

Restoring and preserving our cultural heritage

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The Mazarin Chest (late 1630/ early 1640); a unique and valuable object.

Time and tide wait for no man. On the subject of museum artefacts, man's only tools for resisting time are efficient preservation techniques, good maintenance and conservation.

The Victoria and Albert Museum in London has one of the world's largest collections of decorative art. It contains objects of beauty once designed for everyday life, including chairs and chests, and some of them are now desperately in need of a face-lift after centuries of wear and tear. Solvents play an essential role in cleaning and preserving these valuable objects.

Besides human abuse, the objects mainly suffer damage from sunlight, humidity and poor maintenance. The latter is caused mainly by using the inappropriate products. 'Chemistry is key in practical conservation' says Shayne Rivers, lacquer specialist at the Victoria and Albert Museum. 'It helps in the understanding of why a piece is deteriorating, how it is going to deteriorate in the long term, and how this can be prevented'.

In 2004, the Victoria and Albert Museum began a conservation project to restore the Mazarin Chest, a piece of furniture which the V&A's conservation department found in state of significant deterioration, with the colours fading and decorative elements coming unstuck. Created in Kyoto in the late 1630s and early 1640s, the chest is the equivalent of an old master in terms of quality and one of the most important of its type in the world. According to Rivers, 'it is important that we handle it extremely carefully'.

SOLVENTS: SIMPLY ESSENTIAL

The chest was in urgent need of stabilisation and treatment as the poorly adhered lacquer and decoration belied much of the artistic, aesthetic, historical and technical value of this object. 'The chest needs careful cleaning and we must make sure that the solvents used to remove the accumulated grime will not damage the chest further', says Rivers.

Rivers also explains that because the chest has in the past been treated with wax and, on another occasion, a non-drying oil', the solvent has to be carefully matched to the material that needs to be removed, while avoiding interaction with the original substrate. 'Hydrocarbons are usually non-damaging to lacquer and are effective for removing waxes and oils,' she adds.

After the cleaning process is completed, it is time to think about preservation. The restoration team considers impregnating the lacquer with urushiol (the originally-used Japanese lacquer) diluted with a hydrocarbon solvent to fill the micro-cracks caused by light damage and to strengthen the surface.

The Mazarin chest is not the only object to be preserved with the help of solvents. Conservators all over the world use different kinds of solvent-based mixtures to soften and remove previous layers of grime, wax or resin and to apply and enhance certain properties of new coatings. ESIG members continue to develop and improve their products based on society's needs while always bearing in mind environmental and health impacts.

The conservation of the Mazarin Chest is expected to be completed in 2008.



The detail on the Mazarin Chest is extraordinary; a whole range of different decorative techniques is used, from mother-of-pearl inlays to metal fittings.