

A Guide to Marking and Labelling Museum Objects

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- ✍ Marking should be discreet
- ✍ Marking should be reversible
- ✍ Labels and marking should be as secure and safe as possible
- ✍ Labels and marking should be legible and unmistakable
- ✍ Only mark accessioned objects which belong to the organisation



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**THESE NOTES GIVE GENERAL GUIDANCE.
IF YOU HAVE ANY DOUBTS, PLEASE ASK A CONSERVATOR.**

Developed from the guidelines produced by
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Museum Documentation Association (MDA),
Wiltshire County Council Conservation Service &
National Museums Liverpool

WHY DO WE MARK OR LABEL OBJECTS?

Every item in a museum collection should always have its identity number with it. This is an effective method of identification which enables the object to be securely linked to the information the museum holds about it. If this bond between the object and its documentation is broken, the consequences may be serious. It may take considerable time and effort to re-identify the object securely. If the object cannot be confidently re-identified, the reason for keeping it may be lost.

Marking and labelling are part of the SPECTRUM procedures for caring for collections and are required as the minimum standard for museum accreditation in the UK.

An object is given an **Accession Number** when it is accepted into the museum's collection. If it has been loaned to the museum it may be given a **Loan Number**. If it is temporarily without a number (for example because it has been handed in to the museum for examination to see if the museum wishes to keep it, or because it has been found in the museum with no identification) it may be given a **Temporary Number**. Once it has been accepted into the collection, or has been correctly identified, its Temporary Number is replaced by its Accession Number. A list should be kept showing the link between all Temporary Numbers and Accession Numbers (or stating that the object has been handed back, so the Temporary Number is no longer in use). The list of Loan Numbers should show when the object arrived at the museum and when it left.

Marking means writing the Accession Number directly onto the object, or permanently attaching it (e.g. with an adhesive). **Labelling** means writing or printing the number on a separate card, label or tag and attaching it securely but not permanently (e.g. by tying it on with cotton tape).

The method of marking or labelling should be carefully considered for each object or group of objects. Inappropriate marking techniques can cause irreversible damage. The mark or label should be as permanent as possible but be easily removable, if necessary, without causing damage to the object.

It is vital that the mark or label is legible, clear and cannot easily be misread. The size and shape of the letters and numbers must be carefully chosen. A full description and photograph of the object should also be included in the documentation.

Marking an object is not intended to act as a security device in the case of theft of the object.

Designing the Accession Number

Museums use a variety of different numbering systems. As long as your museum is consistent in the way it numbers objects and there is no risk of duplicating numbers (of giving the same number to two or more different objects), it is not essential to use the recommended system. The MDA recommended code is to use the year of accession as a four digit number, followed by a dot and then the number entered into the collection register that year (e.g. **2012.1, 2012.2, 2012.3**) Strokes / are not used to separate numbers as they are easily mistaken for the number one - I. Objects which have detachable parts (e.g. a teapot with a lid, a box with contents) or parts of a set (e.g. a tea set, a pair of shoes) are given sub-numbers (e.g. **2012.1.1, 2012.1.2,**

2012.1.3) It is vital that the number is written clearly and cannot be easily mistaken. A hurriedly written B can easily be mistaken for an 8, an S for a 5. 1 and 7 can be very similar. Please use the sample sheet at **APPENDIX A** for practice.

Using the museum's MDA Code

Every museum in the UK has a Museum Documentation Association (MDA) 5 letter code. The first three letters usually identify the place (e.g. BAT for Bath, BRI for Bristol) and the last two identify the museum (e.g. BATRM for Bath's Roman Museum, NTTRE for National Trust: Tretrice). The list of current codes can be seen at <http://collectionstrust.org.uk/mdacodes/> . If your museum is not listed you can contact the MDA via this site and ask for one. This way you can be sure your code has not been duplicated by another museum. You do not have to write this code on every item in the museum's collection. However, when objects from your museum leave the building (e.g. on loan to another museum) it is good practice for the MDA code to be attached to the object. In some cases this has enabled museums to identify and reclaim missing objects years later.

WHEN TO MARK OR LABEL AN OBJECT

Marking or labelling an object should be done as part of the accessioning process. Items which are on loan to your museum or not yet accepted into the collection should NOT be marked. In this case, a temporary label (with its Loan Number or Temporary Number) should be tied onto the object in case it becomes separated from its entry form.

An accessioned object should be physically marked; however in some cases this may not be possible (e.g. coins may be too small to mark). These guidelines should help to ensure that items are labelled or marked in ways which are:

- **Secure** – It must be difficult for the label or mark to be accidentally removed.
- **Reversible** - It should be possible for a label or mark to be removed intentionally from an object, even after 100 years, with as little damage as possible
- **Safe for the object** - Neither the materials applied to the object nor the method by which they are applied should risk significant damage to the object
- **Discreet but visible** - The mark or label should not spoil the appearance of the object, nor obscure important detail. However, the number should be visible enough to reduce the need to handle the object.
- **Convenient and safe for staff and volunteers** - Materials should be easily available in small quantities and should not pose significant risks to health if used in accordance with the guidelines recommended by the Health and Safety Executive *Control of Substances Hazardous to Health* (COSHH) and risk assessments.

Renumbering

Changing the number which has already been written on an object is very serious. You should only do this if:

- The number is definitely wrong
- Two objects have been given the same number
- It is safe to do so
- The number is illegible

You must keep a record of the change- make a note on the object's record.

HEALTH AND SAFETY

Before deciding on a marking or labelling technique, the health and safety risks associated with it should be considered and relevant documentation consulted. Under the COSHH legislation, it is the responsibility of each museum to carry out a risk assessment, and to develop internal guidelines to ensure safe working practices. A sample risk assessment form is included at the end of this document in **Appendix B**

As with any work involving the use of potentially hazardous substances, it is important to make sure that

- People wash their hands before and after a labelling and marking session
- There is good ventilation
- Any waste (e.g. swabs with solvent) is safely disposed of
- Equipment is kept clean and in good condition
- Suitable protective equipment is worn
- Materials are stored and used safely
- The work area is well away from food, drink, smoking, flames or hot tools
- People know the first aid procedures in the museum

Please take care when using acetone and white spirit, which are highly flammable solvents. Repeated contact with the skin can cause skin irritation or even dermatitis. Inhaling high concentrations of white spirit fumes repeatedly can lead to symptoms of central nervous system depression including slowed reactions and lack of co-ordination. Always work in a well-ventilated space and keep the top on the bottle when not in use. Sample COSHH forms are included in APPENDIX C

MATERIALS TO AVOID

Only use the correct, archival quality materials. In the past inappropriate materials have been tried which cause a variety of problems and should never be used on museum objects. Here are a few examples:

- White correcting fluids (e.g. Tipp-ExTM) dry to form an inflexible surface layer which easily cracks and falls off. They are not designed for long-term stability and may discolour and deteriorate with age. If they come into direct contact with the surface of an object, they can be extremely difficult to remove and leave an unsightly white residue.
- Clear nail varnishes are made from a variety of materials including cellulose nitrate. They are not designed for long-term stability, and their ageing properties are untested. They are likely to cross-link with age, becoming brittle, discoloured and difficult to read through. They may become insoluble and hard to remove without damaging the object.
- Nail varnish remover is not pure acetone. It may be mixed with other solvents including ethyl or amyl acetates and contain other ingredients, such as perfume and oils. It may cause staining to object surfaces.
- Other substances that should never be used on an object include self-adhesive tape or sticky labels, Blu-tac, Velcro, felt-tip pen, pins, steel paperclips. Do NOT apply any self-adhesive label or tape, such as SellotapeTM, to the surface of an object. If a glued-on label is the most appropriate technique, use the Paraloid B72 acrylic solution in acetone as adhesive. Some objects should have a label attached with a starch-based adhesive (such as botanical specimens) – ask a conservator for a suitable product.

Any chemical substance, unless it has been developed or tested within the museum profession so that its properties are known, may have adverse effects on museum objects. Always check with a conservator before using.

POSITION OF LABELS OR MARKS

A table of recommended or standard positions is given below, but each object should be examined to make sure that the position where the label or mark is placed is suitable.

- Avoid physically unstable surfaces, weak areas or places where there are cracks or joins.
- Avoid areas which are decorated, painted, varnished, pigmented or waxed.
- Choose a position so that the number is unlikely to be visible when the object is on display, e.g. the underside or reverse
- Avoid surfaces where the mark is likely to be at risk from abrasion, such as surfaces on which the object normally rests, or where it is touched during handling
- Position the number so it can be found easily, to minimise the handling necessary to read it. (Where possible, packaging should also be marked with the object numbers and /or additional archival labels included.)
- Whenever possible use standardised positions for particular types of object. Special collections may have particular recommendations. Keep a record of the standard positions used in your museum and consult it regularly.
- Mark all detachable parts of an object (using suffixes to the Accession Number – e.g. 2012.005.3)
- With composite objects (made from different materials), mark the part on which the most secure method can be used.
- Where duplicate pencil marks are made these should be in different positions on the object (bearing in mind, of course, the other principles listed above).

Before handling objects, please read your museum's Handling Guidelines and any relevant Risk Assessments, prepare the area, yourself and everything you need.

CHOOSING A MARKING OR LABELLING TECHNIQUE

There are a number of techniques which can be used to mark or label an object with its accession number. For example

1. Ink on a lacquer base coat, with a protective lacquer topcoat - Paraloid B72 + black/white pen + Paraloid B72 or Paraloid B67
2. Printed label
3. Sewn on label
4. Tie on label
5. Marking with a 2B pencil
6. Special labels, e.g. for small objects
7. Labelling wet objects
8. Pinned label for biological specimens
9. Some alternatives for larger objects

Generally particular techniques are used on particular materials, e.g. glass and flint should be marked using the ink and lacquer method, whereas textiles should have a label tied or sewn on.

Each object should be considered individually, based on simple questions such as:

- What materials is the object made of?
- Is the surface porous? (e.g. low-fired ceramics, limestone, leather, bone)
- What is the condition of the object surface? Is it flaking or powdery? Is there a special finish such as a varnish?
- Is the object physically strong enough to apply a number or attach a label?
- Is the surface rough or smooth? Will the number be legible?
- Is the object large enough to apply a legible number?

The table below lists the main types of objects and materials, suitable techniques and positions.

If you are uncertain, or are worried about an object, please STOP and ask a conservator.

Preparation

Prepare the area:

Have a clean clear space where the objects will be safe and secure

Make sure people can see that objects are being handled there and do not put inappropriate items near them

Make sure there is no food, drink or items which could stain or damage the objects nearby

Cover the work surface with sheets of acid free tissue so that you can easily see if small pieces (or pests) come off the object and avoid any dirt being transferred to the next object.

Make sure you have everything you need for Marking and Labelling the objects including light and a magnifying glass if necessary.

Prepare yourself:

Make sure you have correctly identified which objects you are working with and have the correct numbers

Read the Museum's Guidelines and Risk Assessments

Make sure your hair, clothing and jewellery cannot get entangled with the objects.

Wear suitable personal protective equipment: gloves, goggles if you need them, a vapour mask if you are sensitive to chemical vapours, an apron or lab coat, sensible shoes.

Plan your work programme so you have sufficient time to undertake all stages. It may be more efficient to treat several objects in batches, undertaking one stage at a time on all of them. **It is vital that the objects do not get mixed up or lose their numbers at this stage.**

USEFUL INFORMATION

Collections Trust: Labelling Guidelines and SPECTRUM
www.collectionstrust.org.uk

Health and Safety Executive: Control of Substances Hazardous to Health
<http://www.hse.gov.uk/coshh/>

White Spirit Manufacturers Safety Data Sheet (MSDS) Sample
<http://www.wickes.co.uk/content/ebiz/wickes/resources/images/coshh/191028.pdf>

Acetone Manufacturers Safety Data Sheet (MSDS) Sample
(Acetone is also called 2-propanone or dimethyl ketone)
<http://www.reagent.co.uk/uploads/documents/ACETONE-TECHNICAL-MSDS.pdf>

SUPPLIERS

www.preservationequipment.com

Tyvek tape and labels, archival paper, Pigma pens, Paraloid resin

local art shops or <https://www.cultpens.com/>

white gel pens, fadeproof, waterproof black pens, artist's brushes

chemists

Pure cotton wool or cotton wool buds

www.justgloves.co.uk or www.gompels.co.uk

nitrile, latex or polythene gloves

A starter kit for Marking and Labelling is available from SWMD at cost. Contact the CDO.

Marking and Labelling - Positions and Procedures

Adapted from the Guidelines developed by National Museums Merseyside, Liverpool

Object Type	Where to mark	Special notes	Paraloid B72 + black/white pen + Paraloid B67	2B pencil	Tie-on label	Fadeproof waterproof pen on archival label	Fadeproof waterproof pen	Sewn-on label
Archaeology								
Metals - wet	Select a position according to object.	Use Tyvek not paper				✓		
Wood - wet	Within polythene bag containing object.	Use Tyvek not paper				✓		
Sherds (ceramic)	Undecorated surface not on fracture break.		✓					
Wood - dry	Select a position according to object.					✓		
Bone or ivory	Select a position according to object.				✓	✓		
Metals - dry	Select a position according to object.	If very friable, mark container.			✓			
Art collections, frames, sculpture								
Frames for oil paintings, textiles, prints, drawings & watercolours	Gummed label attached to upper right corner of frame backboard overlapping gummed sealing tape if present. Loan labels may also be attached to backboard.					✓		
Framed prints, drawings, watercolours	Mark the stretcher and the frame on the top left-hand corner at the back.		✓					
Framed oil paintings	Mark the stretcher and the frame on the top left-hand corner at the back.		✓					
Prints, drawings, watercolours, mounts	On reverse, lower left corner. Leave 5mm gap from left + lower edges. Only mark paper over a hard, clean surface. Do not press hard, especially with soft paper. Don't turn items over if pigments damaged or friable, especially gouache and pastel.			✓				
Sculpture, especially stone	Base or back.		✓					
Stone sculpture	Base, avoiding foot (reverse side if base inaccessible).		✓					
Oil paintings Unframed	On stretcher. Unframed panels are left unmarked.		✓			✓		
Miniatures	Upper right corner of backboard if present. Avoid overlapping frame seal. If no clear, separate backboard attach to storage enclosure/envelope only.					✓		

Object Type	Where to mark	Special notes	Paraloid B72 + black/white pen + Paraloid B67	2B pencil	Tie-on label	Fadeproof waterproof pen on archival label	Fadeproof waterproof pen	Sewn-on label
Basketry								
Basketry	Tie around handle or loop through basketry if weave is open enough, otherwise write on inside edge or base.		✓		✓			
Bird and mammal specimens								
Bird and mammal specimens (mounted)	Underside of base for mounted specimens, otherwise on a label attached to the horns, antlers or legs by thread.		✓		✓			
Bird eggs	Label in tray.				✓			
Bird skins	Label attached to dowel support and feet or to feet if no dowel support.					✓		
Fluid-preserved specimens	Inside container, against glass so they can be read from outside, or self-adhesive label stuck on outside.	Use Tyvek not paper		✓		✓		
Mammal skins Flat-mounted	On the card which supports the skins.						✓	
Bone and ivory								
Bone and ivory specimens and artefacts (sound)	On flat surface, under base or on back.		✓					
Ivory artefacts and specimens (with good surface)	On flat surface, under base or on back.		✓		✓			
Botanical collections: open								
Timbers		Printed labels attached direct to upper side.				✓		
Plant models		Original manufacturer's labels adhered to upper side of base.						
Library		Metal backed computer generated self- adhesive labels *applied on base of spine, pencil annotation inside front cover.		✓				
Botanical collections: boxed specimens								
Economic specimens	Self-adhesive labels *, outside of box, usually underside.	Please ask for specialist advice			✓			
Lichens	Labels on acid free paper *, adhered with SCMC.							
Macro fungi	Labels on acid free paper *, + pencilled tie-on tag round stem for freeze-drying.							
Carpological (seeds)	Labels on acid free paper, adhered with SCMC to outside of box.							
Exsiccate	Volumes placed within archive boxes; box spines labelled.							
Prints & drawings	See 'Art collections, frames, sculpture' table.				✓			
Archives	Mark with pencil - see Paper, Photographs and Books			✓				

Object Type	Where to mark	Special notes	Paraloid B72 + black/white pen + Paraloid B67	2B pencil	Tie-on label	Fadeproof waterproof pen on archival label	Fadeproof waterproof pen	Sewn-on label
Ceramics and clay pipes								
Ceramic vessels and ornaments	Base, avoiding foot (reverse side if base inaccessible).		✓					
Clay pipes	Bowl bottom or, if broken, on pipe stem as well.		✓					
Coins and medals								
Coins and medals	Use a loose label	Write the object number on an acid-free paper or Tyvek label using a suitable drawing ink and drawing pen. Put it underneath the object in its storage tray. Take a photograph of the object and mark the object number on the rear border of the print using a suitable drawing ink and drawing pen (record the weight of the object as an additional means of identification). Always keep the label with the object. When the object (and hence label) is moved, a proxy card should be put in its place.				✓		
Furniture, wood, mirrors								
Longcase clocks	Trunk, hinge jamb near top, inside door in same position.		✓					
	Hood, on mask on hinge side near top (hidden when door closed), inside door in same position.		✓					
Bracket/pediment clocks	Back, top right corner.		✓					
Free standing clocks	Clocks with feet, inside right back foot if it can be seen without lifting clock. If not on back, near base, right.		✓					
Tables, cabinets, commodes	Back at top right corner (upper section if present) or back lower right corner.		✓					
Chairs	Back seat rail, centre of inside face.		✓					
Drop-in seats	Back rail, centre of front face.		✓					
Drawers	Back, outside face of backboard, right.		✓					
Lids	Jamb or lip, inside, right.		✓					
Mirrors	If freestanding, reverse side; side of mount if wall mounted.		✓					
Wooden objects, miscellaneous	Mark unpainted wood, underside, back or inside edge.		✓					
Boxes	Small: On base, right back corner.		✓					
	Large: Hinge jamb of lid and body, right corner.		✓					

Object Type	Where to mark	Special notes	Paraloid B72 + black/white pen + Paraloid B67	2B pencil	Tie-on label	Fadeproof waterproof pen on archival label	Fadeproof waterproof pen	Sewn-on label
Leather								
Leather objects with smooth firm surface (not books)	Underside or back.		✓					
Leather, soft suede or napped, and un-tanned or semi-tanned skin	Loop through existing hole or mark container/packaging.				✓			
Minerals and fossils								
Minerals, rocks and fossils	Matrix (or the 'poorest side' of specimens without matrix).		✓			✓		
Crystals	With number on label inside glass tube, painted number on outside of glass tube or plastic box, or label on specimen matrix or base.					✓		
Sub fossil bone/shells	On underside or matrix, or painted no. on outside of tube or plastic container.		✓			✓		
Musical instruments, toys and dolls								
Musical instruments	On back of case or frame, underside of object, bare metal part if possible.	Do not use Paraloid on lacquered metal	✓		✓			
Toys and dolls	Back of shoulder plate/back of doll: underside/back of toy. Mark clothes as for costume.	Paraloid B72 + black or white drawing ink + Paraloid B67 and Tie-on label, or sewn on label if appropriate.	✓		✓			✓
Paper, photographs and books								
Archives – single sheets, ephemera	Reverse, lower left corner in margin area if possible			✓				
Books, albums, sketchbooks	Lower corner on inside of each cover; if decorated, on first plain page. Use book supports where possible, avoid pressure on joints.			✓				
Photographs (all types: prints, negatives, glass slides)	Mark enclosure (without photo inside/underneath) rather than photo.	Method depends on nature of enclosure. Consult a paper or photograph conservator if in doubt.		✓				
	If framed, see Frames in 'Art collections, frames, sculpture'.							
	If small cased photographs, see Miniatures in 'Art collections, frames, sculpture'.							
Glass, crizzled (for miniatures and cased photographs (Consult a conservator asap)	A small sound area, or mark container. Avoid consolidating glass.		✓					
Plastic, wax and lacquer								
Plastic objects (not photographs)	Under base, or back, depending on object.			✓	✓			
Wax objects	Depends on object.	Use Tie-on label or mark container DO NOT USE Paraloid solutions as they will dissolve the wax.			✓			
Lacquer, Oriental and European	Mark only on un-lacquered surface or use Tie-on label.				✓			
Shells and insects								
Shells, conchology collections	Label in tray.	Tie-on label.			✓			
Insect collections	On card, mounted on the pin.	Pencil or ink.		✓		✓		

Object Type	Where to mark	Special notes	Paraloid B72 + black/white pen + Paraloid B67	2B pencil	Tie-on label	Fadeproof waterproof pen on archival label	Fadeproof waterproof pen	Sewn-on label
Textiles and other costume								
Costume	Back of neckband or waistband, near the opening.				✓			✓
Shoes	On the sole, under the instep.		✓		✓			
Bags and purses	Inside, near the opening.				✓			✓
Gloves and stockings	Inside the welt or cuff.							✓
Curtains, tapestries, banners and draperies	If hanging: On reverse side, usually lower right-hand corner.	Sewn-on label, 25mm width for larger textiles.						✓
	If rolled add labels which can be seen without unrolling.							✓
Rugs, tapestries and carpets	Reverse side, on two diagonally opposite corners if large.	Sewn-on label, 25 mm width if large.						✓
Textile fragments	Loop through existing hole, on folder or box for very fragile pieces.	Tyvek label on fine loop of thread, pencil on card, or marker pen on box.		✓			✓	✓
Textiles and embroideries	On the reverse at the corner.				✓			✓
Tools, machinery, vehicles, boats								
Tools	Near the handle junction, on metal part if there is one.		✓					
Ship models	Discretely, or on crate or case.		✓					
Ships and boats	Bow, bottom of stem.		✓					
Machinery and equipment	Right hand side, low down.		✓		✓			
Land Transport, vehicles	Inside driver-side door/right hand side.	Can use acrylic paint on Paraloid layer for large vehicles	✓					
Weapons, armour and powder horns								
Edged weapons (swords and bayonets)	Blade, below hilt and ricasso. Scabbard, back of top mount.		✓					
Long arms and handguns (rifles, muskets, pistols, revolvers)	Preferably on trigger guard mount, or other metal part rather than wood.		✓					
Ordnance	On base, on bare metal.		✓					
Pole weapons (halberds, lances, pikes, clubs, maces, spears)	Preferably on bare metal.		✓					
Armour, helmets	Inside rim if bare metal, or tie-on label.		✓					
Powder horns and flasks	Back edge near opening, or under base.		✓					

BASIC TECHNIQUES

1. Ink on lacquer base coat with a protective lacquer topcoat – Paraloid B72 + black or white pen + Paraloid B72 or Paraloid B67

This technique can be used on most materials, providing the object has a stable, smooth, and undecorated surface. Generally, glass, metal, stone, ceramics, bone and shell are some suitable materials. Plastics, painted or lacquered surfaces and varnished objects (including furniture) are not suitable as their surfaces may be dissolved by acetone. Textiles and paper are not suitable as the lacquer will sink into the fibres. **Test this method on similar materials to gain confidence.**

The acrylic resins chosen have been tested for their stability and suitability for use with objects. **The same resin solution can be used for the base coat and top coat.** However, some people have found they have problems with the top coat disturbing the written number when it is applied. In this case a different acrylic resin, which dissolves in white spirit, can be used as the top coat.

Base coat: Paraloid B72 20% solution in acetone (20g in 100 ml acetone)

Top coat: Paraloid B67 20% solution in white spirit (20g in 100 ml white spirit)

Equipment:

- Wear suitable protective clothing such as an apron or lab coat, solvent resistant gloves, an organic vapour mask if working for long periods
- Use the lid to keep all the tools and materials away from the object
- A bottle of Paraloid B72 solution in acetone.
- A bottle of Paraloid B67 solution in white spirit.
- A bottle of acetone.
- A bottle of white spirit.
- A very small container of water, preferably with a lid (to minimise the chance of spills)
- Cotton wool buds
- Paper towels (in case of spills)
- Fadeproof, waterproof black and white pens (the kit contains Rotring Tikky black pens and a white gel pen)
- A safe method of disposal of cotton wool buds dipped in solvent (e.g. small polythene bag or solvent-proof container)

Method:

Read relevant risk assessments and safe working practice documents

Prepare your work area. The space must be safe, clean and dry with enough room to work and to lay out the objects whilst drying

Decide the most appropriate location for the number

Prepare this area by lightly wiping the surface with a cotton wool bud partially dipped in acetone to remove any dirt and grease. Don't saturate the cotton wool with acetone or it will run over the surface and may cause damage.

Several objects can be treated this way in batches, provided you can identify the cleaned area.

If the acetone removes anything other than dirt, stop and contact a conservator. The object may not be suitable for marking by this method.

Using the brush in the bottle cap, paint a small area of the object with a base coat of the Paraloid B72 solution. This should be done in a single brush stroke, just large enough to write the number on.

Wait until the base coat is dry. This may take 15-30 minutes depending on the conditions. In cold or damp weather, or on a non-porous object, the lacquer will take longer to harden. Examine the surface. If it looks shiny there is enough Paraloid on the surface to provide a safe writing surface. If the area looks dull, the Paraloid may have sunk into pores in the surface. Apply a second stroke of Paraloid B72 in acetone on the same area. Allow to dry.

Write the accession number on the base coat using the Rotring Tikky fadeproof, waterproof pen or the white gel pen. Use black ink on most objects, or white ink for dark objects on which black lettering would not show clearly. If you make a mistake or the number is not easily readable, use a cotton wool bud lightly moistened with water to remove the ink before it dries. Allow the basecoat area to dry and rewrite the number.

Wait until the ink is dry (at least 15-30 minutes depending on conditions)

Apply a layer of Paraloid B72 in acetone as a varnish on top of the number. Try to apply it quickly and lightly as one stroke, with the brush hardly touching the surface. Allow the topcoat to dry completely before re-packing the object.

To remove the lacquer and ink at any stage of this process, gently roll a cotton bud lightly dipped in acetone over the area, working from the edges to the centre. Change the cotton wool regularly to avoid spreading ink and Paraloid resin across the surface. Dispose of the waste safely in a plastic bag, in a bin outside the museum.

NOTE: If you have problems with the ink running when the top coat is applied, remove the spoiled lacquer with a swab dipped in acetone as describe. Apply the base coat and allow longer for it to dry. Allow the ink a longer time to dry as well. When it is definitely dry (gently press a small piece of white paper towel on it if you are not sure) you can use the Paraloid B67 in white spirit solution to apply one single stroke of lacquer as a topcoat.

2. Printed label attached with lacquer

This can be very helpful when you have a large number of objects to label with similar or consecutive numbers, when you cannot write very small numbers easily or when the object has a very curved or uneven surface that is difficult to write on.

Equipment: As for Technique 1.

Prepare a label printed on archival quality paper using only BLACK ink to minimise fading. If necessary, write on any further numbers with the Rotring Tikky pen or Pigma Micron pen.

Decide the most appropriate location for the number. Prepare this area by lightly wiping the surface with a cotton wool bud dipped in acetone to remove any dirt and grease. Several objects can be treated this way in batches, provided you can identify the cleaned area. If the acetone removes anything other than dirt, stop and contact a conservator. The object may not be suitable for marking by this method.

Using the brush in the bottle cap, paint a small area of the object with a base coat of the Paraloid B72 solution. This should be done in a single brush stroke, just large enough to place the label on. Allow it to dry and apply a second brushstroke of the Paraloid B72 solution over the first.

While the lacquer is still sticky, place the label on and gently press in place. Allow the lacquer to dry.

Apply a single application of the top coat over the label to protect the printing. You should be able to use the Paraloid B72 solution as the topcoat. If you have any problems, you can use the Paraloid B67 solution as the topcoat.

3. Sew-on label

The accession number is written or sewn on a fabric label and sewn onto the object in an appropriate place. This technique is commonly used for textiles as it causes significantly less damage than marking the object, and it is easily reversible. The positioning of the label must be carefully considered so as not to cause damage. Choose a robust area of fabric where extra weight will not put the fibres under tension and where the attaching stitches will not be visible from the front, such as shoulder seams or hems.

Equipment:

- Cotton tape
- Fine needles (curved needles are included)
- Scissors
- Fadeproof, waterproof black marker pen, e.g. Rotring Tikky or Pigma pens
- Fine cotton thread

Method:

Prepare your work area, away from the objects. The space must be safe, clean and dry with enough room to work and to lay out the labels whilst drying. Never use pens on the same table as the objects or leave the pen nearby. This could result in accidental permanent marking of the textile.

Examine the object to check if this method is appropriate. If in doubt, put the object to one side and consult a conservator

Decide the most appropriate location for the number, considering the stability of the textile. The inside of a seam is often suitable.

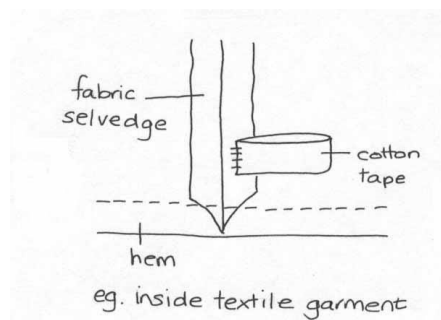
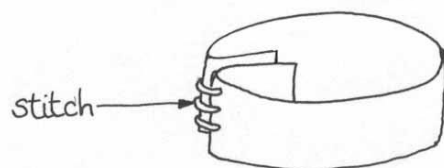
Stretch out a length of cotton or Tyvek tape on a clear smooth surface. You may find it helps to wrap it around a small piece of cardboard.

Write the Object Number onto the tape using the fadeproof, waterproof pen. Leave enough space for cutting and turning in the ends of the tape. If you have a sewing machine which can embroider letters and numbers, this can be used to write on the tape.

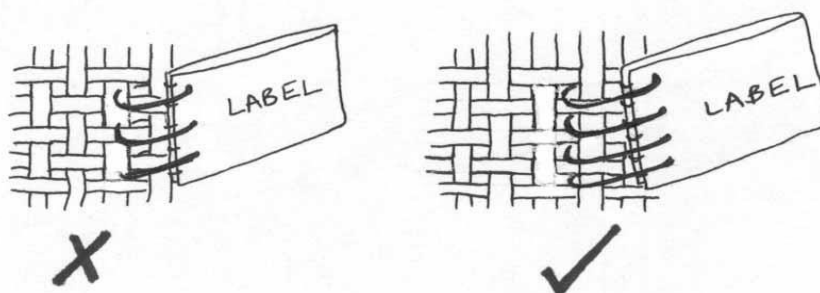
Attach the tape by one of the following methods:

Looped label method

Turn in the cut ends, loop the tape around so the folded ends meet. Stitch the ends together (sew down this hem when attaching to the object)



Sew between the threads of the object NOT through them:

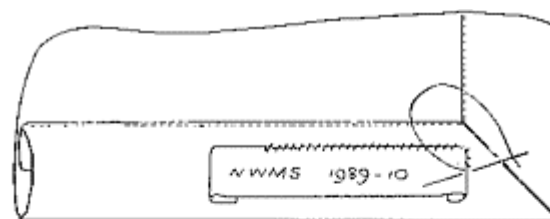


Hemmed flat label

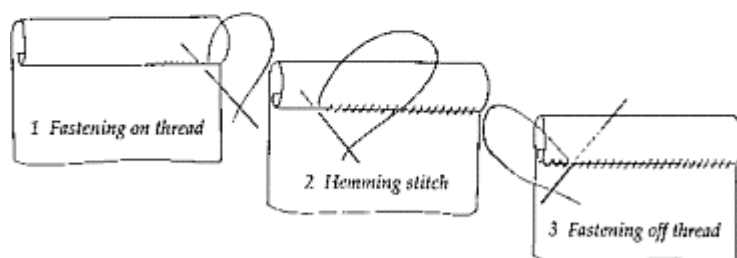
Turn in the cut ends (sew down both folded ends when attaching to the object)

Sew the label quite loosely, but securely onto the textile using a fine needle, compatible thread and a fine, neat stitch. The most appropriate method will depend on the type of garment. Take care to pass the needle between threads and not through them, and to ensure that the stitches do not pucker the fabric

Tie off the thread securely on the label but avoid pulling the stitches.



Flat tape label attached to underside of textile



Hemming stitch: method of working

Diagrams by Jean Glover

4. Tie-on label

Used when it is inappropriate for the object to be marked directly. Consider whether the object is structurally sound enough to attach a label, or whether this would damage weak areas.

Equipment:

- Tyvek or archival paper labels with a hole to thread the tie through
- Fadeproof waterproof marker - Rotring Tikky or Pigma pen,
- Cotton tape or soft twine
- Scissors

(Tyvek is a non-woven, breathable polymer which can be formed as a thin fabric, paper or card). It is waterproof, rot-proof, light, very strong and has many uses with museum objects)

Method:

Decide the most appropriate location for the number

Make a hole in the label if it does not have one already.

Write the object number on the label, on both sides, using the fadeproof, waterproof Rotring Tikky or Pigma black pen.

Cut a length of cotton tape or soft twine long enough to go around the object and tie. Pass the tape through the hole in the label and knot it once.

Place the tape around the object in the chosen location

Tie the tape with a loose knot, ensuring the tape is not too tight

5. Marking with a 2B pencil

The accession number is written directly on the object. Paper is easily marked with a 2B pencil, which can be easily removed using a very soft, clean white eraser. Modern photographs printed on plastic-coated paper may need a 4B or 6B pencil. If marking on the reverse, think about the area on the front – will the pencil mark show through if the paper is thin?

Method:

Prepare your work area. The work surface should be smooth and hard, not padded, so that when you write on the paper the pencil will not indent. Lay one or two sheets of acid-free tissue down to provide a clean, dry surface.

Decide the most appropriate location for the number - usually on the reverse. Take into account the condition of the paper. Never write in the middle of the object. Because pencil can be easily erased, consider writing the number in two separate but standard locations (e.g. inside front cover, inside back cover of books)

Make sure the pencil tip is not too sharp – rub it a few times on scrap paper to round the end.

Gently write the accession number on the object

If you make a mistake, use a very soft, clean eraser. Hold the paper steady with one hand and gently stroke the eraser in one direction only, across the pencil number to erase it. Do not rub it to and fro. Be especially careful of weak areas or torn edges

Never write on a stack of objects as pressure can transfer pigment/ink to surface below.

6. Loose label for special objects

When an object is too small or detailed, too fragile or too porous to be marked or to have a label tied on, the label should be attached to the support or mount or kept in the packaging with the object.

Equipment:

- Archival quality paper or Tyvek labels
- Fadeproof waterproof marker - Rotring Tikky or Pigma pen,
- Cotton tape, cotton thread, fine needles

Method:

Write the accession number on archival paper or a Tyvek label using the Rotring Tikky or Pigma pen. If you wish to print the label you must use a waterproof ink cartridge.

Attach the label to the mount or support, by stitching in position using cotton thread and a fine needle, by tying with cotton tape or soft twine.

OR

If the object is packed in an individual small box or ziplock bag, the label can be placed inside. Ensure the label cannot move around and damage the object. The information should also be written on the outside of the box, as well as in the relevant documentation. Avoid placing objects in sealed ziplock bags as moisture can build up. Pierce the bag with a few pin pricks before placing the object and label inside and storing in a suitable box.

7. Labelling wet objects

Wet objects such as archaeological finds should have been numbered during excavation. If not, write the number and other relevant information on a Tyvek label using the Rotring Tikky or Pigma fadeproof, waterproof pen, allow it to dry thoroughly and place it in the container with the object. Write the number on the outside of the container with the Polyester marking pen.

Wet biological specimens should only be opened and a number inserted by someone trained to work with the solutions used. In emergency, use the Paraloid/ink/Paraloid method or attach a printed label to the jar with Paraloid B72 solution, avoiding any area of decoration or writing. Do not attempt to open the jar.

8. Pinned label for biological specimens

Biological specimens, such as pinned insects, can be very brittle when in dry conditions. Avoid shock and vibration when handling. If the specimen is strong enough to move, and if it can be safely removed from its stand using fine tweezers to grip the pin, a small label can be placed on the pin using the following method:

Method:

Decide the most appropriate location for the number

Write or print a very small label using the Rotring Tikky or Pigma fadeproof, waterproof pen on archival paper or a piece of a Tyvek label.

Make a hole in the label with a pin about the same size as the pin used on the specimen. Do not use the pin on which the specimen is mounted as this will cause severe shock.

Place the label on a small piece of Plastazote foam. Carefully pick up the specimen by the shaft of its pin, using fine tweezers or needle-nosed pliers. Insert the tip of the pin gently through the hole in the label.

Reattach the pin with the specimen (and label) in its original stand.

9. Some alternatives for larger items

Even large items should be treated according to the same principles as small or delicate items. Archival quality materials must be used, with a method that does not permanently alter the object.

Vehicles and large items can have the number written in artist's acrylic paint so that it is large enough to be read from an appropriate distance. The underlying surface should be protected with Paraloid B72 and the number protected with a topcoat as in Technique 1. If the surface is sensitive to acetone, a different method must be used.

Engraved plastic or metal tags can sometimes be used, attached to existing holes in the object. Take care to protect the object from contact with a different metal as this could direct contact with any metal as this could lead to enhanced corrosion. Protect the area with Paraloid B72 lacquer first. Polypropylene ties can sometimes be used, but care must be taken that they do not indent the surface of the object.

Large, wrapped items can have a label with a photograph of the object printed on archival paper, kept in a polyester sleeve or small ziplock bagged, attached to the outside of the wrapping, to avoid unnecessary handling.

APPENDIX A
Sample Letters and Numbers Sheet

Please copy this practice sheet and use it to make your numbers and letters clear and consistent

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APPENDIX B Sample Risk Assessment Form

Museum Name:	Date of Risk Assessment		5. Review date
1. What are the hazards? To spot hazards: <ul style="list-style-type: none"> walk around the museum ask everyone involved check the accident record book think about regular activities check plans and manufacturers' instructions ask other groups and organisations check for official advice Don't forget long-term health hazards	2. Who might be harmed and how? Who comes to the museum? Any particular needs Contractors New people Other people who may share the building	3. What are you already doing? List what is already in place to <ul style="list-style-type: none"> reduce the likelihood of harm or make any harm less serious. 	4. What further action is needed? You need to make sure that you have reduced risks 'so far as is reasonably practicable'. An easy way of doing this is to compare what you are already doing with good practice. If there is a difference, list what needs to be done.
	Who will do it?	By when?	Done
Review your assessment regularly	Review when there is a significant change Make sure you are still improving, or at least not sliding back	Review after any incident	Review if the law changes

May 2009

CDO: helena.jaeschke@exeter.gov.uk

Museum Risk Assessment template

APPENDIX C

COSHH: General Risk Assessment for The Control of Substances Hazardous to Health

Museum	
Person carrying out assessment:	
Date:	

Hazardous substance/s	Description of work activity
Paraloid B72 20% solution in acetone	<p>Writing Accession Numbers on objects using a small brush dipped in a 30ml bottle.</p> <p>Topping up the Paraloid solution or diluting it with a small amount of acetone from the acetone bottle.</p> <p>Using a small cotton wool swab dipped in acetone to clean a small area on the surface or to remove excess Paraloid B72 resin.</p>

Hazard information:

Paraloid B72 is an acrylic copolymer of ethyl methacrylate and methyl acrylate. Inhalation of the dust from the dry resin can cause irritation of nose, throat, and lungs, headache and nausea, Prolonged contact with the dry resin may cause eye or skin irritation. Paraloid will burn in a fire but is otherwise very stable.

Acetone is a very flammable solvent which readily dissolves grease. It can cause irritation to skin and eyes. It should not be swallowed. Long term exposure to large quantities of the vapour may cause damage to kidneys, the reproductive system, liver and skin. The vapour can travel long distances to a heat source or spark.

This substance is very similar to nail varnish used at home, in equivalent quantities, and users should be at least as careful with it as they would be in a domestic setting.

How exposure occurs

When marking objects, a small amount (30ml) of the solution is present in a bottle. Using a brush to coat a small area (approx. 10-15mm x 3mm) on the surface of the object means that a small amount of the acetone evaporates. The user might breathe in some of this vapour.

If the bottle spills, the user might be exposed to a larger amount of the acetone vapour.

If the solution becomes too viscous, a small amount of acetone is poured from the top-up 30ml bottle of acetone into the Paraloid B72 solution bottle. Again, a spill could expose the user to a larger amount of acetone vapour.

While wiping up a spill, the user could come into contact with the solution or acetone.

The spilled liquid will continue to give off acetone vapour until it has all evaporated.

Degree of risk	Low X	Med	High
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Precautions to be taken:

Users should wear nitrile, latex or polythene gloves to avoid skin contact with the solution or liquid acetone.

Users should place the bottles in a secure area (e.g. the lid of the Marking Kit box) so that they are not easily knocked over and any spill is easily contained.

Users should keep the tops on the bottles when not actually using the brush to mark objects or topping up the solution.

Users must work in a well-ventilated area, away from any naked flames and be careful not to allow the liquid or vapour to reach sources of heat such as a light bulb or electric fire.

People who are very sensitive to small amounts of vapour should wear an organic vapour mask (available from DIY stores)

Users should take care not to allow the solution or acetone to splash into their eye. If they do not wear glasses, they may wish to consider wearing goggles.

Any spilled material should be wiped up using paper towels. The paper towels should then be placed in a sealed plastic bag and disposed of in a suitable waste bin outside the building. Do not keep it inside the building as it is very flammable. If you need to use a cotton wool swab dipped in acetone to clean off a small area of Paraloid B72 resin, dispose of the swab in a plastic bag in the same way.

Do not pour unused solution down the drain as it will set when exposed to water, forming a sticky mass which blocks the drain.

If anyone swallows the Paraloid solution or acetone, seek medical help.

If anyone using the Paraloid solution or acetone experiences any skin or eye irritation, headache or nausea, they should stop using the materials immediately, close the bottles and go out into fresh air. The museum should re-examine the workplace and practice and improve the ventilation of the work area, shorten the period in which the work is done and keep a record of the incident.

Signed:

Date:

COSHH: General Risk Assessment for The Control of Substances Hazardous to Health

Museum	
Person carrying out assessment:	
Date:	

Hazardous substance/s	Description of work activity
Paraloid B67 20% solution in white spirit	<p>Protecting Accession Numbers on objects using a small brush dipped in a 30ml bottle.</p> <p>Topping up the Paraloid solution or diluting it with a small amount of white spirit from the white spirit bottle.</p>

<p>Hazard information:</p> <p>Paraloid B67 is an isobutyl methacrylate acrylic resin. Inhalation of the dust from the dry resin can cause irritation of nose, throat, and lungs, headache and nausea. Prolonged contact with the dry resin may cause eye or skin irritation. Paraloid will burn in a fire, but is otherwise very stable.</p> <p>White spirit is a very flammable solvent which readily dissolves grease. It can cause irritation to skin and eyes, dizziness, nausea, vomiting and diarrhoea. It should not be swallowed. Long term exposure to large quantities of the vapour may cause serious damage to health. The vapour can travel long distances to a heat source or spark.</p> <p>It is toxic to aquatic organisms and should not be poured down a drain.</p>
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<p>How exposure occurs</p> <p>When marking objects, a small amount (30ml) of the solution is present in a bottle. Using a brush to coat a small area (approx. 10-15mm x 3mm) on the surface of the object means that a small amount of the white spirit evaporates. The user might breathe in some of this vapour.</p> <p>If the bottle spills, the user might be exposed to a larger amount of the white spirit vapour.</p> <p>If the solution becomes too viscous, a small amount of white spirit is poured from the top-up 30ml bottle of white spirit into the Paraloid B67 solution bottle. Again, a spill could expose the user to a larger amount of white spirit vapour.</p> <p>While wiping up a spill, the user could come into contact with the solution or white spirit.</p> <p>The spilled liquid will continue to give off white spirit vapour until it has all evaporated.</p>			
Degree of risk	Low X	Med	High

Precautions to be taken:

Users should wear nitrile, latex or polythene gloves to avoid skin contact with the solution or liquid white spirit.

Users should place the bottles in a secure area (e.g. the lid of the Marking Kit box) so that they are not easily knocked over and any spill is easily contained.

Users should keep the tops on the bottles when not actually using the brush to mark objects or topping up the solution.

Users must work in a well-ventilated area, away from any naked flames and be careful not to allow the liquid or vapour to reach sources of heat such as a light bulb or electric fire.

People who are very sensitive to small amounts of vapour should wear an organic vapour mask (available from DIY stores).

Users should take care not to allow the solution or white spirit to splash into their eye. If they do not wear glasses, they may wish to consider wearing goggles.

Any spilled material should be wiped up using paper towels. The paper towels should then be placed in a sealed plastic bag and disposed of in a suitable waste bin outside the building. Do not keep it inside the building as it is very flammable.

Do not pour unused solution down the drain as it will set when exposed to water, forming a sticky mass which blocks the drain and the white spirit can damage aquatic organisms.

If anyone swallows the Paraloid solution or white spirit, seek medical help immediately.

If anyone using the Paraloid solution or white spirit experiences any skin or eye irritation, dizziness, headache or nausea, they should stop using the materials immediately, close the bottles and go out into fresh air.

The museum should re-examine the workplace and practice and improve the ventilation of the work area, shorten the period in which the work is done and keep a record of the incident.

Signed:	Date:
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