

PRINTMAKING ON CLAY TECHNIQUES AND MATERIALS

A note about the composition of the ink.

Traditional oil-based and water-based printing inks are relatively simple formulas that include a mixture of natural or synthetic pigments with binders that are suitable for whatever printmaking process the ink will be used for. In a print on clay application, the natural or synthetic pigments are replaced by ceramic stains and oxides, which allow the printed image to remain on the clay during firing. The resulting mixture is similar in its consistency and feel, therefore retaining a similar quality as if it were printing on paper.

Definition of Print Techniques.

Oil-based:

Relief and Woodcut – A printmaking method in which the inked surface of the plate or block prints and the areas or lines that are gouged out do not print. Examples include woodcut and linoleum cut

Monoprint – A unique print pulled from a plate.

Lithography – A printing process based on the unmixability of water and grease.

Water-based:

Screenprint – A Stencil process using a mesh that is stretched over a frame. Ink is forced through the openings in the mesh, which can be blocked by a variety of methods.

Print on Clay Ink Mixtures

Oil-based: use for Relief, Monoprint and Lithographic Transfer

1pt stand linseed oil

1pt stain

1/4pt 3134 frit

Add small bit of Vaseline to soften ink for Lithographic Transfer Technique.

Water-based: use for Screenprinting Direct and In-direct Techniques

1pt vinyl wallpaper adhesive

1pt stain

1/4pt 3134 frit

1/4pt dish soap

Mix well

LITHOGRAPHIC TRANSFERS FROM PHOTOCOPIES AND DRAWINGS WITH CRAYON

Lithography – A drawing is created onto a plate or stone with grease based materials. The process is based on the repulsion of water and grease. The oil-based ink rolled on to the plate after the surface of the plate has been moistened with a sponge. The ink repels the water filled areas and sticks to the grease. The grease is the created image from which the impression is pulled.

In this approach the oil-based ink for clay is employed. Below are the materials and setup.

Materials:

2 buckets, cellulose sponge, ink knife or palette knife
glass or plexi slab, brayer, gum arabic solution. (an art supply for watercolors or from printmaking supplier), newsprint, baby powder, soft brush (goat hair works well)

Set up:

Be sure to use a plexi or glass sheet big enough to roll your ink out as well as to process and ink your transfer. If not use two separate sheets. The buckets do not need to be on the slab. On a flat surface position your buckets opposite where you roll your ink out with space in between to process and ink the transfer. Fill one of the buckets with cold water and leave the other empty for the wastewater that will accumulate from the process of rinsing the transfer's surface.

Ink slab:

- Place a teaspoon size glob of ink out and enough Vaseline to slightly soften the consistency of the ink. Add a little at a time, because too much makes the ink too soft, which does not work well.
- Position the glob of ink towards the top of the slab. Take a small amount from the glob and spread it out in a horizontal line slightly longer than the width of the brayer you are using.
- Roll the brayer into that "line" of ink you spread and stretch the ink up and down 4 or five inches making sure that the ink layer is thin to begin with (you will add more as you go). Lift the brayer repeatedly to even the ink. There is no need to spread the ink in any outward direction. Having the ink organized in a space gives more room to ink the transfer.

Inking the transfer:

- Before inking the transfer, apply a generous amount of gum arabic solution to the surface of the photocopy or crayon drawing and spread it around so it covers the entire sheet.
- Let the gum arabic solution soak in to the paper for 10-20 seconds. The paper should begin to buckle.
- Grab the sponge squeeze any water out if any. Carefully remove the gum arabic from the surface of the transfer and at the same time flatten the sheet out. Rinse your sponge clean of the gum (no more gum arabic will be used).
- With the sponge rung out squeeze a half dollar size puddle of water on the transfer and use the sponge flat on its surface to rinse the sheet. The sheet should just be moistened not wet.

- Proceed to roll the ink onto the surface of the transfer in one direction from the center of the sheet outward. Utilize the form of a clock face and the second hand movement and ink with overlapping layers from 12 o'clock to 12 o'clock. Rolling onto the sheet from the slab will catch the edge of the paper and tear it. Complete two revolutions.
- Rinse the surface gently with the sponge with a small puddle of water applied. Remember only keep the surface moist not wet.
- Complete the cycle of inking and rinsing with water 3 to 4 times to build up the ink layer. Once full of ink the transfer is ready to print.

Printing:

- The state of clay should be leather hard. Any slip that has been applied should be set to the touch without leaving a finger print, but not dry.
- Because the transfer is moist, one can transfer on both flat and curved surfaces.
- Lift the transfer from the slab or surface that it was processed on and place it face down on the clay to print. If the sheet is too wet and fragile wanting to tear, let it dry for a few minutes before printing it.
- The printing of the inked transfer on clay is accomplished by burnishing the reverse side of the sheet after it has been put into position.
- Use a porcelain knob or a wooden spoon and burshish using a small circular motion with mild pressure. Remove the transfer.
- If any paper has stuck to the ink as a result of the sheet being a little to wet, leave it. The paper will burn out. Picking any paper left may damage the impression.
- Dust the ink with baby powder and brush off the excess with a soft brush to set the ink for stability before firing. Proceed to bisk and glaze.

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