Synopsis of the PhD. Thesis

Entitled

"**A Critical Study on Conservation Practices of Shawl Collections in India**"

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A Critical Study on Conservation Practices of Shawl Collections in India

The present work brings within its scope a vast field of study. In the thesis emphasis has been given to the origin and development of the age old crafts in a broad historical perspective. The study also seeks to present an analytical picture of different deteriorating agents and how they degrade shawls. Along with history, an account of raw materials, traditional tools and production techniques are also discussed. The readers will be able to understand the composition and properties of fibres and structures as well as how they affect the long term stability of the textile artefact. The aim of writing is also to provide defined instruction for conservation and preservation techniques, to preserve the textile heritage and to make them comprehensive to the dilettante. The present study has been divided into five broad chapters which have been mentioned below:

Chapter 1: Introduction

Chapter 1 comprises the brief introduction about textile conservation and the museums in India which have a good collection of shawls. The subsections include the purpose of the study, specific objectives, limitations and scope of the study.

Textile conservation is a complex, challenging and multi faceted discipline as well as it is one of the most versatile branches of conservation. Traditional textiles are still produced using the traditional patterns and dyeing methods. Textiles get easily damaged, so only a small amount of textile artefacts survive compared to artefacts made of other materials.

Therefore a special attention is needed for textile artefacts so far as conservation is concerned. For extending the lifespan of artefacts, causes of damage should be predicted beforehand and preventive conservation measures must be taken up. When damage has occurred, appropriate treatment method is chosen following artefact's condition, so that it can be protected from further damage.

During the course of my research work I visited museums in various parts of India and carried out comparative studies of different museums. The work deals with an extensive study of past as well as present conservation techniques and practices by making the use of historical and technological information.

Survey was also undertaken to exhume and document the history of shawls. The museums were identified on the basis of the collections of textiles. It was also identified and surveyed

that how many museums have good collection of shawls. Based on that only those museum collections and few private collections were taken up for the study. Not much work was done in India in this direction and therefore, such study was required to be done to save the textile collection in Indian museums and in the private collections.

The research required an interdisciplinary approach and it involved curators, conservators, chemists, conservation scientists for the preservation of shawls. Considering these factors it was necessary to study the materials of the shawls, practices of conservation, techniques of display and storage in different museums. Based on these observations, discussions and data collections, researcher developed the correct techniques in all aspects in museum profession which enhanced the life expectancy of the shawl collections.

The Shawl, either woven, printed, knitted, crocheted or embroidered, has been a fashion accessory for more than two hundred years. It has also been a very utilitarian garment worn for comfort and warmth.

Indian shawls are warm, light-weighted and can be bought throughout the subcontinent. There are different materials which are used in the making of shawls in India (materials used in the past as well as in the present). Shawls are made from all sorts of wool, from lamb's wool to fibres woven from yak, pashmina goat and Angora rabbit hair. Many are embroidered with incredibly intricate designs.

Chapter 2: Review of literature

This chapter includes an inventory and review of literature pertaining to the historical review about shawls in India and its conservation practices in museums and private collections. The research was formulated with the key endeavour to conserve these precious mementoes for future generations to come and to implement its conservation methods. Fundamental information about fibres and structures that affect the long-term stability of woollen shawls has been studied. Both internal and external agents of deterioration have been discussed. A wide range of preventive conservation steps specifically related to textiles have been explored. Basic conservation interventions have been presented as well as demonstrated and issues in ethical decision making have been addressed.

This chapter comprises the data under the following heads:

1. **Theoretical Review**

- Historical Review about shawls which explains the shawls in different regions of India such as Himachal Pradesh, Jammu and Kashmir, Gujarat, Punjab and Nagaland.

- Fundamental Information about woollen fibre includes the data description under these subheadings. These are types of textile fibres, identification of fibres, the structure of wool fibre, dyeing of wool and physical and chemical effects on wool.

- Agents of Deterioration such as light and heat, temperature and relative humidity, biological attack, air pollution and disasters have been discussed in detail as well as its Preventive conservation practices have also been explained. Traditional practices for the control of insects, handling during transportation and storage environment, packing and shipping preparations while transporting, display and housekeeping has been elaborated.

- The methods of conservation documentation of the artefacts, Examination Report/Condition Report, Format for Condition Report, Photographic Documentation and Different conservation Processes have been explained following the processes such as Cleaning of Textiles (Wet cleaning, Dry cleaning), Stains Removal, Reinforcing or Strengthening of textile (Adhesive technique, Support technique, Stitching technique, Mounting technique) have been explained in detail.

2. **Research Review** has been done on the recent practices and innovations by the eminent scholars and scientists in the field of textile conservation. Following are discussed in detail and taken into consideration:

- Brennan (2005) undertook an experimental research for the anoxic storage for textile collections in Bhutan.

- Duff *et. al.* (1977) carried out tests under standard condition (50 degree C) and also at (20 degree C) with a washing formulation used in conservation work on ancient textiles. The research was conducted to check the fastness to washing of some natural dyestuffs on wool.

- Ford (1992) quantitatively monitored the extent of colour change associated with the display, under museum conditions, of Asian textiles over a three-month period by using a portable tristimulus colour analyzer.

- Brimblecombe *et. al.* (1992) studied wool and reduced sulphur gases in museum air.

- Reagan (1982) studied the various methods available for insect control on wool textiles. Study presented an overview of chemical and non-chemical methods of pest control applicable to museum and home use.

- Bresee (1986) examined the effects of five types of ageing on textiles. The types of ageing are physical, photochemical, thermal, chemical and mechanical which resulted changes in the original structure and material properties of textiles.

- Long *et.al.* (2004) studied the mechanism of pilling and tested the pilling of a series of worsted fabrics made from wool/ polyester fibres using circular locus pill tester. The process and mechanism of pilling was studied through the observation of fibre morphology on fabric surface by using scanning electron microscope.

Chapter 3: Methodology

This chapter deals with the information on various methodological aspects adopted for the research. The following steps discuss the detailed work plan sequentially. Information has been explained under the following sections.

- Pilot study for the collection of Preliminary Information: The international directory of Textiles collections compiled by the volunteers and staff of the Arthur D. Jenkins Library, The textile Museum was referred. The museums were selected on the basis of the textiles collection especially the shawls collection in them. Further, their contact information was recorded and mails were sent to all the private and government museums mentioning the purpose of visit and to procure the information related to the research. The researcher personally visited the textile laboratories in the country and conversed with museum professionals and conservators while consulting the literature of published works. The Methods of data collection, Research Design and Conceptual framework has been made.

- Locale of the study: Museums from all over India were selected on the basis of shawls collections in them. The museums were selected from the different states.

- Sampling Design: It was made by keeping in mind the overall concept of the thesis. The condition survey of Shawls collections by analyzing the reasons for deterioration and factors responsible for decay and their present condition in museums and with private collectors. Conservation of the shawl collection by providing appropriate remedial treatment (if needed) by the professional conservators and focussing on the preventive care to save the object from further decay and thereby enhancing the life expectancy of the object.

- Documentation of present condition of woollen shawls: To collect information on various aspects of conservation and preservation, the structured interview schedules for the museum curators, museum conservators, private collectors and conservators in private practice were made separately. These were prepared based on preliminary survey. The semi-structured interview schedule was made for the weavers to get an insight into the shawls making and its present trends.

- Analysis of present conservation practices adopted for woollen shawls: To expatiate on the existence of conservation practices, the generated collected data from the field and desk research through qualitative and quantitative method in the form of observation notes, verbal responses, conversations, documents and photographs were synthesized employing descriptive, documentary, content and trend analysis.

- Case Studies of woollen fabric samples was undertaken to assess the cleansing properties of Reetha and Synperonic 91/6, non- ionic surfactant over woollen fabric. The lanoline and glycerine were also studied to assess them on various parameters when applied as a protective coating over wool. Different scientific tools and fully equipped laboratories for textiles testing were referred for examination of the treated fabrics.

Chapter 4: Results and Discussions

The results and discussions have been explained under the following heads:

- Pilot Study: Since the researcher worked on various textiles such as Kalamkari, silk textiles, pichhwai, and thanka painting at INTACH, Delhi. Major challenges were taken into account while conserving and preserving the thanka painting and therefore, it was seen that a conservator should have an idea of the materials and techniques in order to decide the course of treatment of any textile.

- Present state of weavers from Himachal Pradesh, Gujarat and Kashmir: The weavers were personally visited to have first hand information on the weaving processes and these have been elaborated through the photo-documentation processes. The different issues and problems faced by the weavers and how can we preserve our tradition of shawl making has also been discussed by the researcher.

- Preservation Practices adopted by Museum Curators have been analysed on different parameters in terms of staff availability, type of shawls collections, documentation and digitisation, condition of shawls in museums, preservation supplies used for storage, display and handling, awareness towards technical terms., light, relative humidity and temperature control, biological growth and disinfection, the methods and materials used for housekeeping, Inspection and duration of changing the collection on display and cleaning of the showcases, museum activities, measures used to prevent fire/flood/theft in museum and remedial conservation facilities in museums. The data on the basis of above parameters was collected and interpreted individually taking into account each aspect separately and remedial measures have also been provided along with them.

- Conservation Practices adopted by Museum conservators have been analysed taking into account quite different set of parameters such as staff availability for conservation work, conservation documentation, deterioration of shawls, threats to shawls, bleaching method on shawls, conservation methods, scientific methods and examination techniques, preservation methods, materials used for conservation, code of ethics for conservation, dyes used for restoration, inspection of textile galleries and stores. The data was interoperated and it was seen that some of the museums still lack in the methodological and technological aspect of conservation in museums.

- The preservation and conservation practices adopted by the Private Collectors and Private museums were investigated in terms of staff availability, textiles collections,

documentation and digitisation, condition of shawls in museums, deterioration of shawls, preservation supplies used for storage, display and handling, conservators for treating the damage to textiles, awareness towards technical terms, light, relative humidity and temperature control, biological growth and disinfection, the methods and materials used for housekeeping, inspection and duration of changing the collection on display, museum activities, equipments used to prevent fire/flood/theft in the organisation, preservation methods and inspection of textile galleries and stores. On the underlying support of the generated data, the results were elucidated and private collectors were found more conservation and preservation friendly and equipped with the enhanced technology for preserving heritage as compared to some of the museums.

- Conservation practices adopted by Private Conservators was surveyed in terms of conservation documentation, deterioration in shawls/textiles, threats to shawls/textiles, bleaching method on shawls, conservation methods, scientific methods and examination techniques, preservation methods, materials used for conservation, code of ethics for conservation and dyes used for restoration. The examination report of the surveyed information was explicated and the problems scrutinized were rectified. The improved methods have also been provided in detail.

- Experimental set up was made to test the woollen fabric samples prior to the remedial conservation treatment of the woollen shawl in order to find the best method of treatment for the woollen shawl which was taken up for the remedial conservation work. These two tests have been mentioned below:
    - Test 1: Assessment of the sample test fabric for tensile strength, colourfastness properties and visual characteristics by using Sapindus mukorossi (Reetha) and Synperonic 91/6 (non-ionic detergent) as cleansing agents for aged woollen fabric. The fabric samples were subjected to ageing processes, and some samples were dyed by using acid, reactive and vat dye for the color fastness test. The interpretations were carried out by comparing both the methods for cleaning and by taking the readings for both the processes separately.

    - Test 2: Assessment of the sample test fabric for tensile strength, moisture regain, bending/stiffness and visual characteristics by using lanoline and

glycerine as the protective coatings over woollen fabric. In this process also the samples were subjected to ageing processes first and different percentages of coatings were applied on the test fabric samples. These samples were then analysed by passing them through different test methods and then comparing both the samples by taking the readings.

- Practical Approach to Conservation of the woollen shawl: The shawl which was 50-60 yrs old was taken up for the remedial conservation process such as cleaning, stains removal, flattening, reinforcing the damages, preservation coating and final rolling of the shawl for keeping it in the cupboard for storage by following the CCI guidelines for storing the textiles.

Chapter 5: Summary and Conclusions:

The brief summary of all the above chapters have been provided in this chapter and some conclusions have been drawn at the end along with the recommendations for further research for the amateurs, future scientists, researchers and heritage personnel.