

## Care and conservation of frames and gilding

Picture frames and gilded objects are often more complex than they first appear to be and can be made up from a wide variety of materials. In the UK, the wooden substrate of picture and mirror frames is often a species of pine but oak, lime and a spectrum of other hard and softwoods are also found. Generally, ornament in relief is made from either:

- Carved wood
- A solid moulding material that has been cast in moulds while still in a “plastic” form, and applied to the wooden substrate, e.g. “composition” ornament - most commonly seen on frames and other objects from the Nineteenth and Early Twentieth Centuries.
- Hollow papier-mâché, also cast from moulds and applied to a substrate.

The materials and techniques of a gilded finish can vary enormously from one piece to another; note that other varieties of metal leaf than gold may be used. The base for the gilding is likely to consist of a hard white coating of chalky appearance - commonly called ‘gesso’ - covered with one of two finishes:

- A smooth, coloured (frequently red-brown) clay “bole” with gold leaf directly applied - ‘water-gilding’, which is water-soluble.
- A white coating covered with a yellow oil paint or varnish layer and then with gold leaf - ‘oil gilding’, which is not so readily water-soluble.

### Effects of changes in environment - heat and humidity

Changes in the environment can cause movement of timber and applied finishes, resulting in the opening up of structural joints and cracking of the finish. The appearance of cracks in a gilded surface around the mitred corners of a picture frame may not necessarily be a real cause for concern, but should be carefully monitored and assessed, as major opening or loose joints can put frame and picture at risk.

- A conservator can help reassure you by assessing your frames and checking out any movement in joints.

The appearance of cracks in the gilded finish is a common symptom of ageing and not normally a cause for concern. If however the gold and gesso layer is lifting, loose, or falling flakes appear, this may indicate that the gilding layers are delaminating from the substrate. Cracks in the applied composition ornament are also a common symptom of age-related shrinkage, but be aware that this could lead eventually to detachment of the ornament.

- Both conditions can be remedied through conservation treatment. A conservator can also advise you on the best means of displaying or storing your frame or gilded item to minimise or avoid risks from a poor environment.

### Pests and moulds

The common furniture beetle (*anobium punctatum*) is the most frequent cause of pest damage to gilded objects with a wooden substrate, evidenced by 1-3 mm diameter flight holes in the surface of the item. The extent of damage underlying the finish will vary, but may be extensive enough to weaken the object's structure. Inactive woodworm may cause concern structurally and aesthetically; active woodworm can and should be treated immediately. Wood-rots and moulds on the wood or gilding can also cause staining and structural damage where the item has been stored in or subject to wet or damp conditions.

- It is best to employ a specialist conservator of gilded artefacts to eradicate active damage caused by these biological agents, to ensure minimum disturbance to the valuable surface-finish. A conservator can also help repair and restore a damaged finish and improve the appearance and structural integrity of the frame.

### **Wear & tear and old repairs**

Frames and other gilded items are subject to the usual degree of wear and tear resulting from life in a domestic or gallery environment – examples are surface damage from minor scratches, dents and abrasion, or staining from accidental contact with water or other solvents. Gold leaf wear is apparent when the clay bole layer (often a shade of red) begins to show through the worn leaf on the most prominent parts of the object. It is also common to see gilded surfaces stained and damaged by inappropriate cleaning agents used in the course of attempts at repair by amateurs.

- For these reasons it is best not to attempt any repair or consolidation yourself. Gilding conservators are skilled and knowledgeable in identifying original surfaces and evaluating options for treatment.

A common result of amateur repair is 'gold' or 'bronze' paint applied to a gilded finish in order to cover damages or to brighten or even tone down the gilding. The paints are made with non-gold metal powders which can oxidise and change to brown or green; they can be identified as a muddy, slightly granular, streaky coating against the bright sheen of real gold leaf. Beware however that in some cases, non-gold metal leaf and 'bronze' paint may be part of the intended original finish of an object.

- Gilded items are often complex, so conservators may recommend further investigation or tests to get an accurate assessment of the condition. Although it is not always feasible to predict exactly what may be involved in a treatment before the conservation work begins, your conservator will make you aware of any issues that arise in the course of the work.

### **Monitoring**

It is a good idea to monitor an object's condition at regular intervals. This can be as simple a process as writing down the position of any areas or signs of damage (such as new flight holes) on an annual basis.

- Any pieces of ornament or gilding that may have become detached should be carefully retained and reinstated by a conservator.

### **Moving**

Keep moving or handling of gilded objects to a minimum. If moving cannot be avoided, you should wear vinyl or latex snug-fitting gloves, as oil or moisture from the hand will damage the finish on a frame. Make sure there are enough people to lift it slowly and safely if it is heavy, preferably lifting underneath a frame's lower member to avoid putting too much pressure on the joints. Make sure you have a space prepared to take the frame to before you start. If you are moving smaller objects, they should still be moved one at a time.

### **Cleaning**

Keep cleaning to a minimum; dusting once per year is enough as the action will gradually wear away the gilded surface. Even the dust itself being moved off will cause some abrasion, so a very soft-haired brush should be used. The brush's metal ferrule should be wrapped in tape to protect the object against accidental knocking. Dust can be collected using a vacuum cleaner set on minimal suction, lifting the dust with a small nozzle covered with a piece of gauze secured with an elastic band. This ensures that no pieces of loose ornament are lost. Care should be taken not to touch the object with the nozzle.

## **Storage**

Store and display gilded objects away from direct heat sources such as radiators or fires. Likewise, avoid placing them against or near a wall or surface that has - or may be at risk from - damp or leaks. Gilded objects are fragile and should be displayed away from major thoroughfares or anywhere where they may be vulnerable to knocks, such as behind doors or directly behind the backs of chairs. Always make sure objects are properly secured to the wall or relevant area.

## **Consulting a conservator**

Bear in mind that an object can be irreversibly changed and its historical and/or monetary value damaged by ill-advised interventive treatment. Even taking a picture out of its frame yourself or trying to carry out more than dusting to clean a frame can result in serious damage. It is always advisable to seek professional advice. A conservator can help by:

- Examining the object carefully before providing a written estimate, giving you options for the extent of treatment and its related costs.
- Providing you with accurate documentary records, ranging from condition surveys of large collections to detailed treatment reports.
- Applying the latest methods and materials to clean, consolidate and help ensure the longevity of your object and the reversibility of work.
- Giving you practical advice on preventive care and further treatment, explaining the reasons behind the options.

Use the Conservation Register to [Find a conservator](#).

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