

The background of the cover is a textured, light brown paper. In the top right corner, there is a cluster of art supplies: two black charcoal sticks, a black pencil, a green pencil, a teal pencil, and a dark blue pencil. The text 'the Artist's magazine' is located in the top left corner. 'the' is in a small, black, sans-serif font. 'Artist's' is in a large, bold, orange, sans-serif font. 'magazine' is in a smaller, black, sans-serif font.

the  
**Artist's**  
magazine

# A GUIDE TO Charcoal, Graphite and Conté Crayons

by Greg Albert





# Graphite, Charcoal & Conté Crayons

## What is Mediapedia?

Mediapedia is an encyclopedia of art media. Get the complete set in *The Artist's Magazine's* 2009 Annual CD at [www.northlightshop.com](http://www.northlightshop.com).

**D**rawing is the most fundamental skill for the visual artist, whether the result is loose, preliminary and exploratory or highly stylized, schematic and sophisticated. Dry drawing materials make it possible for the student or professional to sketch any time and any place because these relatively inexpensive tools are so portable and convenient.

Drawing is the simplest and most direct art form for the visual artist; almost everything an artist does involves drawing on some level. Although many artists begin with dry media, drawings can also be created with liquid media such as ink or paint, so the dividing line between drawing and painting isn't distinct. (Inks and markers will be explored in a future Mediapedia.) There is a great variety of dry drawing materials available to the artist, but the most common are graphite pencil, charcoal and Conté crayon.

Graphite is mixed with clay to produce the core of the familiar pencil, the most common drawing tool. Graphite also comes in sticks of various sizes and lengths, including woodless pencils. Graphite is slick, silvery and harder to erase than charcoal.

Charcoal is intensely black, brittle and lightweight. It's grittier, duller and easier to erase than graphite and has greater covering power. Its most popular forms are vine charcoal and compressed charcoal, which vary in hardness; it's also available in pencils and as powder.

Conté crayons—sometimes called artist's chalks—are compressed sticks that are firmer than pastels and school chalk. The three media create a limited but versatile palette of black, white and sanguine.

## FAQs

### Is pencil lead poisonous?

No! Pencil “lead” is made of graphite, not real lead, which is toxic. Graphite is very safe to use. When it was first discovered in the 16th century, graphite was thought to be a form of lead, and the misnomer has persisted to this day.

### Are drawing materials permanent?

Yes. Graphite, charcoal and Conté crayons are stable materials and will not change or degrade over time. Nevertheless, they are only as permanent as the surface to which they’ve been applied, so pay attention to what you draw on.

### How can I protect a drawing?

Charcoal drawings, particularly ones made with vine charcoal, should be coated with fixative to protect them from smearing. Graphite is less susceptible to smudging, but using a fixative is recommended.

Some white drawing media become transparent when sprayed with fixative, so test a sample first.

### What’s the best way to store drawings?

Drawings made with graphite, charcoal or Conté crayon may smudge or smear unless sprayed with a protective artist’s fixative, particularly if softer materials are used. Drawings are best stored flat in boxes or a flat file with sheets of glassine (thin, water-resistant paper) between the drawings to minimize smearing. For better protection, matting your best drawings is recommended.

### Can you intermix drawing materials?

Yes, but neither Conté crayons nor charcoal stick well to graphite or colored pencils—a property you can exploit for interesting effects. Water-soluble crayons, watercolor pencils and inks can be combined in innumerable techniques. Experiment!

## Must-Have Tools



**Drawing board:** A flat, light and rigid board is a must.

**Erasers:** These essential tools’ use goes far beyond merely correcting mistakes. Erasers should be thought of as tools to manipulate the powder on the paper.

The three most common types are kneadable, gum and plastic vinyl erasers.

**Blending tools:** Use stumps of tightly wound, soft, gray paper (also called torchons or tortillons) for blending and smoothing small areas; use paper towels, tissues or a chamois for blending larger areas.

**Sharpener:** A manual or electric rotary sharpener is OK for pencils; a blade or hand-held sharpener offers more accuracy.

**Fixatives:** Workable fixative protects a drawing from smearing but leaves it open for reworking; permanent fixative protects it from damage and seals it from further alteration.

**Holders:** Mechanical pencils, pencil lengtheners or holders for graphite and charcoal sticks reduce the risk of smudging.



# Chemistry

Graphite, considered the highest grade of coal, is a stable semimetal. It's mined and then mixed with clay to produce graphite sticks and powder.

Charcoal is wood that has been carbonized; that is, burnt in the absence of oxygen. Vine charcoal is produced by carbonizing sticks of wood—willow and linden being the most common. Compressed charcoal is powdered charcoal mixed with a gum binder; the hardness is determined by the amount of binder used. White “charcoal” is actually chalk or titanium dioxide.

Conté crayons are made of powdered graphite or charcoal mixed with clay. The sanguine color comes from iron oxide (or rust); white Conté crayons are made with titanium dioxide. The compressed sticks were invented by the Frenchman Nicolas-Jacques Conté in 1795 in response to a shortage of graphite during the Napoleonic Wars.

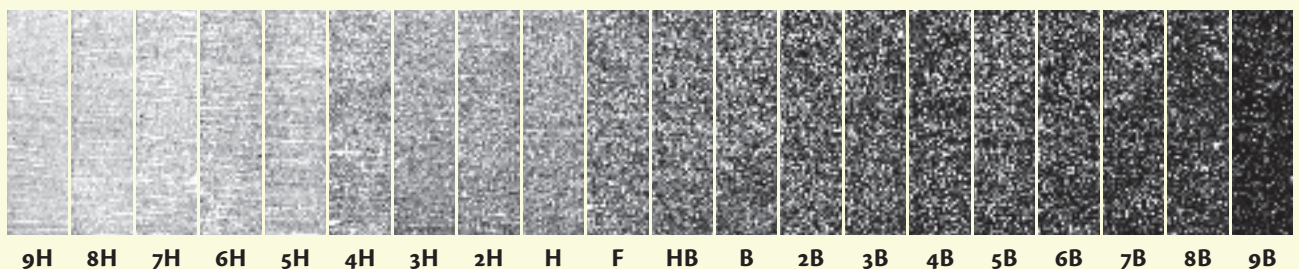
## Safety and cleanup

When used properly, drawing materials are the safest art materials. Their ingredients are inert and nontoxic.

Care should be taken, when using powdered graphite or charcoal, to avoid breathing in any dust. Tap the drawing above a cleanable surface to remove loose particles—don't blow the dust off with your mouth. Powdered charcoal can be explosive if blown into an open flame.

Spray fixatives should be used only with excellent ventilation; keep all sprays and solvents away from children.

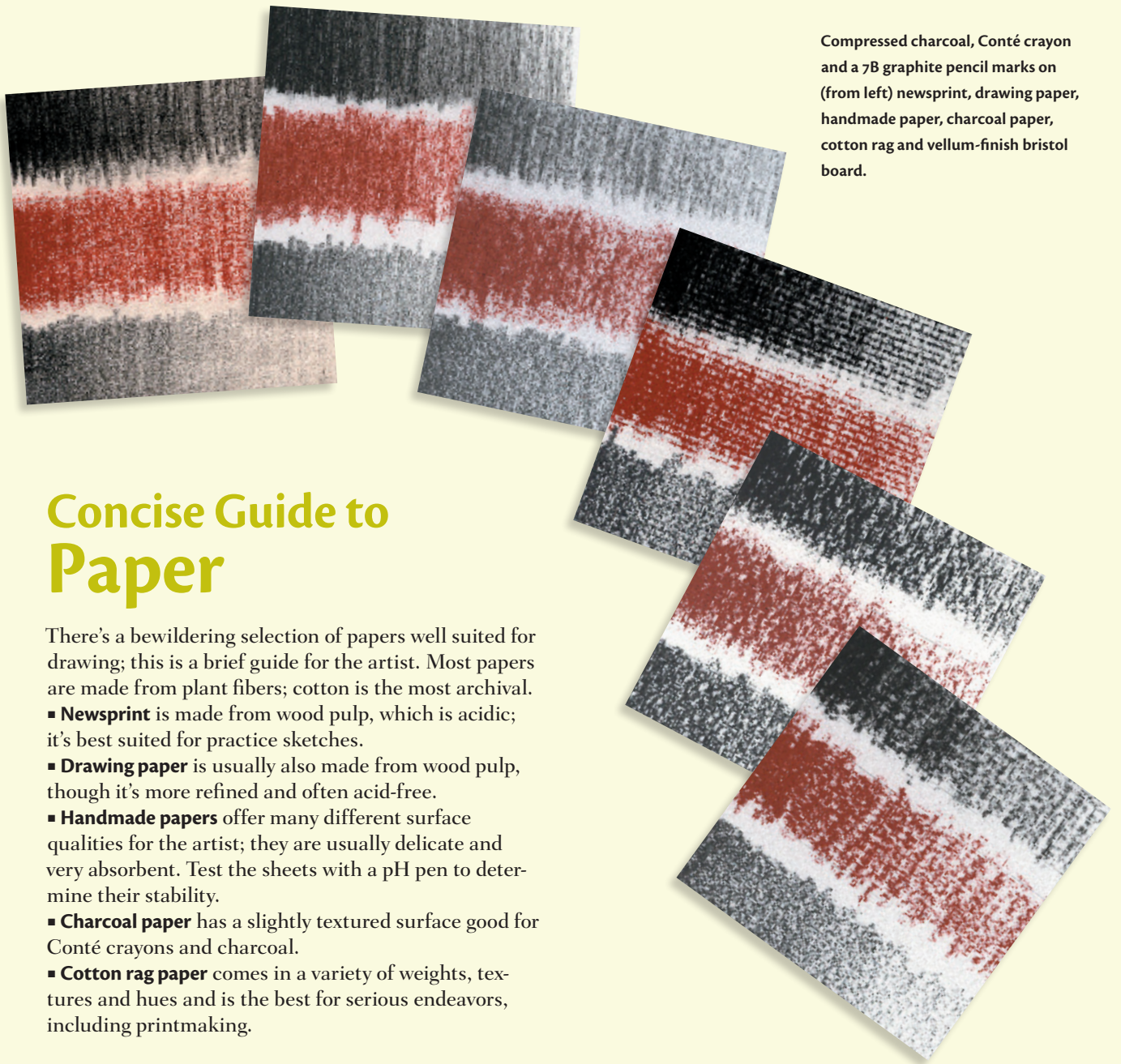
Don't eat, drink or smoke in the studio, and wash your hands thoroughly after each session.



## Hardness scale

The relative hardness or softness of graphite, charcoal and chalk is determined by the amount of binders included in their composition. Hardness is graded on a scale that came into use in the early 20th century, using the letters H for hard and B for black. The scale is a continuum from very hard to very black, so 9H is the hardest and makes the lightest gray marks; 9B is the softest and makes darkest marks. Near the middle is HB, the hardness of the common No. 2 pencil.





Compressed charcoal, Conté crayon and a 7B graphite pencil marks on (from left) newsprint, drawing paper, handmade paper, charcoal paper, cotton rag and vellum-finish bristol board.

## Concise Guide to Paper

There's a bewildering selection of papers well suited for drawing; this is a brief guide for the artist. Most papers are made from plant fibers; cotton is the most archival.

- **Newsprint** is made from wood pulp, which is acidic; it's best suited for practice sketches.
- **Drawing paper** is usually also made from wood pulp, though it's more refined and often acid-free.
- **Handmade papers** offer many different surface qualities for the artist; they are usually delicate and very absorbent. Test the sheets with a pH pen to determine their stability.
- **Charcoal paper** has a slightly textured surface good for Conté crayons and charcoal.
- **Cotton rag paper** comes in a variety of weights, textures and hues and is the best for serious endeavors, including printmaking.

## Tips and techniques

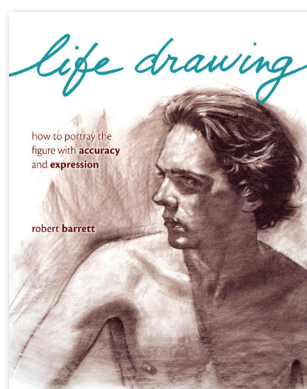
- Pencils produce fine lines; graphite blocks, charcoal and Conté crayon are well suited for continuous gradations of tone.
- Hatching (closely spaced parallel lines) and crosshatching can produce textured areas of tone.
- Erasers can serve as drawing tools to lift and blend marks from the drawing surface to create highlights or textural effects.
- A few extra pieces of paper on your drawing board under the top sheet give a softer feel to the hand. ✎

■ **Greg Albert**, author of *The Simple Secret to Better Painting* (North Light Books), lives in Cincinnati, Ohio.

# Learn more about drawing

from these great resources from *North Light Books*!

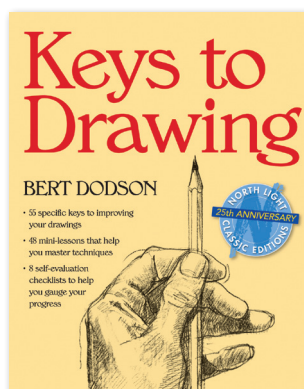
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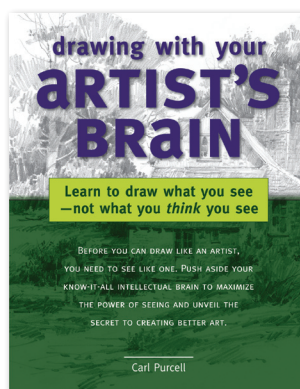
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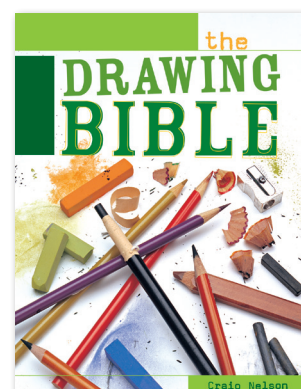
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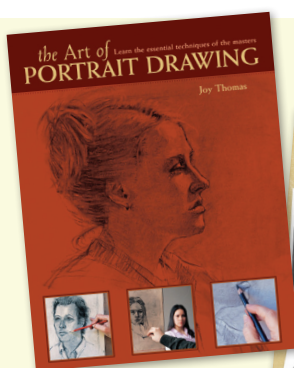


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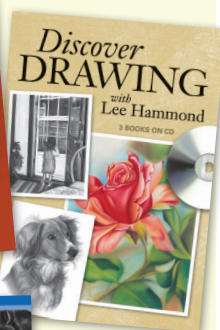
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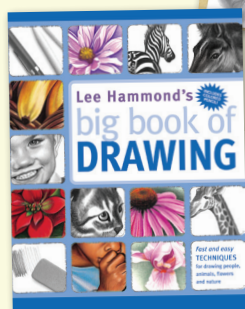
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