Preservation and Conservation (PAC) of Library Materials in Tropical Countries with special reference to the Ahmadu Bello University, Zaria-Nigeria.

BY

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A Master's Thesis submitted in partial fulfillment of the requirements for the award of Master of Library Studies Degree of the Loughborough University of Technology.

June, 1987

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ABSTRACT

Naturally, tropical and sub-tropical climates are aggressively hostile to books and other library collections and this subsumes why preservation and conservation (PAC) of library resources - which is investigated in this Dissertation - has become imperative on the part of library managers and their team of workers. Besides, library users and even staff as well as natural disaster occurrences equally reduce the useful life of some books or destroy others completely. Since the effects of some of these are imperceptible initially until serious havoc has been caused, it becomes necessary - I should say mandatory - for Library Administrators to make the internal as well as the external library ambience conducive for both collections and people.

This, among others, entails installing anti-theft devices at the vestibule, proper and careful handling of the items, and not forgetting to plan for disasters. Such preparations should be proactive rather than reactive if they are to be effective and not to take the librarians unawares. In addition, the effect of acidic paper which Publishers use in book production is also highlighted and the use of alkaline papers advocated.

Although the study puts PAC of library items in academic libraries in tropical countries at the forefront, its substance is thought to be valid for other libraries both in tropical and temperate regions.

DEDICATED TO:

My wife Mary, and our children: Onechojo, Aneju, Ilebaye, Ileanwa, Udagbene and Utenwojo
and particularly
my parents - Idachaba Odekina (late 8.10.77) and Ufatuma Ebene
in appreciation for their prayers, love, patience, encouragement and understanding.

ACKNOWLEDGEMENT:

A number of people and establishments contributed towards the successful completion of my course of study in Loughborough:

I wish to thank my employer for granting me the study leave, the University Librarian, Alh. K. Mahmud and Dr. Ochai whose help contributed. I am immensely grateful to Messrs M. C. Eboka, P. E. Ofori and G. I. Okoye-Ikonta for their assistance.

I am massively thankful to my sponsor - Benue State Government, Dr. V. Onyabe and Mr. Gabriel Opaluwa whose assistance made this course possible for me. I thank you, too, Dr. Abalaka and Professor Lombin and to you friends and relatives who have been helpful in one way or the other, I owe you a wealth of gratitude. I also thank Mr. Bernard Lee for giving me accommodation in his house for a term.

My special thanks go to my Supervisor Dr. J. P. Feather for his advice and suggestion, Professor P. Havard-Williams H.O.D., and Mr. L. G. Durbidge, my course tutor for their special help to me.

Above all, I thank God.

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ABBREVIATIONS

A.B.U.	Ahmadu Bello University
K.I.L.	Kashim Ibrahim Library
P.K.L.	President Kennedy Library
I.A.R.	Institute for Agricultural Research
N.A.P.R.I.	National Animal Production Research Institute
N.E.P.A.	National Electric Power Authority
PAC	Preservation and Conservation
UBC	Universal Bibliographic Control
UAP	Universal Availability of Publications
BTU	British Thermal Unit

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CHAPTER ONE

1. GENERAL INTRODUCTION

Following the Ashby Commission's recommendation, according to Taiwo[1] and Alafiatayo[2], a "unitary university incorporating the Zaria branch of the Nigerian College, the Ahmadu Bello (later Abdullahi Bayero - now Bayero University) in Kano, the Institute of Administration, Kongo and the Institute for Agricultural Research at Samaru... " was established. The law that established the university was passed on October 4th, 1962 and it started with a student population of 400 on October 10th. It was in fact an up-grading of the existing College of Arts, Science and Technology in Zaria, and the new university automatically adopted the various courses being offered in the incorporated institutions. The university was mainly to cater for the educational needs of the Northern Region of the country, now broken into ten separate states to form part of the nineteen states in Nigeria today.

The library of the College of Arts, Science and Technology automatically formed the nucleus of the Kashim Ibrahim Library - named after a one-time indigenous Governor of Northern Region, Sir Kashim Ibrahim. It became the main library and was sited at the centre of the campus. As the university grew in size and strength, it was decided not to have all the faculties and departments clustered in one area. Satellite campuses were therefore opened. For example, the Faculty of Law and the Institute of Administration at Kongo (about 16 kilometres away), the Faculty of Medicine at Barau Dikko (15 kilometres) and the Faculty of Agriculture (3 kilometres). There is also a National Animal Production Research Institute (NAPRI) at Shika (about 12 kilometres) attached to the university.

All of these (and others) have libraries manned by professional librarians with adequate supporting staff for efficient library work. The libraries of course exist to support the students and staff of these Faculties and Institutes in their reading, teaching and research needs. The stock of KIL serves the immediate Faculties: Science, Arts and Social Sciences, Education, Human and Veterinary Medicine, Architecture, Environmental Design, Fine Arts, Engineering, etc.

1.2 Administration:

These libraries are often collectively referred to as the "University Library Complex"[2] which is under the University Librarian assisted by two Deputies from whom the librarians receive major administrative directives and who also see to the promotion and other interests of the staff within the complex. The University Librarian shoulders the onus of preparing, presenting and negotiating the annual budget for the Complex and ensures adequate funds for book acquisition. The role of the Library Syndicate in this matter cannot be overemphasised.

1.3 The Study:

Being libraries in the tropical and sub-tropical zones exposed to the cruel climatic conditions and other destructive enemies of library items, coupled with the difficulties imposed by the economic stringency and government import regulations which have made it difficult to import books from overseas countries[3] and considering the fact that publishing in Nigeria and indeed Africa is only gradually gathering momentum as Smith [4] puts it, "in this area, 6 or 7 British-based multi-national companies dominate book publishing activities, that is, Nigeria, Ghana, Kenya, Tanzania and Zambia", it becomes expedient for library managers and their team of staff to ensure that materials acquired are <u>well cared</u> for. But how?

This study is intended (a) to identify the major enemies of library resources, and (b) to examine the principles and practice of preservation, conservation and restoration activities resulting in the longevity of life span of the resources in the complex as well as libraries within the tropical areas. At the end, I will draw conclusions and, subject to the findings therefrom, advance some recommendations.

1.4 Significance of the problem:

The context in which academic libraries exist is changing very rapidly and these changes produce concomitant changes in the materials, programmes, and items required by the university library users. It follows therefore that, in the views of Hall [5] when the changing environmental conditions of the academic libraries are coupled with the current economic

constraints of rising costs and declining financial support, there comes an obvious need for increased rationality in policy making. Such a policy in this context will aim at extending the useful life of library items in whatever form.

1.5 Assumption:

The nature of the topic of this study requires the following assumptions:

(a) Library materials deteriorate faster in the tropics than elsewhere.

(b) That the topic of the study is a phenomenon only just being embraced by library managers and that not all librarians are as yet fully alive to it.

(c) That economic stringency places a serious obstacle to embarking on necessary activities that will extend the life of resources.

(d) That by filling and submitting the questionnaires sent to the four main libraries within the complex is an appropriate source of getting the required information to support the study.

1.6 Limitations:

There are clearly two limitations for this study. Firstly, it is being undertaken far away from the geographical areas concerned and so possibilities for re-checking information are extremely limited although attempts have been made to be as accurate as possible. Secondly, preservation and conservation of library materials in the real sense of the word are new phenomena in librarianship. Very few similar studies have ever been carried out and much less so in the areas being covered.

1.7 Definition:

Three words - preservation, conservation, and restoration will be amply at play throughout this study. Therefore, the area of meaning of each should be carefully marked out.

(i) Preservation - connotes the actions taken to prevent, stop or retard the deterioration of library resources. Ratcliffe [6] states that

it is the prevention of environmental damage to stock which involves shelving, handling, etc. It is therefore preventive.

(ii) Conservation - this involves all that the librarian does in order to maintain in usable condition every item in the library stock. Over the years within the professional circle, conservation has assumed a much wider connotation to include according to Buck [7] some related words like preservation, protection and maintenance. His broader definition further states:

(a) a knowledge of the condition of objects in the collection and the surveillance of their condition.

(b) an understanding of the effects of the environment on the condition of objects in the collection and a surveillance of the environment

(c) the initiation of actions to correct environmental deficiencies

(d) the consideration of the condition of objects in scheduling exhibition and loans, and in controlling storage, handling and transport

(e) the budgeting of funds to carry out any necessary action. Conservation is purely remedial.

(iii) Restoration _ this concerns all that is done to the library stock in order to bring back the deteriorated items to their original or near-original conditions.

(iv) Developing (or third-World) countries - A definition of the area often referred to as "developing (or third-world) countries" must also be given. Broadly speaking, the countries of the world may be grouped into two blocks - the developed industrialised as in USA, Europe, Japan etc. and the developing as in Nigeria and indeed all African countries which, according to Nwoye [8] quoting from Longman's Dictionary of Contemporary English, are "poor countries that are trying to become richer and to improve the living conditions of their people". Quoting from Laqueur's Dictionary of Politics, Nwoye refers to the 'third world' as a "generic term for the countries of Latin America and the more recently independent states of Africa and Asia". Therefore the term "developing country" is synonymous with the "third world", and libraries

of focus in this study, which according to Affia[9] are "instruments designed to preserve, organise and disseminate graphic records for society as a whole or for part of it" fall within this zone.

1.8 Early times:

Before the use of modern papers and other items for recording devices, various materials had been tried including, as Cunha [10] writes, clay tablets, papyri, linen, silk, leather or parchment scrolls, waxed writing tablets, bundles of palm leaf strips, strips of wood and ivory or sheets of bark. These require various means to conserve their contents and their physical nature. Besides, it was also relatively difficult and cumbersome for the scribes to record and keep these items in good condition for consultation. In order to ensure security and judicious use of the items, as Ifidon [11] agrees, they were chained to chairs, tables or other available objects, and this prevented or reduced rough handling by those who used them.

The credit for evolution of recorded knowledge and different materials used at various times in history should be given, according to Langwell[12] to the Chinese, the Mesopotamians, Egyptians, Greeks, Romans, Moroccans, the Byzantines, Germans, Europeans and peoples and places connected with the cradle of civilization. After about 200 BC, except stones, all other means of recorded knowledge became susceptible to decay: worms tampered with clay, papyrus was affected by insects, termites ate wood and palm leaves, moisture and desiccation caused skins and linen to rot and cock-roaches, silverfish, beetles and mud wasps affected the items.

To protect these items against vermin, dirt, dampness, and other destructive enemies, the Egyptians, Greeks, and the Romans stored their tightly wrapped scrolls in cylinderical boxes of wood and ivory. Soon, codex as a form of recording information emerged. This revolutionary process continued until parchment and paper in the modern sense came into use. This resulted in having such items bound for portability and easy storage.

1.9 Why preservation?:

The need for conservation treatment of library materials according to

Morrow [13] is determined by their physical and chemical composition, the environment in which they are stored, and their history of use and abuse. Nowhere, it seems to me, is this need for conservation treatment more acute than in the tropical and sub-tropical areas where multiple contingencies combine to make it imperative for library managers. These contingencies include human, climatic and chemical effects, insects, rodents, fungi, and natural disasters like fire, flood, earthquakes, tornadoes, etc.

The Institute of Paper Conservation, UK [14] clearly states that "conservation is the means by which the true nature of an object is preserved". This true nature includes the evidence of its origin, its original construction, the material of which it is composed, and information as to the technology used in its manufacture. It therefore follows that all professional actions of a conservator (where one is available) or of the librarians should be dictated by the overall respect for the physical, historic and aesthetic integrity of the object. The librarian or the officer charged with the responsibility of caring for the library collections should use best techniques which will not jeopardise or impede later treatments.

It is pertinent then that the resources of the libraries within the complex need to be well looked after so as to extend or prolong their useful life. Such an active intervention is necessary because the material-paper, contains acid (see Chapter 2), the ink is subject to chemical reactions and the style of binding may be frail. The tropical climate hastens the chemical reactions at an alarming speed. Osundina [15] agrees that preservation of the resources in Nigerian University libraries is acutely necessary because (a) the book collections are for use, (b) teaching without books is difficult (and ineffective), (c) the library is composed of more than books - it contains films, maps, manuscripts, microcards, etc. (d) the librarians are teachers and the library is a teaching department of the University.

1.10 Conclusion:

To conclude this chapter, the author has tried to bring into focus why preservation and conservation (PAC) activities are necessary particularly in the tropical and sub-tropical regions whose countries are still

developing. It also highlights the enemies of books which have been a problem over the years to those who keep custody of books. The definitions of words that are relevant to the study are also given.

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CHAPTER TWO

2. THE LIBRARY AND ITS ENVIRONMENT

> The first duty of a studious librarian must be to devote his time and leisure to increasing the library in his charge,... If he neglects increasing the collection, let him at least take care not to reduce it by losing the books committed to his care or letting them perish in any way. He must therefore particularly suspect and beware of those enemies of books, fire and water. He is to repair in the same style of bindings destroyed by age, remind readers to treat books decently, keep them in a fixed and safe place..." (1)

> To scholars any damage or wanton destruction of library books and serials is reprehensible. By the nature of their profession and their dedication, they have respect for knowledge; and library books represent that accumulated knowledge of mankind that we call wisdom, even though many of these books may be mistaken, superseded and far from wise. This (destructive habit) of human beings is an expensive problem to the library, the solution for which the library is still searching. Whatever steps are taken to protect the library buildings, furnishings, and collections, it appears that more vigilance will be required, more of the public relations effort will be necessary, and that penalties for culprits will need to be strictly enforced.(2)

2.1 Building:

A building that provides 'sanctuary' for library materials has a tremendous influence in determining the life of the items housed in it, ensuring protection for staff who spend most of their working hours in it and readers who use the items as well as presenting an aesthetic view which contributes to wanting to be in it whether as a member of staff, a reader or a casual visitor. Such a structure ought to meet certain standards, from the conservation point of view.

2.2 Site and location

These should be strongly determined among others by its proximity or otherwise to the people who will use the items, and should be at the centre of the campus where it will be easily accessible to the students from the hostels and staff from their departments, and where possible from their residential quarters. The orientation of such a structure should take cognisance of the local geography - the wind and rain directions, where the sun rises and sets and of course the soil texture.

Victor Gondo summarised some principles suggested by the late Georg Winter to govern the choice of an archival (library) site thus:

Table I

Principles that govern the choice of an archival site:

(a) *near the agencies - and that means the users - with which* it is bound by daily business relations

(b) *near the cultural and research institutes that are most* dependent on it

(c) away from fire - threatening establishments e.g. gas tanks, chemical works, etc.

(d) away from... war torn areas or areas that witness frequent public disorders. (3)

This last point may be questioned as Gondos rightly pointed out, it seems to present an obstacle on the full use of the resources. The only way out is to make the building very solid so as to withstand the dangers of war and other agents of destruction - natural or man-caused.

Besides, as Metcalf (4) warns, the walls as well as the roofs must not leak. Plumbing should be carefully laid so that, in the event of any pipe bursting 'local' flooding may not affect or destroy the library resources.

Relating the discussion so far to the library buildings under focus, it is worth noting that:

2.2(i) KIL: The Kashim Ibrahim Library's first building was a two storey structure and was opened in 1962. According to Plumbe [5] - its one time librarian, it was originally intended to accommodate 5500 volumes and seat 80 readers at a time. But later, it had to hold about 9000 vols., 2500 current serials and 100 readers. It soon became too small for proper storage and real academic work, and so a new one five times bigger and more modern was built and opened for use in 1976. It is indeed a magnificent building with a giant airconditioner installed that is supposed to function 24 hours every day. Whether it is providing the library the much needed service is altogether a different matter for later discussion. The library has over 280,000 volumes and about 15,000 readers.

2.2(ii) PKL: The President Kennedy Library building was opened in 1964, and accommodated 30,000 vols., 300 current serials and more than 100 users. The readers have increased greatly since then. In spite of the increase in staff, users, and stock (76,000 vols. now), and although it is heavily used all year round thereby exerting tremendous pressure for a new one, it is yet to be provided - maybe for economic reasons. The result is clear: materials will be crammed in a small place and this is very damaging from the conservation standpoint.

2.2(iii) IAR: The IAR library building was opened in 1963 - a small building - and has a fairly limited readership (1300+) as compared to others since it serves mainly researchers and agricultural students. Its current holdings are 5800 vols.

2.2(iv) Medical Library: Again, like the IAR library, the Medical Library has its readership limited to medical students and staff (and related disciplines). It did not exist until much later - 1970. Its present users number about 500 and it has about 30,000 volumes. An ultra-modern Teaching Hospital is being built on Shika road about 7 kms. away from the main campus at Samaru. It is hoped that when this is opened, a bigger structure will be available for library use.

All the libraries, except IAR's, are situated within easy reach of the readers with good access roads. The IAR library is about 3 kilometres away from the student dormitories and therefore does not open for night services.

2.3 Maintenance:

As services are being offered in these libraries, naturally, the buildings begin to depreciate thus creating maintenance problems: lack of water, pipes bursting, sewage and septic tanks overflowing, pipes blockage, leakages in the roofs, etc. Several reminders (or personal visits) have to be made to the Estate Department to remedy the situation.

The four libraries have either adjustable louvres or glass window panes with efforts being made to plant trees to serve as wind breakers, provide shade as well as reducing heat penetration into the buildings - but without much success so far. The KIL window panes have locks installed for security of items. The janitors are expected to lock them every evening at 11 pm during sessions and 6 pm during vacation and get them opened before work commences at 7.30 the following morning. Their efficiency at this and other cleaning activities have always been questioned.

Acoustically, the floors are made of terrazo finish - which makes a noise under hard-soled shoes. Parquet and plastic tiles which are less noisy and therefore less distracting are used in some. Plastic tiles soon peel off after a few years because of the extremely hot weather and become an eye-sore unless they are promptly replaced - and this is not always the case.

Keyes Metcalf's suggestion of the major consideration for a library building is worthy of note:

Table II

Factors to note in a library building:

(a) Airconditioning equipment, humidifiers, and filtering systems should be installed to inhibit atmospheric damage to libraries

(b) The buildings should be designed so that incandescent light with minimal illumination is installed in all areas where library materials are to be housed.

(c) Construction should prevent infestation from rodents and insects.

(d) Construction should reduce the hazard of fire and water damage. (6)

Metcalf's idea in Table II is shared by the report of the standing committee of the IFLA Section on Conservation (7) paragraph 2.8 in which they advised library builders to have conservation needs in mind which include the design and orientation of the buildings, building materials including shelving, lighting either natural or artificial.

2.4 Acquisitions:

The conservation programme commences with careful selection and acquisition of materials printed on permanent and durable paper. Henderson and Krupp (8) would describe "permanence" in this context to mean the extent to which paper resists chemical action which may result from impurities in paper itself or agents from the surrounding air. "Durability", he further notes, is the degree to which a paper retains its original qualities under continual usage, and Wessel (9) considers these phenomena as a function of "aging" (see discussion under Paper).

Ejiko (10), in his unpublished paper on collection development in Nigerian University Libraries: Problems and prospects, identifies three major factors in collection development: the fund, staff and books (including non-book materials). Ombu (11), Jegede (12) and Oyelese (13) writing on the same acquisition problems in developing countries seem more emphatic in highlighting the problems. Academic libraries, (indeed all libraries for that matter) need to be well funded if relevant materials are to be procured, processed and properly maintained for use. The words "relevant materials" and "maintained" have conservation connotations in that the quality of materials acquired and keeping them in good shape for use for as long as they are needed are all in the preservation/conservation domain.

Barr's (14) listing of scope of a conservation programme, re-echoed by Henderson and Krupp (8) could serve as a guide by following its essential tasks from the moment materials are ordered for and received in the library to the time of discard:

Table III

Scope of conservation programme:

(a) selecting material before purchase with respect to usability and useful life;

(b) examining condition and probable future condition of all material received, whether by gift or purchase, and prescribing conservation treatment, if necessary, before use;

(c) providing proper housing of all material, in accordance with its conservation needs as well as its accessibility;

(d) assuming responsibility for its condition at all times;

(e) assuring its proper handling by staff and patrons;

(f) organising systematic inspection so that need for conservation attention is properly recognised;

(g) deciding on the proper treatment of all material needing attention;

(h) supervising the treatment, and

(i) deciding on storing or discarding. (14)

But with the austerity globalising the universe, this ideal is eluding libraries and more so in developing nations which depend to a large extent on foreign publishers. As was noted in chapter one in passing, publishing in Nigeria (and most of the third world nations) is only beginning to take shape, with some universities establishing their own printing presses. Hitherto therefore, virtually all Nigerian University libraries acquired the bulk of their books and other library items from Europe and America. Such orders take a long time, sometimes up to a year - if one is lucky enough to receive them intact. It has not been an uncommon experience that while the consignment is in transit, they will begin to suffer some kind of physical depreciation even before they arrive,

thereby creating a strong need for preservation activity before they are processed for use.

2.5 Processing the items

Because of the lack of an adequate number of staff (cataloguers and classifiers especially), it takes up to a year or sometimes longer (10) for materials to be processed ready for use. While they are in the 'waiting' room in boxes, cartons or on the shelves, they have not actually 'arrived' and therefore proper preservation/conservation attention is not usually extended to them.

The result is that by the time the items receive attention, thick coats of dust have gathered, chemical reactions may have commenced, some might be losing shape while others may have had vermin playing, hiding, eating and destroying them. The only solution is to process the items almost as soon as they are received.

As will be seen later, origins of all collections are primarily of organic matter and are inextricably perishable, some much faster than others depending on the environment, the material itself, and the users. Pamela Darling's(15) advice is relevant: that librarians should buy only what is needed in whatever format. That also includes free items since they have to "pay for space" and be maintained insofar as they are required.

2.7 Rare books:

Being forced on one hand by weak financial allocation and on the other by strong desires to build purposeful and reputable collections, Nigerian University Libraries do resort to acquiring rare books offered for sale during auctions in U.S. and Europe. No selection is possible since the acquisition librarians cannot travel to these countries just for that. This lack of physical examination of the items has made it mandatory for preservation treatment before they are shelved for consultation. Most of such items are in a state of disrepair. And who will blame the University Libraries for that as it is generally agreed that no meaningful teaching or research can be done without adequate provision of books, journals and other library resources.

2.8 ENVIRONMENTAL FACTORS:

> Library collections contain items that will be required by readers in the future; these materials, all of which present difficult preservation problems, are found in formats as varied as papyrus and computer tape. Only recently have we come to realise that the deterioration of these resources is a significant threat. (16)

Hitherto, we have been journeying at the periphery of conservation, but now, attention will be focused on this relatively new but important dimension in librarianship - which started as we now know it about 1970. In the process, greater attention will be paid to the tropical and sub-tropical world.

The tropical zones of the world fall between either of two lines of latitude at 23½° N (Tropic of Cancer) or 23½° S (Tropic of Capricorn). By this definition, and as Plumbe (17) has noted, it is the climate of the coastal and inland West Africa, Zaire, Central America, Burma, Thailand, Malaysia, Indonesia, parts of India, Northern Sudan, Arabia, Iraq, Pakistan etc. These tropical and sub-tropical areas are characterised by either hot-humid or hot-dry climate with minor adjustments here and there throughout the year.

The aim and purpose of any library and particularly an academic library in these areas, as IFLA (7) has indicated is "preservation in its widest sense, to collect the documents - manuscripts, printed and in other forms - of the past and of the present, and to keep them so that they are available to both present and future users." (p. 292) To do this is not as simple as it sounds. It calls for professional expertise, devotion to duty, willingness to work, selfless service, and ability to face challenges.

2.9 Paper:

As has been noted, paper forms the bulk of library materials, and it is subject to biological and chemical reactions later in its life at different times and in varying degrees. Helmut Bansa (18) warns that books made of "modern" (i.e. industrially-produced) paper contain high quantity of cellulose which is not treated enough in an alkaline condition, alum

free but containing an amount of calcium carbonate. Alum of course contains a strong acid. It destroys the calcium carbonate in water and the fibres even before the sheet formation, and thereby prevents the former from uniting with cellulose crystallising in the sheet, and acting as a decisive coagulant of the chemical dissolution of cellulose.

It is often measured in P^H which is said to be the negative concentration of ions on a logarithmic scale. Karl Buchberg [19] states that the P^H scale ranges from 1-14 with 7 being neutral, 1-7 constitutes the acidic range, and 7-14 the alkaline range. The smaller the P^H, the more acidic the paper is. For example, a P^H of 3 is ten times more acidic than a P^H of 4.

Let it be borne in mind, too, that paper is made of cellulose constituent, which is a vegetable substance. Acid, on the other hand, is a very sharp chemical class of compound which combines with alkalis, oxides etc. to form salt. It is therefore not surprising that acidic conditions are harmful to cellulose, the main constituent of paper. Experts agree that there is a close relationship between the chemical and physical deterioration caused in papers by light, heat and moisture. These three environmental factors are present simultaneously in the library holdings and cause fast decay.

According to Tottle [20] and Buchberg [19], the problem commonly identified with paper is its hygroscopic nature which means that it absorbs and gives off water when the atmosphere is wet and dry respectively. Such fluctuations shorten the life expectancy of papers as they suffer from warping, buckling and pigment loss, and their effects on collections in the tropics are alarming.

Browning [21] puts the discussion on paper equally succinctly when he comments that paper by its nature is perishable material which decays, can be attacked by insects, and is susceptible to degradation or destruction by chemical reactions. Where conditions are near-perfect for storage of library items and there is full awareness of conservation needs, they still decay albeit slowly. It obviously is worse where harsher conditions still prevail, and most libraries in the areas of study are in the latter group.

Of course libraries have for long been expressing a displeasure about the acidic content in paper. Bansa [22], LC [23] and Shatzkin [24] have clearly expressed strong desires for more alkaline than acid in papers. According to Tomer [25], "although papers with an anticipated life expectancy of 200-300 years are available, publishers have continued to print books on inherently weak and relatively unstable papers." Bansa therefore advises librarians:

> "it is up to the libraries to make their influence felt in the market (by) making printers/publishers realise the importance of the quality marked 'permanence and durability' and more specifically that chemical alum-free production is essential for obtaining this quality of permanence". [22]

Commenting on Barrow's study on permanence and durability of paper, Shatzkin states that acid papers decay rapidly, alkaline or neutral papers decay slowly thereby prolonging the life of books to 50, 100 and many more years. In fact checking through some of my references, I have just stumbled on an inscription in a book by Morrow [27] saying "This book has been printed on acid-free paper." Fine. It is gratifying that something is already being done. To conclude on this, Carhart's summary is worth noting:

(i) librarians must identify those items which are to be published on long lasting paper.

(ii) they must remind publishers of the need for long-life papers in their books.

(iii) publishers must insist that paper-makers provide long-life papers.

(iv) librarians must provide proper environments for storing the books.

(v) librarians, publishers and papermakers must develop some commonly understood measures of book behaviour or performance standards; and

(vi) librarians must urge publishers to insist that the paper industry do a little bit more than it can rather than a little bit less. (28, p. 127)

Contributing to why conservation is very necessary in the tropics, Mwiyeriwa (29) identified three reasons summarised hereunder:

(a) Light - this produces ultraviolet rays which results in photochemical changes and photo-sensitised reactions in paper. Visible light bleaches book covers, writing ink and the colours in prints and maps.

(b) Heat and dryness and also humidity - this causes brittleness, fading and hastens oxidation in paper. Like Plumbe, he agrees that the higher the temperature, the faster the deterioration of paper - worse still if the temperature fluctuates.

(c) Moisture - excessive moisture leads to water stains, blurred inks and supports growth of moulds.

In addition, other related destructive enemies of book damage found in the temperate regions are equally a menace in the tropical and sub-tropical areas as Bansa has indicated. Library resources are subject to the same dangers in the tropics as those in the moderate climate zones. In fact, the dangers are higher in the tropical regions.

Carl J. Wessel (30) gave a broadened definition of environment as the physical, chemical and biological elements which make up space we live and work in and in which we carry out life and civilization as we know them, and listed what he considers environmental factors important to museums (and to the libraries, too).

Table IV

Environmental factors important to museums:

(a) The atmosphere (pollutions)

(b) Light (actinic effects)

(c) Temperature (variations)

(d) Humidity (variations)

(e) Vibration

(f) Parasites and saprophytes (insects and moulds)

(g) People (accidents, vandalism)

(h) Acts of God (fire, flood)

(i) Mechanical failure (of control systems). (30)

Some of these will be discussed in relation to the tropics:

2.10 Dirt and atmospheric pollutions:

In most of the developing nations before now, industrial plants were located in the metropolis. So were the universities, and although the rate of industrial growth has been relatively slow, the presence of atmospheric and industrial pollution cannot be overlooked. Cunha (31) wrote in 1971 that acid gases in contaminated air (that is industrial gas) may not be as common in the tropics as elsewhere. Things are changing fast, and although they may not be as widespread compared to the industrial world, the influence of industrial gases in polluting the atmosphere against both books and humans has always been a cause of concern to us.

Nwiyeriwa (29) commented on this that gasoline exhaust fumes, sulphur dioxide, hydrogen sulphide and sulphurus acid singly or severally produce destructive combinations whose damage to library materials can only be imagined than expressed. Many towns in Nigeria including Zaria have huge industries - some in close proximity to university campuses. It is not only the library items that suffer from the danger of atmospheric pollution. In the view of J. M. Orr (32) the amount of effusions from industrial factories pervading the air every day and its concomitant insidious effects on personal health and on paper is alarming.

Therefore, air purification requires attention as vigorous as any other conservation technique in the tropics. Usually, a huge body of dusty air is often seen being blown about especially during the dry harmattan season (Nigeria has two seasons - dry and wet) and will beat against the buildings, and since the windows are usually open, much of it will pass in only to deposit often very thickly on tables, chairs, shelves, floors and of course books. As will be stated later, the janitors always have plenty to do.

What is required is some kind of expellant - an air filtration system throughout the building to help ward off the dust, chemical, and gaseous effects from the library. Experts advise that air filtration systems which are coupled with air conditioning systems are a highly effective protection against dirt and chemicals in the air.

2.11 Temperature and humidity:

As somebody has casually remarked, "it is the function of the sun in a temperate climate to provide light, but not warmth." (17) In the tropics, the sun does both excellently. Tropical climate is synonymous with high temperatures and an equally high incidence of chemical and microbiological effects on papers, and these vary tremendously depending on the quality and the nature of various constituents used as filters.

Baker/Soroka (33) explain that heat is energy in transmission which is possible to relay from one body to another. Such bodies may include liquids, solids, gases or a combination of these and may be transmitted in three ways: (a) convection, (b) conduction (c) radiation. These three are influential in the permanence or impermanence of library resources, and the degree of influence depends on where you are on the globe. The libraries in the tropical regions are worse for it. The cooler the temperature the better it is for all library items - both books and non-book materials.

2.12 Mildew:

It is generally recommended, therefore, for archival and library collections that atmospheric moisture should be controlled between 50-60% relative humidity (RH) at a temperature of 60-75°F, with 68% RH being the critical

point above which mildew and mould would grow. Plumbe [34] puts it empirically when he states that "throughout the humid tropics any library where the relative humidity is higher than 70%, and the air temperature between 65°F and 95°F must expect mildew to grow on many of its books." (p. 31) The temperature in some savana regions of Nigeria rises to 44°C (about 111°F). Herein lies the danger to which library resources are exposed in the tropics.

The very environmental conditions recommended for books are appropriate for all plastic-base materials - microforms, audiovisual items as well as for optical video discs.

Wessel's [30] article on "environmental factors affecting the permanence of library materials" is very informative in this respect. Water, he said, could be found in all matters - solid, liquid, and gas while snow, ice, sleet or hail, rain, iceberg, liquid water, mist, and water vapour may be commonly referred to as humidity. The warmer the air (and tropical air must be warm indeed) the greater volume of water it contains. The table below clearly illustrates how the actual amount of water in the atmosphere increases in sympathy with the rise in temperature.

Table V

Temperature		Absolute humidity (g/Kg)		
C	C	RH=20%	RH 60%	RH 100%
0	32	0.38	2.28	3.82
20	68	1.43	8.69	14.61
40	104	4.55	28.30	48.64
60	140	12.50	83.55	152.45

(30)

In the savana regions of Nigeria, i.e. the northern areas, the above does not present a problem during the dry season. But it takes its toll in the rainy season when both the temperature and humidity will be high indeed. It therefore needs to be kept at a constant level as much as possible. There is always a problem as to what temperature to maintain inside the library for people and books. The lower the temperature, the better it is for library resources and the more uncomfortable for people.

Wilson [1] believes that, where possible, books and people be given different areas for occupation with appropriate temperature level for each. Said he, "it has been calculated that every 2.5°C reduction in ambient temperature extends the life of a book by 50%" (p. 167). Readers and books should cohabit and a balance must be struck at which both library items and people are comfortable. Authorities recommend between 60-65°F and 65-75°F for library collections and people respectively. They may vary slightly depending on the place, the type and quality of materials, the interior arrangement, and the percentage of the collections that is meant for permanent retention.

To support permanent retention and to make for more equitable use of collections, libraries do not make all their materials available for circulation outside the library. Hence the ABU library complex house their items in areas variously designated as Reserve Book Unit or Short Loan Section, Circulation, Africana, Serials, Documents, Special Collections, etc. In fact, in PKL, law books are permanently on reserve - for a number of reasons:

(i) they are very expensive items to procure

(ii) many readers depend on limited available copies

(iii) it is extremely difficult to obtain them locally or from overseas countries be they textbooks, law reports or whatever

(iv) communication difficulty does not encourage adequate use of interlibrary loan facilities

(v) more importantly is the lack of funds to acquire enough duplicate copies for the large readership.

Most of these reasons equally apply to the rest libraries whose materials are nearly all meant for permanent retention as seen below:

Table VI

Availability of library items for use

Estimated size of holdings				For permanent retention				Degree of use			
KIL	PKL	IAR	Med Lib	KIL	PKL	IAR	Med. Lib	KIL	PKL	IAR	Med Lib
300000	76000	5800	30000	100	95%	100%	98%	heavy	heavy	heavy	heavy

From the above, it is seen that nearly all items that reach the libraries are for permanent retention. The only possible exeption to this is if courses which the items support are no longer tenable in the institution. In any case, Africana collections for which KIL is a repository are in for good. It is against these backgrounds that the managers of these libraries are becoming increasingly conscious of preservation/conservation needs in their libraries.

2.13 Fungi:

A related biological problem associated with abundance of water or humidity is the growth and attack of fungi usually with its attendant odour and staining. Fungi grow in the light as well as in the dark although they seem to prefer the latter. It is believed that:

at 70% RH, growth is minimal and sluggish
80-95% RH, growth is smooth and gradual
above 95% RH, growth is rapid and luxurious, and they thrive. Hence Kartashov [26] states that "damage to book depositories in libraries can be caused by about 1000 species of insects and over 300 species of mould fungi."

It should be borne in mind that it is the temperature and humidity condition of the materials that control decay reactions. Of course humidity and temperature conditions differ from place to place depending on factors like local body of water, vegetation, and protection from the sun. It has been noted already that Zaria is in the savana region and so there is no body of water and no dense vegetation - except grasses and shrubs. The effect of solar radiation is felt strongly indeed.

It therefore means that a drop in temperature precipitates a rise in

relative humidity and condensation of water which will be injurious to books. Fungi affect collections in a variety of ways:

(1) Some consume cellulose which will result in irreparable damage to library resources.

(2) Others feed on nutrients in leather, glue, paste, adhesives and threads.

(3) Yet others stain and contaminate library items.

(4) They may cause the inks to fade and possibly obliterate the writings therein.

In a recent study on "safeguarding the collections of Nigerian University Libraries," Okoye-Ikonta [35] came up with the following astonishing results:

Table VII

Rate of fungal occurrence in Nigerian University Libraries:

Intensity	No. of libraries	Percentage
Plenty	4	30.77%
Little/mild	5	38.46%
None	4	30.77%

(32)

The study which covered the then 13 Nigerian University Libraries has demonstrated that four, out of which three are in the rain forest region, are dangerously affected by fungi; five, three of which are located in the savana belt, have less fungal attacks; and four, none for the moment. This, as will be seen in the section under air-conditioning, is supportive of the fact that adequate use of a cooling system will not only control temperature and humidity, but hinders the growth and survival of fungi in the library. Besides, the application of fungicides and fumigation will impede their further spread as Okoye-Ikonta [35] indicated in his study already referred to:

Table VIII

Preparing against fungi

Type of Preparation	No. of libraries	Percentages
Fungicides	3	23.08%
Fumigation chamber	1	7.69%
No preparation	9	69.23%

From this table, it is seen that nine of the thirteen Nigerian Universities (it has since increased) have no anti-fungal preparation. There is no doubt that the problem exists in almost all the libraries - it is probably because no serious study to determine this has yet been carried out in each library.

2.14 Vermin:

Book destruction due to parasites and saprophytes - bookworms, silverfish, cockroaches, etc. (34, p.3) is a serious headache in tropical and sub-tropical areas. Both Plumbe and Metcalf appreciate the stubbornness of these troublesome micro organisms which defy general cleanliness and good housekeeping measures in these zones. This is because no sooner they are destroyed in the library than it will be invaded by some others from outside - a vicious cycle. The decision not to use much wood, unless we must, is yielding positive results (see section under furniture). This, plus tremendous improvement in the architectural styles nowadays has helped to reduce the menace of saprophytes on library items.

Eating in the library outside the lounge is a direct cordial invitation to insects to do havoc as most have strong sensitivity to smell where to find food. Hence in the new KIL building, two lounges for senior staff and junior/intermediate staff respectively are provided on the ground floor. This is to encourage staff - especially those who live far away from the library to bring light meals/snacks to eat during lunch. Some who choose to, may buy a mug of tea and snacks from the cafeteria for each category. Besides, there is no official time for break. It was not easy initially to convince certain category of staff to eat only in the lounge. The situation is improving now.

There is no provision for the readers' lounge. This is because there are some cafeterias around on the campus where they could go for their needs. In addition, there are kiosks strategically located where they could get snacks, soft drinks and confectioneries and other light food. The same is true of Kongo, Barau Dikko and IAR libraries.

It has been stated already that in tropical zones, the fear of book damage by insects, termites, cockroaches, moths, silverfish and other vermin always exists. However, it does seem to me that their devastating effect is waning gradually for a number of reasons:

(i) the wind of PAC awareness is sweeping through more and more libraries right across the areas under study.

(ii) both the styles of and the materials used in buildings have improved considerably over the years thereby proving strong resistance to the insects damaging tendencies.

(iii) Practical PAC activities which are already being embraced by many libraries are yielding the desired effects.

(iv) Many more librarians are being trained in conservation needs and approaches.

(v) The funder, too, is increasingly becoming conscious of the need to invest in preservation and conservation efforts.

(vi) The situation will be helped further if, as Wessel [30] puts it, efforts are made to "custom-design and manufacture, with carefully chosen climate-resistant materials - books to be used and stored in the tropics (hot-wet) and (hot-dry desert regions), as compared to those for use in the temperate climate." p.70

It is strongly believed that if the utopia in vi above is realised and the libraries are gripped with full consciousness of preservation needs, then the problem will go down the drain.

2.15 Airconditioning:

Undoubtedly, an airconditioning system which circulates and filters the air (sometimes referred to as climatisation) is the salient solution to many environmental problems in the library. Temperature should be reduced or controlled by a system of refrigeration and this should be kept constant all year round without skimping if the library books and non-book items are to last for as long as they are needed. Cunha (31) notes that an airconditioner performs four important functions which are ventilation, filtration, temperature control and humidity control. Commenting on the same topic, Mwiyeriwa (29) states that, "airconditioning systems should have modern vacuum filtering systems to clean the air of harmful dust and gaseous impurities such as sulphur dioxide and oxidants." (p. 259)

For books and other library items, the best temperature is 60°F. Cunha, and IFLA (7) recommend that an indoor temperature of between 65°F - 75°F will be adequate for people for health and comfort. IFLA suggests that the Equilibrium Moisture Content (EMC) of organic library materials must be maintained at a constant level - and that is possible by airconditioning.

A warning should be sounded about how NOT to instal an airconditioner in a library building. The KIL has a giant central cooling system that could provide the needed service 24 hours without skimping. This huge object is sitting right on top of the two-storey building. For reasons not yet fully diagnosed, it breaks down too frequently - in fact it has never actually functioned for a month since the library was opened a decade ago. So much money has been expended on maintenance - to reactivate it - without commensurate service to pay for the value for money.

Besides, each time it was switched on, the vibration it caused shook the building to its foundation, the walls crack and fracture, people are gripped with terror while the materials deteriorate still resulting in frequent and constant repairs. Fans were provided in near-enough number as an alternative or to supplement it but they certainly are not facsimile substitutes for the airconditioner. Requests have been made to the university authorities to provide unit airconditioners in some strong-rooms. These are gradually receiving attention. We hope enough number will be provided soon to enable continuity of service in the library at night even if light from the National Electricity Power Authority (NEPA)

is off - as it often is. The library is hooked to the main university generator.

One would have expected that such a massive object be assembled on the ground - possibly separated from the library building itself. To dismantle it (if ever a decision would be taken in that direction) would be as difficult and costly as it was to instal it. Until an acceptable solution is found to this, it remains a monument to bad planning.

Keyes Metcalf's [4] suggestions as to the technical considerations to bear in mind when installing an airconditioner are summarised below:

Table IX

Airconditioner installation: technical considerations:

(a) Heating only - not recommended in most libraries.

(b) Minimum recommended installation - heating and ventilation with air filtration.

(c) Comfort installation - heating, ventilation, air filtration and cooling. This is recommended if the library is open to the public during long hot and humid days.

(d) Conditioned installation - heating, ventilation, air filtration, cooling and humidity control. This is recommended for situation noted in c if the collections have rare and irreplaceable books and manuscripts.

(e) The ideal installation - heating, ventilation, air filtration, cooling and humidity control, all within certain specified narrow limits in order to maintain ideal conditions of temperature and humidity the year round, regardless of outside conditions. [4]

2.16 Lights:

It has long been recognised that light is one of the chief enemies of

library collections. Light of course is a derivative of two sources: power (electricity) and natural light (energy). Without adequate lighting, libraries cannot perform their function day or night. Buchberg (19) writes that all levels of light even if very low contribute to cellulose degradation and the fading of certain pigments and dyes. He appears more emphatic about the influence of radiant energy on papers. Said he, "of all the chemical and physical agents of deterioration, sunlight probably accounts for the most widespread deterioration of materials outdoors."p.35 In that respect, circulation collections suffer more than other items which do not circulate outside the library. Yet reference and other non-circulation items have their fair share of solar energy entering through windows, doors, skylights and through other sources of artificial lighting.

Naked or visible illumination whichever the source bleaches writing ink, book covers - especially at the spines and colours in prints and maps. In his study mentioned earlier (35), Okoye-Ikonta states that natural light is not a serious source of ultraviolet radiation in Nigerian University Libraries. If natural light is not a serious problem, the credit should go to the library planners and architects for proper orientation (4) of library buildings. Fluorescent lighting is a serious menace though, being very rich in ultraviolet rays. Besides, a sizeable proportion of collections within the complex under study and in fact of all universities are available for circulation outside the library. It is not uncommon to find library books in cars parked in the sun outside while the owner is out somewhere. (A senior staff can borrow up to 20 books in KIL). When one considers this and the number borrowable by both undergraduate and postgraduate students which generally are in worse storage conditions than in the library, it becomes apparent what damage via ultraviolet lights are likely on library resources.

2.17 Heat in the library:

Large areas of glass as are evident in many university libraries in the tropics, KIL for example, create (or add to) the excessive heat being felt in such libraries. Tottle (20) notes that the rate of heat transfer through glass is 4-5 times that of the 14 inch thick wall and this is not "conducive to conditions of stability", p.392. Further, he states that "the heat given off by a person expressed in terms of physical quantities

may be about 400 B.T.U. s per hour, and this is sufficient to raise 2 pints of water to boiling point. By the same reasoning the body gives off moisture in the order of some 1½ oz. per hour. As this process of heat and moisture dissipation and absorbtion into the contents and fabrics continues, and considering the number of people in a library especially at peak periods, the resultant increase in both temperature and moisture content and their imperceptible effect on library items can only be imagined. It has been said repeatedly, that constant airconditioning and good ventilation provide the best solution. It is therefore stated that a supply equal to 1000 cubic feet of air per hour per person is required in order to meet human needs and keep the atmosphere wholesome. (20)

Conscious of these and to counteract the actinic effect of solar radiation on books in the library, experts advise that fluorescent tubes should be covered with filters. It is astounding as Okoye-Ikonta noted in his study, that no Nigerian University Library has used filters to curb the effect of direct radiation on library collections. He blames this on "ignorance" of the effect of ultraviolet light on library resources. Perhaps it is not too late for correction. Nevertheless, the KIL and other libraries of particular reference in this study, use venetian blinds and other kinds of wind breakers to check both the in-let of natural light and dust. Where airconditioners are functioning complement this.

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CHAPTER THREE

3. HANDLING, MAINTENANCE AND SECURITY OF LIBRARY RESOURCES

> "Misuse and bad practices cause rapid and enormous damage to books and other library items... So do fire, flood, earthquake, windstorms and war." (1)

Thus the reality of conservation is clearly spelt out in the Charter of the International Institute for Conservation of Historic and Artistic Works to include measures "to protect and preserve and maintain the condition and the integrity of any object or structures which, because of their history, significance, rarity or workmanship, have common accepted value and importance for the common good." And this entails studies "necessary to determine the nature or properties of materials used in any kinds of cultural holdings, or in their housing, handling or treatment... " (2) to further the understanding and controlling of the causes of deterioration of historic and artistic works.

In like manner, Wilson (3) reports that as far back as 1948, "a suggestion (was) made that the study of such problems as materials, fabrics, lettering sizing, paper preservation, reproductive techniques, preservation from mildew, extermination of insects and vermin, and leather preservation, should be investigated by a technical research laboratory..."It was as a result of such studies that libraries and archives have come to realise that for their collections to last long, they should be carefully handled, stored in appropriate places and maintained regularly. These, among others, include taking actions to ensure security of such items against thieves, vandals or natural disasters. Writing on "Library security problems in Nigeria today", Omoniwa (4) identified ten areas outlined hereunder:

Table X

Library Security Problems of Nigeria:

(i) protection of the book stock against unauthorised removal;

(ii) protection of equipment;

(iii) identification of legitimate readers and valid readers' tickets;

(iv) security of cash (usually small amounts);

(v) security of readers' personal possessions;

(vi) staff and readers' safety;

(vii) confidential documents;

(viii) conservation of rare or expensive items;

(ix) protection of premises against fire, and

(x) protection of premises against intruders out of business hours.

Most libraries in one way or the other suffer from all or some of the above problems.

3.1 Book finishing:

In most libraries, the final technical operation on new items before they go for shelving and consultation includes the entire physical preparation such as providing reinforcements like cover strengths, book pockets, book cards, writing of ownership marks for identification, lettering spines, circulation devices and mending damaged leaves or parts and binding. (3) PAC activities commence here. If handled in a slipshod manner it will lead to faster deterioration and damages of library materials.

3.2 Shelving:

One of the major areas of book damage is the type of shelves and style of shelving. Shelves should be smooth and without sharp edges (5) or abrasive finish. They should be of standard sizes and heights to encourage shelving by staff and browsing by readers. Book ends need to be provided to support books on the shelf. It is recommended that books should be shelved upright to stand on their tails. It should not be so close that removing one will be difficult and cause abrasion. This is usually a problem in a library where the stock is growing without commensurate possibility for space development because the building is either too small now or not of a type to make flexibility possible. They should not be

shelved on their fore-edges as this will cause the textblock to pull out. Therefore to remove a book from the shelf, users are advised to hold the waist having gently pushed its immediate neighbours on either side to create room for holding it.

On no account whatsoever will users hold the headcap to pull a book out of the shelf as this practice (a very common one) results in the book becoming dog-eared as the headcap will be wrenched off. Books should not be made to lean on one another as this will damage the structure which takes place at the hinge area. Oversize books like maps, atlases etc. should be shelved flat. It costs a lot to bind them. Most libraries have shelving stools to help users and staff of average height to reach the top shelf without much ado - as this will result in 'forcing' the item off the shelf. The ABU library complex should consider this important aid for shelving as lack of these contributes in no small measure to book damage. Gelfand [6] in summary advises that it is essential to provide adequate storage space and that this should be well ventilated, and safeguarded against excessive dampness or aridity, direct sunlight, heavy dust penetration and book destroying insects like fungi, cockroaches, etc.

3.3 Shelf-reading:

Regular shelf-reading is obviously a means of arresting book damage. Books that require treatment are promptly pulled out. The practice in some libraries of having junior staff doing this job without a definite arrangement for supervisors to oversee what has been done is totally unacceptable. Professionally speaking, it helps to find a "lost" book.

3.4 Dusting:

In Nigeria and other tropical areas, a huge volume of dust is often pervading the air, and so the need for janitors who are willing to work conscientiously without having to be coerced cannot be overstressed. The supervisor will also oversee to what extent the job of dusting the shelves and books has been done properly. In the library complex and particularly the KIL, it has always been a headache getting the cleaners to work. It was so bad that the administration had to think of a way to handle the situation. What the Deputy Librarian - Dr. Ochai did

which seemed to work was to ask two senior staff to assign work to the janitors (for about 30 minutes) and leave the supervision to the head cleaner who will report to the two each janitors progress of work. This commences at 10 am after each cleaner has finished work on his 'permanent' area of duty. Since this arrangement was introduced, the situation has improved.

Admittedly, it may be criticised that valuable time of the two senior staff is being wasted on non-professional duties. But when that "time loss" is compared to what results from this assignment, it more than pays for it.

3.5 "Don'ts" in the library:

Amodeo [8] indicates that the following don'ts should be emphasised in the library. Don't:

- use ink, especially the type that transfers to the fingers and subsequently to the paper.
- pile up books on the floor or table. In short, limit the number of books a reader may have on his or her table for consultation at a given time.
- allow materials to hang over the edges of tables or shelves - they'll fall off and get broken.
- allow patrons to write on paper laid over the page of a library book - whether open or closed.
- allow the edges of books to be turned down.
- permit tracing from library books. If permitted, it should be done in pencil only.
- permit exposure of books to sunlight - as it results in colour fading especially at the spines. BUT:
- preach against writing or making marks in the books
- preach against wetting the finger tips to open books
- avoid, by all means, the use of candle sticks in the library
- prohibit the use of pressure-sensitive tapes like selotape, and also pins, clips unless you must

- frown against eating anywhere in the library other than designated places - lounges.
- ensure that adhesives - gum, glue - often used in the book finishing and mending unit are used correctly without dropping onto image areas of the book.

3.6 Library move:

In this era of ebbing financial support for libraries in which the cost of repair, rebinding and replacement of even ordinary materials continue to climb, it makes perfect sense to take precautions in order to prevent unnecessary damage to collections, especially research collections. Libraries move from an old building into a new one and during such periods, unless adequately supervised, book damage and loss is alarming. KIL moved into a new ultra modern building in 1976. It will be hoodwinking oneself to claim that no book damage or loss occurred during the move. Amodeo [7] gives helpful hints to guide at such times:

Table XI

Helpful hints for moving or shifting collections

(i) training should be given to the staff as to the correct and acceptable way of moving books from the shelf

(ii) adjacent ones should be pushed gently towards the back of the shelf to expose enough of the desired book for grasping

(iii) books should be grasped firmly in the small enough quantity to assume safe handling

(iv) all books should be supported in an upright position, and after removing a book, the immediate neighbours should not be allowed to slouch, sag or slide

(v) an adequate number of kick-stools or other risers should be provided for use within the stack for readers and staff. This prevents yanking off books on the top level as well as stopping the remaining ones from falling off the shelf for lack of support

(vi) books should be supported by book ends

(vii) books should not be stuffed too tightly as to cause abrasion or crushing

(viii) supervision should be properly organised

3.7 Media:

The KIL has media collections comprising films, slides, tapes, cassettes, discs as well as reprography. Others in the complex also keep media items. There is always the problem of handling, storage and preservation of audio visual materials the world over - especially in the tropical zones. Schuller (9) writes that sound carriers are "subject to deterioration to a much higher degree than conventional print media", particularly under tropical and sub-tropical conditions. For example, the vinyl discs are said to be highly sensitive and so need extreme care in handling the system including the stylus. Dust, excessive temperature and its fluctuations are dangerous to sound sources in the tropics. Cabinets, boxes and other containers for the storage of AV materials should be checked and treated regularly to avoid insects hibernating in them to cause damage.

3.8 Reprographic services:

3.8 (i) Photocopying: Photocopying of library collections "provides a valuable means of preserving the intellectual content of publications, but can itself be potentially damaging" - Seaton (5). In Nigeria as late as 1972, Ahmad (10) and Enu (11) indicate that "a very few (university) libraries have photocopying machines". The situation has significantly improved as "several universities in Nigeria including ABU, Ibadan, Jos, Calabar, Ilorin, etc. have installed photocopiers and make copies... at subsidised rates", and this, as Thompson (12) notes, "has to operate within the law."

In ABU main library (KIL) in 1985, photocopying services were leased to an outside firm with a room provided for this purpose in the library. The obvious advantage of this is that it has removed the burden of photocopying from the library, except for official matters for staff and administration. Secondly, since the firm owns its copiers and other equipment, the issue of frequent breakdown of machinery and consequent maintenance often arising from over-use is therefore out of the question. But from the conservation point of view, the following fears may be legitimate according to Amodeo (13) "any photocopying done from a book subjects (it)

to an abnormal strain" as pressures are brought to bear on the spine in order to capture the full text from the narrow gutters. Besides, Amodeo further states, "the very nature of some paper formats make them inappropriate for safe copying - their size, weight, tightness of binding, deteriorated condition, fragility, cultural and monetary value or irreplaceability dictate against photocopying some books, maps or even bound serials."

However, there are solutions to the problem: first, special care should be taken in handling bound volumes - which is to be done by an instructed operator - supervised and controlled by a trained officer - as in KIL before the transfer to a firm. It is suggested by Amodeo [13] that books more than 25 openings do not warrant safe copying from (and this is difficult to comply with in the university libraries). Second, an overhead copier which can produce book pages with the book facing up is already in use. An example is the "Archivist" [14] which is said to be "a unique system designed to enable libraries to copy from rare and expensive volumes with greater confidence". It guarantees "protection of books during the copying process acquired by the use of a unique book cradle which holds the book in a normal reading position and raises it by air pressure to the scanning head. The book spine is supported at all times by a flexible insert." A Varioprint Wlool can also print both from flat paper and partially open books - taking the image from above.

University Libraries in the developing countries that offer photocopying services at subsidised rates deserve commendation - they hardly break even.

Okoye-Ikonta's [15] study has revealed the following:

Table XII

Photocopying provision in Nigerian University Libraries:

Arrangement	No. of libraries	Percentages
Available	12	92.31%
Not available	1	7.69%
Centralised	12	92.31%
Decentralised	-	-
Subsidised	8	61.54%
Not subsidised	4	30.77%

As can be seen, of the 13 university libraries, only one (7.69%) did not offer photocopying services at the time of study, whilst 12 (92.31%) provide the services with 8 (61.54%) at subsidised rates.

3.8 (ii) Photographs: Some university libraries, KIL for example, keep photographs taken to mark occasions like opening important new buildings, convocation ceremonies, cultural hair styles of Nigerians or Africans, exhibits, seminars, conferences, etc. There is a full-time trained technician in charge of reprography including photographs. The pictures are exhibited occasionally and have historical and cultural values. As Swan [16] has pointed out, "this aspect of library service is a new phenomenon" which should be encouraged because it appeals to both literate and illiterate alike. As these are materials that were 'bathed' in chemicals, they are very susceptible to decay perhaps due to poor production techniques, over exposure to light, insects, moulds and human activities. It therefore needs tremendous amount of care and expertise to preserve them. An article by George Eaton [17] offers full exposition on this topic.

3.8 (iii) Microforms: These are available in many different forms: roll microfilm, unitised microfilm, microfiche, superfiche/ultrafiche, jacketed, micro opaque, miniaturised print [18] and these are a means of preserving the intellectual content of a book whose paper has seriously embrittled [19] possibly due to poor material used, age, usability, etc. and so need the transfer in order to allow continuity of information. It may be due to a desire to protect and preserve the original as an artifact, and also occupy less space and cheaper to produce. It has the following limitations, though: (a) it does not reproduce colour illustrations, and (b) it is difficult to microfilm books which have folded maps, plates etc. Said Hasznos [20] "the main concern of archives and libraries is still to preserve in original form relatively intact and to save damaged documents and books from further deterioration." Hence it is regarded a viable means of preservation.

3.8 (iv) Exhibitions: Libraries exhibit their collections for a number of reasons: (a) to "advertise" their collections; (b) to expose bad habits of patrons such as cruelty to books and other materials - a consciousness raising device; (c) to draw the attention of its community;

and (d) to mark occasions, etc. In all of these, care needs to be taken to avoid damage to books and other resources. Exhibit cases should be examined thoroughly - the temperature/humidity in the library and inside the cases need to be watched.

3.9 (i) Education in library use: In most of the third world countries like Nigeria where public, school and college libraries are not fully developed, it is only natural that students' knowledge of library use is very limited; in some, none at all. It then follows that students will not be acquainted with library use until he/she gets to the college or university, and this emphasises the need for user education services especially at the beginning of the academic year. The ABU Library Complex provides this service by organising library orientation programmes for fresh intakes and this involves many professional and para-professional staff.

Apart from conducting the students in groups round the appropriate areas in the library, it also shows films/slides (KIL) in order to further appeal to their visual conception the use of the library. Ahmad (10) indicates that such a programme should include the following:

Table XIII

Library Orientation tours: things worth knowing

(a) techniques of using catalogue

(b) characteristics of the literature of their disciplines

(c) methods of searching indexes and abstracts

(d) document scanning skills

(e) shelf arrangement and book location

(f) use of bibliographic and reference work

(g) non-print media resources and use of hardware (if any)

(h) special collections e.g. theses, manuscripts, report literature, government publications, etc.

(i) photocopying, binding and other services available to students.

The use of any or all of the above depends on local situation.

There should be no argument as to who should give a "how to use the library" course as was witnessed in ABU between the library and the English department about a decade ago - Ahmad [10]. Mews [21] is convinced that such an instruction is in the domain of libraries to offer. It is necessary to agree with Roberts' [22] suggestion as he gives the example of the Bradford University where library instruction is embodied in the university regulation - "all students will at an appropriate time during their course receive instructions in the use of library facilities, including techniques of literature searching and sources of information." There should be publications to supplement orientation or users' instruction e.g. library guides, handbooks [12] etc. Lyle [23] believes that "orientation is useful, even though it does not do all we hope." Library instruction is necessary not only for the users but the library staff too. Said Lyle, "of the numerous forms of library instruction now offered.... almost all offer variations on three themes: (a) a library lecture or lectures and problems offered in connection with a subject course; (b) a separate course with credit and (c) bibliographical instruction given upper class men and graduate students by invitation of the professor". Where these are offered, in my view, it is merely to create an awareness or introduction to the use and operation of library service.

3.9 (ii) Staff training: One fascinating programme long organised by the ABU Library Complex for personal improvement of each junior staff is in-house staff training. According to Alafiatayo [24] it is... "aimed at giving them the background knowledge in librarianship necessary for effective and efficient performance of their duties (as) this enhances their usefulness and ability to perform their non-professional tasks." By this, all junior staff are encouraged to undergo the training which touches on all aspects of library service: circulation, reference, serials, technical services, etc. for library staff and binding and clerical courses for staff in the bindery and typists respectively. It is offered by professional staff with each unit lasting over a period of 10-12 weeks. It has the following advantages to both the participants and the library:

(a) the individual "improves in knowledge"

(b) it enables the successful participating member to gain promotion

when due - otherwise none at all.

(c) the library gains in that the level of performance of the participating staff improves - and that is the real essence of it all as they:

(i) now know what to do

(ii) what they should not do and why

(iii) their relationship with the users - very important

(iv) the administrative structure for channeling of administrative matters.

3.10 Binding:

Binding of library items could be done in-house (i.e. where a university has a bindery of its own to handle its library and other binding needs) as in ABU, and by commercial binders. The function of binding and preservation, as Rogers and Weber [25] put it, is to provide suitable protection to each item added to the stock. This involves the entire physical preparation for use, supplying cover strength equal to weight and anticipated use, stubs for missing parts, pockets for loose parts, bookplates or other marks of ownership, internal marks of identification, and circulation devices, lettering spines and mending damaged leaves, covers, etc. Binding is done in a variety of ways each having its own merits and demerits. Whichever method, it should be supported by the preservation and conservation policy - see Chapter 4.

In the main library of ABU, the author was for years in charge of Book Finishing and Mending Unit where with five other staff they handle book mending and among others prepare them for bindery treatments.

3.10 (i) Preparing items for binding: Basically, there are two categories of items processed for bindery repairs - first the paperbacks that require flushing to be strong enough to "compete" for space on the shelf, and second, existing items which from use (and other reasons) have torn or broken too badly to be further consulted unless repaired. Unless such items are prepared carefully for the bindery, they are likely to return more seriously and permanently damaged than they were before they were sent there. The following reasons could be valid explanations:

(a) careless and slipshod preparation of items to binding

(b) lack of adequate records - which should be prepared in duplicates and retain one in the library and the other accompanies items to the bindery - used as check list.

(c) over confidence in the ability of bindery staff by the library staff.

(d) poor storage arrangement in the bindery

(e) lack of policy as to what to do to a bindery staff if proved to steal library books.

(f) delays in collecting finished jobs.

(g) quality of organisation/supervision in the bindery.

To send items to the bindery, the unit only records the accession number of all the books in a notebook and withdraws the book cards which are filed numerically. When items are brought, the accession numbers are matched. Those that tally will be returned , the book/card lettered - using electric stylus pens and assorted transfer foils in rolls $\frac{7}{8}$ inches by 200 ft. [26] , and are then passed to the circulation, Africana etc. As has been noted, in some cases books collected back will have no title, content and other essential preliminary pages, others may have part of the writing cut during trimming, whether the style of binding given to a particular book would permit a flat opening for reading and photo-copying without damaging it is another argument; and worst of all, some books may never return at all. It is possible that books belonging to one library are carried to another perhaps inadvertently. One cannot rule out the possibility of stealing some while in the bindery.

The obvious question is why all this? Could the problem come from the library or is it the bindery? Roberts [27] suggests that there should be written specifications for items taken to the bindery - to guide the binder in the style and quality of binding for each book. This has not been the practice in the library. Roberts' fifteen suggested specifications model are summarised hereunder;

(i) collation: serials should be carefully collated (and tied up

neatly) before sending them to the bindery - very important.

(ii) mending: This includes torn leaves, damaged folds, etc. The library should specify for example Japanese tissue for tears and acid-free bond paper for other places and for reinforcement as well as the type of paste to use.

(iii) sewing the book: The format of the book, use, value, inner margins and the condition of paper determine method of sewing.

(iv) Preparation for sewing: includes treatment of double leaves, inserts, folded sheets, etc.

(v) The actual sewing of the book: instruction as to what space to leave at the head or tail of the book if over-sewing or sewing through the folds is needed - how many tapes (and how wide are they) to be used.

(vi) Maximum thickness allowed: Mainly for periodicals - should not be more than 2 inches in thickness.

(vii) End papers: How the joints are to be attached.

(viii) Trimming: Very important to note - warning against cutting any printed part away.

(ix) Gluing, rounding, backing and lining: specify the use of flexible glue, round and back the book properly and line it with approved lining materials.

(x) Covers: Specify cloth or buckram and the quality of each as well as the binder's board including quality and thickness to be used.

(xi) Casing in: It is necessary to specify the quality of paste to be used and general method is pressing the book.

(xii) Lettering: Specify whether gold or white foil and the type.

(xiii) Inspection for defects: Each volume must be inspected before they are returned to the library.

(xiv) Brittle condition of paper: Specify that books printed on poor paper should be sewn through the folds.

Admittedly, it may be questioned how one would get the expertise, the staff and the wherewithal to implement effective binding . It calls for cooperation among libraries. Perhaps the greater part of the problem is from the bindery: consider the following:

3.10 (ii) Storage: Good storage is as important in the bindery as it is in the library. There should be enough, neat and safe storage where materials from respective customers are shelved to wait for their turn for treatment. The current practice of lumping jobs from different customers in one area is undesirable. Efforts should be made to see that finished jobs are kept separately (on the shelves) for their owners who should be notified immediately to come for collection, or are sent to them. Put simply, the bindery needs a completely new building, functionally designed and carefully executed.

3.10 (iii) Staffing: It takes three months or more for materials to be bound and returned and this in part could be blamed on inadequacy of staff. There are two solutions to this: first, recruit the desired number of staff and train them for their jobs at least internally. Second, take heavily used items to commercial binders for urgent attention.

3.10 (iv) Materials: One of the serious headaches for the staff in the bindery is lack of materials to work with - glue, board, paper, etc. This, in part, is responsible for the delays. Solutions to this are beyond one individual. Since it is no longer easy to import needed items from overseas, until the nation is able to produce the items in large enough quantity to meet local demands (or liberalise import regulations) the problem is likely to stay with us.

3.10 (v) Stand-by generators: There is acute need for standby generators to supplement the national electricity, the supply of which is irregular.

3.10 (vi) Supervision: Well, there seem to be good supervision from trained supervisors heading various sections. It only needs to be added that they should try to be conversant with relevant literatures in order to keep abreast of latest developments in terms of style, method and machinery in binding technology.

3.10 (vii) Transport: Considering the enormous volume of work for ABU binding unit, it certainly is not ambitious to ask for at least two vehicles - one of which must be for goods only.

3.10 (viii) Airconditioners: Because of the use of machines, the temperature in the bindery is always high - too high for the comfort of both the staff and books. Their repeated requests for unit airconditioners is absolutely genuine and should be heeded.

3.10 (ix) Funds: Pressure must be brought to bear on the university authorities to make adequate funds available for bindery operations. Additionally, articles by Matt Roberts [28], Harold Tribolet [29] and Gay Walker [30] provide interesting reading in relation to binding practice and conservation needs.

3.11 LIBRARY SECURITY

> "...as good almost kill a man as kill a good book: who kills a man kills a reasonable creature, God's image; but he who destroys a good book kills reason itself." John Milton, 1644 [2]

Library security is obviously considered a preservation issue and is of such a magnitude that full discussion of it is necessary. In the process, attempts will be made to provide answers to the following: factors which contribute to thefts and mutilation, how do they steal? Recovering lost items, measures to curb mutilation and losses, disaster preparedness - flooding, fire outbreak, any justification for library insurance? etc.

In the views of Kirkpatrick [31] librarians and curators are charged with highly regarded societal duties: "Preservation of the historical record, protection and dissemination of culture in all its forms and flavours and compilation and transmission of knowledge." It should be understood that theft and other acts of vandalism to which library resources are subjected are societal norms anywhere as Kirkpatrick noted - as liquid and solid are inseparable, so also are licit and illicit behaviour of library users interlocked. Arden [32] reported various university libraries in Great Britain which suffer from this menace as a result of which, in 1972, the BBC television devoted 4-5 minutes discussing the matter. Therefore all that the library administrators can

do is to create a situation in which illicit behaviour is difficult. Souter [33] identified three parties involved when reader delinquency takes place: the individual who is a delinquent reader, the mass of the readers, and the library.

3.11 (i) Factors which contribute to thefts and mutilation: A number of reasons have been conjectured as to why library materials are pilfered by the clientele. Souter [33] Beach et al [34] Dona [35] Green [36] Riley [37] Ahmad [10] Omoniwa [4] indicate the following reasons:

Table XIV

Why do people steal and mutilate library books?

- those who perpetuate this do so for selfish reasons or personal satisfaction
- there is pressure of assignments on students
- library closes too early
- no photocopier or it has broken down
- open access shelves
- attractiveness of materials e.g. sex themes, beautiful designs, etc
- limited loan policies
- saleability
- lack of money - no sponsorship
- copy machine would not produce photographs, charts as desired
- books are too costly for students to afford personal copies
- desire to fill vacant place on book shelves at home
- seating arrangement in the library encourages it
- imposition of fines is undesirable - it leads to illegal borrowing
- lack of multiple copies for high demand items
- inadequate periodical listing
- to protest against bureaucracy

Readers who steal or mutilate library items are very unmindful of what harm their action causes other users and the items themselves. There is therefore a psychological and sociological consideration in the matter. In Nigeria for example, students who steal library books do so mainly to aid them in their course work - no money to buy books nor to do photo-copying. Usually, such items are not available to buy. The issue of book thefts in Nigeria is so alarming as Tashi [38] would agree, "book theft is a national problem with Nigerian University Libraries, especially where security is not tight." In other words, it may make perfect sense to say that this problem could be subsumed under one main heading: no effective and reliable security at the vestibule. In KIL in 1974 and 1976, stock taking revealed a loss of 4.7% and 6.7% respectively - the latter being in its Africana history collection alone. [39]

3.11 (ii) <u>How do they steal?</u> Thieves and mutilators of library resources do so in a variety of ways as Nwamefor [40], Boss [41] Green [36] Okoye-Ikonta [39] have indicated. These include throwing the item out of the windows to be picked up by oneself later or an accomplice, the menfolk keep items in their trousers, shirts, or over-flowing gown "Agbada" while women suddenly become "pregnant" i.e. they allegedly fill up their skirts, blouses, wrappers or slacks with stolen books. Some leave the library through emergency exits - as in KIL and others use false identity and borrowing cards and other dubious means. Yet others borrow one book legally and use the date due slip to remove other needed books from the library. This highlights a weakness of manned or guarded exits and calls for, it is hoped, electronic security systems. What KIL now does is to change the design of date due stamp as frequently as possible thereby confusing a would be thief. The system seems helpful.

Line [42] believes that some characteristics of books make them particularly vulnerable to theft - they are portable and are fairly easily concealed. Generally, books, journals, pictures, rare books, Mss, are more susceptible to being purloined. Souter [33] however identifies social sciences materials to be the more victims from delinquent readers than others.

3.11 (iii) <u>Recovering lost items:</u> There is problem of identifying purloined items as ownership markings would have been carefully scraped off. The ABU libraries - except the Medical library which does not

report the problem - embark on the following in order to recover overdue and stolen items. First, overdue notices are sent, and followed by two reminders to legitimate borrowers. Second, without notice, searches are organised into student rooms and usually, the number of items recovered is colossal. Quite often items are recovered and returned to the owner library by other libraries throughout the country. Sometimes moratorium may be placed on fines and this normally encourages defaulters to return items in their possession. This national cooperation epitomises the fact that all Nigerian libraries seriously frown at book theft and mutilation by delinquents. But many items are not recovered because, according to Line [42], (a) some are sold (b) others are probably passed on to later users and (c) others are left to be thrown away as relics, while (d) some are kept in personal 'storerooms' - such will never be recovered.

In Nigeria as Okoye-Ikonta [39] indicated, mutilation ranks only next to theft in library book loss - and this affects not only the library, but genuine users as well. Hendrick and Murfin [43] put it lamentably, "the quiet but insidious mutilation of (academic library) periodical collections not only drain badly needed financial resources but also frustrates and frequently infuriates patrons." Although guards are posted to man the libraries 24 hours a day, the number is grossly inadequate in a shift. It has been said many times that security lights need to be provided round the ambience of the main library as a security measure - very important, but not yet.

3.11 (iv) Measures to curb mutilation and losses: Whatever actions to be taken have to be within the confines of the statute of the university and the law of the land. What would the law say in respect of anyone who, according to Anderson [44] "wilfully or maliciously cuts, tears, defaces, disfigures, soils, obliterates, breaks or destroys any book, pamphlet, document, newspapers, periodicals, file card, map, chart, picture, portrait, engraving, statue, coin, medal, equipment, specimen, recording, film or other work of literature or object of art belonging to a library or archive or museum?" What to do in the circumstance should reflect in the library's preservation/conservation policy.

To forestall these obnoxious behaviour of library patrons, Green [36] Walch [45] Beach [34] Ahmad [10] a Committee Report [46] present the following suggestions:

Table XV

Efforts to curb mutilation and book theft:

(i) security guards

(ii) appeal to sense of value

(iii) penalty - fines, suspension, rustication, imprisonment, etc.

(iv) photoduplication

(v) closed shelves - like the Holts collection in KIL

(vi) hold identification card

(vii) locker and room inspection

(viii) ownership markings

(ix) reserve books

(x) all belongings e.g. bags, cases, baskets, etc. must be deposited (at owner's risk) in the cloakroom. KIL does this and it is believed to be helpful

(xi) heavily used works should be shelved behind circulation desk

(xii) shelves should be re-arranged for effective supervision

(xiii) provide wire mesh round the first floor of the building

(xiv) check date-due slip thoroughly

(xv) provide additional copies of titles

(xvi) liberalise loan policy

(xvii) prompt follow-up of overdue notices

(xviii) use flat top tables

(xix) installation of electronic devices

(xx) strategic placement of charge desk

(xxi) effective library security programme

(xxii) longer opening hours (KIL has 101 hours per week)

Which measures to adopt depend on local situation and belief of the Library Administrator. For instance, Thompson [12] holds that fines would not help as they may back-lash. He favours gentle persuation.

Boss'[41] observation may serve a reminder to library managers: "librarians commonly respond to losses in a reactive rather than a proactive manner...The reaction to vandalism is to secure vulnerable doors and windows, and install burglar alarms and smoke detectors." Librarians indeed cannot afford the luxury of continuing such an approach - security must be viewed in the broadest possible sense - an anticipatory planning.

Where facilities permit, such a plan should have electronic security at its forefront. This suggestion is made with two reservations: first, in Nigeria and most other third world countries, electricity supply is very erratic and since the electronic security is powered by electricity, it is doubtful whether the utopia will be realised - except where there is a back-up service from stand-by generators. My second reservation is supported by Bahr's[47] view on the issue. While"effectiveness and affordability" are basic questions, it may be questioned whether a library really needs an electronic system? To determine this calls for a thorough survey/study of the collections: What are the extent of losses monthly and annually that could be attributed to theft and mutilation rather than unreturned overdue of legally borrowed items? Bahr[48] suggests six questions to guide in arriving at the decision: (a) who distributes it (electronic device)? (b) how does it work? (c) what does it cost? (d) what will it protect? (e) how is it installed? (f) what are its special features?

In the alternative, a turnstile would do. Although Metcalf[49] feels that installing turnstiles in libraries gives the impression of "regimentation", it is generally considered helpful in minimising book losses in a library where electronic detectors are not in use. In fact, it should be stated that even where electronic devices are used, security is not a hundred per cent guaranteed - as they can be manoeuvred - especially by the library staff. It is understood that there are turnstiles which may be operated without light depending on the design.

3.11 (v) Security of media collection: It has been said already that the ABU libraries have audiovisual collections which are under intensive care of professional librarians. Empirically, it has been realised that readers' propensity to steal library items does not extend to media collection in KIL. This may be due to: (a) readers have no direct

access to the collections as they are only dispensed to the users on request after a proper documentation of users particulars; (b) granted that readers could manage to steal a microform, their use to them is next to zero as they cannot be read ordinarily except on an appropriate machine reader - which they do not have; (c) chances of being caught are higher.

3.12 (i) Disaster preparedness:

Human beings generally tend to feel that disaster can't happen here. Nevertheless, they do happen there albeit rarely. But any time it occurs, it is devastating. Disasters include fire outbreaks, flood, war, earthquake, tornadoes, etc. In Nigeria, except around the coastal areas, possibilities for natural flooding is pretty remote. However, 'local' flooding may occur when water pipes burst, perhaps due to wrong channelling through shelving areas in the library. Librarians active involvement in planning library buildings will serve a preservation measure in this case. The articles by Leighton [50] and Buchana [51] describing restoration activities that took place when Stanford Library flooded, and another by Gibson et al [52] discussing Harwell experience will advise on what to do in the circumstance. Buchana's [53] writing on "Disaster: prevention, preparedness, and action" presents an interesting reading.

3.12 (ii) Fire outbreak: Of all the disasters known to man, outbreaks of fire seem more regular. The Report of ABU main Library Security Committee [46] recommends the following:

Table XVI

Measures against fire outbreak:

(1) Each division (or section) should have four (or appropriate number of) fire extinguishers

(2) Every library staff should be (and was) educated on how to operate fire extinguishers and alarms

(3) The telephone operator should know the phone number of the campus fire station, and this should be displayed conspicuously at the circulation area

(4) The Library Authorities should make the telephone available

to staff on duty after 3.30 pm in case of emergency. (Working hours in Nigeria are 7.30 am to 3.30 pm). The following may also be added to the list above;

(a) Handbills should be made available to readers to inform them on what to do in an emergency

(b) Library staff members should be educated in certain essential items to pull out e.g. catalogue, computer terminals - if any - etc.

(c) The library authority will ensure that emergency exit routes are in working order.

(d) Fire or smoke sensors may be installed

(e) Electrical cables [54] should be conduit wiring with the main control switches outside storage areas.

There is hardly any preservation measure against the incident of earthquake except to hope that The Almighty should continue to cooperate. An article by Morris[55] "Protecting the library from fire" has words of wisdom.

3.13 Summary: In an article by Okoye-Ikonta [39] on "Book thefts and mutilation in Nigerian University Libraries" referred to earlier, some manifestations of the extent of occurrence of different security problems were made:

Table XVII

Extent of occurrence of different security problems in Nigerian Uni. Libraries

Problems	No. of libraries	% of all libraries
Book theft	13	100%
Mutilation	13	100%
Insect damages	3	23.08%
Fungal	6	46.15%
Fire damages	-	0.00%
Water or dampness	5	38.46%
Dust damages	6	46.15%
Heat	1	7.69%
Overdues	1	7.69%

From this table, it is clearly depicted that book theft and mutilation are major security problems facing Nigerian University Libraries. It may be the same in most University Libraries in the developing nations where effective security devices are not mounted at the foyer of the libraries. Concluding, Okoye-Ikonta expressed melancholy over the inability of Library Managers to tackle the menace highlighted: "Nigerian *University Libraries seem aware of the great dangers posed by huge* losses of their collections due to thefts and mutilations, but enough concern and appropriate preventive measures are not being taken."

3.14 Insurance: need for the library(?):

It has always been a point for active debate among librarians that "fire and other hazards in the library are rare and that insurance and loss prevention programmes are expensive and luxuries", Ungarelli (56). It may also be argued that library collections are unlike other commodities such as cars, houses etc. which are insured in that if, for example, a fire occurs and destroys them, and an idemnity is paid, a kind to procure will not be difficult. It is not so with books - for a number of reasons: first, there is the problem (especially in the developing countries) of finding the title or good substitutes for the one destroyed. Second, it takes a long time to rebuild the collection, while the users who depend on the items for their study and research are rendered impotent meanwhile. Therefore the best to do is reasonable disaster prevention - a preservation measure. Furthermore, it is characteristic of most insurance industries that settlement of indemnities when a client sustains a loss *is neither easy nor straightforward.*

Alluding to Harold Roth's ten reasons why libraries may experience difficulty in settling claims, Ungarelli (56) writes:

Table XVIII

Why libraries experience delays in the settlement of claims by Insurance Industries:

(i) an inventory has never been taken or is out of date

(ii) shelf-lists and collections have never been weeded

(iii) insurance coverage has not changed with a changing collection or with the depreciating or appreciating value of that collection

(iv) collections have been arbitrarily swelled by gifts and other miscellany to hold space

(v) extensive runs of periodicals and other materials have been accumulated for the same reason

(vi) used/unused portion of the collection share the same general areas

(vii) shelflists contain a variety of information and inconsistent pricing data

(viii) a substantial portion of the collection and its stacks have been completely destroyed

(ix) the policy covering the collection has a co-insurance feature, which in case of a fire, may lead to presumption that the collection is under-insured

(x) there is the question as to whether books and other library materials are part of the contents as covered by the policy

In spite of the sound reasoning above, the basic argument still holds that insurance is a necessity for libraries, as Gelfand [6] states, "an increasing number of university libraries now carry insurance against fire and natural disasters." The library managers should decide on the possible insurance options like "All Risks" or "Named Perils", etc. and settle on one. Unfortunately, as Ungarelli [56] observes, "many librarians only realise the importance of insurance after a major loss has occurred." The cost of insurance is relatively inexpensive when one considers the protection it affords. Certainly, insurance and loss prevention are cost-justified in the face of the shrinking budgetary base. Gosnell's [57] article on the topic - "Insurance Library" - presents an interesting reading, too.

3.15 Conclusion:

It has been pointed out that proper environmental care, handling, maintenance and safeguarding the collections from theft and mutilation in our libraries should constantly preoccupy the minds of library administrators. These collections differ in form, content and origin and so require various means of handling and maintenance and these must include offering user education, reprographic as well as binding arrangements and style.

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CHAPTER FOUR

THE ESSENTIALS OF A CONSERVATION POLICY

> "For an institution to effectively deal with conservation problems, a detailed conservation policy needs to be written. This policy should be a comprehensive document mandated by the (Library) Administration. In order to better utilise and preserve collections, this detailed framework needs to include and deal with Administrators, Librarians, Curators, Archivists and Patrons as well as the conservation staff." (1)

4.1 The need for the Policy:

Collection building and its development is a painstaking and expensive operation in the library - more so in dwindling economies when book and other library votes are consistently declining. Added to this is the surging cost of library and information resources. Yet books are to be acquired to meet the reading tastes of the clientele. They also are cultural and historical sources to be preserved - possibly in their original nature - for research purposes.

Conservation therefore, according to Ratcliffe (2) is tied to the apron-string of collection building as decisions on what to buy have their corollary in what to preserve. Conservation is meant to increase the length of time a material will be available for use and to slow down the inevitable and continued process of depreciation, said Morrow (3).

Besides, the ingredients with which the library resources are made react to a number of situations like climate - dry or humid, light, dirt, dust and other pollutants, water, insects, aridity, not forgetting the destructive activities of rodents and vandalistic proneness of library users (not excluding library staff) in defacing, mutilating and stealing. Fire and other natural disasters also have their damaging effects. It is against this background that books once acquired should be preserved, and these activities of preservation and conservation know no end.

Hence William (4) rightly states that everything in the library collection

has been deteriorating, it still is and will continue into the future. All that Librarians should aim at doing is to arrest further retardation.

It has since been pointed out that library items deteriorate faster in the tropics than elsewhere because of a multiple destructive contingencies, and that conservation awareness is increasing in more and more libraries. We need just that, for as Bansa (5) observes, "what we need is not information but a new consciousness in librarianship." A new consciousness towards conservation activities will prolong the useful life of needed items.

It therefore becomes acutely necessary for librarians to think of more coherent ways of prolonging the 'useful life' of library resources. A written and formalised philosophical framework which will give a solid benchmark for the take-off of conservation activities becomes inevitable. Jensen's (1) article on this is relevant. Said he:

(a) it (the policy) is a means whereby a conservator can preserve the library collection so painfully and costly acquired.

(b) it brings to the Administrators, in a much clearer perspective, the problems and needs of conservation of items.

(c) goals will be set publicly and fully commented upon for a workable possibility.

(d) support of the Library Administration will be easily obtained

(e) it systematises the daily operation of conservation of items

(f) a definite manner of approach to conservation based on priorities would be set to guide.

It is necessary that priorities be determined as to which materials to be preserved based on stipulated criteria. This is very important because it certainly is not possible for all books and other resources in library custody to be given 'eternal life'. Priority should be determined based on needs, uses, etc.

4.2 Route to effective conservation

The Conservator:

Having established why conservation is necessary in a library - and particularly in the tropical zones, the next questions are who does it and how does he/she go about it? There are needs for technically trained staff - curators - who are more fully competent, and trained conservators and binders who really understand what to do, and furbishers who can be relied upon for elementary procedures satisfactorily (6)

The ABU Library Complex - a large one in its own right - has no conservator. By definition, conservators are persons who have "sufficient training and experience to make judgements about conservation needs, treatments, and materials, and the skills to carry out individual conservation treatments." (7) Conservators are known by various names in different libraries. These include Preservation Librarian, Collection Maintenance Officer, Conservation Officer, etc. It occurs to me that although these nomenclatures are used, the one that connotes conservation activities is "Conservator". These band of library workers are very few in number and therefore hard to find. What comes close to it is the maintenance officer or preservation librarian whose duty it is to see to the overall wellbeing of library resources.

Ratcliffe (8) demands that conservators have to be both binder and scientist with greater knowledge of their artefacts. Darling (9) agrees with these requirements when she comments that in the early years, the preservation Librarian, Officer or Administrator brought to the task either a technical background - most often bookbinding - or general library experience coupled with good administrative skills or potential.

It may be argued that these qualities/qualifications expected of a conservator are mere theoretical notions - too idealistic. No wonder they are difficult to come by for recruitment even in advanced nations, and more so in the third world. Baker (10) acknowledges the fact that "there is a world-wide shortage of trained conservators" which he agrees is "another problem that deserves cooperation, consideration and action."

Reacting to this problem which is common to both archives and libraries

in the tropical areas, Prasad [11] states "developing countries suffer from shortage of trained personnel" and goes further to say that training in archival management and conservation is obvious. Hence since 1974, Singapore, Algeria, Sudan, Syria, Puerto Rico, Malawi, Ghana, Nigeria, Zambia have emphasised the pressing need for more trained personnel for their archival (and library) developments.

But if the ideal situation is elusive, a start must definitely be made. In fact, Ratcliffe has put it plainly thus: "only the largest libraries (like his Cambridge University Library) are likely to offer full-time employment to conservators." For the developing areas, the problem is not just lack of personnel in conservation work but includes lack of funds, consciousness and will to embark on full-scale conservation activities. Therefore what seems to be the preoccupation in some libraries in the area of focus is the collection of what is considered relevant while the preservation/conservation of such items are commonsensical: most do not have policies on conservation to guide.

What may be necessary to do is to train an existing staff. IFLA, according to Geh [12], is quite willing to "provide assistance for the training of specialists in the preservation/conservation of library materials" - both to the staff in the library schools and practising librarians. Library managers should investigate this further and avail themselves of the opportunity while it lasts.

Alluding to a statement by Edward Lathem, Darling [13] expresses the hope that we are entering into a period in which greater attention is being directed towards conservation in all its facets. Therefore, it seems likely that librarians will be increasingly mindful of the needs and to think in terms of adding conservation specialists to their library staff.

By way of solution, however, universities and other higher educational institutions in the areas covered by this study should include the training of conservators in their programmes. De Silva [14] comments that "as regards professional and technical training, a majority of the countries of Asia do <u>not</u> have their own training facilities owing to the scarcity of university and institutional ability to provide some training facilities."

In Nigeria, too, only two universities Ahmadu Bello University, Zaria and University of Ibadan, Ibadan teach conservation as a course unit in their Library Studies Department. (see Chapter 5). Even so, it is doubtful if the recipients are sufficiently (practically) equipped to undertake full-scale preservation, conservation and restoration activities in libraries.

4.3 How does a Conservator go about his job?

For reasons already highlighted in the previous chapters, book treasures of many libraries the world over are decaying with accelerated rapidity from year to year. Geh [12] believes that this is not only true for valuable items of libraries in the areas facing hostile climatic conditions or from insufficient storage facilities but includes collection of libraries in the industrialised world as well. This situation is blameable, in part, on air pollution, ink corrosion, acidic paper and heavy use. This is the challenge the conservators or those in charge of collection management face in the tropics.

The work of conservation is done in one or more of the following ways as Cain [15] would put it:

(a) the library may hire an experienced conservation officer to lead others in the job. The 'others' may be the staff on-board carefully selected for the purpose;

(b) a library may appoint/retain a conservation professional as a consultant who will be responsible for examining the collection problems and recommend or advise on solutions;

(c) some libraries use the staff on-board i.e. by establishing an in-house conservation committee (see below)

Where there is a conservation section - as it rightly should and manned by a Conservator - the functions will include the following as Morrow [3] suggests.

Table XIX

Functions of a Conservator

(i) He will plan and develop policies, procedures and guidelines for conservation

(ii) He decides on specification for environmental controls and their monitoring.

(iii) He decides on techniques and procedures for maintenance, binding, rebinding, repair, restoration, protective encasement and information preservation.

(iv) He coordinates all conservation activities in the library.

(v) He is responsible for historical, ethical, aesthetical and technical components of conservation treatments.

(vi) Liaison with the vendor holding the commercial binding contracts.

(vii) Preparation of salvage, reclamation and restoration procedures in the event of natural disasters or accidents.

(viii) Education programmes for staff, patrons, other libraries and individuals.

(ix) Cooperation with other agencies, organisations and libraries concerned with conservation.

(x) Measurement and evaluation of collection, treatment and costs, and

(xi) Development of a conservation reference and research collection [3]

4.4 The role of Library Administration in Conservation:

As will be seen below, a policy on preservation and conservation must be formulated to affect all sections and materials housed in the library. The cooperation and/or approval of library administration is indispensable. This is particularly so as Barr [16] notes, conservation is the only aspect of library operation that should function 24 hours continuously. Dean [17] agreeing states that preservation permeates almost every part of the library and is a vitally important planning ingredient. Precisely. All sections in the library and all formats of its collections are interlinked through conservation, and embodies staff of all categories.

The Library Administration must show concern for the "material carriers of information", their collections, processing and making them available to the users. Bansa [5] unequivocally remarks that conservation is the responsibility of library management, and that the execution only rests with the specialists. Whatever action needs to be taken by the administration to ensure longevity of library resources, should be taken promptly because "postponing action on identified volumes in poor conditions... is a disservice to the research collections." - Walker [18].

Actually, all library items fall into three categories in terms of retention and durability. Henderson and Krupp [19] group them as follows:

(a) those items known to have been printed on permanent/durable paper and presumably to be retained indefinitely. (such will deserve utmost care in order to make them attain the expected period for their useful life)

(b) those to be retained permanently and printed on paper of unknown quality. (Here, the Administration can help the Conservation Librarian by acquiring materials of known quality and definite format - mostly hard-covers. (Or else preservation activity will commence immediately on them.)

(c) materials to be discarded. (These may not really need serious conservation attention because they have just a transient life maybe because of their physical nature or their intellectual content and quality which wane in value almost as soon as they are published).

In addition, the Administration should be familiar with three basic components for the preservation and conservation of most individual items. According to Boomgaarden [20] these include:

(i) the chemical and physical structure make-up of each individual item in the collection

(ii) the physical environment in which each item is stored

(iii) the human environment - handling and treatment - to which each item is subjected.

Library authorities are to ensure that the maintenance officer is mindful of these areas. It must ensure, too, that the conservation officer occupies a central position within the library's administrative structure and partakes in all policy-making and planning - particularly as they relate to conservation.

It has been stated earlier that lack of conservation awareness, specialists, funds, etc., could be blamed for non-embarkation on conservation activities in the real sense in some libraries. However, when items of popular demand deteriorate - for heavy use - they will be'coerced' to salvage them, usually more expensively. It is beneficial to appreciate that a stitch in time, saves nine. Hence Barr queries, "where are the Administrators who can become library custodians in the true and effective sense of the title when the function has so many years atrophied?" Librarians should show understanding of collections in their custody as well as being concerned with the articulation of conservation priorities and judicious use of resources.

One other aspect in which Library Administration can help conservation work is in the area of gifts, including from private donors, and particularly gifts of books. Ratcliffe believes that every addition to library collections increases the problem and danger of conservation - not the least being donated items. Therefore, as Dean advises, the principle of deselection as a means of enhancing the collection should be addressed and articulated - a weeding policy. In this guise, it becomes difficult to separate coordination of collection development activities from the coordination of conservation work - they seem crosslinked. A clear statement on acceptance and treatment of gifts needs to be integrated into the overall conservation policy. This is pertinent because, in the view of Rogers [21] gifts are made with 'strings' attached. If such strings are at variance with the library's acquisitions policy, they should be resisted - or strike at a compromise.

Therefore, an institutionalised policy will guide in the day-to-day operation of conservation procedures. "Institutionalised" in this context means that the Library Administration should commission and be involved in the preparation of the document and so give it the blessing it deserves to make it effectively operational. Realising the shallowness of some library managers' seeming commitment towards conservation of their stock,

McCrank [22] states that although conservation has received attention it is mere lip-service or basic awareness only, without combination of thought and action. He further observes that most Administrators still lack a holistic approach to conservation and collection management. This epitomises what a writer has remarked that the neglect of preservation concerns has resulted in incalculable costs of irreparable damage to library materials of permanent research value or historic interest.

It is therefore clear that the success or otherwise of conservation effort in a library depends largely on the Librarian - because he is responsible for environmental condition since the maintenance of air-conditioning, ventilation and filtration systems, the control of RH and the type and level of illumination are usually managed through the administrative office [23]. That office determines the need and use policies, shelving practices and book return methods.

Finally, it is perhaps good to conclude this section by Winkle's [24] advice to Library Administrators to "be one of the progressive thinkers who accepts the challenge of using today's preservation technology to maintain access for tomorrow's users."

What has been said so far about librarians managing preservation and conservation of their collections equally apply to the managers of archival collections in the third world. This relationship between the library and archives/museums is not in the area of the type, use and (to some extent) administration of the collections. The care and need for adequate funding and their environmental requirement for storage are clearly similar. De-Niet [25] confirms this as he said, "archives in developing countries are closely connected to the library work."

This explains why some Library Administrators, conscious of conservation needs in their libraries and for want of professional conservators, recruit Archivists for the job. Pfukani [26] notes that a "professional Archivist was employed in 1978..." to take charge of conservation needs of the East African collections of the University of Nairobi Libraries.

4.5 The Conservation Committee:

One of the special features which makes for flexibility of the policy on

conservation is the establishment of a Conservation Syndicate in some libraries. This is a welcome development as members are selected perhaps on representative basis, from the University Administration, faculties, the student body and other concerned sections, and where available, chaired by a professional Conservator. Jensen (1) indicates that such a committee may be charged with "designing an appropriate and uniform serials binding procedure, writing an emergency procedures manual and initiating a conservation education programme for both staff and patrons,"

In the ABU Library Complex and possibly in many libraries in the tropical and sub-tropical areas, there is no professional conservator neither is there a Conservation Syndicate. In this respect, the admonition by Morrow (23) may be worthy of note: "if a separate professional post to oversee conservation matters is not feasible, conservation and circulation practices and the library binding contract - can be determined and implemented by a Conservation Committee." Cain (15) shares the same idea when he states that, "a practical and effective way for a library to address its conservation is to appoint an in-house Committee." In his view, a careful mobilisation of a widely selected Conservation Committee from the available staff on-board will make a reasonable start. The members may include:

- Media (or audiovisual librarian)
- Rare book Librarian
- Circulation Librarian
- Serials Librarian
- Head of the book repair unit
- Chief Binder (where there is an in-house binding unit)
- University Administration
- Faculty representative

In the absence of both a professional conservator and a Conservation Committee, the circulation staff in KIL do the selection and withdrawal of items they consider to require some kind of treatment e.g. ripped off pages, torn spines, etc. and bring them to the Book Finishing and Mending Unit - in the Cataloguing Division. The decision as to which to mend on the spot and return for use or process for bindery treatment is the head of the Unit's. In the IAR library and PKL, the decision as to which

material is qualified for bindery repairs is made by the Librarian and professional librarians respectively. To arrive at this, they are guided by the extent of damage, brittleness, and the degree of use to which a particular item is put. In addition, a reader who comes across badly torn items brings them to the library staff (if he cares) and invariably to the librarian who takes decisions as may be necessary.

Some libraries do not have a systematic procedure for surveying and treating stock on the shelves. This may be blamed on absence of conservation specialists, and this buttresses the expressed need (PKL) for such an expert. The practice of 'pruning' items on the shelves and withdrawing damaged ones for repairs is a daily affair in IAR. But the idea of using cleaners here and in many other libraries for this job perhaps need to be reviewed because:

(i) they may not fully understand why it is done so.

(ii) they may not judge aright in their choice.

(iii) they may underestimate a problem to withdraw in time.

(iv) they do not have time enough to open pages of books and so their judgement is based on external defects only.

(v) their level of education may not make for a thorough job of shelf-reading.

4.6 The Conservation Policy:

There is no one model of policy to use - it varies from library to library depending on the place, type and period of collections, the objective of the library, the funds available, personnel and the will and consciousness to embark on a degree of conservation techniques. Nevertheless, certain general operations will be embodied in the document as Jensen [1] suggests

Table XX

A Conservation policy: suggested outline

- a statement of commitment and philosophy
- the causes of deterioration

- the current state of the collection
- preventive maintenance
- bindery and repair workshop
- preservation workshop
- serials binding procedures
- preservation
- microfilming
- emergency and disaster procedures
- the Conservation Committee
- staffing and training
- programme costs and budgeting
- finally, summary and conclusion

The policy should be tailored to suit local needs. Although storage and procedures for treating items differ in places, fundamental principles of care are the same for all items in various formats. In the tropics, it is generally agreed that information problem, lack of expertise, the underdeveloped preservation knowledge base, etc. are problems that are 'commonwealth' to tropical and sub-tropical university libraries. The policy must provide answers to two questions: firstly, is conservation preferred over use? and secondly, is maintenance more economical than repair? Mowat [27] Baker [10] Ratcliffe [2] Lambardo [28] are so emphatic about these as they believe that to resist or control circulation of materials because they are heavily used is "self-defeating". Books are for use and must therefore be handled as often as readers need them in order to be optimally useful. The only answer to the first question is to provide duplicate - let me say multiple-copies of such materials. The policy should reflect this. It should also include conditions governing conversion of current stock to retrospective, historical or archival collections. This will make it possible for limited funds, staff and time to be devoted to what is meant for long-range retention.

The second question invites a thorough anlysis of what it takes in terms of finance, time, personnel etc. to spend on conservation/restoration rather than preservation. It will be realised that it is safer to do the

latter than the former. The essence of it is to see that library collections are readily available in usable condition for as long as they are needed. Baker (10) notes that the realisation that the book is an object as well as a work of reference is crucial. Book is used here to include books, newspapers, magazines, reports, etc. The policy should stipulate guidelines for the decision on whether it is worthwhile to bind back numbers of newspapers or simply cut pages of interest. It depends on the type of library and aim it is meant to satisfy. Banks (29) summarises it when he said, "the ultimate aim of book preservation is to make the information that the book contains available for as long as it is needed."

The policy should also lay down the principle by which binding may be done for a library. The librarian's choice usually is whether to buy a new copy or bind an old one. It will be helpful to predict the probable life of a material - and see that it reaches the span. Morrow's (3) suggestion of preservation priority deserves close scrutiny by libraries:

Table XXI

Conservation Priorities:

(i) stopping destructive practices in the library

(ii) instal environmental controls in the library

(iii) educate the library staff to recognise items needing treatment and how often to do so

(iv) identify and isolate those in immediate danger

(v) isolate items too brittle to further circulate

(vi) implement broad policies for the conservation of the collection

(vii) formulate specific objectives based on the policies and goals of the conservation programme

(viii) assign priorities to items needing treatment and develop procedures for treatment

Some readers are noted for vandalism. The policy should state what to do when a reader steals, mutilates, keeps books overdue, defaces etc.

Measures should be both punitive and corrective. It should also include photocopying procedures, reader-staff relationship and how to obtain and maintain it.

4.7 Furniture:

As much as possible, libraries in the tropical areas should resist the use of wooden furniture as it is a source of attraction to termites and other similar enemies of books. Admittedly the arguments in favour of wooden furniture are that:

(a) it is relatively cheaper than iron or metal type

(b) it is locally available

(c) no foreign exchange problem involved

The library manager should weigh the pros and cons and convince himself of the advantageous one to decide on. The basic issue is that termites and other vermin have their pre-eminence in the tropics and efforts should be made to discourage their entry into the library.

4.8 Budgeting:

Generally, conservation is costly [30] depending on the degree embarked upon - whether modest or comprehensive. The policy should state sources of funding available for preservation, conservation and restoration activities. It should also provide guidelines for the activities within a given period - usually a year.

4.9 Cooperation:

Some kind of resource sharing can take place between libraries involving conservation experts and expertise. This kind of cooperation is very advantageous in the areas under review where this aspect of librarianship is not yet widely embraced by libraries and archives. The policy should state the area and degree of cooperation among libraries within a zone.

4.10 Conservation and library staff;

Finally, for effective conservation, all hands must be on deck as "successful programme cannot be imposed by the Library Administration but must become the goal of the entire staff". [31] Library staff will respond positively to preservation activities when they are convinced that the Administration is committed. So also will the readers who will keep the rules for effective library service and conservation. In fact, successful library service depends on the quality of relationship and cooperation between the librarian and his staff for as Hutchings [32] notes, "the living quality of a library is directly related to the enthusiasm of staff as a whole, the top drawing sustenance from below; those below drawing inspiration from above." Cunha & Cunha [33] add, "conservation must be a continuum of actions between the entire staff."

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CHAPTER FIVE

5. FUNDING CONSERVATION, NATIONAL CONSERVATION EFFORT, CONCLUSION AND IMPLICATION OF THE STUDY

5.1 Funding:

Conservation is expensive whether it is in terms of maintaining a suitable environment, the restoration of items already damaged or the suitable treatment of undamaged works - preservation. Writing on this, Henderson [1] outlines areas of financial expenditure thus:

Table XXII

Spending for conservation

(a) installation and operation of airconditioning equipment with humidity control on a 24 hour basis.

(b) maintaining an adequate cleaning and inspection schedule

(c) screening of materials

(d) utilization of proper restoration

(e) binding

(f) information preservation techniques e.g. reprinting and micro-publishing

(g) administration of this comprehensive scheme.

These will certainly call for a colossal amount of money to effectively set up, operate and maintain conservation work.

Budgeting for preservation may include three elements according to Rogers [2] first, for staff and supplies to conduct repairs and mending, etc. Second, a figure for microfilming items selected for preservation from among irreplaceable books with poor paper or further rebinding not possible. Third, budgeting for binding. Rogers recommends that at least 20% of all book materials expenditure or at least 17% of the total book, periodical and binding budget respectively should be set aside for preservation, conservation and restoration activities. In ABU libraries for instance,

PKL and IAR spend 1/15 and 1/13 of their acquisitions budget p.a. on conservation. It is gratifying that something is being done although it can still be improved upon.

Librarians need to be encouraged to have a separate fund for preservation/ conservation work (where possible). They should also allow the conservators or conservation administrators a reasonable degree of free-wheeling which will enable them to: (a) determine what items to purchase for preservation activities and in what quantity at a time to last for what period, (b) decide the convenient location (storage) for easy accessibility without having to go through the administration for supply each time an item is needed. The obvious merit of this is that the collection administrator will know when certain items are running out so as to set in motion the process of replenishing them. Otherwise, work will stagnate (sometimes for days) as is experienced in some libraries because supplies are "out of stock".

This is particularly important in a situation where items are supplied from the University Central Store, or they are acquired through a system of Local Purchase Orders as many libraries and other establishments do. This procedure is fraught with slowness - sometimes with unsatisfactory items supplied. Therefore, if preservation materials are acquired in reasonable quantity to last for a long time, coupled with good internal arrangements for storage and distribution, the preservation work will be smooth-sailing. Nor is it enough for the Administration to surmise what items will be needed for conservation activities to provide. For as Hutchins [3] states, "the intelligent spending of money - for preservation and other library spendings - require the judgement not of the chief librarian in isolation, but of the chief and his subordinates" - in this case the conservation librarian where there is one. In any case, lack of funds should not deter Library Administrators from embarking on conservation measures. A start has got to be made.

Marine [4] writes, "equipment need not be expensive. An incipient programme requires only the basics; a variety of cutting instruments, measuring devices, and a press."

Winckles's [5] writing on this expresses a similar notion: when funds are

in short supply, it becomes highly rational to select the materials - according to use, value and number available. Contributing to this issue of funding, Ifidon [6] states that "if adequate library resources are to be provided (and maintained in usable condition), if competent staff are to be recruited and if users' demands are to be met, then there should be reasonably generous financial support for library services." To be able to convince the funder to do this depends on (a) the judicious spending of the previous year's allocation by the librarian, (b) his/her relationship with the relevant university authorities, (c) his or her ability to convince and win the support of the Library Committee, and (d) positive evidence or evaluation of performance to justify allocation in the manner desired.

5.2 (i) Conservation: a national outlook:

Although the topic of this study puts PAC of library items in academic libraries in tropical countries at the forefront, its substance is thought to be valid for other libraries both in tropical and temperate regions. It concerns special, public, school and college and private library collections as well. Wieder [7] observes that since the World War II, there has been a major change in the concept and practice of restoration and conservation of library materials - a change which goes beyond national borders and involves interdisciplinary and interprofessional cooperation among librarians, curators, archivists, restorators, conservators and scientists. Successes at seminars/conferences on the subject prove this.

Such international cooperation will be highly invaluable to and appreciated by the developing countries, most of which (about 60% of the population may be conjectured) are not conscious of the use of libraries and therefore preservation of the resources less so. IFLA, as Geh [8] writes, has a role to harness preservation internationally. Additionally, it has the task of inculcating and developing librarianship and its services in all facets in the third world. With the success in UAP and UBC, that of preservation and conservation (PAC) of library resources, it is hoped, is only a logical sequence.

This issue of PAC of library items both their intellectual and artifactual values must first be accepted a national concern. In this respect, the

British Library footsteps may be solid ground to follow. Its national objectives on this in e;

(i) to promote awareness of pressing conservation problems and the need for good practices

(ii) to promote information and referral services on preservation issue. To investigate and initiate on important national developments.

(iii) to encourage cooperative initiatives which will entail visits to libraries, conservation workshops and binderies, museums and educational institutions (9).

For instance, "the preservation of manuscripts and books in USSR", according to Kartashov (10)," was always considered to be a matter of national importance." It is therefore no surprise that several decrees have been promulgated to support it. A national conservation effect should not only cover the restoration and preservation of existing collections, but must also ensure the preservation of future library materials. It must, as in Canada according to Sylvestre (11), satisfy three objectives:

(a) the preservation of intellectual content of deteriorating materials with permanent research value, but which do not warrant the greater expense of physical preservation.

(b) the preservation and restoration of library materials that are valuable beyond the information they contain.

(c) ensuring the preservation of future materials through preventive conservation. It therefore becomes imperative to create a preservation awareness programme nationally to educate and inform librarians and other booklovers.

In Nigeria, the Kaduna Branch of the Nigerian Library Association (NLA) held a conference/workshop on preservation, conservation and security of library materials a few years back - which seems to indicate that conservation is becoming a live issue with librarians in that country. It only needs to be added that such conferences be organised more frequently both at state and national levels with PAC of library items occupying its rightful place for discussion. Secondly, a conscious effort has to be made at

both levels and particularly at the national level to ensure that far-reaching resolutions or decisions which may emerge therefrom be implemented.

Nor is Nigeria alone in this position. Prakoso's [12] article presented at the 46th IFLA conference, 1980 outlines plans to improve conservation in Indonesia, and these include: (a) training people to do (the) conservation work, (b) setting up laboratories to do research work in this field, (c) installing devices to keep the temperature and humidity at the proper level so as to prevent damage by insects and fungus, (d) to equip big libraries with microfilm and microfiche cameras, and (e) to protect the library building against termites intrusion. Commenting on national library consciousness in Iran as late as 1978, Sapehri [13] writes, "in spite of its ambitious economic development programmes... Iran has only just begun to realise the importance of libraries and the roles they can play in national development." The same is true of most developing countries whose national library awareness is only just being awakened, and this, no doubt, is tied to the level of literacy in each country.

5.2 (ii) The role of the Universities:

The author is not aware of any institution apart from the library schools of the Ahmadu Bello University, Zaria and University of Ibadan offering courses in conservation in Nigeria. In both cases, the main aim is to create an awareness of PAC in the new breed of librarians and this is a recent development. A start has thus been made which, it is hoped, will be embraced by other institutions where librarianship is being taught.

Writing on this topic, Feather [14] suggested three possible levels at which conservation could be introduced into library school syllabuses. First, its "existing preparation which is largely confined to courses on rare books, archives, special collections, etc. could be strengthened." Second, a way could be found of "incorporating it more generally into the core courses" i.e. collection management, and thirdly, the possibility of "full-scale courses in the subject leading to an award of a Master's degree" is an option.

He however seems to downplay the need to offer it full-scale at a Master's level as obtains in some American higher institutions. His leaning is

towards the second possibility especially as far as U.K. is concerned. To us in the tropical and sub-tropical regions, and considering our present stage of development, the argument is that of inculcating the PAC awareness in the minds of the new breed of and the practising librarians and archivists - who in turn are expected, according to Adarkwa, (15) to "save our books" from escapable fast deterioration. Such an awareness could be created at any level of university education buttressed by conferences, workshops and seminars.

In the tropical and sub-tropical areas, the crisis has reached an alarming zenith. Said Feather (14), "it cannot be said too often that we have reached crisis point in the preservation of the contents of our libraries, both great and small." Hence the Universities and Library Associations are looked upon for help. Bloomfield's (16) writing on this is an exposition.

The relevance of it all is that with more librarians tutored in the need of and techniques in preservation/conservation administration, mass treatment (deaccidification) of library collections be they incunabula, rare or published in modern paper will possibly be handled by librarians until such a time (and it will be a long time indeed) that professional conservators are found for recruitment or staff on-board trained.

5.3 CONCLUSIONS AND IMPLICATIONS OF THE STUDY:

I have attempted in this study to take a closer look at the preservation, conservation and restoration problems of academic libraries in the tropical and sub-tropical regions of the world - with particular attention to ABU Library Complex. The study pointed out the following striking revelations: (1) that some librarians within the area concerned are unaware of the insidious conservation problems which their hard-built collections are subjected to; (2) that those who seem conscious are not doing enough to help the situation because:

(a) they are apathetic towards the whole matter

(b) they are incapacitated to do much by lack of funds and expertise;

(3) others merely procrastinate thinking that the problems have not assumed such a degree as to warrant immediate action.

It was realised that the environment in which materials are stored, the people - staff or readers, book producers, vermin, photocopying, disasters, etc. all singly or severally contribute enormously to speedy decay of library items. To some extent librarians could help the situation by making the library airconditioned. Where there is one already but with chronic problems as in some, an alternative means of unit airconditioners should be sought. Fans whether table, standing or ceiling are (for books) no good substitutes. The argument in some quarters that the need for air-conditioners in libraries is a luxury seemsparochial and unconvincing to me.

It was pointed out that unless proper documentation of each item is made and carefully handled and watched in the bindery, many will be damaged (permanently) or easily stolen and never to be recovered. Ensure that there are tools and materials to work with and use respectively. Provide adequate storage facilities in the bindery.

Security of library collections has been a major headache and a source of concern to librarians the world over, and in spite of well thought out solutions: employing guards, providing photocopiers, reserving books, acquiring multiple copies, improvement in library building designs, extending loan periods and opening hours, granting amnesty periods for return of items, liberal rules and regulations, etc. the obnoxious "illicit" behaviour and attitudes of thievery and vandalism have continued unabated. In fact, they seem to be on the increase with bewildering dexterity. One thing that the patrons who perpetuate these anti-social baheviours have consistently refused to understand is that whatever measures are taken to make materials available in healthy conditions are for their own good.

It needs to be expressed lucidly that although ideally every university library of the strength of the ABU should construct a full-scale conservation laboratory, for reasons of funds and expertise, it is not practically easy or feasible. Re-echoing Warren Haas, Stam [17] states, "the rate at which things get done is a function of money; whether or not they are done at all is a function of people." Therefore, it makes perfect sense to provide funds to support benchmark maintenance and format conversion schemes for a start. In other words, start a modest PAC now, and if a start has been

made, improve upon it. It is generally believed that repair techniques which preserve the structural integrity of material can, if effected in good time, add many years to its useful life at modest cost. So will protective wrapping, encapsulation and boxing provide physical support and buy time inexpensively for items till a more durable treatment can be afforded.

It was also established that only a few institutions offer courses on conservation (as in Nigeria). It is hereby recommended that as a matter of urgency, all library schools should integrate the course in their respective syllabuses - to create PAC awareness in the students.

Users take advantage of noticeable weak points in the library to pilfer materials especially the exit points. It is a matter of utmost importance to instal a turnstile at the main exit manned by a staff for meticulous checking of files, books and be suspicious of those who suddenly "gain weight" in the library. When possible, don't delay in installing electronic devices.

Arrange a periodic but regular fumigation of the library and bindery (if in-house). DDT is a popular disinfectant among many. Or as in ABU, liaise with the Community medicine to strike a standing arrangement on this. I will hasten to suggest that the library should build its own fumigation chamber.

It cannot be said too often that excessive light is dangerous to books. It is absolutely necessary to provide shields or filters, venetian blinds or other breakers in order to reduce the effect of (ultra violet) lights in the library. "Good lighting of the exterior of the building is of primary importance, not for crime detection but for crime prevention."(16)

In case of fire and other emergencies, instruct, according to Paris (19) the library staffs' responsibilities (a) to one another (b) to the patron, and (c) to the collection. Check fire extinguishers at least once every year.

Finally and foremost, draw up a conservation POLICY for your library and bindery and be guided by it. It may be revised from time to time as circumstances make it necessary.

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