96 A

Restoration Record for the Treatment of an 17th c. Chest of Drawers from the Stibbert Museum in Florence, Italy

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Instituto Lorenzo de' Medici, Spring 2021

RES140 F

Professor Lorenzo Livi Bacci

May 10, 2021

Table of Contents

RES140 F

Professor Lorenzo Livi Bacci

May 10, 2021

Introduction

1.1 Purpose of Treatment

The purpose of this report is to provide an accurate, complete, and thorough written record of the current condition of an 18th century wooden chest of drawers from the Stibbert Art Collection. This report serves as the most current record of the wooden chests condition as of May, 2021. The aim of this report is to provide helpful information to assist in the establishment of future preservation efforts and criteria and add to the overall knowledge of the profession of restoration. This report contains the following information: details of the technical assessment undertaken and the corresponding interpretations of that analysis, records of materials and techniques employed during the restoration interventions, damages as a result of time, and record of historical significance of the piece.

The treatment of the chest of drawers was undertaken to ensure that the wooden and brass structure was suitable for public display, and to preserve the history that the chest represents. This included a thorough analysis of the previous repairs, coatings, techniques used in its construction and the determination of original patinas.

1.2. Object History

The Restoration department at Lorenzo de' Medici International Institute handles historical documentation, restoration, and interpretation of heritage assets to promote an understanding and appreciation of a broad range of European works. Upon receiving the chest of drawers from the Stibbert Museum, the restoration responsibilities were assigned to students in the Spring 2021 Furniture, Wood Objects and Gilding Conservation Course, RES140 F) taught by Lorenzo Livi Bacci.

The Stibbert Museum located in Florence displays the collections of Federico Stibbert (1838-1906). Stibbert belonged to a distinguished society of writers and artists who entered Florence in the 19th century.[1] The museum is his original villa, composed of over 10 rooms that exhibit and house his collection of artworks and furniture.

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[1] "Stibbert Museum."

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May 10, 2021

Side to Side (cm)	Front to Back (cm)	Height (cm)
135 cms	60cms	96 cms

Before Treatment, all sides of the chest

RES140 F

Professor Lorenzo Livi Bacci

May 10, 2021

Examination Report

2.1 Object Description

The object is a 17th century Baroque style cherry wood chest of drawers from the Stibbert Museum in Florence. The top and drawers are veneered with straight panels of cherry wood. All four drawers and corners are lined with a border of ebonised wood, a process that employs hardwoods containing tannins that are stained to mimic ebony.[2] The handles and decorative keyhole fixtures on the drawers are bronze. The back of the chest of drawers is unfinished, as is the inside of the carcass and drawers The frontal facing veneer panels and drawers are secured together using dovetail joints - a common woodworking joinery technique known for its high resistance to pulling apart. The chest has no legs, but rather small feet on all four corners that raise it ~3 inches from the group. The top veneered panel has a lighter wood inlay in a rectangular shape that frames the surface. Aside from the simple box-like structure of the chest and dovetail joints, there are no other Baroque-identifying characteristics. It is likely that the chest was built for a rustic and country environment based on its lack of intricate embellishments that are seen in finer furniture from the Baroque era.

2.3 Preliminary Observations

Before any restoration interventions proceeded, the chest was examined carefully and documented to ensure all present issues were addressed and acknowledged throughout the treatment. The chest was in fair condition, exhibiting areas of loose ebonised wood fixtures, material loss, splitting wood cracks, pest damage resulting in small holes, abrasions to corners and edges and surface dullness. The bronze fixtures exhibited areas of green copper oxidation due to the metal alloys present in bronze. There was adequate soiling on the surface, further adding to the already present dullness as a result of aged varnish. Furthermore, several areas on the top surface exhibited areas of water damage, resulting in lightened stains.

Previous restoration efforts were discovered upon working on the bottom of edges of the chest. A newer wood piece was applied presumably to stabilize the front-right foot as the adhesion of the original wood failed and split. A small piece of wood placed fixed in the gaps in areas where the woods had shrunk.

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[2] Lindsay, Greg.

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Professor Lorenzo Livi Bacci

May 10, 2021

3.0 Treatment Methodology

3.1 Dry Cleaning

Dry cleaning was carried out after the removal of all four drawers. A natural bristle brush and a HEPA vacuum were used to sweep away and remove dust particulates and other surface deposits that had settled on and inside the structure.

All hardware and original ironware including the exterior bronze keyholes, nails, handles and interior locks were removed using a flat-head screwdriver and a steel spatula to loosen the ironware keeping them in place.

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Professor Lorenzo Livi Bacci

May 10, 2021

3.2 Wet Cleaning

The inside of all drawers were cleaned using a diluted solution of 2 parts lye - a water soluble strong alkali powder typically consisting of sodium carbonate- and warm water. The solution was gently applied to the surface with a sponge to remove stubborn, ingrained dirt particles and previous stucco paste fills. Once thoroughly dried, the areas were repaired if they exhibited cracks or abrasions.

Before **After**

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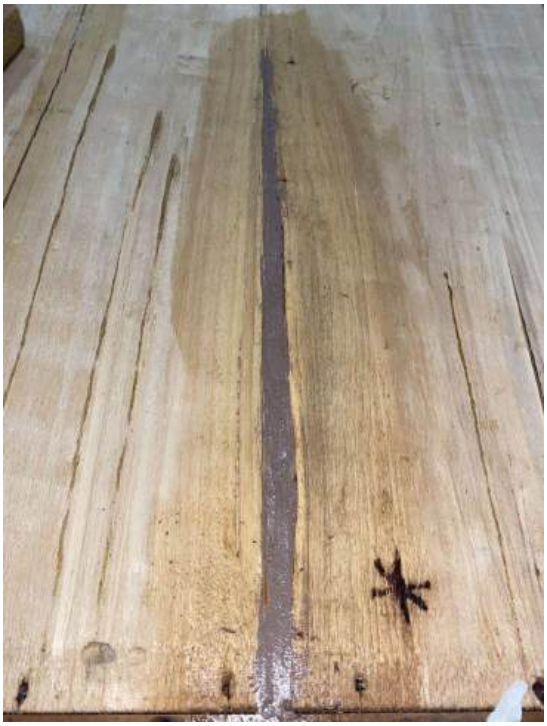
Professor Lorenzo Livi Bacci

May 10, 2021

3.3 Wood Repairs

In areas where the wood was cracked due to natural shrinkage, a two-part epoxy called Hardrock 427A (MS242, brown), and Hardrock 427B (MS242, white) was prepared using a steel paint scraper on a wood board to blend the two parts together. Once unified, the epoxy mixture was applied directly into the cracks using a stainless steel spatula. Material that surpassed the edges of the cracks on the original wood surface were removed using a wet sponge and a steel paint scraper. This intervention was imposed on all sides of the chest, including the inside of the drawers and the unfinished back side.

Before filling



After filling

Loose or detached areas of ebonised wood were removed from the carcass entirely. Hide glue was applied to both the carcass surface and the ebonised piece and reattached. Excess glue was removed with a wet sponge. The repaired areas were then secured in place with masking tape and were held together with a clamp till it dried up.

In areas exhibiting smaller dimensional loss, such as the pest holes and cracks, a tinted stucco was applied. The stucco materials are traditionally composed of gesso, hide glue and pigments, however they become difficult to prepare as proper ratios of adhesive and gesso are difficult to achieve, thus creating stability issues. To fill these smaller areas, a manufactured product called Modostuc was used. The product is composed of gesso, coloured pigments, resins and thickeners that prove to be a better alternative to traditional water-soluble stucco as they are more flexible and shrink less over time.[3]

[3] Livi Bacci, Lorenzo.

RES140 F

Professor Lorenzo Livi Bacci

May 10, 2021

Before

After

Before

After

3.4 Wood Fills

Inlays on the surface and sides of the chest exhibited partial material loss. To mitigate this issue, thin pieces of wood were carved in a V-formation then wedged into the area of loss. The piece was carved until the fit was exact. Before securing the piece in place and due to the curved nature of the area of loss, the wood fill was boiled in water to allow it to soften. Once softened, hide glue was applied to both the wood fill and the area of loss. The fill was secured in place and lightly hammered into place. Extra glue was removed using water and a sponge. Once the area

was completely dry, the excess wood was levelled to the surface using a scalpel blade.




3.5 Retouching

Water dyes were used to apply stucco fills to allow them to blend into the natural surface. The dyes were dissolved in water, and a small amount of ammonia was added to bind the pigments together for a more controlled application. Depending on the lightness of the fill, more than one coat was applied. Excess stucco was removed one fully dry using sandpaper, then a layer of shellac was applied to the surface.


RES140 F

Professor Lorenzo Livi Bacci

May 10, 2021

3.6 Coatings

A thin layer of shellac - composed of laccifer lacca beetle derivatives and alcohol were applied to the surface throughout the restoration to protect the surface from various treatment interventions. The initial application was added to the surface to aid in protecting the wood from deteriorative effects of moisture. Additionally, shellac changes the light refraction index of the surface, allowing the wood underneath appear darker, and more vibrant.

Before

After

3.7 Polishing

Prior to polishing, iron wool was used to smooth the previously shellacked surface to prepare it for grain filling. After the iron wool, a pad filled with alcohol was lightly swiped over the surface to remove any remaining particles of dry shellac. Grain filling is an important step in the polishing process. In order to create a mirror-like high gloss finish such as the 16th c. French polish, the pores of the wood need to be sealed. To begin this process, amounts of pumice powder are worked into the wood pores using a fabric rubbing pad made of cotton or wool cloth material. The inside material is semi-saturated with shellac and alcohol and buffed into the surface, moving the pumice powder into the pores. This process was repeated using less pumice powder with every application until the pores appeared sealed, and the surface was glossy. Once fully achieved, all polished surfaces were varnished.

After this treatment the chest of drawers was set to rest for a week. The next week work was resumed by applying pumice powder again until the pores were perfectly filled up. Then with the same pad made of cotton fabric outside and wool inside was used to aplly vaselin oil. When a halo cause by alcohol evaporation was visible, a new pad soaked with shellac (180 gr/liter) was used to varnish. When a good polish was achieved, the alcohol pad was used again to flatten the shellac coating previously added and finaly the vaselin oil was removed with a new large pad with a few drops of alcohol in the center.

RES140 F

Professor Lorenzo Livi Bacci

May 10, 2021



3.8 Metals

Baking soda (sodium bicarbonate)

All brass elements were cleaned using a mixture of lye and a general metal polish to create a paste. The mixture was scrubbed into the surface using an abrasive brush. Smaller details, such as the medallions that are paired with the handles were cleaned using dry iron wool on a skewer to better access smaller crevices.

To protect the newly cleaned brass elements from future oxidation, a thin coat of shellac was applied using a cotton swab. Once dry, the handles, keyholes and locks were re-attached using their original ironware or new brass nails. A piece of gilded bronze was put back in place with a metal adhesive and clamped together with a clip till it dried.


RES140 F

Professor Lorenzo Livi Bacci

May 10, 2021

4.0 Maintenance and Treatment Recommendations

Antique furniture has an increased susceptibility to deteriorative damages due to its age. Nearly all antique furniture has or will be affected by wood-destroying pests. Such as mentioned above, the 17th c. chest suffered from pests on nearly all sides and areas of the carcass and drawers. This was determined by the presence of small holes on the surface, indicating that in the past, woodworms inhabited the wood material. Specific measures can be performed to prevent further damages from pests. Interventions including the use of liquid insecticides, such as the shellac applications applied throughout the treatment, or white spirit based solvents can aid in deterring wood worms and other pests from invading. These materials are best applied after wood fills, so they can properly penetrate the wood before additional coatings. This type of intervention can be effective for up to 5 years.[4]

In addition, environmental factors such as sunlight and heat can catalyze deteriorative processes in wood furniture. It is crucial that the furniture is well protected from direct sunlight and contained in a climate controlled area to prevent expansion and contraction of the wood that can result in cracks and possibly mould. Lastly, airborne particles such as dust can settle onto the wood surface creating a filmy layer, thus reducing the glossy finish. To mitigate this issue, a lint-free cotton rag can be applied to the surface to lightly clean the surface. This action should be taken on a regular basis to reduce the build up of dust.[5]

[4] Livi Bacci, Lorenzo. *Lecture 8: Wood Pest Control.*
[5] Wild, Megan.

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May 10, 2021

5.0 After Treatment Documentation

After Polishing, Side

Drawers, After Treatment

After Treatment, Drawer

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May 10, 2021

Repaired edge, after treatment

Brass detail, after treatment

Top view, after treatment

Inlay detail, after treatment

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May 10, 2021

Overall front, after treatment

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May 10, 2021

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