represents 76%.

Five out of the 21 were in bad condition. The paintings were faded, they had lost their brightness and they were placed in dump areas. There was also visible signs of mould and fungi growth. The 5 constitute 24% of wall paintings which were found to be in bad condition.

### 4.2.12 Documentation of wall paintings

Fifteen out of the 21 wall paintings were found to be documented and this represents 71%. Six were however undocumented thus representing 29%.

### 4.2.13 Bone and Ivory

Thorough observation was carried out on 17 bone and ivory artefacts. 11 were found to have maintained their original shapes. There were no signs of shrinkages or stains on them. They were kept under controlled temperature and humidity and in enclosed cases. The 11 forms 64% of bone and ivory works that were found to be in good condition.

Six however were observed to be in bad state. They were placed under uncontrolled humidity and temperature. They had stain and dust all over them. The 6 constitute 36% of bone and ivory works that were not ideal for exhibition.

**4.2.14** Documentation of bone and ivory artefacts

Twelve of the works were documented thus constituting 70% of the total items, 5(30%) were left undocumented.

**4.2.15** Pottery artefacts

Out of 20 pottery artefacts that were observed carefully it was realised that 13 of those works were in good condition. They had no cracks or holes on them.

However 7 out of the 20 were found to be in very bad state. At least each of the 7 works had holes or cracks in them. Analysis show that the 13 represents 65% of artefacts that were in good condition leaving 35% in very bad condition.

**4.2.16** Documentation of pottery artefacts

Only 7 of the 20 pottery works were documented. The 7 documented works represent 42%. Dates or origin of the rest of the 13 could not be traced. This forms 58% of undocumented pottery materials.

**4.2.17** Textile artefacts

From the observation, it was realised that out of 19 textile artefacts, which were critically examined, 10 of them had no effect of light or decay. They did not show any signs of insect attack as well. The 10 artefacts represents 52% of textile works which were in good condition.

However, 9 of the artefacts which represents 48% were found to have been attacked by insects and exposed to too much light. Others were placed in dump areas and were therefore destroyed by moisture. Most of them were eaten up by insects.

4.2.18 Documentation of artefacts

It was also observed that 10 out of the 19 artefacts made in textiles were documented.



This 10 artefacts represent 52%. 9 were left undocumented, representing 48%.

**4.2.19** Archival materials

Out of 23 archival materials which were examined, 17 were found to be free from tear, decay, stain, insect and fungal attacks. This figure represents 73% of archival materials which were found to be in good condition.

Six of the materials which forms 27% of items, were however found to have been attacked by insects and stains.

**4.2.20** Documentation of archival materials.

Fifteen items were found to have been documented, thus comprising 65% of documented archival materials. Eight which forms 35% were found to be undocumented.

# REFERENCES



Agyedu, B . , (1990) Social Research in Rural Communities. Accra: Ghana Universities Press, p.37

Alreck and Settle (1985) The Survey Research Handbook. Illinois, Irwin, p.21

Frankeland Wallen (1993) Stages in Research Designing. New York: Macmillan. p.46

Kumekpor, D . , (1991) Theory and Research. Accra: Africa Christian Press. p.14

Leedy, P. D . , (1993) Practical Research Planning and Designing. New York: Macmillan, p.17

# CHAPTER FIVE



## 5.1 SUMMARY AND RECOMMENDATIONS

This study had several objectives to achieve. The findings of the research have shown that in the bid to unearth and classify the kinds of material that should be regarded as having cultural values, the researcher was able to identify only ten artefacts made up of easel paintings, stone works, wood works, metal works, leather artefacts, wall paintings, archival materials, bone and ivory works, pottery and textile artefacts. The limited time could not permit further investigations to be made to unearth several others which are believed to be in existence. This defect can however be improved upon in future studies.

In conducting this study, the researcher identified so many factors which cause severe damage to the cultural properties which are kept in the museum for exhibitions. The findings of this study have shown that out of 200 artefacts, 133 (66%) were found to be in good condition. This left 67 (34%) in very bad state.

As one of the main objectives of this research, the researcher has outlined several measures that should be employed in order to maintain them well for posterity.

Another important objective which this study intended to meet was to educate curators of museums on effective methods of artefact preservation which would enable the museum pieces to withstand internal and external deterioration.

To achieve this goal, the researcher has discussed in detail all the possible professional preservation techniques which the artefacts must undergo for them to stand high temperatures without being deteriorated.

Centralisation of the administration of cultural property was also one of the aims of this research. This measure needs to be carried out to allow for an independent annual budget to be allocated for the management of the artefacts. It will also increase effectiveness in terms of establishment of an inventory of the cultural heritage. This inventory should not be limited only to the important antiquities and works of art belonging to the distant past, but should also include the products of more recent periods, whether of national origin or acquired from foreign sources.



The results of this study shows that out of 200 artefacts that were investigated by the researcher, 166 (57.8%) were documented whiles 84 ( 42.2%) were left undocumented. However, the process of centralising this administration is very cumbersome and needs government intervention.

There is therefore the need to form a strong front to address this issue to the government.

Another objective of this study was to make the results of the research available for researchers to study them, for exhibitions, and also for mass education, however this objective has not yet been met. Due to lack of funds, the researcher could not publish the work. It is hoped that this project work will be published in the near future so as to achieve this aim.

## 5.2 RECOMMENDATIONS



In view of the findings that have emerged out of the study, the researcher would like to put forward the following recommendations for consideration.

### 5.2.1 Bone and Ivory

Bone and ivory are widely used for producing objects of a decorative nature, such as statuettes, plaques and carved reliefs.

The particular problems which arise in connection with the conservation of bone and ivory objects are associated with their physical structure and chemical composition. Bone and Ivory are anisotropic, i.e., they have different physical properties in different directions, and for this reason they will for example, turn to warp when exposed to changes in relative humidity of the environment.

Secondly, the organic component called protein ossein is decomposed by prolonged exposure to moist conditions, so that objects excavated from damp soil will tend to be in a fragile condition. Also, the inorganic component, mainly calcium phosphate associated with some calcium carbonate and fluoride, is readily attacked by acids. Also, ivory and bone are porous materials as such they are easily stained.

### 5.2.2 Surface cleaning:

It has been found that a delicately carved ivory object may be covered with ingrained dirt and will therefore be in need of surface cleansing. Owing to the sensitivity of ivory, particularly if it is of some age to moisture, it is advisable to avoid the use of aqueous detergent solutions. It is safer to use a detergent, which can be dissolved in an organic solvent. One such detergent, which can be successfully used for the surface cleaning of ivories, is soap B30.

Small swabs of cotton wool are moistened with this solution and used to clean the ivory. The ivory must then be washed in white spirit to remove any traces of the soap B30 which might remain on the ivory.



**5.2.3** Repairing Broken Ivory:

A suitable adhesive, which is ideal for the repair of broken ivory objects, is nitrocellulose. This possesses the following advantages: ease of application, reliable adhesive property and ease of removal. This last property is particularly important because it means that adjustments can readily be made in the course of the repair work if this should prove necessary.

Wermer, (1960) has stated that nitrocellulose is certainly preferable to aqueous adhesives, such as glue or isinglass, which cannot stand up to the humid conditions which are likely to be met within the tropics and which may lead to loss of strength in the adhesive joint.

Another point, which must be borne in mind, is repairing ivory or horn objects. Particularly if they consist of thin pieces, the individual fragments should be kept under controlled conditions of relative humidity whilst the repairs are being carried out, otherwise it may be found that the separate fragments have responded to differential shrinkage and will not fit together properly.

### 5.2.4 Archival Materials



The materials of which archives are composed, namely paper, parchment, leaves, birch bark, leather and adhesives used in bookbinding are susceptible to two main forms of deterioration. One is biological deterioration caused by insect attack and or fungal growth, and the other is deterioration caused by adverse environmental conditions, e.g., presence of dirt, dust, etc., extremes of dryness or damages, or wide fluctuation in relative humidity.

In general, it may be said that the potential deterioration of archival materials can be largely combated by adopting principles of good housekeeping involving, regular inspection of material on exhibition and in storage, and the controlling of climatic conditions within prescribed limits.

However, in protecting archival material from insect attacks, insecticides can be used. The indiscriminate use of insecticides must be avoided. Details about the various kinds of insects and appropriate methods of control should be identified and applied. The extent of infestation must be noted in deciding upon the measures to be adopted. Insecticides may be used either in the form of gases or vapours, i.e., fumigation, or in the form of insecticidal solutions which can either be sprayed or brushed on the infected material.

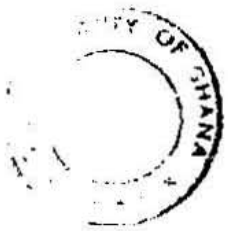
If the infestation has assumed severe proportions and is likely to be a constant recurring problem, large-scale fumigation in a special chamber must be adopted. Such fumigation should only be carried out by suitable qualified people who realise

the hazards involved in the handling of these fumigants and are aware of the necessary safety precautions to be taken.



**5.2.5** Control of relative humidity:

The simplest way, to control the relative humidity is by air-conditioning, which aims to maintain an air temperature of 21-25°celsious and a relative humidity of a little below 55 per cent.



**5.2.6** The Conservation and Restoration of Easel Painting

Many museums in tropical countries hold important collections of easel paintings, often imported from the temperate zone or acquired locally. The continent of Australia which lies largely in or near the tropics, offers a particularly interesting and illustrative example of this situation. Unfortunately paintings, unlike, some other museum objects deteriorate far more rapidly in tropical climates than in the more temperate zones. Normal ageing processes are greatly accelerated and the breakdown of organic material such as cellulose, can be extremely rapid. High temperatures and relative humidity or hot and arid conditions contribute to this as do the photo-chemical effects of brilliant sunshine unfiltered by fog, cloud, or industrial air pollution. The depredations of insect pests and micro-organisms are also a serious cause of deterioration.

The tropical climate being what it is, the conservator is forced to make a special study of the methods of preventing and eradicating growths of micro-fungi. Most of the fungicides which have shown great promise in laboratory tests have been found

either difficult to apply in the tropics or dangerous to paintings and their sterilizing action seems to be transitory.



Indeed when mould growth has become deeply entrenched in paint film, whether oil acrylic or polyvinyl acetate, no fungicide seems to have the slightest effect in preventing further growth as soon as conditions are again favourable for the mould. Moreover some species of mould become immune to certain fungicides and can develop extraordinary powers of resistance. It is sometimes possible to soften the surface of oil paint by solvent action and then apply the fungicide with a small brush to the various colonies, but this is only practical when the mycelium has not penetrated too deeply into the paint strata and when the attack is very local.

### 5.2.7 The Conservation of Stone

When stone work is exposed to all the changes of a tropical climate the possibilities of protection are very limited and the tendency is to remove important sculptures to museums or depots where they can be sheltered from extremes and maintained under favourable conditions. The protection of stone objects in museums or private collections and the handling of stone objects from excavations must always be treated with care.

In the museum, the essential point for good conservation is to keep objects free from dust by periodically cleaning, for which purpose a brush with long soft hairs or a feather duster should be used. Surfaces should always be brushed from top to bottom taking care not to brush away lose or delicate fragment of stone or polychromy.

Clothes should never be used since they rub the dust into the pores of the stone and eventually give a greasy or shiny effect to the reliefs and fill the hollows with dirt. Even so there comes a time when washing with water is necessary particularly in the case of light coloured stones like marble. These precautions in the choice of soap and water are particularly important when dealing with stone objects. The soap solution is prepared in a glass vessel and should never be allowed to be in contact with iron.

Finally the marble is washed down all over, very thoroughly, with fresh water so that no soap remains to form a sticky film.

For strengthening fragile stones one may adopt a method of impregnating using either mixtures of molten waxes or solutions of waxes, resins or ethyl silicates as consolidants. Efficiency clearly depends upon the degree of penetration that can be achieved; indeed, if this is unsatisfactory surface deposits are liable, in time, to cause sealing and to intensify the rate of deterioration of the very stones that require protection. It must be emphasised therefore that the efficacy of wax treatment is a function of the quantity of wax absorbed. Resinous treatments on the other hand require only the minimum of consolidants necessary to re-establish connection between the grains of stone that have become detached from one another or are on the way towards dissociation.

5.2.8 Filling open Joints and Cavities:

Stopping is used to fill cracks and cavities when their presence is disfiguring or weakening the object. Thus, mortars may be employed as is preferred in the case of

mural paintings or in mending broken pottery. In all such cases it is important to see that the surfaces concerned are dust free before filling.



**5.2.9** Repairing Broken Stone Objects:

Small fragmented objects can be reassembled by using various cement based adhesives on polyvinyl acetate or acrylic resins. When a stone is broken in two pieces by a clean crack, a satisfactory joint could easily be made by applying flake shellac, softened to melt to point 120 degree Celsius directly on one fractured surface to raise the temperature of the stone.

**5.2.10** Wood

Under tropical conditions one may expect to find that wooden objects which have been exposed to uncontrolled atmospheric environment may suffer major damage due to the action of fungi or attack by insects. As a result the conservator is often faced with the problem of the treatment of wooden objects which may have suffered such severe damage that they have lost most of their normal mechanical strength.

The best method to be adopted for the consolidation of wooden objects which have been reduced to a fragile condition involves the use of adhesives for joining parts of an object, liquid consolidants for impregnation of wood weakened by insect attack and solid consolidants to make good the wood which may have been completely eaten away.

This naturally leads one to consider the important question as to how one is to decide what type of material should be chosen for carrying out the necessary treatment. In the past ones choice was limited to various materials of natural origin such as

beeswax and natural resins such as shellac. None of these materials is really satisfactory even in a temperate climate, and under tropical conditions they will even be less satisfactory.



However nowadays there are available a number of synthetic materials which are superior in many respects to the natural materials. The number of these new synthetic materials at the disposal of the conservator is now so great that he may well become confused in trying to select the most suitable material, and also he may be wielded by the different trade names often used to describe materials of essentially the same nature. It is therefore important to discuss first of all certain fundamental properties of the materials used as adhesives and consolidants, and to consider later the factors which govern the choice of a particular material for a given job.

**5.2.11** Removal of Dirt:

One problem which is often met with in wooden objects is the removal of in grained surface dirt. If the surface is in a reasonably sound condition i.e. if it is firmly attached to a support and is not friable, the surface dirt can be cleaned off using swaps of cotton wool moistened with a clean fluid. Since the paint will normally be on a ground consisting of a white inert material (such as chalk or gypsum) in a glue medium, it is desirable to avoid the use of aqueous solutions, since there is a risk that these may soften the ground particularly if they are used carelessly, as the liquid may penetrate fine cracks in the paint. For this reason non aqueous cleaning fluid should be used. One such cleaning fluid which has been used with success is soap B30.

This material is soluble in white spirit also known as turpentine substitute or trichloroethylene, and is used as a 2% solution in either of these solvents.



**5.2.12** Metal Artefacts

The stability of metals depends upon retention of their normal metallic properties, usually thanks to the formation of a thin surface film of oxides acting as protective coat or patina. The patina is invisible on stainless steel, but is more often coloured on cupper and its alloys, brass and bronze, and may have a certain aesthetic appeal.

Instability is recognised by the presence of spots, weal or gross mineral incrustations on the metal which frequently occur in the form of localised patches.

Metallic corrosion is a term in general used to describe the chemical and electrochemical changes, that take place when metals convert to minerals.

**5.2.13** Corrosion:

Metals tarnish on exposure to air due to the action of oxygen, gaseous sulphur compounds, etc. If buried, they may be exposed to more intensified attack owing to the presence of soluble salts in the soil. These salts, in the presence of moisture, act as electrolytes: i.e., galvanic actions are initiated resulting in metal thinning.

**5.2.14** Polishing:

This is done by hand, using finer grades of abrasives such as emery-flour, rouge and diamantine. These are used either as powders or made up with tallow in paste form. Levi gated alumina is a finishing abrasive of which a high polish can be obtained from metal that has been previously rubbed with a series of coarse grits. Burnishing is done either by using a cloth wheel on a buffing machine or in the case of fine work, a hand polishing stone e.g., haematite; the so-called 'bloodstone'.

**5.2.15** Drying metal Objects;

Two methods are commonly employed for hastening the drying of metals: heating and desiccation. Heating in an oven at 105 degree Celsius is the simpler process: it is satisfactory for smooth and non-porous metallic surfaces. Porous metal, however, takes longer to dry, and base silver and copper alloys are all porous and may acquire a disfiguring film of oxide in the oven. Although oxide films may be removed by glass brushing, this introduces another operation that can be avoided by using desiccators charged with silica gel from which the air has been evacuated. Drying by this method can be accelerated by passing the object through a bath of acetone before placing it in the vacuum desiccator.

The vacuum desiccator is used not only to dry objects, but also to store them until such time as they can be lacquered or impregnated (Plenderleith, 1962).

### 5.2.16 Conservation of Textiles

The main characteristics of a woven textile fabric are toughness and flexibility. Though these vary in degrees according to the nature of the fibres and the structure of the yarns and the web, they are the features by which its essential soundness may be judged. Deterioration of textile fibres is indicated by loss of tensile strength and of pliability.

The common causes of damage to textiles are light, oxygen and moisture; atmospheric pollution; insects and micro-organisms. Hence, conservation measures include:

1. Cleaning: the removal of soiling mater, discoloration and stains.
2. Sterilization and mothproofing: to eliminate biological causes of damage and decay.
3. Protecting the item from environmental dangers (such as visible and ultra-violet light and atmospheric impurities.)
4. Reinforcing: to consolidate weakened material and to arrest disintegration.

As a preliminary step to any technical treatment of a textile, a photographic record of its condition should be made. Though this is an elementary matter it is easily forgotten when one is preoccupied with arranging for work to begin.

Such recording is important, not only as evidence of the nature and extent of existing damage, but in establishing the original position of fragments which may be held in place only by glue, mud, or a solitary tarn .

**5.2.17** Stain Removal:

The limits of what can properly be achieved in the removal of discolouration from museum textiles should be understood from the onset. Stains cause continuous damage to fibres. Treatment of local stains is termed 'spotting'. Nevertheless, spotting methods based on scientific formulas are essentially the same for textile materials. If the identity of a stain is known, even the inexperienced individual can consult a stain-removal handbook or chart and follow the directions. First attempts should be made on relatively unimportant material until efficiency is gained. The underlying principles should also be understood.

Substances that cause staining are removed if they yield to solvent treatment. Action by chemical reagents does not remove them but alters their state so that they are made colourless. Enzymes or digesters are used on hardened protein stains to render them more soluble. Enzymes are usually obtained as composite proprietary products with directions for obtaining their maximum effect. Pepsin is a serviceable digester, prepared for use by mixing 1g of pepsin in 25cm3 of warm water and adding two drops of hydrochloric acid. This mixture is spread on the built-up stain and kept moist until the stain becomes soft and can be removed with water.

About 90% of a all discolorations are water-soluble, hence an aqueous solution will first be used on stains of unknown composition. Equal amount of water and Howard's B30, or Comprox A, (B. P. Detergents Ltd. London), applied to the stain and left for a few hours will often loosen it so that it can be removed by flushing with water. Well-tried paste soap for removing stains is prepared as follows:

a. warm together 40cm3 of oleic acid and 130cm3 of water to a temperature of about 50 degree Celsius



b. mix 7cm3 of ammonia and 23cm3 of cold water. Add (b) to (a) while stirring: this will form an opalescent paste. When cool, brush it into the stain and allow to dry. Then rinse it away with white spirit. Alternatively warm water can be used.

### 5.2.18 Sterilization and Moth Proofing:

Textiles are vulnerable to attacks by living organisms, particularly the grubs of the various clothes moths and beetles that attack keratin, and the micro-organisms that cause moulds. These thrive where there is darkness, warmth and absence of movement. Stagnant air, if it contains much moisture, is a major factor in the growth of fungi. A high proportion of moisture in the ambient atmosphere is a much greater danger to textiles than dryness. It is favourable to biological decay and intensifies the destructive action of light.

### 5.2.19 Control of Humidity:

The growth of moulds can be prevented by keeping the relative humidity of the atmosphere below 70% at temperatures between 15 and 25 degree Celsius

### 5.2.20 Leather artefacts

It is necessary in tropical countries to take special precaution to protect leather objects from attack by insects. 'Good housekeeping' is an essential factor here, as insects are attracted by dirt, etc. Leather objects should therefore be inspected at regular intervals and cleansed from time to time. If these precautions are observed,

infestation should be detected before it assumes serious proportions. Such small outbreak of insect attack can be effectively dealt with by removing any infected objects and spraying them in a special room or out of doors with a suitable insecticidal solution using an atomizer. Many effective commercial preparations are now available but these should be tested before use to ensure that the solution will not cause any staining or be harmful in any other way to the leather. Preparations of unknown composition should not be used. In many cases it may be more satisfactory and cheaper to prepare the insecticidal solutions oneself. Two preparations which can be recommended are the following:



a) Pyrethrum/DDT solution. 30 g of pyrethrum concentrate and 30 g of DDT powder are dissolved in 500cm3 of odourless paraffin distillate.

Lethane solution. 30 g of deodorized Lethane 384 is dissolved in 600cm3 of odourless paraffin distillate.

If the insect infestation is on a large scale, the only effective way of dealing with the problem is to carry out fumigation with hydrogen cyanide, methyl bromide or carbon disulphide.

When leather objects, which are known to be free from insect, are being kept in store, it is a wise precaution to wrap them up in sealed polythene bags. This not only keeps the objects free from dust but also prevents access to insects. As an added precaution a few crystals of Para dichlorobenzene may be placed in a perforated container inside the bag. The crystals should not be allowed to come into direct contact with the objects. Insecticidal lacquers, i.e., insecticides incorporated in solution of resins, have been proposed for brushing or spraying on to leather to provide long term protection, but this cannot be recommended. Such lacquers confer

an unpleasant sheen on the leather and may even have an ultimate deleterious effect on it. If it is considered necessary to protect leather against possible insect attack, it is preferable to use an insecticidal wax preparation rather than a lacquer. Such wax preparations have the advantage that the leather can be polished after application to give a pleasant appearance to the object. Insecticides can also be incorporated into other waxes which are used on leather.



**5.2.21** Conservation of Wall Paintings:

Two fundamental principles must be stated at the onset. The first is that wall paintings are normally part of a monumental assembly for which they were expressly designed and which in turn have a determining influence on their character and aesthetic effect. This is just as true for cave paintings as it is for those forming the integral parts of an architectural structure. Every possible effort should therefore be made to conserve such paintings in their original setting. Removal will inevitably result in disfigurement and possible structural damage to the monument as a whole, to the particular architectural setting and to the painting itself. For this reason the transfer of a painting must always be considered as an extreme and exceptional operation which should not be undertaken unless it is certain that alternative measures are impossible.

b)The second general principle is that attempts to arrest or control a process of deterioration without identifying and removing the causes are doomed to failure.

**5.2.22** Brushing:

If, as is often the case, it is merely a question of removing dust, it is simply necessary to brush the painting with a soft dry brush.

**5.2.23** Solvents;

When, in addition to dust, grease is present, as is especially the case where there are smoke fumes, recourse must be used of solvents, beginning with the weakest and using stronger solvents only as required.

In most cases satisfactory results can be obtained with water containing about 10-20% of ammonia, the solution being applied gently on a tampon of wadding, with special care in regard to the least resistant colours. If necessary, a solution of 10-20% of butyl amine in water may be used, or alternatively an 80-90% solution of cycloheylamine1.1 in water, the effect of the water being to increase the solvent action on greasy substances. The later two cleansing solutions are also very effective for the removal of over painted layers in oils.

**5.2.24** Pottery works

When pottery requires emergent treatment for its preservation, it is generally concerned with the removal of salts and other contaminants and subsequent consolidation of the ware and its decoration. Pottery works in their own way present problems calling for the application of special techniques for consolidation and repair.

**5.2.25** Washing:

Pottery works are washed piece by piece , put on a perforated tray to drain and then transferred to a dry tray. A number of pottery works should not all be put at once

into water, a work may stand washing but not soaking, and there is a risk that small sherds may be thrown away with the sediment.



Well fired pottery can be scrubbed with a nail brush or tooth brush. Edges of the work piece should be brushed as well as the inside and outside, but care must be taken not to remove traces of material used in making the pottery wok. A neutral soap detergent may be used and the water should be changed frequently; muddy water leaves a film on the pottery.

Fragile badly-fired pottery should be brushed carefully while dry to remove as much dirt as possible, without damaging the surface and then impregnated with a suitable consolidant such as polyvinyl acetate or soluble modified nylon C.

**5.2.26** Mending pottery;

**5.2.26.1** Adhesives;

The choice of a suitable adhesive is portent. Cellulose nitrate is probably the most convenient to use, but since certain commercial varieties favoured by archaeologists are deficient in plasticizer, care must be taken in selection. From the point of view of speed, Balsa cement is good; otherwise, if cheap brand is desired, H.M.G. obtainable from Marcel Guest, Collyhurst, Manchester 9, is perfectly adequate and sets in from a half to one hour according to the thickness of the joint. Cellulose nitrate cuttings may be dissolved to the required consistency in equal quantities of amyl acetate and acetone. A plasticizer such as castor oil or camphor may be added. If the pottery is very thick, it is preferable to use an impact glue such as Evostick, a rubber resin mixture soluble in toluene, benzene or carbon tetrachloride. The edges of the sherds must be absolutely clean and any hollows cleaned out with a pin so that the tightest

possible joint will result. If a tube of adhesive is not used it is preferable to use a stick as a spreader. A thin coat of adhesive is spread along both edges which are then pressed well together, any surplus adhesive is wiped off. One sherd is then stood in a tray of sand so that the other will balance on it and adhere to it by its own weight.



Pots should be mended from the base upwards and only one piece should be stuck at a time so that errors can be adjusted as the work proceeds. If a white hazing appears on the surface near the joints, it can be removed with amyl acetate.

Friable pottery may be difficult to mend owing to its breaking away on either side of the joint; such sherds should be impregnated with a suitable consolidant before sticking.

As a final comment, it should be ideal that any service that is devoted to the protection and maintenance of monuments in the tropics is fully provided with;

-Documentation, such as keeping records of artefacts with dates, origin, and their historical background.

-Museums must also be provided with card-index histories, files of photographs (including aerial photographs, or at least access thereto for consultation.)

-The necessary surveying equipment and apparatus for the measurement of humidity, temperature and photographic apparatus to maintain this documentation must not be overlooked. There must also exist a plant for emergency work and for repair operations, located in a central repository and or in convenient regional repositories.

-Basic equipment to enable the service to effect permanent consolidation work at opportune times and in the most convenient season of the year must also be in place for the museum.

-There should also be an adequate system of surveillance, as monuments and museums need protection from many potential enemies, and perhaps not even from man himself!

-It is recommended that individuals responsible for the care of museums and monuments should be internationally minded and should maintain contacts with the leading exponents of their cultures both at home and abroad. They should also not hesitate to seek advice, when required, from the International Centre for the Study of the Preservation and the Restoration of Cultural Property in Rome.

## 5.3 CONSTRAINTS

Also, there is the need for institutional identity. The current situation where the Ghana Museums and Monuments Board is seen as a sub set of the Centre for National Cultures should be looked at seriously. The budgetary allocations from the National Commission on Culture in which some of the regional centres receive more funds than the entire GMMB attest to this.

The proposed legislation, which sets out to regulate the restructuring of the Board should be given urgent attention.

There is the need to build and strengthen the institutional capacity and human resources of the Board. It is therefore important that a critical look at the conditions of service and the scheme of service, which are over 17 years old, even though

attempts to review them over the years have not been supported by the required governmental financial support.



This needs urgent attention if staff moral should grow.

## 5.4 REFERENCES



Beecher , E. R . , (1969) Textile Conservation. London: oxford University Press. pp 251,256,260

Boustead , W . , (1970) Conservation of Easel Paintings. Newcastle: Oxford University Press, pp. 47,48,49

Gedye , I . , (1976) Pottery and Glass. New Delhi: Plimb Snowy Press, pp 109,133

Paolo Mora . , (1968) The Conservation of Wall Paintings. Sydney: Oxford University Press, pp 169, 170

Plenderleith, H . J and Torraca,G.,(1966) The Conservation of Metals in the Tropics. London: Oxford University Press. pp 220, 239

Sneyers , R. V . , (1974) The Conservation of Stone. New York: Mc Graw-Hill Publications, pp 218,228, 231

Werner, A.E. , (1977) The Conservation of Leather, Wood, Bone and Ivory and Archival Materials. London: Wil-Publications, pp 265, 274, 279, 284

# APPENDIX



This questionnaire is meant to assess the general storage conditions of museum artefacts in custody of the Ghana National Museum and Monuments Board.

It is also part of the requirement for the award of an M.A in information Management.

Any information given will be treated with the strictest confidentiality and will be used only for the study.

Thank you.

## ARTEFACTS

### A. LEATHER (Please tick one box per question)

1. Is the material sensitive to humidity? Yes [ ] No [ ]
2. Is there any evidence of mould growth? Yes [ ] no [ ]
3. Which of the following attacks the material most? insect [ ] weather [ ]
4. Is the material physically damaged? Yes [ ] no [ ]
5. Has the item been documented? Yes [ ] no [ ]

### B. BONE AND IVORY

1. Is the item exposed to moist conditions? Yes [ ] no [ ]
2. Is the item enclosed in a case or exposed to the weather?

Enclosed [ ] Exposed [ ]

3. Is the item physically damaged? yes [ ] no [ ]
4. Has the item been documented? yes [ ] no [ ]

## C. WOODEN ARTEFACTS

1. Is there any evidence of insect attack? Yes [ ] no [ ]
2. Is the item physically damaged? Yes [ ] no [ ]
3. Has the item been documented? Yes [ ] no [ ]

## D. POTTERY

1. Is the item well fired? Yes [ ] no [ ]
2. Is the item physically damaged? Yes [ ] no [ ]
3. Has the material been documented? Yes [ ]

## E. ARCHIVAL MATERIALS


ITEM TYPE:

Serial [ ] News paper [ ]

File [ ] Map [ ]

Book [ ] Photographic Material [ ]

Report [ ] Manuscript [ ]

1. Is the item physically damaged? Yes [ ] no [ ]
2. Has the item been documented? Yes [ ] no [ ]

## F. METAL ARTEFACTS

1. Is there any evidence of corrosion? yes [ ] no [ ]
2. Is the item physically damaged? Yes [ ] no [ ]
3. Has the item been documented? Yes [ ] no [ ]

## G. TEXTILE ARTEFACTS



1. Is the item exposed to light? Yes [ ] no [ ]

2. Is there evidence of insect attack ? yes [ ] no [ ]

3. Is the item physically damaged? Yes [ ] no [ ]

4. Has the item been documented? Yes [ ] no [ ]

## H. EASEL PAINTINGS

1. In which of the following mediums of colour is the painting made from?

(a) Water colour [ ] (b) Pastel [ ] (c) Acrylic [ ] (d) Oil paint [ ]

2. Is there any evidence of physical damage? Yes [ ] No [ ]

3. has the item been documented? Yes [ ] No [ ]

## I. WALL PAINTINGS

1. In which of the following mediums of colour is the painting made from?

(a) Chalk [ ] (a) pastel [ ] (c) acrylic [ ] (d) oil [ ]

2. Is there any evidence of physical damage? Yes [ ] No [ ]

3. Has the item been documented? Yes [ ] No [ ]

## J. STONE ARTEFACT

1. Is there any evidence of physical damage? Yes [ ] No [ ]

2. Has the item been documented? Yes [ ] No [ ]

# BIBLIOGRAPHY



Agyedu, B . , (1990) Social Research in Rural Communities. Accra: Ghana Universities Press, p.37

Akussah, H. , (1993) Calendar of Kwame Nkrumah's Papers in Africa. Brentwood : Pergomon Press. pp 12,13

Akussah, H., (1996) 'Records management in Ghana; An overview,' Africa Journal of library and information Science.

Alreck and Settle (1985) The Survey Research Handbook. Illinois, Irwin, p.21

Amedekey, E.Y. , (1970) The Culture of Ghana. Illinois: Northwestern University Press, p 9

Armah, N. , (1958) History of the Ghana National Museum. Accra: Unpublished manuscript

Beastal, G., (1998) 'Records management meets knowledge gathering', Records management Journal.

Beecher , E. R . , (1969) Textile Conservation. London: oxford University Press. pp 251,256,260

Boustead , W . , (1970) Conservation of Easel Paintings. Newcastle: Oxford University Press, pp. 47,48,49

Boustead, W. , (1965) The conservation of Works of Art. London: Butterworths, pp 9,12

Coremans, P. , (1960) Conservation and Restoration. New York: Unesco, pp 21-22

Coremans, P. , (1965) Keeping Records. New York: Unesco, pp 12,13,14

Coremans, P. , (1965) Keeping Records. New York: Unesco, pp 16,17

Coremans, P. , (1965) Keeping Records. New York: Unesco, pp 18,21

Coremans, P. , (1965)The Conservation of Cultural property. New York: New York: Unesco p 5

Coremans, P. , (1966)The keeping of Records. New York: Unesco, pp 12-14

Coremans, P. , (1969)Scientific study, Conservation and Restoration. New York: Unesco, pp 11-13

Coremans, P. , (1979) Climate and Microclimate. New York: Unesco, p.30

Daifuku, H. , (1960) Preservation of Monuments in the Tropics. New York: Icom, p.15

Daifuku, H. , (1963) Typical Equipment furnished by Unesco Rome: p.6

Daifuku, H . (1965) The Significance of Cultural Property. Rome: Unesco, pp 19,20

Daifuku. H. , (1966) Conservation and Restoration. Rome: Unesco, p.21

De Andrade, M.F. , (1970) The conservation of Urban sites. Chicago:
University of Chicago Press, p.16

El – Hadi, H M, (1982) National Trade information. Geneva: Peldway Press, p 1

Emmerson, P . (1989) How to manage your archives, Cambridge, ICSA Publishing.

Frankeland Wallen (1993) Stages in Research Designing New York: Macmillan. p.46

Frankel J. R., and Wallen E. N., (2000) How to design and evaluate research in education, 4th ed, San Francisco, McGraw-Hill,

Gedye , I . , (1976) Pottery and Glass. New Delhi: Plimb Snowy Press, pp 109,133

Hare, C. E and Michael, J., (1997) Developing a Records management programme,
London, The Aslib Know How Series.

Kumekpor, D . , (1991) Theory and Research Accra: Africa Christian Press. p.14

Leedy, P. D . , (1993) Practical Research Planning and Designing. New York: Macmillan, p.17

Mora , P. . (1968) Fundamental Principles of Conservation. Hong Kong : O. U. P. p.19

Muller – Beck (1960) Management and Skills in Organisations. London:
Oxford University Press p.31

Owusu, K . (1999) Institutional History of the Ghana Museums and Monuments Board.
Accra :Unpublished manuscript.

Paolo Mora , (1968) The Conservation of Wall Paintings Sydney: Oxford University Press,
pp 169, 170

Penn et al., (1994) Cultural Property management Handbook, (2nd E. d), England, Gower

Perry and Kent, (1982) Inventory and Cataloguing. Chicago University of Chicago Press, p.7

Plenderleith, H. J. , (1965) Practical Advice on Conservation. London :
Oxford University Press, P.16

Plenderleith, H. J. , (1966) Documentation of Artefacts. Rome: Unesco, p.6

Sneyers , R. V . , (1974) The Conservation of Stone. New York:
Mc Graw-Hill Publications, pp 218,228, 231

U.N , (1960) Cultural Property Endangered by the Public. Rome: Unesco, p.9

U.N , (1968) A Handbook on the Organisation of Museums. Rome: Pergomon Press, p.11

Werner, A.E. , (1977) The Conservation of Leather, Wood, Bone and Ivory and
Archival Materials. London: Wil-Publications, pp 265, 274, 279, 284