

# The Basic Techniques in Experimental Print making

(Academic Script)

## The Basic Techniques in Experimental Print making

Hello everyone, welcome to today's episode, this episode will help you learn about the basic techniques in surface printing in experimental printing. Today we will discuss about the experimental printing with respect to collagraph, which can be utilized for creating and printing different textures from a collagraph plate.

The subject expert is Ms. Sonam Chaprana who is active as a visual artist

### Printmaking

Printmaking is an art of using printing plate or stamp to create one or a series of multiple prints. This art of printmaking is practiced in techniques like intaglio, relief, collography, planography, screen printing/stencil etc. The process involves transferring of an inked image from one surface i.e. the plate or block to another which is usually on paper.

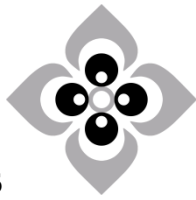
During the early days it was not regarded as an art, but only a medium of communication and commercialization. It was during the 14<sup>th</sup> century, the printmaking techniques were widely utilized for mass production purposes like printing of the Bible with woodblock illustrations, cards, manifestos or posters, etc.

### Collagraph

We have learned about the other techniques like relief printmaking, screen/stencil etc in previous episodes. So here we will talk about the experimental printing with reference to Collagraphy.

Collagraphy, is a printmaking technique which is sometimes spelled as collograph also. The term is derived from the Greek word collo, meaning glue or the French collar, to glue, and graph, meaning the activity of drawing. This process was invented by Glen Alps in 1955.

The collagraph is a low-tech printmaking medium which traditionally allows intaglio prints to be generated without the use of acid or tar-based



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resist solutions, whilst providing a full range of mark-making opportunities.

This medium can be regarded as one of the earliest of printmaking with respect to its properties of using non toxic materials. This printmaking process had given liberty to the artist to explore more and experiment with different marks created by the use of wide range of materials. The flexibility of this medium has facilitated to use it as a form of contemporary expression.

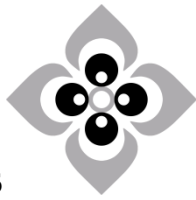
### Characteristics of collagraph printing

- These prints are Monotype, which are printed from a collage plate.
- This type of printing is not dependant on the acid or tar based material.
- No sharp tools are required for this type of printing.
- This can be worked with mostly with non toxic printmaking materials.
- Numerous textures can be created by incorporating different materials such as carborandum dust, acrylic texture mediums, sandpapers, textiles, bubble wrap, string or other fibres, cut card, leaves and grass can all be used in creating the collagraph plate.
- The image is created this way is not carved out, but built up and have reliefs as well as incised surfaces.
- A printing press may not be required as can achieve results by rubbing also.
- Various textured materials can be applied to plate to create a diversity of tone and value of the prints.
- Colours can be blended on one plate or several plates can be used for creating a single image with a wide range of colours and effects.
- Collagraph prints can give you the richness of an oil painting and visual crispness of the graphics which makes it more popular today.
- Lines and textures can be created in as many ways as an artist can imagine.

### Collagraph plate

The plate can be inked with the intaglio process of printmaking, or can be inked with a roller or a paintbrush, or one can use combination of the given all, with respect to the result required.

The collagraph plate can be prepared with materials which incorporate textures and lines in a complete print. This helps in getting different tonal effects and vibrant colors from the different depth and textures created on the plate.



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Acrylic paints and mediums, often mixed with carborundum or texturing mediums, are the most common mark-making media in the collagraph, and substrates such as primed sheets of card board or plexiglass are commonly used as a cheaper alternative to metal plates.

Collagraphs are usually constructed on a cardboard plate, but can be prepared on a flat surface of your choice which can hold the materials that are glued to it. Materials like hardboard, MDF, or plywood are more suitable for this medium.

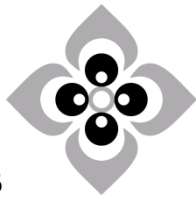
### Basic Rules of Collagraph

While working on a collagraph plate one has to keep in mind few basic rules which will help with work in a better way

- **Avoid too thick or too sharp:** Avoid using materials which is too thick or sharp to go through the press. Example: Blades, nails, any sharp metal thing, screws, matches etc. This may cause damage to the press to the printing blankets.
- **Avoid using Dark coloured material:** Try not to use darkly coloured material on the plate as it will be confusing when the plate is inked and wiped.
- **Make it levelled and even:** The plate should be made so that the levels are fairly even. Since if one the things is pasted higher than the rest then it is likely to print uneven and unsatisfactory results.
- **Seal it well:** The plate should be sealed and dried well before going through a printing press. Shellack can be used for sealing the plate.
- **Stick everything well on a plate:** It is very important to make sure that the materials which are used on a collagraph plate are well stuck. If it is not then it is likely to come out during the printing stage prevent one to take proceed with further printing.
- **Tones created by the plate:** While printing from a collagraph plate, the rougher the surface texture means the darker the tones and smoother surface tecture means lighter tones. This information is important, when the collagraph plate is prepared with different materials as each material result in its own individual tone.

### Collagraph printing in comparison to other printmaking techniques

- For preparing a collagraph plate no hazardous material is required as for techniques like etching or screen printing.
- The print can be taken either in printing press or without it by spooning the back of the paper with an inked plate beneath it,



however for printing with etching plates we necessarily require a press

- We can take editions with techniques like woodcut, etching or screen printing, but it is better to regard multicoloured collagraphs as a series of monoprints because these plates wear more rapidly than copper and zinc, wood or screen mesh resulting in smaller editions
- Collagraph can be introduced easily as less set up is required to print these in comparison to other techniques which requires a proper set up for printing.
- Collagraph plate can be prepared without using tools like drawing needle, burnishers, scrapers and other sharp tools required in other processes of printing.

### **Starting a collagraph plate**

It is a good idea to start with an experimental plate while trying a collagraph for printing since it will give an idea about the results from different materials. One can start with a rectangular mount board and can decide its dimensions according to the press or if not using a press then a comfortable size to work on.

Decide which materials you would like to work with from the variety of textures. Cut or tear the selected textures into different shapes and sizes. Once you have selected the textures, one can also work on the board like cutting the surface of the board and remove sections, puncture it or scratch into but do not cut through it.

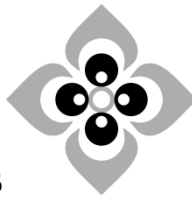
After you have decided what and how you want your surface of the plate, start pasting the materials of different textures with a PVA glue or acrylic medium. Also to keep in mind while pasting that the highest point of the surface you created is no higher than two thicknesses of the mount.

### **Materials can be used for the preparation of a collagraph plate**

The materials can be selected as per one's own preference, but some of the things are required for taking the task.

You may require a craft knife, mount board, PVA glue, cartridge paper, Artists' brushes, Carborandum or fine sand, Acrylic paints or medium, Shellack, gloss varnish, and other selected materials like laces, threads, fabric patches, etc.

Natural thing that can be used like coffee, tea, Crushed eggshells, semi dried and dried flowers, weeds, leaves, dried sea weeds, thin scraping of bark, thin feathers, thin papers rice paper etc.



### **Cuting a mount board**

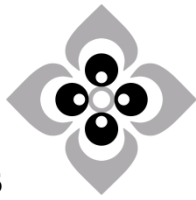
A mount is preferred and used for preparing a collagraph plate since it is thick enough to provide a strong base as it is made of many layers. It is much easier and convenient to use a mount board as compared to any other material as a base. Since it is made of many layers it facilitates the user to create single line or grooves into it or cut entire shape out of the surface by peeling off the top layer.

This way the cut out or the peeled off layers will give darker tones in a print and a mid tone where the surface has been scratched. At this stage the plate will give black and grey tones in the print.

The mount board itself is neither very rough or smooth which tends to print as a mid grey so for creating the lightest tone on this surface. In doing this we need to create a shiny and a smoother surface by applying gloss varnish, acrylic medium, or other shine material such as tape.

### **Step by step cutting of a mount board for creating a plate with lines and textures created by removing the top layer of the board. (Demo)**

- Cut a piece of mount board to the desired size.
- Sketch out a rough design in pencil.
- Create single lines or grooves to create thick or thin lines on the surface. This can be done by using a paper knife which help increasing sharp lines on a layered board.
- The other possibility while working on a mount board is that you can peel off the topmost layer or more layers to reveal a rougher surface beneath. This can be used or modified to get a texture in your final print.
- Once the plate is finalized and the artist is done with his cutting and creating textures, it is sealed with shellack varnish. .
- Since any plate that will go through an intaglio press must be bevelled at an approx. 45 degree angle, this must be done when the plate is at cutting stage. .
- Allow it to dry completely.
- At this stage the plate will print in two tones that is the marks and the rougher areas created will print in black and grey tones.
- For creating a lighter tones we will add gloss varnish to the uncut areas. For getting maximum lighter tones, it is important to apply thick gloss varnish to your plate.
- Sometimes a second coat of varnish is required before proceeding to the printing. .



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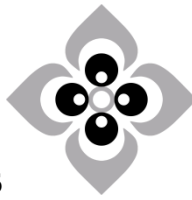
- Let it dry completely, overnight drying is helpful.

**Note:** Do not forget to wash your tools after using them since the acrylics will become hard quickly and also to close the lids of the containers of the materials that are used.

### **For preparing a plate with different textures and combination of materials**

- Anything that is reasonably flat and has a distinct texture can be glued to the plate.
- Materials: Torn lace threads, fibers, fabric crushed paper, tissue papers, dried leaves, silver foil, etc
- Apart from these sand or carborandum powder can be sprinkled over the wet glue or acrylic medium in order to create rougher grained texture which will give dense black tones in the printing result.
- Any organic material can be used after it is dried and pressed before applying it to the plate.
- Avoiding using materials like fresh leaves or grass which can give stain on printing paper while processing through a press.
- Once the design is prepared on the mount board using a pencil, we can start using the textured materials as where they are to be placed on the plate.
- It is essential that everything that is applied to the plate to be stuck down well using an adhesive which is strong enough to hold the materials on their places. This is to avoid any undercuts where the ink can collect.
- Let it dry completely as different materials need their own time to dry and adhere to the surface.
- Since any plate that will go through an Intaglio press must be beveled at an approximately 45° angle, this should be done while cutting and preparing the plate. This also applies to shaped plates, meaning any plate that is not square or rectangular in shape.
- Coat the plate from front and back and sides, also we can create lighter tones at this stage by adding thick gloss medium on required areas. Also apply the gloss to the bevels.

**Note:** Do not forget to wash your tools after using them since the acrylics will become hard quickly and also to close the lids of the containers of the materials that are used.



## **Preparing a plate with wet material**

### **Texture building with acrylics**

- Among the many ways of preparing a plate for collagraph one way is to create texture using wet materials like acrylic paints or acrylic medium. Avoid using PVA glue for creating any kind of texture as even the glue is left for a long duration to dry it will stick to the damp paper once processed through a press.
- Using a wet medium like acrylic paint, acrylic medium or texture white. Choosing among these is beneficial since these provide a transparent or a white base which not be confusing during inking as compared to dark or odd colours.
- Use of palette knife or coarse brush strokes used for creating printable texture are recommended. The final print will only come up with the textures which are dominant at the plate to feel. You can then feel the textures by touching them with your hand.
- Poly filler or patching plaster, these can also be used for a a base on mount board. Evenly spread the filler with the help of a card, work into it whilst it is wet to scratch into it with a sharp point when dry.
- Sand lightly with a sandpaper to make it smoother if it is too rough to work on.
- Once you are done with your drawing or design on the board seal it with by coating shellack varnish with the help of a brush. This varnishing will harden the soft plaster and ensure that it is not crushed during processed through a press.

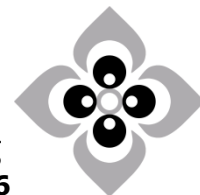
### **Using Carborandum dust on plates**

Carborandum dust has the ability to provide a rich, velvety black across the entire plate when printed. Here the whole plate is covered with fine dust of carborandum to create a sand papery surface all over.

An image can be created on this rough surface by using an acrylic medium to smooth over the carborandum. This way a range of tones can be created by adding acrylic medium in different quantities to different areas. A layer by layer process can be used for adding acrylic medium over the different areas, thus rougher areas will hold more ink and smooth areas give lighter tones in the print.

### **Steps to follow**

- Cut a cardboard or mountboard plate to the desired size.
- Add water to PVA glue in a container and mix it well. This will be used to spread it evenly over the whole plate.



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- Place an old newspaper beneath the plate. While the glue is still fresh, sprinkle carborandum over the whole plate evenly.
- Once the plate is dried completely it can be tapped to remove the excess carborandum from it. This extra dust can be used again.
- Next step is to seal the plate with acrylic medium, if it is too thick then it should be watered down so that it doesn't fill in the texture of the plate too much.
- When the plate is thoroughly dry, we can start painting and developing our design on the prepared surface.
- Add some white colour to the acrylic medium in order to get an idea where we have painted. Gradually paint over the plate, it will be visible as white against the black base of carborandum. Eventually the whitest areas should be smoother to the touch.
- While adding layers of white to the plate, one should keep in mind that even the white areas may look prominent at the plate but they may result in less effects on the print.

### **Sealing a plate**

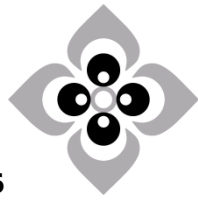
Plate preparation is not complete until and unless the plate which is prepared is not properly sealed. Preferably the plate should be sealed on both the sides, i.e. front and the back of the plate. This is done to prevent the plate to soak the inks into it rather the ink will be on the top of a sealed plate. Also to prevent plate to get stained by the inks while printing. However there are some materials which are self sealing like acrylic paint or gloss varnish but materials like paper, leaves, card and other absorbent materials will need to be sealed. Leave the plate to dry thoroughly before start printing.

Shellac, is a resin secreted by the female lac bug, on trees in the forests of India and Thailand. It is processed and sold as dry flakes and dissolved in ethanol to make liquid shellac, which is used as a brush-on colorant, food glaze and wood finish.

### **Preparing a shellac varnish**

Use a glass or plastic container, add measured amount of alcohol and sprinkle in your dry shellac. Shake every 10 minutes or so for an hour, then let sit overnight. A simple to way to mix a solution is to mix 3 parts solvent to 1 part flakes by volume.

Shellac is considered suitable for sealing as it is known for its absorbent quality when applied to a surface therefore does not tend to fill in subtle



details on the plate. For preserving any fine details or textures, it is recommended to use a thin coat of shellac varnish.

Leave the plate to dry completely after the application of shellac varnish. A dryer can be used.

## **Printing**

### **Materials required for printing as per different prepared plates.**

A prepared collagraph plate, palette knives, linseed oil, wiping papers, rags, glass or table glass, a pair of gloves, dauber, a roller, talcum powder, plastic tray which will hold water for soaking to paper, spoon for burnishing, sheet drying racks or clips to hang prints for drying, rubber rollers or brayers, an apron, solvents like kerosene and other cleaning materials.

### **Inking your plate for intaglio collagraph print( Demo)**

The principal of inking is to cover the plate thoroughly with the layer of oil based ink , i.e. can be black or colour ink . Then the ink is removed enough from the surface so that the different parts of the design carry different amounts of ink. The textured parts will be printed in dark as these hold more ink as compared to the smoother parts which will be printed in lighter tones. After the wiping is done on the plate edges and crevices will hold ink and will print as lines and masses.

For starting with an intaglio printing process, that is quite a simple as it is same how we take the prints from an etching plate. An intaglio print is an impression produced on a paper by the pressure of an etching press , which forces the thin residue of the thick, viscous etching ink which is in the crevices of the plate's surface onto the paper.

The ink is softened enough with linseed oil to make sure the consistency of the ink is suitable for the printing. This can be done by using a knife and working an amount of ink back and forth against a glass. During this process linseed oil is added to the ink and the prepared ink drips in a steady line from a raised knife to the slab. This prepared ink will sink easily into the textures of the plate.

Inking a plate using a brush/ roller/ or a dauber made from a felt. Tighter the roll, more convenient to apply ink to the uneven surface of the collagraph plate.

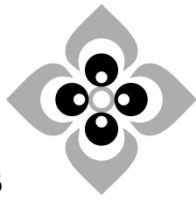
Ink is applied in a circular motion to the whole surface of the plate making sure that it sinks into the crevices and grooves of the plate.





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inside of another. It's important to point out that this method relies on you tearing your paper to the finished size before printing.

The plate is placed in the middle of the transparent sheet/ newspaper and traced closely using a pencil. Next step is to mark where the paper should lay, measure from the plate edge for your margins.

With the help of a tape place the mount board strips in L shape to the corners of the marks made for plate and paper.

Mark the lines close to the paper. Now the market lines can be used for registration

### **Drying**

The next step is to dry the still damp prints under boards in order to keep the printing paper from wrinkling and buckling as it tends to do when it dries since paper shrinks slightly when it dries.

Single board can use for drying several numbers of prints simultaneously. Separate the prints with first a layer on top of butter paper, shiny and translucent, and then a newsprint above it. Put some evenly distributed weight on the top of the board to flatten the prints.

Also the print can be air dried that have been taken by using the spoon burnishing technique, by hanging them with clothespins on a clothesline string.

Remove the prints when completely dried, after a few days.

Keep them with a layer of buttepaper in a portfolio.

### **Cleaning**

Clean the glass using a cleaning solvent, also the rollers and brayers using kerosene, dump the used rags and papers.