Figure 1

Painted Rush Seats

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ABSTRACT: In the past rush seats were frequently removed and replaced with a variety of materials. Both documentation and microscopic cross sections reveal that many of these seats were originally painted. It is difficult to repair old rush and to blend the repairs with the original rush. If painted rush is appropriate, the paint can facilitate blending the conservation treatment with the old materials.

Introduction

OVER THE PAST SEVERAL YEARS THE furniture conservation lab at Peebles Island Resource Center[1] has treated several fiddle back chairs that have inappropriate or damaged rush seats. *(fig. 1)* Most of the chairs date from the middle of the 18th century and many were made in New York City. Despite some rough histories, original seats and finishes, including stamps, survived on a few of our chairs. A prolific maker was Jacob Smith from New York City[2] and several of our chairs either had a legible Smith stamp or could be attributed to him.

Although the replacement seats could not be used in a house interpreted for a specific time period, they did have historic interest. For example one chair had a beautifully aged seat of bark, possibly from an elm tree. The majority of the chairs had the back splat and crest rail reversed so that the bevel on the edges faced front. In a few instances the splat was not only reversed but also upside down. This type of restoration we have found on other styles of chairs and seems to be associated with a mid-20th century aesthetic. As to be expected with these extensive modifications, the original finish was heavily compromised on these chairs, including one chair that had been completely painted with metallic copper paint.

The interpretative goal was to unite disparate chairs to form sets in two different historic rooms. Since the chairs were to be returned, in some cases, to a room with a narrowly interpreted time frame, it was important that they not only accurately represent the original maker's intent, but also appear to have aged along with the rest of the furnishings in the house. Although the splat/crest rail problems were not too difficult to correct, the rush seat variations presented more of a treatment problem. The present inappropriate seats could be removed of course, and new rush seats applied,[3] but they were still leafy green. Although the materials and techniques were appropriate, they lacked age and appearance. What did they look like when delivered to the 18th century client? Were they delivered green or allowed to dry for a few weeks to attain the mellow brown we associate with rush? Modern practice, perhaps influenced by an Arts and Crafts aesthetic, tends

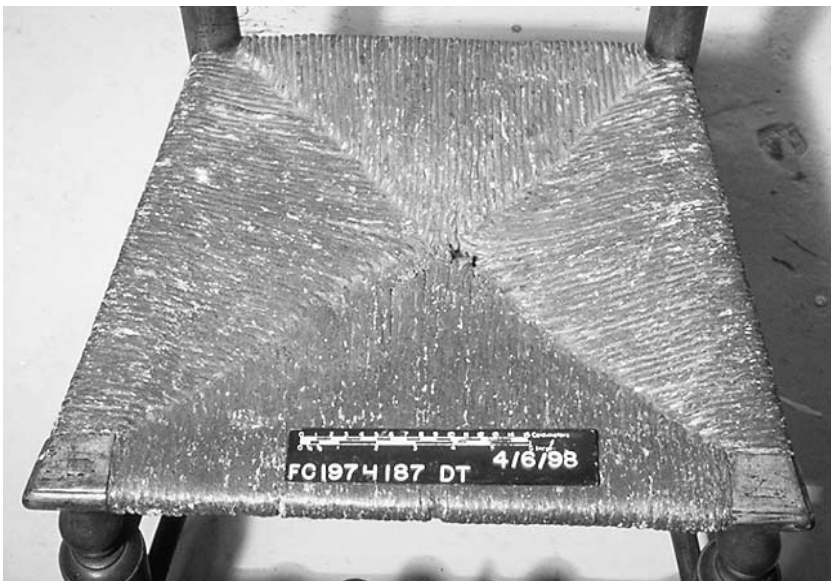

Figure 2

to leave rush seats *au naturel,* however several old chairs in our collection, (*fig. 2)* and also the collection of the New York State Museum, Albany, NY, have examples of fiddle back chairs with what appears to be the original seat covered with several layers of paint. None of the how-to manuals we consulted mention anything more than a coat of varnish to protect the seat. Was paint the original finish treatment or a later "improvement"?

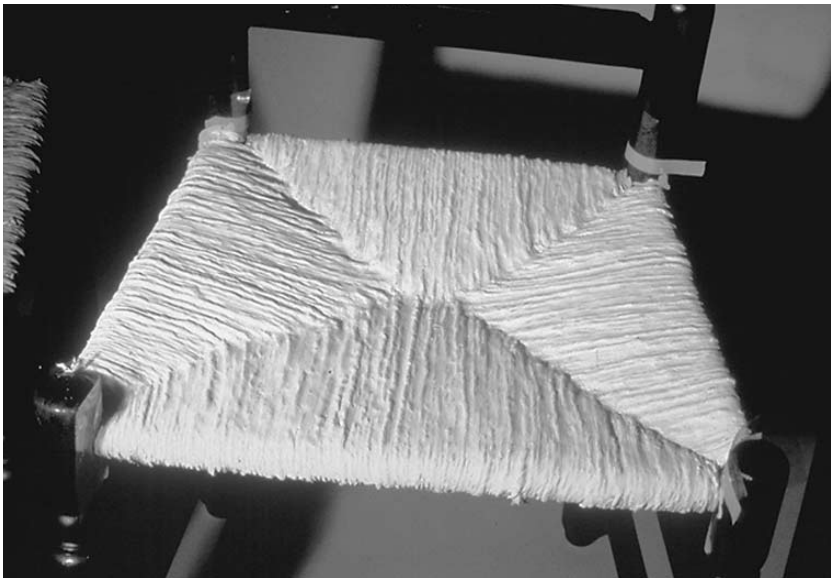

Figure 3

Documentation

Cross sections revealed that although repainted many times, the earliest layers had large pigment particles of various sizes which is typical of early hand ground paints and suggested that the seats were originally painted. This was supported by some early documentation, in particular Thomas Sheraton's *Cabinet Dictionary:*[4]

> Of Painting Chair-Seats
> Rush-bottom chairs ought always to have their seats primed with common white lead, ground up in linseed oil, and diluted with spirits of turpentine. This first priming preserves the rushes, hardens them; and to make it cheaper, the second coat of priming may have half Spanish white in it, if the price require it. The third coat should be ground up in spirits of turpentine only, and diluted with hard varnish, which will dry quick; but should not be applied till the priming be perfectly dry. Of this, probably the seats may require to have two lays, to make the work firm. A very small quantity of turpentine varnish may also be used for cheapness and to keep the spirit varnish in a more flowing state but the less it is used the better, since it is of such a quality as makes it very subject to turn soft and clammy by the heat of the body, when the chairs are used to sit on; especially, for some time, at their first use. They who use any kind of water colour for rush bottoms, entirely deceive the purchaser, for it rots the rushes, and by the sudden push of the hand upon the seat the colour will frequently fly off…

Sheraton implies two things: the paint hardens the rush and makes it last longer. The first two coats that Sheraton discusses might be fairly thick and work as a primer and a filler. The description of a third coat of paint thinned with varnish suggests a final glossy and saturated appearance. Note that Sheraton, at the end, supplies a handy consumer tip to determine if the paint job was well done.

Painting obscures some but not all of the finer detail of the twisted rush as well as filling the spaces between the cords. With our chairs, multiple later coats of paint obscured even more of the details, but still it was not hard to envision what Sheraton described. At the Shelburne Museum, Shelburne, Vt. (and probably at other locations) there are some examples of early painted rush that could be used as a model. At Lorenzo State Historic Site, near Syracuse, NY, there exist several Federal period chairs that have been minimally repainted and might also serve as models. Balloon seat fancy painted chairs more often survive with painted seats. These later chairs also tend to have finer rush (more cords/inch) than the fiddle backs, and perhaps represent the apogee of the craft.

Painting rush is intuitively practical. Not only will it make the seat harder and last longer, it also would be easier clean. This would be especially advantageous if rush seats were used for dining; it's not hard to imagine food-infested rush seats as being undesirable. More speculatively, in the 18th century, painted rush seats may have been

desirable for aesthetic reasons since they were more "artifice" and less "natural." An aesthetic advantage could be the dramatic color they might add to the room. A row of polychrome seats around the perimeter of a room would be a very striking decorative addition.

Although some chairs at the New York State Museum have colorful painted seats that are old, the top layer of paint is not original. To investigate this further we scraped bull's-eyes in the rush of one of our chairs, and it did appear to have a pale yellow early seat. Cross sections of the paint revealed a layer between the rush and the seat that might have been an alternative technique to fill the rush before painting.[5] Although these investigations confirmed the possibility that paint other than white might have been used, much more work needs to be done to determine how frequently this was chosen as an option. Most of the chairs that we have seen, that were not subsequently painted over, were painted a simple white.

Treatments

Brand New Replacement Seats

The best conservation treatments combine a thorough understanding of both historic techniques and modern materials. The treatment of missing or inappropriate seats was more straightforward knowing that painted rush seats on fiddle back chairs were a valid option in the 18th century. Now, not only could the rush be restored with new materials (either natural or fiber rush), it could be painted to match practically any period of interpretation. For example, rush that was to imitate a 100-year-old appearance could be sealed with B-72 or shellac and then coated with DAP spackle or Polyfilla. (*fig. 3)* Any number of layers of paint could be simulated depending on how much filler was used. A chair that might want to look a little younger could be given a couple of coats of Liquitex acrylic gesso and then painted. On some chairs to imitate an aged appearance further, a varnish coat tinted with raw umber or other pigments was used over the paint.

In these treatments a modern synthetic gesso or spackle imitated the two coats of lead paint mentioned by Sheraton. In theory the modern materials were reversible with water or solvents. Reversibility, though would not be complete since large amounts of the fill and paint would be embedded in the texture of the rush. More practically, the entire replacement rush seat could be removed if the treatment was eventually unsatisfactory.

Many old chair seats have a delightful sag with the rush flattened at the rails. (*fig. 4)* Like wood, rush shrinks across the grain and very little along the length. As a result the seats do not tighten as they dry, but loosen. Some of the physical aspects of aging could be simulated with various techniques before painting. For example while the rush is green, the seat can be weighted, assuming that the frame is strong. Although this introduced only a slight sag, it was still better than a pristine flat seat. The indent of the seat is also a function of how the seat is stuffed when it is made. To imitate the flatness of old rush bent over rails, green, damp rush could be pressed with cauls and clamps. All these techniques have to be

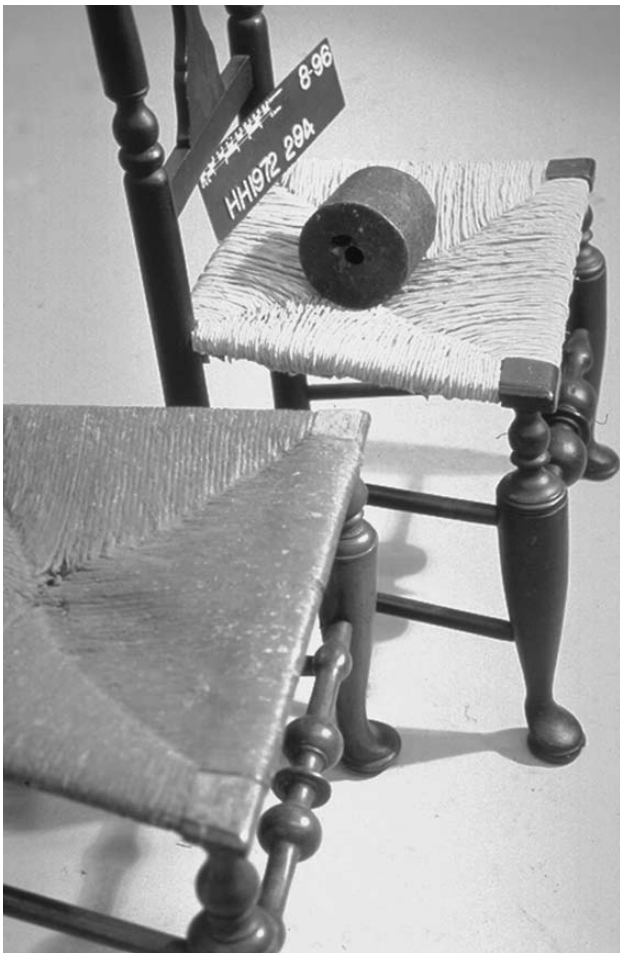

Figure 4

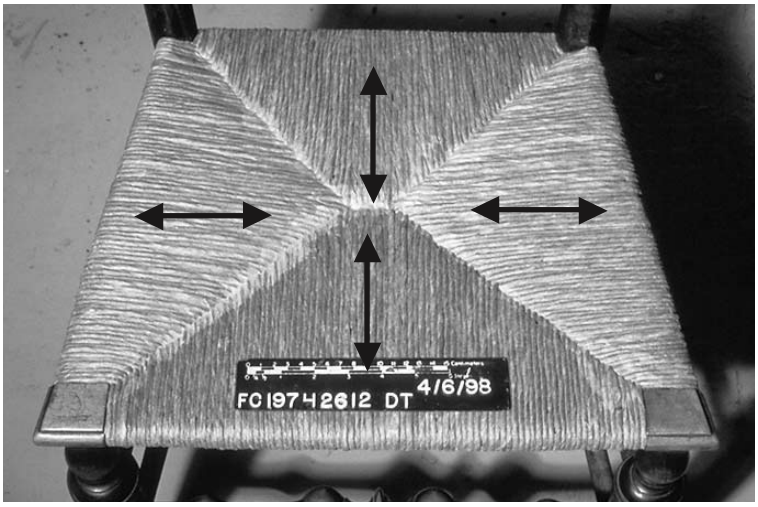

Figure 5: Use a brush to lay down the paper and force it into contact with the rush. It is important to orient the grain of the paper in the direction of the arrows. Otherwise it will not stretch and conform to the rush.

used judiciously since they could be damaging to the early, historic parts of the frame.

Old Replacement Seats

Although the use of commercial paint/fillers such as acrylic gesso and other mixtures worked with brand new material, we hesitated to use it on rush that was in good shape and old but *not* original. The rush might be only be 30 years old, but it was very similar in many respects to the original. For that matter the rush job was probably better than what we could have done, if we did it over. It also had historic value since it was part of the history of the piece. Finally the chair frame had a marvelous original finish that conceivably could be damaged if the seat was removed and replaced.[6] For these reasons we wanted to keep it, but at the same time devise a reversible paint treatment that would be less intrusive than the materials used above.

In this case we coated the rush with several layers of B-72 and then, working with the Peebles Island Paper Conservator Marie Culver, Pamela Kirsch–ner laid wet strength tissue over the rush using wheat starch paste. (*fig. 5)* As the paper shrank and dried, it closely adhered to the rush and allowed a very satisfactory amount of detail to telegraph through. We tested this method ahead of time and found that the paper served as a barrier that was removable after painting. The rush surface after the test removals was not ruined by the technique, and except for pin holes, the paint did not penetrate the rush. Of all the fill restoration techniques we tried, this appeared to be the most satisfactory in terms of ease, final appearance, and reversibility. Although we used the paper barrier as a treatment on a non-painted replacement seat, it would also be suitable for a flaking original seat. For example, after consolidation the paper could be cut to fit areas of loss to serve as both a barrier and as a filler of the rush texture.

Damaged Original Seats

Frequently chairs arrive in the lab with surviving paint and rush, but the rush is broken. Often it breaks along the front seat rail. (see *fig. 1*) Knowing that painted rush seats may be documents of earlier practices makes it doubly desirable to save them by repair vs. restoration. Unfortunately the old material is very brittle, and it is virtually impossible to twist or tie new rush to old. This is especially a problem under the seat where the rush leaves are not twisted and have the integrity of autumn leaves. Attempts to rehydrate old rush more often leads to dissolution. Finally, on a seat that

Figure 6: Reused paper rush has been untwisted at the end to form a cone and glued to the old rush. Thread lassos are used for clamps.

Figure 7: A low-quality paper with short fibers and good color was used.

has both broken rush and flaking paint, it is hard to imagine how the repair, however it is achieved, will blend with the rest of the seat.

Knowing that painted seats were a period choice allows for more treatment options, since the repair can be painted to help blend it. Fiber or paper rush can be used as a natural rush substitute, and, if anchored to the old strands, is a convincing repair material. In one instance the end of the paper rush was untwisted to form a cone in the end. The broken end of the old rush was inserted into the cone and glued with Jade 403. (*fig. 6)* Under the seat the replacement piece was simply glued to the seat rail. The first problem with this approach is the added bulk created with the cone splice. To reduce the bulk, some of the paper can be torn off but frequently there is still a bump at the splice. Another more serious disadvantage is that since commercial paper rush is only twisted one way ("S" twist) it can only be used on the proper right side of the seat. On a natural rush seat the twist changes direction at the centerline. On the proper left the strands of a natural rush seat are "Z" twist.

To alleviate these problems, imitation paper rush can be made by first dampening Japanese paper with 50:50 water:ethanol. (*fig. 7)* Then accordion pleat it before twisting. A better method of splicing the pieces is to butt the new piece to the old and then wrap the join with another piece of torn flat paper. Jade 403 slightly thinned with water was used as an adhesive. As the glue and the paper dries, it shrinks and the texture of the new and old twists telegraphs through, blending the repair. Again, under the seat, the easiest way to hold the end in place is to glue it to the underside of the seat rail. Although paper rush repairs have the texture of old natural rush, they never will match the color unless painted as described above. (*fig. 8)*

At this point the top of the old seat may be acceptable but the underside probably has several loose leaves hanging down. To hold them up in place and provide protection from handling, Stabiltex painted with acrylic colors can be used. After cutting to fit, monofilament fishing line threaded through the old rush will anchor the Stabiltex in position.

Conclusion

Knowing that rush seats were frequently painted historically opens the possibility of many treatment options. Replacement seats can be restored with a variety of fills and paints. Old, salvageable seats can be protected with paper and then painted. Finally repairs can be covered with paint and thereby make ravaged old seats presentable.

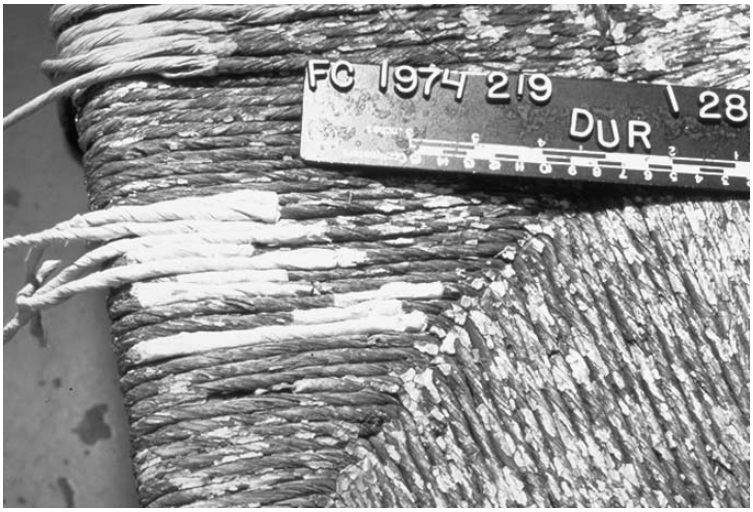

Figure 8: The reused paper rush is at the top and the homemade, lighter rush is at the bottom. Note the direction of the twists on each side of the centerline. Also note that the homemade rush was spliced between the two broken ends of one strand.

End Notes

1. The Peebles Island Resource Center is located in Waterford, NY and is the conservation center for the New York State Bureau of Historic Sites, a part of the Office of Parks, Recreation, and Historic Preservation. Peebles Island provides specialized conservation services for 35 historic sites.

2. An excellent description of Smith and related New York chair makers can be found in Morrison Heckscher *American Furniture II: Late Colonial Period* (Random House: New York), 1985, and John Scherer *New York Furniture at the New York State Museum*, (Highland House: Alexandria, VA) 1984.

3. On the chairs that we did this, I was assisted by Jennifer O'Neil, an intern from the history program at SUNY-Albany, and Ruth Potter, a friend and long-time Peebles Island volunteer.

This is an interesting process, especially if you gather and dry your own rush. I recommend it for anyone who truly wants to understand historic furniture technology. There are several books available and many different ways to make a seat. Consult as many as possible and then mix and match to develop a technique that makes sense. As Nancy Britton mentioned ("Basket Cases: Two Upholstery Treatments composed of Plant Materials," *The Textile Specialty Group Postprints* Nashville; 1994), the book by John Tarrant Kenney, *The Hitchcock Chair,* Clarkson N. Potter; New York, 1971 has wonderful pictures of people making seats in a mid-20th century factory (notice their jigs and fixtures) and also happy people harvesting rush.

4. p. 422. Reprinted by Praeger Publishers vol. II, New York. I thank Jeff Dunbar, a preprogram intern at the time, for finding this reference.

5. Pamela Kirschner, a 1998 Winterthur Fellow at Peebles Island, did the microscopy and scraping for this project.

6. There was also a clear coating on this seat, similar to the varnish or glue size mentioned in the modern how-to manuals. Hopefully this was also protected by the B-72.