

The Care and Preservation of  
**Furniture and Wooden Objects**  
*by Louise Beck, Conservator, The Henry Ford.*

## **Introduction**

Antique furniture and wooden objects can be maintained for years of use and enjoyment provided that some basic care and attention is given to their preservation. The conservation staff at The Henry Ford have compiled the information in this fact sheet to help individuals care for their objects and collections. The first step in the care of collections is to understand and minimize or eliminate conditions that can cause damage. The second step is to follow basic guidelines for care, handling and cleaning.

## **Types of Damage**

For most antique furniture owners, the desire to both utilize their collections and at the same time preserve them presents a formidable challenge. These two objectives are often at odds with each other. Improper handling/usage/display, environment, cleaning, and repair are the most common causes of damage to furniture and wooden objects. The primary cause of damage to furniture is careless handling and use, resulting in damage to surfaces or structural damage to the object.

Inappropriate environment, both in terms of light and relative humidity, can lead to damage. Excessive light can accelerate the aging and degradation of finishes resulting in a cracked, brittle or "alligatored" appearance; it can also cause fading or softening of the finish. Since wood is a porous material it readily absorbs water when humidity levels are high. This absorption of moisture causes wood to swell. Conversely, wood shrinks in a dry environment. The shrinkage of wood in dry environments leads to the formation of structural cracks, lifting veneer and inlays, gaps in joints and the embrittlement of adhesives.

Insects are also a source of damage to furniture. Damaging pests include carpet beetles and powder post beetles. Carpet beetles subsist on protein-based materials that are often present as adhesives and are thus commonly found at joins and in drawers. The presence of tiny black beetles (2 mm in size), small worms or "fuzzy" carcasses are an indication of infestation. Powder post beetles characteristically bore small holes (approx. 2 mm in diameter) into wooden materials. These holes are usually the first visible evidence of infestation. To prevent damage due to pests, furniture should be routinely moved and examined for infestation. The underside of legs and drawers should be

inspected as well since insects hide in inconspicuous places. If evidence of infestation is found, the object should be placed in a plastic bag or otherwise wrapped and sealed in plastic and isolated until it can be examined by a professional conservator.

### **Storage of Furniture & Wooden Objects**

As previously mentioned, light can cause damage to furniture surfaces. As such, furniture should be exhibited and stored in a dim area where bright light is not allowed to fall on them. Fluctuations in relative humidity (RH) and temperature levels can also result in damage to furniture and wooden objects. While precise control of temperature and humidity is desirable, it is not always practical, especially in personal collections or in historic homes. Therefore, damage should be minimized by avoiding extremes in temperature and humidity and avoiding rapid fluctuation. This can be done by ensuring that furniture is kept away from heat sources such as furnace vents, fire places, warm lights and direct sunlight. It is recommended to keep a year-round temperature of 70-75°F for the storage and display of furniture. Some variation in humidity between the winter and the summer is acceptable if changes in RH occur gradually and do not exceed 5% per day. In the summer, the preferred RH is 55-65%; in the winter, this may safely drop to 35-45%.

### **Handling of Furniture & Wooden Objects**

When moving furniture or large wooden objects care should be taken to remove all belts, buckles and dangling jewelry that could scratch the surface of the object. Furniture should always be grasped at its most sturdy area. For example, chairs should be grasped by the seat, not by the chair back, legs, or arms. Furniture should be lifted and not dragged, as dragging can place stress on the legs and feet of a chair or table.

Every effort should be made to protect furniture surfaces, especially if the furniture is going to be used. Drink coasters or glass tabletops can help to prolong the life of finishes on tables that are routinely used. If glass tops are used, place felt or rubber tabs between the glass and tabletop to prevent the glass from sticking to the furniture finish.

### **Cleaning & Care**

The following suggestions are provided to assist in increasing the longevity of your wooden antiques. The procedures are recommended only for objects on which finishes are in good condition (not flaking) and for items that do not have lifting or damaged veneer, inlays or gilding. Extensive cleaning of severely damaged or darkened finishes should be carried out by a professional conservator. Porous or unfinished wood, as well as wooden objects

with painted surfaces, should also be left to a professional.

As a note before beginning any sort of cleaning - there are many commercial cleaners and polishes available for the care of furniture and antiques. While some of these products may be genuinely safe to use on antiques, it is difficult to assess the long-term effect of these products. Manufacturers guard their "ever changing" formulas and thus it is not possible to recommend any specific commercial product. Many popular formulations contain tung oil or silicone products which have proven to age poorly. Products of this type should be avoided since they can darken or become opaque with age, resulting in a dark, dull and often irreparable finish.

Owners of antique furniture are also encouraged to consider maintaining the original finishes on their furniture and antiques whenever possible. Original finishes are often viewed as a part of the historical value of an antique and preferred over stripped and refinished, or heavily restored antiques.

*Dusting* - The first step in cleaning should always be dust removal. Dust should be removed using a soft brush or a vacuum cleaner nozzle with a soft brush attachment. This is recommended particularly on objects that have rough or unfinished surfaces that could be snagged by dusting with a cloth. Unfinished wood should never be wet cleaned.

*Wet Cleaning* - If wet cleaning is necessary and the finish is in good condition, the safest method of cleaning is the use of a dilute detergent. The detergents frequently used by conservators are Orvus and Triton X-100. The detergents should be diluted to a concentration of approximately 1% in water. Using cotton balls or soft cloth pads, the solution should be gently applied to the surface. Q-tips may be used to get into small ornate carved areas and crevices. After cleaning, residual detergent should be removed by rinsing with distilled water. The rinse water should also be applied using cotton balls or a cloth pad. In both instances the cloth or cotton should be damp, not dripping wet. Water should not be allowed to sit on the surface as it could damage the finish. An absorbent sponge may be used to blot excess water from the surface.

*Waxing* - After the surface is cleaned and has had time to dry, a high-quality wax such as Renaissance Wax may be applied with a rag or brush. Upon drying (approx. 15 min.) the waxed surface should be lightly buffed with a diaper or a clean, soft shoe polishing brush. Wax should only be applied occasionally (once a year or so to avoid heavy wax buildup). If the finish becomes dull between applications of wax it can be buffed with a rag or shoe brush to restore the luster of the finish.

*Structural Repairs* - Repairs to furniture should be as unobtrusive as possible. Hot or liquid

hide glue is preferred in most cases over modern commercial products for adhering loose fragments and veneer. The addition of mechanical metal attachments such as screws and mending plates should be avoided since they can constrict the movement of wood and can lead to cracking. For significant repairs, it is recommended that a professional conservator be consulted.

## **Disaster Response**

Unfortunately, furniture and wooden objects are very susceptible to many types of disaster, including fire and flooding. In the event of salvage after an event involving water, be it flooding or the results of putting out a fire, the wooden objects should be removed to a drier place, and excess water should be removed from surfaces, crevices, drawers, and other areas. It will be necessary to monitor the wood as it dries, as the drying process may cause damage to surface finishes, inlays, or veneers as the wood shrinks. Further discussion on salvage and disaster response can be found in The Henry Ford's conservation information sheet on that topic, and in various online resources.

## **BIBLIOGRAPHY**

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Williams, Marc A. Keeping It All together: The Preservation and Care of Historic Furniture. Ohio Antique Review, 1988. ISBN #0960329013.

Williams, Marc A. Preserving Your Investment: Care and Maintenance of Furniture and Wooden Objects. Furniture Conservation Services, 1983.

### **To Find a Conservator:**

The American Institute for Conservation

<https://www.culturalheritage.org/about-conservation/find-a-conservator>

## *SOURCES & SUPPLIERS*

### *General Tools and Supplies*

Woodcraft

<https://www.woodcraft.com/>

210 Wood County Industrial Park

PO Box 1686

Parkersburg, WV 26102-1686

1-800-225-1153

### *Highland Woodworking*

<https://www.highlandwoodworking.com/>

### *Orvus and Triton 100-X*

Conservation Materials International

<http://www.conservationresources.com/>

### *Renaissance Wax*

Talas

<https://www.talasonline.com/Renaissance-Wax>

### *Humidity Indicators*

University Products

<https://www.universityproducts.com>

517 Main Street

PO Box 101

Holyoke, MA

1-800-762-1165

