

# RECORDS PRESERVATION IN DEVELOPING COUNTRIES WITH SPECIAL REFERENCE TO TANZANIA

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## **Abstract**

*There is no Librarian/Documentalist today who can shy away from the fact that the Information World stands the imminent risk of losing so much of its valuable written heritage. The situation is more alarming in developing countries especially in Africa South of Sahara, where a large number of documents are in their advanced stage of deterioration due to the interplay of factors not very prominent in developed countries. Tanzania is a good example where preservation issues are not accorded high priority. The paper discusses and highlights enemies of Library materials, which cause deterioration. The paper also discusses the importance of records preservation policies in libraries and their implementation. Finally the paper suggests alternative records management strategies.*

## **1. INTRODUCTION**

Preservation of Library materials means the provision of adequate care and maintenance facilities to ensure the safe survival of library stock or resources. Therefore preservation refers to all means and techniques, which can be used to ensure that books, documents and other information carriers and their contents are preserved for future use. This also involves managerial and financial, storage and handling, accommodation, staffing, as well as, policies, techniques and methodological considerations (IFLA, 1989).

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**Conservation:** Denotes those specific policies and practices involved in protecting library and archive materials from deterioration damage and decay, including methods and techniques devised by technical staff. (Brian, 1990: 309).

*In observing the above definitions one will realize that conservation need good financial support.*

**Restoration:** Denotes those techniques and judgments used by technical staff engaged in the making good of library and archive materials damaged by time, use or other factors. (Ibid pg. 3).

*Just like preservation, conservation and restoration, financial implication is inevitable to the whole process.*

The entire scope of restoration, ranges from repair of torn leaf, or removal of simple stain, to complete rehabilitation of materials, including at times de-acidification, alkaline, buffering, resizing, filling in missing parts reserving replacement of end papers and / or restoration of the original covering materials, and refinishing in a manner sympathetic to the time of the original binding of the publication. Restoration therefore encompasses the entire range of bookwork mending rebinding and reconstructions.

## **Why do we need to preserve Library Resources?**

### **Justification**

There is no librarian to day who can shy away from the fact that the "Information World" stands the imminent risk of losing so much of its valuable written heritage. The situation is more alarming in developing countries like Tanzania, where a large number of documents are in advanced stage of deterioration due to the interplay of factors not very prominent in the temperate zone. (Adeyemi, 1992: 2).

In the past few years, there has been increasing awareness in developed, industrialized countries that millions of books and other documents are disintegrating worldwide. Therefore, there was a danger of losing more than a century of human

records due to acidic residue in paper. Light, heat, moisture atmospheric pollution and dust, hasten the process of deterioration of cellulose fibre, thus weakening the paper. For example, it is believed that in the 1980's, over six million volumes in the Library of Congress were so brittle that their survival was threatened. Much effort has been expended in recent years with modest success, to devise economical ways of preserving these books but more needs to be done. (World Information, 1990: 641).

There is a need to preserve library materials because of a combination of many factors, including the enemies that blight cities, i.e. dirt, climate, chemical reactions, and air pollution, particularly in the developing countries of the tropical regions. Biological factors i.e. fungi and people are problems that we should deal with urgently.

Library materials, according to their nature, deteriorate because of age. Thus preservation of library materials is the duty of all librarians; it is infact, part of their duty for proper library management (Akussah, 1998:19).

### **Developing Countries and Information**

Adeyemi (1992) argues that, although it will be incorrect to assume that developing countries constitute one homogenous setting, even though they share a number of common characteristics and attributes, they also have characteristics in addition to those associated with them, that distinguish them from each other. Prominent among the common characteristics are:

- Dominated economy and technology
- Social, cultural and economic disarticulation
- Political instability
- A general inability and concomitant incapacity to provide adequate living and health standards for the bulk of their population.

It is in the midst of these characteristics and obstacles that developing countries, are constantly battling with the problem of underdevelopment. The desire to win this battle in all its

ramifications provides, in part, the justification for effective provision of information services for development. Here information is viewed as social good and an instrument for liberation. Information is a critical variable that the developing countries require in order to fight underdevelopment in their respective populations to:

- Ensure their complete understanding of economic and political process at home and abroad.
- Tetter their ability to participate in the decision making process which deals with national development and survival (Feather, 1991: 1).

All these justify the importance of preserving vital information resources in these countries.

Most libraries in Tanzania, like in many African countries are subject to harsh climatic conditions which speed up deterioration of library materials. Yet, it is in these countries where awareness of preservation and training of conservation personnel are accorded very low priority. Due to the poor economic conditions in these countries, libraries get little support from their governments. This can also be attributed to lack of understanding, on the part of top administrators, of the role of libraries and the importance of preservation and conservation of library resources in their respective institutions. Another problem in these countries is that little is available in terms of literature and studies on preservation and conservation apart from efforts made by UNESCO, IFLA and ICA. Lack of expertise, good storage facilities, and technology are also contributing factors.

### **Enemies that cause deterioration of library materials in Developing Countries**

In tropical zones, library materials are in constant danger from a number of enemies including environmental factors, such as bad weather, hurricanes and tornados, humidity, light and atmospheric pollution. These factors may also encourage insect infestation and the growth of fungi and mould. Another factor which contributes to book decay is high levels of acidity, which quickly causes paper to become yellow and brittle. These problems can also be caused by glue

and ink which make up the book and which can also damage it (Bharat, 1998: 23).

Paper, whatever its constituents, deteriorates with age. Although very fragile, under some conditions, paper which is properly made and cared for has a long life span. Early paper was made from clean linen, cotton, rags, flax, or other strong fibres and was not treated with bleaching agents, or sized with rosin and alum. This type of paper was permanent, durable and was chemically and physically strong enough to endure the wear and tear for ages.

Modern paper, produced since the mid 19<sup>th</sup> Century, has wood pulp as one of its basic raw materials rather than cotton and linen rags. The wood pulp is bleached with chlorine and the paper sized with alum and rosin. Although this modern process results in the production of large quantities at cheaper prices, it carries along with it agents of deterioration. The principle raw material, ground wood, pulp, contains lignin and other compounds, which break down into acidic components, which ultimately cause darkening, and embrittlement of paper. Furthermore, iron and copper, which are oxidizing catalysts, are known to exist in the fabrics of modern paper. These may enter paper through the wear and tear of the metals of the machines used in the manufacturing process, or as a result of mineral uptake by plants from the soil in which they grow. These catalysts hasten the molecular breakdown of cellulose, resulting in discoloration and embrittlement of paper.

Although chlorine is a good bleaching agent, if it is not removed after the bleaching it causes the deterioration of paper. Again, in combination with atmospheric moisture, alum-rosin products, sulphuric acid which is very dangerous to paper. (Careman, 1998: 34).

The paper quality used in the book production materials in developing countries is very poor and are subjected to poor climatic conditions all of which cause deterioration.

Apart from these, other environmental factors which speed deterioration are temperature, humidity, light atmospheric pollution, mould, dust, bacteria, insects, rodents and human

beings, including librarians. All these affect both paper and non-paper materials like microforms, films, microfiche, videotapes, diskettes and audiotapes. Added to these are disasters such as floods, fire outbreak and earth quakes.

### **PRESERVATION PROBLEMS IN TANZANIA.**

Preservation problems in Tanzania are not different from those faced by other countries in tropical climates and key among them are climatic conditions, insects, pests, lack of both funding and general awareness.

#### **Climate**

Tanzania experiences both tropical and equatorial climates characterized by relatively high temperatures, and humidity, throughout the year especially along the coastal strip where majority of the population live and where major cities, towns, and libraries are located. This type of climate is disastrous to all types of library materials. The average temperature in Dar es Salaam, for example, is always above 22C°. During the months of December and January, the temperature rises to above 31C°. This encourages growth of biological pests, which cause deterioration of library materials, unless air-conditioners, and dehumidifiers are installed in library buildings.

#### **Insects, pests**

Insect infestation is also encouraged higher temperatures and humidity. All types of insects and pests commonly found in the tropics are found in Tanzania.

#### **Funding**

Preservation is expensive, whether it is in terms of maintaining a suitable environment, restoring of items already damaged, or providing suitable treatment to damaged works. Henderson (2000: 16) outlines areas of financial expenditure as follows:

- Installation and operation of air-conditioning equipment and humidity control on a twenty-four hour basis;
- Maintaining an adequate cleaning and inspection schedule;
- Screening of materials;

- Utilization of proper restoration;
- Binding;
- Information preservation techniques, e.g., reprinting and micro publishing;
- Administration of this comprehensive scheme.

All the above need a substantial amount of money which is not often availed to libraries in countries like Tanzania.

### **Lack of expertise**

Tanzania, lacks basic expertise in preservation and conservation of library materials, we also lack sophisticated Bindery units and conservation Laboratories for the restoration of Library and archival materials.

### **Lack of awareness**

There is lack of awareness in promoting basic measures in the preservation of library materials. In addition there is lack of relevant information and guidelines relating to the preservation of library materials.

### **Preservation Issues in Tanzania**

Preservation measures suitable for Tanzania and other developing countries with poor economic conditions should avoid adopting expensive methods used by developed countries and focus on the following:

#### **General Housekeeping**

Earlier discussion has shown that dirt and air pollutants hasten deterioration of library materials and that climates with high temperatures and humidity encourage insect infestation. Insects and mould will feed and breed if they are not quickly discovered and eliminated. Thus library buildings require systematic periodic cleaning. Librarian should ensure that their staff perform this job well. Maintenance staff should be responsible and should be thoroughly trained in library building cleaning procedures. Librarians should be aware that carelessness can cause much more damage than dirt and grime. So, instructions on cleaning should be carefully followed. "Some objects, such as old photographs or films, should probably not be cleaned in-house, and if they are, they should be cleaned by properly trained staff" (Baynes, 1989: 989).

## **Shelving**

General housekeeping involves proper shelving of library materials. Proper shelving assists not only easy retrieval of documents, but also protects the books from damage. If books are placed together very tightly without some space in between to allow easy removal by readers, it can result in to friction which contributes to the destruction of books. Librarians should be aware that one of the major causes of book damage is the type of shelves used and the style of shelving. It is suggested that shelves be made of metal, and without sharp edges. They should be of standard size and height to facilitate easy shelving by staff and browsing by readers. Wooden shelves should be avoided because they are easily attacked by insects. Bookend supports need to be provided to support books on the shelf. It is recommended that books should be shelved upright to stand on their tails. They 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 a commensurate space development because the building is either too small or not of a type that makes flexibility possible. Books should not be on shelves on their fore edges, as this may cause the text block to pull out. Therefore, to remove a book from the shelf, users and staff are advised to hold the waist, or the spine, having gently pushed its immediate neighbors on either side to create room for holding it properly.

Books should not be made to lean on one another, as this will damage the structure which takes place at the hinge area. Over-sized books, such as maps, atlases, etc.- should be shelved flat. Regular shelf checking is obviously a means of arresting book damage, fungi infestation, etc. During shelf reading, books that require treatment are promptly pulled out. This practice should not be left to be conducted by junior staff without proper supervision.

## **Dusting**

As observed earlier, dust can be a major cause of deterioration of library materials. For example, in Tanzania and in other developing countries, the problem of dust causes serious damage to library resources. A team of cleaners who are well trained to perform their duty should be employed for the purpose of dusting and to keep the library very clean.



This can only be achieved if this work is done continuously. This means that in all libraries without air-conditioning, dusting all the documents should be performed always as long as the library remains opened for use.

### **Book Poisoning**

Book poisoning is a process whereby certain chemicals are applied to books in order to stop insect infestation. Insect infestation is among the major problems facing libraries in Tanzania. For this reason it is recommended that book poisoning is effected before the books are sent to the lending department for shelving and circulation. This will obviously help to keep the books safe from insect infestation, especially if the normal routine of tidiness is followed. The ideal chemicals for book poisoning can be obtained from paper conservators or specialist suppliers.

At the Institute of Finance Management Library in Dar es Salaam, Tanzania for example, different types of chemicals are used to protect books from various insects and moulds. The library attendants have to ensure that all books, after processing, are poisoned against insect infestation before they are sent to circulation departments, ready for use.

### **Book jacketing**

After the book has been poisoned, attendants have to place jackets made of colourless thin plastic to cover the books. This is meant to protect the text from mechanical injuries and also help to keeping them clean.

### **Fumigation**

Fumigation has to be done once in every six months for the extermination of rats and cockroaches.

### **Binding**

Library assistants at the counter should always remember to check the physical appearance of a book, and if torn, should keep it a side for simple repair or repair it using binding tape and glue.

### **Book repair**

Every library should have a workroom for simple book repair. The workroom should be equipped with equipment for doing

simple repair work or first-aid for books and other library documents. This task should be performed by trained staff using suitable materials for binding and restoration of books. Libraries should adopt policies that assists in the preservation of Library materials – for example having rules and regulations that prohibiting food materials and drinks in the library which attracts insects.

### **Buildings and disaster preparedness plan**

For preservation measures in Tanzania to be comprehensive, we need to conduct a thorough examination of the library buildings, which store the collection. Due to funding problems, nothing much can be done except for regular inspections and basic maintenance and also to develop a disaster preparedness plan to safeguard both the building itself and the collections. This includes taking precautions against fire outbreaks inside the library building, where the collection is shelved. There should be a member of staff responsible for the disaster preparedness plan, who should do periodic checks around and inside the library building, where the collection is shelved, to ensure everything is safe. Where fire extinguishers are in short supply buckets of sand should also be placed around the building. It is recommended that all libraries in Tanzania should establish a National Disaster Preparedness Plan Committee to co-ordinate disaster planning throughout the country. The committee should involve librarians, archivists, administrators, fire and safety personnel, curators and paper conservators. Thus, every individual library, depending on size, should have a team of staff responsible for the safety and the security of the building. Staff should also undergo proper training in fire protection, and should be capable of conducting:

- Fire drills for staff; on a regular basis and the responsible staff should be familiar with all alarm systems, so that they know what to do in case of an emergency.
- Staff on duty should always be aware of how to use or handle the fire equipment, such as fire extinguishers, and know where this equipment is located in the library.
- In addition; where funds allow fire or smoke detectors should be installed in all buildings.

Furthermore, library staff should be knowledgeable about the disaster control plan and how to prevent such disasters from occurring. They should also be capable of protecting materials should a disaster occur and should also know how

to salvage damaged material with sufficient speed and efficiency so that the condition can be stabilized.

According to McIntyre (1998: 43 – 44), the disaster preparedness plan should address four basic activities:

- **Prevention**

To stop disasters from happening, for example by following required standards especially in constructing library buildings with appropriate materials.

- **Preparedness**

This is a statement of readiness in case of disaster happening. It can involve equipping libraries with facilities which could help reduce great losses.

- **Reaction**

An instance of reacting to disaster situations and how to deal with them.

- **Recovery**

Involves measures on how recovering processes can be effected in case of disasters happening.

Currently, the above measures do not exist in most libraries in the country.

**The need for a National Preservation policy in Tanzania**

Tanzania needs a National Preservation policy, which is suitable to its economic conditions. For this policy to be effective, there must be a national Preservation Policy Committee. This Committee should consist of Librarians, conservators, archivists, Curators, administrators, and funders, such as officials from the Ministry responsible like the Ministry of Finance. This committee should be well informed of the current problems facing National resources (Yash, 1996: 2).

The key role of the policy and the committee would be to facilitate the identification of preservation issues and problems and evaluate options or solutions, taking into consideration both financial and climatic conditions.

## **Policy Objectives and Guidelines**

Every effort should be made to promote networking in information sharing and exchange of experiences among professionals at local, Institutional, national and International levels.

### **Staff Training**

Training of staff in both preservation and conservation is of crucial importance. Staff Training is key in ensuring the success of the preservation efforts and initiatives as well as basic house keeping. Basic housekeeping, in the library; include book poisoning against insect infestation and book jacketing to protect them against dust and dirt. Library staff should also see to it that food and drinks are not allowed inside the library collection. Careful handling of audio-visual materials, and proper shelving of documents should be emphasized, Library staff manuals aimed at helping newly recruited staff should be compiled and be updated on regular basis. Both old and new staff should be encouraged to browse through the manual in order to become more conversant with basic library routines as part of their in-service training.

### **Users Education programmes**

User education programmes for library users are very important. The purpose is to educate users on proper handling and effective use of Library resources. Training materials should also include video film, library tours, and lectures, exercises, posters, and leaflets.

The Library should also provide reader advisory services to help readers identify their information needs. User education programmes can also assist in creating users awareness on the importance of preserving Library resources.

### **Library Co-operation Initiatives in Tanzania**

Preservation and library co-operation can incorporate activities such as resource-sharing, co-ordination of inter-library loans, co-operative acquisition, co-operative preservation, storage, and processing of library materials.

Library co-operation is a process whereby the resources of a group or network of libraries is made available to the sum total of people or persons entitled to use any of these libraries. Resource sharing is a loaded phrase embracing all

library co-operation activities. Library resource sharing is not only desirable but an essential element in library co-operation.

In an effort to promote library co-operation in Tanzania a union list was published in 1976. This initiative involved eighty six libraries from government departments and parastatal organizations. Unfortunately, this was not a comprehensive union list because many libraries were not listed. This tool was used solely for inter-library loans. There was and there is yet no machinery, formal or informal, to coordinate serials acquisition in the libraries concerned, or a comprehensive union catalogue for Tanzania. During the early seventies and early eighties there was an arrangement used among the East African university libraries (Dar es Salaam, Nairobi, and Makerere) to exchange accession lists of their East African materials which today would mean online catalogue. This was a valuable cooperative effort to inform each other about collection development efforts within their respective university libraries.

However this initiative is no longer in force due to financial and political constraints. One fundamental problem which stifles any initiatives is the chronic shortage of trained staff and funding in respective libraries. There is no doubt however, that resource sharing is crucial particularly when resources are scarce. Given this, these countries should revive the exchange of accession list for East African materials. This would become a basis for creating a comprehensive Union catalogue of East African materials or even to share the Online Public Access Catalogue (OPAC). The countries should also look into the possibility of establishing Preservation Policy committee responsible for the co-ordination of these efforts. For example, there are more than one hundred libraries, and documentation centres in EAC. This makes it is difficult to trace their location, establish how many workers are employed, their levels of education and professional status or what their collections contain, how they are used, the number of users or potential users, and what their needs are. Similarly, the conditions of their collections/buildings and how these libraries preserve their collections. These factors combined tend to limit library operation at national or regional levels in these countries.

### **Advantage of co-operative preservation can include:**

- Preservation of library materials will be realized because all libraries and even archives will contribute to preservation.
- From the limited funds many users will benefit and have access to other materials available in other libraries within the country.
- The problem of scarcity of trained manpower will be minimized because, through co-operation of the few trained staff, other untrained manpower/staff will pool their expertise and efforts together.
- Library co-operation will enhance co-ordination of collection development in East African Libraries.
- Including effective use, binding workshop facilities for restoration and conservation of library materials.

### **CONCLUSION AND RECOMMENDATIONS**

Following the IFLA proposals which include assisting developing countries in the specialized areas of libraries, archival administration, and record management, Tanzania should initiate the establishment of a focal point for preservation of library materials in the East Africa countries, (Tanzania, Kenya and Uganda). The focal point would, among other activities, promote education and training in preservation and conservation of Library resources. The above ideas would later expand to include other Central and Southern African countries, i.e. Malawi, Zambia, Zimbabwe, Botswana, Lesotho and Swaziland. The focal point should therefore aim at providing a central resource through which a large preservation programme could be effectively developed and implemented.

This paper has not only identified major enemies of library materials but also highlighted methods of record preservation most appropriate to the climate and economic conditions of Tanzania. It is envisaged that the paper will create awareness on preservation challenges and also promote further research on the topic.

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