



A comprehensive study of preservation and conservation of archival materials in National Archives of India, New Delhi

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Abstract

A lot of research is going on for innovating new ways and means to preserve the manuscripts and archival materials from the onslaught of weather, worms etc. National Archives of India (NAI) is doing commendable work in this direction. The paper highlights the role of NAI in preserving the precious archival records and manuscript wealth of India. Preservation techniques being employed to keep these endangered documents in good health have also been discussed in this paper.

Keywords: preservation, conservation, manuscript, rare document, national archives of India

1. Introduction

Preservation and conservation activities are protecting archival materials from the multitude of human and environmental threats. It is an indispensable means of assuring the availability and access to human knowledge for present and future times. The archival material is a part of the cultural heritage of mankind. Archives contain materials having intrinsic value, which are important for healthy growth of the society. Archives have social obligations to care and preserve the records of history, art, culture, heritage, traditions, scientific discoveries etc. for the future generations. As the years pass by, the value of rare books, manuscripts, paintings, etc. shows upward appreciation and it becomes almost impossible to replace them in their original form. So the preservation and conservation of archival records is absolutely necessary. National Archives of India is doing a highly commendable work in this direction.

National Archives of India is the national agency entrusted with the responsibility of treasuring the invaluable archival records. NAI serves as the custodian of these records and is committed to work for the welfare and development of archives and archival material and the profession. The very aim of the present study is to investigate the role of NAI in the preservation and conservation of rich national heritage, historical and religious records so that the thought content enshrined in them continues to inform and educate the users forever.

2. Background

The National Archives of India is the premier national agency containing prized and precious archival records. As per the mandate of Public Records Act of 1993 and Public Record Rules of 1997, NAI is the custodian of all old records of the Government of India and its predecessor bodies and also the former British Residencies in the erstwhile Indian princely states. It holds the records for study and use of scholars and administrators. It shoulders dual responsibility of storage, dissemination and preservation and conservation of our

national heritage records embodying rare and invaluable content. It may be said that it is a place where researchers and administrators may have a peep into the past of India with the help of social, cultural, political, economic and historical documentary heritage.

The NAI owes its genesis to the Imperial Records Department which came into existence in March 1891 at Calcutta (Kolkata). After the transfer of capital from Calcutta to New Delhi in 1911, it shifted to its present site in 1926. The Imperial Records Department was re-christened as National Archives of India on 30th August, 1947. Today it is referred to as Delhi's most sought intellectual destination and is an attached office of the Ministry of Culture, Government of India. It has a regional office at Bhopal and three Record Centres at Pondicherry, Bhubaneswar and Jaipur ^[1].



Fig 1: National Archives of India, New Delhi

2.1 Mission

The archives strives hard to help in spreading a sense of national pride in our documentary cultural heritage and ensuring its preservation for the future generation. The broad objectives of NAI are:

- To encourage scientific management, maintenance and conservation of records.
- To build up closer relations between archivists, archival institutions and archival profession in India and overseas.
- To encourage access to available holdings.
- To develop professionalism and a scientific temperament among curators, custodians and users.
- To ensure proper and appropriate care and use of documentary heritage ^[1].

2.2 Facilities

To facilitate the work of research scholars, the NAI has a well-equipped air-conditioned research room. Guides, press lists, subject lists, etc. are available for ready reference. The archives provides the following facilities:

- Reprographic services on payment basis
- Conservation techniques, research and guidance
- Professional guidance in restoration and repair of documents
- Advice on records management ^[1].



Fig 2: Research Room

2.3 Record holdings

National Archives of India has a very huge collection of approximately five million records. The regular series of records start from 1748 though some rare records of earlier period also exist. Besides English, the holdings are in Arabic, French, Hindi, Persian, Sanskrit, Urdu, Tamil, Telugu, etc. NAI has records on paper, palm leaves, birch bark, etc.

The Annexe building which was constructed in 1991 has a storage space of 40 kilometers of linear shelf space. The available records may be broadly categorised into four segments:

1. Public Records
2. Oriental Records
3. Manuscripts
4. Private Papers

Above mentioned archival records describe in detail the activities of the later Mughal emperors, the East India Company, British Rule and the emergence and progress of the freedom struggle in India. These records also describe social, political, economic and cultural life of India during different eras. The total collection in the possession of NAI is as follows:

- 38, 75, 332 Files
- 64, 221 volumes
- 1, 10, 332 Maps and Cartographic items
- 3, 601 Bills to/by the President(s) of India
- 1, 065 Treatises
- 2, 442 Rare manuscripts ^[1].

2.4 Library

Apart from the large amount of public-private papers, The National Archives has a library of rich and ever growing collections. It has some of the oldest and rare publications on a variety of subjects, besides contemporary published material. The holdings of the library comprises of over 1,86,000 books and reports, 3,299 proscribed publications, 400 Vernacular native newspapers, 4,225 selections from Governmental records, 3,560 journals and periodicals, 4,590 Indian Parliamentary Papers, 1,285 volumes of Fort William College Collection, 1,778 gazettes and 2, 960 publications in foreign languages ^[1].



Fig 3: Library

2.5 Records management

Records are the building blocks of information. Therefore their proper care and scientific management must be done. Records management includes the entire set of activities in the life of records from their creation to disposition.

Being the nodal agency of Government of India, the NAI is responsible for the implementation of the Public Records Act of 1993 and the Public Records Rules of 1997. This act controls the management, administration and preservation of all public records of the Central Government of India including the Union Territories.

The National Archives of India is responsible for keeping in safe custody the records of the various Ministries/Departments of the Government of India and is also continuously working for innovating suitable mechanism for the effective management of their records in the most appropriate and systematic manner so that they can be used by scholars and administrators easily. It also advises the state governments, custodial institutions etc. for the proper upkeep and management of their records ^[1].

2.6 Repair and reprography

2.6.1 Repair

The Conservation Research Laboratory of NAI conducts research and experiments and is well equipped with latest and the most sophisticated models of Paper Testing Machines viz.

Tensile Tester, Folding Endurance Tester and Bursting Endurance Tester etc. to enable testing of several preservative materials. The Hand-Lamination process using cellulose acetate foil and tissue paper for repair of records is the invention of NAI and has been acclaimed and used worldwide. This laboratory has been successfully devising a process for strengthening palm leaf manuscripts that have become very dry and cracking because of age. Another achievement of NAI is the fabrication of a portable fumigation chamber to be used in archives and libraries.

2.6.2 Reprography

- The National Archives is trying hard to ensure longevity of documents in its custody through an ambitious Microfilming Programme that is being practiced by it for the last three decades.
- NAI is using Microfilming as a method for preservation of records damaged due to ageing and fading of inks.
- The Reprography Division is equipped with most sophisticated machines. The Division also attends to the needs of scholars in addition to its normal function. It is also engaged in the herculean task of preparing security microfilm of priceless records as a precautionary measure to save the records from fire, war and sabotage.
- The Reprographic Wing also has a mobile Microfilm Unit that visits various parts of the country to microfilm documents that cannot be brought to the NAI in New Delhi or any regional centre.
- With the help of Archival Information Management System Software the analogue microfilm images are being converted to provide improved access ^[1].

2.7 Professional courses

Since 1941, National Archives of India has been conducting intensive theoretical as well as practical training courses/seminars etc. on various aspects of archives. The Institute of Archival Training was set up in 1976 and was rechristened as School of Archival Studies in 1980. The school was established with an objective to meet the demand of trained archival professionals to preserve archival and library wealth in the country. It conducts one year diploma course in Archival and Record Management, as well as various short term courses of six to eight weeks duration. These courses are in Archives Management, Care and Conservation of Books, Manuscripts and Archives, Reprography, etc. ^[1].

2.8 Publication

NAI publishes books on the important series available in its holdings. Some of these include 21 volumes of Fort William-India House Correspondence, Selections from Elphinstone Correspondence, Selection from Educational Records, Calendar of Persian Correspondence, Index to Foreign and Political Department Records, Bulletin of Research Theses and Dissertations, National Register of Private Records, Catalogue of Seals, etc. It is also bringing out a bi-annual journal *The Indian Archives*, quarterly newsletter *Abhilekh* and Annual Reports of the Archives. Six volumes of Guide to the Sources of Asian History (India) were brought out under a UNESCO project. Besides, NAI also publishes various Priced

and Non-Priced Publications ^[1].

2.9 Outreach programmes

In order to promote archival awareness, NAI organises thematic exhibitions and Archives Week every year, visitors are shown round the Archives and familiarised with its activities. An Archival Museum was set up in July 1998, which is open to scholars on all working days ^[1].

2.10 Lecture series

The NAI has initiated a monthly lecture series dwelling on various archival collections in India and abroad, archives and records management, conservation, digitization and various outreach programmes. Besides, a series of fortnightly talks by renowned historians, research scholars and professionals have also been launched ^[1].

2.11 Grants-In-Aid

The National Archives of India provides following schemes of financial assistance:

- Scheme for financial assistance to States/Union Territories, archival repositories, government libraries and museum.
- Scheme for financial assistance for preservation of manuscripts/rare books (non-governmental institutions) ^[1].

2.12 E-governance

National Archives is the prime archival authority of the Government of India under the Public Records Act. It plays an important role in formulating guidelines and strategies to develop long term policies for management of electronic records for the use of Government Ministries/Departments ^[1].

2.13 Abhilekh Patal

On its 125th foundation day, the NAI launched 'Abhilekh Patal' web portal to make its rich treasure of Indian Archival Records available to one and all at the click of a button. This portal contains the reference media of more than 2.7 million files held by the NAI. Its official web address is <http://www.abhilekh-patal.in/jspui/>.

3. Statement of the Research problem

The problem involves a systematic study of the preservation and conservation of archival records in National Archives of India with a view to assess the existing preservation scenario and add new scientific dimensions to the present state of affairs of preservation and conservation of archival records. The study aims to assess the problems being faced the NAI and to suggest probable solutions to them.

4. Objectives of the study

- To ascertain the types of documents available in NAI.
- To investigate the methods being employed for storage of rare documents and manuscripts.
- To find out and suggest solutions to problems faced by NAI in preserving the precious records.
- To make a thorough study of the techniques and procedures that the NAI is making use of.
- To suggest cost-effective and user friendly preservation

techniques for small libraries and repositories on the basis of observations made from NAI so as to make them self-sufficient in preserving their collections.

5. Scope of the study

All important issues regarding preservation and conservation policies and techniques employed National Archives of India has been examined and studied. The scope of the present study primarily relates to NAI.

6. Methodology

The adopted methods are:

- **Literature Search:** Literature survey has been carried out throughout the study.
- **Questionnaire:** A well structured questionnaire has been designed to collect the data.
- **Interviews:** No formal interviews have been conducted as most of the questions have been asked in the questionnaire itself. However informal interviews have been conducted with the archivists and conservators of NAI to get first-hand information.

7. Review of literature

Gupta ^[2] describes conservation of manuscripts on palm leaves. He highlights the nature of palm leaves and the factors responsible for their deterioration.

Ganesan ^[3] focuses on preservation efforts for books and related materials of Roja Muthiah Research Library (RMRL) in Tamil Nadu. It states that RMRL collections were once urged to be moved to the University of Chicago, yet, it was retained in Tamil Nadu due to its overt Indian nature. It tells that the collection reflects the nature of the Indian culture and heritage on various fields such as folklore and medicine which spans over a period of 200 years. It says that the Microfilming of Indian Publications Project (MIPP) was undertaken by India, the U.S. and the Library of Congress with the effort of saving RMRL manuscripts through microfilming. However it notes that lack of funds and the tropical climate have contributed to the loss of important materials.

Jeyaraj ^[4] provides valuable information on storage of manuscripts and also unfolds the conservation guidelines.

Kharbade ^[5] in his article "Research and Innovation in Conservation of Manuscripts-An Interim Report" explains that the Research in conservation provides essential information to conservators and others caring for cultural heritage. It imparts information on causes of deterioration, devising conservation solutions, option for taking appropriate method of treatment and assessment of treatment performance. In addition, it can also resolve the issues related to dating and authentication of art objects.

Mingjie & Jinfag ^[6] provide a theoretical guide for preserving ancient books in China. The paper reviews the history of the damage and preservation of ancient books in China. It analyses the value attribute of ancient books: archaeological value, historical value and artistic value. The paper puts forward a framework that connects the value attributes of ancient books and strategies to preserve those values.

Narang ^[7] highlights the significance of unforgettable memories of past. The article discusses that the old letters, photographs, scrapbooks, VCR tapes are the important sources

to trace and recall the memories, history of individuals, society and nation. The paper focuses on the causes of deterioration of these sources and also lists the tips for preservation of memory records.

Ovowoh & Iwhiwhu ^[8] investigate the preservation and conservation of information-bearing materials in libraries of Nigeria. The survey drew its population from the staff of Delta State University (DELSU) Library, Abraka and Petroleum Training Institute (PTI) Library, Effurun. The results show that information-bearing materials are at high risk of deterioration. There is no written preservation and conservation policy, no security policy, no personnel adequately trained in conservation, and lack of conservation facilities and equipment.

Paul ^[9] begins his article by juxtaposing definitions of the terms 'digitization for preservation' and 'digital preservation' within a socio-technical environment for which Google serves as a relevant metaphor. It then reviews two reports titled Preserving Digital Information and Preservation in the Age of Large-Scale Digitisation published under the auspices of the Council on Library and Information Resources. First report presents an insight and visionary frame work for digital preservation in 1996. The second explores the implications for preservation practice of the digitisation of books and by implication our cultural heritage in general.

Suryanwanshi ^[10] discusses the methods of lamination of birch bark manuscripts. Types of adhesives and supporting materials to be used are well explained in this paper.

Warriach & Tahira ^[11] explore the issues of conservation and preservation of the rare manuscript collection in the Punjab University Library (Lahore). The study identifies the need for a proper planning to preserve and maintain this rare collection and the issues faced by the staff to digitize the manuscripts.

Katre ^[12] in his paper provides a comparison between the American and Indian digital preservation programmes based on the essential building blocks such as national legislation for digital preservation, basic legal framework, national digital preservation initiative, digital preservation tools, standards and practice guidelines, digital repository infrastructure, audit and certification. Selected digital preservation policies of the organisations from UK, USA, Canada, and Australia have also been analysed in this study. The gap analysis shows that in the Indian context, legislation on digital preservation of electronic records and institutional digital preservation policies are the missing elements, which need to be addressed on high priority. The author has expressed that the preservation policy is a mandatory requirement for the audit and certification of trustworthy digital repositories.

Robertson ^[13] points out that libraries are constantly at risk. He says every day, many libraries and their collections are damaged by fire, flooding, high winds, power outages, and criminal behaviour. Therefore the book emphasizes on a plan to protect its building and collection, including staff and users. The book provides a practical guide to develop a comprehensive plan for any library. Twelve chapters cover essential areas of plan development. These include an overview of the risks faced by libraries, disaster preparedness and responding to disasters, resuming operations after a disaster and assessing damage, declaring disaster and meaning a crisis, cleaning up and management after a disaster and

normalizing relations, staff training, testing disaster plans, and in-house planning champion.

Thiyam ^[14] throws light on role of Manipuri manuscripts in Manipur. The study suggests that manuscripts of Manipur are in the hands of private custodians so they should be preserved because they contain the forgotten speeches and writings of native founding. Preserving the rich cultural heritage of a society constitute a basic component of the UNESCO's memory of the World Programme.

Narang & Singh ^[15] in their study have analysed the factors for deterioration of the rare manuscripts in Sikh Reference Library at Golden Temple in Amritsar. Preservation techniques being employed to curb further damage to these rare documents have also been discussed in this article. This study has made a sincere effort to investigate the present location and status of the building and the way it is serving the purpose of preservation of the precious and rare scriptures.

8. Analysis and Interpretation of Data

A questionnaire has been designed for obtaining following data. The data has been collected by visiting the National Archives of India personally and from its official website. The gathered data has been organised, tabulated, supplemented and complemented with interviews and observation to enhance the reliability, validity and accuracy of the data.

Analysis of data on National Archives of India has been presented in tabular form question wise as per questionnaire.

8.1 Staff strength

Table 1: Staff Strength

Sr. No.	Staff	Number
1	Director	01
2	Deputy Director	03
3	Astt. Director	03
4	Archivists	39
5	Astt. Archivists	15
6	Micro photographers	06
7	Astt. Micro photographers	15
8	Librarian	01
9	Astt. Librarians	03
10	Archival Restorers	23
11	Binders	16
12	Record Attendants	31
13	Special Record Attendants	12
14	Lab. Attendants	06
15	Mender	21
16	Scientific Officers	03
17	Astt. Chemists	10
	Total	208

Human resources of an organization are considered to be the most valuable asset because it is the people who activate other resources. Human resources perform various activities in different functional areas. The above tabulation gives the hierarchy of human resources working in different units of National Archives of India. It is fully and adequately staffed with a workforce of more than 200 technical and skilled staff headed by a Director appointed directly by the Govt. of India, Ministry of Culture. There are three Deputy Directors, three Assistant Directors, helped by 39 archivists, 15 Assistant

Archivists and 23 Archival Restorers. In addition there are 31 Record Attendants and 12 Special Record Attendants. There is a team of 21 micro photographers. Other technical staff includes Librarian, Assistant Librarians, Binders, Scientific Officers, Laboratory Assistants and Assistant Chemists. Beside this, there is adequate ministerial and menial office staff for day to day administration. NAI also employs outsourced staff under some projects to clear the backlog of preserving certain documents on priority.

8.2 Personnel working in the organisation having formal training in preservation and conservation techniques

The Conservation Research Laboratory of NAI conducts experiments and research. The laboratory is equipped with latest models of Paper Testing Machines viz. Tensile Tester and Bursting Endurance Tester etc. to facilitate examination of several preservation materials. The Hand-Lamination process using cellulose acetate foil and tissue paper for repair of records is the invention of NAI and has been acclaimed and used worldwide.

It has been seen that personnel working in Conservation Unit are trained in using preservation and conservation techniques. The technical staff is trained and most of the staff in the Conservation Unit has been trained in its own School of Archival Studies.

8.3 Number of documents in the archives

According to official website of National Archives of India (www.nationalarchives.nic.in), there is a huge collection of approximately five million records in its repository. The regular acquisition of records started from 1748 though stray records of earlier period also exist. Besides English the holdings are in Arabic, French, Hindi, Persian, Sanskrit, Modi, Urdu, Tamil, Telugu, etc. Apart from records on paper, it has records on palm leaf, birch bark, etc. The total holdings in the custody of National Archives of India comprise the following:

Table 2: No. of documents in the archives

Sr. No.	Sources	Number
1	Files	38, 75, 332
2	Volumes	64, 221
3	Bills to/by the President(s) of India	3, 601
4	Treatises	1, 065
5	Rare Manuscripts	2, 442
6	Maps and Cartographic items	1, 10, 332

The available records may be broadly categorised into four segments:

- Public Records
- Oriental Records
- Manuscripts
- Private Papers

8.4 Cataloguing of records

Catalogue is the key to records of a library or a repository. It describes, organises and locates the particular document when demanded. It saves the time and energy of the user and the staff. The data shows that records in National Archives of India are partly catalogued.

8.5 Handling of records

Nature of human behaviour is varied and may not be controlled. The researcher feels that the most dangerous factor for deterioration of records is the negligence of human beings in handling the documents with care. Therefore proper instructions and guidance must be provided to handle the records.

The data depicts that researchers/students handle the records with care because they are provided instructions and proper infrastructure (viewing stands and research room) for consulting the precious records. As per the matter of policy of the Archives the researchers are not allowed to go to the stack area. They leave a slip having details of a particular document in need. One of the staff members goes to the storage area and retrieves the required document and hands that over to the scholar. This is the good practice to keep the mischievous persons away from the rich archival records. Moreover, the fragile records are saved from handling by multitude of users.

8.6 Access to records

Access plays a vital role to optimise the utilisation of stored documents in a repository. A good knowledge repository or a library is that which encourages free flow of documents without any restriction, limitation and discrimination. Therefore open access to records is always preferred. It provides easy and instant access to a particular item in need. But in the case of rare archival records, the closed access is always prescribed because they are of brittle nature. NAI follows closed access.

8.7 Techniques

The NAI uses both latest and traditional indigenous methods for preservation of its treasure trove. These include fumigation in fumigation chambers, regular spraying of chemicals such as CO₂, Thyomol crystals and Para dichlorobenzene. Lamination, microfilming and digitisation of old and worn out records are carried out regularly after identifying such material. Among the traditional methods are use of neem leaves (*Azadirachta Indica*) and naphthalene balls. Deacidification is used as an intermediate process of restoration which checks the deterioration of the valuable records. Techniques being adopted are reversible. The digital scanner used is Kodak 3000 DV Plus. Plans are on to preserve old records on priority basis which need urgent and immediate treatment.

8.8 Condition of the main building

The NAI has an air-conditioned and spacious building with impressive architecture in two wings: old and new. In all there are six floors in both the wings to systematically and safely house the records, books, manuscripts and other rare archival materials. Wall and ceilings of the building are in good shape and well maintained to safeguard the rich archival material. It is equipped with fire fighting equipment as per the Govt. of India regulations. Care has been taken to check short circuiting of electrical wires. These records are kept in boxes, on open shelves, though it is feared that on the open shelves dust settles which needs regular dusting. It is maintained by the authorities that the building is free of rodents, insects, dampness and fungus. Overall condition of the place where

manuscripts and archival records are kept is good.

9. Recommendations

On the basis of the findings following recommendations/suggestions have been put forward:

- Manuscripts and other rare documents must be completely catalogued so that users may retrieve their desired document easily.
- Manuscripts and other rare materials should be well protected and popularised at large scale by spreading awareness about the importance of historical records. Instructions may also be given regarding usage of endangered documents.
- More proper methods and techniques (they may be indigenous or latest) should be applied to deteriorated and damaged items so that future generation may study and learn from these precious archival records.
- The design of the building in which paper and other rare documents are kept plays an important role in the prevention from insect attack. Insect-proof materials like steel should be used in the construction of the building. The foundation of the building should be treated with chemicals for the control of insects.
- It is suggested that rich archival and precious rare documents must be stored/preserved in a controlled temperature. For this the building must be fully air-conditioned or the area where the records have been placed must be air-conditioned. It is also suggested that air-conditioner must not be switched off in night hours and the air-conditioned repository must be supplied 24×7 electricity by hotline.
- Preservation of manuscripts and other rare documents also depends on the condition of the room/hall having the storage area. Stack area should be such that it protects the rare documents from the book enemies and direct sunlight. Electric wiring, floor, ceiling, plumber, plastering, ventilation, etc. must be properly taken into consideration.
- Restorers should be provided with disposable gloves to avoid transfer of oil from the finger tips to the documents.
- Solution of any problem depends upon the compatibility between treatment and problem faced. The main purpose of using a preservation technique is to save the endangered documents from damage and deterioration. So, it must be ensured that preservation technique or method being employed must be chosen keeping in view the state of individual deteriorated manuscript/rare record.
- Researches in preservation and conservation must be encouraged and funded by the NAI so as to motivate the scholars to explore and investigate the various issues regarding preservation and conservation of records.
- There are a few manuscripts whose script has not yet been deciphered but still they are being preserved with sincere care. The scholar is of the view that NAI should take sincere efforts so that the rich content of such manuscripts can be deciphered.
- Microfilming/digitisation of all rare records must be done as a measure for preservation of records against deterioration due to natural ageing and fading of inks.
- It is suggested that small libraries may use lamination to

preserve and strengthen the fragile manuscripts in their possession. The rare records in them may also be digitised as a measure for preservation of records against deterioration due to natural ageing and fading of inks.

10. Conclusion

The present study was undertaken to make a depth analysis of the state of affairs of the preservation scenario of archival records in National Archives of India. After a thorough investigation and analysis of data, the researcher has observed that NAI is contributing and doing a great work to preserve and conserve the national heritage records. NAI needs further improvement in terms of complete cataloguing, funding, storage and preserving techniques. The staff has to be professionally dedicated to take care of the valuable and endangered records. These records enshrine the rich social and cultural heritage of our nation and have to be passed on to our future generations for study and learning. Unless these records are protected from the onslaught of weather and vermin, the thought content embodied in them would fade away. Thus NAI should take proactive measures to save our national heritage records by devising sophisticated methods and by adopting corrective measures wherever there are gaps.

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