

PRESERVING SOUTH AFRICA'S PAPER TRAIL AND MAKING PUBLIC RECORDS AVAILABLE FOR PRESENT AND FUTURE GENERATIONS

Patrick Ngulube

**Information Studies Programme, University of KwaZulu-Natal,
South Africa**

E-mail: ngulubep@ukzn.ac.za

Received: 15 November 2006

Revised: 15 January 2007

Accepted 20 January 2007

Abstract

Access to public records and archives in South Africa is diminishing rapidly largely due to inadequate preservation strategies and a dearth of knowledge of archival preservation techniques. Inadequate attention is being paid to preservation as a collection management strategy. Continued access to South African archives is going to largely depend on how they are preserved from creation right through their entire life cycle. The aim of preservation is to prolong the usable life of archives in order to ensure indefinite access to them. The situation regarding preserving public records and archives and making them available by archival institutions in South Africa was investigated. Based on a questionnaire survey, interviews, observation and content analysis of key documentary sources the study revealed the inadequate housing and environmental conditions of the archival holdings, a lack of awareness concerning preventive preservation measures, inadequate preservation programmes and limited conservation education, limited resources for conservation activities, and weak organisational structure and funding of archival institutions in South Africa in general. The study concluded that unless the existing situation is reversed, access to public records and archives in South Africa would diminish.

Keywords: Access, Archives, Preservation, Records, South Africa

Introduction

Most of humankind's documentary heritage is recorded on materials that are subject to the ravages of unstable environments, biological factors, careless handling, natural and man-made disasters, inferior paper, impermanent and acidic inks, and technological obsolescence resulting from outdated hardware and software formats that render information inaccessible. Preservation, as a collection management strategy is fundamental to long-term access to public records and archives. By guaranteeing continued access to records and archives, "preservation allows for the continuity of the past with the present and the future" (Cloonan 2001:235).

Thus, the preservation of records and archives facilitates continuity in decision-making as well as providing evidence of past activities and historical precedence for future generations (Ngulube and Tafor 2006). Without records and archives it would be difficult for people to learn from past successes or failures. The society's ability to be well informed would be accordingly limited. Without records and archives we cannot fully explain the ever-changing present and inform the future with wisdom. In a nutshell, archives and archivists are the guardians of "the continuity with the previous and future generations of our nations" (Van Albada 2001:39).

Ultimately, if records and archives are not preserved they will not be accessible in the long run. Preservation is critical to the future of archives and key to the archivist's ability to facilitate long-term continuing access. Preserving and providing access to records and archives are some of the major reasons for the existence of archival institutions. Preservation procedures in records and archives entail the acquisition, organisation and distribution of human, physical and financial resources in order to maintain materials in a usable state (Conway 1990:206).

Context and background

Access to and preservation of public records and archives should be the main target of preservation efforts because it is apparent that government is the largest producer and user of information (Blunt 1995:7; Evans, Amodeo and Carter 1999:393; Heeks 2000:197). At

this juncture one may ask the question that was posed in 1947 by Sir Hilary Jenkinson, one of the most eminent archivists: "Why all this fuss about archives?" (Jenkinson 1947:236). Archives in general and public records and archives in particular, pertain to legal, social, political and economic rights of individuals. They enshrine the individual's legal and moral rights. They also provide the evidence on which the integrity and judgement of governments can be vouched for or called into question.

In fact, public records and archives are key to accountability and good governance because they reflect government's activities, procedures, and the administrative processes that generate them. Records and archives can effectively play the foregoing outlined role if they are appropriately preserved and made accessible when required.

Preservation is one of the key elements of collection management strategies (Bonita 1989; Clayton and Gorman 2001:17; Feather 1991:76; Jenkins and Morley 1999:2; Walters 1998:159; Williams 2006:167). The ultimate objectives of collection management strategies are to provide access and by implication usage. One of the means of facilitating continued access to records and archives is preservation (Jones and Ritzenthaler 1988:185).

Furthermore, Jones and Ritzenthaler (1988:185) and Millar (1997:63) identified preservation as one of the key activities and defining concepts of archival management. In essence, archivists are preservers, for as Schellenberg (1971) pointed out, "... the end of all archival effort is to preserve valuable records and make them available for use. Everything an archivist does is concentrated on this dual objective" (Schellenberg 1971:224). Unfortunately, preservation management does not appear to occupy the centre stage in developing countries. Thus, it has been observed by Duchein (1983:1) that in developing countries access to and use of records and archives should, "begin with their safeguarding". Dadzié's statement made in 1966 at the Extraordinary International Congress on Archives held in Washington, though now outdated still rings true: very little attention is being given to safeguarding records and archives through promoting preservation.

In fact, the situation is steadily growing worse as the infrastructures in many countries in Sub Saharan Africa (SSA) have disintegrated with air-conditioners and conservation and reprographic equipment having become non-functional (ESARBICA 2001; Mazikana 1992; Ngulube 2005a). On the basis of personal observations, surveys and reports from consultants, like Mazikana (1992) and Alegbeleye (1999:1) one may dare to argue that the preservation and conservation scene in Africa is in a dismal state.

Despite the fact that preservation as part of collection management strategies can prolong the usable life of public records and archives and ensure long-term access to them, very little attention has been paid to the issue in Sub Saharan Africa. Furthermore, little empirical research, if at all, has been conducted on preservation management. According to Rosenberg (1995) and Mazikana (1992) very few studies have focused on preservation in Africa. Some of the few studies that have been identified are those of Chida (1994), Kemoni (1996), Matwale (1995), Murray (2002), Ngulube (2003), Ngulube (2005b) and Peters (1998). The paucity of preservation studies in Africa was also confirmed by the annotated bibliography compiled by McIlwaine (1996) that has very few entries focusing on preservation in Africa. The most recent bibliographies compiled by Alegbeleye (2000) and the National Archives of the Netherlands and others (2001) also confirm the paucity of literature on preservation management in Africa.

Literature review

The emerging consensus defines preservation as a range of activities associated with maintaining materials in a usable state, either in their original physical form or in some other usable way (Conway 1990:206-207; Feather and Sturges 1997:371; Hunter 1997:152; Kenney 1990:184; National Archives of the Netherlands *et al.* 2001; Walne 1984:129). The preservation paradigm shifted from the concept of item oriented conservation in favour of preservation due to new formats ushered in by technological changes as well as the increasing number of records that needed attention.

The activities that are undertaken to physically protect and “defend” records and archives (Jenkinson 1937:44) may be characterised as

preventive and remedial or renewal (Child 1999; Conway 1990:207). These elements of a preservation programme may be further characterized as environmental control and monitoring, handling and use of materials, reformatting, disaster preparedness, preservation planning and policies, security, storage of archives and records, treating selected materials, and conducting preservation surveys. Preservation activities facilitate continued availability and access to public records and archives. The need to make records and archives "accessible and knowable across time and space" is reason enough to necessitate research into their protection and to justify investment of public money into their preservation.

Access refers to the availability, ability and opportunity to consult records and archives (Walne 1984:15). In other words, access includes both the *legal right of access* and the means of arrangement and description that enable users to examine and study individual records and archives (Smith 1987:355). Promotion of access to information legislation and technological change are the two major recent developments that have made preservation a central issue in the management of records and archives. On one hand, promotion of access means that the rate of handling and use of the documents may increase. The questions that arise for the custodians of records and archives are: How can documents be utilised without damaging them? How can documents be preserved whilst being made use of? A long-term preservation policy that aims at preventing, stopping or slowing down the deterioration of the documents as well as creating surrogate documents seems to provide some answers to these questions. In addition to the overwhelming problem of reconciling access to, and deterioration of materials, the increasing use of digital technology by government departments requires a reassessment of policies developed for the storage and retrieval of print materials. On the technological plane the questions would be: how does one preserve and promote access to digital archives? How does one address the issue of media obsolescence?

Paper has traditionally been the main focus of media preservation in records and archives, but the advent of new information technologies that produce a variety of documents has brought a new dimension to issues related to preservation management. The technological changes and increased access to documents means that records are

in danger of being damaged and lost if not preserved properly. These developments are taking place in South Africa against a general background of the absence of any national preservation policy and plan.

Preservation is one of the critical functions of the National Archives and Records Service of South Africa (NARSA) and the provincial archives. An overview of archival legislation in South Africa underscores a uniform legislative approach regarding the preservation of public records and archives. It is clear from the preambles of the existing archival legislation that the national and provincial archives are concerned with the proper management, preservation and use of public records and archives (South Africa 1996; KwaZulu-Natal 2000). In practice, the archival institutions determine record classification systems, arrangement, storage and retrieval of records. Furthermore, archives officials have a right to inspect public records to determine their use and maintenance. Archive repositories also compile and update lists of the government agencies and other bodies, whose records are transmitted to state custody, and they organise the selection and transfer of such records. As a general rule records are transferred to the archives when they have been in existence for 20 years (South Africa 1996; KwaZulu-Natal 2000). The holdings of NARSA and provincial archives comprise records in a variety of media. They include paper-based textual records; electronic records as well as audio-visual, photographic and cartographic material (National Archives of South Africa 1997). However, this article will only dwell on paper-based records as it is concerned with investigating how the paper trail is going to survive the vagaries of the climate, handling and other factors that affect long-term access to paper-based records.

Preservation planning does not appear to be fully integrated into the collection management policy of the national and provincial archives in South Africa. Preservation standards and guidelines for the long-term survival of the collections are inadequate (Ngulube 2002:29; Olivier 1999:12). There is an acute shortage of staff and absence of expertise in key areas such as preservation (Olivier 1999:12). Financial resources are also diminishing (Kirkwood 1994:14; Olivier 1999:12). In fact, the preservation of records and archives in South Africa has been characterized as an area of crisis (National Archives

of South Africa 1997; Olivier 1999:10). Over 50 million pages of paper-based records are in urgent need of restoration (National Archives of South Africa 1997). Although these observations were made before the turn of the 20th century little has changed ever since.

The national and provincial archives have a unique statutory obligation to guide public bodies in records management policies and procedures. There was no comprehensive provincialisation agenda to deal with the preservation of records and archives in South Africa. While the National Archives of South Africa Act of 1996, as amended, provided a broad framework for the provincialisation of the preservation of, and access to records, there was a general lack of requisite resources to carry out the preservation of records and archives at the provincial level. The problem was compounded by lack of expertise in preservation activities.

The proposition of this study is that one of the ways of understanding the preservation crisis would be to develop preservation strategies and models peculiar to the South African situation. Admittedly, a number of studies on preservation have been done in Europe and the United States of America (Conway 1991; Feather and Eden 1997; Lowell 1986). While contributions from outside Africa are acknowledged, we need to ask how and to what extent should Africa's preservation activities be rooted in African realities or shaped by trends in Europe and the United States of America. Besides, preservation models have been greatly contested. For instance, until recently there was agreement among preservationists all over the world that stable temperatures of less than 70°F and a stable relative humidity between 30% and 50% were ideal climatic conditions for the storage of documentary materials. The Smithsonian scientists and other experts have argued that the climatic conditions that have always been perceived as suitable for the storage of documents are not globally applicable (Erhardt *et al.* 1995; Lull 1995; Peters 1998).

We need to understand the appropriateness and limitations of European and American preservation initiatives and adapt the ones applicable to the African context. In fact, the western preservationists and conservators have started to realize that the problems faced in other parts of the world are different and "often more complex than their own" (National Archives of the Netherlands *et al.* 2001:49). By

implication it is essential to analyse each situation in order to establish appropriate preservation conditions. As Chapman (1990:vi) pointed out, "it is not possible to compile a set of guidelines which will be appropriate in all circumstances". The old adage: one size does not fit all can also be used in support of Chapman (1990). Scarce resources can be creatively harnessed if appropriate preservation strategies are developed for specific circumstances.

That in itself, underscores the fact that preservation needs may vary from one environment to another (Chapman 1990). Therefore, studies on preservation relevant to specific environments are very crucial. Moreover, Porck and Teygeler (2000) pointed out that preservation research should focus on understanding typical non-western preservation and conservation problems. It was in that light that an investigation was carried out to establish the preservation and accessibility of public records and archives in South Africa into the future. The key research questions were as follows:

- What are the activities and strategies used to preserve records and archives in South Africa?
- What means and processes are employed to make information contained in archives and records accessible in South Africa?
- What is the level of skills in preservation management in South Africa?
- What recommendations on preservation issues can be made?

Methodology

While research methodologies revolve around two major approaches (Creswell 2003:1; Leedy 1997:104; Powell 1999:96), namely, quantitative and qualitative this study largely adopted the former. However, Bryman (1988:172) makes out a strong case that the differences between the two approaches are technical rather than epistemological. That means that in practice researchers can "mix and match" methods according to what best fit the questions under study. The paradigms can be used together to demonstrate concurrent validity (Cohen, Manion and Morrison 2000:112). Previous studies on the preservation of documentary materials such as Clements (1987), Coates (2000), Conway (1991), Council of State Historical Records Coordinators (1998), Feather and Eden (1997),

Lowell (1986) and Mazikana (1992) used the quantitative approach with questionnaires being the major instruments for data collection.

In line with previous studies, the present study heavily relied on the quantitative research approach and used self-administered questionnaires directed to the heads of the national and provincial archives in South Africa as the key sources of data. Some selected heads of archival institutions were interviewed. Observations entailed visits to randomly selected sites in South Africa. The visits were partly meant to supplement and validate the information obtained from the questionnaires. The population of the study were public archive repositories in South Africa. The fourteen units of analysis were drawn from the *Directory of archival repositories in South Africa* (National Archives of South Africa 1999). The response rate of the mailed questionnaire was 64.29%, as nine out of the fourteen surveyed institutions responded.

Discussion of the results

The findings are presented and discussed according to the four research problems posed above.

Activities and strategies used to preserve records and archives in South Africa

Preservation policies and means, standards for the management of records, buildings for the storage of archival materials, environmental control and monitoring, pest management, storage and handling, disaster preparedness and security of records, and the general state of records and archives in archival repositories were used as indicators to assess preservation activities in South Africa.

According to Forde (1997:165) preservation policies for cultural materials are indispensable tools for organisations that are committed to facilitating the survival of materials in their custody. In public institutions, such policies are partly enunciated in mission statements and business plans. Policies are important because they set out goals to be achieved as well as guidelines for implementing them. The respondents were asked if they had mission statements for their archival repositories. All nine archival institutions which responded

claimed to have a mission statement. The majority of the surveyed institutions did not have a document outlining policies in relation to preservation. Only one out of the nine surveyed institutions had a written preservation policy. Three intended to formulate a preservation policy in the near future. Only a third of the surveyed archival institutions had a specific vote for preservation activities, and preservation expenditure as a percentage of the repository's total budget was reported to be between one and four percent. The financial allocations to preservation and conservation of holdings over the past five years have remained unchanged for two archival institutions while one reported an increase.

The treatment and restoration of materials depends on the existence of preservation facilities. Three respondents had in-house conservation facilities. According to Ketelaar (1990) archival legislation should provide for the safe custody in suitable buildings of all national and provincial archives and the provision of facilities for the repair and conservation of archival material of all kinds by appropriate methods. Archival legislation in South Africa did not explicitly authorise the national and provincial archives to provide for facilities for the repair and conservation of archival material. Furthermore, the National Archives Regulations of 1997 were silent regarding preservation policies and procedures. The manner in which provincial and national archival legislation was developed had adversely affected the ability of archival institutions to promote the preservation of documents. Only one archival repository had a conservation workshop operating at its institution. Determining the use of standards in preserving and providing access was important to the study. Standards play an important role in archival practice because of the various formats in which the archives are recorded and the need to exchange and access archival resources. Five archival repositories reported that they adhered to storage standards. Two adhered to preservation and access standards. Only one reported adherence to storage, preservation and access standards. The provincial and national archives legislation was listed as the standards that the repositories adhered to. No regional or international standard was listed.

Storage conditions offer many opportunities to prolong the life span of documents because they contribute to their physical well being. The

protection of records and archives begin with the buildings in which they are stored. In that regard, buildings have been characterised as “the first line of defence against a severe climate and various disasters” (National Archives of the Netherlands *et al.* 2001:77). Buildings at three repositories were adapted to use. Four repositories reported that they regularly renovated their buildings, however, they did not state the year the buildings were last renovated. Four respondents reported that the buildings housing archival materials were subject to regular technical maintenance. Only three institutions shared the buildings they used with other tenants.

The maintenance of proper temperature and relative humidity (RH) in archives and records storage areas is very important and it is of critical importance in the preservation of documentary materials because inappropriate temperature and RH contribute significantly to the deterioration of materials. Five archival institutions had a heating, ventilation and air conditioning (HVAC) system. Respondents did not specify the type of HVAC system they used. The HVAC system was maintained twice a year by two institutions. One archival institution maintained its system annually while the other did it once in two years. One respondent reported that the system was never maintained. The HVAC system was reported to be on at all times at four out of the five archival institutions that claimed to have one. It provided constant climate control throughout the year at three of the five archival institutions that reported having one. Incoming air was filtered at four archival institutions. Four archives repositories monitored temperature levels in their repositories constantly. On the other hand, only two had controlled temperatures of between 13°C and 21°C and RH of between 35% and 60% in areas where records and archives were stored.

Incoming air was only filtered at four archival institutions. As a result records and archives had the potential of being contaminated and damaged by air and gaseous pollutants such as sulphur dioxide, nitrogen oxides, hydrogen peroxide, hydrogen sulphide and ozone that cause harmful chemical reactions that lead to the formation of acid in materials.

Light accelerates the deterioration of records and archival materials by acting as a catalyst in their oxidation. Respondents were asked

about the sources of light in their repository, the length of time that holdings were exposed to light and how they controlled light levels. The major sources of artificial light in archives repositories in South Africa were fluorescent lamps. All surveyed repositories with the exception of one reported that holdings were exposed to light briefly when records were being retrieved, but site visits to two of the repositories established that there were a lot of inconsistencies between what they reported and what was observed. No repositories that were visited took light level readings.

Biological agents such as rodents, termites, silverfish, cockroaches, booklice and beetles are a problem in archival repositories. The respondents carried out routine extermination of vermin infestation in varying frequency rates. Spraying and fumigation were the two major methods that respondents used to exterminate pests. Three respondents used Dursban®, Rentokil® and Nuvan® respectively. Only two of the respondents received a written statement of the findings and work after each treatment cycle. Pest management activities were carried out on a regular basis. However, pest control systems seemed to place little emphasis on the health and safety and protection of human beings working with records and archives. Another study by Ngulube (2005b) made the same observation.

Seen as one of the most basic and effective preservation tools, proper techniques for care and handling of archival materials enjoy universal support from members of the archival profession in public institutions in South Africa. Six out of seven surveyed repositories reported that the storage areas were generally kept clean. The records storage areas were cleaned a varying number of times. Users were trained in the handling of records in four repositories and the same repositories trained staff in the handling of records. They also had written guidelines for handling of documents for staff and the public.

Records and archives are vulnerable to a variety of disasters such as insects, rodents, mould, humidity, power outages, leaking roof and pipes, sprinkler discharges, arson, bomb threats, and acts of war and terrorism. There is an ever-present danger that disasters may endanger buildings and holdings. Nevertheless, disaster preparedness and security of records and archives did not form a

significant part of the preservation activities of archival institutions in South Africa. Only four archival institutions had written disaster preparedness plans. Out of four respondents who had disaster plans, only one institution had a plan covering natural disasters such as floods. Natural disasters and biological factors were not covered in any of the reporting institutions' plans. From the listed man-made disasters it was established that the plans of two repositories covered fire and bomb threats and the plan of one repository covered vandalism. The plan of the fourth repository did not cover any man-made disasters. The respondents specified no other possible disasters. Three archival repositories had a disaster planning team in place. The same institutions had a chain of command to deal with a disaster. Interviews with some of the respondents revealed that most of the contingency plans were for the safety of staff and users.

Five repositories had a fire detection system in the area where records were stored. Two archival institutions had regular visits by their local fire department. Staff had been trained to use fire extinguishers in five archival institutions. Five repositories had a fire detection system in the area where records were stored. The fire detection systems were connected to a central monitoring facility in five repositories. Three respondents reported that the fire detection systems were connected to the local fire department. In the remaining two cases, one respondent stated that the system was connected to the Public Works Department and the other mentioned the control board in the security office. Fire extinguishers were available throughout the repository in six archival institutions. Two archival institutions had regular visits by their local fire department. The security of records and archives could be compromised by the lack of close liaison between archival institutions and fire departments. Staff had been trained to use fire extinguishers in five archival institutions, but one of the institutions did not specify who did the training. Some archival institutions did not have automatic fire detection systems. Most archives and records were not protected by alarm systems although all archival institutions employed security personnel round the clock.

Six out of the seven institutions that participated in the survey had observed deterioration of documents resulting from the use by the public. Two institutions ascribed the deterioration to photocopying

and the other institution that responded to the question attributed it to inadequate supervision of the users. Public records and archives were not properly maintained. Examination of records was rarely done. Conservation and restoration activities were very limited. Records and archives were not adequately protected from environmental hazards such as temperature, relative humidity and light. In addition, they were not satisfactorily protected against physical dangers such as media instability and fragility. Photocopying guidelines were not clear and their application varied from repository to repository. Reformatting strategies and conservation treatment were not effectively addressed. Preservation standards and guidelines for the long-term preservation of records and archives were equally not adequately dealt with.

Means and processes employed to make information contained in records and archives accessible

Publicity campaigns and public relations exercises are some of the strategies used to influence the public's use of archives and records. Respondents were asked questions that sought information about their public programming activities. The participating institutions frequently mentioned conducted tours and group visits as some of the strategies they used in their outreach programmes. However, only one archival institution had a written public programming plan. The surveyed archival institutions had a variety of priorities in managing records and making them accessible as illustrate in Table 1. It is evident that increased funding, greater use and preservation of the holdings were among some of their major priorities.

Table 1: Priorities for improving the management of archives and records and making them available for use identified by the respondents

Priority	Raw score					Total score	Rank
	0	1	2	3	4		
Increase funding				1	6	27	1
Increase capacity of storage space		1		2	4	23	5
Improve storage conditions (temperature and humidity controls, security)		1		2	4	23	5
Improve staff training or expertise		1			6	25	3
Encourage greater use of collections				1	6	27	1
Improve finding aids		1			5	21	7
Automate description systems	1		2	1	3	19	8
Microfilming			1	2	4	24	4
Develop policies for handling new media				5	2	23	5
Preservation of collections				1	6	27	1
Develop disaster plan		1	1	1	4	22	6
Process backlog of acquired collections			2	2	3	22	6
Improve records management in government agencies			1	2	4	24	4
Increase commitment of parent organisation			1	2	4	24	4
Increase visibility of or public support for archives and records programmes				2	5	26	2

Table legend: 4 = major priority; 3 = moderate; 2 = minor; 1 = not a priority; 0 = undecided

Information technology has brought some radical organisational changes to accessing information. Electronic access tools are increasingly used to enable much broader access to information. The

respondents were asked to indicate how they used computer-based technologies to provide access to their holdings. Automated bibliographic tools were available over the Internet at five surveyed archival institutions. Interviews and observations established that archival institutions were not using automated tools to deliver actual contents of the records. Therefore, intellectual access to the archival heritage in repositories was available within reasonable limits.

Although, appropriate reading room facilities were available to facilitate access to archives and the retrieval of information in them, some records and archives remained inaccessible to the public because they had not been arranged and described. The absence of finding aids is one of the indicators that access to some records and archives is limited or not possible. This constitutes a major infringement of the people's right to information that would be otherwise open to the public according to the twenty years closed period. Without finding aids, access to information as envisaged in the Promotion of Access to Information Act 2000 and the National Archives of South Africa Act of 1996 would remain a pipe dream. The existence of backlogs severely compromises the capacity of the national and provincial archives to make all archival holdings accessible.

Skills and experience in preservation management in South Africa

Skills and knowledge of preservation techniques and procedures are fundamental to implementing preservation activities. First and foremost, for people to implement preservation programmes they need knowledge of preservation issues. Knowledge of preservation techniques and procedures is fundamental to implementing preservation activities. The findings revealed that only 5.03% of the staff employed in the preservation and conservation of public records and archives in South Africa were trained abroad. It is difficult to escape the conclusion that most of the staff were insufficiently qualified for preservation activities because institutions offering LIS education in South Africa do not pay much attention to preservation issues. Indeed, Chapman (1986:vii) once remarked that the Achilles heel of the information professional education was preservation. Out of all the personnel employed in the nine surveyed archival

institutions, seven had training in digital preservation as compared with one with training in microfilming. When considering all the people employed in public archival institutions in South Africa it was found that the mean score of personnel directly involved in preservation and conservation activities were one and half. Figure 1 provides details of staff involved in preservation activities. It is evident that the kind of skills that the people who were directly involved in preservation activities were very limited.

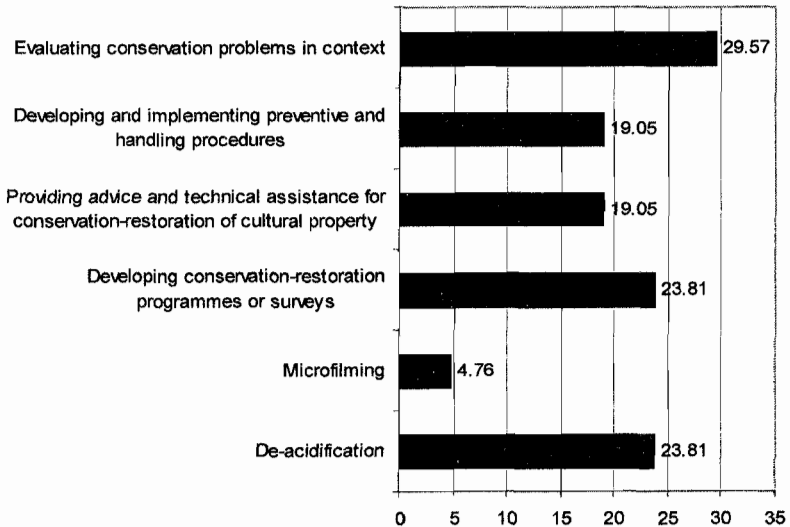


Figure 1: Type of training for personnel directly involved in preservation and conservation activities

The respondents were also asked their level of expertise in various aspects of preservation and conservation and the pattern that emerges from the data are presented in Table 2.

Table 2: Expertise in dealing with some selected preservation activities

Area of expertise in preservation	Raw scores					Rank
	0	1	2	3	4	
Disaster planning and recovery	1	3	3	2		1.67
Holdings maintenance	1	1	2	3	2	1.56
Environmental monitoring	2	2	5			1.33
Preservation planning	2		4	2	1	1.78
Microfilm	5	3	1			0.67
Photographs	1	5	2		1	1.44
Paper-based materials	2		2	3	2	2.33

Legend of the Table: 0= none; 1= basic; 2= in-house training, reading, some workshops; 3= in-depth workshops and advanced training; 4= conservation experience and have undergone graduate programme.

It is evident that expertise in microfilming was ranked very low as compared to other formats such as paper. The study established that there was a paucity of personnel skilled in preservation. It is evident that there was an acute shortage of staff and absence of expertise in key areas like microfilming, environmental and disaster planning and recovery

The respondents were further asked the areas where they had the greatest need for additional training and the level they required it as well as their preferred methods for receiving that additional training. It is noteworthy that training in preservation and disaster preparedness was mostly required at a basic level. When it came to the best methods of getting additional training, most respondents favoured on-the-job training. Although, on-the-job training was a favoured method of acquiring additional skills favoured by 88.89% of the respondents, experts such as Bradsher (1988:14) warned against relying on in house training and advocated formal training. Given that fact, a lot needs to be done in terms of training and educating archivists in South Africa in order to ensure future access to records and their long-term preservation.

Conclusions and recommendations

Preservation activities were highly underdeveloped in many provincial repositories. It was evident that the National Archives and Records Service of South Africa (NARSA) had not followed up the mandate of decentralising archival services by developing a comprehensive framework for the provincialisation of archives (Dominy 1999/2000:87). As a result, the state of preservation of, and access to public records and archives was highly unsatisfactory in most provinces. Some provinces still did not have custody of their archives because they were still held in other parts of South Africa.

Preservation policies were limited. Lack of preservation policies was also highlighted in the UK as a factor that hindered effective preservation management (Feather and Eden 1997). A study carried out in the UK in 1996 discovered that only 32 (16%) of the 167 respondents had written preservation policies (Feather and Eden 1997:27). Although the existence of preservation policies does not guarantee their implementation, the Pan-African Conference on the Preservation and Conservation of Library and Archival Materials strongly recommended that each country establish a committee to develop a national preservation policy for implementation by government (Recommendations 1995:170). It is evident that without funding and personnel with expertise, the implementation of preservation policies would be extremely difficult.

The major conclusion of this article is that despite the existence of studies concerned with preservation issues,

... all of the problems in regard to the preservation of ... archival materials have not been solved, most have been identified and many of those still unsolved are being aggressively investigated (Cunha and Cunha 1983:3).

Though this observation was made in 1983, it still applicable. For instance, preservation management has remained the subject of sessions at many meetings of national, regional and international organisations. The fact that the subject is topical is a reliable indication that problems remain unsolved. It is also important to point out that there will never be a point when humankind's knowledge about a subject will ever be complete (Leedy 1997:3). Research into various issues is indispensable because the state of human

knowledge is incomplete. There is need for research into the preservation of heritage collections and make them available for present and future generations. There is also a need to exploit the capabilities of information and communication technologies in order to make the intellectual content of heritage collections accessible to members of the knowledge economy and the global village.

References

- Alegbeleye, G. O. 1999. The role of the joint IFLA/ICA Committee on Preservation on the preservation and conservation of library and archival materials in Africa. Paper read at the 65th IFLA Council and General Conference, Bangkok, Thailand, 20-28 August 1999.
- Alegbeleye, G. O. 2000. *Preservation and conservation of library and archival materials: a selective bibliography prepared by G. O. Alegbeleye for the JICPA*. Ibadan: JICPA.
- Blunt, P. 1995. Cultural relativism, "good" governance and sustainable human development. *Public Administration and Development* 15: 1-9.
- Bonita, B (ed.) 1989. *Guide for written collection policy statements, collection management and development guides*. No.3. Chicago: American Library Association.
- Bradsher, J. G. 1988. An introduction to archives. In J.G. Bradsher (ed.) *Managing archives and archival institutions*. Chicago: University of Chicago Press, pp. 1-17.
- Bryman, A. 1988. *Quality and quantity in social research*. London: Unwin Hyman.
- Chapman, P. 1990. *Guidelines on preservation and conservation policies in the archives and libraries heritage*. Paris: UNESCO.
- Chida, M. 1994. Preservation management in tropical countries, a challenging responsibility and limited resources: The case of Zimbabwe National Archives. *ESARBICA Journal* 14: 22-36.
- Child, M. 1999. Preservation assessment and planning. Technical leaflet: Planning and prioritising. [Online]. Available WWW: <http://www.nedcc.org> (Accessed 27 September 2005).
- Clayton, P and Gorman, G. E. 2001. *Managing information resources in libraries: Collection management in theory and practice*. London: Library Association.

- Clements, D.W.G. (1987). *Preservation and conservation of library and archival documents: a UNESCO/IFLA/ICA enquiry into the current state of the world's patrimony*. Paris: UNESCO. (PGI-87/WS/15).
- Cloonan, M. V. 2001. W(h)ither preservation? *Library Quarterly* 71(2): 231-242.
- Cohen, L., Manion, L and Morrison, K. 2000. *Research methods in education*. 5th ed. London and New York: RoutledgeFalmer.
- Conway, P. L. 1990. Archival preservation practice in a nationwide context. *The American Archivist* 53(2): 204-222.
- Conway, P. L. 1991. Archival preservation in the United States and the role of information sources (preservation). PhD thesis. Michigan: The University of Michigan.
- Council of State Historical Records Coordinators (COSHRC). 1998. *Where history begins: A report on historical records repositories in the United States*. [Online]. Available WWW: <http://www.archives.gov/nhprc> (Accessed 10 July 2004).
- Creswell, J. W. 2003. *Research design: qualitative, quantitative and mixed methods approaches*. 2nd ed. Thousand Oaks, CA: Sage.
- Cunha, G. M and Cunha, D. G. 1983. *Library and archives conservation: 1980s and beyond*. Volume 1. Metuchen, NJ: The Scarecrow Press, Inc.
- Directorate State Archives and Heraldic Services. 1999-2000). *Annual reports*. Pretoria: Department of Arts, Culture, Science and Technology.
- Dominy, G. 1999/2000. Book review. Harris, V. 2000. *Exploring archives: an introduction to archival ideas and practice in South Africa*. 2nd ed. Pretoria: National Archives of South Africa. S. A. *Archives Journal* 41: 86-88.
- Duchain, M. 1983. *Obstacles to the access, use and transfer of information from archives: A RAMP study*. PGI-83/WS/20. Paris: UNESCO.
- Erhardt, D., Mecklenburg, M. F., Tumosa, C.S and McCormick-Goodhart, M. 1995. The determination of allowable RH fluctuations. [Online]. Available WWW: <http://palimpsest.stanford.edu/waac> (Accessed 21 February 2003).
- ESARBICA. 2001. Minutes of the ESARBICA Executive Board meeting held at the Meikles Hotel, Harare, Zimbabwe, 23-24 July 2001.

- Evans, G. E., Amodeo, A. J and Carter, T .L. 1999. *Introduction to public services*. 6th ed. Englewood, CO: Libraries Unlimited.
- Feather, J. 1991. *Preservation and the management of library collections*. London: The Library Association.
- Feather, J and Eden, P. 1997. *National preservation policy: Policies and practices in archives and records offices*. British Library Research and Innovation Report No. 43. West Yorkshire: British Library Board.
- Feather, J., and Sturges, P. (eds). (1997). *International encyclopaedia of information and library science*. London: Routledge.
- Forde, H. 1997. Preservation policies- who needs them? *Journal of the Society of Archivists* 18(2): 165-174.
- Heeks, R. 2000. The approach of senior public officials to information technology-related reform: lessons from India. *Public Administration and Development* 20: 197-205.
- Hunter, G.S. 1997. *Developing and maintaining practical archives: a how to do it manual*. New York: Neal-Schuman Publishers.
- Jenkins, C and Morley, M. (eds). 1999. *Collection management in academic libraries*. 2nd ed. Aldershot: Gower Publishing.
- Jenkinson, H. 1937. *A manual of archive administration*. London: Percy Lund, Humphries and Co. Ltd.
- Jenkinson, H. 1947. The English archivist: a new profession (inaugural address). In R. Ellis (ed.) *The selected writing of Sir Hillary Jenkinson*. London: Alan Sutton, pp 236-259.
- Jones, N. M. M and Ritzenthaler, M. L. 1988. Implementing an archival preservation program. In J.G. Bradsher (ed.) *Managing archives and archival institutions*. London: Mansell Publishing Limited, pp.185-206.
- Kemoni, H.N. 1996. Preservation and conservation of archive materials: The case of Kenya. *African Journal of Library, Archives and Information Science* 6(1): 46-51.
- Ketelaar, E. 1990. Archival and records management legislation and regulations. In P. Walne (ed.) *Selected guidelines for the management of records and archives: a RAMP reader*. Paris: UNESCO. PGI-90/WS/6. [Online]. Available WWW: <http://www.unesco.org/webworld/ramp/html> (Accessed 13 June 2004).

- Kirkwood, C. 1994. Records management in the public sector and the archival challenges posed by electronic records. *S. A. Archives Journal* 36: 7-16.
- KwaZulu-Natal. 2000. KwaZulu-Natal Archives Act No.5 of 2000. Provincial Gazette of KwaZulu-Natal No. 5590. Pietermaritzburg: Natal Witness Commercial Printers.
- Leedy, P. D. 1997. *Practical research: Planning and design*. 6th ed. Upper Saddle River, NJ: Merrill/Prentice Hall.
- Lowell, H. P. 1986. *Preservation needs in state archives*. Albany, NY: NAGARA.
- Lull, W. P. 1995. Further comments on climate control guidelines. [Online]. Available WWW: <http://palimpsest.stanford.edu/waac/> (Access 21 February 2005).
- Matwale, G. M. 1995. A review of problems related to the establishment of effective conservation programmes for library and archives materials in Kenya. In J. Arnoult., V. Kremp and M. Musembi (eds). *Proceedings of the Pan-African Conference on the Preservation and Conservation of Library and Archival Materials, held in Nairobi on June 21-25, 1993*. The Hague: IFLA, pp.49-54.
- Mazikana, P. C. 1992. *Survey of archival situation in Africa*. Paris: UNESCO (Restricted Report).
- McIlwaine, J. 1996. *Writings on African archives*. London: Hans Zell Publishers.
- Millar, L. 1997. *Principles of records and archives management*. London: International Council on Archives/ International Records Management Trust.
- Murray, K. 2002. *Preservation education and training for South African library and archive professionals and students*. MBibl. Cape Town: University of Cape Town.
- National Archives of South Africa. 1997. Strategic plan for 1997-2007. [Online]. Available WWW: <http://www.national.archives.gov.za/index.htm> (Accessed 10 June 2003).
- National Archives of South Africa. 1999. *A directory of archival repositories in South Africa*. 1st ed. Pretoria: National Archives of South Africa.
- National Archives of the Netherlands., Teygeler, R., De Bruin, G., Wassink, B. W and Van Zanen, B. (2001). *Preservation of*

- archives in tropical climates: an annotated bibliography. *Comma: International Journal on Archives* 3/4: 33-257.
- Ngulube, P. 2002. Challenges to preservation of our archival heritage. *S. A. Archives Journal* 42: 27-36.
- Ngulube, P. 2003. Preservation and Access to Public Records and Archives in South Africa. PhD Dissertation. Pietermaritzburg: University of Natal. [Online]. Available WWW: <http://www.hs.unp.ac.za/infos/thesispn.pdf>. (Accessed 14 December 2006).
- Ngulube, P. 2005a. Environmental monitoring and control at national archival institutions and national libraries in eastern and southern Africa. *Libri: International Journal of Libraries and Information Services* 55(2/3): 154-168.
- Ngulube, P. 2005b. An investigation into pest management and monitoring of chemical processes used to control pests in public archival institutions of southern Africa. *Restaurator: International Journal for the Preservation of Library and Archival Material* 26 (2): 77-91.
- Ngulube, P. and Tafor, V. F. 2006. An overview of the management of public records and archives in the member countries of the East and Southern Africa Regional Branch of the International Council on Archives (ESARBICA). *Journal of the Society of Archivists* 27(1): 58-83.
- Olivier, M. 1999. The National Archives of South Africa: crossing the millennium. *ESARBICA Journal* 18: 7-12.
- Peters, D. 1998. Oxidation at the wet/dry interface in the deterioration of paper in library and archival collections. PhD thesis. Pietermaritzburg: University of Natal.
- Porck, H and Teygeler, R. 2000. *Preservation science survey. An overview of recent developments in research on the conservation of selected analog library and archival materials*. Washington, DC: Council on Library and Information Resources. [Online]. Available WWW: <http://www.clir.org/pubs/reports/pub95/contents.html> (Accessed May 10, 2001).
- Powell, R. R. 1999. Recent trends in research: a methodological essay. *Library and Information Science Research* 21(1): 91-119.
- Recommendations. 1995. In J. Arnould., V. Kremp and M. Musembi (eds). *Proceedings of the Pan-African Conference on the Preservation and Conservation of Library and Archival Materials*,

- Nairobi, Kenya, 21-25 June 1993*. The Hague: IFLA, pp. 169-170.
- Rosenberg, D. 1995. Everyday care of books in libraries. In J. Arnoult., V. Kremp and M. Musembi (eds). *Proceedings of the Pan-African Conference on the Preservation and Conservation of Library and Archival Materials, Nairobi, Kenya, 21-25 June 1993*. The Hague: IFLA, pp.77-87.
- Schellenberg, T. R. 1971. *Modern archives principles and techniques*. 5th Impression. Chicago: University Press of Chicago.
- Smith, C. 1987. Glossary. In A. Pederson (ed.) *Keeping archives*. Sydney: Australian Society of Archivists Incorporated, pp. 355-365.
- South Africa. 1996. National Archives of South Africa Act 1996. Act No.43 of 1996. Republic of South Africa Government Gazette, Volume 376, No.17471.
- Thebridge, S and Matthews, G. 2000. *Review of preservation management training in the UK and abroad: main findings from the Library and Information Commission*. Research Report 48. London: National Preservation Office.
- Van Albada, J. 2001. Foreword. *Comma: International Journal on Archives* 3/4: 39-43.
- Walne, P. (ed.) 1984. *Dictionary of archival terminology*. International Council on Archives (ICA) Handbook Series, Volume 3. London: K.G. Saur Muchen.
- Walters, T. O. 1998. Special collections repositories at Association of Research Libraries institutions: a study of current practices in preservation management. *The American Archivist* 61(1): 158-186.
- Williams, C. 2006. *Managing archives: foundations, principles and practice*. London: Chandos.

Endnotes

1. Revised version of a paper presented at a conference on Globalization, Digitization, Access, and Preservation of Cultural Heritage, 8-10 November 2006, Sofia, Bulgaria.