

DIGITALLY
COLORING LINEART
FOR BEGINNERS

Dragon*Con 2006
Art Show Programming

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This handout is also available online at:
http://www.careyoxler.com/coloring_lineart.pdf
which can save you the trouble of typing in the links.

The Tools

Mouse versus Tablet

If you have a mouse, you can color lineart. You do not need a tablet to do this. ANYTHING that can be created with a tablet, can be done with a mouse, it just takes more time and effort. A tablet will not make you draw better, or magically download knowledge of proportion and chiaroscuro to your brain. But, if you're used to drawing with a pencil and paper, using a tablet might be a little faster and easier than using a mouse. And some software, like Photoshop, Painter, and the GIMP, can use a tablet's pressure-sensitivity to adjust things like the size and the opacity of the brush while you're painting with it. But even then, you can always manually adjust your brush size and opacity using a mouse, so it's not essential.

Anyone who tells you that getting a tablet will make you draw better or will improve your art is lying. But it will allow you to create art at the same level you are now, perhaps faster or easier, especially if you are very comfortable using pens and pencils.

If you do want a tablet, we recommend Wacom tablets, because they are very reliable and high-quality. The Graphire series is a great product for students, and you can sometimes save a bit more by finding one used on ebay. The Intuos series is the professional grade, and is the Cadillac of tablets.

About the GIMP

GIMP is the GNU Image Manipulation Program. It is a freely distributed piece of software for such tasks as photo retouching, image composition and image authoring. It works on many operating systems, in many languages.

There are a lot of advantages to working with the GIMP. The biggest one is the price tag: it is free. GIMP can export to all of the industry standard raster file formats, including Adobe Photoshop's PSD format and the universally accepted TIFF format. It can export as web-friendly formats such as jpeg, png, and if you have to use it, gif. It can also export to a bunch of other formats I haven't even tried to mess with. And, it can open files in multiple formats -- including Adobe Photoshop, Windows bitmaps, encapsulated PostScript, Paint Shop Pro... It is legal to download off the internet, free, and use to make works of art that you can then use for commercial purposes.

I've used GIMP to create website graphics, forum avatars, full-scale digital paintings, proposal sketches, photomanipulations, cleaned up old family photos, cleaned up scans of traditional artwork, made greeting cards, animated images, colored other people's lineart, made posters for theatrical productions, flyers for church, lineart for print reproduction, book covers, business cards, and even calligraphy. GIMP works with my Wacom tablet, and has pressure-sensitivity, tilt, and angle controls.

www.gimp.org

www.gimp.org/tutorials

www.gimp-savvy.com

Other Software

Any raster graphics software that supports layers will work with this digital coloring method, including Adobe Photoshop, Paint Shop Pro, Painter, Open Canvas, and Project Dogwaffle. We've tried to include as many links to various tutorials as we could, to cover as many different programs as we could. But the basic technique is the same – only the names and locations of the tools will be different. Many of these tutorials cover a wide range of techniques, and I just placed them where it seemed to make sense at the time. Don't let their location in this handout color your judgment-- there's some real gems in here, from some seriously talented artists!

Oh – and when I say “any” raster graphics software, I mean it. I've included tutorials for creating lineart and digital coloring in MS Paint. With a mouse. Uphill. In the snow.

Getting Started

What size should I work with?

<i>Purpose</i>	<i>Recommended DPI</i>	<i>Medium</i>
High-quality art prints	300 dpi or higher	Print media
Average-quality art prints	200 dpi	
Large posters	150 dpi	
Internet graphics, webcomics, etc.	72 dpi	Internet or screen display
Internet art galleries	No more than 700px on widest edge, and you may want to watermark to prevent theft.	

Digital Lineart

Some people prefer sketching with pencil and scanning it, some people prefer creating the lineart from scratch on the computer. Here are a few tutorials to get you started with digital lineart:

<http://gug.sunsite.dk/tutorials/koudys1/>
<http://www.deviantart.com/deviation/22103422/>
<http://www.deviantart.com/deviation/24370787/>

Scanning and Cleaning up Non-Digital Lineart

Scanning in lineart does add some steps to the process, and taking the time to clean up the scanned art can go a long way to making a better final picture. Everyone has their preferred method, so you may need to shop around a bit to find the techniques that suit your needs.

http://careyoxler.com/tutorials/scan_tut.htm
<http://elfwood.lysator.liu.se/farp/theart/alcleaning/alcleaning.html>
<http://www.methart.com/tutorials/cleanscan.html>
<http://www.deviantart.com/deviation/20738607/>
<http://www.deviantart.com/deviation/24863377/>
<http://www.deviantart.com/deviation/25894209/>

<http://www.deviantart.com/deviation/20753428/>
<http://www.deviantart.com/deviation/11825102/>
<http://forums.toonzzone.net/showthread.php?t=98965>

Layers

Layers are the magic behind digital art. They let you easily perform tricks and techniques that you just can't DO in physical media. Layers act as barriers between sketches and lineart, lineart and color. With different layer modes, they can be used to create depth or special effects. Reducing the opacity on a layer lets you see a sketch as if it were underneath your paper on a lightbox, or lets you overlay smoke or fog in a scene. Learn them, love them.

<http://elfwood.lysator.liu.se/farp/berkeleylayer/berkeleylayer.html>

About Layer Modes

We're really only using a few layer modes today, but they make coloring lineart much easier. I urge you to go and experiment on your own to see how the different modes work. But for now, here's a few you should know:

Normal – this is the default. Like a transparency laid over your art, when you paint on this layer, it is opaque and completely covers over the layer beneath. It does not combine with the lower layers at all, unless you lower the opacity.

Multiply – this is what we're using for the lineart. Effectively, it makes white transparent, and it mixes the colors of the multiplied layer with those below, darkening them in the process.

Dodge – like in a darkroom, this lightens and decreases the saturation a bit. With a light touch, it can be used to create effective highlights.

Burn – another digital version of the darkroom technique, this darkens and increases the saturation a bit. Sometimes used to create shadows, be careful not to abuse it.

Overlay – this combines with the layer underneath, lightening and darkening, as well as shifting the colors. Try using black and white on an overlay layer to create highlights and shadows on a single layer.

Color

Color Palette

Pick your colors, see how they look together. Remember to choose your colors based on the final medium: web colors and print colors can behave differently. N.B.: 100% saturated colors and 0% saturated greys are figments of the digital imagination – these colors don't exist in nature, and look really unnatural to the human eye. The viewer tends to ignore 0% sat greys as 'dead space', and high-sat colors are garish and distract from the composition.

Here are some good links for learning about general color theory, especially as related to digital color:

<http://www.worqx.com/color/>
<http://elfwood.lysator.liu.se/farp/color/intro.html>
http://www.itchstudios.com/psg/art_tut.htm
<http://www.arclight.net/chipmunk/articles/moregrays/section0.htm>
http://www.steeldolphin.com/color_scheme.html

The Color Layer

This is the workhorse layer of the whole process. By laying down your colors on a layer separate from the background and lineart, you have more freedom to add, replace, and erase, without having to worry about what's happening on the other layers. Some people will select an area and flood-fill it with the bucket tool, others will just use the brush to fill in colors. It's purely a matter of personal preference, since the end result will be the same.

Use the lines of the lineart to your advantage – ragged edges and imprecise boundaries can be hidden by the black lines of the lineart, so don't worry about being super-precise with your blobs of color – if it's under the lines, nobody can see it but you.

<http://elfwood.lysator.liu.se/farp/colorps/pcolorps.html>

Chiaroscuro

<http://studiochalkboard.evansville.edu/s-chiaro.html>

<http://elfwood.lysator.liu.se/farp/dramashade/dramashade.html>

<http://www.mattiassnygg.com/tutorials/tut3.htm>

<http://www.deviantart.com/view/21095949/>

Shadow and Light

That's what chiaroscuro is – using light and dark colors to give the illusion of three dimensions on a two-dimensional surface. Where is the light coming from in your image, and how does that translate to highlight and shadow on the objects in the scene? This is something that beginning artists pull their hair out over, and the greatest masters work their whole lives to understand. Even if you're doing highly stylized comic art or anime, a good understanding of light and how it behaves, how it defines shape, will be absolutely necessary to creating better art. This is why even manga-kas and graffiti artists learn how to draw and paint realistically if they want to improve their work.

The best way to learn about light is to practice drawing from life. Draw a soda can, a houseplant, your own foot. How do different materials absorb and reflect light? How do shadows fall, and are they different when the light source is different? How do wrinkles, folds of cloth, or lumpy objects **look** wrinkled, or draped, or lumpy? How does light reflecting off nearby objects change the shadows?

I have yet to find any easy tricks or shortcuts for deciding where the highlights and shadows go. It takes practice, and experience, and experimentation.

Hard-Edge Shading

This is a clean and cartoony shading method, used extensively in manga, anime, and comic books.

<http://elfwood.lysator.liu.se/farp/berkeleycell/berkeleycell.html>

<http://elfwood.lysator.liu.se/farp/chroma/>

<http://www.deviantart.com/deviation/24599195/>

<http://www.deviantart.com/deviation/33578859/>

<http://www.deviantart.com/deviation/28948400/>

Blended or Soft Shading

This is a more painterly approach, with more natural blending.

<http://elfwood.lysator.liu.se/farp/theart/assafpsp/assafpsp.html>
<http://www.deviantart.com/deviation/23327671/>
<http://www.deviantart.com/deviation/23448365/>
<http://www.deviantart.com/deviation/11825225/>
<http://www.deviantart.com/view/24345873/>
<http://forums.toonzone.net/showthread.php?t=98965>

Other Places to Find Tutorials

Not only will these pages help you find tutorials for coloring lineart, but there is also a wealth of information for other art techniques, both traditional and digital, to help you develop as an artist. Enjoy, and good luck!

<http://elfwood.lysator.liu.se/farp/art.html?33924>
<http://www.gimptalk.com/>
<http://www.gimp.org/tutorials/>
http://www.henningludvigsen.com/wordpress/?page_id=22
<http://chaosshattered.deviantart.com/journal/6836628/>
<http://www.designertoday.com/tabindex-13/tabId-27/page-2/DesktopDefault.aspx>
<http://thefellapages.deviantart.com/journal/8063581/>
<http://artisticflair.deviantart.com/journal/2801919/>
<http://www.fur.com/~almackey/tutorial/>
<http://user.fundy.net/morris/?photoshop.shtml>
<http://www.bakaneko.com/howto/index.html>
<http://ver.rubberhouse.net/tutorials.shtml>
<http://artcorner.org/tutorials/lessons/>
<http://cedarseed.deviantart.com/journal/4895422/>

And finally – how to watermark your art if you're worried about people stealing your stuff:

<http://www.deviantart.com/deviation/21839291/>

About the Presenters

Carey and Kaysha met at Dragon*Con last year, sitting in an Art Show programming track workshop much like this one. Over the next year, they kept in touch on DeviantART, and in a fit of madness thought it would be fun to do a workshop together. This is their first year in the art show, so the artists humbly beg you to go look at their displays.

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