



HISTORY

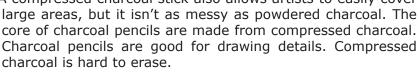
The first use of charcoal as an art medium was used by early mankind. Drawings in caves reveal that they used sticks which were burned in a fire, rather than deliberately making charcoal. Making charcoal is a long process, which takes many days, unlike charring sticks which can take seconds. During the Renaissance charcoal was used to sketch out the plan for a painting. But, it wasn't until the twentieth century that charcoal became a main artistic medium. Matisse and Picasso helped to popularize the use of charcoal.

TYPES

The three types of charcoal are powdered, compressed, and willow or vine.

Powdered charcoal is the simplist of these three types. An artist can easily cover a large area, but it has the possibility of making a big mess.

Compressed charcoal is composed of powdered charcoal along with gum or wax to help bind it together into a solid mass. It ranges from soft to hard and comes in the colors white or black. A compressed charcoal stick also allows artists to easily cover

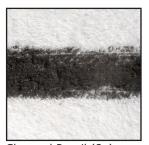


Vine Charcoal (8x)

Willow branches and grape vines are burned in order to create willow and vine charcoals. These types of charcoal also vary from soft to hard, but it is easier to erase compared to compressed charcoal. This is because willow and vine charcoals don't contain a binding agent. Due to this, willow and vine charcoals are best suited for preliminary sketching.



Compressed Charcoal (8x)



Charcoal Pencil (8x)

Watercolor Paint



HISTORY

Watercolor was first used around the same time as charcoal. Prehistoric humans mixed pigments of ochre, charcoal, and other materials found in the wild in order to document their culture on the walls of caves.

The invention of paper and the watercolor painting technique diffused from China to Europe by the twelfth century. In the thirteenth century, European artists mixed their own watercolor paints from color pigments and chalk. The most famous early application of watercolor paints being used for fine art is the Sistine Chapel. This technique is called fresco, which is created when an artist uses watercolor paint on wet plaster. In the fifteenth century Albrecht Durer, a German printmaker, experimented with ways to improve the look of watercolor paint. By the nineteenth century watercolor paint was a legitimate art medium.

PAINTING TECHNIQUES

There are many techniques to achieve different looks while using watercolor paint. These techniques utilize salt, alcohol, crayon, pen and ink, water and paint drops, and the splatter and transparency effects. For the salt technique: sprinkle salt on the still wet paint; once the paint is dry brush the salt away. Coarse salt and

fine salt will produce slightly different effects. Dip a Q-tip in rubbing alcohol, and let drops of alcohol fall on the still wet paint, to produce the alcohol technique. Draw objects with the pen and ink, let them dry, and then use watercolor paint to fill in the negative space. The pen and ink technique is the same as the crayon technique, but there is no drying time required. Crayon will also produce a more raised up boundary box, making it easier to paint within the lines. The next technique uses water or paint drops. While the paint is still wet drip paint or water on it. For the splatter technique, start out with a clean sheet of watercolor paper. Then, apply paint to the brush and tap it onto the paper. The transparency effect is very similar to the layering technique used with acrylic paint. First, use a lighter color and paint a shape. Then, use a darker or more saturated color and paint a shape that slightly overlaps the first one.



Watercolor Paint (8x)



HISTORY

Egyptians were the first inventors of crayons. This ancient crayon consisted of melted beeswax and color pigment, very similar to crayons today, but they were used to paint rather than draw. The ancient Romans and Greeks also used this type of medium to paint.

A precursor to the modern day crayon can be traced back to Europe. Instead of using wax, these crayons were made out of oil or charcoal. Crayons became a well established drawing medium for artist in the 1790s. This change caused companies to switch from charcoal to colored pigments, as well as from oil to wax.

In 1903 the Crayola Company was established. The name Crayola has French roots. "Craie" means "chalk", while "ola" is taken from the French word "oleaginous", which translates to "oily". They revolutionized the crayon by creating a non-toxic version. Crayola produces crayons in all shapes, sizes, and colors for children, as well as for artists. Triangular crayons, twistable crayons, and egg shaped crayons are some of the wacky shapes that they make. Normal crayons are almost four inches tall but Crayola also created a "MEGA Crayon" which is fifteen inches tall and weighs two pounds. Over 600 colors of crayons have been produced by Crayola, and they produce almost three billion crayons every year.



Crayon (8x)

Colored Pencil

HISTORY

Colored pencils were believed to have been created in the nineteenth century. They were first used for "checking and marking", but by the twentieth century they were being manufactured for artists. In 1924 Faber-Castell and Caran d'Ache created the first color pencils intended to be used as an artistic medium. Prismacolor began making artist quality colored pencils in 1938. Prismacolor has varying amounts of colored pencil sets. They range from a set of twelve to a set of one-hundred and fifty.

DRAWING TECHNIQUES

Layering, and burnishing, are two colored pencil drawing techniques. First, an artist puts one color on top of another over and over again. This is done just until she builds up the color that she wants. This is referred to as layering. When an artist adds more layers on top of the layers of already built up colored pencil this is called burnishing. This technique is used in order to give an object in a drawing a shiny appearance. Other techniques that apply to all

drawing materials are stippling, hatching, cross-hatching, the back and forth stroke, and scumbling. Stippling is the use of spaced dots in order to create an image. Draw parallel lines to create the hatching technique. The cross-hatching technique uses two series of parallell lines that intersect at right angles. In order to make the back and forth stroke an artist makes continuous back and forth marks on the paper. Continuous circular marks with a pencil, or other mediums produces scumbling.



Colored Pencil (8x)

Acrylic Paint











HISTORY

Acrylic paint was created in 1940. It was first used as house paint, but it quickly caught the attention of artists. It dries faster than oils, but this makes it harder to blend. Depending on how much water is added, acrylic paint can be as soft as watercolors or as sharp as layered oil paint. Since it was created manufacturers have been able to make the color pigments much richer. Acrylic paint is one of the newer mediums compared to crayon, watercolor, and charcoal, which have been around for a very long time.

PAINTING TECHNIQUES

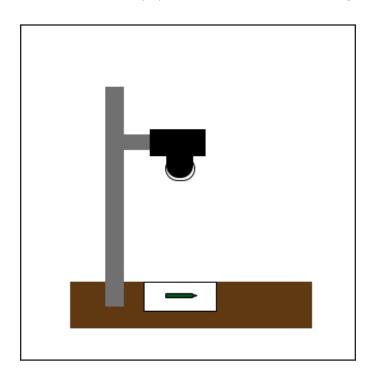
Dry brushing, adding water, detailing, stippling, dabbing, flicking, and layering are the acrylic painting techniques. With dry brushing an artist uses paint straight from the tube to paint on paper or another type of material. This creates a hard line with vivid color. Water is added to the acrylic paint in order to create a softer line and a duller color. To create detailing use a fine tipped paintbrush. Stippling is done the same way as colored pencil. The dabbing technique is created by putting paint on a sponge or paper towel and applying it to the paper. Flicking is similar to the splattering technique used for watercolor paint. Rather than adding paint to the whole color like what is done for watercolor, water is only added to the paintbrush for acrylic paint. Use one color to paint on the paper, let it dry, and then brush another color on top. This effect is known as layering.



Layered Acrylic Paint (8x)

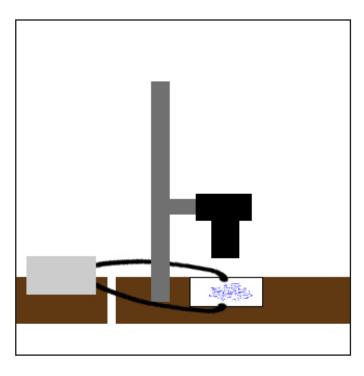
LIGHTING SETUPS

For both setups a camera was attached to a copystand and suspended above the subject. The subject was placed on a white sheet of paper, which served as the background for each photo. All of this equipment rested on a table.



This lighting setup was used to take photographs of the art mediums.

A Nikon D800, a Nikon 105mm micro lens, and a Sigma ring flash were all used for this set-up.



This lighting setup was used to take closeup photographs of the art mediums.

A Nikon D800, a bellows, a Zeiss 16mm thimble lens, and a dual gooseneck fiber optic light were used for this set-up. The fiberoptic light was placed on a seperate table to minimize vibrations.

ABOUT THE AUTHOR

Alessandra Suchodolski is a student at Rochester Institute of Technology. She is working towards obtaining a Bachelor of Science degree in Biomedical Photography, with a concentration in macro photography and photomicrography. Alessandra is expected to graduate in May of 2017. In her free time she enjoys hiking, kayaking, an traveling. After college, she hopes to enter a field related to nature and animals, museums, or forensics.

More of her work can be found at alessandrasuchodolski.com.

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RESOURCES

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http://www.crayola.com/faq/your-business/how-are-crayons-manufactured-and-what-are-the-basic-ingredients/

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