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Restoration Report

Date: August 2006

Client Name: Scherer

Object Description: English Tall Case Clock circa. 1770-1790
Mahogany veneer with line inlay, broken arch pediment over turned columns. The waist door is a Gothic arch crotch mahogany. The base panel has 8 sided mahogany inlay stringing. The scroll board mahogany has inlay stringing. Ogee bracket feet are missing as is the plinth. The finial is missing between the arch pediment.

The mechanism is decorated with a moon phase dial and landscape scene, courting scene in center of dial, and women in spandrels. Face signed “L. Kellet Bredbury”.

Dimensions: 95 ½” tall
23” wide
9” depth

Materials

Primary wood: Mahogany sides, Flat sawn 3/8” thick

Secondary Wood: Pine

Veneer: Mahogany, 1/16th inch thick

Finish: Varnish

Hardware: Ivory inlay keyhole in the waist door. Ceramic knob on the hood door. 2 brass flower Patera on the broken arch pediment.

Attachments: N/A

Object Condition

General Condition
Fair. The case has been worked on previously and not well. There are a number of bad veneer repairs and veneer is missing. Three finials on the hood is missing. the feet (probably Ogee bracket) and plinth are missing.




Structural Condition
Fair. There are compression cracks on both sides of the case from the bottom of the hood to the bottom of the case. This was caused by wood movement of the pine substrate. The substrate separated at the end of the glue blocks and the veneer cracked with it.

Coatings Condition
Fair. The varnish finish is thin and missing in areas. The existing varnish has a beautiful aged patina.

Adhesive Condition
Excellent. Hide glue of the period was used. All interior glue blocks are intact except two, two glue blocks are missing..

Treatment Response

Cleaning Protocol
The case and hood were cleaned with Murphy's oil soap and water. Then with a Xylene – mineral spirits mix. Xylene seemed to be the least aggressive solvent for the varnish. Both the inside and outside of the clock were cleaned.

It took considerable cleaning with Murphy's Oils soap to relieve the clock of 200 years of dirt. I suspect the clock was once in a tavern during its venerable age. It took multiple washings to clean off a substance I believe was nicotine. The washings revealed that there was virtually no finish left on the front of the clock.

The sides of the clock are solid Tangential cut Mahogany (Flat Sawn). It's straight grain is in contrast to the crotch Mahogany veneer predominating the piece. Both the color and figure (grain structure) contrast with the front crotch mahogany. I suspect that this color contrast was intentional will add much interest to the clock. When I evaluate the finishing protocol, I will assess how much contrast is appropriate.

Repairs Performed

1. The back of the clock has a compression crack. The crack was previously repaired by screwing a board over the crack. That repair was ineffectual. The board was removed and the screw holes filled with wood. The crack was clamped closed as much as possible and 2 butterfly keys were fabricated and glued in place with hide glue. The back was cleaned. The crack was not glued because compression cracks will not stay glued. There is a hole and missing wood along the crack between the butterfly keys. I chose to leave this distress as original. Filling the distress with new wood would take away original wood and the repair would look no better than the existing distress.

Previous Repair **Butterfly Key Repair**

2. Both sides of the lower case have 2 compression cracks from top to bottom. The cracks follow the interior glue blocks on both sides. The original construction of the clock case was excellent. I suspect that the cracks were the result improper storage. Too much moisture caused the wood to swell against the glue blocks. The glue blocks held, the wood didn't. A previous repair attempted to control the expansion of the 4 cracks. This was done by gluing wood shims across the crack with epoxy glue.

   I removed the shims and epoxy glue. I applied moderate clamping pressure to the sides to close the gaps. I applied interior glue blocks along the cracks with hot hide glue. The glue blocks were cut to match the grain direction of the wood so that both would move together with natural wood movement. The compression crack came together better than I anticipated, but not seamless.

   Two glue blocks on the proper left side back panel had come loose from the back panel; These glue block sides were cleaned and hot hide glue applied. The proper left stringing on the hood section was loose. This was re-glued with hot hid glue.

3. The molding under the hood on the proper right side was partially broken. I added a new mahogany piece with a scarf joint and hot hide glue.

Broken molding **Scarf Joint**

4. Veneer Repair

The veneer on the clock is 1/8" thick crotch mahogany. The color is natural. There was no stain used. The original color is a deep mahogany or burgundy. The new mahogany veneer used for repairs was 1/16" thick. Two layers of veneer were used for each repair. The grain direction of the veneer layers was alternated to increase stability.

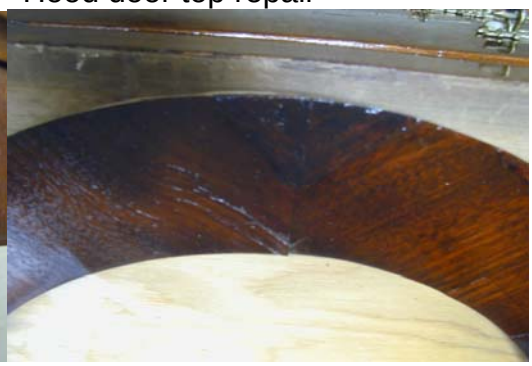
The veneer had to be colored to match the original veneer. A walnut and mahogany dye was mixed and applied to achieve the background color. Blonde shellac was applied to seal the dye. A brown mahogany lacquer based toner was applied to finalize the color match. The repairs were top coated with tung oil varnish to match the original finish.

Waist Door

Waist Door veneer repair

Hood Door

Hood door top repair



Hood door side repair

Damaged Case Veneer

Repaired Veneeer

Side Veneer Damage

Veneer Repair

5. Mitered Joint Repair

The proper right miters on the upper and lower molding had separated. The joint was not able to be pulled together. The gap in the joint was filled with mahogany wood fitted and shaped. The repair was then colored to match the piece.

6. Case Side Compression Cracks

The compression cracks on both sides on the cracks were pulled together by clamps and new glue blocks were placed to keep the cracks together. The cracks were still prominent and needed further attention. I followed the AIC guidelines to make the subsequent repairs reversible. I melted colored wax sticks into the cracks. The wax should be able to expand and contract with the natural wood movement.

Finish Protocol

The original finish was varnish. No color was added to the wood. I applied 7 thin coats of a wiping Polymerized Tung Oil varnish.

Original Hood

Completed Hood

Completed Clock

Respectfully submitted by
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January 2007