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Fabric of Faith Faith in Conservation:

By Namita Jaspal

www.namitajaspal.com

Abstract

This paper describes methods of cleaning, mending and display for preserving historical objects of clothing. The examples used in the paper are garments worn by the sixth Guru of the Sikhs, Hargobind Singh ji, and 18th century Sikh leader Banda Singh Bahadur.

Keywords: Sikh, heritage, conservation, historic textile, preservation

Introduction

The entire “human belief system” is a complex mix of moral, political, religious and other social beliefs, formed in multiple ways (Cristofori and Grafman, 2017). “Science,” involving systematic study of the natural world, is a specific approach to shaping some human beliefs, and is often viewed as incompatible with aspects of human beliefs such as faith, but they can be two sides of the same coin, sometimes even incomplete without each other. The validity of this assertion can be visualized in situations where doctors report miraculous cures of incurable diseases because of belief or will or faith (Rediger, 2020). Taking this the other way round, if we take an individual object that is close to our belief system and want to preserve it for many generations, we need science and scientific methodology to do so.

I am a heritage conservator. In my career of more than two decades, I have seen many religious communities so emotionally attached to their heritage ‘objects of faith’ that they tend to miss the importance of taking the help of science, and professionals, in preserving them.

When we think of preservation of heritage objects of importance, we need to think beyond general repairs. Preservation and conservation is a specialized field which is multi-disciplinary, and requires knowledge and skills of many scientific and creative fields.

Heritage objects of faith must not be handled without the guidance of an expert conservator, or the guidelines provided by a qualified conservator. In this paper, I would like to bring to notice the damage done to some objects of faith because of inappropriate handling and attempts to repair by untrained people.

In this context, I will discuss the conservation of two fabric-based religious objects very close to the Sikh community. One is the *Chola saheb ji*¹ of the sixth Sikh Guru, Hargobind Saheb ji, and the other one is an *anrakha* of Banda Singh Bahadur ji, a Sikh leader of the early 18th century. A *chola* is a kind of long, loose shirt: in the Sikh tradition, it is often associated with martial attire, although it is also a unisex garment.² An *anrakha* is an outer robe with long sleeves.

The three areas of conservation that would be discussed here are:

1. Removing the unwanted and damaging deteriorogens added to or created over the course of the life of the object.
2. Adding strength to the deteriorated, damaged and torn fabric structure. Consolidating it for safer and healthier life ahead.
3. Protecting the sacred objects from further damage by usual deteriorating factors.³

1. Removing the unwanted and damaging factors from the revered fabric

In common language, this step is called cleaning. A day-to-day cleaning that we do at our homes or in the laundries is very much different from a well analysed and specific cleaning system and methodology created by a professional conservation team in a conservation laboratory. Let us try to understand the differences:

Routine cleaning of fabrics	Scientific Conservation grade cleaning
We depend on the washing instructions on the tag attached to the cloth	We do first hand basic to thorough scientific analysis regarding the characteristics and condition of the fabric.
Dry cleaning processes are not exactly dry, but are non-aqueous,	Dry cleaning is literally dry cleaning with dirt attracting sponges, soft

¹ 'Saheb' and 'ji' are both honorifics, or marks of respect, and therefore often added to the name of someone to be honored or respected. In this case, I also use it for the garment of Guru Hargobind Saheb ji, extending the distinction to that garment. Murphy (2012) provides a general overview of the significance of sacred material objects and sites in the Sikh tradition. Kaur (2019) argues against a binarized interpretation of, or discontinuity between, the material and immaterial in the context of experiences of the sacred.

² See https://en.wikipedia.org/wiki/Sikh_chola, where some paintings and photographs are also available.

³ A general discussion of issues of preservation of historic clothing, along with additional references, can be found in Marcketti et al, (2011).

which means with solvents or solvent mixtures other than water.	brushes etc. Solvent cleaning is done after careful study of the formulation that would work best. It may be done locally on the stained areas only.
Wet cleaning (cleaning with water) is usually carried out in automated machines or if with hand, it is done with more fabrics in a bucket where the fabric is not aligned flat. Commercially available soaps and detergents are used. We don't know their exact composition and their effect on the fabric. The composition is usually strong to give instant brighter results.	Wet cleaning is done in specially created trays to lay the fabric flat. It utilizes de-ionized or distilled or pH adjusted deionized water. Highly specific cleansing formulae with milder cleansing agents are developed specially for each stain.
Drying is done either in automatic dryers or in strong sunlight.	Fabric is dried with blotters and/or air dried.
No local cleaning of stubborn stains done usually. If done at all, it is done with commercially available strong stain removers.	Stains are treated with specifically designed stain removing systems and methods.

1.1. Cleaning of Chola Saheb ji of Guru Hargobind Saheb ji

Chola Saheb ji of the sixth guru ji is more than 400 years old and made of raw silk with loose and tight plain weave stripes. It had become very brittle due to natural oxidation of the fibers. To begin with, the fabric was very fine and thin; perhaps even when it was newly made. With time, it became more



Figure 1 Loose plain weave lost and repaired (past repair)

delicate and frailer. It has been exposed to natural weathering, with biological agents feeding on it, and to top it all, human vandalism, by cutting off pieces as a memorabilia of Guru ji! A lot of damage was done by thoughtless handling of the *Chola Saheb ji*. Most of the loosely woven stripes of the upper back were torn apart due to improper handling.

The brittleness acquired by the fibres made it difficult to handle the fabric as it would break at points wherever there was a little more stress created by handling. So, it could not be washed with the usual laundry methods.

What was required to be removed from the fabric?

1. Loose dirt on the surface and embedded in the texture of the fabric.
2. Accretions and stains at various places
3. Fungal infestation on the right arm.

1.1.1. Dry cleaning

To remove the loose dirt from the surface and the texture we used dirt attracting sponges and soft brushes.



Figure 2 Removing the dirt from the texture of the fabric with the help of dust attracting sponges.



Figure 3 Soft brush used to clear the loose dirt from



Figure 4 Dust attracting sponges before and after use.

The area with the fungal infestation was then cleaned and sterilized. The whitish stain caused by the fungus was left as such considering the fragile nature of the aged fabric.

1.1.2. Wet Cleaning

After removing the maximum amount of dirt with brushes and sponges for around three days, we had to decide upon wet cleaning because there was huge amount of oxidised grime that was still adhering to the texture of the fabric. This could become substrate for microbial growth later.

It was clear from the condition of the fabric that it could not take many rinses. So, the use of any saponifying agent was negated as it would have required many rinses to remove the agent. De-ionised water is an ion hungry solvent and would actively remove all ionic impurities from the fabric. To be very sure about our decision, we first tested cleaning with de-ionised water on a relatively small area of the right arm. Thereafter, the *Chola Saheb ji* was rinsed in de-ionised water once and it was quite effective in removing large number of impurities from the fabric.



Figure 5 Wet cleaning of a portion of the right arm



Figure 6 Wet cleaning of Chola Saheb ji with de-ionized water



Figure 7 Tray specially created for washing of the Chola Saheb ji

At this point, I would like to mention what happens in case the cleaning methodology is not analysed and planned scientifically. This can be illustrated with the following example where the *Chola saheb ji* of the tenth Sikh Guru, Gobind Singh ji, at a Gurudwara Saheb ji, near the river Beas, had been wet cleaned many times with usual laundry cleaning methods. The brittleness acquired by the fabric over the years cannot bear the casual handling of usual wet cleaning methods either by hand or by machine.



Figure 7 Chola Saheb ji, Patshahi Daswi(n)



Figure 8 Closer view of Chola Saheb ji

Comparatively, the cleaning results of the *Chola Saheb ji* of the sixth Guru ji, which was entrusted to experts in the field of scientific conservation, after approaching all possible organizations, was much better even though the fabric is a century older.



Figure 9 Wet cleaning has provided revival of some strength of the fabric by removing a lot of acidic components trapped in it.

Cleaning is one step in conservation which is not reversible and hence needs a lot of analysis to decide upon **what not to do** apart from what to do and how to do it.

1.2. Cleaning quilted Angrakha of Baba Banda Singh Bahadur ji

The quilted *Angrakha* of Baba Banda Singh Bahadur ji needed dry cleaning of a different kind as compared to the dry cleaning of *Chola Saheb ji* of the sixth Guru, Hargobind Saheb ji. This is because, in this case, the entrapped and engrained dirt was lesser, but there were more mud tunnels created by termites. This required a more local treatment to remove the mud tunnels and other accretions observed at various places.



Figure 10 Termite tunnel on the fabric

After removing the mud tunnels and other things including stapling pins, thumb pins etc., the *Angrakha* was tested for wet cleaning. The *Angrakha* is quilted



Figure 11 Cleaning effect of de-ionized water

and has a pattern pressed on to it to keep the cotton inside in place. This pattern is not visible throughout as it has got pressed flat at most of the places. We did not want to flatten this pattern further. We tried wet cleaning in a comparatively smaller area of the left arm. Finally, the entire fabric was given one round of wet cleaning with de-ionized water to remove most of the ionic impurities.

1.3. Stain reduction

Various stains were treated with different stain removing techniques. Most frequently used one has been Agarose gel treatment.



Figure 12 Gel treatment for local cleaning and stain reduction

2. Mending and providing strength

2.1. Mending the Chola Saheb ji of Guru Hargobind Saheb ji

In case of *Chola Saheb ji* of sixth Guru Sri Hargobind Saheb ji, the fabric is very fragile silk. A decision had to be made on the technique for mending and filling the gaps. The silk fabric of the robe needed support to resist further damage but was found to be too fragile to be treated by conservation stitch techniques. It was understood that using a needle and thread in so many places would have further weakened the fabric. So, a decision was made to use a mild, reversible and transparent adhesive for the repairs. The missing areas also needed to be consolidated using the adhesive method. The aim of this reinforcement was to hold together deteriorated fabric and thereby improve the physical strength of the silk support. Conservation adhesives can be activated either by heat, pressure or solvent. Since heat and pressure treatments can be harsh for the aged fabric, it was decided that a solvent-activated adhesive should be used. Research was undertaken before opting for the use of the solvent-activated adhesive hydroxypropyl cellulose, which had shown good results recently with overlaying of very fragile surfaces.



Figure 13 Consolidating the torn strips of the back with the help of almost transparent adhesive film over the dyed crepeline.

Pieces of silk crepeline were sprayed with distilled water on a polythene sheet, then they were aligned and coated with 2% adhesive solution. This was applied once with a soft brush and allowed to set and left to dry overnight. After that, the adhesive-coated support fabric was peeled from the polythene sheet and

applied over the weak silk fabric. It was reactivated using a solvent mixture of 1:1 ethanol/water.

2.2. Mending of Anrakha of Sri Banda Singh Bahadur ji

Two factors that were important in decision making for the filling of the missing areas and mending of *Anrakha* were:

- *Anrakha* was quilted.
- Major portions were torn away from the *Anrakha*, mainly the skirt area. Left side of the Chest area was also lost. All these need to be filled to get back the original shape of the Anrakhiha.

First, we searched for the cotton cloth with the similar thread count as the original one. Then we dyed the cloth in a similar shade.

Attaching the dyed cloth to the original in the missing areas was a challenge because we were not adding a backing or lining but recreating the lost areas. This addition had to go with the flow of the original fabric. We used the “conservation stitches” (derived from various embroidery stitches) to do this.

The self-couching stitch was used to secure torn, frayed, or weak areas to a new support fabric.



Figure 14 Self-couching to secure frayed, weak and torn areas.

Like the original, we created two layers in the missing areas.



Figure 15 Adding the double layer of cloth in the missing area.

We also created four blocks for outline and three colours of the motif and block printed the newly attached areas.



Figure 16 Printing motif like the original

It might be of interest to note that whereas the *Chola Saheb ji* could only be mended with adhesive method, the *Anrakha*, could be best treated by various stitches like self-couch and herring bone etc.



Figure 17 Lighter areas are the newly added fabric pieces

3. Preventive Conservation by preserving in microenvironment-controlled display cases.

After proper treatment, objects need proper housing where they won't be subject to the deteriorating factors. For the very first time in India, we tried to work on micro-environment-controlled display cases and storage cabinets which were within our budget and according to our local environment conditions. We started working on their study and design around 2012 and created our first micro-environment display cases in 2019-2020.

We basically create a dust-free enclosure with humidity managing system installed. The display case for *Anrakha* and *Chola saheb ji* is getting ready to be installed in 2023. Following are the pictures of one such display case created by us.



Figure 18 Display cases with controlled micro-environment.

Final words

Science is that part the human belief system that is based on systematic analysis – theoretical and empirical – of the natural world. Religion is a very different component of the human belief system, but science also helps preserve the tangibles of a religion. Religion is that which we can barely understand in a limited way, and those tangibles are an aid to comprehension. All the tangibles of all religions are extremely important to be preserved further, to remind us of the underlying oneness of all life and beyond. While it may be difficult to read this reminder from religious tangibles, conservators can play a part by increasing the tangible life of sacred and religious objects.

References

- Cristofori, Irene, and Jordan Grafman (2017), Neural Underpinnings of the Human Belief System, in H.-F. Angel et al. (eds.), *Processes of Believing: The Acquisition, Maintenance, and Change in Credictions (New Approaches to the Scientific Study of Religion 1)*, Cham, Switzerland: Springer, 111-123.
- Kaur, Inderjit N. (2019), A Multisensorial Affective Ecology of Sonic Worship: The Sikh Sacred Song Culture, *MUSICultures*, 46(2), 109-133.
- Marcketti, Sara B., Fitzpatrick, Janet E., Keist, Carmen N., and Sara J. Kadolph (2011), University historic clothing museums and collections: Practices and strategies. *Clothing and Textiles Research Journal*, 29(3), 248-262.
- Murphy, Anne (2012), *The Materiality of the Past: History and Representation in Sikh Tradition*. New York: Oxford University Press.
- Rediger, Jeffrey (2020), *Cured: The Life-Changing Science of Spontaneous Healing*, New York: Flatiron Books.