

Deteriorated Manuscripts: Documentary Cultural Heritage Conserved by Using Indigenous Methods

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Abstract

The whole world is filled with cultural heritage of all kinds generated by our ancestors. A large number of monuments, artefacts and manuscripts spread all over the world are finest examples of the artistic, scientific, architectural knowledge. These rich cultural heritages are a symbol of men's cultural identity and continuity. Cultural heritage is unique and irreplaceable, which places the responsibility of preservation on the present generation. Deterioration is a loss of structural capacity with time by the action of the external agents or material leaching (Saiz and Laiz, 2000). The worldwide distribution of manuscripts contains rich intellectual diverse cultural heritage, which are the legacy of traditional wisdom and priceless Devine knowledge of thousand years back. Manuscripts are the important cultural heritages which often found neglected many parts around the world for decades. But more importantly manuscripts are needed to be conserve for safeguarding the records of the past history, culture and traditional knowledge. India possesses one of the largest collections of manuscripts comprising more than five million of manuscripts on different materials. Manuscripts are handwritten documents on paper, palm leaf, leather, textile or other materials written more than seventy-five years old that have significant historical, scientific or aesthetic value. There are several factors that deteriorate the manuscripts. The deterioration of heritage collection are reflected in the form of shrinkage, cracks, brittleness, warping, wear and tear, abrasion, bio-infestation, discoloration, holes, dirt and dust accumulation etc. The ravages of time, and extreme climatic conditions such as changes in temperature, humidity, intensity of light or even ignorance and most important biological agents, often destroyed priceless cultural property and records. It is therefore imperative that measures be taken at the earliest and in time to save and preserve these culture and heritage for posterity. This research paper contains an understanding of physical, chemical and biological agents, required to identify accurately so the proper conservation step can take to preserve this cultural heritage.

"Cultural Heritage is an expression of the ways of living developed by a community and passed on from generation to generation."

Keywords: Deterioration, Manuscripts, Cultural heritage, Conservation.

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INTRODUCTION

The worldwide distribution of manuscripts contains rich intellectual diverse cultural heritage, which are the legacy of traditional wisdom and priceless Devine knowledge of thousand years back. Manuscripts are the important cultural heritages which often found neglected in many parts around the globe for decades. But more importantly manuscripts are needed to be conserve for safeguarding the records of the past history,

culture and traditional knowledge. India possesses one of the largest collections of manuscripts comprising more than five million of manuscripts on different materials. Manuscripts are handwritten documents on paper, palm leaf, leather, textile or other materials written more than seventy-five years old that have significant historical, scientific or aesthetic value. (Patidar and Soni 2016) During the survey of India, it was observed that a large percentage of manuscripts were in bad condition due to biodeterioration and need immediate conservation.



Fig. 1A & B: Folios of Manuscript collected from the hoses of Brajwas

The problems differ from, place to place and country to country depending upon the resource's availability, climatic condition and so on but in general one can say that the main cause of deterioration of this heritage is lack of awareness, lack of understanding of methods of preventive

conservation, shortage of conservation facilities and lack of awareness. (Agarwal 2006) Manuscripts written on olden days mostly used palm leaf, birch leaf, paper and vellum or parchment organic in nature and are prone to deterioration.

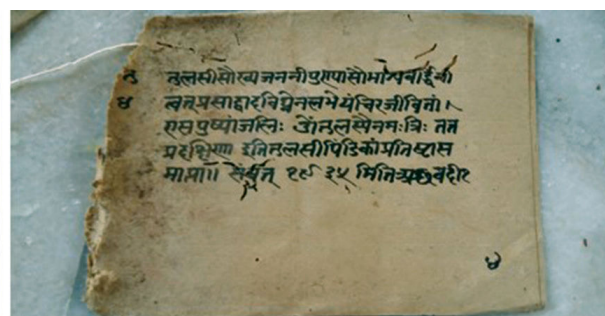
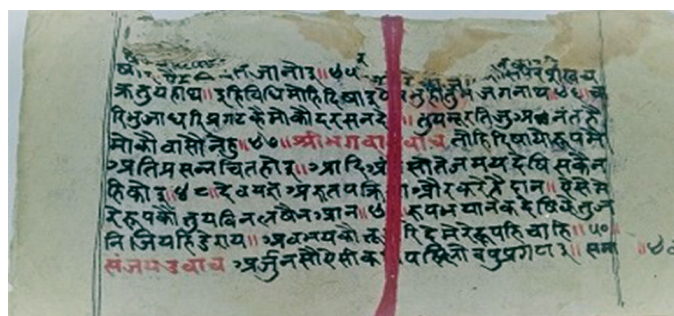


Fig. 2A & B: Folios of Manuscript deteriorates by the action of insects and microorganism

The scribes (the people who wrote manuscripts) suggest some instructions to the owners how hard work they did to make the manuscripts and they should conserve this heritage for future reference and spread this wisdom to others with care.

“Kasten likhitam shashtam, Yatnen paripalyet”

In the above instruction found in the manuscript which show that the author found it difficult to write that's why gave instruction to the owner to preserve these cultural, knowledgeable and art and culture with great care.

REVIEW OF LITERATURE

Ripka (2005) observed and stated that generally it is observed that growth of microorganisms on the mural paintings is promoted by slight alkaline pH, humidity and the presence of inorganic and organic nutrient sources. Thiyam (2008) expressed that Manuscripts are most precious for our culture and cultural heritage which act as a valuable and reliable source of knowledge and history which

offering a perspective for contemporary society. Due to improper handling and, in this way, we lost our documentary heritages i.e., manuscripts. Present development and progress in the area of information & communication technology (ICT) provides a better medium to mitigate the problem. By the process of digitization, these manuscripts, documentary heritages can be preserved and stored, with this they also easily available to the scholars, researcher and public. Fungus damages all types of manuscripts (paper, palm, birch and vellum), paper objects, textiles, paintings, and so on. Wrong, mishandling or casual techniques in packing of

precious art objects result in damaging them. The weathering and decay of cultural heritages is a complex process caused by the interaction of many physical, chemical and biological agents. The different biological deteriogens are bacteria, algae, cyanobacteria, mosses, bryophyte, fungi, rodents, insects, birds and human play a role in the decay of monuments. (Farooq *et al.*, 2015). Kalaskar and Zodpe (2016) stated that the possible combinations of paper and printer ink with different dyes are the best method to protect the books, manuscripts and other library resources from fungal and bacterial growth.

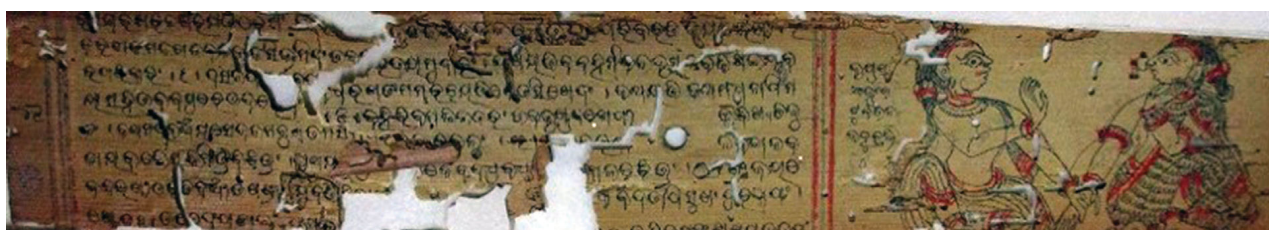


Fig. 3: Folio of Palm leaf Manuscripts (Geet Govind by Jaidev) deteriorate by the action of insects and microorganism

Why need to conserve Manuscripts

The world is full of cultural heritage of all kinds. A large number of monuments, artefacts and manuscripts spread all over the world are finest example of rich cultural heritage and a symbol of men's cultural identity and continuity. Cultural heritage is unique and irreplaceable, which places the responsibility of preservation on the present generation. The different means of deterioration of heritage collection are reflected in shrinkage, wear and tear, bio-infestation, cracks, brittleness, warping, discoloration, abrasion, holes dirt and dust accumulation etc. The ravages of time, and extreme climatic conditions such as changes in temperature, humidity, intensity of light or even ignorance and most important biological agents, often destroyed priceless cultural property and records. It is therefore imperative that measures be taken at the earliest and in time to save and preserve these culture and heritage for posterity. The legacy of the physical heritage collection and intangible peculiarity of a group or society, man-made heritage those are connate from past, maintained in present and bequeath or bestowed for the benefits of future generation are our cultural heritage.

Why Indigenous Methods?

Boyaghchi (2009) has explained a scientific elucidation for Hanzal extracts used by Iranian artists in making old paper manuscripts. She finds

the good results for Hanzal extracts to inhibit biodeterioration of paper manuscripts. Baruah *et al.*, (2008) reported that main sources of deterioration and degradation of library resources are the bacteria and fungi. Biodeterioration of materials in libraries is a worldwide problem and it cause great damage of library materials and especially to the unique important manuscripts and rare books that are stored in library. Bakkali *et al.*, (2008) observed that essential oils used for conservation purpose are volatile in nature, natural complex, secondary metabolites, characterized with strong odour and have a generally lower density than that of water therefore can be used for the controlling the biodeterioration. At the present scenario there are no dearth of modern chemical pesticides and repellants for the safe upkeep of manuscripts. The advent of technology has also given rise to greater concerns of preservation of manuscripts by adopting modern technologies. Still beside the modern technology the traditional methods of preservation are in vogue, as these methods have their own merits:

- These methods are not hazardous for human health.
- The Indigenous methods not have any harmful adverse effect on these materials.
- The preventive methods not require high expertise, advance equipment and large amount of money.

At the present script there are no dearth of ultramodern chemical fungicides and repellants for the safe keep of manuscripts. The introduction of better and advance technology has also given rise to lesser enterprises of preservation of manuscripts by espousing ultramodern technologies. Still beside the ultramodern technology the traditional styles of preservation are in vogue, as these styles have their own graces.

Traditional Preservation Methods:

The art of preservation of cultural materials which are the identity of men's progress is as old as human civilization. In a way it may be said to derive from the instinct of self-preservation common to all human beings. The art of preservation of cultural heritage is not new to Indians culture. From the very ancient times many indigenous traditional methods have been used for preservation and conservation of manuscripts. The people were aware from the very early times about the basic factors that cause deterioration of the manuscripts namely light, heat, dust and humidity. So, in

the way to conserve the manuscripts from the possible factors, the manuscripts were generally covered by the clothes. Most of time it's observed that red colored clothes used for this purpose as it also worked as repellents. Nevertheless, some ancient traditional practices, were adopted by the custodians of the manuscripts and observed that still being practiced in several parts of our country or the preservation of these cultural heritages, some of them are enumerated below:

1. Wrap the manuscripts in colored clothes that protect the manuscripts from dust, worms as well as to a great extent of variation in absorption of acidic fumes and atmospheric humidity.
2. Usually to protect the manuscripts, two stiff flat wooden boards are used which punched holes on the leaves and cords are passed through them. The manuscripts are placed in between them. These Wooden boards press the leaves from the sides, which prevent chipping, edges curling and by abrasion. And also prevent further damages.

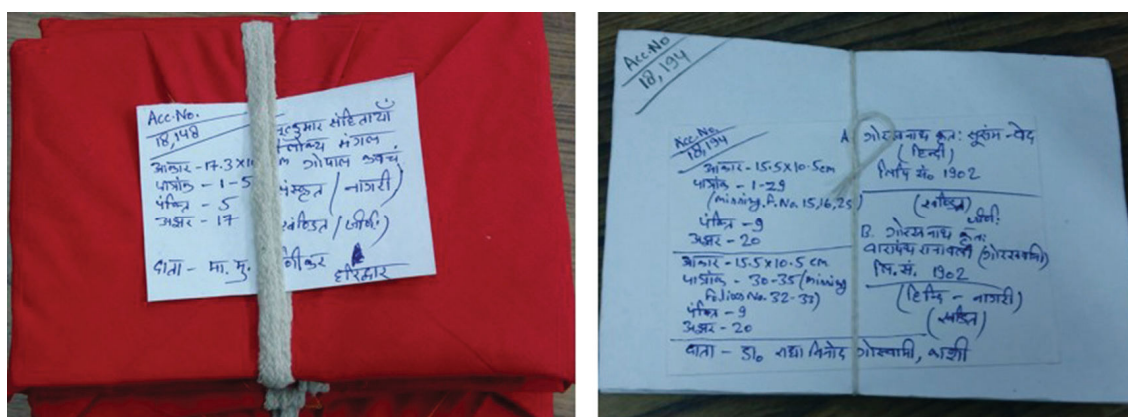


Fig. 4: (A) Manuscripts are wrapped in red cloth (B) wrapped in handmade paper

3. Palm leaves are kept wrapped in yellow or red color clothes. It's believed that the color red is a repelling for the insects while yellow color if, made by turmeric itself also work as repellant and possess germicidal power that also repel the insects and protect the manuscripts.
4. In olden days Manuscripts were also wrapped in silken clothes and it is observed that silk is remarkably free from bookworms and which its extensive use to keep manuscripts.
5. Safe and preventive upkeep of manuscripts ensured even before the writing process on the manuscript materials i.e., Paper, leaf and so on. Seasoning of the leaf made by burying

the leaves under mud and sometimes also boiling them in the water are considered for some antiseptic effect against the damage which caused by the microorganisms, insects and other small creatures that can damage the manuscripts.

6. Bundles of manuscripts are mostly kept in the heavy wooden chests which reduce the rigorous changing of climate and prevent them from these changes.
7. Palm leaves are usually strung together with a needle made of bamboo and a string of cotton or silk which keep the leaves intact and prevent them.

8. Exposing the palm leaves in the kitchen also have the scientific fact that smoke particles produce during the kitchen activities have the capacity to work against the insects and repel the insects. Though the smoke deposits and bring out undesired changes on the leaves this system is very effective for prevention of insect attack over the palm leaf manuscripts.
9. Manuscripts are exposed to Sun in the Lunar month of Bhadraba i.e. in August every year because it is known that the rays of the Sun in that month are very favorable for this purpose. By this sunbath the worms are killed under the Sun and protected the manuscripts from the insects.
10. In indigenous method manuscripts are take out on Vijaya Dashami day for the rituals and then they are cleaned and kept back. Which is a part of regular preventive conservation of the manuscripts.
11. Exposure of the manuscripts to the tender rays of the rising sun in early morning or setting Sun during sunsets destroys the traces of growth of insects and other micro-organisms.
12. At some places in India such as Sikkim and West Bengal underground cells are prepared for preservation purpose of manuscripts.

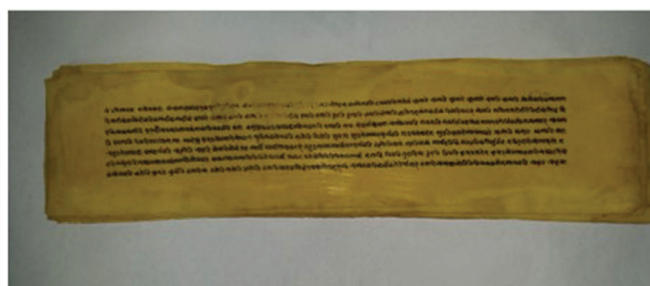
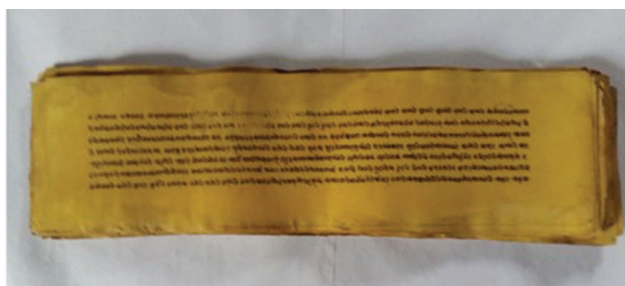


Fig. 5 A & B: Paper colored with turmeric which worked as repellent and protect from microorganisms

CONCLUSION

For the safe upkeep of the manuscripts has also been inscribed by the authors of the manuscripts, and found written in the colophon which is evident from the following lines:

“Jaladraksha Tailadraksha raksha man shlatha vandhanat

Ashubhya parahastebhya Ebam badati pustakam”

That means: “The book itself appeals the owners to protect it from water, oil, slack binding, rats and from the hands of other people who do not know proper handling”. Many of the authors are requested to the user of the manuscripts to treat manuscripts as like their own sons.

“Yatnen likhitam shashtam, Putratvat paripalayet”

Making of manuscripts was very difficult task on that time, It take a long time and lot of patience. The people who worked on it were special as they conserve the cultural and other important information for the next generation. And that's why there is a responsibility to us to preserve their documentary heritage for our next generation. The Indigenous methods are not hazardous for

the human health, and do not have any adverse harmful effect on the materials. The methods also do not require high expertise, advance equipment and large amount of money so it is very efficient and safe method to use preserve these cultural heritages. These methods are so simple and effective in preventive conservation so there is no need to be specialized in field of conservation and can easily learn by people or caretaker. No any harmful chemicals are used in this purpose so there is not any risk of health hazards.

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