The Treatment of a Block Printed "Palampore" Textile

Jacquelyn Peterson

NEH Graduate Fellow, Class of 2018 Winterthur / University of Delaware Program in Art Conservation

Advisors: Joy Gardiner, Kate Sahmel, Richard Wolbers

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Printed Textile (Palampore)

ca. 20th century Privately owned Accession Number ACP 1669

9'8"



Bed Cover (Palampore) 1730-1760 Winterthur Museum Accession # 1957.1290







Printed Textile

Cross Section Sample 4

Ultraviolet illumination 100x magnification

Textile Fiber Bundles

Top Coating

100 µm

Coating Analysis

Top Coating Bottom Coating

Textile Fiber

Bundles

100 µm

6

Gas Chromatography-Mass Spectrometry (GC-MS)



Spectrum courtesy of Dr. Chris Petersen



Tacking margin holes



Printed Textile (verso)



Removal of lining





Printed Textile

Before Treatment







Next Steps



Emulsion Cleaning 60% Ecosurf EH-9 30% Benzyl Alcohol 10% DI water, pH 8	 + reduced coating and soiling + textile became more flexible 	 clearance was a major concern materials cost and availability
Enzyme + may reduce - testing showed		
Treatment	second coating to	limited change

Ireatment		
Lypase or amylase in a	allow access to	in the coating
2.5% MC poultice, pH 7	soiling	

Wet Cleaning	 may reduce	 coating isn't
1% sodium laureth	coating and soiling	water-soluble
sulfate 0.5% sodium citrate 0.1% CMC	+ time efficient	 dirt is trapped under coating

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The Treatment of a Block Printed "Palampore" Textile

- 1. Cover slide
- 2. This 41-square foot printed textile is privately owned, and had been purchased by the owner at auction as a late 18th century Indian palampore. A palampore is a single panel of cotton that has been hand-painted or printed with mordants and resist-dyed. They were made in India and used as bed covers or wall hangings. They were very popular in the western world during the 17th and into the 18th century.
- 3. However, comparison of this textile with palampores of known origin shows that it is not likely from the 18th century. The line quality of the printed textile suggests that it was block-printed rather than hand painted, the dyes are far more muted in color, and the fabric is of a coarser weave than the fine cotton of traditional palampores. This evidence suggests that the textile is likely a 20th century creation. It may be related to a resurgence of interest in historic painted and printed Indian textiles during the first part of the century.
- 4. Prior to treatment, the surface of the textile was discolored by the application of an unevenly applied and severely yellowed coating. The coating created differential gloss across the surface and obscured the printed image. It also made the textile extremely stiff.
- 5. Examination of cross-section samples illustrated the presence of two coatings.
- 6. Analysis of a sample with GC-MS identified the top coating as a mixture of tree resin and drying oil, and the bottom coating as a gum-based material.
- 7. Pine resin and drying oil mixtures were used as varnishes for paintings, and associated evidence on the textile like fold lines and holes along the edges suggest that it may have been stretched and varnished like a painting.
- 8. Before treatment the textile had a cotton lining that was applied to the verso with a failing adhesive. The lining was stained and likely a later addition, and did not offer any structural support to the textile. As such, it was mechanically removed.
- 9. Cleaning tests determined that the top coating on the printed textile was soluble in ethanol. I considered several options for solvent delivery. A 5% agarose gel soaked in solvent proved to be highly effective, but the materials cost of the agarose for such a large surface was

prohibitive. As an alternative, I applied ethanol-dampened pieces of cotton flannel to the surface under weights. The solvent solubilized the coating and capillary action pulled it up into the sacrificial fabric.

- 10. The whole coating was removed this way, which was very efficient and allowed me to work on large areas at a time. This step of treatment brightened the printed image but accentuated the soiling trapped in the weave of the textile and the mildew staining in the top quarter. The textile also remained very stiff.
- 11. The next phases of treatment will aim to remove the remaining coating on the textile and reduce the embedded grime and soiling, and I am considering several options. Here you see the results of the cleaning methods that I've tested along with their associated drawbacks. I'm currently exploring the use of an enzyme to break down the coating so it can be removed with aqueous methods. Treatment will also address the mildew staining and structural concerns.
- 12. The treatment is still very much in progress, and I'd like to thank everyone listed for their help and support in this huge undertaking!