

An Introduction to Relief Printmaking

What is Relief?

Printmaking is more popular than ever, yet so many people make and/or enjoy the finished pieces without much thought. Printmaking includes any creation of images or patterns that can be transferred from a medium, like a woodblock (Griffths, 9). And more specifically, **relief printmaking** uses the raised surface of a matrix to create an image (by removing the negative spaces.) Relief prints are often hand burnished or press-printed to print the image. A discussion of different types of relief printmaking is useful to consider when choosing which medium should be employed. Also, it is beneficial to know the history of printmaking in order to understand how printmaking has evolved to the processes we use today.

Types of Relief and Methods

There are many types of relief printmaking, the most common being woodblock, wood engraving, and linocut. Woodblock printing is the oldest type of relief print. Prints can be made with one or many blocks and can be printed in black and white or color. Wood engraving is similar to woodblock, except that it is cut cross-grain (AKA "end" grain) rather than plankwise to allow smooth cutting in any direction. Linoleum can be cut or gouged in any direction. It is capable of fine detail. It is easy to cut because it is soft, but this process dulls the blade faster than a woodcut (Chamberlain, 70; Perterdi, 305).

There are also alternative printing blocks that are interesting to note. For instance, plaster can be worked on while it is damp, but it needs to be sealed before it is inked. The inked block is often saved as decoration after printing (Chamberlain, 74). Collograph or cellocuts can also be made. They are any type of block (wood, linoleum, metal, collage, etc.) that is designed to print in both relief and intaglio (Perterdi, 239). There are

alternative methods of surface printing, too. A relief can be made from rubber, wood, cork, cardboard, or a ready-made material to stamp an image. Another example is the rubbing technique, which requires a wax "heedball" or a crayon to make an impression. This method is especially useful when trying to copy a raised image or texture because no ink is necessary and the image does not need to be reversed to copy it correctly (Chamberlain, 75-82).

European Tools and Materials

There are different materials that are needed to create relief prints, but the tools and the blocks are very important. Steel knives are the primary tool to cut the block. Gouges and chisels also help work the matrix (Peterdi, 266). Texturizers, like sandpaper, wire screening, and drills, can give an expanse of color a different look.

The hardness of the wood can affect the knives and the image drastically. Soft wood, like pine, needs sharp tools to cut across the grain because it bruises and shreds easily. Because of this, fine lines are difficult. Medium/soft wood, like poplar, has an even grain and is not too brittle. Its hardness can hold more details than a soft wood. Dense hard wood, like fruit woods, are good for fine lines and hold up to print many editions. And, very hard wood, like maple, is too difficult for woodcuts, but works well to create details for wood engraving. Linoleum is a brown flexible material composed of cork, resin, and other materials onto a burlap or canvas backing. It can be heated to make it softer to cut (Ross, 9-10).

The Beginning

Most books cite the Chinese as the first printmakers, but that is not exactly true. The Sumerians, in 4000 BCE, made cylindrical seals (worn like a bead on a necklace) from clay or stone to be used as personal signatures (although printed as intaglio). In 800 BCE, the Olmec Indians backed patterns into clay for printing (Chamberlain, 11). And, the Egyptians carved wooden stamps to print on textiles in the 6th century CE, which is about the same

time the Chinese also began making textile prints (Ross, 2)

Printmaking in China

The first print made on paper was created in China soon after the development of paper. The oldest known woodblock book is the Diamond Sutra from 868 CE, but its technique shows that woodblock had been printed many times before (Chamberlain, 12). The first woodblock designs were religious (images of Buddhist saints and amulets). Around the mid 14th century, images became secular. Traditional blocks were made out of pearwood. Drawings were applied facedown to the block after applying rice paste, then the back of the paper was rubbed until only the transferred graphite lines remain. Chinese prints soon traveled to Japan.

Japanese Ukiyo-e Prints and the Introduction of Color

Japan began to copy Chinese styles in printmaking, thus creating many images of deities around the 1080s. Until the 1590s, images were religious. These first authentic Japanese prints of secular illustrated fiction were printed in black, then hand colored (bookmakers printed in color, but their methods were kept private).

In the 14th to 15th centuries, a style of pictorial art was developed by the painting schools called ukiyo-e. The character Uki originally meant "this sad world," but was changed to mean "floating world," as in ever-changing. Adding an "e" to the end means pictures. So, ukiyo-e means "pictures of the floating world." The first artist to take the ukiyo-e drawing style and apply it to woodblock print was Hishikawa Moronobu (slide 1). The coloring was hand done after printing. Soon, a shift in subject matter occurred. Images of actors and courtesans were made (erotic images, too!)

The introduction of the full-color print by Suzuki Harunobu occurred in the late 18th century (slide 2). The registration was made by drawing two lines, one on the top and one on the side of the block. Okubi-bust portraits were able to convey the sense of volume in a face by just a line (slide 3). Soon, more subjects were introduced, like landscapes (slide 4),

warrior prints (slide 5), flower studies, and still lifes. Private greeting cards (surimono, “rubbed things”) were printed with great care (slide 6). Notice the blind printing (embossing) on the flowers’ petals (Earle, 3-5, 9-10, 11, 16-17, 27, 31).

Japanese Materials and Methods

Japanese color prints were made from cherrywood. The blocks for black ink printing were made from the harder center part of the trunk, while the color blocks came from the softer outsides. Small chisels were used to cut out large areas. Knives were used to cut out smaller areas. Since no press was used, the printers rubbed a baren (twisted bamboo) over the back of the paper. The black ink was made from sumi, which is a mixture of soot and glue, and the color inks were made from vegetable pigments and rice paste. Both inks were water-based (Chamberlain, 40-41). The print was produced through a process involving specialists. An artist would receive an order from the dealer and would produce an under-drawing to be approved by the dealer with a stamp. The approved drawing was given to the artisan to carve. These carvers required ten years as an apprentice before considered a master. Apprentices could carve text, then color blocks for ukiyo prints, then, if skilled enough, black-ink key blocks to create division of labor. Next, the blocks were given to the printer to print on masa or hosho paper (Takahashi, 16, 37). Registration was made using two marks: one on the middle of the top of the block and one on the side (Earle, 6). The distributors (setori) delivered the prints to the shop.

At the beginning of the 20th century, artists began to make their own designs, as opposed to relying on commissions. For instance, Munakata Shiko (slide 7) was a modern printmaker in Japan in the 1920s. He was trained in Western techniques, but wanted to apply them to a traditional Japanese medium (Earle, 45). Europe was first introduced to printmaking through Japan in the 13th century.

Early Prints in Europe

The earliest style European prints were made in were International Gothic. Primarily,

they made playing cards or religious images (slide 8 and 9). They were sold at pilgrim shrines or by peddlers. Paper was not manufactured in large quantities until around the 15th century, although it was scarcely available since the 13th century (Griffiths, 16, 18).

The block was first coated in black oil-based ink containing linseed oil. Using an "ink ball" (leather-coated pad stuffed with hair or wool), ink was applied to the block. The early prints were simple outlines of figures with lots of curves and plain backgrounds (resembling altarpieces). Sometimes these prints were hand colored, then sold, but also, they would be sold as outlines so the customers could color them in.

Until the 1450s, woodcuts were printed on single sheets of paper. But then, the printed book began to be published and were called "block books." One block printed on a folio (sheet of paper folded in half for binding). The first book made was a bible with simple pictures. Gutenberg published his bible in 1455, marking the beginning of movable type. Soon, other presses opened up (Chamberlain, 12, 14-15).

Dürer's Influence on the Status of Woodcuts

The carved woodblock was seen as a utilitarian craft. A print would go through a similar process as a Japanese print, beginning with a commission to an artist, followed by a carver, and then a printer. A person would specialize in only one aspect of printmaking and would never experiment in another. Dürer challenged this tradition (Chamberlain, 12).

Dürer established woodcuts as an art form and was involved in all the steps of production (slide 10) (Griffiths, 18). This is from his "Apocalypse" series from 1499. He was able to portray tonal values with fine, closely laid lines and cross-hatching (Chamberlain, 19)

Due to the popularity of intaglio printmaking, woodcuts died down (Griffiths, 20), but another type of relief print emerged in the 15th century (slide 11 and 12). Metal makes a reliable matrix, so metal cuts became popular. They are less likely to damage or wear. Sometimes they are cast from woodblocks. The most well known cuts are by William Blake.

Wood engravings also were developed (Griffiths, 113). This image (slide 13) is a hand colored relief etching by Blake from the Songs of Innocence in 1789.

The Influence of Japanese Prints on European Methods and the Prints of Gauguin and Munch

The influence of Japanese prints in the late 19th century led to color printing. They used the key-block method. First, the color blocks are cut separately and printed on one sheet. Next, the black block is printed on top of the color printings. A similar method was chiaroscuro (tone-block) which made mono-chromatic prints. The black print was superimposed on two to three tone blocks (either in color or grays) (Chamberlain 23-24; Griffiths, 115).

Japanese prints also influence Gauguin and Munch, who were both part of the Die Brücke ("primitive" art movement) group (Castleman, 4; Griffiths, 21). Gauguin renewed interest in the woodblock in the 1800s. He liked to emphasize the grain, but had trouble creating editions because he wiped the block to get a certain look that was difficult to replicate (Chamberlain, 48; Ross, 6).

Edvard Munch worked in a lithographic workshop in 1898 when he discovered woodcut prints (Chamberlain, 50). He began to experiment with color and loved the look of the grain (slide 14) (Griffiths, 117). He would cut along the contours of the figures and separate the block into pieces. Next, he would ink the blocks individually then reassemble them before printing. Japanese prints also influenced many impressionistic artists, like Degas, Manet, and Mary Cassatt (Castleman, 3).

Other Influential Artists

Linoleum was introduced and soon the linocut was made. It was used by artists like Matisse and Picasso. Picasso invented the reduction method using linocuts in the mid 1950s (slide 15) (Griffiths, 22, 117). It depends on successive prints, beginning with the lightest and ending with the darkest. In this example, he cut the white first and printed the yellow.

Then cut the yellow and printed the red. And finally, he cut the red and printed the black.

Various artists were also influential in relief printmaking. Kandinsky was part of the Der Blaue Reiter artist group in 1911 in Germany (slide 16). They used blocks for abstraction to create flat, two-dimensional images that resembled drawing (Chamberlain, 53). Kollwitz began woodcutting in 1919 (slide 17). Her subject matter differed greatly from her peers. She emphasized social problems with simple, yet direct images of tragedies. Many images deal with death or the prospect of death (Chamberlain, 55). Other artists include Landacre (slide 18) and Joaquin Torres-Garcia (slide 19).

Relief printing has come a long way since it began before the Common Era and it will continue to evolve and incorporate new techniques as it progresses through time.

An Introduction to Relief Printmaking

Annotated Bibliography

Castleman, Riva. "Prints from Blocks." New Haven: Eastern Press, 1983.

This book contains a brief more contemporary history of printing making, mentioning Japanese woodprint's influence over European artists. It has a vast collection of pictures that I am using for slides.

Chamberlain, Walter. "Manual of Woodcut Printmaking and Related Techniques." New York: Scribner, 1978.

Chamberlain wrote a terrific manual of technique that begins with a 50 page introduction into the history of printmaking. The rest of the book is a discussion of materials, tools, types, and methods of printmaking. It was very thorough.

Earle, Joe. "An Introduction to Japanese Prints." London: Compton Press, 1980.

A clear and precise explanation of the history of Japanese prints. It discusses the transfer from painting to printmaking and its own path through history. It mentions many important artists and discusses their works. It ends with a Japanese artist from the 1920s

Griffiths, Antony. "Prints and Printmaking." Los Angeles: University of California Press, 1996.

A slow explanation of printmaking through the history of Europe, this book begins with religious prints, and then discusses advances made through ingenuity of artists and their techniques, like Dürer and Blake, and technological discoveries. It also includes good quality pictures to make slides from.

Peterdi, Gabor. "Printmaking: Methods Old and New." New York: Macmillan, 1980. (239-305)

A detailed guide book about how to make various types of prints, what materials to use, techniques to employ, and what to do with the finished products.

Takahashi, Seiichiro. "Traditional Woodblock Prints of Japan." New York: Weatherhill, 1978.

This a comprehensive and chronological (mostly) journey through printmaking in Japan. It begins with the birth of ukiyo woodblock prints during the Edo period. It follows the evolution to color prints, technique, sales, subjects and themes, and significant artists and trends.