Figure 1

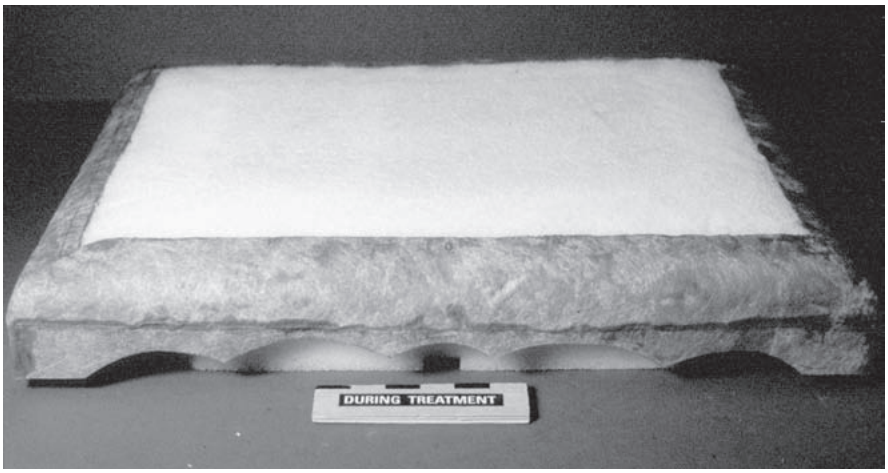

Figure 2

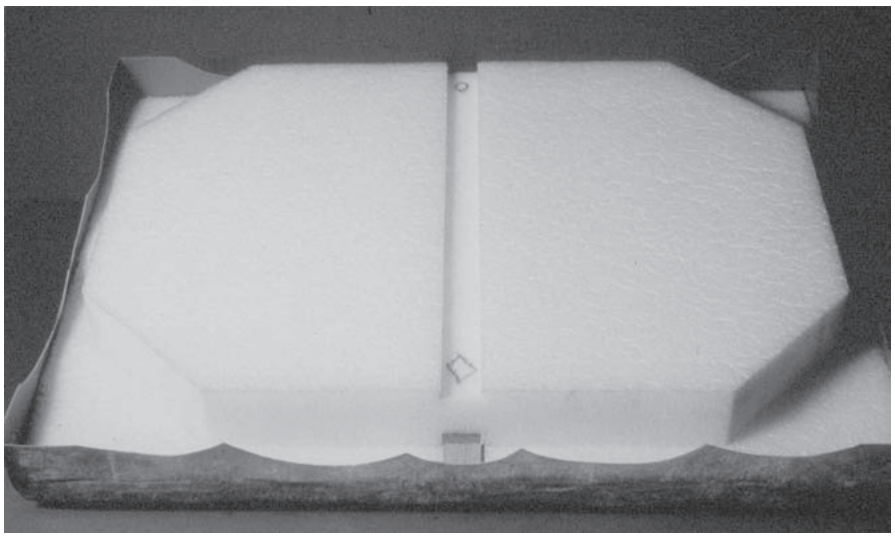

Figure 3

Tips on Removeable Upholstery caps & Backing Fretted Panels

Mark Harpainter, furniture conservator in private practice, Berkeley, CA

A Removeable Upholstery Cap

This tip demonstrates the use of a semi-rigid material for creating a removable "cap" or armature for the tackless and non-invasive re-upholstering of seating furniture incorporating a visibly tacked, partially over-the-rail show cover.

Creating the illusion of a neat and snugly-fit show cover with a visible mid-rail tack margin without any actual attachment of new foundation or covering to the frame is a tricky and potentially vexing problem in upholstery conservation. The addition of a serpentine-shaped tack edge adds another layer of intrigue.

Many will be familiar with Mark Anderson's encounter with just this problem on the famous Cadwalader side chairs at Winterthur. His elegant solution (written up in the 1989 WAG Postprints) used a somewhat brittle fiberglass and polyester resin, stiffened with carvable epoxy paste, to form the cap's apron down to the tack margin. Leroy Graves at Colonial Williamsburg has used complex systems of fabricated copper caps in similar situations; others have relied on polyethylene with stitched-on linen sheaths as Joe Twitchell has described. (I don't believe the latter can be slipped off and refit without quite a bit of re-sewing and fabrication).

The sleight of hand required is to achieve the illusion of a tight, securely tacked edge at the margin of a snug and neatly fit show cover, with no puckers, bulges or gaps to give the deception away. To achieve this with no tacks, fastenings or attachment to the original frame requires a material which is quite thin and has just the right balance of rigidity and flexibility. In addition to being minimally intrusive to the original frame, this type of simple cap allows removal for study.

To re-upholster an early 18th-century French stool for the Fine Arts Museums of San Francisco, a thermoplastic resin sheet called "Altraform," used for theatrical masks, props and armatures, was chosen in place of the fiberglass apron used by Anderson on the Cadwalader chairs, and attached to an Ethafoam support. Altraform is available in sheet form and softens at 140–160° Fahrenheit. It also adheres to a variety of materials, including itself, if a scrim laminated to one or both sides is removed. A block of Ethafoam was shaped to fit inside and over the top of the wood

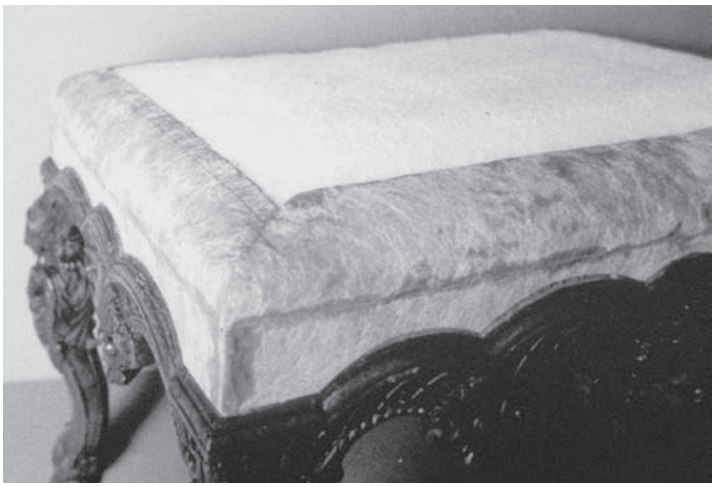

Figure 4

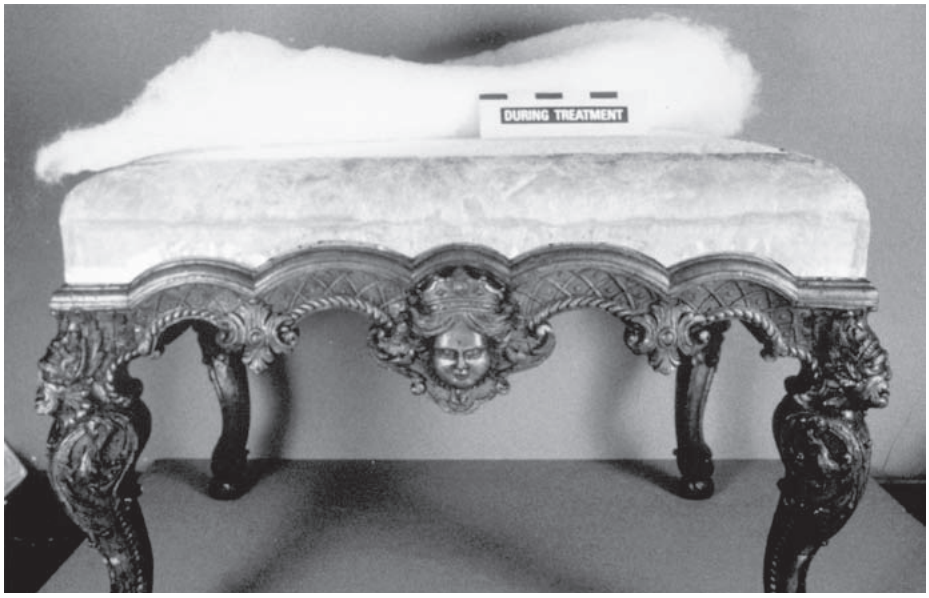

FIGURE 5

frame. An integral strut of oak was incorporated in the Ethafoam, resting on the top of the frame rails to prevent collapse if excessive downward pressure was inadvertently put on the seat (fig. 1). Pieces of the thermoplastic sheet were roughly cut to shape, softened in hot water and fused onto the perimeter of the Ethafoam (figs. 2 & 3). The thermoplastic apron was then molded to fit the frame rails and trimmed to fit the shape of the tack margin. The corners were reinforced with another thickness of the Altraform to stiffen them, and the final adjustments made to the shape with a heat gun (fig. 4). The rest of the application was straightforward—polyester batting for loft and final form and show cover fabric and trim attached along the edge of the thermoplastic cap using BEVA film, set with a tacking iron (fig. 5). The result was a very convincing looking seat cover, which easily slips off and (with some care and the judicious use of a thin spatula for the pointed scallops) back in place over the frame (fig. 6). The material has great working properties and is simple to use.

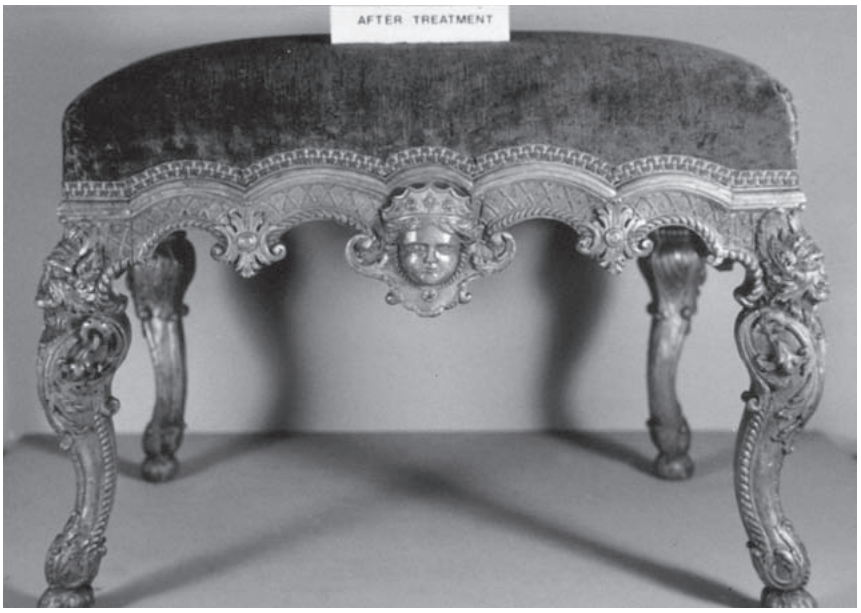

FIGURE 6

This treatment was carried out 6–8 years ago and examination of off-cuts from the thermoplastic sheet now suggests potential embrittlement problems. A check with the local supplier seems to indicate that the problem may be isolated to bad batches in the manufacturing process. (The supplier has noticed the same problem with some sheets, but not others. Even though they have been on his shelf for almost the entire time since the treatment was done, some are still very flexible, some not.) Also since the treatment, other new forms of the material have become available. Some are: impregnated fabric, netting, soft felt-like material and a rigid plexiglass-like material that comes in both perforated and solid sheets (four thicknesses 1.5 to 4.5 mm), as well as pellet form. Recently the Oddy test was done on some samples at the Getty Conservation Institute and they were found suitable for exhibition purposes. Eventually, information from more comprehensive analysis would be useful. For now, given the alternatives, and the simplicity and performance of this material, it seems to show real promise for upholstery conservation applications.

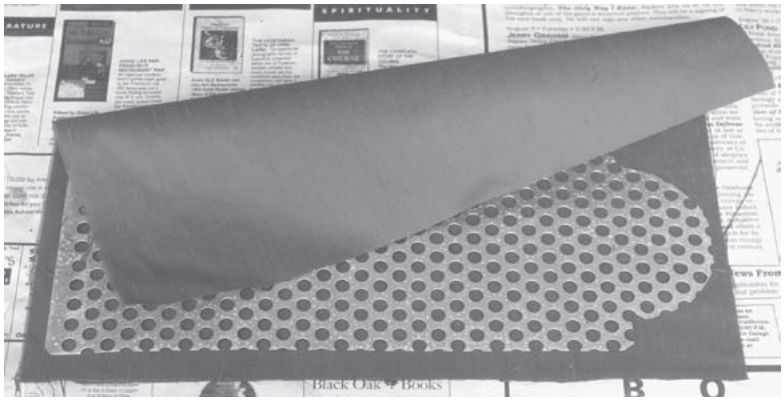

FIGURE 8

TIP 2: BACKING FRETTED PANELS

Tip number two simply uses a thin perforated aluminum sheet to provide a backing or reinforcement for the delicate fretted wood panels, often cracked or broken, commonly found in clock cases (fig. 7). It can be hidden between silk fabric, commonly used originally to back the panels, to conceal it and provide the correct look (fig. 8) without muffling the sound of the chimes if the clock is running (fig. 9).

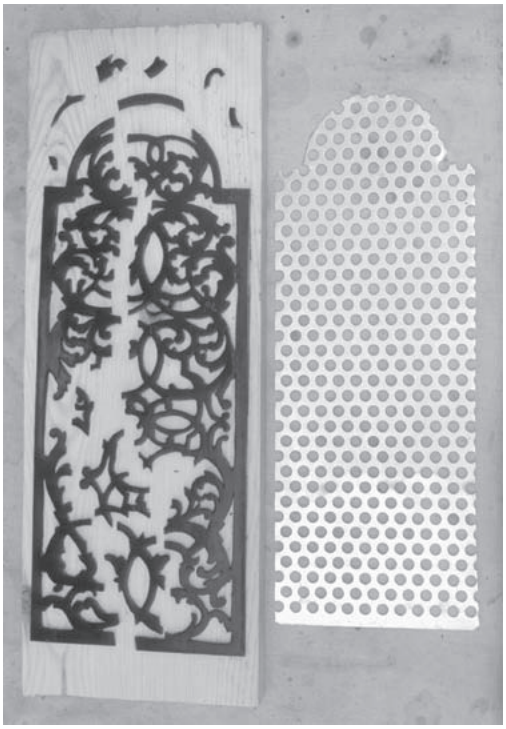
FIGURE 7


FIGURE 9