Success Guides

Successful Basic Conservation

A do-it-yourself guide
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Jane Thompson Webb

Front cover picture: Agitating ingrained deposits and stains on a copy of John Bunyan’s The Pilgrim’s Progress, 3rd edition 1679, held at The John Bunyan Museum & Library and for which the museum was recently awarded £5,000 from the AIM Conservation Grant Scheme, supported by The Pilgrim Trust.
Successful Basic Conservation

This guide is a companion to the Success Guide, Successful Collection Care. Together they provide a practical foundation to understanding ‘preventive’ and ‘interventive’ conservation of our collections.

1. Introduction

The term ‘conservation’ can be used in relation to museums and the natural environment and it can be difficult to know what is meant by the term.

In museums, there are two approaches to conservation. One is preventive conservation or collection care, which tries to manage various factors to prevent or reduce the effects of decay on a daily basis. The other is interventive conservation, which is the process whereby objects are stabilised, cleaned or supported to ensure their survival and to make them understandable, without removing the evidence of their past life. This guide is concerned with interventive conservation.

Who should do the work on an object? It depends on the task. The natural choice is a conservator, preferably one with professional accreditation through the Institute of Conservation (ICON). Unfortunately, many museums have very little, if any, budget to spare for conservation. This guide aims to lead you through the conservation that it is safe for you to carry out yourself and to help you decide when to use a conservator.

2. Assessing an Object

Before carrying out any work on an object, or indeed, determining if any work is required, it is very important to assess the object. This will enable you to get to know the object and establish its condition. You should be able to determine if the object is dirty or damaged and if any work has been carried out previously. This is a straightforward procedure, but it is one that requires a little time. You may like to devise a tick sheet to help you think about the same criteria to check each time. Such an assessment can be used for objects entering the collection or for those going on loan.

At the end of the assessment you should have established if it is appropriate for you to carry out the work or if a conservator is needed.

- Before beginning the assessment, refer to the object’s previous documentation as this should show if any work was carried out in the past and what condition the object was in when it arrived at the museum.
- Prepare a suitable work space and work in good light so that you can see the entire object clearly.
- Think about the handling requirements of the object. Can it support its own weight or does it need support from tissue paper scrunchies, plastazote, book cushions etc? Can you move and lift the object or do you need someone to help you? If you have to move the object to examine it, make sure it is packed properly so that it does not get damaged in transport.
- It is recommended that you wear gloves when handling the object. It may be dirty, contaminated, or have sharp edges so protecting your hands is important. If it is a large, heavy object wear rigger-type gloves. If it is a smaller object such as a tool, advertising sign or toy, wear thinner gloves. Many museums now use nitrile gloves in preference to cotton as the fit is better and they give better tactile abilities. They also don’t catch on rough or loose surfaces. If the object has a vulnerable surface e.g. white marble,
polished metal, gilding, lacquer, inlay etc, wearing gloves will protect the object from your hands. Finger marks can etch into metal surfaces and stain other materials.

- Look at the object as a whole – is it dirty, broken, corroded, cracked, pest damaged, deformed? Are parts missing?
- Look at these areas more closely and be specific about what the damage is. Avoid using general terms, such as “fine” as it can be difficult to remember exactly what the term was meant to mean when the object is looked at again. Use simple terminology to describe the damage such as “handle missing” or “cracked on right side”. This means that there is no confusion over what you are recording.
- List all the kinds of damage, even if the areas are very small – include hairline cracks and spots of corrosion.
- If the object is made from different materials or different parts, try to look at each material or part separately. Remember to look underneath and inside the object. A torch can be useful for this.
- Record what you see. Draw a sketch to show where the damage is or annotate photographs. Digital images are particularly helpful for this.
- If the object is in excellent condition then state this, but specify that there is no damage at all.

Having assessed the object, you then need to decide if there needs to be any action. The future use of the object will inform the treatment. If it is going on display you may want it to look its best, whereas if it is staying in store ensuring that the object is stable may be enough.

If the object is dirty but otherwise stable you may decide that you don’t need to take any action. If you conclude that the damage is likely to get worse or if the object is difficult to understand because of the dirt, distortion, damage etc, then some kind of conservation is probably needed.

How much may depend on what is going to happen to the object and the budget available.

Any conservation should retain the history of the object, should not remove any surface finishes or parts unnecessarily and should be removable.

No treatment is fully reversible and it is not always possible to return the object to the state it was in before the treatment occurred, e.g. one can’t put the dirt back! It should, however, be possible to remove the treatment without causing damage to the object.

Do bear in mind that improving the environment, storage or support may be more beneficial than hands-on conservation.

3. Using a Conservator

After assessing your object it is important to decide whether to attempt the work yourself, or to use a conservator. If the work is beyond your experience or confidence or will take longer than the time you have available, then a conservator is necessary.

Conservators usually want to give objects the best treatment possible and although this will undoubtedly give an excellent end result, it may not be what you require. Give the conservator a detailed brief of the end result you want and ask them to break down their quote into options – this will allow you to select the treatment that you want and can afford. Don’t be afraid to keep talking to the conservator – they would rather spend time doing that and have a happy client. That way you are more likely to use them again!

4. Health and Safety

Not all conservation involves using chemicals, but there are a range of common ones that even non-conservators can be confident of using. The next section details some common treatments. It will introduce a range of
common conservation materials including solvents and chemicals that fall under the Control of Substances Hazardous to Health Regulations (COSHH) 2002. All solvents and conservation materials are potentially hazardous. A material safety data sheet (MSDS) should be obtained at the time of purchase. They can be found on the internet if they are not supplied, e.g. for products that can be purchased in supermarkets and water, by searching on “MSDS” and the name of the substance. The MSDS should be used to create a COSHH assessment. These assessments show you how to use the material safely and how you can limit the risk posed by the material to your health.

There are some basic rules that you should follow when dealing with solvents and chemicals, e.g.

• You should wear gloves when handling materials and wear a suitable face mask for dust or solvent.
• Work in a well ventilated area and ideally don’t use offices or tea rooms so that colleagues are not exposed to the fumes.

Dusting is carried out using a lint-free cloth, ideally micro-fibre. Fold it to make a pad to fit the palm and clean using flat wipes, in the direction of the grain if there is one.

• Wear an apron or lab coat to protect clothes, tie back hair, remove large or dangling jewellery.
• Ensure that the feet are adequately protected. Open-toed sandals are not a good combination with conservation.

Keep solvent bottles etc closed and only have small amounts present on the work table. Make sure that you use appropriate containers – coffee jars don’t have a good seal, glass bottles and jars designed for oils and pickles or chemical bottles are best - and label them clearly. One colourless solvent looks much like another.

Note that any material used in a work context needs an MSDS and COSHH assessment. This includes water and everyday materials such as washing up liquid. This may seem odd, but it is just to ensure that the work environment is safe for everyone.

5. Basic Treatments

If you decide to undertake a treatment, it is important to remember that if you feel unsure in any way during the
process, you should stop. If the object seems weaker than you thought it would be, if you find that you aren’t confident about continuing or if you have concerns about the treatment you have selected, stop and seek advice. It is better to be safe than sorry.

Cleaning
Cleaning will often produce a dramatic visual result and may be all the work that is necessary. It can be broken down into two main types:

- **Dry methods** that use dusters, brushes, vacuums and smoke sponges. These remove dirt and dust.
- **Wet methods** that use detergents, water and other solvents. These remove dirt that has adhered to the surface and cannot be removed by dry methods.
- In addition there is polishing, which can use wet or dry methods to remove corrosion to develop a shine.

Note that all the cleaning methods described in this guide are surface cleaning methods. Immersion methods should only be carried out with the guidance of a conservator.

**Always** test the method you select in a small, inconspicuous area to ensure that the object can physically withstand the cleaning and that the cleaning doesn’t damage the surface.

**Always** begin with dry methods.

Dry methods are usually least likely to cause further damage to the object and can be incorporated into regular housekeeping programmes.

**Dusters** should be lint-free so that they do not leave fibres on the object or contribute to dust in the space. The best duster is the **micro-fibre cloth**. These have a slight static charge that attracts and holds the dust.

Useful for:
- Removing dust from smooth surfaces and is a quick and easy way of doing so.

- **Cleaning objects on display**, particularly the horizontal surfaces where dust collects.

Method of use:
Fold the duster into a pad about the size of the palm of the hand. Place the duster onto the surface and clean using a flat wipe from one side to the other. Do not use a circular motion as this may lead to circular scratches. Straight scratches are less visible. Keep refolding the duster so that you are always using a clean area.

Once dirty, dusters should be washed. They may be hand washed in a mild detergent, such as Stergene or Woolite, or in a washing machine. The temperature of the wash is not important, nor does it matter whether or not fabric softener is used. It is best to avoid biological washing powders or liquids as traces of enzymes can be retained on the duster; these can be deposited onto objects and may cause damage to occur.

**Brushes** are used where the dirt is more ingrained into the surface, if the surface is rough, made of textile or if it has a lot of undercuts. It is usually a good idea to use brushes made from natural bristle as this generally does not scratch. Hog’s hair and pony hair are the types most commonly used. It is useful to have several brushes of each type of bristle and brush type as they can be used for different material types and different jobs, e.g. brushing a frame or brushing a stone sculpture.

Useful for:
- Cleaning objects with moulded or carved decoration.
- Cleaning rough or delicate surfaces.

Method of use:
- The ferrules of brushes (the part that holds the bristles) should be bound with masking or insulating tape to pad them so that they can’t scratch or damage the object.
- Brushes should be labelled with a material type (wood, metal, paper etc) and they should only be used for that type of material. This avoids
damaging an object by scratching it with particles from another material or depositing dirt onto another object. Bristle type should be matched to the material to be cleaned. Hog’s hair is stiffer than pony hair and is thus more suitable for robust surfaces.

- Dust from the top of the object downwards.
- Use a gentle sweeping or flicking motion to lift the dirt off and away from the surface. Brushes are usually used in conjunction with vacuum cleaners as the brush lifts off the dirt and the vacuum removes it.
- Brush along the grain (if there is one) to lift dirt out of the crevices.
- Brushes should be washed after use. Use a mild, liquid, detergent, such as Stergene or Woolite. Massage the detergent into the bristles and rinse under a tap. Allow to air dry.

**Vacuum cleaners** are used to remove dust from an object or room. They can be used in conjunction with brushes or alone with the vacuum cleaner attachments.

**Useful for:**
- Taking dust away
- Cleaning objects with moulded or carved designs in conjunction with brushes.
- Cleaning textiles.
- Cleaning rooms or galleries.

**Method of use:**
- Vacuum cleaners for general cleaning and object cleaning should be kept solely for their separate functions.
- Vacuum cleaners used for object cleaning should have variable suction and this should be used at its lowest setting initially until you are certain that the surface is robust enough to withstand more suction. Vacuums designed for museum use are available from conservation suppliers, but variable suction can be added to most vacuums by asking a vacuum cleaner engineer to fit a potentiometer.
- If used with brushes the vacuum cleaner is used only to catch the dust. The vacuum cleaner should be used without attachments and the end of the tube should be held close to the brush so that the dust can be swept into it.
- Net, gauze or a piece from old tights should be fixed over the end of the tube with a rubber band to prevent any pieces of object that may become detached from being sucked into the vacuum bag. The net will need cleaning periodically – remove it and either pick the dust off or carefully vacuum the net/gauze and then replace it. The end of the tube can be padded with plastazote or polyester wadding; this is particularly important if the object could be damaged by...
bumping into the tube. Care should be taken not to place the vacuum body on the object as this may crush or otherwise damage the object.

- Ideally, textiles should be vacuumed through a screen to prevent sucking up loose fibres. The screen can be made from stiff net or fly-screen material and the edges should be bound with masking tape or tacked to a wooden frame.
- If used with the vacuum cleaner attachments care should be taken to ensure that the object can withstand the force applied through the attachment.
- Begin cleaning with the lowest suction, only increasing if the object is robust. Floors, walls and ceilings can be cleaned using the floor tool. Take care as some floor tools have wheels and these can mark painted surfaces.
- Upholstery, furniture, curtains and robust textiles can be cleaned using the round brush end.
- Be cautious with both of these attachments as it is all too easy to suck up all or part of the object – damage may not be obvious.
- The crevice tool can be used to clean the gap between floor and skirting board and inside ventilation grills. The flat upholstery tool may be used on robust textiles but do check for loose pile or fibres. Care should be taken to avoid bumping the vacuum into objects.
- Vacuum cleaners should be washed out periodically, including all the hoses and attachments to ensure that dirt and insects are not transferred to other objects or areas.

If the dirt seems to be bound more closely to the surface then methods that come into closer contact with the object may be effective.

The following methods can be used on stable surfaces such as stone, plaster, unglazed but not powdery ceramics, tiles, paper and wood including non-powdery polychrome:

**Smoke sponges** are sponges impregnated with chemicals that act as a dry detergent, bonding with and removing dirt. There were originally created to remove smoke deposits. These are not the same as ‘magic sponges’ advertised for domestic purposes, which have to be wetted in order to use them.

Useful for:
Removing dirt that is bound to a surface but where solvents may damage the surface.
Method of use:
Cut a small piece from the smoke sponge. Use it dry and gently rub/stroke it over the dirty area. Be careful to support the object so that cleaning does not tear or wrinkle the object. Rotate the piece of sponge as it gets dirty and wash after use. They can be reused several times.

Erasers can be used in the same way as smoke sponge, but should only be used on hard surfaces or robust paper. The plastic erasers are the most useful – natural rubber may mark the surface.

Wet Methods
If dry methods do not remove much dirt or there still seems to be dirt bound to the surface, then wet methods may be more effective. It is important to note that these methods do have some dangers attached. Surface coatings may be removed, colours may bleed and corrosion may be activated.

Test your solvent on a small, inconspicuous area first. Wait for the area to dry completely and then assess the surface. If there is any clouding, discolouration, colour movement, removal of any surface coatings or other negative changes, do not continue. Remember, you cannot put back what you take away.

Paper, oil paintings and textiles should never be cleaned using a wet method unless the work is to be carried out or directed by an experienced conservator. Plastics should not be cleaned with any solvent other than water, and should not be wet cleaned at all if the surface is sticky.

Wet methods refer to all techniques that wet the surface. Water and other solvents can be used in combination or singly and can also be used with or without detergent, ideally a non-ionic detergent. Conservators generally use Synperonic A7 but any mild, non-biological detergent can be used, such as Stergene or Woolite.

Think carefully about the end result you want before you start the cleaning. Cleaning a small part of an object will often leave an obvious line between cleaned and uncleaned – it may be better not to use wet methods rather than have something that looks odd.
Be careful not to over clean. Over-zealous cleaning may remove the original surface finish and may leave an object that no longer seems to be historic. Your visitors want to gain a sense of history in the collections on show, so try not to eliminate this completely.

The following solvents are those most commonly used in conservation:

**Water**
This is the most widely used solvent and solvent testing should always begin with water. It is a much stronger solvent than is generally appreciated and will remove or lessen most dirt deposits. It’s a good idea, where possible, to use de-ionised or distilled water as these will not leave any mineral deposit on the surface of the object.

**Useful for:**
- General washing of objects and removal of dirt from intricate surfaces.
- Removing organic adhesives, especially when applied in a cotton wool poultice.

Glass and most glazed ceramics can be placed in a padded bowl and washed with a cloth or small sponge. Glazed ceramics with gilding, over-painted areas or transfers should be cleaned with a swab, not by washing.

**Acetone**
This evaporates very quickly and so is useful for objects that should not be wetted.

**Useful for:**
- Removing oil or grease.
- Cleaning break edges before repairs are made.
- Removing slightly greasy dirt.
-Removing adhesive residues.

**Methylated Spirits** (meths)
A slightly in-between solvent – it does not wet as much as water but evaporates more slowly than acetone – this means Methylated Spirits can penetrate the dirt layer and this can be an effective method of removal.

Conservation labs generally use Industrial Methylated Spirits, which does not contain bitrex or the purple dye and is a purer form of Methylated Spirits. You will need to apply for a spirit licence from HM Customs and Excise to be able to buy it. For this reason, purple meths is sometime used. It does the same job, although the purple dye may stain absorbent surfaces – test first.

**Useful for:**
- Removing greasy dirt.
- General dirt removal.

**White Spirit**
This solvent does not affect as many surface finishes as acetone and meths, but it does have a very pungent smell. It should not be assumed that this is a “safe” solvent; use caution and test as for the other solvents.

**Useful for:**
- Degreasing.
- Removing dirt and dust.

**Spit** (active ingredient salivary amylase, an enzyme)
Human spit is widely available and is a very cheap solvent.

**Useful for:**
- Removing dirt and dust. This is a useful solvent to try if nothing else seems to be working.

**Method of use:**
Wet methods are usually carried out by applying the solvent to the object using a swab. This can be a purchased cotton bud or a hand rolled swab. Hand rolling allows you to make exactly the size swab required and is cheaper than buying cotton buds.

- Swabs should be rolled across the surface.
- Swabs should be disposed of as soon as they are dirty – do not put a used swab back into the solvent.
- If detergent is used, the object should be rinsed by going over the area with a swab of plain solvent to remove the detergent.
- Swabs, and any other material used with solvent, should be disposed of in a container that allows the solvent

**Conservation labs generally use Industrial Methylated Spirits, which does not contain bitrex or the purple dye and is a purer form of Methylated Spirits.**
to evaporate slowly. This can be a swab jar – made from a jam jar with a hole pierced into the lid – or an empty drink can. Push the swab into the hole and pull out against an edge of the hole. This pulls the swab off. Cotton buds must be thrown away whole. Once the solvent has evaporated completely the swabs may be placed in a bin.

Polishing – Metals

This can be very damaging to objects – all polishing removes a micron-thin layer of the surface and over time this can lead to significant damage, such as wearing away inscriptions. Buffing with a lint free cloth or a silver cloth is very effective at removing small areas of tarnish or dullness. Gentle cleaning with a very soft toothbrush and/or a swab with soapy water (hot water can be more effective) will usually remove medium tarnish deposits. Do remember to dry the surface thoroughly as moisture left on the surface may encourage corrosion.

Preventing tarnishing/dulling is the most effective method. Avoid handling polished metal without gloves – finger marks are very damaging. Tarnish inhibitors are very effective at preventing tarnishing, although the case or storage container needs to be well sealed for the inhibitor to be most effective. They need replacing periodically; the time interval depends on the level of pollutants in the atmosphere and how well sealed the case/container is. Silver can be stored in bags made from inhibiting fabric. These are very effective over many years. (See web links)

Apply polish as infrequently as possible and only when the dry methods given above are not effective. Polishes should be used extremely sparingly, with more attention applied to the removal of the polish than the application. The shininess can then be maintained by gently buffing the object with a silver (suitable for non-silver bright work and copper, but keep one just for use on silver) or copper cloth. This also has the advantage that the tarnish deposits will be quite minimal and thus will not require much effort to remove them when the time comes to use polish again.
Method of use:
On steel, copper or brass use Solvol Autosol/Autoglym, Prelim or similar paste polishes. Use a tiny amount on a lint free cloth or swab. Rub gently, allowing the paste to work — there is usually a moment when you will feel the dirt begin to move. Buff off with a lint free cloth or clean swab and make sure that all the polish is removed or a white residue may be left that can be difficult to remove. Work on a small area at a time and only use polishes on smooth surfaces as rough areas tend to hold the polish.

Silver should be cleaned with silver polishes in the same way. Alternatively, a polish can be made using calcium carbonate, most easily available in the form of unscented talcum powder (although precipitated calcium carbonate, from chemical suppliers is a smaller particle size and thus is less abrasive), mixed into a paste with White Spirit, acetone or IMS. This can then be applied on a swab and gently rubbed into the tarnish. Wait until it is dry and then brush it off with a small brush or use a small amount of solvent to remove it. This is a relatively non-abrasive polish and is thus safer to use than some commercial products. The other advantage is that any residue can be brushed off.

Polishing – Plastics and Wood
Plastics and wood can also be polished. This removes dirt and adds a shine to the surface. Excessive polishing can lead to a build up of polish that may be disfiguring, attract and hold dirt on the surface and may damage the surface. Consequently all polishing should be undertaken with caution and as infrequently as possible.

Buffing with a soft cloth should be the first method tried, but do not attempt this if the surface is flaky or otherwise unstable. If the wood seems very dry then polish is useful, but if the wood is not handled, meaning that the polish is not worn off, then regular polishing isn’t necessary and should be avoided.

Beeswax polish can be used, but this can become tacky at room temperature, meaning that dust sticks to the surface. Renaissance (microcrystalline) wax is a synthetic wax and is hard at room temperature but it can be difficult to remove. Apply very sparingly with a soft cloth and then buff. Don’t use spray silicone polishes as these build up a layer of silicone which can be disfiguring and is difficult to remove.

Plastics can be polished to restore colour using abrasive polishes, but as in metals, this does remove a thin layer of the surface and this is often not appropriate for collection objects. Wax polishes can be applied to some materials but is only suitable for a small range of plastics. If you do not know what the plastic is, seek advice from a specialist. Guidance can be found in “Plastics. Collecting and Conserving”.

Corrosion
Much corrosion is stable and actually forms a protective coating on the surface, preserving the metal beneath. As a general rule, a dull colour combined with a very adherent, coherent surface means that the corrosion is inactive and stable.

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usually active and action should be taken to prevent further corrosion. This often means moving the object to an area of lower relative humidity or removing a source of acid, such as deteriorating plastic. By treating the source of the corrosion, it is much more likely that the object will survive as corrosion is much less likely to re-occur.

6. Repair

Repair work needs to be very carefully considered and always approached with caution. Before attempting a repair, it is important to consider why the repair is deemed necessary – is it actually necessary to make a repair or is it possible to understand the object by some other method, such as a reconstruction image?

What Should You Use?

In the past, all manner of materials were used to repair objects, often those that would allow the object to extend its useful life. These methods were often intrusive and disfiguring and many actually caused further damage to the object, e.g. rivets used to repair ceramics required holes to be drilled into the object; corrosion of the rivets can lead the ceramic to break again. The decay of these old repairs often results in discoloured areas, which can be very disfiguring.

Materials used in conservation today to make repairs should be:

- Removable, so that they can easily be removed from the object without damaging it.
- Non-yellowing, so that they do not become disfiguring as they age.
- Weaker than the object, so that if the object undergoes stress, the adhesive should fail (break) before the object does so that the adhesive does not cause the object to become damaged further.

The adhesives used commonly in conservation are:

**Lascaux**. This is quite a wet, acrylic adhesive, water based and soluble in water. It is useful for repairing wood and organic materials, although it can make textiles very stiff and should be avoided for these materials. If this is unobtainable, you could try using commercial Wood Glue but try to find one that is water based rather than solvent based as the solvents can cause the adhesive to discolour.

**HMG** This is an adhesive based on cellulose nitrate, solvent based and soluble in acetone and IMS. It is available ready mixed in tubes from conservation suppliers. It is useful for porous ceramics, wood, plaster and some synthetics.

**Paraloid B72** An acrylic co-polymer available as resin or ready mixed. The resin is soluble in acetone and can be mixed in many different ratios of solvent to resin to give a thin adhesive that can be painted onto cracks or a thick adhesive that can be used to join two pieces together. It is useful for ceramics, wood, plaster, small joints in stone and some synthetics.

The bond created by HMG and Paraloid is not a strong one. It will hold objects together, but the bond may not be strong enough to support the object – additional support may be required. The bond will not be strong enough if the object is to be used, perhaps as part of a handling collection, and so advice should be sought from a conservator on alternatives.

Treat adhesives like solvents and **test first** to ensure that there is no discolouration etc.

These adhesives are suitable for most 3D objects. It is strongly recommended that you do not make repairs using adhesives on paper, textiles or oil paintings without seeking advice from a conservator. These items may be irreparably damaged by inappropriate adhesives.
General method for making a repair:

- Carefully test fit the broken pieces, ensuring that the edges are not ground together – this could cause further damage.
- Will the object require support whilst the adhesive sets? If so, have plastazote, tissue scrunchies or a tray filled with sand ready. Covering the sand with cling film will prevent the object from being scratched.
- Cut several small lengths of masking tape and stick these to the edge of the bench close to where you are working.
- Ensure that the joint edges are clean – clean and degrease with a swab of acetone.
- If the material to be repaired is porous or absorbent, paint a diluted layer of adhesive onto the surface with a small brush and let this dry. This helps to seal the break edges so that the adhesive is able to make a bond rather than be sucked into the object.
- Paint a very small amount of adhesive onto one surface and join the two pieces of the break together (making a joint).
- Test the edge of the joint with the end of your thumbnail. If you can feel a slight ridge, the joint is not properly aligned – carefully manipulate the pieces, testing with the thumbnail until there is no ridge. Note that it may not be possible to get a completely smooth joint if the object has sprung. The act of making an object often creates tension within the object, especially in glass and ceramics. When the object breaks, the tension is released and this allows the pieces to expand slightly or spring. Consequently, the pieces may never fit back together perfectly. Aim for the best fit you can get.
- Pushing the two pieces together, take one of the pieces of masking tape. Stick it to part of the object above the break quite firmly. Pull the tape tightly over the joint and press it down on part of the object below the joint. Repeat with other pieces of tape until the joint is held securely.
- Support the object until the adhesive is set.
- Once the adhesive has set, but is not hard, carefully remove the tape and remove any adhesive that has dribbled out of the joint. It is generally easiest to do this using solvent on swabs – acetone will remove most adhesive residues, although water may be better for PVA. Remember to clean both sides of the object.
- Let the adhesive set completely and document what has been done on the object record.

Small repairs, such as restitching a press-stud to a garment, can be carried out using matching polyester thread and reusing the existing stitch holes or sewing between the threads of the fabric.

Old Repairs

It is tempting to remove old repairs and replace them with something less disfiguring and more conservation friendly. Taking apart an old repair can be a difficult operation and one that may result in further damage to the object. Ceramic repairs involving rivets are especially difficult to remove. Old repairs may be disfiguring, but it is generally safer for the object to leave the repair alone. If the object is needed for display and the repair is particularly distracting, consult a conservator.

Stitched Repairs

Small repairs, such as restitching a press-stud to a garment, can be carried out using matching polyester thread and reusing the existing stitch holes or sewing between the threads of the fabric. Larger repairs should be carried out by, or under the guidance of, a conservator.

Professional conservators are highly trained people and it is always worth getting their advice and paying for their work. But the considered application of the approaches outlined here, underpinned by a good understanding of your collection and its needs, should give all museums the confidence to undertake basic conservation: saving you money and making your collection more sustainable!
Further Reading and Suppliers

Barclay, R., Bergeron, A. and Dignard, C. 2002 Mount-making for Museum Objects Canada: Canadian Conservation Institute


2011 The National Trust Manual of Housekeeping London: National Trust

Other Reading


All available through the Collections Trust web site www.collectionstrust.org.uk Find them under the Collections Link tab and then Useful Guidance.

Online Conservation Resources


Preserving my Heritage: www.preservation.gc.ca As above, useful site for general collections care advice from one of the world’s leading organisations in this area.


Conservation Register: www.conservationregister.com. An online directory of conservators practising in the UK; all the practices have achieved ICON’s professional standard of Accredited Conservator-Restorer, ACR.

Information about tarnish inhibiting materials for storage can be found at: http://bmagblog.org/2013/10/21/how-to-protect-your-silver/

Conservation Suppliers

The following companies supply materials for conservation, including acid free tissue, gloves, storage boxes, smoke sponges, dust bunnies and museum vats.

Preservation Equipment Ltd
Vinces Road, Diss, Norfolk IP22 4HQ 01379 647 400 www.preservationequipment.com e-mail info@preservationequipment.com

Conservation by Design Ltd
Timacare Works, 5 Singer Way, Woburn Road Industrial Estate, Kempston, Bedford MK42 7AW 01234 853 555 www.conservation-by-design.co.uk e-mail info@conservation-by-design.co.uk
**Conservation Resources (UK) Ltd**
15 Blacklands Way, Abingdon, Oxon, OX14 1DY
01235 553166
www.conservation-resources.co.uk
e-mail sales@conservation-resources.co.uk
Supply Paraloid, HMG and Lascaux.
There are many other companies, but these three carry a good range of general materials.

**Edward W Mason**
Brush Manufacturers
14 Brownfields, Welwyn Garden City, Herts, AL7 1AN
01707 331 911
e-mail masonsbrushes@btconnect.com
Excellent quality brushes at a very good price and often cheaper than comparable cosmetic brushes.

**Nilfisk-Advance Limited**
Unit 24 Hillside Business Park, Kempson Way, Bury St Edmunds, IP31 7EA
01284 763 163
www.nilfisk-advance.com
Nilfisk UZ964 vacuum and bags. This vacuum is worn like a bum bag and has proved very easy to use in all museum contexts.

**Satay sticks** are available from supermarkets and kitchen shops.

**Cotton wool** (all-cotton is the most absorbent) from chemists and supermarkets.

**Microfibre cloths** are available from Lakeland, John Lewis and some supermarkets and the conservation suppliers.

**Autoglym** and **Autosol** are available from car supply shops, e.g. Halfords, hardware shops and some supermarkets.

**Silverglit, silver cloths** and **copper cloths** are available from hardware shops and supermarkets. An internet search will bring up many suppliers.

**Nitrile gloves** are available from Preservation Equipment but are often cheaper from scientific/medical suppliers. Check your local Yellow Pages or try Scientific and Chemical www.scichem.com

**Jars** for solvents, as above.

**White Spirit** and **Methylated Spirit** from DIY stores.

**Acetone** from chemists.

**White Spirit, Industrial Methylated Spirit** and **Acetone** from scientific suppliers, see gloves.

**Acid free tissue** is also available (and is usually cheaper) from local packaging suppliers and is also available from the conservation suppliers. Make sure you get unbuffered and unglazed tissue.

**Plastazote** is also cheaper from the manufacturer than from the conservation suppliers. Check for local manufacturers or try

**Ramplas Ltd**
84 Birmingham Road, Dudley, West Midlands, DY1 4RJ
t: 01384 453160
f: 0121 535 7108
e: info@ramplas.com
http://www.ramplas.com

Jane Thompson Webb studied Archaeological Conservation at Cardiff University and became a freelance object conservator, moving into collection care in 2001. In 2004 she established, and continues to deliver, the RAW collection care training programme to museums and heritage organisations across the West Midlands region, including sessions on basic conservation. It is her favourite part of the job.