

# Conservation Science - Stopping the Rot and Picking Up The Pieces

## Activity 1 - Reconstructing a Pot

### Target Audience and Age-Range

This activity is suitable for Family Audiences. It is suitable for children age 10 and over working on their own and for children from age 7 or 8 working with a parent or other adult helper.

### Duration

About 40 minutes -1 hour

### Background

Repairing broken objects is an important part of the work conservators do. They reconstruct broken objects found in archaeological digs so that we can get a better understanding of their form and function before they were buried. Conservators also repair objects which have been accidentally damaged, such as the two Chinese vases from the Fitzwilliam Museum in Cambridge broken when a visitor tripped over and fell on them. Reconstruction is as much an art as a science, and demands patience, a steady hand, and good spatial skills to identify where the fragments of a broken object fit. The task of reconstruction is made easier if good records of the object in its broken state are available.

This activity gives visitors the opportunity to try their hand at reconstruction using cheap everyday materials.

### What You Need

Each participant needs:

- \* A small (9-11 cm) terracotta plant pot
- \* PVA Glue, preferably in a squeeze dispenser
- \* A roll of masking tape
- \* An old newspaper
- \* A damp cloth
- \* An apron

You also need a hammer or mallet

### What You Do

Wrap the plant pot in the newspaper. Hit the plant pot once or twice times with the mallet to break it into largish shards. With children its best to have an adult wield the hammer as this both avoids the risk of injury and the risk that children will use the hammer so enthusiastically that they reduce the pots to powder!

Now, open up the newspaper and put the pot back together using the pva glue to stick the fragments together. Apply pva to one side only of the joint then push the

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bits tight;y together, squeezing out the surplus glue, which can be wiped off with a finger (and then off the finger with the damp cloth). You may have to use some masking tape to hold bits in place while the glue dries to the point where the joint can be handled, which takes a minute or two. Masking tape is also useful to hold parts together for trial dry assemblies to experiment with different possible reconstructions.

### The End Result

At the end of the workshop each participant should be the proud owner of a reconstructed flowerpot. It is likely that there will be some gaps in the pot where tiny fragments have broken off. This makes the point the the reconstruction cannot be as good as the unbroken original, and can be used to talk about the ethics of reconstruction - do you leave the breaks visible, or do you attempt to fill them up, to make the pot 'as good as new'?

It may also be possible to tell from the reconstructed pot something about where it was hit - the point of impact of the hammer is likely to have shattered into much smaller fragments than the rest of the pot. This demonstrates the value of reconstruction in working out an object's history.

### Health and Safety

The risks posed by this workshop are minimal, if conducted sensibly. Wrapping the pots in newspaper (a whole paper is best) before smashing them contains the shards so there is no risk of injury from flying fragments. Using terracotta pots results in shards which are not hard enough to be likely to cause cuts when handled - the use of gloves is not advisable as these will stick to the pot, and reduce the 'feel' of the job - a vital part of putting the pot back together. PVA glue is widely used by children in schools. It is essentially non-toxic, and the biggest hazard it poses is damage to clothes if its get spilt or rubbed on them. PVA glue washes off skin easily, and can be removed from fabrics with a damp cloth whilst still wet. Soaking fabrics may remove dried on glue.

### Extension Ideas

To make this activity more challenging you could smash up two different objects in each package, say a plantpot and a terracotta saucer - so you need to sort the fragments before you start sticking. Alternatively (and this is making it really hard) break up two plantpots of the same size in each package. This is a real challenge and is definitely only for keen (and probably older) participants.

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Richard Ellam BSc AMA  
**L M Interactive**  
3 Winterfield Road  
PAULTON  
Bristol  
BS39 7RF

Tel/Fax 01761 412 797  
e: richard@lminteractive.eclipse.co.uk

