

MATERIALS

GRAPHITE PENCILS

Graphite was not discovered in Europe until 1400, when it was found in Bavaria and promptly mistaken for lead. The substance was not called graphite until 1789. The purest deposits of graphite ever found were discovered in Cumberland, England, in 1564 and were in continuous production until 1833.

- Pros:
- Less dusty than Charcoal
 - Adheres to most drawing surfaces more easily than Charcoal
 - Good for creating subtle detail

- Cons:
- Very time consuming to create Value (light and shadow) drawings.
 - Does not mix well with Charcoal. The charcoal can not adhere well to an area already drawn in graphite.
 - Can not get as dark as charcoal. It will become overly shiny.
 - Can be difficult to erase, if drawn too heavily or built up in several layers.



CHARCOAL PENCILS

Charcoal pencils are made from compressed charcoal. The charcoal is protected with wood, or a paper wrapping, which is the only real advantage of the pencils. The covering helps to keep your hands and your working environment clean while drawing: it also reduces breakage and allows sharpening to produce a point. In the paper-wrapped version, the charcoal is exposed by peeling rather than by sharpening.

- Pros:
- Capable of creating a wide value range
 - Does not create a overly shiny surface
 - Works well for larger drawings, much easier to cover large areas
 - Much easier to erase and correct than graphite

- Cons:
- Sharpened point can break much easier than graphite
 - Can be time consuming when dealing with building up detailed areas.



CARBON PENCILS

Carbon pencils are made from lamp black pigment, which is purer than charcoal and is therefore more consistent in quality. This consistency is maintained throughout the available range of degrees of hardness, which is generally identical to that of compressed charcoal.

- Pros:
- Capable of creating a wide value range, similar to that of charcoal
 - Does not create any overly shiny surface
 - Easier to erase than graphite
 - Sharpened points are easier to maintain than charcoal
 - Works well with charcoal
 - Easier to create detailed areas than charcoal

- Cons:
- Can be very time consuming when building up large areas
 - Does not mix well with graphite
 - Although the sharpened points are easier to maintain than charcoal, they do not maintain as well as graphite points



VINE CHARCOAL

Vine charcoal is basically regular charcoal without all of the binders, which is what gives regular charcoal pencils their varying degrees of hardness. Vine charcoal can have some minor amounts of binders present, however they are still much softer and easier to erase than standard charcoal pencils. Vine charcoal is available in Extra Soft, Soft, Medium and Hard.



CONTE PENCILS

Conte pencils are named after their developer, Nicolas-Jacques Conte, who invented the modern pencil. They were originally a mixture of graphite and clay formed into hard drawing sticks. Today, Conte crayons are made with an alumina chalk (aluminum oxide) base.

Because they are readily available in differing degrees of hardness, a range of effects can be consistently produced with these crayons. The white crayons are pure alumina chalk; the blacks and grays are carbon and alumina chalk. The reddish-browns, or sanguines, are ferric oxide (rust) and alumina chalk. Several shades of sanguine are widely available and the black and white are available in different degrees of hardness.

- Pros:
- Similar to Charcoal
 - Available in a range of colors

- Cons:
- Similar to Charcoal, but can be more difficult to sharpen. Extra sensitivity and caution should be given when sharpening them.



MICRON PENS

Micron pens contain India Ink, which is very permanent, unlike regular ball point pen inks. Micron pens can create very precise detail without smudging. They are best used for stippling, hatching and linear drawings. It is best to do a graphite underdrawing before using the pen. Once the ink drawing is completed the remaining graphite can be erased. The eraser will not smudge or lift the dry ink.

- Pros:
- The ink does not run as with Ink drawings created with a brush.
 - They do not have the tendency to leak, which can sometimes happen with Quill Pens

- Cons:
- The ink can not be removed or corrected
 - They can not gradate values like pencils



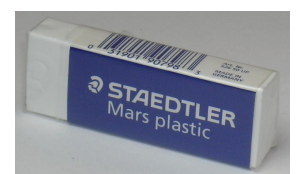
KNEADED ERASERS

They are putty like erasers that are excellent for making general correction and smaller corrections to detailed areas. They can be easily shaped into any form to accommodate alterations to any shape in a drawing. Because of this they are the primary eraser used for Reductive Value drawing.



HARD ERASERS

Excellent for erasing large areas that cannot be erased by soft kneaded erasers. They do not work as well, however, for smaller corrections, as they cannot be altered in shape in the way kneaded erasers can.



ALL OF THESE PENCILS USE THE FOLLOWING SCALE TO SHOW THEIR HARDNESS AND GENERAL DARKNESS:

9H 8H 7H 6H 5H 4H 3H 2H H F HB B 2B 3B 4B 5B 6B 7B 8B 9B

Lighter (Harder) < -----> Darker (Softer)