

**CARE OF WOOD OBJECTS****T. S. Devasena**

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Wood being organic materials is especially susceptible to deterioration and great care is required for its preservation. Man has used wood since the earliest times to prepare objects of daily use, of art and of decoration. Wood was used for making implements of agriculture, of transportation, and weapons. Doors, windows, balconies in houses were almost invariably made of wood. In almost all collections of the world, wooden objects, in some form or the other, form an integral part. This holds particularly true in craft museums or ethnological museums. Sometimes, one would find large structures like rathas (chariots) or carriages in the collections. Some museums, like the Crafts Museum in New Delhi, have transported complete wooden houses and reconstructed them in their own premises.

Wood although seemingly hard and durable is very vulnerable to various causes of deterioration-natural as well as man-made. It easily falls prey to insects and growth of micro-organisms; is affected by climate and changes in climate: is combustible and fire can burn down wooden structures in no time, Wooden objects, therefore, like all other organic materials, need utmost attention. First of all, it is necessary to know the nature of wood.

Wood has a fibrous and cellular structure. When freshly cut, wood has plenty of water it starts losing it when left in the open air. When free of all water, its water content is said to be in equilibrium with the atmosphere, and the wood is described as seasoned. The capacity of wood to absorb moisture from a moist atmosphere increases its size and when the moisture evaporates in heat, wood decreases in size. This means that with each seasonal change wood increases or decreases in size with variations in relative humidity. The outside of a piece of wood when kept in a dry atmosphere becomes dry more quickly than the inside does, and, therefore, a tension produces cracks in the surface layers. Wood established in moist conditions, if brought to dry conditions, will start showing cracks. This often happens with objects sent for exhibition from one climatic zone to another, having a different type of climate.

Wide variations of humidity, as often happen in a wet dry climatic zone, can have a disastrous effect on wooden objects. The ideal solution would be stabilization of the microclimate inside the exhibition halls and storage areas by air-conditioning. The suitable humidity range is between 45 and 65 per cent. Hence twenty-four hours are necessary before storing the wooden objects.

Protected from Air:

Further, even with air-conditioning, good circulation of air in halls through fans is essential. Otherwise, even in the same room, different places, like corners and areas at floor level, may have different microclimates. A problem often encountered in painted wooden panels is their curvature, the front becoming concave. The curvature results from unequal absorption of humidity by the front of the panel and by its back. The front surface of the panel is painted and therefore absorbs less humidity than the unpainted back, resulting in unequal expansion of the two sides. To compensate for this contrasting behaviour, the back of the panel may be coated with a water-repellant mixture, like that of wax and resin. If a panel has become already curved, no attempt should be made to make it flat because it might crack. A conservation expert can decide on the action to be taken.

If wood remains in a too humid and stagnant atmosphere for a long time, it may develop fungal growth which weakens the surface. A really dangerous type of fungal attack on wood is called dry rot. Wood affected by this fungus becomes soft, spongy and light. In the case of an outbreak of fungal growth, the conservation laboratory should be consulted immediately. Meanwhile to prevent further development of fungus the affected object may be dried out in the shade. Application of 1 per cent solution of orthophenyl phenol in ethyl alcohol to the wooden object helps prevent the growth of fungus.

Protected from Insects:

Insects are the worst enemies of wood with the most damaging ones being termites or white ants. Another group of insects especially dangerous for wood are beetles. Powder-post beetles can remain active inside wood, without anyone becoming aware of them, until much damage has been done. Fine flour-like powder falls out of their minute exit holes, revealing their presence. Fumigation with a mixture of carbon disulphide in one part, and carbon tetrachloride in four parts, may be done successfully, but buy a professional alone.

Sometimes thick accretions are found on objects of wood. These are usually due to the presence of decomposed and discoloured oil or resin-protective coatings applied in the past. It was often the practice to paint wooden structures every year to make them look bright and new. The laboratory staff can remove such accretions, after conducting tests to discover the type of paint which had been used and what solvent would be effective in removing it safely.

Excavation Materials:

During excavations, water-logged wood is frequently found. Before the wood is sent for treatment at the laboratory, the wood should be immersed in water or wrapped with wet gunny bages. Quick drying may cause the wood to contract quickly and unevenly and to distort or disintegrate completely. For the conservation of water-logged wood, the most commonly used methods at the laboratory are either freeze drying, or the polyethylene glycol method. In freeze-drying, the wood is kept in a special freezing chamber, where the water contained in the wood is frozen and then removed by vacuum sublimation. In the other method, wood is placed in a solution of polyethylene glycol which slowly replaces the water inside the wood.

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After wrapping the wooden objects in polythene sheets, store them wooden cupboards rather than in steel ones, because wood being a poor conductor of heat can withstand climatic variations. As a safeguard against insects, an insecticide like gammexane must always be sprinkled on cupboard shelves on which wooden objects are stored.

References:

1. Feller, R.L.: Control of Deteriorating Effects of Light Upon Museum Objects, Museum (UNESCO), Vol. VII, No.2(1964), pp.57-78.
2. Hall, E.T.: An Ultra-Violet Monitor for Museums, Museum Climatology, The International Institute for Conservation, London, 1968, pp. 151-157.
3. ICOM Committee for Conservation- Lighting Group, ICOM News, Dec. 1969, p.54.
4. Kenjo, Toshiko: A Rapid Response Humidity Buffer composed of Nikka Pettets and Japanese Tissues, Studies in Conservation, 27(1982), 19-24.