

A case study on conservation of textiles in Allahabad museum, Uttar Pradesh

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■ **ABSTRACT** : Indian textiles produced since antiquity conveys the history, the culture and tradition of the past. A number of people in our society have immense wealth of rare textile artefacts, collected or inherited over a period of time, not accessible to all interested in this field. Museums are the only means for obtaining an understandable and complete information regarding culture, history, tradition, arts and crafts and various other noteworthy features distinctive to a region. Museums also offer the opportunity to visitors so that they can have a quick look of rarest and bestest artifacts in the world. There are numerous museums in various cities of Uttar Pradesh that have exclusive artifacts, Allahabad Sangrahalaya is one of them. It has an incredibly large collection of objects, ranging from paintings, textiles, coins, sculptures, manuscripts and jewellery. The present study was undertaken to study various types of textile antiquities preserved, display and storage techniques used and conservation and preservation method employed in Allahabad museum of Uttar Pradesh.

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Anonymous (2014) defined museum as “A public or private non-profit agency or institution organized on a permanent basis for essentially educational or aesthetic purposes, that utilizes a professional staff, owns or utilizes tangible objects, cares for the tangible objects, and exhibits the tangible objects to the public on a regular basis. Such term includes aquariums, arboretums, botanical gardens, art museums, children’s museums, general museums, historic houses and sites, history museums, nature centers, natural history and anthropology museums, planetariums, science and technology centers, specialized museums, and zoological parks”. The word “museum” comes from the Latin word,

and is pluralized as “museums.” It is originally derived from the Greek word ‘Mousein’, which denotes a place or temple dedicated to the Muses (the patron divinities in Greek mythology of the arts) and hence, a building set apart for study and the arts.

Textiles have a glorious past in India since ancient times that reflect a pattern of change in each period of civilization and history. The museums that stored these textiles are the only means for obtaining an understandable and complete information regarding culture, history, tradition, arts and crafts and various other noteworthy features distinctive to a region. Museums also offer the opportunity to visitors so that they can

have a quick look of rarest and bestest artifacts in the world.

Choudhary and Babel (2012) opined that materials which are made up of organic substances and of a fragile nature are more vulnerable to get disintegrated into fragments and damaged by the agencies which causes decay. There are many agents who contribute to textile's deterioration in museums which may occur naturally or from external forces. Robinson and Pardoe (2000) mention various threats for museums textiles are dirt, dust, air pollution and contact with harmful materials, pests, light (especially ultra-violet light), damp and sticky and careless fingers. To protect the museum textiles from these threats, conservators in museums use two types on conservation techniques such as preventive conservation and curative conservation. Levin (2011) defined preventive conservation as any measure which prevents the risk of damage or minimizes the possibility of it. It laid emphasis on collections rather than single artifacts and non treatment of textiles rather than treatment of particular artifact. Anonymous (2006) defined curative conservation as active intervention in the physical state of the object by consolidation, wet cleaning, support and repair.

Alten (2002) described temperature as the external manifestation of the quantity of energy contained within an object. According to him:

High temperature = Faster movement of atoms and molecules (Higher rate of chemical reactions) = Higher the rate of deterioration

According to Plenderleith (1934) the temperature may be allowable to fluctuate from 50 to 75°F (for comfort).

Brown and Rose (1997) recommended levels for diverse collection of organic artifacts. He had suggested to control the humidity in the range of 30 to 70 per cent RH – has been suggested for priceless artifacts such as antique furniture and paintings. Smith (2010) opined that light causes irretrievable damage to light susceptible museum collections. According to Smith museums must display their collections in the combination of artificial as well as natural light. The two types of collection which have need of particular thought in relation to light are Light-sensitive and Light durable. Light sensitive collection should be illuminated to 50 lux or a cumulative dosage of light of 200,000 lux hours, (≈ 50 lux for 10 hours/day 365 days/year). These type of collections will

have need of rotation. Light-durable needs an upper limit of 250 lux illumination and there is also a third category *i.e.* Light stable which requires no definite light limitations.

Herfs (1955) reported that the direct harm by insects to artifacts as a outcome of intake is of a only mechanical nature. The occurrence of excrements is objectionable near museum textiles. Cockroaches may lead to severe soiling of artifacts. According to Anonymous (2010) dust is effortlessly absorbed by museum textiles due to the acidic nature of dirt and also attracts moisture for this reason there is an increased chemical action. Some dust particles in the environment are sufficiently large to cut the fibres of artifacts. These dust particles also perform like little knives which cuts into the fibres as the textiles enlarge and contract due to fluctuations in relative humidity.

Pant and Jahan (2012) reported that museum textiles need to be displayed in the accurate way so that it will get a support and will not be susceptible to physical stress and resultantly it communicates exact information of the customs and fashions of its period. While displaying a costume on mannequin it is very important to consider that the mannequin should be of correct size and shape for the particular artifact. According to Lemberg (1958) if the textile is in poor situation then a base must be consider to support that particular artifact. This means that it is to be put on a inflexible base such as a linen-clad wooden plate and enclosed with the help of glass plate. In many cases it is preferred to fix it on a bendable supporting layer. This fixing work can be done by two methods such as by fastening it with the help of fine flat stitches or by the use of buttonhole stitches at the edges. The second method of fixing is by fastening very weak and poorly worn spots by the use of 'laid and couching' technique.

Considering all these facts the present study was conducted to gain information about the Allahabad museum and its collections. This will help to make people aware about the museum and conservation practices and also helps the designers to use it as reference material for designing in the absence of the original artifacts. The present study was conducted with a view to study the types of textile antiquities preserved, the display and storage practices followed, measures taken for conservation of textile antiquities in the Allahabad museum of Uttar Pradesh.

■ RESEARCH METHODS

The Allahabad museum was selected for the study which is situated in Chandrashekhar Azad Park, Kamla Nehru Road, Allahabad, Uttar Pradesh.

The questionnaire was prepared for the collection of data. It consisted of two sections covering general and specific information. The general information included profile of the museum such as date of establishment, managing agency/ department, number of staff members are employed along with their posts and specific information included the total number of textile articles present in museum, details about the various types of textile antiquities present in the museum collection, pretreatments given to the textile materials before display, conservation methods used for textiles etc.

The data were collected through personal interaction with the respective officials/workers (curators) of the museum using interview schedule. Certain observations were made personally by the investigator like the textile collection in the museum were observed by going through the displayed and stored articles and the list of documents maintained for the same. Simple percentages as well as weighted scores were calculated for analysis of data.

■ RESEARCH FINDINGS AND DISCUSSION

The data were coded, tabulated and analyzed. The results of the study are discussed under the following heads in Plate 1 to 11.

General information about the museum :

The Allahabad Museum is a national-level museum which was established in 1931 (Anonymous, 2016) with a small collection of model of birds and animals. Allahabad museum is funded by Ministry of Culture and is famous due to its varied and rich collection of artifacts and exceptional items of art. Over the years there has been a sea change in the functioning of a museum. The museum is no more a repository of collections, rather this is center for learning and recreation. The museum is famous for its separate galleries which are devoted to archaeological findings, art gallery, artefacts and natural history exhibits. The museum has 18 galleries displaying large collection of antiquities. Textile Gallery contains several exquisite textiles including Phulkari and Chikankari.

The other objects that were exhibited inside the museum include prehistoric and Indus Valley antiquities,

seals, miniature paintings, bronzes, stone sculpture and terracotta. Some of the other items that are showcased are textiles, weapons and the documents and personal effects of Nehru (Anonymous, 2016).

Specific information :

This section reveals the information regarding types of textile articles conserved, range of temperature and humidity maintained, props used for display of textile articles, labeling methods used for the displayed articles, covering materials used, display techniques used, pretreatments given to textiles, curative methods used for textiles etc. and the results are reported and discussed below.

Types of textile articles conserved :

It was observed that various types of traditional textiles of different regions of India were conserved in the museum including Phulkari, Kantha, Baluchari *saree*, Kurta, Carpet, Lehnga, Shawl, Asawali *saree*, Candova, Moon shawl, Coga, Jamdani dupatta, Jamdani angrakha, Kalamkari and Pahari rumal with scenes, Mashru, Banarsi dupatta, Painting on cloth, Cotton print, Paithani *saree*, Tribal veil cloth, Chakla, Patola *saree*, Toran, Book cover, Shawl, Rumal, Banner, Brocade *saree*, Jackets, Odhani, Lehnga, Chikankari kurta, Caps, Doshala, Sherwani, Painting on cloth of 19th century etc.

Range of temperature and humidity maintained in Allahabad museum :

The information on range of temperature and humidity was collected and results are reported in Table 1.

Season	Temperature (°C)	Humidity (% Relative humidity)
Summer	20-25	45-60
Winter	20-25	45-60

%= Per cent, °C=Degree centigrade

Table 2 shows that Allahabad museum maintained temperature between (20-25°C) and humidity between (45-60%) during both summer and winter seasons.

Labeling methods used for the displayed articles:

The information on labeling methods used for the display articles was collected. The preferred labeling method used for the display of articles was pasting on

wall followed by pasting on showcases. When the condition of artifact is sound with open weave then labels made up of cloths are used. According to the respondent of Allahabad museum conservators used to pre wash cloth labels. After pre wash, labels are rinse well in distilled water and then dry. After this they used to write down numeral on the upper side of the label with the help of paint marker in addition to this drying is allowed. Later on museum conservator explained complete process of making cloth labels. Respondent mentioned to turn the label in any of unprocessed edges and then sew label with the help of running stitches on the fabric. The conservators in Allahabad museum used to grip the needle at right angle to the surface of article. Then conservators pass the needle front and back through the spaces in the weave of the article so that the threads will not break. Respondents also mention that the selection of thread should be same as that of the article's background colour. For cloth labels they choose a soft cotton thread. They used to apply this method on hats, textiles, fans, costumes, felt, rugs, lace, upholstery and tapestries.

Props used for display of textile antiquities :

Clamps and hooks were preferred props used for the display of textiles. For no damage to textiles conservators in Allahabad museum use hooks with adhesive. The adhesive is released by pulling on the tab which sticks out from the underside of it. Conservators used to stick it crosswise the top and hang up the artifact. The puckered spot creates when any article is hung for a long time therefore, to get rid of that particular spot the respondents mention that they used to fold above the border of the artifact and then stitch it so that the pocket is left across the apex. Later on they used to slide a wooden dowel with a small diameter in and the hooks will hang on the dowel resulting in a fine straight top edging. Nails were never used due to their effect of rusting in damp conditions.

Covering materials used for displayed articles:

The most preferred covering material for displayed

textile articles was with glass cases followed by protective transparent sheets and lamination.

According to the curator in Allahabad museum glass is safe for use for museum textiles. It is scratch resistant, gas impermeable and is available laminated or coated with UV-filters. They used to clean glass cases with the cleaning agents who do not contain vinegar or any other harmful substances.

Display techniques used for the textile antiquities:

Regarding display techniques used it was observed that showcasing, roller, hangers, tables were the most frequently preferred display techniques used for textile antiquities, the next most preferred display technique was dummies and mannequins.

Different types of artificial lights and units of power used in various museums :

The information on different types of artificial lights and units of power used in Allahabad museum was collected. The type of artificial lights mostly used in the museum are incandescent bulbs with value 70 Lux followed by tungsten bulbs.

Pretreatments given to textile antiquities and display boards :

The information on pretreatments given to textile antiquities was collected and the results are reported in Table 2.

Fumigation was carried out for cotton, silk. Strengthening was carried out for cotton, wool and silk textile objects and no pre-treatment was carried out for display boards.

Curative methods of conservation used for textiles in Allahabad museum:

The information on stored textile materials was collected. The most preferred method was washing and cleaning, the next preferred method was stain removal, Sterilization and reinforcement. Dry cleaning was never practiced in Allahabad museum.

Table 2 : Pretreatments given to textile materials and display boards in Allahabad Museum				
Pretreatments	For textile fibres			For display boards
	Cotton	Wool	Silk	Wood
Fumigation	√	-	√	-
Insecticide	-	-	-	-
Strengthening	√	√	√	-

Common pests encountered in museum textiles:

The information on common pests encountered in museum textiles was collected. The Common pests encountered in museum textiles the most frequently pests encountered was clothes moth, the next pest encountered occasionally was Anthrenus species, Dermstid beetles, moulds, silver fish, and wood boring beetles.

Protective measures followed during storage :

The information on protective measures followed during storage are collected and the results are reported in Table 3.

Table 3 clearly reveals that protective measures like para-di-chloro-benzene for insect attack; silica gel crystal

against dampness were taken as preventive measures while periodical dusting and cleaning for dust; UV film against sunlight are preferred by the museums in storage area.

Repellents used against insect rodents :

The most frequently preferred repellent was

Table 3 : Protective measures followed during storage in Allahabad museum		
Sr. No.	Agencies	Protective measures
1.	Dust	Windows closed, Dusting
2.	Dampness	Silica gel crystals
3.	Insect attack	Para-di-chloro-benzene
4.	Sunlight	U V film



Plate 1 : Frame of Terakashi of 20th Century A.D



Plate 2 : Dress of Sumitranandan Pant

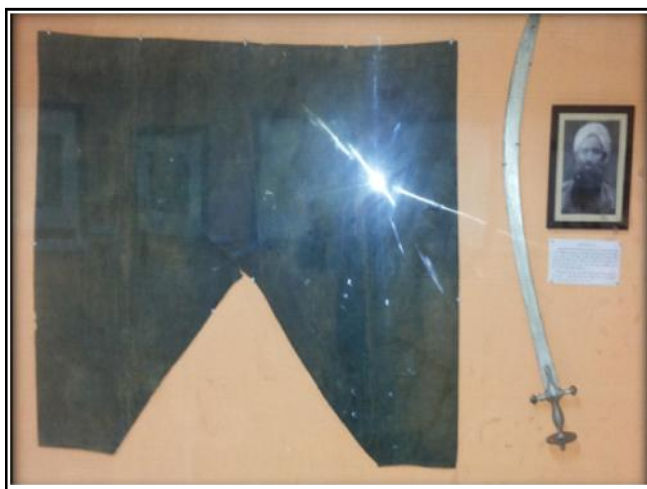


Plate 3 : Kurta and Pajama of Maulvi Liaqat Ali, Freedom Fighter Donated in 1956 Anand Bhawan to Jawaharlal Nehru





Plate 4 : Baluchar saree, Murshidabad 20th Century A.D



Plate 7 : Chaddar of Assam 20th Century



Plate 5 : Lehnga of Zari work, 19th Century A.D .



Plate 8 : Phulkari work of Punjab 20th Century



Plate 6 : Silk Tie 20th Century A.D.



Plate 9 : Embroidered picture presented to Pandit Nehru in Vietnam



Plate 10 : Letter given to Mahatama Gandhi



Plate 11 : Stored artifacts in metal rack in Allahabad Museum

Images of textile antiquities in Allahabad Museum

naphthalene, paradichlorobenzene and kapoor. The next most preferred repellent used against insect rodents for textiles was neem leaves.

Different methods used for strengthening textiles:

Different methods used for strengthening textiles such as Stitching, darning, patch work, lining, backing, pasting and netting are practiced in Allahabad museum.

Common problems encountered in Allahabad museum :

Information recorded and problems faced in conservation treatment were inadequate staff and space were the most common problems faced by the museum followed by lack of special equipments for conservation, lack of funds.

Storage area :

The storage area for textiles in Allahabad Museum consisted of one large room in which all the museum collections were stored. Due to the limited space proper storing techniques were not followed by them such as for long life of textiles, should be stored in rolls. Textiles had been folded and stacked on closed metal almirahs. Some had been stored in open shelves stacked on one another. There was very little space to move about, so it was particularly difficult to examine textiles without endangering other objects. This storage room was most often kept closed; therefore, it is damp, stuffy and

uncomfortable to work in.

Conclusion :

From the study it is concluded that in Allahabad museum exclusive textile antiquities of different places of India including Baluchari (West Bengal), Kantha (West Bengal), Phulkari (Punjab), Brocades (Banaras), Jamdani (West Bengal), Paithani (Maharashtra), Kalamkari, Chikankari (Lucknow) and embroidered articles were conserved. Showcasing was the most commonly used storage and display technique used by the museum followed by use of rollers, hangers, mannequins and dummies. Various preventive measures including control of humidity and temperature, periodical cleaning and dusting, fumigation, sunlight exposure, use of dehumidifiers to control the level of humidity, “kapoor” and dried “neem” leaves were mostly used by the conservators of Allahabad museum. However naphthalene balls, paradichlorobenzene were used as curative measures.

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