

Inkscape

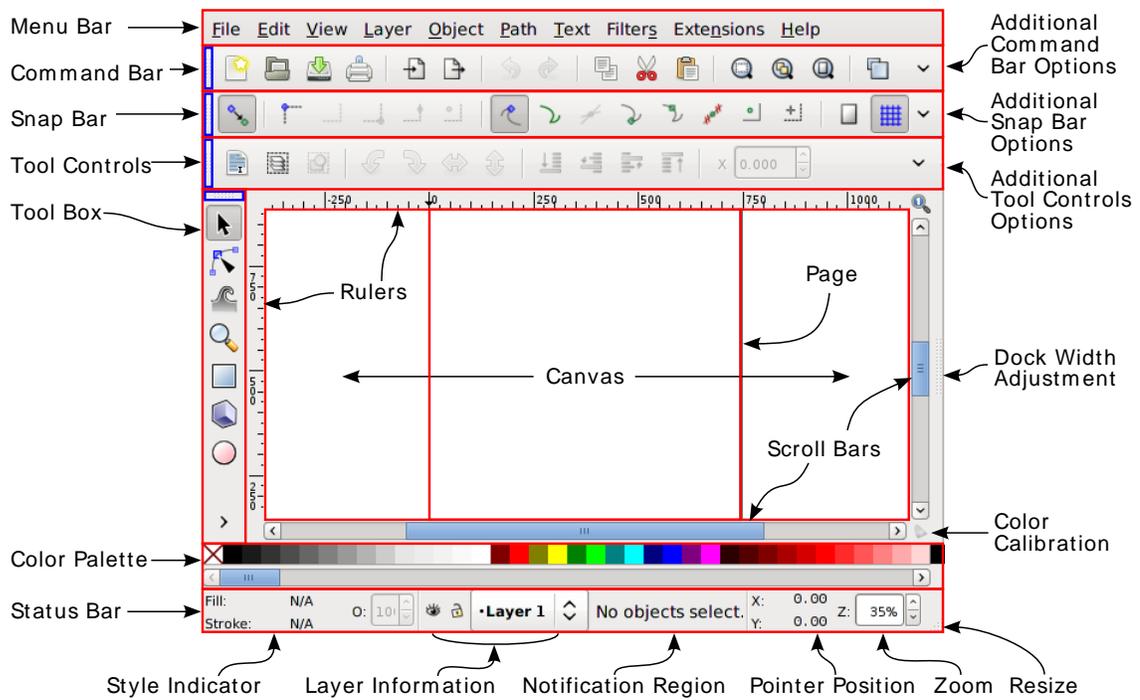
Guide to a Vector Drawing Program
4th Edition
Color Addendum

Tavmjong Bah

0.16 (Documenting versions 0.47 and 0.48)

Suggestions and corrections are welcome and can be sent to tavmjong@free.fr.

Chapter: Quick Start



The default Inkscape window with the key parts labeled. ⚡ (The star symbol indicates that a figure can be found in the color addendum, downloadable from the book's website.)



Flag of Sweden. ⚡



Flag of the European Union.✳



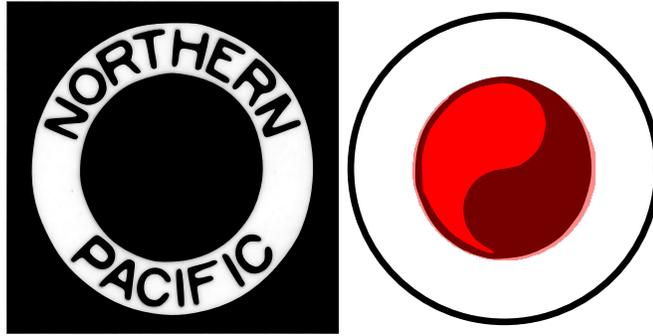
Logo for the Fuji Hiking and Mountaineering Club.✳



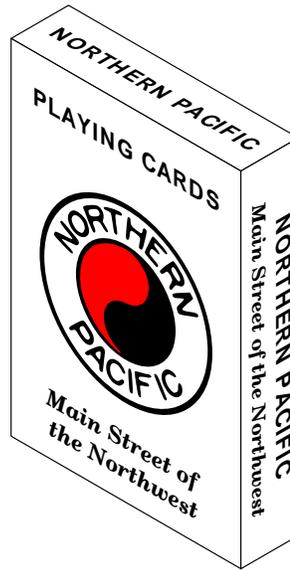
Logo for the Northern Pacific Railroad featuring the Yin and Yang (Monad) symbol.✳



The new outer circle (semi-transparent red), sized and positioned.✳



The new inner circle (semi-transparent red), sized and positioned but before moving behind the Yang object. ☒



A box of playing cards. ☒



A souped-up soup can. ☒



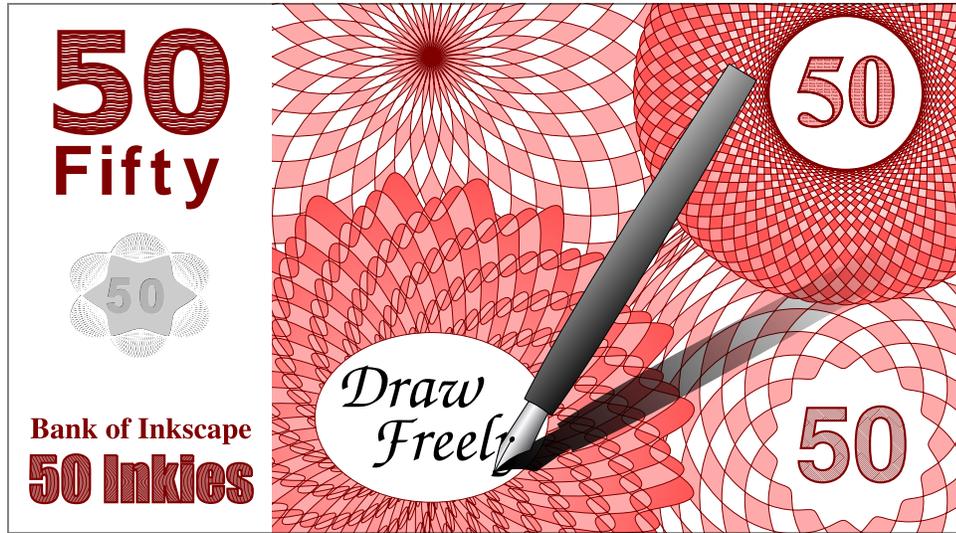
A 3×3 tiling of a base tile.☪



An animated neon sign (*GIF* and *SVG* versions on web).☪



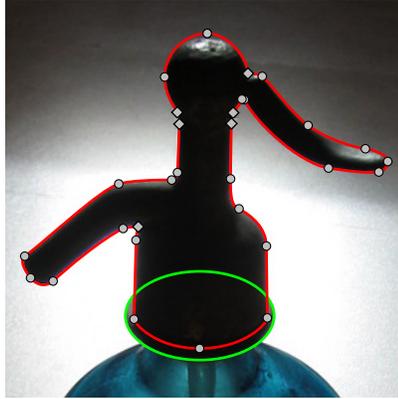
Sign board prior to converting *Stroke* to *Path*.☪



A 50 Inkie bank note. 🔄



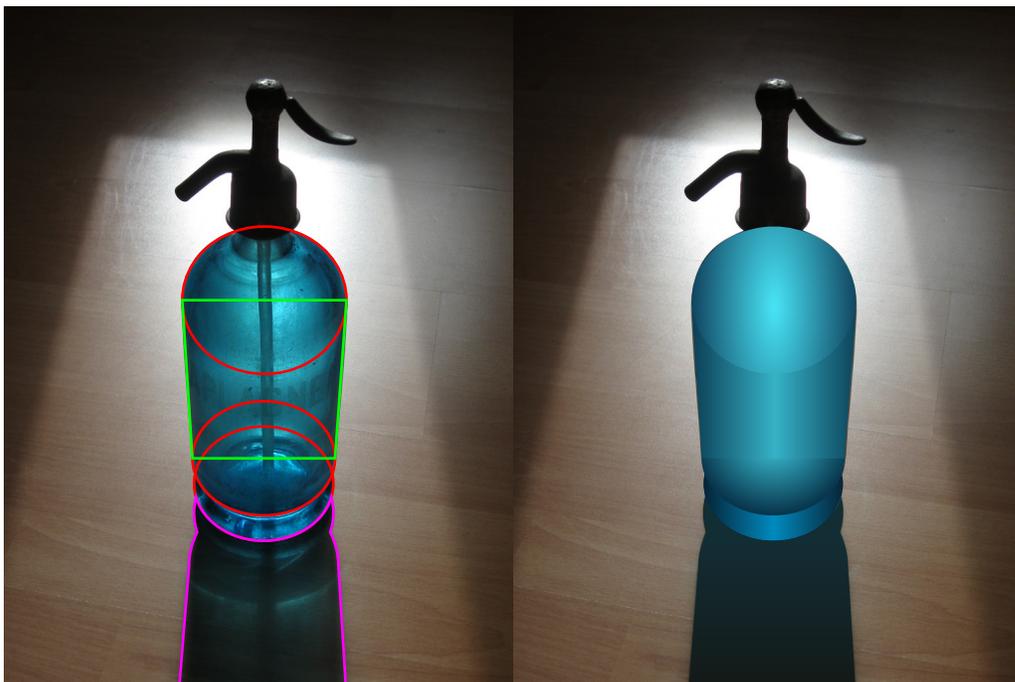
A photo-realistic bottle (left), drawn from a photograph (right). 🔄



The outline of the bottle's handle. The main path (with nodes) is shown in red. The green path was drawn with the *Ellipse Tool*.☛



The finished handle.☛



The “base” layer for the bottle. Left: outlines of the objects for the base. Right: the objects with *Gradient Fills*.☛



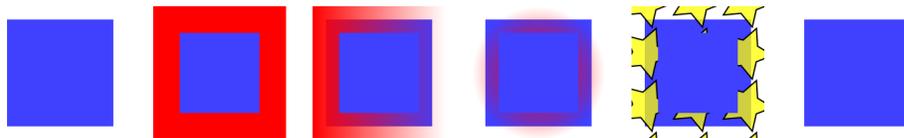
Left: The path defining the foreground region for SIOX. Right: The results of tracing the photograph. The white background has been left so the tracing can be easier seen. The red specs indicate gaps between the paths where the background leaks through.✪

Chapter: Editing Basics

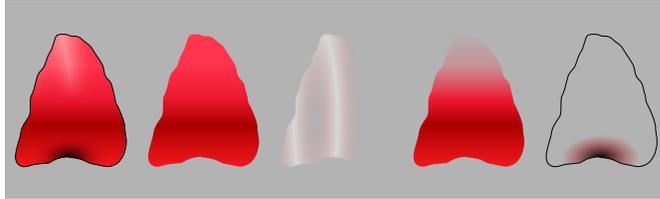
Layer 1
Layer 2

A demonstration of using *Layer* blending. The two texts are in different *Layers* with “Layer 1” beneath “Layer 2.” The *Blend mode* is set to *Screen* for the upper *Layer*.✪

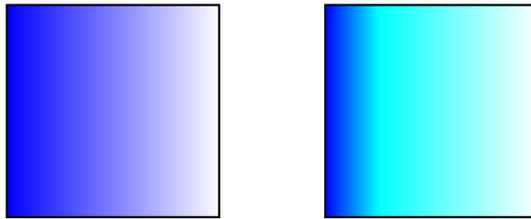
Chapter: Attributes



Choices for the *Stroke paint* of an object, from left to right: No paint, Flat color, Linear gradient, Radial gradient, Pattern, Unset paint. The stroke has been widened to make it easier to see the effect of the different options.✪

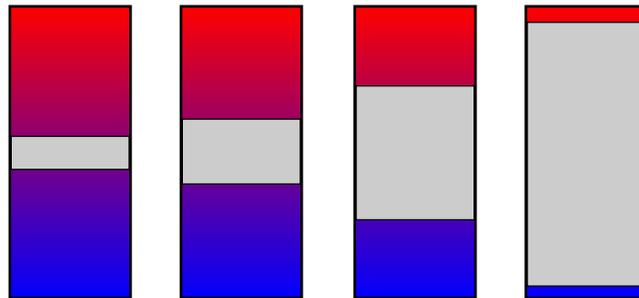


A flower petal consisting of four layers. From left to right: The finished petal. The base layer. A highlight. A duplicate of the base layer with partial transparency to mask part of the highlight layer. Top shadow layer. The background is gray to show the transparency in some layers. 🌟

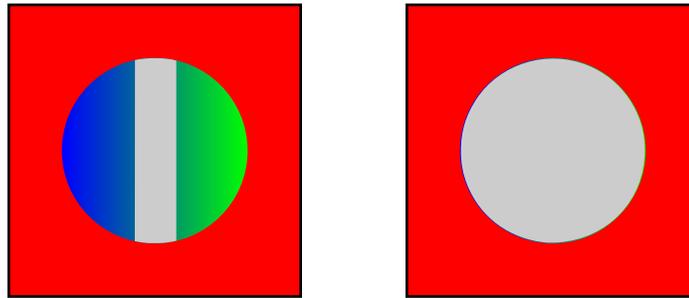


An example of a *Gradient*, before and after adding a third *Stop*. 🌟

Chapter: Paint Bucket Tool

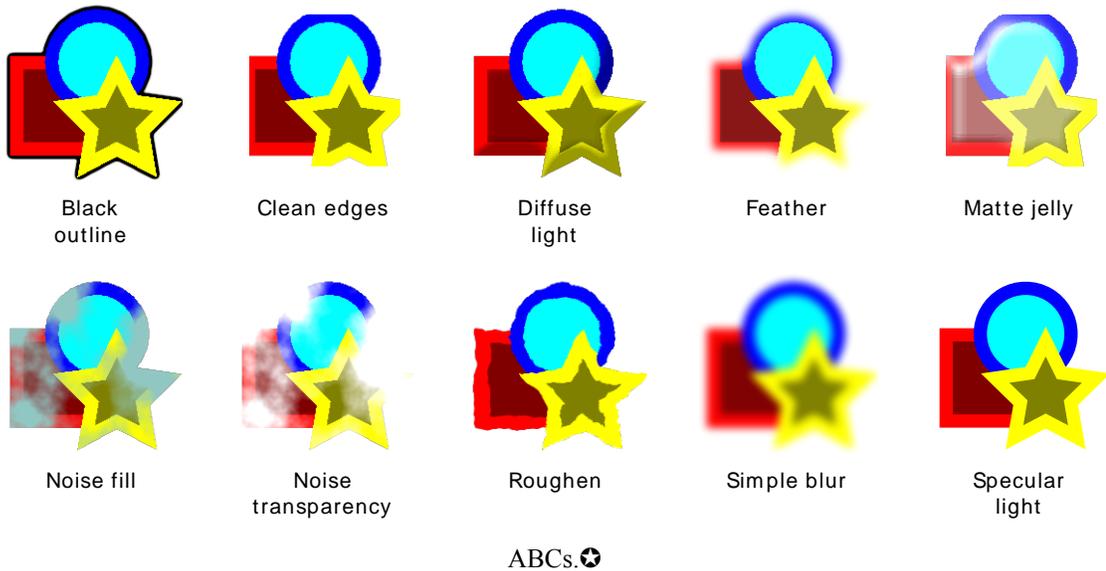


The gray areas have been filled by clicking on the centers of the rectangles with the *Paint Bucket Tool*. From left to right, the *Threshold* parameter was set to 5, 10, 20, and 40. 🌟



The circles were first filled with a blue to green gradient. The gray areas were created with the *Paint Bucket Tool* by clicking on the centers of the circles. In both cases, the *Threshold* parameter was set to 10. The *Fill by* parameter was set to *Visible Colors* on the left and *Red* on the right. With a value of *Red* the blue and green of the circle are ignored in the color matching, thus the bucket fill area reaches the circle's edge where there is a large change in the red level. 🌟

Chapter: Filter Effects—Preset





Bloom



Bright metal



Button



Combined lighting



Dark glass



Deep colors plastic



Electronic microscopy



Fat oil



Glowing metal



Jigsaw piece



Matte bevel



Melted jelly



Melted jelly, matte



Metal casting



Molten metal



Neon



Pressed steel



Raised border



Ridged border



Smart jelly



Stained glass



Translucent

Bevels. ⚙



Apparition



Blur content



Cross-smooth



Evanescent



Fancy blur



Motion blur,
horizontal



Motion blur,
vertical



Noisy blur

Blurs. 



Bubbly Bumps



Bubbly Bumps, matte



Canvas Bumps



Canvas Bumps, matte



Color emboss



Copper and chocolate



Dark Emboss



Emboss



Embossed leather



HSL Bumps



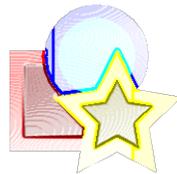
HSL Bumps, matte



HSL Bumps, transparent



Plaster



Plastify



Relief print



Thick acrylic



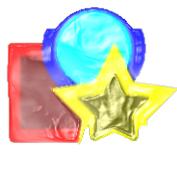
Thick paint



Tinfoil



Velvet Bumps



Wrinkled varnish

Bumps. 🌐



Bubbly Bumps



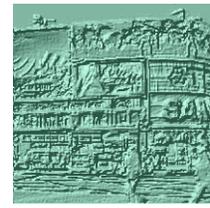
Bubbly Bumps, matte



Canvas Bumps



Canvas Bumps, matte



Color emboss



Copper and chocolate



Dark Emboss



Emboss



Embossed leather



HSL Bumps



HSL Bumps, matte



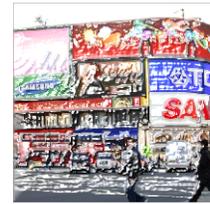
HSL Bumps, transparent



Plaster



Plastify



Relief print



Thick acrylic



Thick paint



Tinfoil



Velvet Bumps



Wrinkled varnish

Bumps. ⊕



Black Light



Colorize



Desaturate



Duotone



Fluorescence



Invert



Invert hue



Lightness
Contrast



Moonarize



Quadritone
fantasy



Sepia



Soft colors

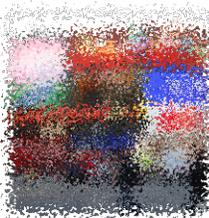


Solarize



Tritone

Color.✳



Chalk and
sponge



Lapping



Pixel smear



Ripple



Rough and
dilate



Roughen
inside



Torn edges

Distort.✳



Age



Blueprint



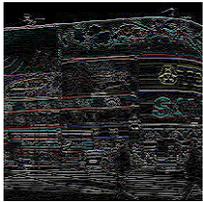
Drawing



Edge detect



Film grain



Horizontal edge detect



Liquid drawing



Oil painting



Old postcard



Pencil



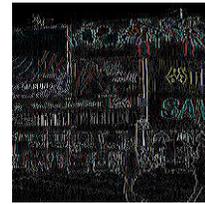
Sharpen



Sharpen more



Soft focus lens



Vertical edge detect

Image Effects. 



Alpha draw



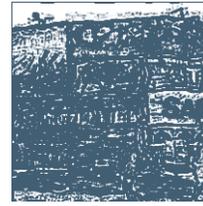
Alpha draw, color



Alpha draw, liquid



Alpha engraving



Alpha engraving B



Bubbly Bumps alpha



Canvas Bumps alpha



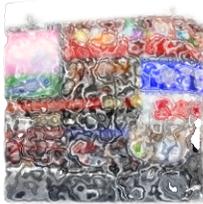
Canvas transparency



Dots transparency



HSL Bumps alpha



Marbled ink



Rough transparency



Smear transparency

Image Effects, Transparent. 



3D marble



3D mother of pearl



3D wood



Cracked Lava



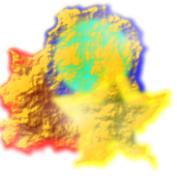
Enamel jewelry



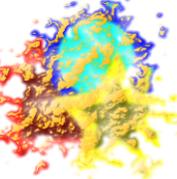
Eroded metal



Flex metal



Gold paste



Gold splatter



Iridescent beeswax



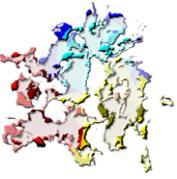
Leopard fur



Lizard skin



Metallized paint



Peel off

Materials.✚



Black hole



Color outline



Color outline, in



Cool outside



Hole



Inner outline



Outline



Outline, double



Parallel hollow



Smooth edges



Smooth outline



Warm inside

Morphology.☒



Aluminium



Chrome



Chrome dark



Comics



Comics cream



Comics draft



Comics fading



Comics fluid



Emboss
shader



Frosted
glass



Satin



Smooth
shader

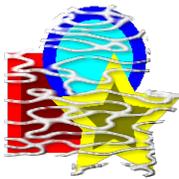


Smooth shader
contour



Smooth
shader dark

Non Realistic 3D Shaders🌟.



Barbed wire



Blue cheese



Carnaval



Clouds



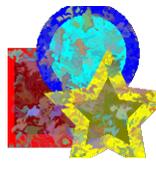
Frost



Garden of Delights



Growing cells



Oil slick



People



Rubber stamp



Scotland



Speckle



Swiss cheese



Tartan



Tiger fur



Zebra

Wavy tartan

Overlays. Note, a missing figure indicates that Batik could not render the filter.☹



Chewing gum



Dripping



Fire



Ink bleed



Snow crest

Protrusions.☹



Dragee



Glowing bubble



Matte ridge



Metallized ridge



Refractive gel A

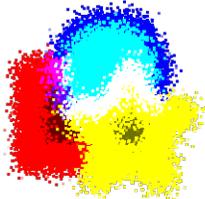


Refractive gel B



Thin Membrane

Ridges.✱



Air spray



Cubes



Leaves

Scatter.✱



Cutout



Cutout Glow



Dark and
Glow



Darken edges



Drop Glow



Drop Shadow



Fuzzy Glow



Glow



In and Out



Inner Glow



Inner Shadow



Inset

Shadows and Glows. 🔄



Bark



Blotting paper



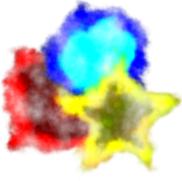
Burst



Cracked glass



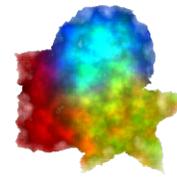
Crumpled plastic



Felt



Gouache



Ink paint



Inkblot



Jam spread



Liquid



Melted rainbow



Organic



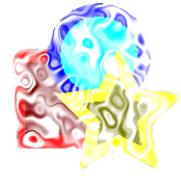
Riddled



Rough and glossy



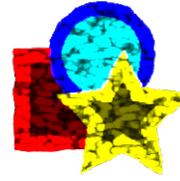
Rough paper



Shaken liquid



Silk carpet



Stone wall



Tinted rainbow



Warped rainbow



Watercolor



Wax print

Textures.🌀



Alpha repaint



Light eraser



Light eraser, negative



Monochrome transparency



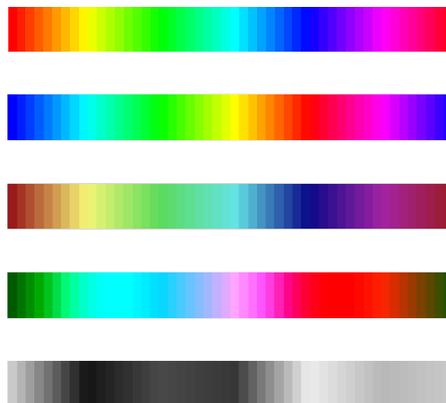
Saturation map

Transparency Utilities.✦

Chapter: Filter Effects—Custom

Drop Shadow

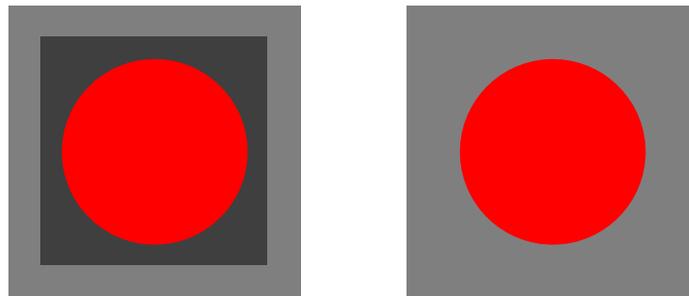
A drop shadow created using only filters.✦



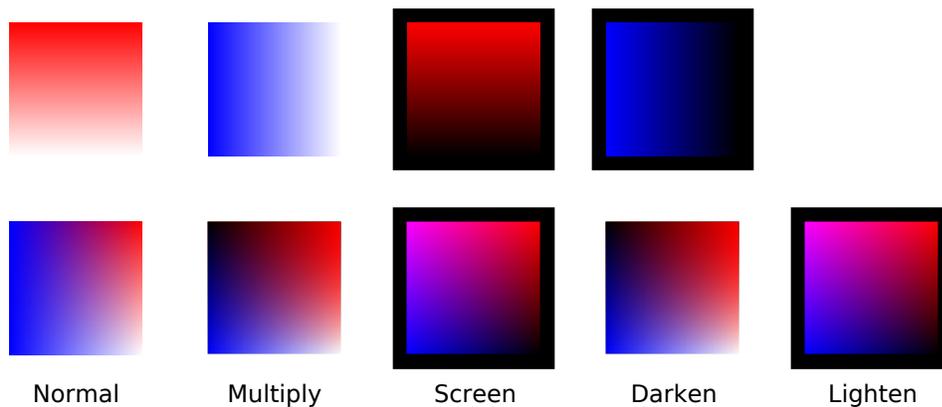
Examples of using the *Color Matrix* primitive. From top to bottom: Source object. *Matrix* mode set to swap red and blue. *Saturate* mode with input of 0.5. *Hue Rotate* mode with input of 90°. *Luminance to Alpha* mode.✦



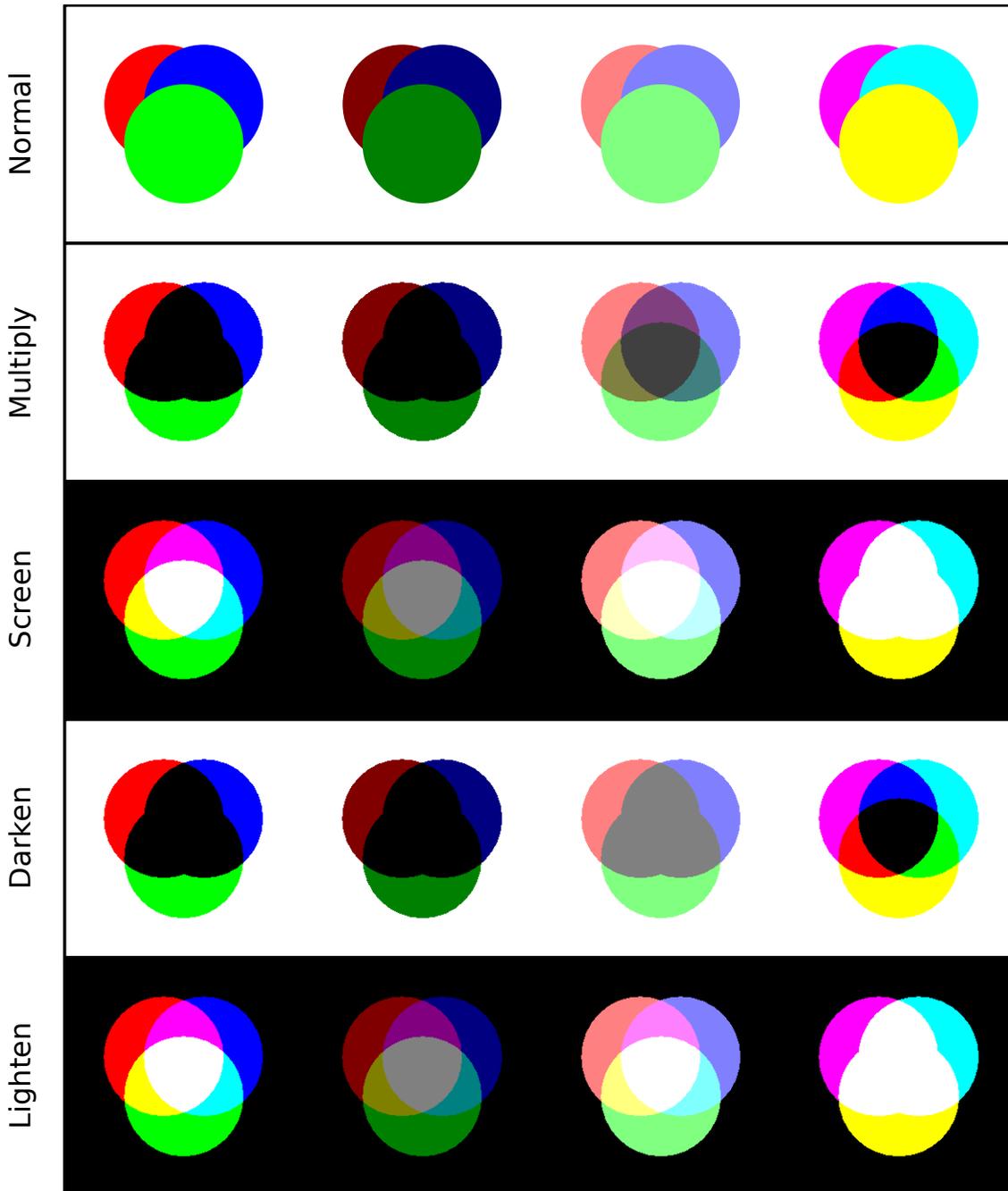
Creation of a “negative” using the *Matrix* mode. ☸



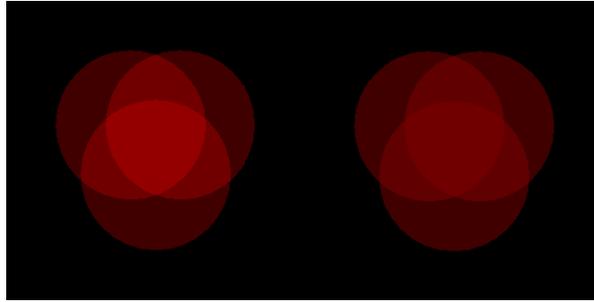
The circle (red) is combined with the background using the *Merge* filter. The background color is black with a transparency of 50%. On the left, the area within the filter region is too dark, a result of the background being added in twice. On the right, the filter region was first filled with white using the *Flood* filter. For this to work with Batik and many other *SVG* renderers, the attribute *color-interpolation-filters="sRGB"* must be added to the `<filter>` tag. ☸



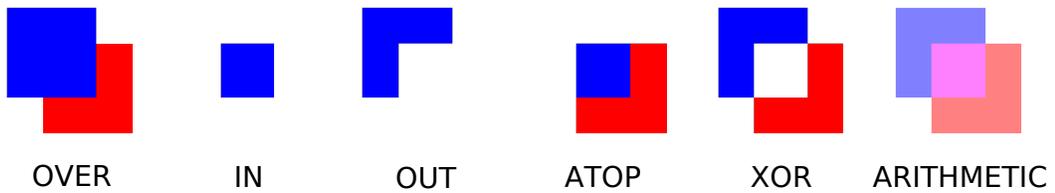
Top: The blue and red squares contain linear *Gradients* that range from full *opacity* to full *transparency* over a white or black background. Bottom: Blue squares overlaying red squares with different *Blend modes*. ☸



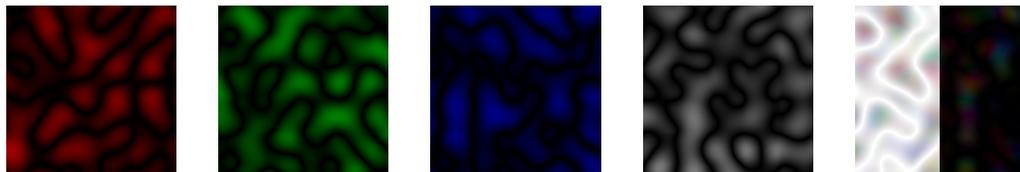
Three circles on top of each other. The same *Blend* has been applied individually to each circle in a set. Note that the circles are on either a white or black background with maximum *opacity*. ⚡



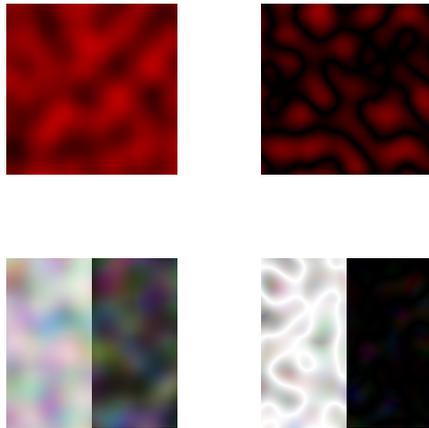
An illustration of the difference between the *Screen* (left) and *Lighten* (right) *Blend modes*. Each circle has a red value of 128 (50%) and an *opacity* of 128 (50%). If the *opacity* was set to 255 (100%), the two figures would be identical. ⚡



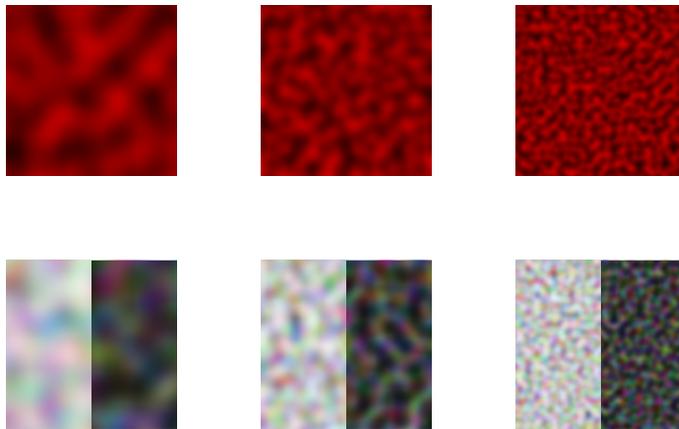
Examples of the different modes available in the *Composite* filter primitive. The first input is the blue square. The second input is a red square derived from the blue square using the *Color Matrix* and *Offset* filter primitives. The parameters for the *Arithmetic* mode are all set to 0.5. ⚡



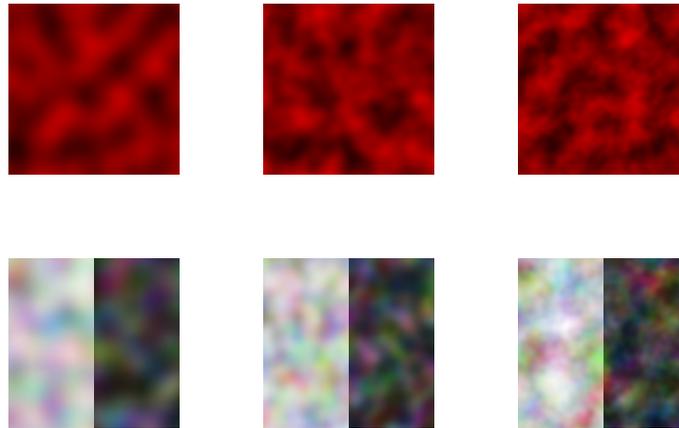
The components of a *Fractal Noise Turbulence* filter. From left to right: Red, Green, Blue, Alpha, Combined. There is a black rectangle behind the right half of the latter. The *Color Matrix* primitive was used to extract the individual components. ⚡



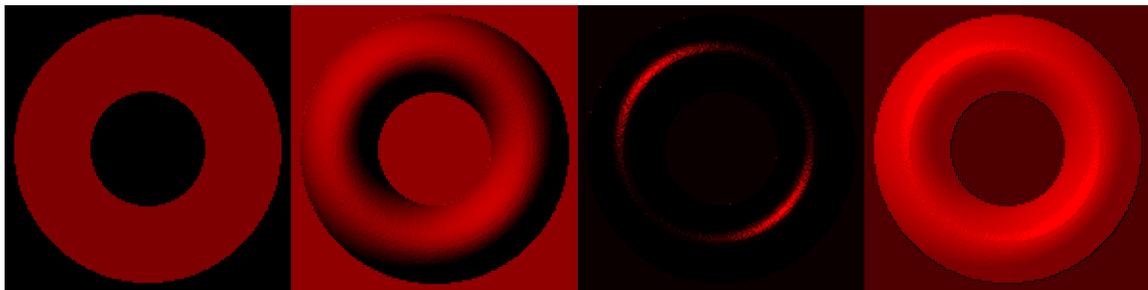
The two types of noise available: Left: *Fractal Noise*. Right: *Turbulence*. Top: Only red channel. Bottom: All channels. There are black rectangles behind the right halves. ☛



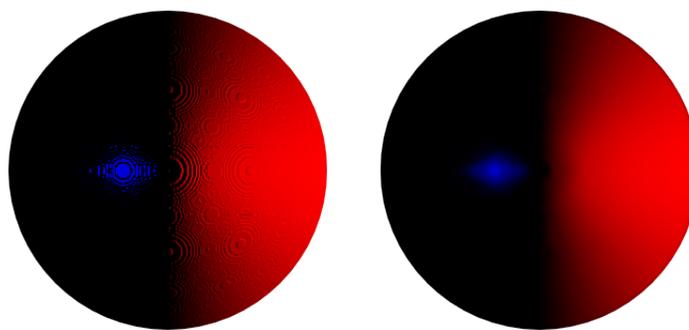
Fractal Noise as a function of *Base Frequency*. From left to right: 0.05, 0.10, 0.20, Top: Only red channel. Bottom: All channels, a black rectangle has been placed behind the right halves. ☛



Fractal Noise as a function of *Octaves*. All with *Base Frequency* of 0.05. From left to right: 1 octave, 2 octaves, 3 octaves. Top: Only red channel. Bottom: All channels, a black rectangle has been placed behind the right halves.✪



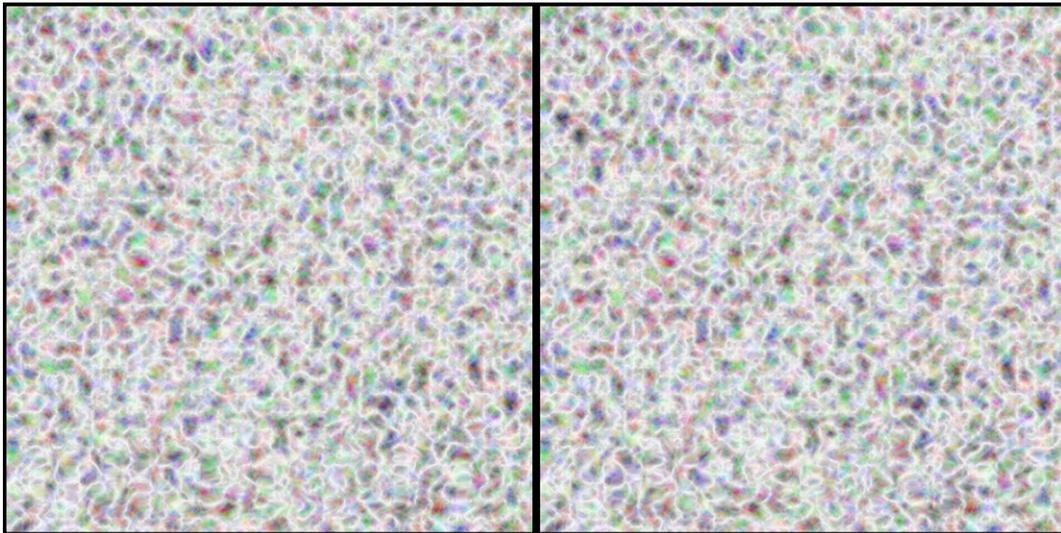
An illustration of the components of the Phong model. From left to right: ambient light, diffuse light, specular light. All light sources combined. The diffuse and specular light source is the same, a red distant light coming from the upper left. The specular image has had a black background added to set off the specular light.✪



The limited resolution of the *bump map* has resulted in artifacts on the sphere on the left. A small amount of blurring has removed the artifacts on the sphere on the right (the sphere has also been clipped).✪



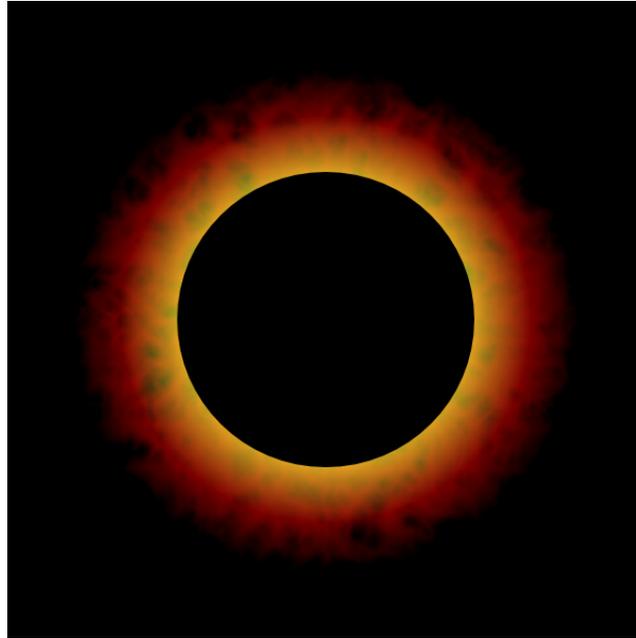
A neon sign.☛



A stereoscopic image. Look at the left picture with the left eye and the right picture with the right eye. It may help to place a sheet of paper vertical and extending from your nose to the line between the two pictures. When your brain combines the two images, a shape should pop out.☛

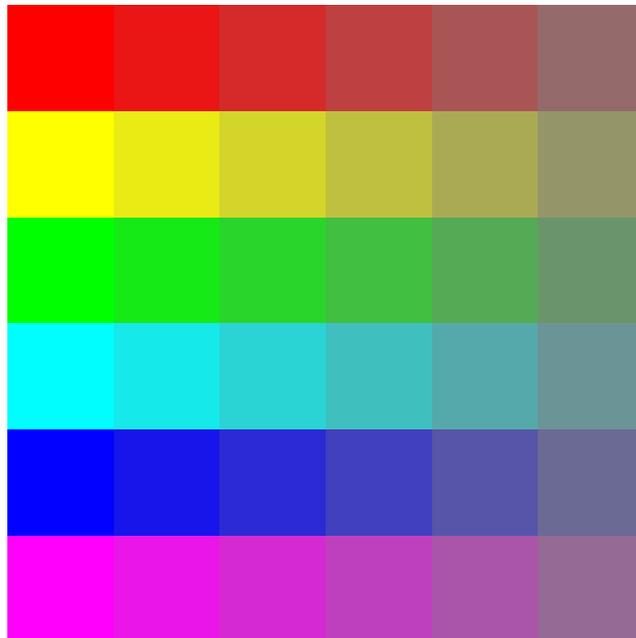


The *Source Graphic*. The red levels control the displacement in the x direction.☛

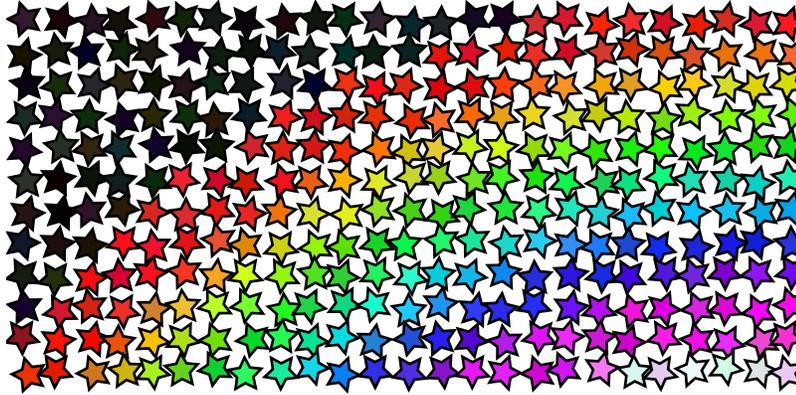


A solar flare seen during an eclipse. 🌑

Chapter: Tiling



A P1 symmetry tiling with a 16.7% change in *Hue* per row and a -16.7% change in *Saturation* per column. The starting color is a red with 100% *Saturation* and 50% *Lightness*. 🌑



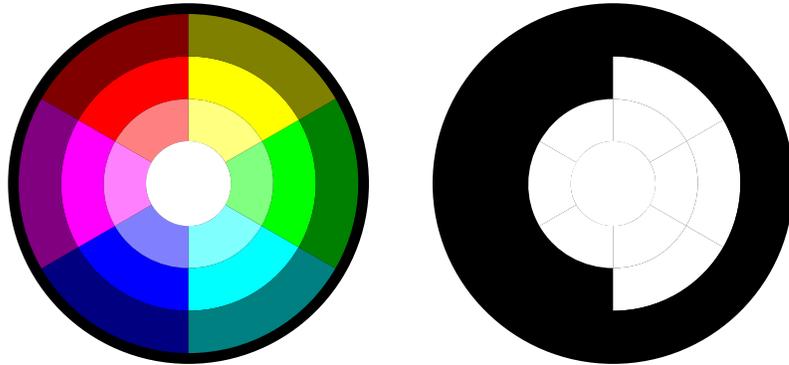
Input: Color, 10% random gamma. Output Color. Changes made to other tabs: Shift: -20%, random 10%, Rotation: random 20%. The number of rows and columns has been increased to compensate for the shift. The background rainbow has been deleted. 🌀

Chapter: Tracing Bitmaps

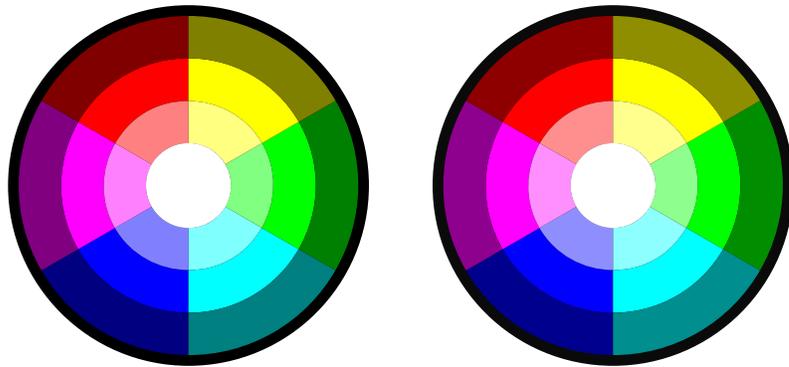


An example of using SIOX. Left, original bitmap image. Middle, image with background exclusion region added. Right, result of tracing. One can see that the background rejection is not perfect as there are similar colors in the background and foreground (e.g., reddish hair on chest). 🌀

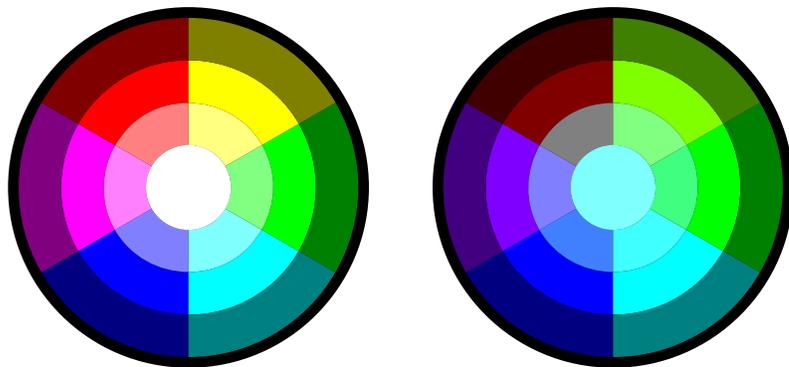
Chapter: Extensions



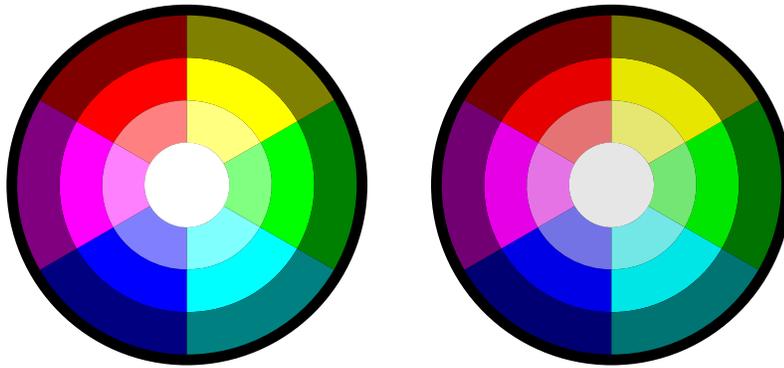
Left: Original colors. Right: Colors after applying the Black and White extension.✪



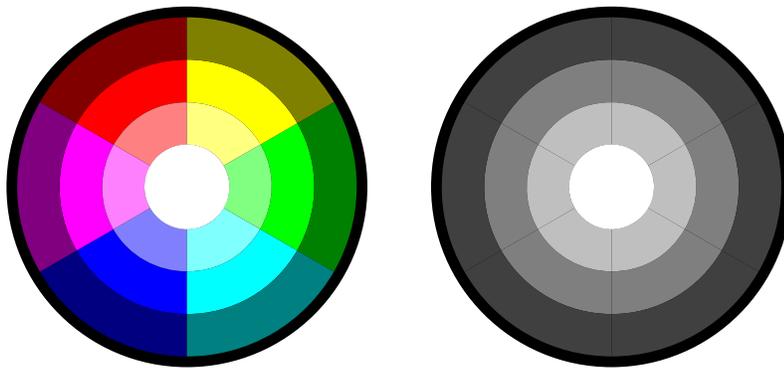
Left: Original colors. Right: Colors after applying the Color Brighter extension.✪



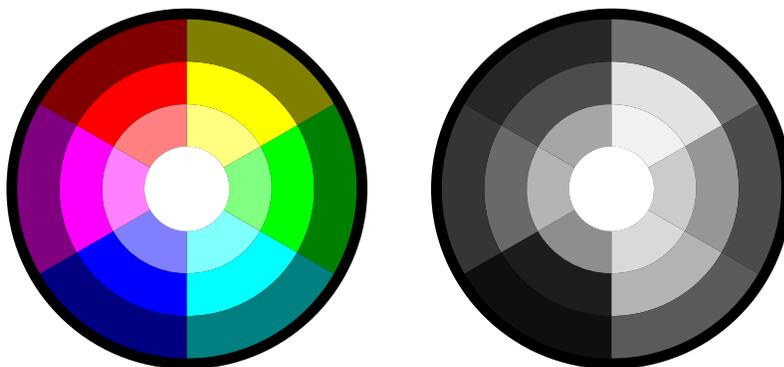
Left: Original colors. Right: Colors after applying the Color Custom extension with the specification that R should be divided by 2.✪



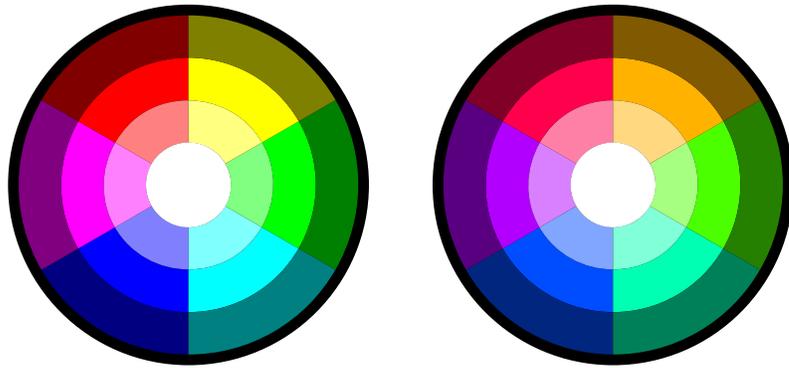
Left: Original colors. Right: Colors after applying the Color Darker extension. 🔄



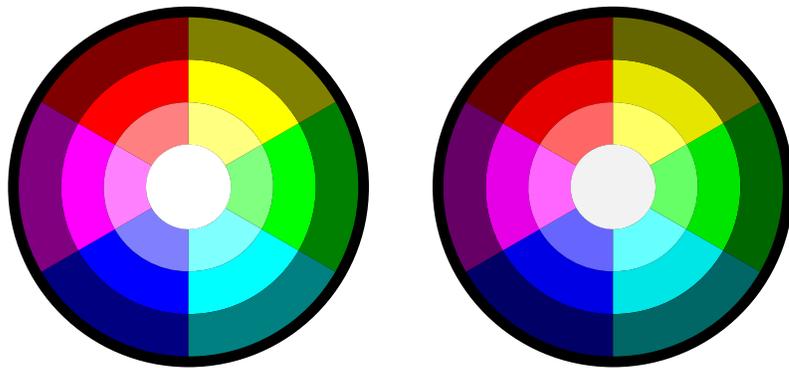
Left: Original colors. Right: Colors after applying the Color Desaturate extension. 🔄



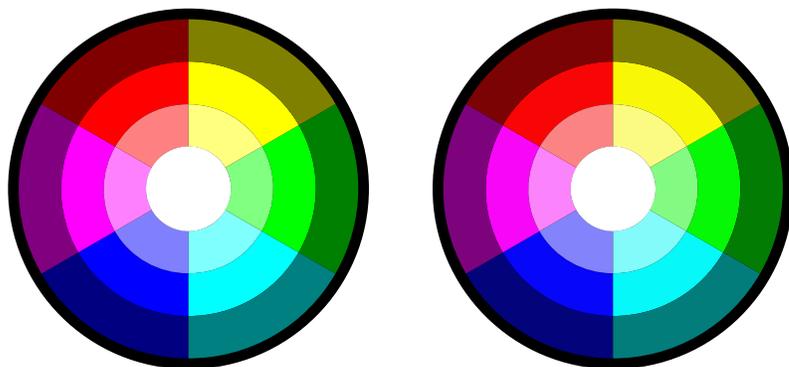
Left: Original colors. Right: Colors after applying the Color Grayscale extension. 🔄



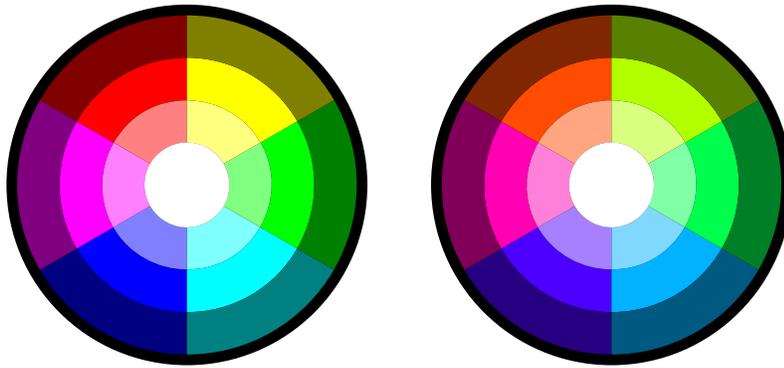
Left: Original colors. Right: Colors after applying the Color Less Hue extension. 🌐



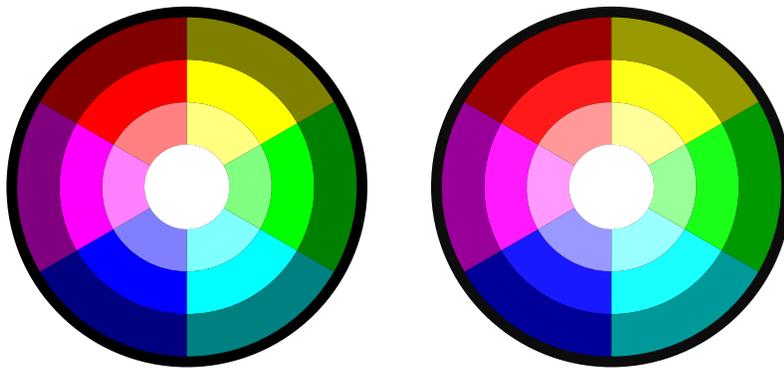
Left: Original colors. Right: Colors after applying the Color Less Light extension. 🌐



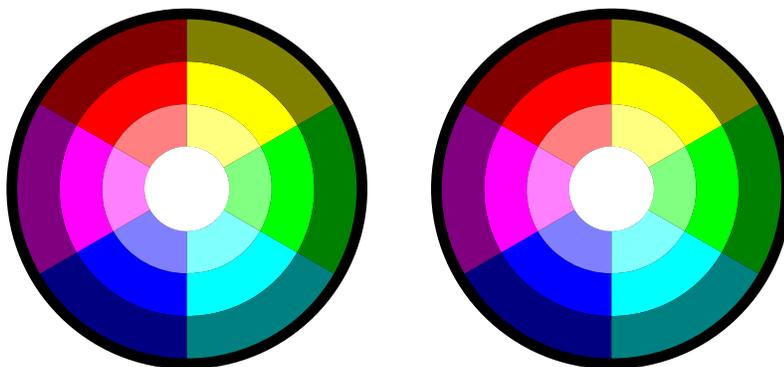
Left: Original colors. Right: Colors after applying the Color Less Saturation extension. 🌐



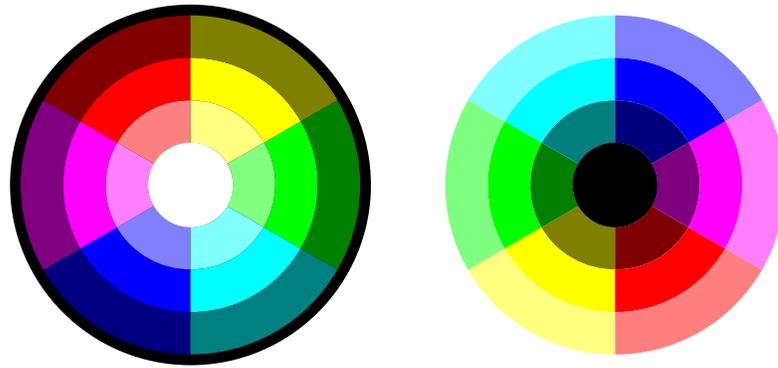
Left: Original colors. Right: Colors after applying the Color More Hue extension.✪



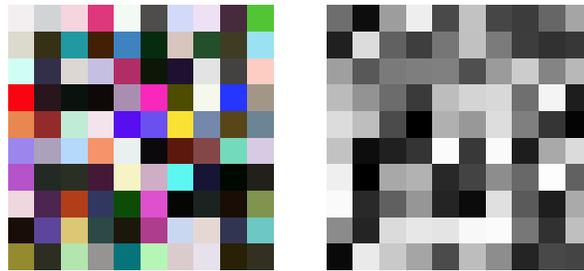
Left: Original colors. Right: Colors after applying the Color More Light extension.✪



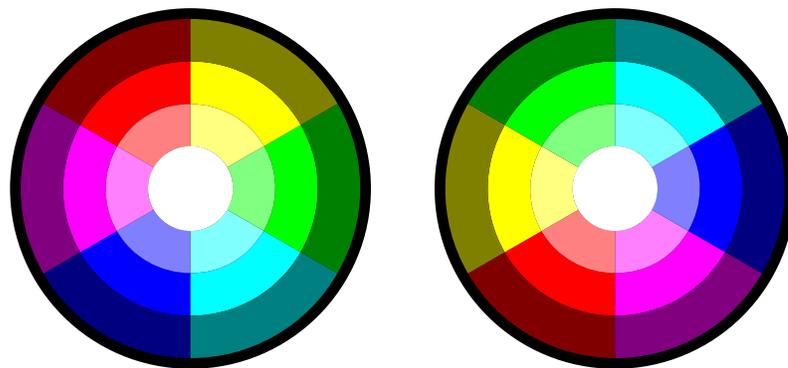
Left: Original colors. Right: Colors after applying the Color More Saturation extension.✪



Left: Original colors. Right: Colors after applying the Color Negative extension. ↻



A grid of gray squares after randomizing their colors. Left: Randomizing hue, saturation, and lightness. Right: Randomizing only lightness. ↻



Left: Original colors. Right: Colors after applying the Color RGB Barrel extension. ↻