

A TYPICAL SCHOOL MOSAIC PROJECT

Mesh technique by **Oliver Budd**, with further notes by **Anne Cardwell**

There are some practical issues that must be understood in order to make a successful mosaic. These notes will help you make and mount a large size mosaic indoor or outdoors and of course can be adapted for a smaller project. No point in spending hours and pounds on materials for it all to fall to bits - it can happen! There are other ideas listed on the megamosaicmakers site. Of course we hope that the finished masterpiece will be entered into the annual competition - to win more materials for more projects!

www.megamosaicmakers.org.uk

This technique has been devised to create mosaics that are to be sited externally but made in the classroom. The advantage is that the children attach the mosaic onto mesh, they do not come into contact with harmful adhesives (which are required later for installing), that they work indoors, not directly onto the wall/site and that the the mesh could be divided into segments, if required.

A typical school mosaic project would take the following form:

An initial visit to the school to explain how the project will run. This involves interaction with pupils and teachers, showing past projects, looking at the materials and organizing the design work that the pupils will create prior to the start of the project. These are usually A4 coloured drawn elements for a larger picture. (Note, if the artist cannot visit the school; send them plenty of drawings in advance, make sure you have plenty of variation - generally speaking the most suitable submissions are simple, think 'colouring in book', the artist will make up a composition based on these drawings).

Once the designs have been created the artist will work them into a context that will suit the medium of mosaic (bold images work better than more complex ones).

The project can then begin. Projects may either be 'one hit', say completed in a day - this requires some cutting in advance for the complex detailed areas, as there is

little time on the day. If the project takes place over a period of sessions, there is time between each session to do a little cutting.

Young people will work very quickly (they don't feel compelled to lay the tiles as neatly as adults might) and therefore it is advisable to arrange 'small and often' groups of say five pupils for each session.

On day one in school I always arrive early with full-size artwork, not coloured, just a bold black marker drawing that can be seen through the mesh. I also take a large MDF board (8'X4') which is our working bench. The drawing is laid out and covered with clear polythene (otherwise you will just stick the mosaic to your working surface!), then a layer of mesh with just a few bits of tape to secure it.

The drawing can now be seen through the mesh. This mesh is the same material that many mosaic tile sheets are supplied on and it can be purchased from any mosaic supplier, it looks a little like the backing used for cross stitch. The idea is that the children will set the mosaic with PVA glue following the drawing, I always have a coloured A4 version of the design at hand for reference. It's just like colouring by numbers. The older pupils start in the centre



Oliver Budd with a group of school children and an award winning mosaic. The vitreous glass mosaic details have been framed with frost proof porcelain broken tiles.



Anne Cardwell with a project using large pieces of smashed frost proof 'CESI' tiles. Mounted onto mesh, cut up into manageable sized pieces and mounted directly onto the wall before grouting.

(they're taller!) leaving areas near the edge for smaller ones - remember aprons!

I often use vitreous glass mosaic for school projects, it's bright colours and permanence (they're frost-proof) are attractive. (Alternatively, matt ceramic 'Winckelmans' tiles are also a good frost proof range, they are flat on both sides and have the advantage of not dropping sharp shards when they are cut, but the colours are much more muted). I insist that all pupils working on the project wear protective glasses at all times, no excuses! Also I cut the mosaic away from the children, setting up a "cutting-station" where they can come and collect the colours. (Children - if old enough and supervised - can use nippers placing both their hands inside a large polythene bag to contain the pieces, or a 3 sided cardboard box with polythene replacing the top side of the box so you can look in). Working in an area which can be swept afterwards is a good idea.

The children are advised to be generous with the PVA but not to get it on the mosaic's surface. Very small children often dot the mosaic around then it's up to older ones to fill in the gaps, though it's much better to persuade them to build up smaller areas from the start.

Once completed I take the mosaic back to my studio and flip it over (a big mosaic will require two to lift it, or a very big mosaic will require you to carefully cut shapes through the mesh between the mosaic with a fine scalpel to make handleable pieces). Some pieces may fall off, which are kept to add to the mosaic later during installation.

When flipped peel the polythene off the back. You will now have revealed the PVA that hasn't dried as it has been against the polythene. Leave this to dry clear, then you will be ready to install. Having chosen a bright dry day I bring the mosaic back to school for installation. Depending on the budget this may be either applied straight onto a

brick or concrete surface or, with a little more finance applied to a marine ply or external grade board. With even more finance an aluminium setting tray does the job beautifully.

Oliver Budd

Practical matters

by Anne Cardwell & Oliver Budd

Working indoors

If placing your work indoors you may work straight onto mdf or ply, using pva to stick your work, use good quality pva from a builders merchant and get the kids to wear aprons, roll up sleeves, remove jumpers. Don't let the mosaic too near the edge of the table or they lean across and get gluey.

A finished mosaic is very heavy and the wall needs to be able to take the weight of the board. The best idea is to attach the board to the wall with batons - make your preparations for this before you start sticking. The weight of the whole board should rest on a very secure baton, obviously with something at the top to stop the mosaic falling outwards from the wall. With thought and a little ingenuity, all this fixing can be out of sight behind the board.

Alternatively, you can drill a hole through the board every 12 inches or so and fix it directly to the wall, placing a tile over each (countersunk) hole, leaving the tile flush with the surface. Leave a rawlplug sticking out of each hole whilst the mosaic is being assembled to keep the holes clear and remind you where they are!

Working outdoors

If work is going outdoors using the mesh method you can stick straight to the wall or stick to marine ply. Do not use pva to stick it to the ply, you must use adhesive suitable for outdoors, see below. PVA is only suitable to hold the work temporarily to the mesh.

Ply should be prepared thoroughly, and it is fair to say it is not as weatherproof as fixing directly to a wall. With good preparation it should last years, but any damage to the mosaic, or cracks in the grout, will make it vulnerable. Marine ply should be painted on 5 sides (ie not the face you are going to fix to) with yacht varnish THREE times. It can also be sealed first with Danish Oil on the 5 sides (used to waterproof outdoor furniture). Again it can be mounted onto batons (in advance), or fix the board directly onto the wall through the mosaic. Make sure all the fixing holes are protected with silicone.

To stop water & damp seeping behind the board, seal the edges with silicone - this is the white stuff that goes around the edge of the bath, choose a less noticeable transparent version, or a black version used for sealing downpipes.

Installing outdoors is quite a lot of work and expense, which should be considered when planning a project

Some notes on adhesives and grout

Use of grout and adhesive is sometimes governed by what your local DIY store supplies - usually they will stock one of the 'big ones', Mapei, Bal or Ardex. They all have fantastic helplines - so ring them if unsure. Adhesives are expensive, but don't skimp.

Fixing onto marine ply outdoors

When fixing onto marine ply outdoors, use Bal FastFlex. This is now a 'mix with water' adhesive but it's the only one that remains truly flexible after setting. Use a notched spreader, if you apply too much adhesive it will squeeze up between the tiles through the mesh, where your grout needs to go. Even so, before it sets you will probably need to spend sometime 'picking out', using a sharp tool where this has happened, hopefully in limited areas. Remember you may need to cut your mosaic into sections, especially if you are installing when the board is fixed to the wall.

Fixing directly to sound walls

If you are fixing directly to the (well prepared) wall Ardurit X7 (grey), Bal Gold Star are the best two adhesives on the market at the moment.

When applying to a wall, cut your mosaic into manageable sized pieces, having marked on the wall the position of your mosaic, apply just enough adhesive with a notched spreader and press your mosaic into position. Again, clear out between tesserae if excess mosaic has risen up, before it dries. Grout later after recommended time, using grout that is the same colour as your adhesive is best. Keep the area clean and masked off.

Tips

Avoid ready mixed adhesives in tubs and avoid white adhesive, it fragments your work, grey is usually best and Mapei Ultracolor grout claims not to 'effervesce' (turn white in rain - sometimes you see this on bricks on buildings).

Wedi board (a building material) can be used for a base, it may need batons to strengthen it and the edges sealed.

If fixing into a metal tray, set into the tray with Ardex WA (a two-part epoxy adhesive - comes in grey and white and you can grout with it so no worries about squeeze through when setting). Quite expensive but reliable. Any metal trays should have interior surface well scored before applying adhesive. Scour them with very rough emery paper, then get the angle grinder and carve loops across the surface.

Materials can be purchased online these days, try Mosaic Trader, Mosaic Workshop, Heaths in Croydon or google for new suppliers that appear all the time.

Also don't forget buying in the creativity and knowledge of an experienced mosaic artist can be a worthwhile investment!

This worksheet and related website have been generously sponsored by Topps Tiles, promoted by BMM (British Association for Modern Mosaic) and designed by mosaic artist Anne Cardwell.

Thanks are due to artist Oliver Budd, who generously shares his knowledge from many years experience of installing vast public installations.

Oliver Budd www.buddmosaics.co.uk

Anne Cardwell www.makingmosaics.co.uk

For more information please visit

www.megamosaicmakers.org.uk

Please consider entering the annual Mega Mosaic Makers competition, celebrating the best in primary school mosaic art - producing the craft makers of our future! Grants are also awarded to schools, please apply online via the website.



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