

Collection storage: Shelving

Keeping collections storage areas well-organised and free of clutter is essential for ease of object identification and conservation, environmental monitoring and workplace health and safety reasons.

Ideally, all objects should be removed from the floor of a storage area. Pallets are useful for storing heavy objects. Most other objects should be stored on shelves, in plan cabinets or, for smaller documents and photographs, in filing cabinets.

Smaller objects can be placed in plastic crates or tubs that are then placed on shelves. Like objects should be kept together and wrapped in acid free tissue where necessary. Larger, fragile objects and objects which consist of a number of components can also be stored in tubs. Labels can then be attached to the outside of the tubs indicating what is inside the tubs using the accession number and a description.

When choosing shelving for collection stores, you need to weigh up the cost, flexibility, strength and potential impact on the collection.

Metal shelving

This is one of the most effective kinds of shelving to use from the point of view of strength and durability, and also from a conservation point of view, as it provides the most stable environment for objects. Metal shelving comes in many configurations—at its simplest this can be open shelves though its best to use shelving with a fixed back panel so objects can't fall off the back of the unit.

Compactus shelving is also versatile, often saving much needed space, however be aware that vibrations are created each time the compactus is opened, and that fragile objects may need additional packaging to protect them from falling from the shelves and breaking.

Metal shelving can be expensive and it may be more cost-effective to use wooden shelving.

Wood shelving

Wood used for storage (and display) purposes needs to be selected carefully, as many timbers and timber products release harmful vapours. These vapours can cause corrosion of metals, fading of pigments, increase the acidity of paper and other cellulose materials and damage glass.

Considerations when selecting wooden shelving:

Some woods are more suitable than others. Woods that are made of composite materials are especially harmful because of the adhesives used to bond the materials together.

Woods to avoid include:

Chipboard, plywood, medium density fibreboard (MDF), Masonite, Formica, and particleboard.

Hardwoods such as Oak, Douglas fir, Oregon, Pine and Jarrah should also be avoided because of the harmful vapours they emit such as formic and acetic acid and peroxides.

Suitable woods include most soft woods, Kauri pine, and Hoop pine.

Wood to be used for shelving should be carefully tested for strength before it is included. The level of strength required will depend in part on the type of material to be stored.

All exposed wooden shelves, pallets and beams should be sealed to prevent harmful vapours from affecting objects in storage. Many lacquers and paints tested as sealants have been proven to be ineffective. Avoid oil or alkyd-based paints in particular as they release high levels of organic acids.

A preferred method of sealing out harmful vapours is the use of laminate foil. The Canadian Conservation Institute has produced an illustrated information sheet on the use of this product, titled [Low-Cost Plastic/Aluminum Barrier Foil – Canadian Conservation Institute \(CCI\) Notes 1/9](#)

Because of the greater risk of insect infestation associated with wooden shelving, careful environmental controls and a program of inspection should be strictly adhered to.

Some objects require particular treatment in terms of storage, and these needs should be taken into account when the storage area is being designed.

You might also like:

Display case suppliers

Museums & Galleries of NSW

<https://mgnsw.org.au/sector/resources/suppliers/>

Low-Cost Plastic/Aluminium Barrier Foil

Canadian Conservation Institute

<https://www.canada.ca/en/conservation-institute/services/conservation-preservation-publications/canadian-conservation-institute-notes/low-cost-barrier-foil.html>

Guidelines for selecting and using coatings

Jean Tétreault

<https://publications.gc.ca/site/eng/9.810462/publication.html>

Choosing new display cases

Museums Galleries Scotland

<https://www.museumsgalleriesscotland.org.uk/advice-article/choosing-new-display-cases/>

The effects of display and storage materials on museum objects

Museums Australia Victoria

<https://d1vmz9r13e2j4x.cloudfront.net/NET/misc/00027850.pdf>