

Full Length Research

Library Resources: Conservation and Preservation as Myth

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Significant investment is essential for library resources, which face issues of deterioration. To safeguard these resources and prevent a substantial loss of cultural heritage, this study examines the myths surrounding conservation and preservation in academic libraries. Specific research questions were formulated to guide the study's objectives. A descriptive survey design was employed for the research, targeting a population of sixteen (16) librarians from the COOU library, with a simple random sampling technique used to determine the sample size. Data was collected through a structured questionnaire and analyzed using mean statistics. The reliability of the instrument was evaluated using the test-retest method, resulting in a reliability coefficient of 0.75. Mean statistics were utilized to address the research questions. The findings revealed that library security is the most commonly used method for conservation and preservation practices. Furthermore, the results indicated that techniques such as cleaning, proper shelving, and dusting are adopted by the library. The study concluded that inadequate conservation and preservation practices within universities contribute to resource loss and deterioration. Therefore, it is recommended that libraries adopt modern preservation and conservation tools, including technology-enabled ICT devices, to improve storage and enhance the longevity and durability of information materials in libraries.

Keywords: Materials, University, Conservation, Preservation, Resources and Decline

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INTRODUCTION

A library acts as a repository of knowledge and a community hub dedicated to sharing information with the public impartially. Libraries play a vital role in organizing, preserving, and providing access to the information resources of society. The various components of a library—including books, periodicals, audiovisual materials, infrastructure, furnishings, library staff, and patrons—work together to make service delivery possible. When all these elements are in place, a library is well-equipped to provide its services. Patil and Pradhan (2014) noted that libraries around the world are seen as treasure troves of preserved knowledge, which is why there is a wide array of reading materials available, such as images, books, films, manuscripts, journals, and audiovisual content, all containing knowledge documented by esteemed scholars. This knowledge must be accessible to users. Additionally, modern libraries employ telecommunication technologies to maintain collections, allowing users to access information without needing to be

physically present in the library. The primary mission of a library is to organize, acquire, preserve, and provide information to users, ensuring access to knowledge. In this pursuit, libraries protect invaluable cultural records to guarantee their survival while offering access to documentary materials across generations. Libraries serve as essential links between the past, present, and future. They preserve cultural records in various formats and provide users with access as needed. This means that libraries enable users to obtain the information necessary for their tasks, learning, and governance (Issa, 2019). The resources available in libraries form the foundation that allows them to effectively deliver the information and recorded knowledge essential for the management of academic institutions by administrators, educators, and students.

In a higher education environment where research and scholarly activities are crucial, the use of electronic resources is particularly significant, with its effectiveness largely determined by the users and their goals (Deng, 2019). Nigerian universities cannot thrive without access to information, and libraries must ensure they deliver the right information in the appropriate format to those who need it in a timely manner. Igbojesi (2013) noted that academic libraries are essential to tertiary education by supporting, enhancing, and promoting learning as well as workforce development. However, due to their inherent fragility, library materials are vulnerable to easy editing or manipulation and can be unintentionally damaged. As a result, academic libraries must take steps to preserve the items in their collections. Alegbeleye (2018) referred to this as the fragility of the media. Michael (2016) highlighted that many library materials are not static due to the continuous advancements in electronic technology. Products that have been tested and found effective are often quickly replaced by smaller and faster alternatives, sometimes with a lifespan of five years or less. Given the delicate nature of library materials and the short time frame in which they are updated, reformatted, and repackaged, it is essential for them to be well-maintained, managed, and preserved. This ensures that the time and effort spent on acquiring, storing, processing, cataloging, classifying, and organizing them do not go to waste.

Preservation and conservation are essential processes designed to protect resources from destruction, loss, damage, and harm, while also ensuring they remain in good condition for both present and future use. Preservation emphasizes regular maintenance, while conservation focuses on remedial treatments (Sawant, 2014). Ogunmodede&Ebijuwa (2013) describe these processes as encompassing all management and financial aspects, including accommodation arrangements, policies, staffing levels, storage, and the techniques and methods crucial for preserving library and archival materials. Preservation involves both direct and indirect efforts to safeguard library materials. In the context of preservation and conservation, every factor that contributes to protecting these materials is taken into account, such as housing, storage systems, and security measures against threats like theft, defacement, and improper handling (Onyam, Akpom&Enem, 2017). Prajapati (2015) notes that preservation services ensure ongoing access to physical collections by conducting assessments, surveys, treatments, storage reviews, housing, and stabilizing collections. The IFLA principles for the care and handling of library materials (2010) further define conservation as specific actions aimed at slowing down deterioration and extending the lifespan of an object through direct intervention in its physical or chemical properties.

The nature of certain information storage media makes deterioration inevitable. 85% of your text is likely AI-generated
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The decline of library materials can occur due to the natural aging process or various other factors, including the chemical properties of the media, biological influences, environmental conditions, physical impacts, and improper handling. Therefore, it is crucial to implement specific conservation strategies to minimize deterioration and protect these valuable resources. Conservation involves taking protective measures to prevent decay and, as a result, the loss of library assets. The IFLA Principles for the Care and Handling of Library Materials (2010) also emphasize that preservation includes all managerial and financial aspects, such as storage and accommodation arrangements, staffing levels, policies, techniques, and methods necessary for the safeguarding of library and archival materials, along with the information they contain. While conservation focuses on direct physical interventions aimed at halting or slowing the deterioration of library materials, preservation encompasses both direct and indirect actions. It takes into account all factors that contribute to the protection of materials, including housing, storage systems, and security measures against threats like theft, defacement, and improper handling. In the fields of libraries, archives, and information science, preservation is a specialized profession dedicated to maintaining access to records and documentary materials through tasks such as document management, appraisal, and damage prevention (Akussah, 2013). As noted by Jordan (2013), preservation involves a broad range of activities, including methods, institutions, and concepts designed to ensure the longevity and usefulness of resources, thereby safeguarding recorded knowledge over time. Walker (2013) defined preservation as encompassing "all managerial, technical, and financial elements employed to slow down deterioration and extend the lifespan of collection materials to guarantee their ongoing availability."

Conservation activities, which include restoring both general and special materials, reformatting through microfilming, digitizing, photocopying, and photography, as well as selecting items for preservation, monitoring and managing environmental conditions, implementing proper handling practices, preparing for and recovering from disasters, setting standards for documentary materials, and educating and training on preservation, are just a few of the tasks identified by Jordan (2013) in the context of library material preservation. To provide information services effectively, libraries are being established in various university settings across Nigeria. As highlighted by Chukwuma (2014) and Alegbeleye (2018), librarians are responsible for overseeing these libraries and ensuring that resources are well-maintained. Without the application of suitable preservation techniques, many libraries in Nigeria face the risk of losing their collections. The UNESCO Charter (2013) offers a comprehensive set of guidelines for effective preservation practices in libraries. This study, therefore, examines how university libraries are preserving and conserving their materials.

Statement of Problem

One key issue that often captures the attention of library administrators is the conservation and preservation of materials in academic libraries. This importance stems from the fact that "preservation" encompasses a variety of proactive management, budgeting, and staffing efforts aimed at extending the lifespan of library materials, including serials. In contrast, conservation focuses on maintaining deteriorating library items in their original state. However, current literature indicates that many libraries worldwide have not adequately addressed the conservation and preservation of materials within academic settings, leading to the deterioration of these resources. Indeed, factors such as poor conditions, inadequate storage, a shortage of trained personnel in preservation, careless handling, lack of staff vigilance, conservation of serial items, and inherent issues with the materials themselves all contribute to this challenge. Although the materials in an academic library are crucial, previous studies have shown that not all of them are readily accessible, and those that are often have limited availability due to various preservation and conservation challenges. Issues such as the absence of specialized preservation and conservation librarians, insufficient budgets, low staff engagement, and inadequate equipment further complicate the situation. Consequently, this study aims to explore how university libraries manage the preservation and conservation of their collections.

Purpose of the Study

The specific objectives are to:

1. determine the conservation and preservation practices
2. examine the causes of degeneration of resources in the libraries.
3. determine the challenges of effective preservation resources

Research Questions

The following research questions will be used in the study;

1. What are the conservation and preservation practices?
2. What are the causes of decline of resources in libraries?
3. What are the challenges of effective preservation of library materials in university libraries?

Literature Review

Trusted Digital Repository (TDR) Model

The Online Computer Library Centre (OCLC) and the Research Library Group (RLG) introduced this approach. These two organizations began collaborating in March 2010 and released the model in 2012. Its primary goal is to ensure that its designated community has reliable and sustained access to managed digital resources, both now and in the future. The model incorporates seven key characteristics: adherence to the Open Archival Information System (OAIS) reference model, administrative accountability, organizational sustainability, financial viability, technological and procedural appropriateness, system security, and procedural accountability. The relationships among these traits are detailed in the Trusted Digital Repository (TDR) Model. Additionally, it encourages the development of cooperative networks, the sharing of knowledge and research on digital preservation concerning intellectual property rights, and the

collaborative creation of certifications for digital repositories. This model is relevant to the current study as it advocates for reliable preservation methods for library materials, ensuring their long-term availability for users. It addresses not only technological challenges and system security but also clarifies the administrative responsibilities crucial for maintaining and preserving digital information within any organization. Proper management of digital content from the moment of creation is vital to keeping it current and accessible to users. This is essential for ensuring accurate data presentation and preventing issues like data corruption and bit rot. This is the purpose for which the model was developed, aligning with the study's objectives (Urhiewhu, & Adaeze, 2023).

Preservation of Library Materials

According to Akussah (2013), preservation is a field within library, archives, and information science that aims to maintain access to records and documentary materials by examining, evaluating, controlling, and preventing deterioration. The roots of preservation can be traced back to early efforts to safeguard documentary records, which included the use of various media before the Middle Ages, as well as modern preservation techniques and ongoing initiatives into the twenty-first century. In the beginning, early humans utilized materials such as stone, metals, tree bark, clay tablets, palm leaves, leather, papyrus, and parchment instead of paper. Each of these materials faced unique degradation challenges. The first preserved documents were scrolls, which were stored in cylindrical ivories to protect them from dust, moisture, and insects. Those who worked with papyrus employed protective oils like citrus leaf oil and cedar wood. Before the introduction of handmade paper in the Middle Ages, preservation issues were minimal due to the durability of the materials used and the limited number of surviving documents. The modern era of preservation began in 1898 when Cardinal Franz Ehrle became the custodian of the Vatican Library. This contemporary period brought forth numerous preservation challenges, prompting various countries, institutions, and international organizations to take action. Around this time, machine-made paper became widely available. These organizations focused on three main areas: (a) developing guidelines and standards; (b) evaluating the effectiveness of materials; and (c) studying the lifespan and degradation of different media. With advancements in information and communication technology (ICT), preservation has largely transitioned to electronic formats in the twenty-first century. This shift has introduced new challenges for preservationists, as many electronic media have unpredictable lifespans and are subject to rapid technological changes. As a result, this change has spurred more research on digital and multimedia preservation (Urhiewhu, Nzewi & Roy, 2024).

Murray (2015) describes preservation as the various programs and techniques employed to safeguard library resources for future generations. He further explains that preservation is a form of indirect treatment that modifies the environment surrounding these resources. This includes stabilizing, maintaining, and monitoring factors like temperature, humidity, light exposure, air quality, dirt, dust, and mold. Additionally, preservation entails evaluating suitable storage and handling practices, protecting against theft and vandalism, disaster prevention, and offering training, education, and outreach initiatives for staff, patrons, and the community. Jordan (2013) notes that preservation encompasses a wide array of activities, methodologies, principles, and organizations aimed at ensuring the use of materials, prolonging the lifespan of documents, and facilitating access to recorded knowledge. Walker (2013) defines preservation as encompassing all managerial, technical, and financial efforts focused on delaying deterioration and enhancing the longevity of collection materials to ensure their continued availability. He also highlights that preventive measures are generally more cost-effective than remedial actions taken after damage has occurred.

The Institute of Museum and Library Services (IMLS) (2019) describes preservation as a process that effectively extends the lifespan of both living and non-living materials, which can include personal items, buildings, structures, or sites, by slowing down their deterioration. Harrison (2012) pointed out that "preservation encompasses all managerial and financial aspects, including storage and accommodations, resources, staffing levels, policies, techniques, and strategies in protecting library and archival materials as well as the information they contain." On the other hand, Ngulube (2015) viewed preservation as a means of maintaining longevity and ensuring access to information, emphasizing that this information must be valuable. He introduced two levels of access: physical and intellectual. Physical access involves keeping information intact and in good condition, which includes preventing damage, treating documents when necessary, and transferring them as needed. Intellectual access refers to the ability to utilize the content of the document, allowing for reading to gain knowledge and having the necessary software to access it. This is relevant for non-conventional documents, which can be accessed through equipment like audio-visual (AV) formats, microfilm, and electronic formats. Akussah (2013) defines the preservation of library materials as actions taken to maintain and protect materials from deterioration, thereby extending their lifespan or keeping documents in their original form or in a way that is useful for users. Jordan (2013) highlighted various activities involved in preserving library materials, including conservation (the restoration of both general and special materials), reformatting (such as microfilming, digitization, photocopying, and photographing), selecting materials for preservation, monitoring and regulating environmental conditions, implementing proper handling techniques, and planning for disaster preparedness.

and recovery, establishing standards for materials, utilizing good practices and methods, binding, and providing education and training in preservation.

Conservation of Library Materials

According to the International Records Management Trust (n.d), "conservation" refers to the proactive preservation of archival assets by using the minimum physical and chemical treatments necessary to halt further deterioration while maintaining the integrity of the original item. The focus is on specific activities designed to protect materials and enhance storage conditions. In the context of preservation, conservation operates at the item level and involves actions aimed at preserving or improving the physical object (Jordan, 2013). As pointed out by Srivastava and Kumar (1986, cited in Sawant 2014), conservation and preservation are distinct concepts with different implications, even though they are related. Preservation involves activities that aim to keep library and archival materials in their original form or a usable format, while conservation is a subset of preservation activities that includes proactive measures or processes to repair damaged materials and ensure their ongoing existence. The IFLA Principles for the Care and Handling of Library Materials (2010) defines conservation as the specific actions taken to prevent deterioration and prolong the lifespan of an object through direct intervention in its physical or chemical makeup. Certain information storage media are susceptible to deterioration due to their inherent properties. This deterioration can occur naturally over time or be accelerated by factors such as biological agents, environmental conditions, physical threats, improper handling, and the chemical composition of the media. Therefore, it is crucial to implement targeted conservation measures to mitigate this degradation and protect valuable library resources from being lost. Conservation involves taking preventive steps to avert deterioration and, consequently, the loss of library items. According to the IFLA Principles for the Care and Handling of Library Materials (2010), preservation also encompasses all managerial and financial aspects, including staffing levels and considerations for storage and accommodation.

Research Design

For this study, a descriptive survey design was utilized. As noted by Ali (2016), descriptive surveys involve the systematic collection and analysis of information related to specific characteristics and facts about a group. The study's sample included all university library librarians. Sixteen (16) librarians from ChukwuemekaOdumegwuOjukwu University Library were part of the population, and the sample size was determined using a simple random sampling technique. A basic random procedure was employed to select 10% of the total population for this sample. A questionnaire was the primary tool used for data collection in this study. The survey was titled "Preservation and Conservation in University Libraries." It consisted of two distinct sections: Section A and Section B. Section A included options for respondents' personal information, while Sections A–C of Section B addressed different study issues. The response options included Disagree (D), Strongly Disagree (SD), Agree (A), and Strongly Agree (SA). The scaling statements in the questionnaire were analyzed using mean statistics and standard deviations, with various scaling statements assigned nominal values as outlined below:

Strongly Agreed	4
Agreed	3
Disagreed	2
Strongly Disagreed	1

A cut off was determined by finding the mean of the nominal values assigned to the options in each questionnaire item using the formula.

$$\bar{X} = \frac{\sum fx}{N}$$

Where

\bar{X} = mean score

x = the score

N = number of items

Thus;

$$\bar{X} = \frac{4+3+2+1}{4} = \frac{10}{4} = 2.5$$

Decision Rule

The decision rule would, be responses with mean score of 2.5 and above was regarded as accepted while responses below 2.5 was regarded rejected.

Data Presentation and Analysis

Research Question one: What are the conservation and preservation practices?

Table 1: Mean ratings of respondents with regard to conservation and preservation practices

s/n	Items	\bar{x} Mean	Remark
1.	Staff training	2.8	A
2	Restoration of decline resources	3.1	A
3	Funding	2.9	A
4	Handling of resources	3.0	A
5	Environmental control	3.0	A
6	Security of library materials	2.7	A
7	Disaster recovery	2.5	A
	Grand Mean	2.86	

The information presented in Table 1 indicates that the ratings for items 1 through 7 are 2.8, 3.1, 2.9, 3.0, 3.0, 2.7, and 2.5, respectively. All items exceed the mean criterion that was established. The responses provided for items 1 through 7 are all in agreement.

Research Question 2: What are the causes of decline of resources in libraries?

Table 2: Mean ratings of respondents with regard to the causes of decline of resources in libraries

s/n	Items	\bar{x} Mean	Remark
	Print materials		
8	Excessive light	2.8	A
9	Poor book shelving	3.2	A
10	Dust and particulate matter	2.7	A
11	Relative humidity	3.0	A
12	Rough handling	2.7	A
13	High temperature level	2.5	A
14	Biological agents (termite, cockroaches, spider, rodents etc)	3.0	A
	Non-print Materials		
15	High humidity and heat	3.0	A
16	Excessive light	2.6	A
17	Atmospheric pollutants	2.5	A
18	Oxidation	2.9	A
19	Dust	2.9	A
20	Biological Agent	2.7	A
21	Magnetism	2.5	A
	Grand Mean	3.0	

Table 2 indicates all the recognized factors contributing to the deterioration of library materials within the surveyed institution. Items 8-21 demonstrate that each identified cause of deterioration impacts library materials. This suggests that management needs to enhance the conditions affecting library materials.

Research Question 3:What are the challenges of effective preservation of library materials in university libraries?

Table 3: Mean ratings of respondents to the challenges of effective preservation of library materials in university libraries

S/n	Items	\bar{x} Mean	Remark
32	Harsh environmental conditions and other factors	3.0	A
33	Competent manpower	2.7	A
34	Managing record is lacking	2.9	A
35	Institutions are not willing to train staff	2.7	A
36	Inadequate funds to execute preservation programme	2.7	A
37	Lack of preservation policy and strategy	2.9	A
38	Indifference of the management towards preservation	2.5	A
Grand Mean		2.77	

Table 4 indicates that respondents agreed with items 32-38. The mean scores for these items were all accepted, as they exceed the 2.5 threshold set for acceptance of the mean.

Discussion of Findings

According to the research, the following factors contribute to the degradation or damage of information resources in university libraries: environmental factors like temperature, lighting, and high humidity; biological threats like insects, molds, rodents, bacteria, and fungi; chemical elements like paper acidity; natural disasters like floods, earthquakes, hurricanes, tornadoes, and fires; disorganized materials; frequent usage; and improper handling of materials by library staff and patrons. This could be the consequence of limited financing for libraries to acquire preservation equipment or chemicals to counteract deteriorating factors, or it could be the result of inadequate planning for record management. This result is consistent with the research of Adekannbi and Wahab (2015), who compared the conservation and preservation strategies used in a few Nigerian special and academic libraries.

Research indicates that several factors lead to the degradation or damage of information resources in university libraries. These include environmental conditions such as temperature, lighting, and high humidity; biological threats like insects, molds, rodents, bacteria, and fungi; chemical issues like paper acidity; natural disasters such as floods, earthquakes, hurricanes, tornadoes, and fires; disorganized materials; frequent usage; and improper handling by library staff and patrons. This situation may arise from limited funding for libraries to obtain preservation equipment or chemicals to mitigate these deteriorating factors, or it could stem from insufficient planning for record management. This aligns with the findings of Adekannbi and Wahab (2015), who examined the conservation and preservation strategies employed in several Nigerian special and academic libraries.

According to their study, dust, wear and tear, excessive photocopying, pests, too much light, frequent use of materials, magnetism, and biological agents were identified as causes of deterioration in both types of libraries. The research revealed that to safeguard their information resources, special and academic libraries implemented strategies such as dusting and cleaning, air-circulating shelving, security measures, de-acidification, technological preservation, refreshing, and migration. The results indicated that respondents acknowledged all the challenges associated with effectively preserving library materials in university libraries. These challenges include, among others, a shortage of qualified preservation staff, inadequate strategic planning for records management, insufficient funding for preservation programs, a lack of training facilities for library personnel, absence of preservation policies and strategies, management's disinterest in preservation, and poor environmental conditions. Njeze's (2012) study on conservation and preservation issues in several private universities also supports these findings. Njeze's (2012) study on conservation and preservation concerns in a few private universities in southwest Nigeria is consistent with this conclusion.

Research indicated that the absence of a comprehensive preservation policy, skilled staff, and adequate funding created challenges for all the colleges examined, hindering the development of library infrastructure and preservation strategies. Additionally, this finding aligns with Ogbodo's (2016) study on the preservation of information sources in a polytechnic library in Benue State. The study highlighted issues such as dust accumulation and book deterioration as significant challenges in preserving information sources within university libraries, noting that modern technology was not being utilized effectively. The results identified various preservation challenges faced by Nigerian university libraries, mentioning that these libraries employed methods like repairs, firefighting equipment, binding, fumigation, air conditioning, proper storage, photocopying/duplication, insecticide treatment, and keeping books away from direct sunlight to protect their information sources. The findings also emphasized obstacles such as inadequate funding, harsh environmental conditions, and a lack of effective strategies.

Conclusion and Recommendations

This study examined the conservation and preservation of library items, defining key terms related to these concepts. It highlighted the importance of safeguarding library resources and preserving these valuable assets. The research focused on identifying factors that contribute to the deterioration of information materials, exploring methods to protect these resources, evaluating the frequency of their use, and addressing the challenges associated with effective preservation. The findings clearly indicate the critical need for university libraries in Nigeria to prioritize the conservation and preservation of their collections. Given that library resources are essential for academic and research activities and are frequently utilized by both faculty and students, it is vital to ensure their proper preservation and conservation. Effective management practices in academic libraries are crucial for maximizing the use of these resources, as they help mitigate issues such as theft, damage, low staff vigilance, high costs of periodicals, vandalism, and a lack of awareness regarding the preservation of serial materials. Furthermore, best practices for preserving materials in an academic library include techniques such as fumigation, microfilming, disaster preparedness, binding, digitization, reformatting, de-acidification, and maintaining materials in their original format. The report identifies several challenges faced by university libraries in Anambra State, including a shortage of preservation and conservation librarians, limited budgets, lack of staff interest, and inadequate equipment. Consequently, it is clear that significant improvements are needed in the conservation and preservation of resources within these university libraries. Therefore, the problem of material deterioration in library collections needs to be addressed immediately and forcefully by librarians. According to the study's findings, libraries should make routine dusting and cleaning of their materials a top priority; Libraries ought to make de-acidification a regular procedure and Libraries should make use of contemporary conservation and preservation instruments, such ICT gadgets, which can help with appropriate storage and prolong the life of informational materials in libraries.

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