

Packing museum objects

Poor packing of museum objects can result in long term damage such as breakage and distortion and can encourage other problems such as insect activity and pollutant damage. Good packing will provide long term support and protection and is a cost-effective method of collection care.

What are the desirable properties of packing materials ?

- ! Surface protection – the packing materials should protect the objects from contact with people, pollutants etc. It should be soft and inert so as to avoid damaging the surface of the object.
- ! Shock protection – the packing material should help to absorb shock and vibration, diverting it away from the object.
- ! Insulation – this will prevent the object from damage caused by a sudden change in temperature.
- ! Moisture absorbing buffer – if packing materials can help to buffer the object against fluctuations in ambient humidity, this will help to prevent damage to the objects from being caused by those fluctuations.
- ! Conformation to the shape of the object – this will provide good support to all parts of the object.
- ! Cushioning – Where several objects are in close contact, cushioning layers of packing materials will help to reduce localised stress to objects.
- ! Fill the voids in packing crates and boxes.
- ! Light in weight – this will reduce stress on the objects.
- ! Economic to use and easily obtained.
- ! Can be safely re-used.

Selecting a container

When selecting a container in which to pack objects consider the following points:

- ! Is it large enough to safely house the objects **and** sufficient packing materials ?
- ! Strength – is it robust enough to house objects or be stacked under other boxes ?
- ! Is there a lid, which will increase protection and protect the object from dust accumulation ?
- ! Will it fit into the existing storage systems and use the space efficiently ?
- ! Is it acid free or inert ?
- ! If it is a second-hand box, what was its previous use? If it has housed some food products or flowers for example, insect pests may be present and it should not be used.

Recommended packing materials

Acid free tissue paper and acid free card. This is paper from which lignin has been excluded as the presence of lignin (and other impurities) in the wood pulp used to make paper, breaks down over time, producing acidic by products. The tissue will eventually become acidic and should be replaced every few years, particularly as the objects it contains can acidify it as well.

Polyester film, trade names for this include: Secol, Mylar or Melinex. It is a transparent, colourless, inert plastic, commonly used for making envelopes in which paper items or photographs are housed. It can also be bought by the roll and comes in a variety of thickness'.

Inert foams commonly found in the UK under the trade names of Plastazote, Ethafoam or Jiffy foam. Plastazote and Ethafoam are polyethylene foams and come in a range of colours, densities and thickness'. They are good shock absorbers and the higher densities and thickness can cushion heavier items. They can also be cut to the shape of objects using a scalpel or knife and can therefore be tailored to complex shapes. All three foams can be used to line metal shelves as they provide cushioning against vibration and more "grip" for the objects than painted metal shelving.

Unbleached & undyed cotton or Calico – These are relatively cheap fabrics and are commonly used to make padded hangers for textile collections and dust covers for objects. They should be washed prior to being used in order to remove any manufacturing additives and also because the fabric may shrink. These fabrics can be washed and reused.

Tyvec – This is a trade name for a spun-bonded polyolefin and can be bought in a number of different grades. Tyvec is lightweight, inert and can be stapled, stitched or adhered together. It is used to make very lightweight, water repellent covers for objects. It is also commonly used for museum labels as it is water resistant.

Acceptable short-term packing materials

Bubble wrap - this can be used to protect and cushion objects against shock. It should not be used in damp conditions, as it will trap moisture against the surface of the objects. If the bubbles face AWAY from the object's surface, the risk of them causing a "dimpling" effect in softer surfaces, will be reduced.

Polythene (Polyethylene) – If polythene bags are used, try to obtain food grade bags, as the polythene is not contaminated with finishing products. Do not seal the bags (unless the object is suffering from pest infestation or a controlled microclimate using a desiccant is being maintained. Polythene is useful in conditions where objects need to be protected from water or from building work but it is fairly impermeable to air and so will form microclimates around objects. This can result in trapping moisture against an object, which may damage it and care should be taken when using this material. It can often feel slightly greasy and this is due to oils and

contaminants from the manufacturing process and these too can damage objects if they come into contact with them.

Polystyrene – This is not generally recommended as a packing material, because it is a poor shock absorber as well as being static and attracting dust. However, white (not dyed) polystyrene peanuts, can be used inside sealed polythene bags to provide void filling materials and polystyrene itself is inert.

Materials which are not recommended

Non acid-free tissue or cardboard – as they age, they become more acidic and this can attack objects.

Newspaper (printed or plain) – this rapidly becomes very acidic due to its high lignin content. The newsprint can etch the surfaces of objects and will rub off onto the objects. It can also be transferred by handling, to other items.

Biodegradable packing peanuts – these are made from grains and are water soluble.

PVC Poly (vinyl chloride) – Some plastic file pockets and cling films are made from this. It can become sticky and stick to the objects, damaging their surfaces & attracting dust.

Dyed textiles – Some dyes in textiles can be corrosive and some can “bleed” in the presence of moisture in the atmosphere. This can irreversibly stain the objects.

Woollen textiles – these can now contain moth repellent which may adversely affect objects. Untreated wool will also act as a food source for some insects.

Polyurethane foam – This is cheap, easily available foam but it ages very badly. As it ages it becomes sticky, then brittle, finally breaking up into crumbs.

Cotton wool – This contains a large amount of lignin and will therefore become rapidly acidic. It can also easily snag on rough or delicate surfaces.

Wooden fruit crates or used flower boxes – the wood is poor quality and may off gas organic acids which can attack objects. Insect problems may also be inherent through woodworm (in the crates) or carpet beetle (in the boxes)

Pressure sensitive adhesive tapes – these include Sellotape, masking tape and Scotch tape. The adhesives can bleed through tissue and card. The tapes may also accidentally be stuck directly to the objects during packing.

Packing Do's and Don'ts

Do:

- ! Choose containers that are of sufficient size to safely house both objects and enough packing materials to provide support and protection to them.
- ! Choose containers with lids.
- ! Use acid free and/or inert packing materials
- ! Choose packing materials and methods suited to each individual object.
- ! Pack fragile items individually.
- ! Hang suitable costume on padded hangers.
- ! Nest items in boxes with suitable support between each item.
- ! Place larger or heavier objects at the bottom of boxes
- ! Place the heaviest boxes at the bottom of any stack or shelving unit.
- ! Label the boxes clearly with their contents. Photos can be useful here.
- ! Clearly indicate any boxes which have particularly fragile contents or should not have anything stacked on them.

Don't:

- ! Overcrowd objects into boxes or onto shelves.
- ! Roll objects or wrap them like Christmas presents as it is hard to safely unwrap them.
- ! Stack boxes more than two or three deep.
- ! Cut or alter objects to fit available packing materials.
- ! Use unsuitable packing materials even if they are free/cheap.
- ! Use insecure or inadequate storage systems.

! Underestimate the space



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a network of know how

necessary for housing well packed objects.