

# PACKING & TRANSPORT

**A**s in so many of the issues in this publication, the ideal situation and the practical realities can be poles apart. If the ideal is considered, it can provide a better guide when wrapping important cultural material for a commercial or heritage situation with limited resources. Packing objects is time consuming and can be boring. It is essential that all cultural material is packed well. Poor packing can lead to the total destruction of important cultural items. Packing and associated transport problems have, over the years, resulted in an enormous loss of artworks travelling from the remote communities to shops. At times exhibitions have had to be cancelled because of the damage done by inadequate packing for transport.



*Fig Painted wood carving with mould and cardboard stuck to the face due to poor packing and transport. Right photo shows the sculpture after treatment. Not all the mould staining could be removed.*

In the community centres there are often problems of inadequate finance for expensive packaging and/or lack of time to apply the best packing to every job. Problems of timing can lead to problems with packing and transport where there is often deadlines on orders or exhibitions. Artwork may have just arrived from

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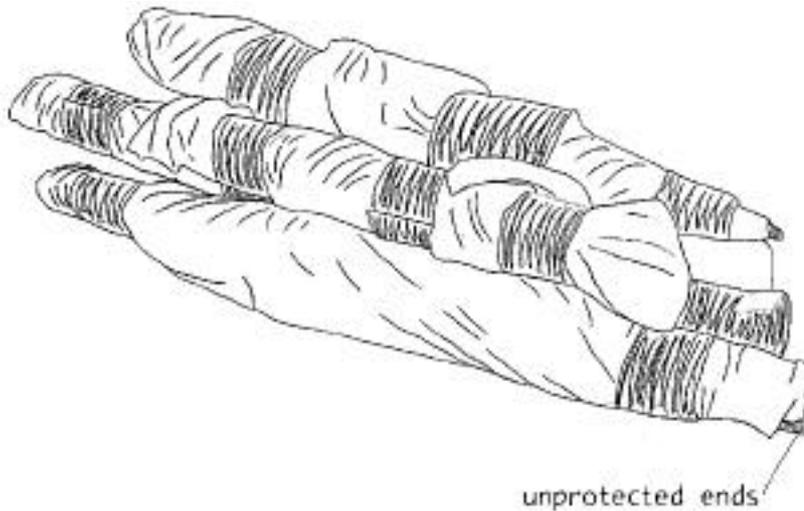
artists that needs immediate transporting. There may be inadequate time to assess special packing needs before it goes.

If cultural material arrives packaged well, presenting a professional and competent approach, it can lead to an improved customer relationship and greater respect for the community.

# 1. Problems To Prevent

## *Packing is about:*

- Cushioning and supporting the objects against the physical shocks of a journey and rough handling so that the extremities of sculptures for example do not get knocked off, or emu eggs don't get broken.
- Padding and supporting soft items such as baskets and body ornaments so they don't get crushed.
- Stopping damage from constant vibration in transit which may cause paint and fragments to fall off.
- Insulating the objects from changes in temperature and relative humidity so that sculptures don't crack.
- Keeping packages dry to stop the mould growing.
- Protecting packages from insect pests.
- Allowing for packing and unpacking without risk to the cultural items. This may mean protecting the edges and corners of bark paintings for example, so that they don't fray and split.



*Fig packing like this can cause breaks.*

- Sometimes packaging is especially important to secure against theft.

## **2. Insurance**

It is a good idea to take the time to find an insurer who will cover the items for 'transit insurance'. There may be some very valuable consignments of Aboriginal and Torres Strait Islander material travelling long distances uninsured.

## **3. Transport Systems**

When planning the transport of some cultural items it is good to do some homework on which transport systems are available. In many instances a number of systems will be used including truck, plane, barge (sea) and train. It may be useful to contact a state museum or gallery for advice as they are constantly transporting items around Australia and the world.

### *The following suggestions may help*

- Check that the items fit into the transport system available. Some large bark paintings for example will not fit into small planes.
- Check that the relevant people have been given specific instructions. Sometimes it is useful to tell the truck driver what is in the load so more care will be taken on rough roads. If they know you care they may take their load more seriously.

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- If you can ‘walk’ the items onto the truck, barge, plane it can be useful. Sometimes people do not read the instructions on the packaging and “This Way Up” can end up on the bottom.
  - Overseas destinations for cultural material pose further problems for packaging because of the extra time items are in the closed environment of the package. Planning the packaging in this case will be essential.

### ***Types of Transport***

*What to look out for:*

#### ***Trucks***

Vibration and bumps can cause a variety of problems for most objects, so cushion objects well.

Dust can get into everything, so seal packages well.

High and low temperatures can cause problems for bark, paints and resins. So it is better to insulate objects as well as possible.

#### ***Barge/ships***

The main problem can be damp which causes mould to grow. So packages need good sealing.

#### ***Planes***

The main problems are vibration and temperature changes. In large aircraft the air is very dry at high altitude. It is better to seal packages in plastic to keep from over drying.

Light aircraft have limited cargo space and objects can get crushed in a heavily laden plane.

#### ***Trains***

The main problems are high temperatures in freight cars and crushing. Good padding can help, but a crate is preferable.

### ***Informing the receivers of the package***

*Labelling any package is an essential ingredient to ensure safety of the item.*

- Include handling, packing and unpacking instructions. For example which end to open first and which side is the correct way up. Stencils can be bought for reusable labelling.
- If an object is fragile it is useful to say so. Most airlines have large fragile stickers that can be used.

- If an object is heavy it is important to say so. It is useful to indicate how many people need to be available to properly carry the object so that it does not come to harm. The best examples are the different weights in Pukamani Poles made from heavy iron and bloodwoods from the Tiwi area, compared to the lighter weight eucalypt hollow logs and cottonwood sculptures from some other communities.
- Let the receivers know to unwrap plastic wrapped/ packed items as soon as possible after arrival. This is particularly important for items from the Top End that may have sculptures with green wood, wet paint. The receivers may not understand that items packed in wet tropical conditions may be damp on arrival and that mould can grow during transport .
- If the packed environment is wet then the objects may grow mould. The graph below describes the environment in a barge transport from Maningrida to Darwin over 5 days, followed by air transport to Sydney. You can see that the humidity was constantly above 65% during the barge trip. This is the reason why so many objects arrive mouldy. Some objects are transported wrapped in bubble wrap. The outside humidity may be dry, but the environment inside the parcel will be wet and mould can grow.

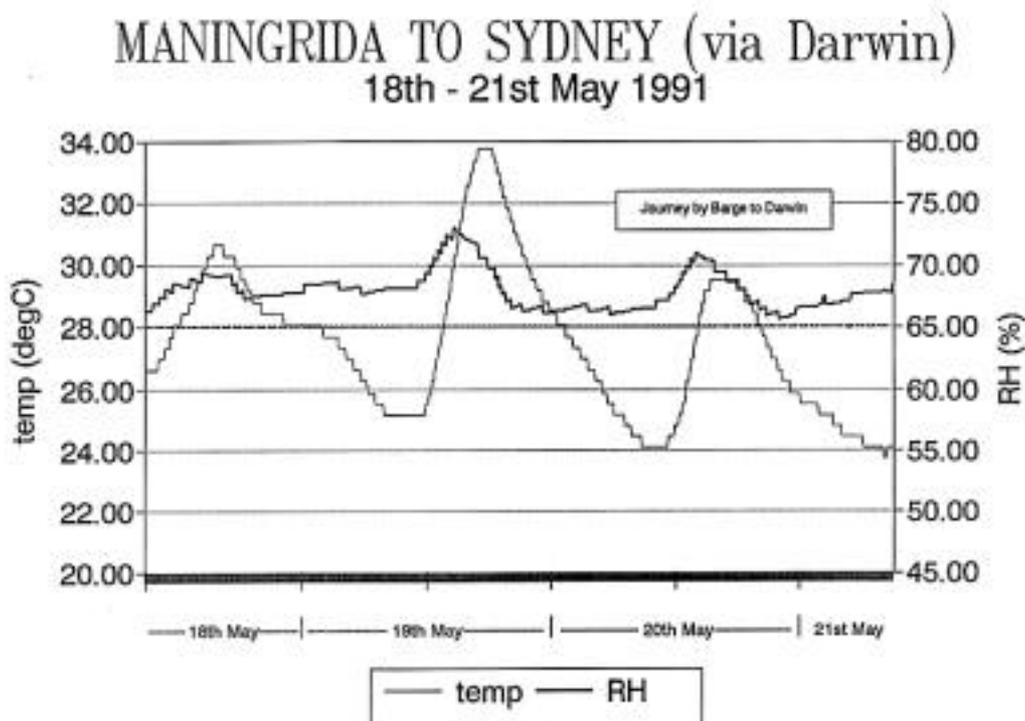


Fig Note that the relative humidity is above 65% for the whole trip.

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- With sculpture, the wood may be placed in a drier environment than it is used to and crack as a consequence. This may be particularly so with recently carved wood. Letting the people know at the receiving end may help.
  - Custom inspections or repacking after fumigation can sometimes change the integrity of packing. This is where packing instructions travelling with the package can help.

### ***Packing in Wet Conditions***

- Try to pack in the driest part of the day.
- Store the packing materials in the dry areas of the building as well as the objects.
- Pack the objects in good buffering materials such as Evolution® before sealing in plastic.

## **4. Packing Systems**

- Padded, weather sealed wooden crates are ideal.
- It is always a good idea to pad items rather than wrap them. Just wrapping them in polythene or paper will not give enough protection.
- Packing things with the least possible contact on painted surfaces is best. Evolution® is a good non woven fabric to use to wrap or interleave if you have to, as it will not grow mould.
- Try not to use paper, (acid free or otherwise), in contact with an artefact with any moisture in it, especially if packed or transported in humid conditions and under plastic. It can grow mould or simply stick to the surface of an item.
- Tying items with cotton tape around the internal package before adding an outer plastic or paper sheet is also a good idea rather than using adhesive tape. Too often people receiving parcels of cultural material cut through acres of adhesive tape to get to the objects only to find the item has been cut as well.

### ***Packing Works on Canvas***

*See also the chapter Keeping the Dots On*

*Most of the acrylic paintings on canvas survive the transport and shipment process. The basics of these are as follows:*

- Roll the canvas with the painted image outwards.
- Use a core to roll them on to prevent squashing and creasing the paint. 90mm plastic ‘stormwater’ pipe is by far the cheapest suitable material and represents the minimum diameter core that should be used.
- Don’t roll too many in the one roll (maybe up to 8)
- Wrap the outside of the roll well to prevent moisture, holes or dents.
- Crates are certainly the best way to protect framed artworks in transit.

### ***Packing Works On Paper***

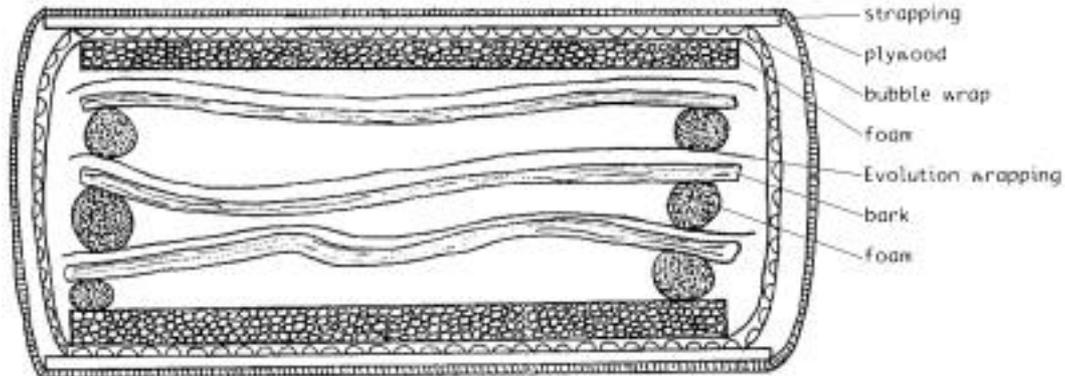
*In terms of protecting and keeping the image on the paper, packing flat for storage or transport is best. More often however, works on paper are rolled inside tubes for transport. The following general suggestion may help:*

- The bigger the tube the better.
- Roll with image on the outside to prevent the paint, etc. crumbling on the edge of any cracks and showing as a prominent crack when flattened again (same reason for acrylics on canvas).
- Interleaf each piece with the likes of thin Evolution® fabric.
- Wrap the rolled bundle and tie the roll just smaller than the tube, ie, don't put them in the tube and let them spring out against the sides of the tube - too many may get rubbed.
- Smudged and damaged when trying to remove them.
- Put some padding at either end to stop the paper slipping up and down the tube.
- A sheet of protecting plywood top and bottom is a useful insurance against tearing, creasing and loss of paint on paper. This can be augmented with interleaving paper as a protection. Try not to send unprotected rolls as they can be squashed. Post office tubes as OK at a pinch. The best is PVC tubing as it is hard, durable and the paper does not have to be rolled so tightly.

### ***Packing Bark Paintings***

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*Bark paintings are difficult shapes to pack and can split if put under too much stress. The paint surfaces also can be fragile and rubbing will damage them.*



*Fig one way to pack bark paintings.*

- Crates are the best solution with the barks packed horizontal for transport. Foam blocks and bubble wrap rolls can be placed between the barks to make good separator strips and wrapped in Evolution®.
- When a crate is not available the more common packing method is a plywood sandwich system. The curve of the bark can be supported with padding so that it does not flatten and crack when the boards are strapped together.
- Strapping can be great with barks sleeved with ply and then strapped before wrapping in plastic or tar paper. It has been known to tear and split bark paintings badly when over tightened on a bundle of barks that did not have strong sandwich boards to take the strain of the strapping off the barks.
- Roll Softlon ® pads to separate barks at top and bottom (and middle in bigger ones), pack face to face and tape tightly to prevent transport vibration.

### ***Packing Sculpture***

*Crates are the best protection for sculpture if possible, but otherwise use well padded soft packages will do with extra support and protection for any weak areas.*

- Large carvings may only need padding on the high contact areas. Protectafoam® or Softlon® polyethylene foam sheets are good, versatile packing.
- Fragile areas of sculptures need to be supported before packing. This can be done with old pieces of polystyrene from TV and video packing systems, or simply other pieces of wood tied to the neck to give support. Too often

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museums are rung by tourists asking for ‘the neck to be glued together’, because the bird was not packed well enough.

- Ethafoam® or polystyrene blocks are particularly recommended for packing sculptures that need padding around arms, thin necks and legs, pointy bird beaks, etc, to prevent breakage.

### ***Packing Spears***



*Fig One way to pack spears.*

Spears can be a real problem to protect on a journey due to their length, narrowness and fragility.

Using a hollow PVC plumbing pipe a safe way to protect spears when travelling. The pipe can be slightly longer than the spears. Each spear can be wrapped with Softlon or soft padding material. The whole bundle can then be tied together so that they act as a single unit in the pipe. The ends of the pipe can be closed with a block of foam and plastic sheeting and sealed with packaging tape.

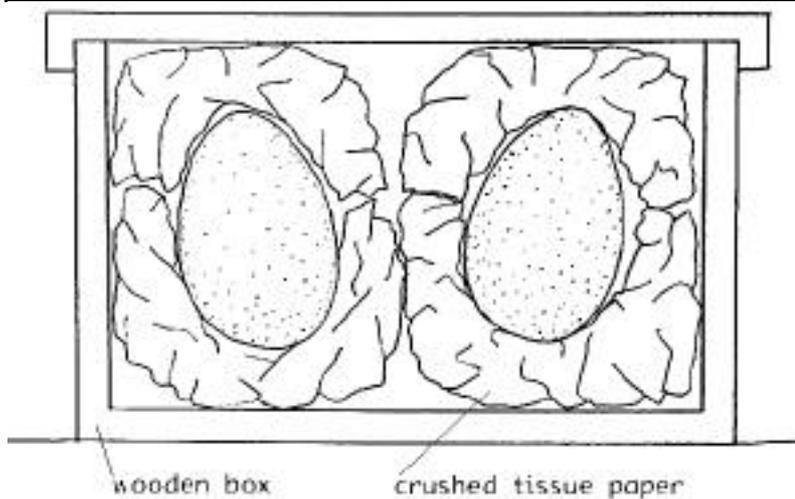
### ***Packing Boomerangs, Woomeras & Clubs***

A crate or padded parcel is useful for wooden objects. For good individual protection, each item can be well padded with foam and/or bubble wrap between each item. Extra protection can be given to delicate areas such as the hook on a woomera or the tip of a boomerang by extra wrapping padding around them.

### ***Packing Stone Tools***

Stone tools can be packed in crates or in padded parcels. They seem quite hard and robust but can get easily chipped by banging against each other on a rough journey. Make sure there is a layer of padding between the objects.

### ***Packing Emu eggs and Delicate Body Decoration***



*Fig Cross section through box of packed emu eggs.*

Something very delicate such as emu eggs or feathered body decoration will not get enough protection from soft packages. A solid box of heavy cardboard or wood is needed with the objects firmly packed between layers of soft foam or in nests of crushed tissue paper with more padding over the top.

### ***Packing Woven Items***

Baskets are difficult to pack without crushing them. It is best to put them in a crate with each basket sitting in a nest of tissue paper or cloth. Fill the inside of the basket with bags of polystyrene beads or tissue to keep them in shape while travelling.

Flat textiles and bags can be laid flat in a crate with tissue in between them. If there is no crate they can be rolled onto a cardboard roll with tissue in between layers. The roll can then be wrapped in bubble wrap and taped closed.

Mats can be sandwiched between plywood in the same way as the barks.

## **5. Packing Materials**

*There is an enormous range of packaging materials available. When considering the pros and cons of packing materials you could consider their use as storage materials as well.*

### ***Crates***



*Fig Ideal packing in a crate.*

- ☑ Wooden, plastic, sheet metal or strong cardboard crates used for packing and transport offer the best protection if packed so objects within cannot move about. The crate bears all the bouncing and inevitable abuse of transportation.
- ☑ Crates allow you to build around delicate or fragile parts of sculptures with foam blocks or the like.
- ☑ Galleries have in the past expressed a reluctance to return empty crates because of the expense, hassle of freighting and the ulterior uses crates can be put to (ie, freighting stuff to someone else). Crates generally cost a considerable amount to make up or buy and some contractual arrangement for return could be negotiated.
- ☑ If you are getting crates made up for a special purpose it is good to consider door widths, handling weights and size, pallet size or fork-lift spacers and reinforcement, etc.
- ☑ Stencils for spraying or painting all the standard care signs on boxes or crates can be made or purchased, eg, fragile, handle like eggs/glass, this way up, do not drop, top load only, keep dry, avoid heat/sun, lift/don't lift here, etc.

### ***Brown Wrapping Paper***

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- ☑ This is in such widespread use in the general retail industry that it is easy and cheap to get. It has been used successfully as a first layer with bark paintings which are well dried. The long wide rolls make it easier to handle than separate sheets of tissue. The shiny finished variety won't rub the ochres.
  - ☒ It can be disastrous if this paper gets wet as it sticks to the adhesive used as the ochre fixative and the brown colour can bleed.

### ***Bubble plastic.***

- ☑ Provides good, relatively cheap, flexible padding.
- ☑ Cultural items need to be super dry if sealed in bubble plastic.
- ☒ Never use bubble plastic in direct contact with objects, especially painted ones. Even through tissue paper, bubble plastic has been known to leave an impression of the bubbles on a painted surface of sculptures.
- ☒ It is not good on high pressure contact points (ie, where heavy sculptures rest on things), the bubbles burst.
- ☒ Not good for storage or shelf lining as it disintegrates over time, giving off acidic gases from the PVC plastic.

### ***Corrugated cardboard***

- ☑ It is relatively cheap and provides adequate padding as a secondary layer.
- ☑ Recommended use is for small items with a first layer of Evolution® fabric, then corrugated cardboard, then a waterproofing layer, or else, multiple small items in a box/crate. It is good for padding pottery items within a stiff box.
- ☒ Cardboard has a relatively short life span before its acidic nature makes it brittle, especially in the tropics.
- ☒ Cardboard soaks up moisture easily, so it can stick to items and grow mould.
- ☒ Corrugations can leave striped patterns on ochre or paints, especially if they are a bit moist.

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- Cardboard has very little structural support for cultural items unless used in many multiple layers.

### ***Evolution® polypropylene fabric***

- This Australian made product is recommended as a first layer material in direct contact with cultural material. It can replace tissue or brown paper for this use and is especially useful in the tropics as it does not absorb moisture, it lets some air flow through and the polypropylene does not grow mould.
- It is heat bonded together, so has no adhesive to cause acidity/alkalinity problems. It can also be recycled several times, unlike tissue papers.
- Evolution® comes in a 500 m role of varying widths (between 450 and 2250mm) and weights (grams per square metre). Between 30 to 50 gram/sq.m would be most versatile. Lighter (cheaper) grades could find use for interleaving works on paper, while heavier grades could find use in heavier storage or display backing fabrics.

### ***Foam Beads***

- These can be used firmly to avoid further compaction in transport. Packed firmly in plastic bags, they can be a good way to pad out a package to give support and protection.
- Don't let them escape on windy days, they seem to show up everywhere for months afterwards. Consider the person unpacking a collection with all these static charged escapees. Enclosing them loosely in plastic garbage bags and the like, helps keep them under control.

### ***Foam Blocks***

- A variety of materials are available to purchase or scrounge, all with different properties to select for an appropriate use. Most people would be familiar with the white polystyrene foam which comes as packing in all those boxes of electrical goods. It is pretty environmentally unfriendly stuff anyway, so you may as well recycle it as packing instead of throwing it away.
- Foam can be cut to fit spaces to stop movement within boxes or crates.
- Foam can be used to build up padding around vulnerable areas or to spread the load of transport over a wider contact area of an object.

- ☑ Ethafoam® (a closed cell polyethylene foam) is a strong but flexible foam block material many museums use in packing. It is not particularly cheap but can be glued with a hot glue gun on a layer over cheaper polystyrene foam (recycled!).
- ☑ Hot glue guns, available from hardware shops, are great for sticking blocks or layers of foam to each other or to cardboard or wooden crates.

### ***Foam Sheets - Flexible strips or rolls***

- ☑ This comes in a variety of brand names, shapes, thicknesses, densities, sizes, porosity, etc. The uses are only limited by imagination and finances.
- ☑ Softlon® and Protectafoam® are a couple of common brands for polyethylene, low density foam sheeting varying from 1mm to 8mm thick, 1200mm wide on 100m to 250m rolls.
- ☑ Some can be used in similar ways to bubble plastic. Others can be cut to shape for special padding jobs.

### ***Plywood & Boards***

- ☑ Plywood, masonite or thick, rigid cardboard can be put on either side of a bark painting or a stack of paper prints, giving them rigidity and a support on either side. The paintings can be packaged with a first layer of padding material before the sandwiching boards are taped or strapped on.
- ☑ Prints could be stacked (interleaved with Evolution® , paper or Softlon® foam), wrapped well and sandwiched.

### ***Shredded or crunched-up paper***

- ☑ Use it firmly to avoid further compaction in transport. It can be an excellent way to pad the items and smaller packages into place in a box.
- ☒ Newsprint is very acidic and can also leave black smudges from the print. Bagging the paper first can avoid some of these problems and keep it where you need it.

### ***Tar Paper***

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- ☑ Sisalkraft® reinforced, bitumen laminated paper has for some years been used as a moisture and dust sealing outer layer in the packaging industry. It is strong and doesn't tear readily, it folds corners easily and takes to adhesive tape well. Heavy duty building plastic has been used successfully to replace tar paper in some cases.
  - ☑ Sisalation®, the shiny, foil coated insulation version of tar paper has been used where packaged artifacts may not be able to avoid stints in the sun, such as awaiting loading on barges, etc..

### ***Strapping***

- ☑ Woven plastic or metal strapping with securing clips is often used with larger parcels or for holding objects onto pallets. It is important not to tension this strapping directly onto canvases, for example, or to over tighten it and put too much pressure on the objects.
- ☑ A handy use for wide, heavy cotton webbing, or old seat belt webbing is to use it as a sling to help carry large or heavy parcels without wrecking your back.
- ☑ It can be disastrous if over tightened to the stage it starts digging into the packaging or distorting the objects.

### ***Tapes***

- ☑ Plastic packaging tape is cheap and strong. Coloured tape hides a multitude of confusing labels and brands if reusing old boxes.
- ☑ 38 or 50mm width is the usual width used for packing.
- ☑ If you use letterhead or photocopied labels, put at least one run of tape right the way around the package and label to ensure it will not come off. What use is a parcel in transit without a label? You can get your name and address printed on packaging tape by most of the bulk suppliers.
- ☑ A short bit of bright orange "Fragile" Tape helps safe transportation (hopefully).
- ☑ Paper masking tape is not very strong or long lasting for packaging but is easy to tear to hold an inner layer of packing in place while you wrap the outer layer.

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- Consider tying things with cotton tape. Cotton webbing from fabric or sewing suppliers is a reusable alternative for plastic tapes for storage of goods.

***Tissue Paper, 'acid-free' or plain***

- Papers have their uses as a first layer in contact with some artwork, especially in retailing small items.
- Paper tends to absorb moisture and stick to any slightly moist painted or damp wood surface. Paper tears and separates when trying to remove stuck tissue. This often needs further wetting for removal. Not recommended, especially in the tropics.
- Evolution® fabric is a much preferred inner layer.