

# PRINTMAKING 101

## INTRODUCTION

4 basic print techniques:

1. **Woodcut** (RELIEF): Earliest printmaking technique, developed in the 9th century.
2. **Etching** (INTAGLIO): Developed in the 16th century.
3. **Lithography** (PLANOGRAPHY): Similar to drawing, developed in 1798, based on the concept that oil and water don't mix.
4. **Screenprint** (STENCIL): Form of stenciling, popularized in the 1960s and 1970s.

## PROCESS

### Woodcut (image/text print in reverse)

1. Carve wood.
2. Ink raised portion.
3. Place paper on inked block. Use baren or wooden spoon to burnish the entire page (so that ink will transfer from block to paper).
4. Lift paper from the block.

### Etching (image/text print in reverse)

1. Apply a waxy, acid-resistant ground to a metal plate.
2. Draw the image once ground has dried using an etching needle, or burin, which exposes the metal.
3. Submerge plate in an acid bath. The acid eats into the exposed lines creating an incision (bite). The acid-resistant ground, or resist, protects the other areas.
4. Remove plate from acid bath.
5. Steps 1–4 are repeated until the artist has achieved the desired line characteristics. The longer the exposed lines are bathed, the more distinct they appear; the shorter the exposed lines are bathed, the fainter they appear.
6. Remove ground with a solvent.
7. Ink entire plate. Use a dabber to push ink into incised lines.
8. Wipe the surface of the plate clean, leaving ink only in the incised lines.
9. Print with a press.
10. Lift paper from the plate.

Adapted for educators in conjunction with NMWA's special exhibition *Positive Fragmentation: From the Collections of Jordan D. Schnitzer and His Family Foundation*, on view at the American University Museum at the Katzen Arts Center from January 29 through May 22, 2022.

### **Lithography (image/text print in reverse)**

1. Draw on a polished slab of limestone or metal using an oil-based lithography crayon or greasy ink called tusche.
2. Wipe the stone with a chemical solution which will cause the image to attract the greasy ink. Blank areas will repel the ink and attract water.
3. Wipe the stone with a solvent (e.g. turpentine) to dissolve most of the original drawing. A slightly greasy image remains which means that the drawing has been securely bonded (fixed) to the stone.
4. Apply oil-based ink to the stone with a roller. The ink adheres to the image but is repelled by the wet blank areas.
5. Print by placing the inked stone on a lithography press. A sheet of paper is laid on top, padded with a board, and placed under the pressure bar, which exerts even pressure as it goes through the press.
6. Lift paper off the stone.

### **Screenprint (image/text does not print in reverse)**

1. Cut stencil. Only areas cut away from the paper or plastic film will print.
2. Affix the stencil to a screen stretched on a frame. Place the paper below the screen and the ink on top.
3. Print by dragging a rubber squeegee across the ink.
4. Lift the screen.

## **GLOSSARY**

Aquatint: An intaglio technique where powdered resin is sprinkled on a plate before an acid bath, such as in etching. This technique produces very soft lines. Prints are ethereal looking and mimic watercolor works.

AP: Abbreviation for "Artist's Proof." APs represent a small percentage of the total run of prints and aren't typically counted in the edition numbering. Artists often retain APs for their archive and/or exhibitions and sometimes gift or sell these prints. Due to their scarcity, collectors consider APs more valuable than an edition run of the same print.

Baren: A tool with a flat end and a handle, used to burnish.

Brayer: A rolling pin-like tool used to spread printing ink onto a block.

Burin: A tool with a sharp metal point used to incise grooves into a matrix.

Burnish: To rub a tool against a surface so as to help transfer printing ink from one medium (e.g. block) to another (e.g. paper).

Chine collé: A technique, typically used with etching and lithography, to simultaneously print on a very delicate surface (e.g. vellum or tissue-thin paper often cut to the size of the actual matrix) and affix that layer onto a thicker, larger support.

Collage: A work of art made by physically gluing or affixing various materials onto another surface.

Collagraph or Collograph: A print made from a matrix or plate that is collaged with different textures.

Digital print collage: A work of art made by combining digital images, text, and textures from various sources into a new composition using computer tools and programs.

Drypoint: Intaglio technique, similar to etching but lines are scratched directly onto the plate without use of ground or acid. A drypoint needle pushes up rough burrs of metal which lead to the fuzzy appearance of the print. Because the plates (especially the burrs) are delicate, the editions are generally very small.

Edition or Series: Group of identical impressions printed from the same plate/screen. E.g.: edition 2/25 means the second of 25 images in the edition/series. It does not necessarily mean the second printed, but usually just the second signed by the artist.

Embossing: The process of making a raised, or relief, pattern, or area on a material.

Engraving: Oldest intaglio technique (developed in the 15th century). Fine lines are incised with burin into metal plate.

Intaglio: General term for metal-plate printing process. Unlike relief printing, the areas that are created during the incising process are printed while the uncut areas are not. Intaglio techniques include etching, drypoint, aquatint, mezzotint, and engraving.

Laser cutting: A process that uses a thin, focused laser beam to cut or etch designs into a surface.

Linoleum cut: Relief cut similar to woodcut but uses linoleum as a plate instead of a block of wood.

Matrix: Any surface used as block or plate from which the images are printed.

Mezzotint: Intaglio technique in which serrated tools called rockers or roulettes gouge a metal matrix.

Monoprint and Monotype: Technique of drawing or painting on a smooth, unincised metal or glass plate and then printing to produce a one-of-a-kind work. If enough pigment remains on the plate following the first print, a cognate, ghost, or secondary print can be made. The terms monoprint and monotype are often used synonymously, though monoprints are usually considered part of a series of similar prints.

Offset lithography or Offset printing: Image is transferred from a plate to a cylindrical blanket and then onto paper. Image does not appear in reverse as in traditional prints due to double process.

Photogravure: A complex intaglio printing process that photographically transfers an image onto a plate. That image is then etched into the plate after which multiple prints can be pulled from that plate.

Planography: Printmaking techniques in which a print is pulled from a flat surface, as opposed to a raised surface (e.g. woodcut) or an incised surface (e.g. etching). Planographic techniques include monoprints and lithographs.

Print: An indirect transfer process.

PP: Abbreviation for "Printer's Proof." PPs represent a small percentage of the total run of prints but aren't typically counted in the edition numbering. The printer or studio typically retains PPs for their use and/or distribution. Due to their scarcity, collectors consider PPs more valuable than an edition run of the same print.

Registration: Placement of sequentially printed plates so that all of the images line up correctly in the final product.

Relief: Any form of printing (such as woodcut, linoleum cut, or rubber stamping) in which raised areas are inked and printed while recessed areas are not.

Proof: An impression pulled prior to the printing of the official edition.

Silkscreen: A stenciling technique of printing also known as screenprint or serigraph (*seri* is Latin for silk).

Spitbite: An intaglio method of painting strong acid directly onto the aquatint ground of an etching plate. Depending on the amount of time the acid is left on the plate, light to dark tones can be achieved. Saliva or other water-soluble liquid (e.g. gum arabic) can be used to control the application of acid.

Tusche (too-sh): German for "ink," used for lithographs.

Waterless lithography: A version of offset lithography in which the non-image areas of the matrix, or negative space, are left covered with a thin layer of water-repellent silicone. When ink is applied to this matrix the ink is only drawn to the painted or drawn areas, which in turn transfer when the print is pulled.

## RESOURCES

Fine Art Multiple Glossary: <https://fineartmultiple.com/glossary-of-prints-and-editions/what-is-an-artist-proof/>

Metropolitan Museum of Art: <https://www.metmuseum.org/about-the-met/collection-areas/drawings-and-prints/materials-and-techniques/printmaking>

Museum of Modern Art, 2001, *What is a Print?* Brochure: [https://www.moma.org/momaorg/shared/pdfs/docs/learn/courses/what\\_is\\_a\\_print\\_brochure\\_1999.pdf](https://www.moma.org/momaorg/shared/pdfs/docs/learn/courses/what_is_a_print_brochure_1999.pdf)

Pace Prints Printmaking Techniques: <https://paceprints.com/techniques>

*Positive Fragmentation: From the Collections of Jordan D. Schnitzer and His Family Foundation:*  
<https://nmwa.org/exhibitions/positive-fragmentation/>