

02



National Mission for Manuscripts

**Basic Minimum
Standards for
Conservation of
Manuscripts**



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A Mission about Memory

The vast manuscript wealth of India contains the ‘memory of the world’. Featuring hundreds of themes, India’s manuscripts represent sophisticated ideas and the most timeless of pursuits – of capturing ideas through language. It is said that a people’s spoken and written language is their most important cultural attribute. In India, over thousands of years, manuscripts have been written in a vast number of languages and each in itself embodies her history.

Today, thousands of manuscripts lie neglected in institutions and homes around the country, in urgent need of conservation. India possesses more than an estimated five million manuscripts, making her the largest repository of manuscript wealth in the world. But this tremendous pool of knowledge is under threat and manuscripts are disappearing at an alarming rate. They are found on materials such as birch, palm leaf, handmade paper and cloth that require specialized care and conservation.

The National Mission for Manuscripts was launched in February 2003 by the Department of Culture, Ministry of Tourism and Culture, Government of India, to save this most valuable but less visible, of our cultural inheritances. An ambitious five-year project, the Mission seeks not merely to locate, catalogue and preserve India’s manuscripts but also to enhance access, spread awareness and encourage their use for educational and research purposes.

Introduction

One of the primary objectives of the National Mission for Manuscripts is the conservation of manuscripts. This aim to enhance the longevity of manuscripts can be achieved by effecting preventive conservation as well as curative treatment on manuscripts. For this, it is necessary to build up basic infrastructure and a resource bank of trained conservation personnel. A number of manuscript conservation centres are being supported by NMM and various institutions are involved in the task of conserving manuscripts and taking care of their collections either with this Mission or independently.

Hundreds of museums, libraries, research institutions, archives, conservation centres and individuals in various parts of India have been doing exemplary service for the conservation of India's manuscript heritage. They have often voiced the need to have a set of guidelines in a comprehensive tongue that can help individuals and institutions to achieve their objective to conserve their collections in a systematic manner. It has been suggested that manuals be written laying down steps to achieve the task of maintaining a healthy collection of manuscripts.

In order to effectively conserve and maintain manuscript collections, and before applying the information in a manual, it is imperative for all individuals associated with this responsibility to understand the basic minimum requirements needed to conserve manuscripts. This booklet states in a simple manner the basic minimum standards that must be met in order to facilitate the conservation of manuscript collections in India. After basic standards are met, the next step would be to go to a higher level of collection management and conservation.

We hope this booklet will receive inputs from the readers who will help to make the standards more complete, practical and effective. Each one of us is invited to be an active player in this national mission.

1 Basic Information

1.1 What are Manuscripts

In the classical sense, the term 'Manuscripts' refers to a document handwritten by an author. Manuscripts are found in every part of the world where human beings put their thoughts and experiences into a written form. Though human beings over the ages have also used stone, metal and parchment as writing supports, we shall limit our reference in this booklet to those manuscripts that have been written on a support made principally of plant material.

This plant material can either be a leaf that has been taken from a tree or plant and written upon, or it can be a leaf that has been specially prepared for writing. This material can be the bark of trees; it can be the pulp of plant material that has been dried in the form of thin sheets, the traditional handmade paper; and speaking of a more recent product, it can be in the form of thin sheets of paper manufactured in modern paper factories.

The earliest writing supports prepared from plant material are acknowledged to be the papyri, of the third millennium BC, from the Old Kingdom of Egypt [1]. In India, palm leaves and tree bark were the principal writing supports that slowly began to be replaced by paper once it was introduced into southern Asia in the eleventh century AD[2].

1.2 Types of manuscripts found in India

1.2.1 Tal-patra¹ Manuscripts

Tal-patra manuscripts are usually seen in the form of bundles of 50 to 100 neatly shaped leaves of even size strung together with a cord and pressed between two wooden boards. Some collections also have metre-long uncut leaves, with midribs intact, rolled like a carpet.

¹Palm Leaf

Dispersion

Tal-patra manuscripts are found mainly in the coastal states of India, where the Palmyra palm tree generally grew, though collections of these manuscripts are dispersed all over India in peoples' homes, matha², granthagar³, libraries, research institutions, archives and museums.

Brief note on preparation of support

The leaves of the Palmyra or Talipot palm are dried in a controlled manner and then prepared for writing on by submerging in ponds, boiling in water and rubbing spices like turmeric on them. The midrib is often removed and the leaves are cut to make a bundle of folios of even size.

Writing and Illustration techniques

Surface writing: The text was written with ink on the leaf using a pen or brush.

Incised writing: The text was incised in the leaf using a sharp iron stylus. The incised writing was rendered visible by rubbing green leaves or soot into the incisions.

Illustrations: Exquisite images have been painted on palm leaves using paint made of earth and mineral pigments with plant gum as a binder

1.2.2 Bhoja-patra⁴ Manuscripts

Bhoja-patra manuscripts are usually seen in the form of a sheaf of paper thin 'folios' cut to an even size. These are sometimes bound together with cord on the sides, though usually they are kept piled up together between two wooden boards and then wrapped in cloth.

²A monastery

³Repository of sacred texts

⁴Birch bark

Dispersion

Bhoja-patra trees and manuscripts are found mainly in the temperate and alpine climatic zone in the Himalayan belt, though collections are dispersed all over India.

Brief note on preparation of support

The inner bark, or bast, of the birch tree is gently rolled off the tree trunk and dried in a controlled manner. Sometimes it is boiled in water, burnished and cut to size, while other times oil is applied on it before it is burnished [3]. Though the bast itself is multi-layered, at times several layers of bark are seen to be pasted together.

Writing techniques

Surface writing: The text was written with ink on the leaf using a pen or brush

1.2.3 Hansi-pata Manuscripts

Hansi-pata manuscripts, also made from bast⁵ of the Agaru⁶ tree, are usually seen in the form of a sheaf of 'folios' cut to an even size. These are rarely bound together and are usually kept piled up together between wooden boards and covered with cloth.

Dispersion

Hansi⁷-pata manuscripts are found mainly in the North-Eastern State of Assam. Other than in that region, dispersion of hanshi-pata manuscripts in other parts of India is very limited.

⁵the inner bark of trees is known as 'bast', or rarely also referred to as 'bass'
⁶Botanical name of Agaru tree is Aquilaria Malaccensis Lamba [4]

⁷Various scholars write 'Sanchi', while 'Hansi', as used here, is the way the locals pronounce the word.

Brief note on preparation of support

The bark of the Agaru tree is gently rolled off the trunk and dried in a controlled manner. It is boiled, burnished, cut to size and coated with orpiment.

Writing and illustration techniques

Surface writing: The text was written on the prepared bark with ink prepared with soot, bovine urine and chebulic myrobalan⁸, using a pen or brush. Illustrations were painted using earth and mineral pigments with plant gum binders.

1.2.4 Handmade Paper Manuscripts

Manuscripts made of handmade paper can be found either as bundles and sheaf of folios kept between wooden boards and wrapped in cloth, or they are often also bound as books.

Dispersion

Manuscripts on handmade paper are found all over the country.

Brief note on preparation of support

Plant material from cotton, flax, bast fibres etc was taken in a tank and beaten to pulp. The pulp was agitated in a tank of water and then lifted with a mesh which resulted in a thin deposit of plant fibre pulp on the mesh (Figure 15). This layer was dried and burnished to produce handmade paper, which sometimes was coloured too. Sometimes a number of thin papers were pasted together to form a stiffer writing or painting support.

Writing and illustration techniques

Surface writing: The text was written with ink using a

⁸A medicinal fruit known as harada

pen or brush. Illustrations were painted using earth and mineral pigments with plant gum binders. Sometimes portions of the illustrations were also gilded.

1.2.5 Manuscripts on manufactured paper

A large number of manuscripts are also found on folios of modern manufactured paper. These again are either kept loose or bound together.

Dispersion

Manuscripts on machine-made paper are found in all parts of India, especially in the various archives and museums related to modern litterateurs and other historic personalities.

Brief note on preparation of support

Various plant products are cut to small size and then made into a light coloured pulp with the help of chemicals. The paper is sized⁹ in the pulp stage, earlier with rosin (which resulted in acidic paper), and now with synthetic resin emulsions. Fine powders are added to make the pulp whiter while pigments and now dyes are added to colour it. The pulp is carried on a wire mesh system¹⁰ that vibrates, absorbs the water, presses and dries the pulp into paper rolls.

Writing and illustration techniques

Surface writing: The text is as written with pencil, ink or ball point pen. Illustrations are made with charcoal, pencils, inks or commercially available water-colours or other types of paints.

⁹'Sized' refers to the addition of materials that make the paper stronger and non-absorbent; thus suitable to write on with ink without blotting.

¹⁰The Fourdrinier machine or endless wire machine and the cylinder mould machine etc have been used to make paper since the 19th century [5].

1.3 The nature of manuscript collections in India

There are millions of manuscripts dispersed in different parts of India. These manuscript collections are of various types differing in terms of type of collections, nature of ownership, administration etc. It could prove useful to acquaint oneself with the nature of these collections.

Large collections

More than 10,000 manuscript bundles.

Medium collections

2,000 – 10,000 manuscript bundles.

Small collections

0–2,000 manuscript bundles.

Mixed collections

Various types of manuscripts are in such a collection.

Exclusive collections

These collections are predominantly of only a particular type. Such exclusive collections, however, may also have a small percentage of other types of manuscripts too.

Sacred collections

Most of the manuscripts in the religious institutions, monasteries as well as homes of people are considered sacred by the owners and custodians and any attempt to casually ask for the manuscripts to be shown will be futile as well as improper.

Academic collections

Manuscripts in many research institutions, university

libraries, archives and museums can be included in this category.

Ritual worship collections

In various homes and religious institutions, there are a number of manuscripts that are hardly ever read at all, instead, they are placed at the alter to be worshipped. Such manuscripts usually relate to sacred texts of that particular sect or religion, and the worshippers are often well-versed with the contents of the manuscript.

Private collections

This possibly forms the biggest decentralised repository of manuscripts in India. Almost every house and private institution in certain regions of India has its collection of manuscripts.

Trusts

A number of mutts, granthagars, institutions and religious places are governed by trusts, and the manuscripts too are under their custodianship

Religious institutions

A sizeable portion of manuscripts are found in religious institutions in India, of all faiths.

Museums

Museums in India have a wealth of well-selected manuscripts. The manuscripts in these museums are usually under the charge of a curator of the manuscripts section.

Libraries

A large number of manuscripts are also housed in University libraries in India

Research institutions

The various Societies and Oriental Research Institutions have large collections of manuscripts which are sourced by scholars.

Archives

The various archives of India have a large number of manuscripts that relate essentially to Government records. Most of these records are on paper, though some as in the Kerala State Archives are in the form of *curuna*¹¹ too.

Ownership

The term 'owners' of manuscripts could be employed for private individuals with collections, however small. With regard to Central and State Government institutions as well as Trusts, one might consider the thought that these institutions are not owners of the manuscripts but render the responsible role of custodians.

Custodianship

This term perhaps implies a much greater sense of responsibility towards the manuscripts than ownership. It becomes our duty as custodians of the collections to ensure that the manuscripts are passed down to future generations in as good or better condition than in which they were received. No custodian can have the freedom to allow manuscripts to degrade away for any reason.

1.4 Why should we take care of our manuscripts?

Duty

If we have taken on the role of custodians, curators, conservators or employees of an institution which deals with

¹¹Records written on palm leaves

manuscripts, then, to put it very plainly, to take care of the manuscripts is what we are paid for. As scholars and students also, it is our duty to take care of manuscripts as they are a source of knowledge. For the common man too the Constitution of India states, under Fundamental Duties in Article 51A, "It shall be the duty of every citizen of India to value and preserve the rich heritage of our composite culture".

Respect

One of the values that finds presence in almost all Indians is that of respect for that which provides us knowledge. This is a good reason to take care of our manuscripts with sincerity.

Knowledge

Manuscripts contain knowledge and wisdom that have developed over millennia through the efforts and experiences of generations of families. Much of this knowledge may not have been recorded or known and if such knowledge disappears through the loss of the manuscript, then it will be very unfortunate to have lost this memory of human progress.

Historical significance

Many manuscripts contain references to events of the past. At the same time, those manuscripts which have survived for centuries, themselves have significance of antiquity. Many of the manuscripts have been written by eminent personalities of their times, or contain their thoughts. The material of the manuscripts, the methods and techniques with which the leaf, the bark or the paper was processed and the manners in which the inks were prepared also have great historical significance as most of these practices have fallen to disuse and the manuscripts are the only unique surviving examples of these practices.

Artistic value

Many of these manuscripts have beautiful illustrations, exquisitely formed letters, and show a fine sense of composition in the layout of the text. The leaf, the paper or the bark itself has been produced by master craftsmen in many cases. The artistic value of the manuscript sometimes also manifests in the form of a high monetary value of the manuscript and therefore most custodians and owners take even more care of such manuscripts.

Emotional value

Often even a rough piece of paper with the simplest of scrawls, written by our child or our grandparents or a loved one, holds immense emotional significance for us and we take care of it as one of our personal treasures. Manuscripts under our care may have held such significance for the owner who donated it to us or to our institution.

Link in human progress

Be it for reasons of technology or for the transmission of knowledge, these manuscripts are links in the progress of people of a region and of humanity. Even physically most of these manuscripts have been copied by scribes when the original had degraded, and in turn the copied manuscript was recopied before reaching us. When people took such effort to keep the text alive, we cannot possibly just let it go to waste.

Faith

When a person, a community or another institution donates, sells or refers a manuscript to us or to our institution, there is hope that the manuscript will be taken care of and faith is placed on us that we will be honest in the way we look after it and as genuine as we appeared

when we ‘collected’ the manuscript. Many such persons and communities have passed away leaving with us their manuscripts. We must take care of what they gave us, in complete faith, to take care of.

1.5 Positive situations for manuscript collections

There are certain situations that when present are helpful for taking care of collections

Motivated Staff

One of the first things affecting the care of collections is motivation in the staff to look after the collections. This motivation could arise from many things such as the presence of a well-defined duty chart, avenues for promotions or professional development, a cheerful work environment and interest in the job.

Trained staff

A well-trained staff member can take care of manuscripts in the correct manner and more efficiently. At the same time by doing a good job, the self-esteem of the person also rises.

Job description of a manuscript custodian

A custodian of manuscripts should have a clearly defined job description that specifies that the care of the collection is one of the priorities. In the absence of this job description, the focus of work shifts to other issues. For ‘Care of Manuscripts’ to be part of the conscious agenda activities related to the care of manuscripts must be specifically mentioned in the job descriptions of various levels of employees or persons taking care of collections.

Specific responsibility

It is important that specific responsibilities for the care of collections be fixed on persons incharge of collections. At the same time credit should also be given to these functionaries when collections have been well looked after.

‘Standard operating procedures’

For the care of manuscripts and for guiding the staff and other assistants, a basic standard methodology of executing steps to take care of manuscripts should be laid out.

Monitoring

If there is regular monitoring of the way the care of manuscripts is being taken, and of the results, then the health of the collection will improve with every passing day.

Documentation

Very few manuscript collections in India have been completely documented, as most documentation efforts are said to be ‘ongoing’. A proper and complete documentation of the collection is of great advantage as it helps to keep manuscript collections in order.

Administrative support

For the administrative staff of the organization, including the Head or Owner of a collection, the manuscript section in-charge and staff should make periodical presentations about the collection, the problems and work to be done, or being done. The administration section in turn should provide all reasonable support to the manuscript section to complete their duties in an efficient manner.

Written preventive conservation guidelines

It is very helpful to have written step-by-step instructions

on what action to take to ensure that the condition of manuscript collections will remain good for years to come. These instructions should be in clear and simple language and should be updated periodically. Case studies and examples should be included with every step.

Disaster management or retrieval plans in place

When disaster strikes, the eventual loss is almost total and instantaneous. A regular implementation of preventive conservation guidelines can prevent disasters. In case disaster does strike, it is most helpful to have a plan of action written down and rehearsed by all members of the staff and volunteers identified for the purpose. For the manuscripts damaged in the disaster, there must also be a written plan to prevent further damage and to salvage them.

Proper storage

One of the first lines of defence for the care of a collection is a proper storage of the manuscripts. Assuming that most collections already have stores arranged in a certain manner, it becomes very important for the institution to reorganise the manuscripts storage once again according to preventive conservation guidelines. This action when properly implemented will remove most of the negative factors that combine to destroy entire manuscript collections either slowly or instantaneously.

1.6 Definitions related to conservation of manuscripts

Conservation

Any direct or indirect action on a damaged or undamaged manuscript or collection of manuscripts aimed at enhancing the life of the manuscript(s) can be termed as conservation.

Preventive Conservation

Any direct or indirect action on a damaged or undamaged manuscript or collection of manuscripts aimed at enhancing the life of the manuscript(s) by reducing future risks of deterioration can be termed as preventive conservation.

For eg. Regular inspection of the condition of the collection

For eg. Deputing staff for training in preventive conservation techniques

Curative Conservation

Any direct action on a damaged manuscript or collection of manuscripts aimed at stopping active deterioration in the manuscript(s) can be termed as curative conservation.

For eg. Fumigation of a manuscript collection that has live insects in it.

Restoration

Any direct action on a damaged manuscript aimed at improving the visual aspect of the manuscript can be termed as restoration.

For eg. Removing pencil marks from a manuscript folio.

2 Basic Responsibilities of Custodians of Collections

2.1 Owners, Custodians and Heads of Institutions having manuscript collections

- They must know their collection, why it is important, its problems and how they can be solved.
- They must have written action plans for preventive conservation and a time schedule for its implementation.
- They should be in contact with the institutions that can help them conserve manuscripts.
- They must ensure that the staff is trained in how to look after the collection in the proper manner.
- They should be able to mobilize resources to implement the conservation action plans.
- They should monitor the condition of the collection, the implementation of the conservation action plan as well as the systems in place to run the manuscript section.

2.2 Manuscripts Conservators-Restorers (MCR)

- The MCR should be aware of the nature and problems of the collection
- The MCR should have a preventive and curative conservation action plan with a time schedule
- The MCR should set up a work-oriented conservation section with necessary tools, equipment and materials for conservation.
- The MCR should be aware of the limitations of their knowledge and practical skills and should do no harm to the manuscripts intentionally or by wrong treatment
- The MCR should understand the problem well and then treat it according to principles of conservation
- The MCR should ensure that proper records of the treatment are maintained and kept in an appropriate place for reference

- The MCR should continuously upgrade their technical skills.
- The MCR should assist in raising resources for conservation by presenting the work done in an effective manner.

2.3 Trainers of manuscripts conservation

- The trainer should understand the nature and problems of the collection and think of the possible solutions. Then the trainer should tailor the contents of the session to address the problem in light of the solutions.
- The trainer should first of all have complete command of all aspects related to the nature and composition of manuscripts, how they degrade, and how to prevent or treat this deterioration
- The trainer should have a clear understanding of the nature of the audience, their level of knowledge/experience, should prepare the sessions well and not take any audience for granted
- For every session being conducted, the trainer should have a clear objective of what is being taught and why
- The trainer should be able to assess how much of what has been taught has been understood
- The trainer should know how to prepare and handle various types of teaching materials and equipment
- The trainer should refresh his or her knowledge by reading books, attending conferences and train-the-trainers meets.

3 Basic Dangers to a Manuscript Collection

These dangers to a manuscript collection can be termed as factors of deterioration. These factors can be categorized as human factors and natural factors. The biggest danger to collections is the human factor, as humans can destroy entire collections by their inaction as well as by their wrong actions. Humans if they want can also ignore their power to exercise control over the effects of the natural factors and thus allow the collections to be destroyed forever. *(Alternatively, humans can also be the biggest protectors of manuscripts if they take correct action)*

Human Factors

Professional apathy and carelessness
Public apathy and carelessness

Natural Factors

Fire, water, natural calamities
Insect attack, microbiological attack
Dust, environmental pollution and light
Fluctuations in temperature and relative humidity

Inherent factors

The nature in which the manuscript material is prepared, and the ink or paint is applied can also be a danger to manuscripts.

4 Basic Condition Report of a Collection

| | | |
|--|--|---------------------|
| Name of Institution | | |
| Address | | |
| Head of Institution | | |
| Tel | Fax | email |
| Name of Collection / Section | | |
| In-charge of Collection / Section | | |
| Tel | Fax | email |
| Condition of main building : very good / good / needs repairs / very bad | | |
| Condition of collection room | | |
| Walls | cracks / damp / paint flaking / plaster weak / rising damp | |
| Ceiling | cracks / damp / paint flaking / plaster weak / water seepage | |
| Windows | broken / good | |
| Floor | good / needs repairs / very bad | |
| Electric wiring | good / needs repairs | |
| Type and Number of manuscript bundles | | |
| palm-leaf nos. | birch-bark nos. | handmade paper nos. |
| hansi-pata nos. | machin- made paper nos. | others: |
| Total number of staff in manuscript section and conservation section : | | |
| The manuscripts are stored in | | |
| Boxes damaged/ok | neatly / in disorder / cloth covers / wooden covers | |
| Cupboards damaged/ok | neatly / in disorder / cloth covers / wooden covers | |
| Open shelves damaged/ok | neatly / in disorder / cloth covers / wooden covers | |
| On floor | neatly / in disorder / cloth covers / wooden covers | |

The following are present

dust / fungus / insects / rats / damaged bindings,

Folios : torn, broken, weak, holes

Ventilation good / bad

Light sunlight / tubelight / bulbs well lighted room / dark room

Electric wiring and plugs good condition / damaged

Fans ceiling fans / pedestal fans

Air conditioner non-functional / functional 24 hours or during office hours

Manuscript Conservation Section not present / functional with ____ trained staff

Documentation of manuscripts collection not available / complete / ongoing

Photograph with general view : collection storage area / display / reference room

The collection is in need of attention / not in need of attention

This report prepared by _____ on _____

This report submitted to head of institution on _____

5 The First Communications

Once the Basic Condition Report (BCR) is prepared, the custodian of the manuscript section should inform the owner or overall in-charge of the collection with a recommendation to refer the situation to a qualified manuscript conservation institution or conservator.

File No. _____ Draft Letter _____ Date _____
 SUB: Submission of Basic Condition Report of Manuscript Collection of _____ (name of institution) and request for suitable action

To the Head of Institution,

Dear Sir,

I inspected the manuscript collection in this institution on _____ (date) and am placing for your kind reference the Basic Condition Report of the collection. It is noticed that the manuscript collection is threatened by the various agents of deterioration and needs attention.

If not treated or addressed in time, the collection will be in danger of getting seriously damaged. I shall be grateful if you could kindly inform the conservation section of this institution or a qualified and experienced conservation institution/individual to prepare a conservation status report and proposal for preventive and curative conservation of the collection.

Thank you,

Yours sincerely,

_____ (Signature, name and designation)



6 Basic Monitoring Steps

6.1 Monitoring of danger from fire

| | |
|--------------------|---|
| Requirements | An electrician, the custodian and periodically a fire officer from the local Fire Station |
| Method | Do a physical inspection of the electric fittings and the use of electrical equipment in the room |
| Immediate action | Disconnect electricity if danger of fire is seen. |
| Action to be taken | Make a plan and budget for rectification of the danger |

6.2 Monitoring of danger from water

| | |
|--------------------|---|
| Requirements | A plumber, the custodian |
| Method | Do a physical inspection of the water pipes, overhead tanks and the use of water sources in the room. |
| Immediate action | Shut down water supply in the 'could be affected areas'. |
| Action to be taken | Have the problem repaired and make a more long-term plan to avoid the source of the problem itself. |

6.3 Monitoring of insect attack

| | |
|------------------|--|
| Requirements | The custodian, local staff |
| Method | Do a physical inspection of the collection. Look out for live insects or fine powder deposits near wooden furniture of manuscripts and books, electric fittings and the use of electrical equipment in the room. |
| Immediate action | Seal the infected books in a bag and remove from room and place in another room demarcated as the treatment area. Do a |

physical brushing of the manuscript and collect insect debris and live insects, and show to an entomologist (insect expert) from a local university to identify the insects.

| | |
|--------------------|---|
| Action to be taken | Isolate the affected collection and remove live insects and larvae. Prepare a plan to free the collection from insects. |
|--------------------|---|

6.4 Monitoring of microbiological attack

| | |
|--------------------|--|
| Requirements | The custodian, local staff |
| Method | Do a physical inspection of the collection. Look out for fungus deposits. |
| Immediate action | Seal the infected books in a bag and remove from room and place in a room demarcated to treat the problem. Collect some of the fungus in a pouch and show to a microbiologist to identify the fungus type. |
| Action to be taken | Isolate the affected collection. Prepare a plan to free the collection from fungus. |

6.5 Monitoring of physical damage

| | |
|--------------------|--|
| Requirements | The custodian, local staff |
| Method | Do a physical inspection of the collection. Look out for broken bindings, torn pages, softened paper, small pieces of brittle paper. |
| Immediate action | Place the damaged manuscript or book in a box of similar size (to avoid movement) or place in a strong envelope. Inform a conservation centre. |
| Action to be taken | Have the damaged book treated. |

Once this monitoring is done, the information collected should also be recorded in a manuscript collection inspection report, a basic form of which is given here.

7 Basic Manuscript Collection Inspection Format

| Symptoms of deterioration of collection | Inspection 1 Date Jan Inspected by | Inspection 2 Date April Inspected by | Inspection 3 Date July Inspected by | Inspection 4 Date Oct Inspected by |
|---|--|--|---|--|
| Walls cracks / damp / paint flaking / plaster weak / rising damp | Ok / Attn | Ok / Attn | Ok / Attn | Ok / Attn |
| Ceiling cracks / damp / paint flaking / plaster weak / water seepage | Ok / Attn | Ok / Attn | Ok / Attn | Ok / Attn |
| Windows broken / good | Ok / Attn | Ok / Attn | Ok / Attn | Ok / Attn |
| Floor good / needs repairs /very bad | Ok / Attn | Ok / Attn | Ok / Attn | Ok / Attn |
| Electric wiring good /needs repair | Ok / Attn | Ok / Attn | Ok / Attn | Ok / Attn |
| No.of manuscripts | Increase / decrease | Increase / decrease | Increase / decrease | Increase / decrease |
| Staff strength | Increase / decrease | Increase / decrease | Increase / decrease | Increase / decrease |
| Boxes damaged /disorder | Ok / Attn | Ok / Attn | Ok / Attn | Ok / Attn |
| Cupboards damaged /disorder | Ok / Attn | Ok / Attn | Ok / Attn | Ok / Attn |
| Open shelves damaged /disorder | Ok / Attn | Ok / Attn | Ok / Attn | Ok / Attn |
| Ventilation good / bad | Ok / Attn | Ok / Attn | Ok / Attn | Ok / Attn |
| Electric wiring and plugs | Ok / Attn | Ok / Attn | Ok / Attn | Ok / Attn |

| | | | | |
|--|--|--|--|--|
| Fans ceiling / pedestal | Ok / Attn | Ok / Attn | Ok / Attn | Ok / Attn |
| Air conditioner functional 24 hours or during office hours | 24 hours no ac Attn: office hours |
| Manuscript Conservation Section | functional with _____ staff Attn | functional with _____ staff Attn | functional with _____ staff Attn | functional with _____ staff Attn |
| Documentation of manuscripts collection | Ok : upto date Ongoing Not available |
| dust | Ok Attn : present | Ok Attn : present | Ok Attn : present | Ok Attn : present |
| fungus | Ok Attn : present | Ok Attn : present | Ok Attn : present | Ok Attn : present |
| insects | Ok Attn : present | Ok Attn : present | Ok Attn : present | Ok Attn : present |
| rats | Ok Attn : present | Attn : present | Attn : present | Attn : present |
| damaged bindings | Ok Attn : present | Ok Attn : present | Ok Attn : present | Ok Attn : present |
| Folios : torn, weak broken, holes | Ok Attn : present | Ok Attn : present | Ok Attn : present | Ok Attn : present |
| Other observations | | | | |
| Action required | | | | |
| Signature of head of section | | | | |
| Signature of head of institution | | | | |
| Signature of conservator | | | | |

8. Basic Requirements of a Manuscripts Storage Area

- Clean and tidy room
- No danger of fire or water disaster
- Electric switchboard should be outside the room if possible
- Good lighting
- Good ventilation
- Manuscripts kept in an ordered manner in clean boxes or cupboards
- Shelves should be able to take the load of the manuscripts
- Space for at least one person to move
- Manuscripts should not be on the floor
- The storage area should be inspected regularly
- At least one table and chair near the storage area to prepare inspection reports etc
- A quarantine room where recently acquired or donated manuscripts should be examined for insect or fungus attack and kept under observation before being documented and brought into the storage area

9. Basic Guidelines for Care of Manuscripts

Awareness of the manuscripts

The custodians and staff must know the material, nature, quantity, location and significance of the manuscripts in the collection.

Handling a manuscript

- Use two hands to handle manuscripts safely.
- Always use a tray or solid support when moving a manuscript.
- Handle only as many as can be done comfortably and safely.
- Hands should be clean when handling manuscripts.

Transporting a manuscript

- Always use a tray or solid support when moving manuscripts.

- For transport one may keep manuscripts in well fitting boxes.

Examination and documentation of a manuscript

- Use clean hands.
- Arrange appropriate lighting.
- Please be aware of the purpose for which the manuscript is being examined.
- Keep necessary tools, materials and a note book and pencil and rubber ready.
- Avoid tea cups or water near the examination and documentation area

Labelling manuscripts

Follow a tested system. Avoid writing numbers on the body of the text.

Storing loose folios of manuscripts

- Keep folios of similar size together.
- Keep the folios in a box of similar size to avoid movement of the folios.
- Single folios can be kept in polyester sleeved files available in stationery shops.
- When using polyester sleeves one may place the folio between tissue paper.

Storing bound manuscripts

- Keep similar sized volumes together.
- Do not place too many manuscript volumes over each other.

Studying a manuscript

- Take care that the hands are clean.
- Do not eat or drink beverages near the manuscript.
- Do not mark the pages with pens

- After referring to the books, leave the manuscripts on the table and inform the librarian.
- Take permission from the manuscript collection in-charge. Do not mark on the manuscript. Use clean hands. Turn over the pages gently. Keep the manuscript on a flat support. Avoid tea or water near the manuscript. Do not replace a manuscript on a shelf without the knowledge of the custodian.

Conservation of a manuscript

- Record the damage and discuss the action plan with all concerned persons.
- Plan the treatment in advance and have all tools and materials in place.
- Follow the policy of minimum intervention.
- Use correct materials of the best quality available.
- Document the process.

Display of a manuscript

- Place proper support under the manuscript.
- Do not have lighting inside the display cases.
- Have low lighting of an intensity lower than 50 lux.
- Cover the manuscripts showcase with a cloth when not in use.
- Keep turning over the pages periodically.

10 Basic Documentation Requirements

- Accession register should be up to date.
- The documents should be catalogued.
- There should be a location register.
- Movement register.
- Conservation receipt and return register.

11 Basic Techniques of Reorganisation of Manuscripts Storage

The following are a set of steps which were followed during the Preventive Conservation workshop organized at IGNC in November 2004:

Action Plan: Emergency Reorganization of Storage

1. Make team.
2. Appoint team leader.
3. Identify collection.
4. Identify storage space.
5. Photograph disorganised collection (general shot).
6. Prepare storage space.
 - Clean paper on shelf.
 - Active insect – separate.
Fungus attach – Wrap in polythene, keep in box in separate room.
 - Damaged / weak / loose folios – keep in folder.
 - Bound and unbound.
7. Prioritise transfer.
8. According to condition, document:
 - Subject
 - Location
9. Transfer and handle carefully
10. Keep bound books – vertical
Unbound – horizontal
Loose – horizontal
Weakspine – horizontal
11. Place identification strips
 - Do not stack too light
 - Do not stack too loose
 - Do not stack too many books over each other.
12. Very heavy books keep horizontally.
13. Do not rush.
14. Work according to plan.

12 Minimum Standards for a Manuscript Conservation Assistant

Must know

- The size and nature of the collection
- How a particular manuscript in the collection is made
- How the manuscript behaves with changes in the environment
- What are the agents of deterioration
- How these agents can be avoided
- How to inspect and monitor agents of deterioration in a collection
- What action to take when the deterioration agents are present
- The nature, use and effects of any chemicals or action that he uses
- The health hazards related to use of conservation materials
- The dangers of obsolete conservation treatment such as heat lamination, cellulose acetate lamination, addition of copper sulphate in flour paste etc.

Must be able to:

- Inspect a collection and prepare a Basic Condition Report.
- Re-organise the storage and keep it in an organized manner.
- Take preventive conservation steps to keep the collection healthy.
- Execute curative conservation treatment with a high de-gree of skill under supervision of the conservator in-charge.

13 Minimum Standards for a Manuscripts Conservator

Must know

- In greater depth all that is expected from the conservation assistant.
- Chemistry and behaviour of the various materials used for conservation.
- The significance of the collection that is being treated.

- Various materials/markets that can be sourced to conserve a collection.
- Principles of conservation.

Must be able to

- Arrive at correct conservation decisions.
- Work with ones own hands and thus be able to direct work by example.
- Execute the variety of conservation treatments required for manuscripts such as documentation, preparation of treatment records, aqueous and non-aqueous deacidification, tear repairs, mending, filling of losses in paper, lining – full, strip, single and double side, removal of old repairs, resizing, cleaning of manuscripts with water soluble inks and paints, stain removal, mounting, binding, etc.
- Direct the above mentioned conservation treatment and manage the conservation team.

14. Minimum Requirements for a Manuscripts Conservation Unit

Collection to be conserved

Details of the number of manuscripts, type of manuscripts, condition reports and prioritisation of the preventive and curative conservation steps

Space

- A floor area of at least 500 sq ft. with a water connection and outlet
- The room should be well lighted
- 5 amp electric points including one 15 amp power point

Trained Staff

- At least one staff trained in curative and preventive conservation
- One assistant trained in preventive conservation and with manual skills and knowledge to be able to follow instructions from the conservator

Furniture

- Tables with matt finish sunmica top preferably of an off-white colour.
- One light table.
- One cupboard with adjustable shelves. Keep additional shelves
- Work chairs for staff
- Drying rack
- Chemical rack
- Tools cabinet
- Furniture for administration, keeping records etc.
- Other items as per requirement

Tools and Equipment

- Flat and round brushes : sable hair, hog hair, synthetic, of various sizes
- Electric heater
- Double boiler pan
- Distillation plant
- Kipps apparatus or carbon dioxide cylinders
- Enamel and plastic trays for different sizes of manuscripts and documents
- Glass or polycarbonate beakers of different sizes
- Glass rods
- Test tubes and holders
- Vacuum cleaner including a small portable one
- Conservation tool kit with scalpels, cutters, swab sticks etc
- pH indicator materials
- Other items as per requirement
- Dry and wet bulb thermometer

Conservation Materials

- Handmade paper of various thickness, textures and colours as required for the respective collections
- Lens tissue, Nepalese tissue, Banana tissue etc
- Binding materials

- Acid free mount board
- Flour, gelatin, eraser powders,
- Melinex, polythene
- Pigments
- Paraloid B-72 granules
- Seashell lime
- Other items as per requirement

Chemicals

- Anti fungal agents such as thymol, orthophenylphenol etc
- Solvents such as trichloroethylene, toluene, methanol, ethanol etc
- Insecticidal powders such as borax etc
- Other items as per requirement

Documentation

- Receipt return registers
- Conservation file
- Treatment record
- Camera for photographic documentation
- Other items as per requirement

When a MCC has executed basic preventive conservation steps in a manuscripts collection, the following results should have been achieved:

- The staff of the collection should have been trained to execute the preventive conservation steps on their own.
- The collection storage, display and reference areas should be clean.
- The shelves and other furniture in the collection area should be in order and clean.
- The manuscripts should be arranged neatly on shelves or in cupboards / boxes and not piled up or on the floor anymore.

15 Minimum Standards for Preventive Conservation

- The manuscripts should be covered with destarched cotton cloth if possible or placed in boxes.
- The manuscripts and furniture should be free from insects.
- The loose folios in the manuscript sections should have been placed in labelled boxes.
- Direct light should not be falling on the manuscripts.
- The room should be well ventilated, and free from dampness.
- The storage cupboards should be away from walls and the lowest shelf should be a foot high above the floor.
- Storage space in the shelves should have been well utilized.
- The risk from fire or water disaster should have been minimized.
- Process of updating the accession and location registers should have commenced.

16 Communication

No conservation effort is complete if it is not communicated to others. The following are suggested topics that can be discussed in the forthcoming NMM conservation newsletter

- Nature of collections
- Types of manuscripts
- Any important manuscript
- The methods of making manuscripts, inks, paints etc
- New techniques of making paper
- Conservation problems in a collection or a particular manuscript
- Conservation solutions and observations
- Preventive conservation case studies
- Curative conservation case studies
- Traditional methods of conservation of manuscripts
- Preparation of a directory of publications on conservation of manuscripts
- Preparation of a directory of manuscript conservators in the country