TREAD ON ME!

STRUCTURAL STABILIZATION WITH VISUAL INTEGRATION OF HOOKED RUGS: A TECHNIQUE FOR FILLING LOST PILE

Introduction
Historic New England preserves numerous handmade rugs within their original context in the Beauport, Sleeper-McCann House in Gloucester, Massachusetts. These rugs are an important element of the interiors designed and animated by Henry Davis Sleeper (1878 – 1954). Sleeper, a renowned decorator of the early 20th century, was an influential contemporary of Boston’s Isabella Stewart Gardner and Delaware’s Henry Francis DuPont.

The complex restoration history of this collection, maintaining its role in Sleeper’s interior scheme, and the requirements for minimizing treatment time & material cost for a large collection were influential in the development of the treatment techniques described in this paper.

Project Scope
This treatment was developed for damaged rugs that are actively being lost pile. It was designed to meet three specific objectives: to create even surfaces to minimize stair hazards and to ensure visitor safety; to stabilize rug components to avoid additional losses; and to reduce damage while reproduction options are implemented.

Production and installation of rug pads, specified & designed by consulting textile conservator Deirdre Windsor, serve to reduce compression damage to the rug structure while they are on display. The use of polyester felt fills/to place missing pile minimizes the risk of visitor tripping and potentially tearing rugs.

Previous Repair
Rugs in the collection have been subject to past repair campaigns that have introduced edge bindings and unsupported stitched repairs. These methods have included restoration techniques that removed original material in order to facilitate introducing new patches of hooked wool pile. Generally, these repairs are left undocumented and are not easily reviewed.

The technique
Durafelt, a needle-felted polyester felt, was selected because:

- nonwoven structure mimics the worn & abraded pile
- cut edges don’t require finishing
- available in many durable colors
- the fibers are extended to stabilize & last
- the technique is easily adapted to filling

First, tears and holes are bridged with a grey plain weave cotton backing. The weave direction is aligned with the weave direction of the rug substrate. The uniform color signals to later conservators that the component parts are part of a stabilization campaign.

Two approaches to filling were developed to suit the diverse pile topographies present in the collection.

Method One:
For rugs with some depth of pile, a felt plug formatted using the hooked-rug technique worked best:

1. Strip of polyester felt is hooked into a substrate of Monk’s cloth, an open, non-looped plain weave with quadrupled cotton warp and wefts.
2. The hooked felt is checked for loop size, depth & trailing.
3. Although Durafelt comes in a variety of colors, PROfab textile paints can be used to replicate colors in the design.

Method Two:
For rugs with pile that is significantly abraded and/or compressed, layers of felt shaped to the area of loss, are used to fill and plug the area.

Observations & Conclusion

- During the recommended heat curing (PROfab textile paints can darken, shifting the colors). This can complicate color matching.
- The polyester felt market is shifting toward 100% recycled content, making virgin polyester harder to find. Frequently as part of the recycling process substrates are introduced to materials whose aging properties can be unintended and unpredictable. For polyester, the preferred recycling method uses mechanical shredding and re-melting of the polyester rather than chemical digestion. Sample colors of recycled and virgin content Durafelt passed preliminary Odity testing. This suggests that Durafelt uses mechanically processed polyester sources.
- The technique presented in this poster adapts elements of a documented restoration technique, re-hooking lost design elements, to conform to conservation practices in both material use and implementation.

Future Work

- Develop a filling technique for areas where pile is gone but substrate remains.
- The treatment approach described above is part of a larger project that concerns the overall preservation of hooked rugs within the Historic New England collections. In tandem with treatment, Historic New England staff are active in:
  - surveying rug conditions & producing rug pads to protect them
  - acquiring & improving protective case performed by site staff
  - planning & creating suitable housing for hooked rugs in storage
  - ensuring all textiles in Historic New England properties wear shoe covers to protect their surfaces & coverings.

Material Sources

PROfab 12 oz. needle-felted polyester felt
Available in 45 colors, 2” x 48”
From Central Stopper, Inc.
60 Main St. Rd., Bloomington, MN 55420
Tel. (800) 631 – 8968 Fax. (973) 838 – 8723
www.profabpeople.com

PROfab Textile Paint
Available as a sampler paint kit containing 7 colors, 1 oz each from PROfabichem & Dye P.O. Box H. Summer MA 02766.
Tel. (305) 225 – 9933 Fax. (508) 976 – 3990
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Monk’s cloth, plain weave cotton, crochet hook

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References Consulted


Bogdan, A. R. 1922. The repair of hooked rugs. The Magazine Antiques; 2nd August: 68 – 70. The article documents a restoration technique that was likely used to repair portions of the HNE collection judging from evidence.


Roberts, L. and D. Thickett 2005. A New Methodology for Accelerated Compression Testing. Textile Conservation: 46(2): 183 – 90. The authors describe how they modified the Tensile test to incorporate three metal coupons into silicone strips to create a ‘3 in 1’ test to derive faithful results.

Soloy, L. S. 2011. Personal communication. Department of Canadian Heritage, Canadian Conservation Institute, Ottawa, ON Canada.