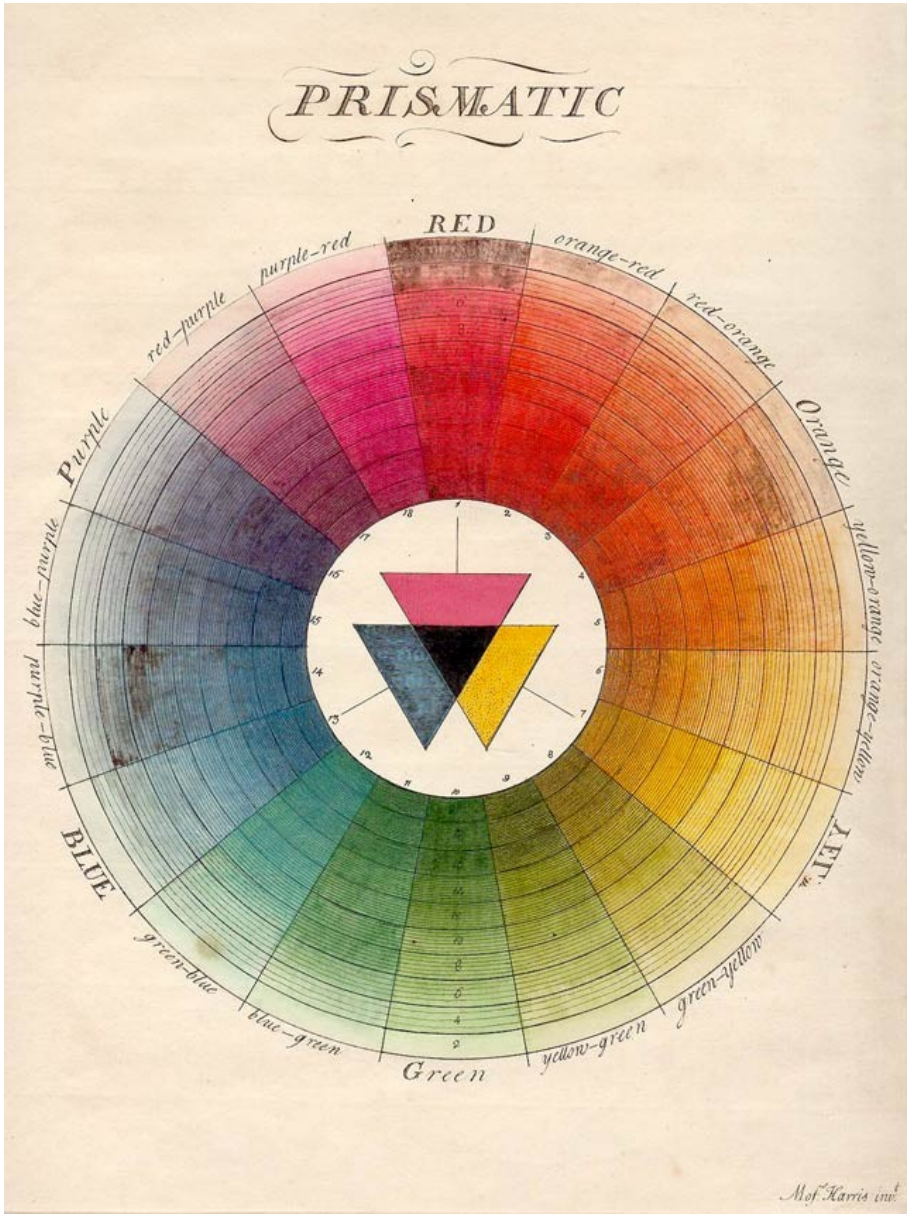
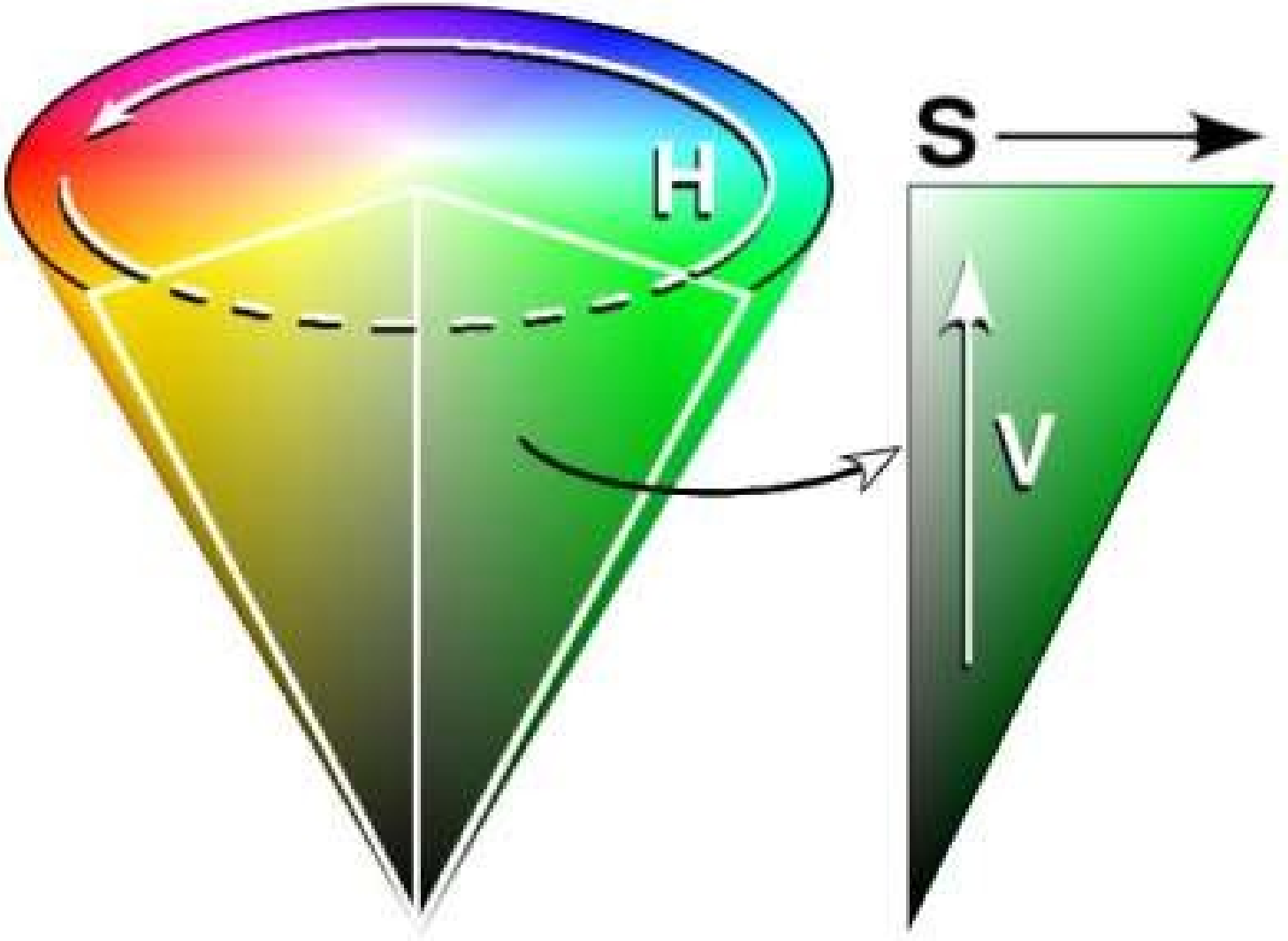
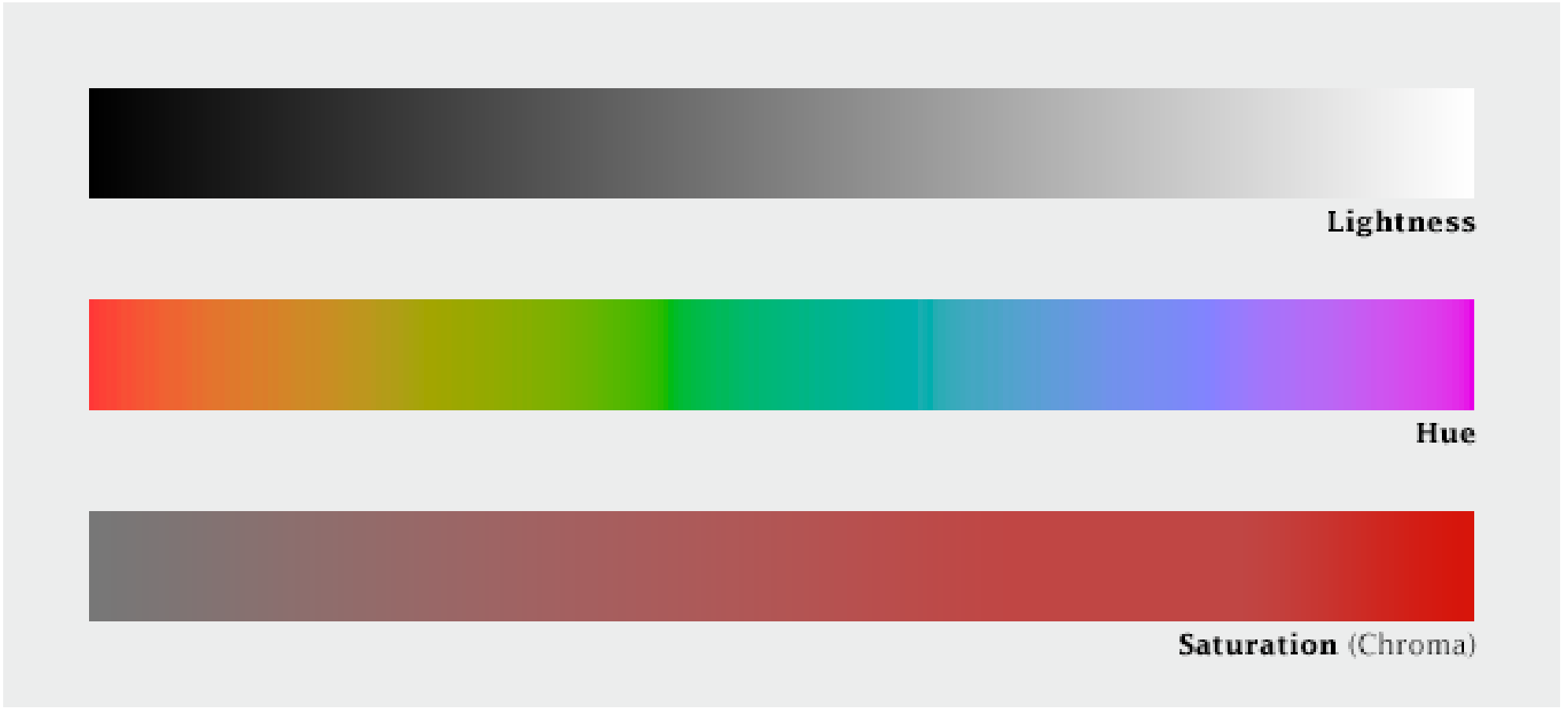
A Color Vocabulary



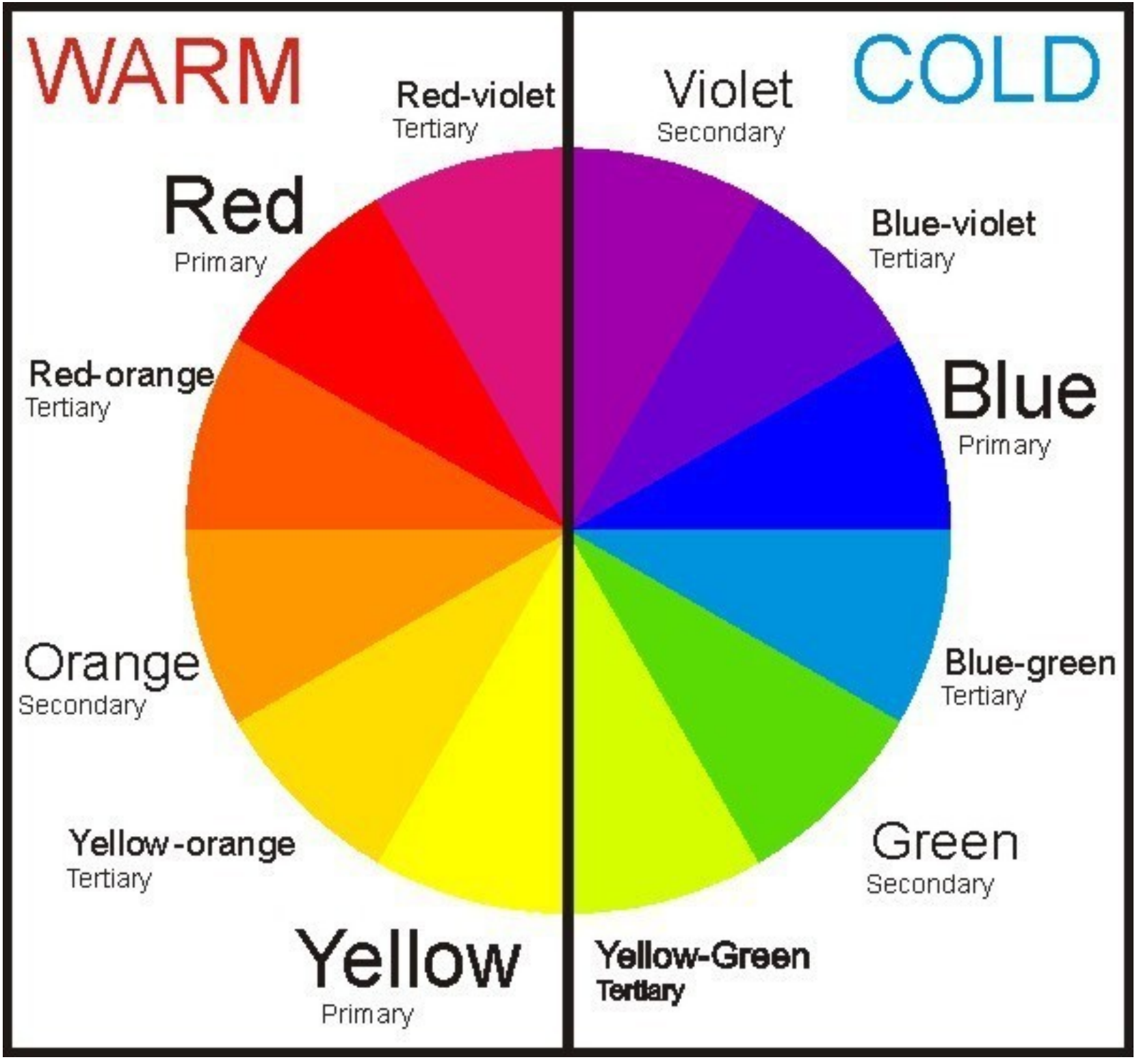
Hue, Saturation, Value

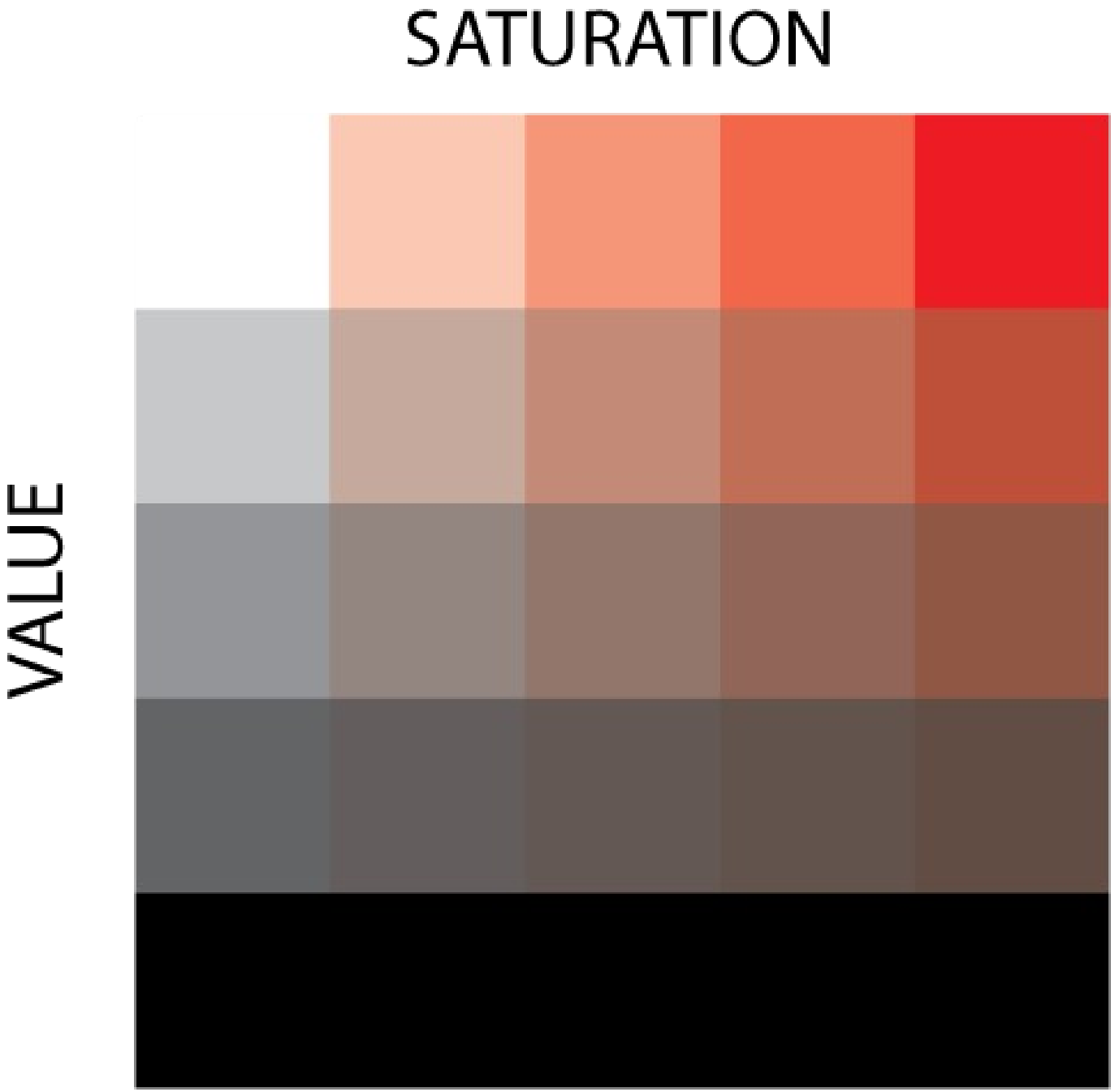


Hue, Saturation, Value

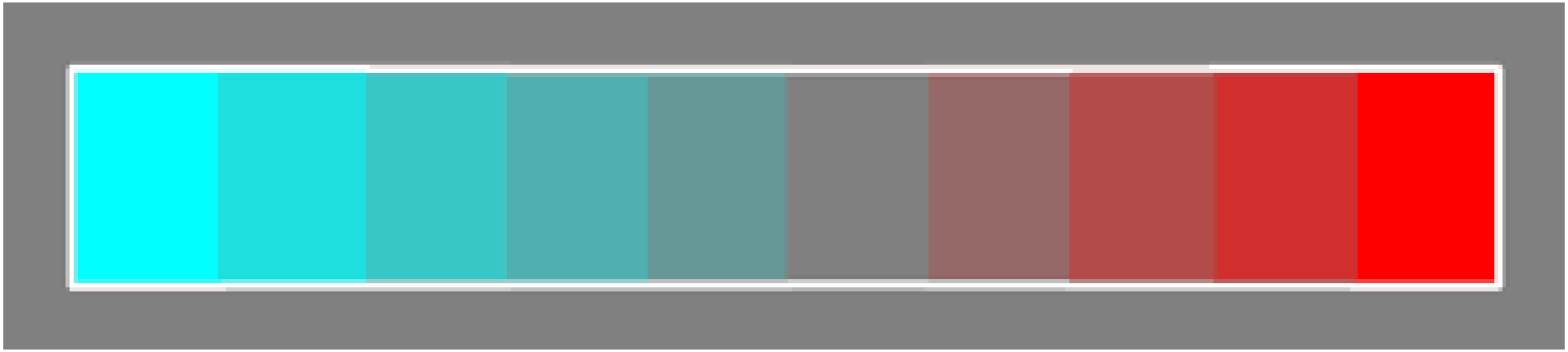


Hue

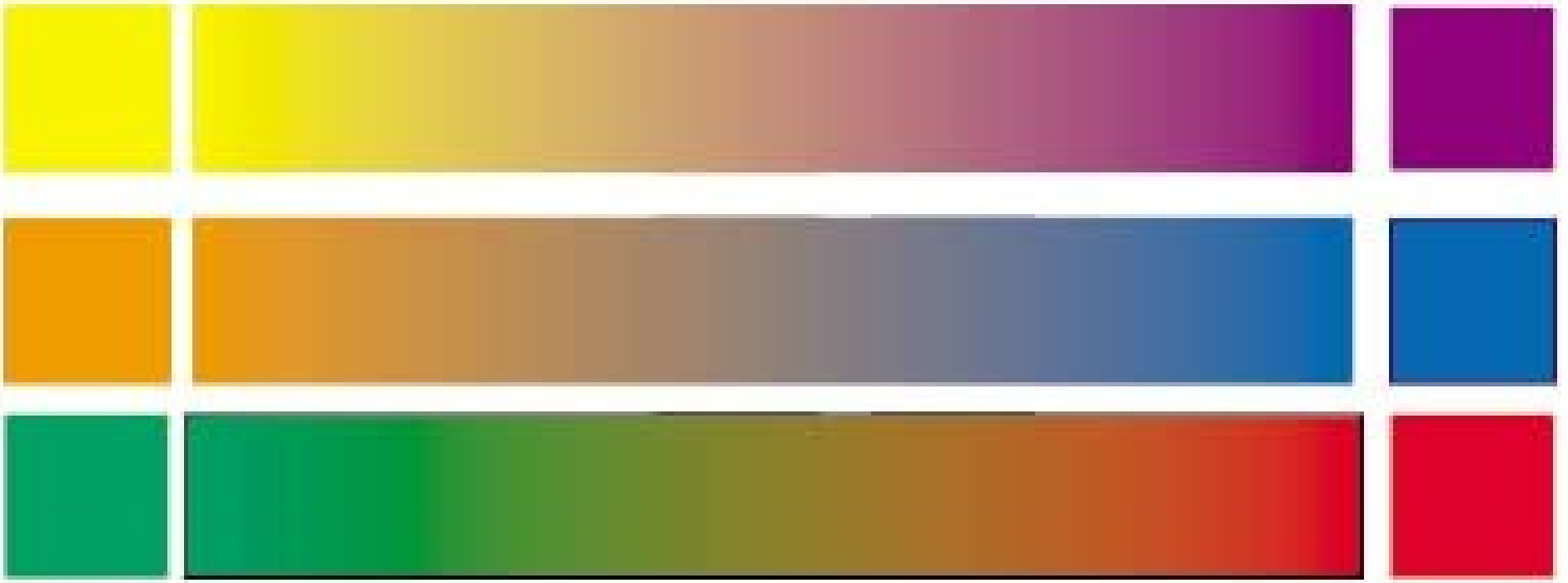

WARM
COLD
Red-violet
Tertiary
Violet
Secondary
Red
Primary
Blue-violet
Tertiary
Red-orange
Tertiary
Blue
Primary
Orange
Secondary
Blue-green
Tertiary
Yellow-orange
Tertiary
Green
Secondary
Yellow
Primary
Yellow-Green
Tertiary


SATURATION
VALUE

Saturation

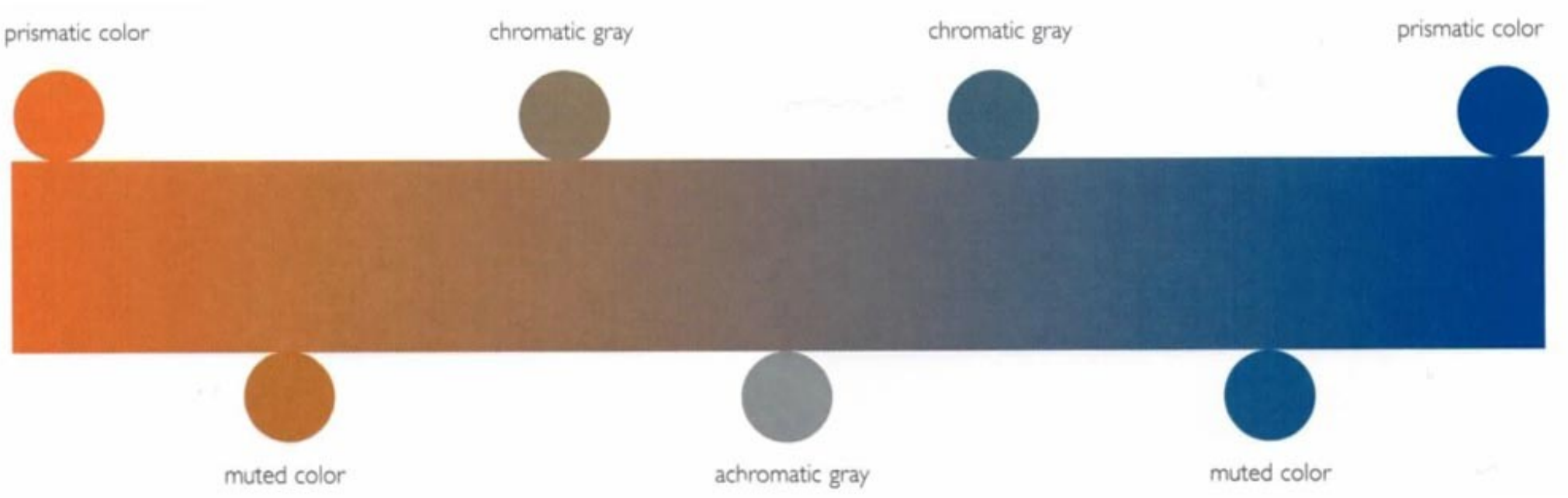


Saturation

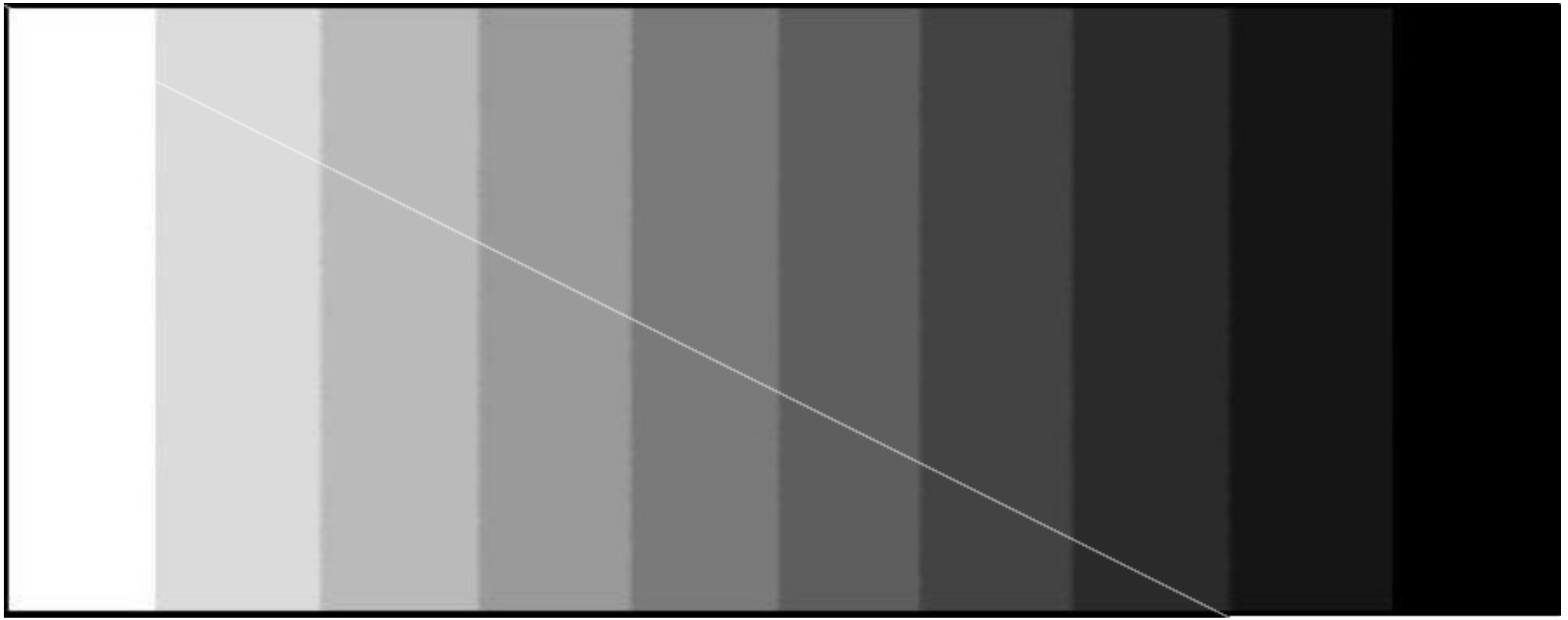


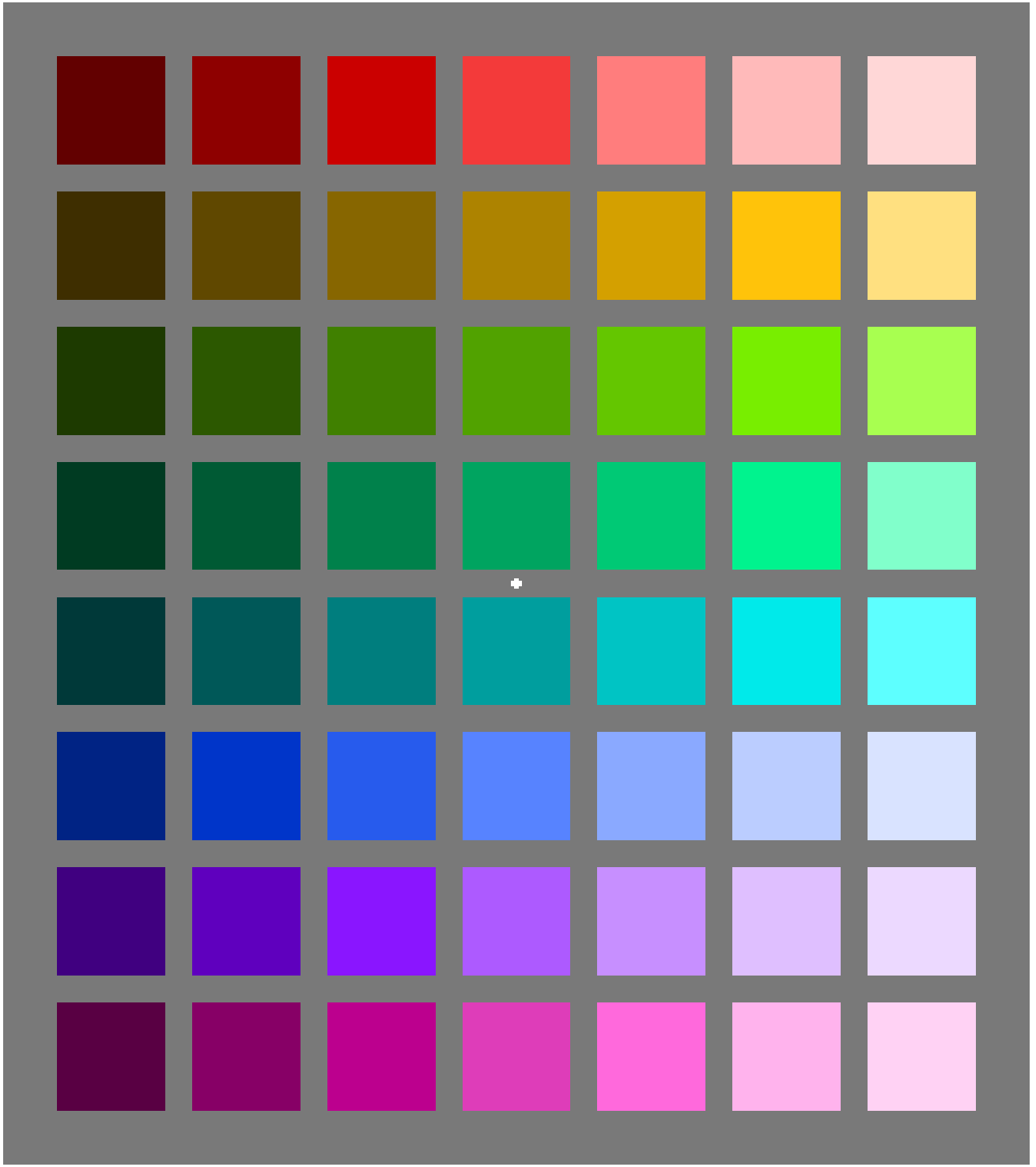
Saturation

Saturation


prismatic color
chromatic gray
chromatic gray
prismatic color
muted color
achromatic gray
muted color

Value

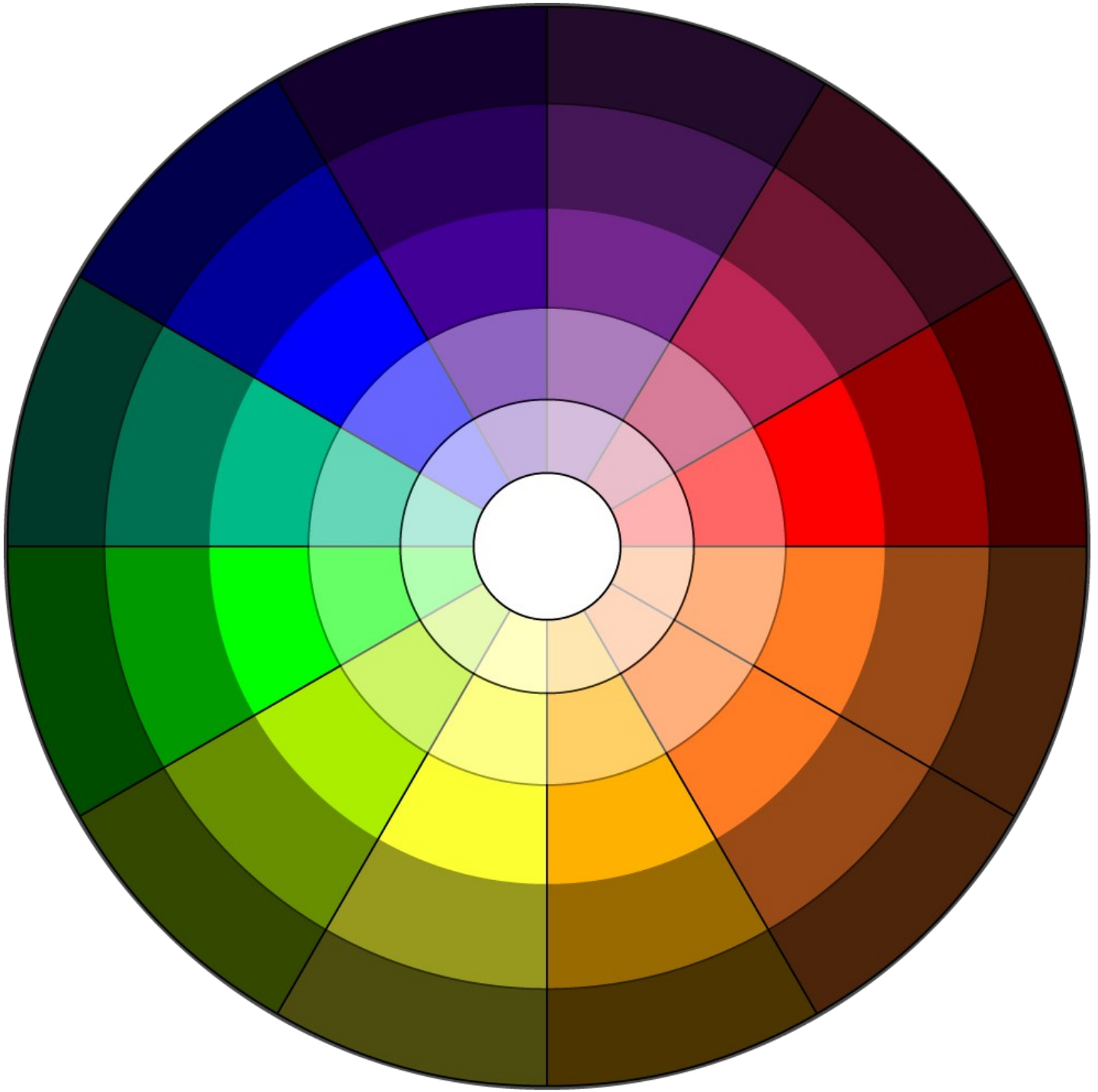




Value

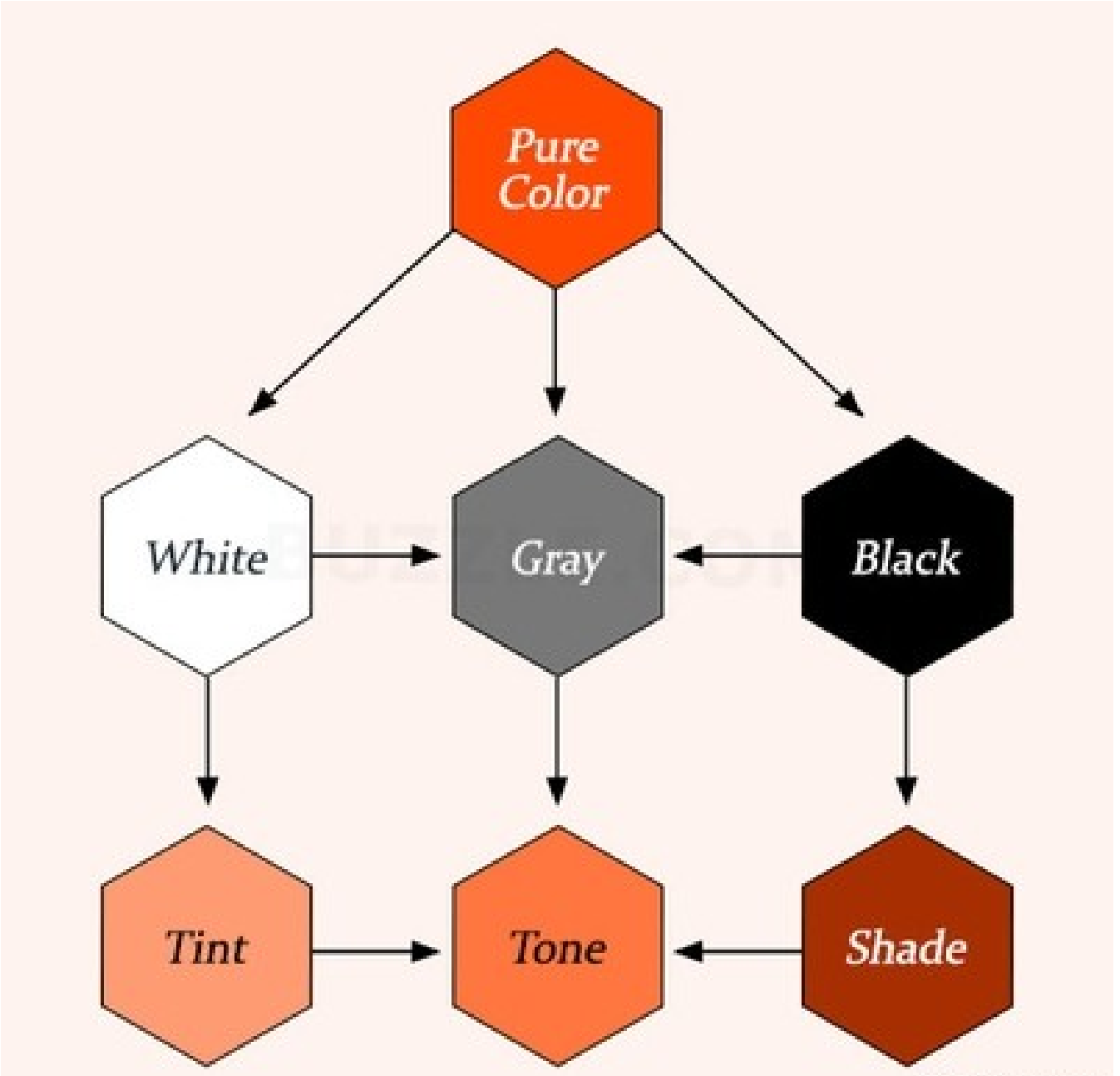
Value

Value

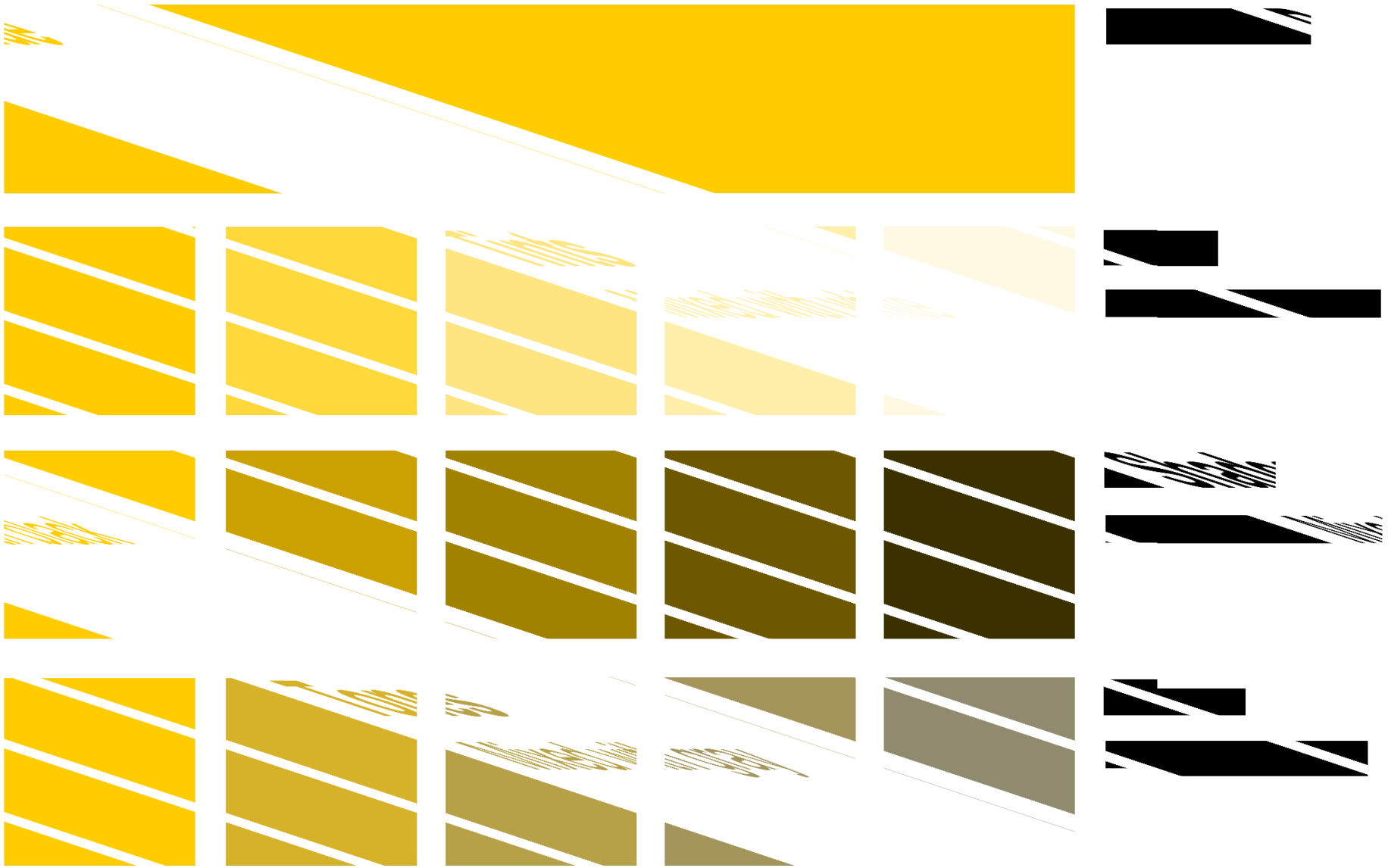


Value

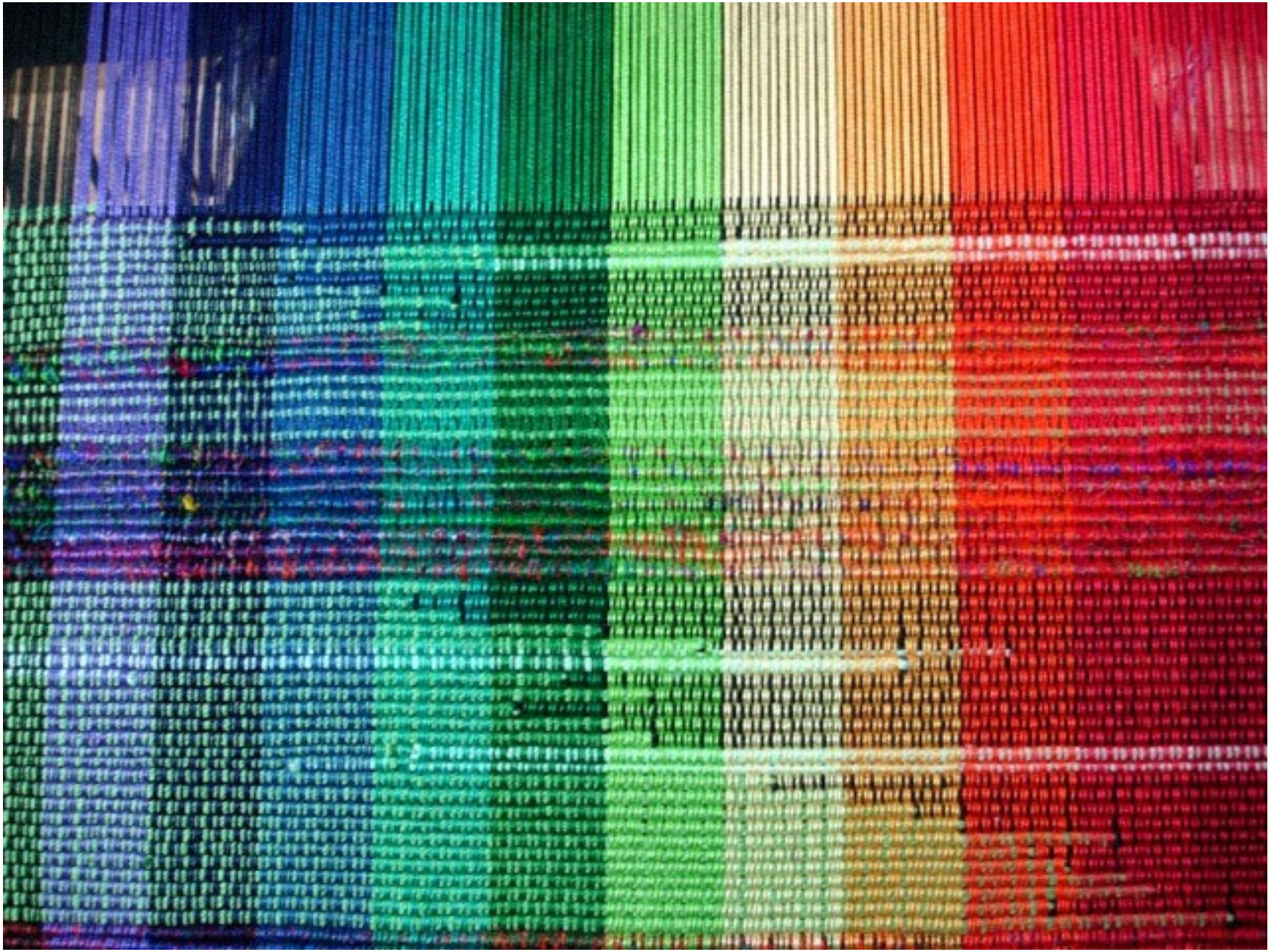
Tint, Tone, Shade



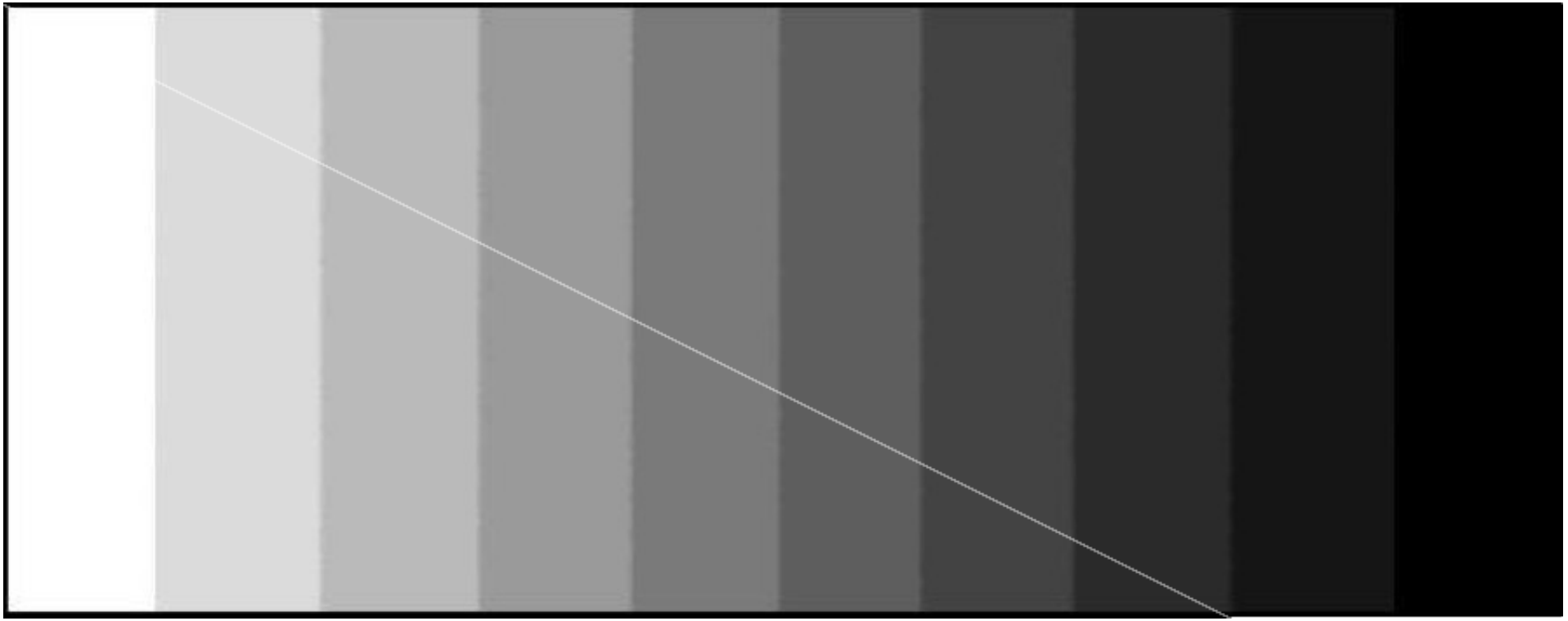
Tint, Tone, Shade

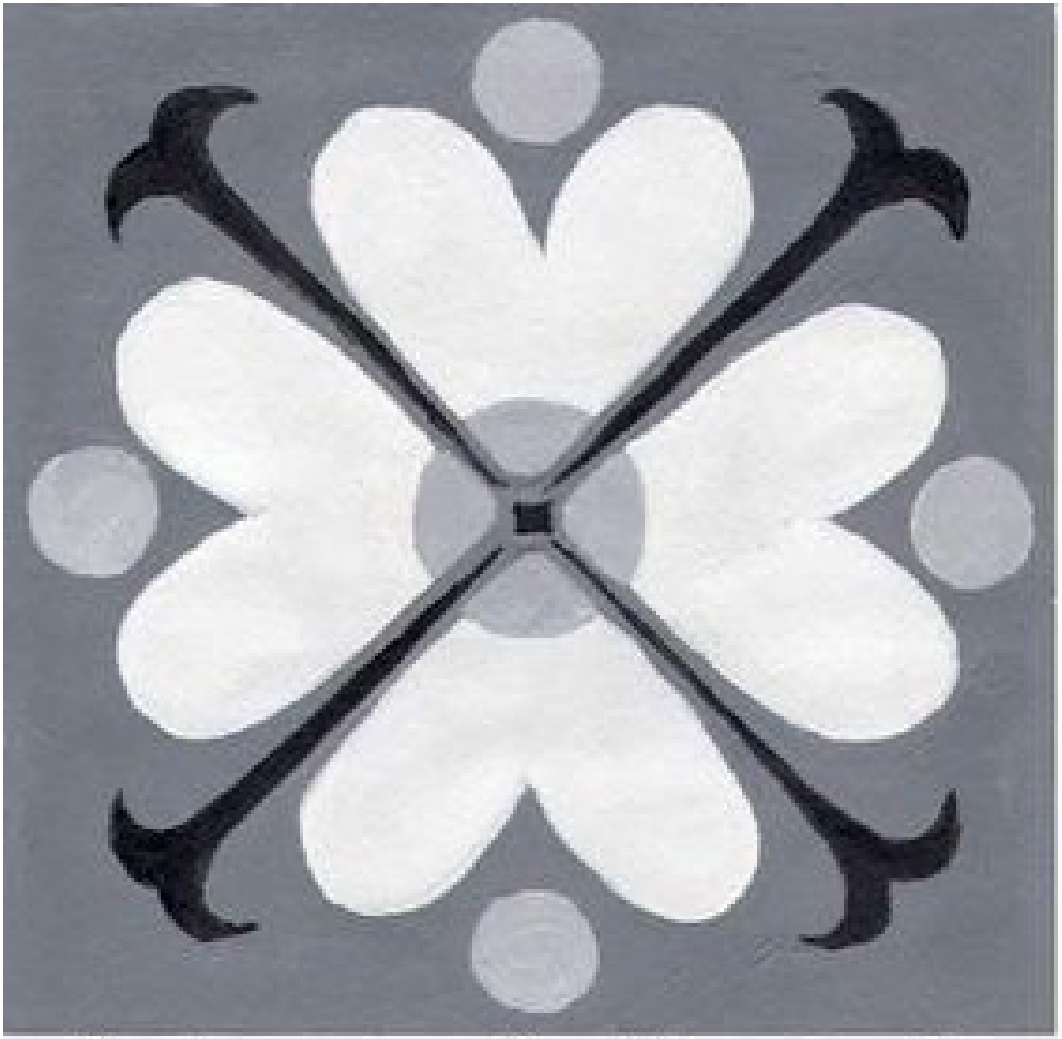


Value



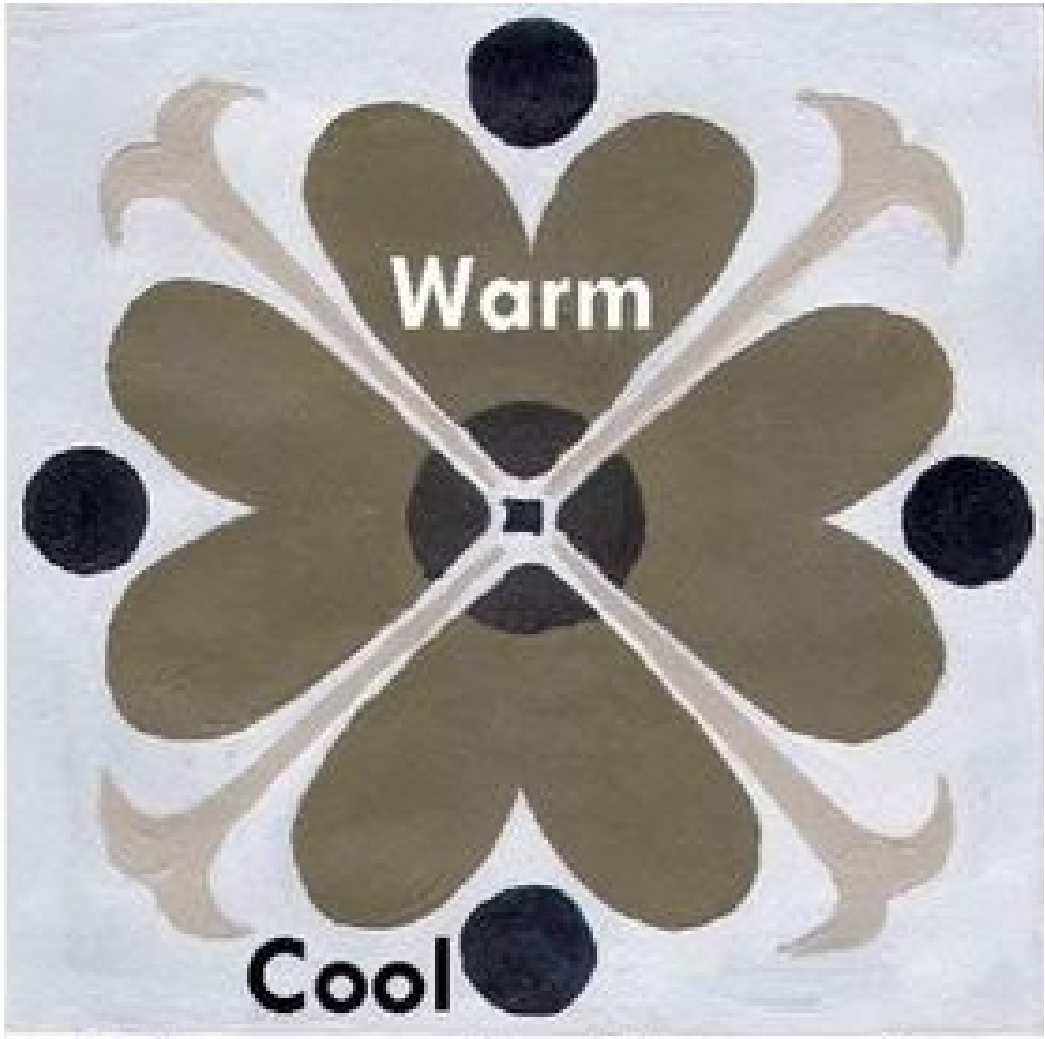
Neutrals





Achromatic Neutrals

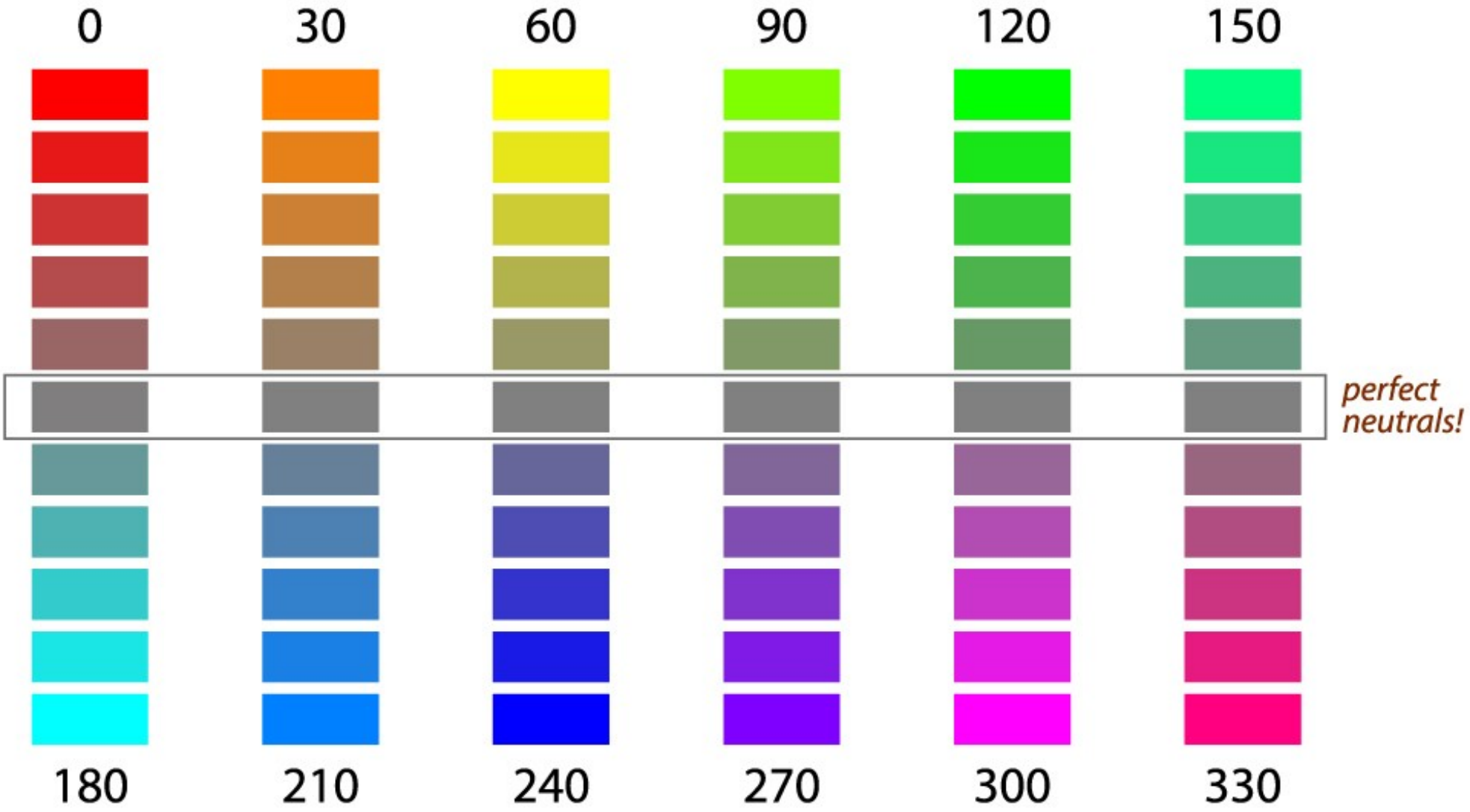
Achromatic Neutrals contain no identifiable color. Gray, white and black are rarely seen on color wheels.



Chromatic Neutrals

Chromatic Neutrals are Dull Hues that contain some discernable color and warm or cool properties. Earth tones are considered neutral colors.

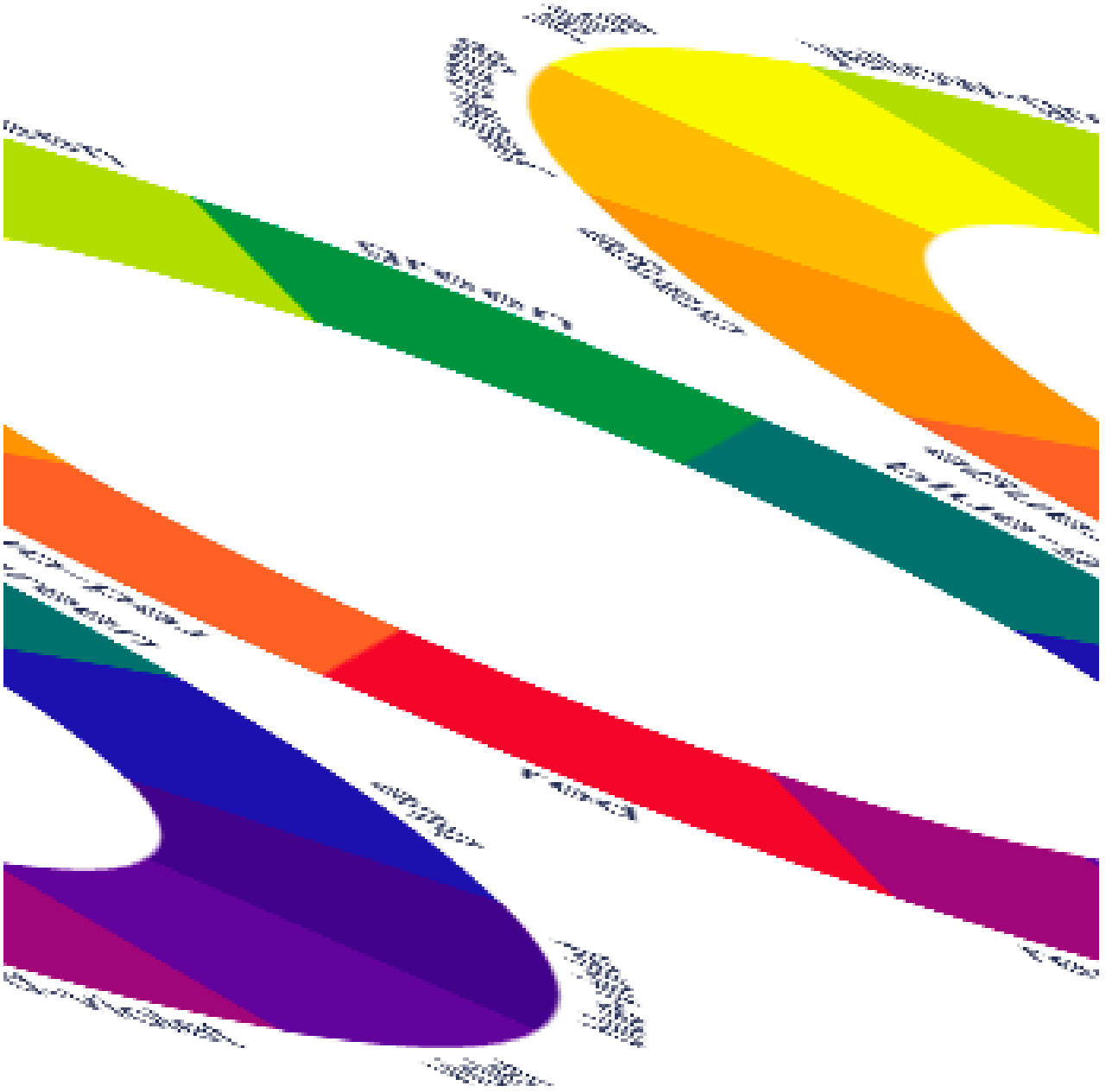
Chromatic Neutrals

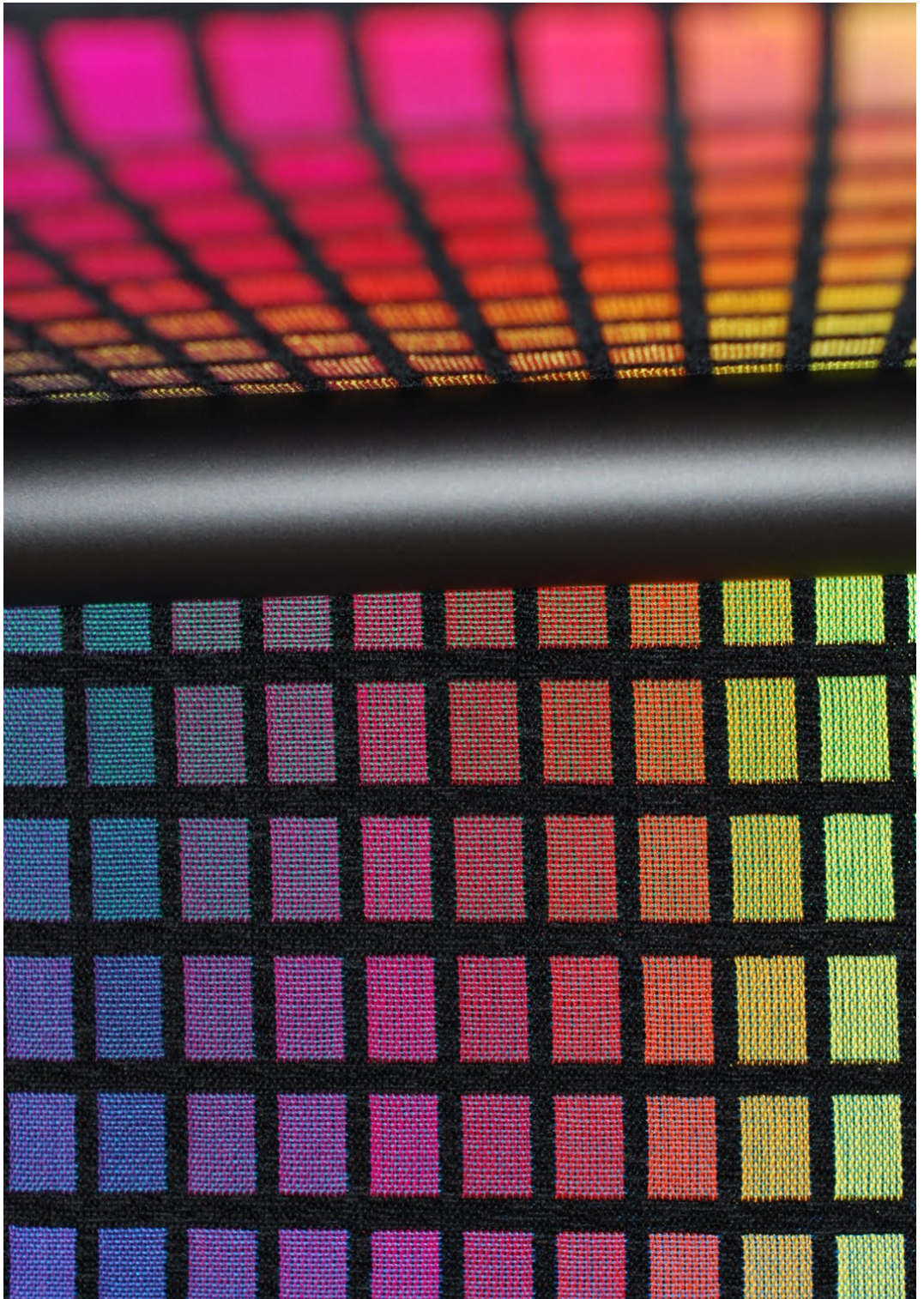


Chromatic Neutrals

Hue

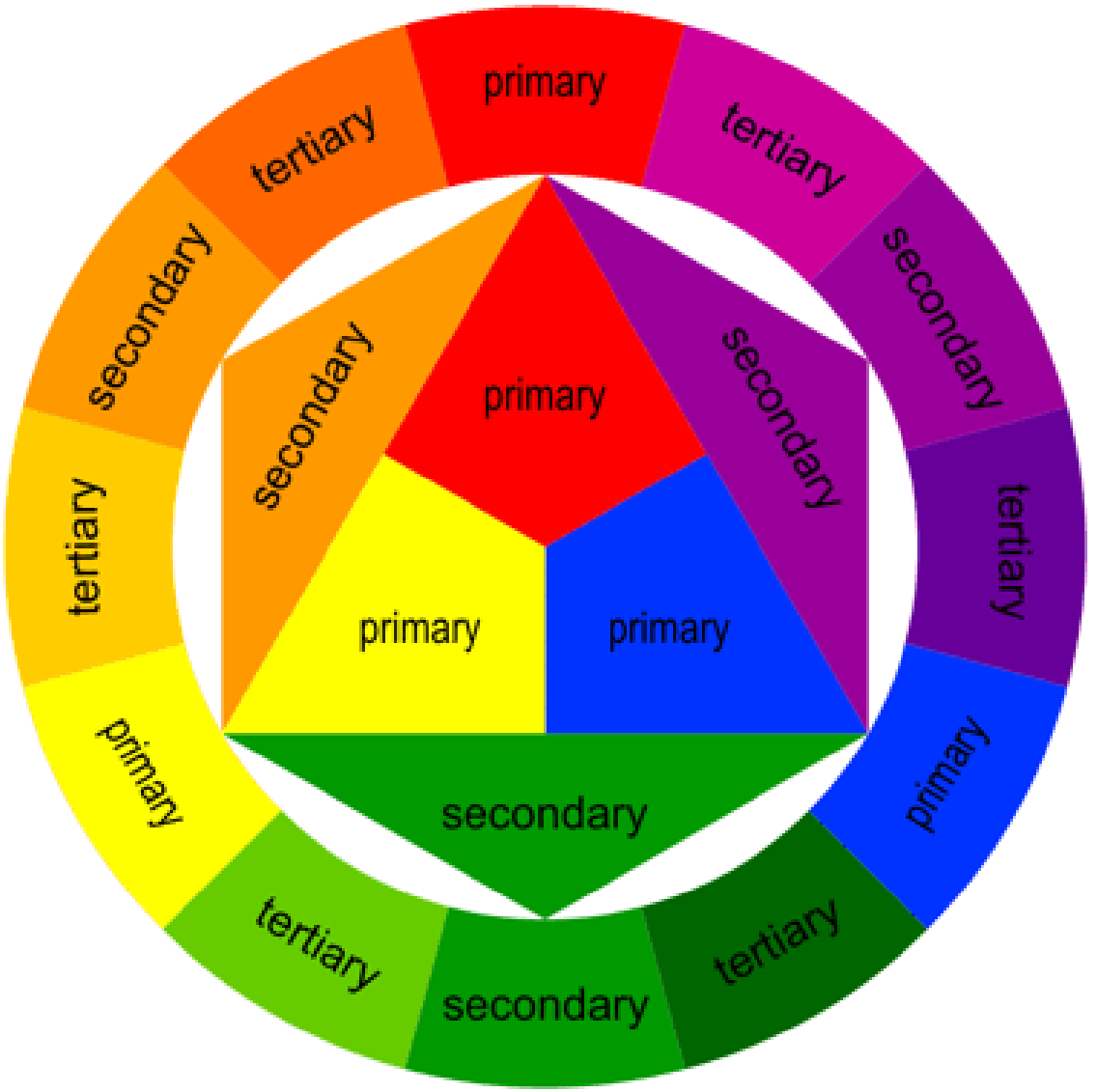
Hue





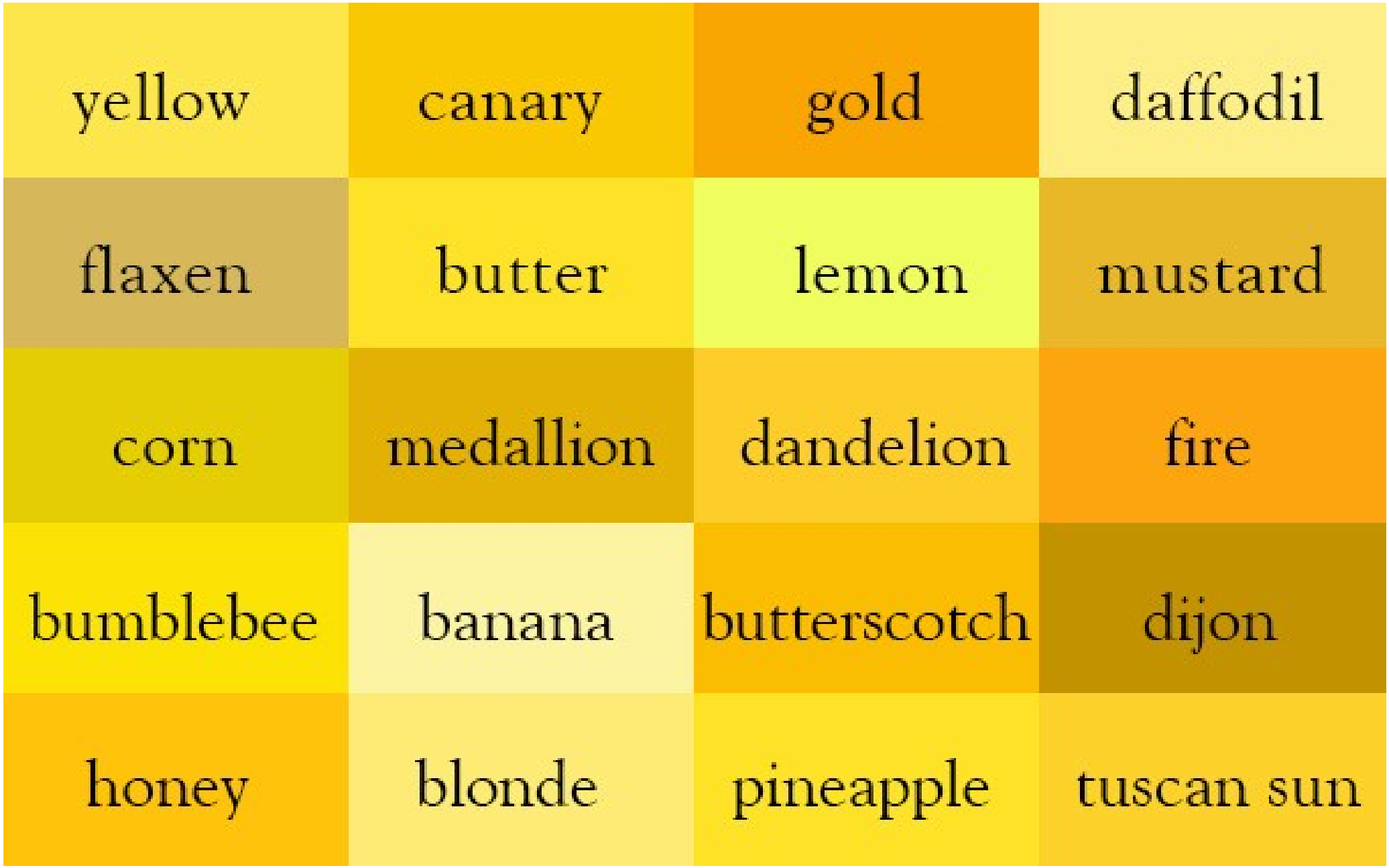
Hue

Hue


primary
tertiary
secondary
tertiary
secondary
tertiary
primary
secondary
primary
primary
secondary
primary
tertiary
secondary
tertiary
primary
tertiary
secondary

Primary

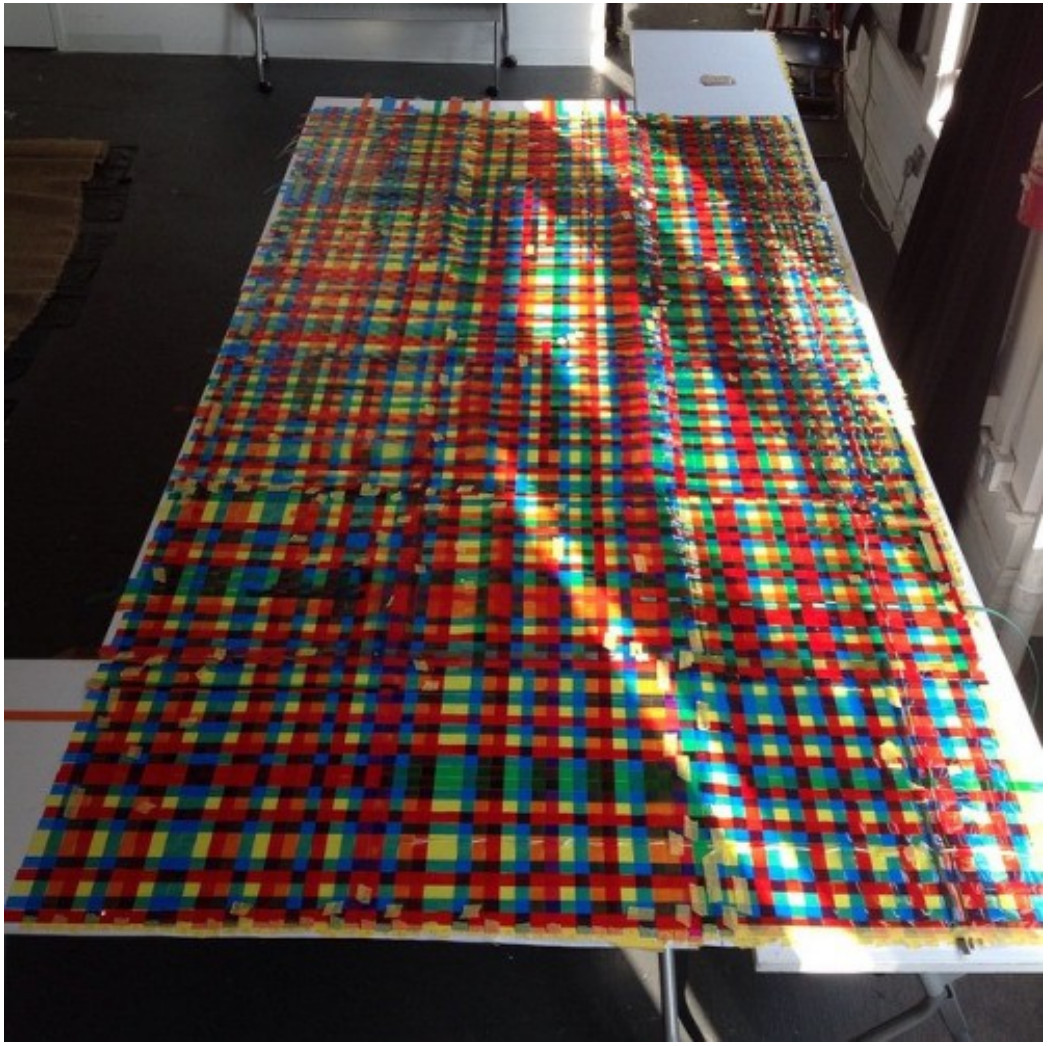

red
cherry
rose
jam
merlot
garnet
crimson
ruby
scarlet
wine
brick
apple
mahogany
blood
sangria
berry
currant
blush
candy
lipstick


yellow
canary
gold
daffodil
flaxen
butter
lemon
mustard
corn
medallion
dandelion
fire
bumblebee
banana
butterscotch
dijon
honey
blonde
pineapple
tuscan sun


blue
slate
sky
navy
indigo
cobalt
teal
ocean
peacock
azure
cerulean
lapis
spruce
stone
aegean
berry
denim
admiral
sapphire
arctic

Primary

Primary

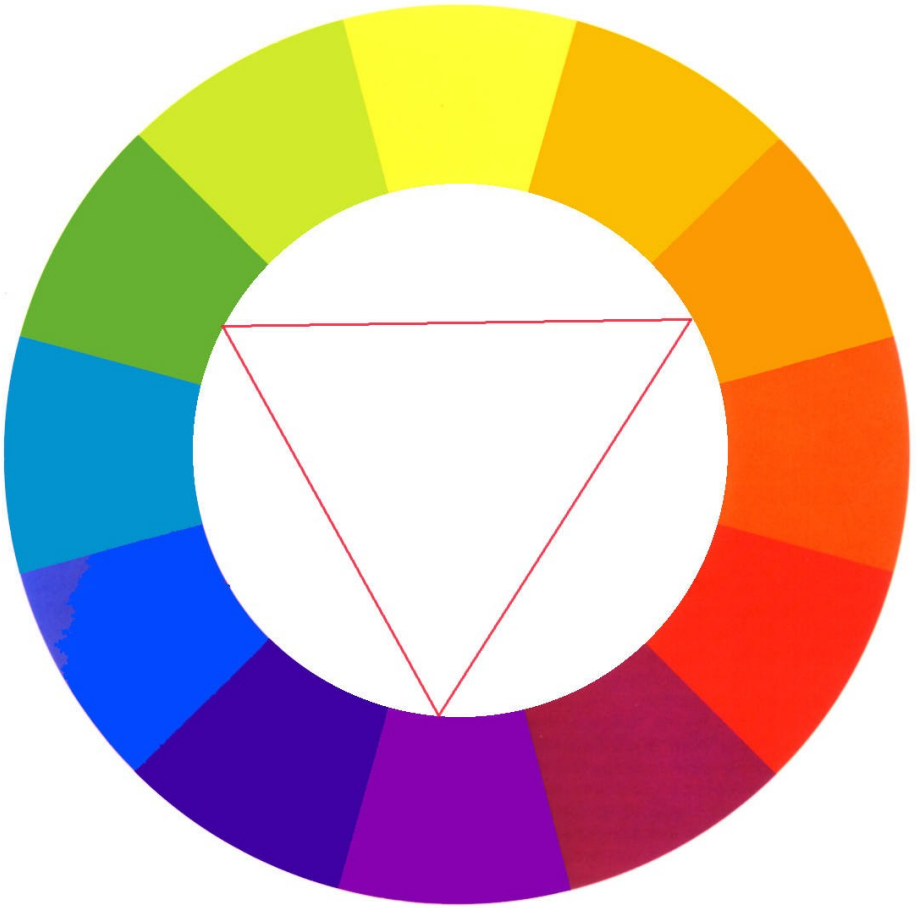


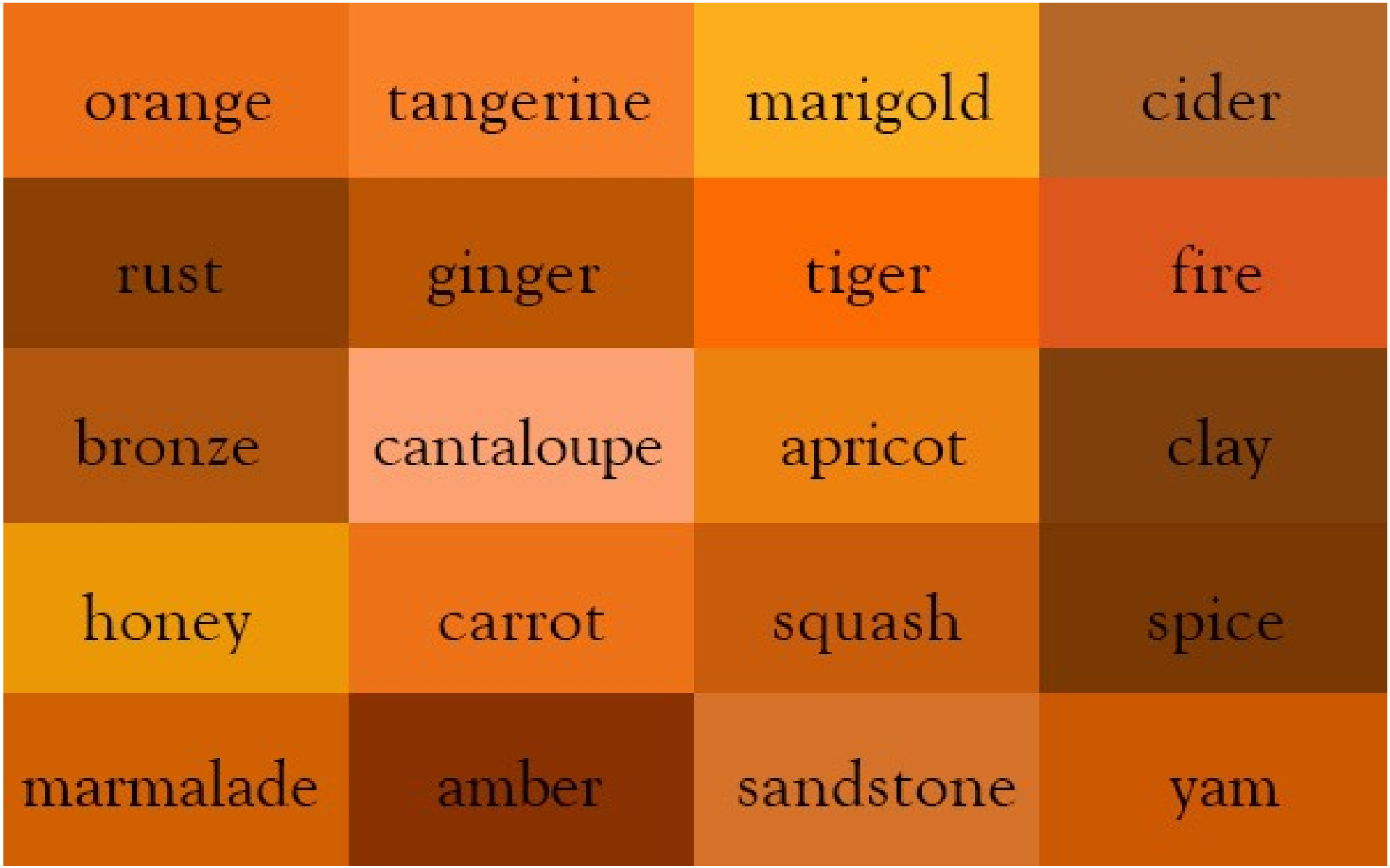
Primary

Primary

Primary

Secondary

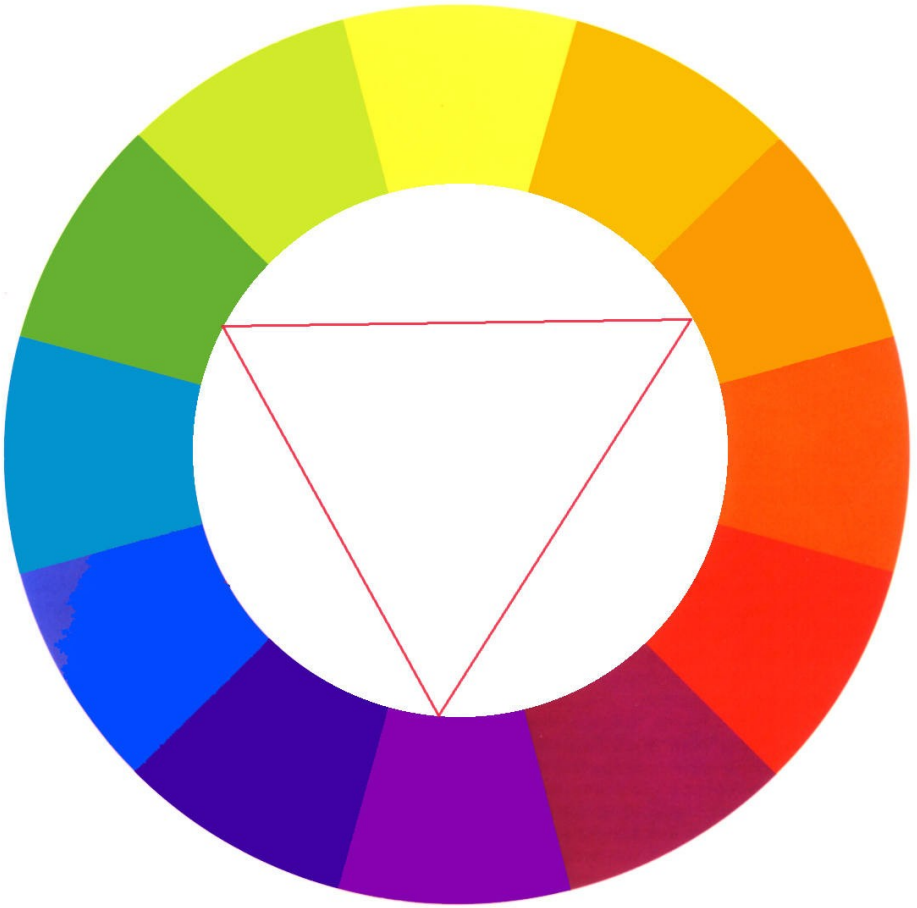



orange
tangerine
marigold
cider
rust
ginger
tiger
fire
bronze
cantaloupe
apricot
clay
honey
carrot
squash
spice
marmalade
amber
sandstone
yam


green
chartreuse
juniper
sage
lime
fern
olive
emerald
pear
moss
shamrock
seafoam
pine
parakeet
mint
seaweed
pickle
pistachio
basil
crocodile


purple
mauve
violet
boysenberry
lavender
plum
magenta
lilac
grape
periwinkle
sangria
eggplant
jam
iris
heather
amethyst
raisin
orchid
mulberry
wine

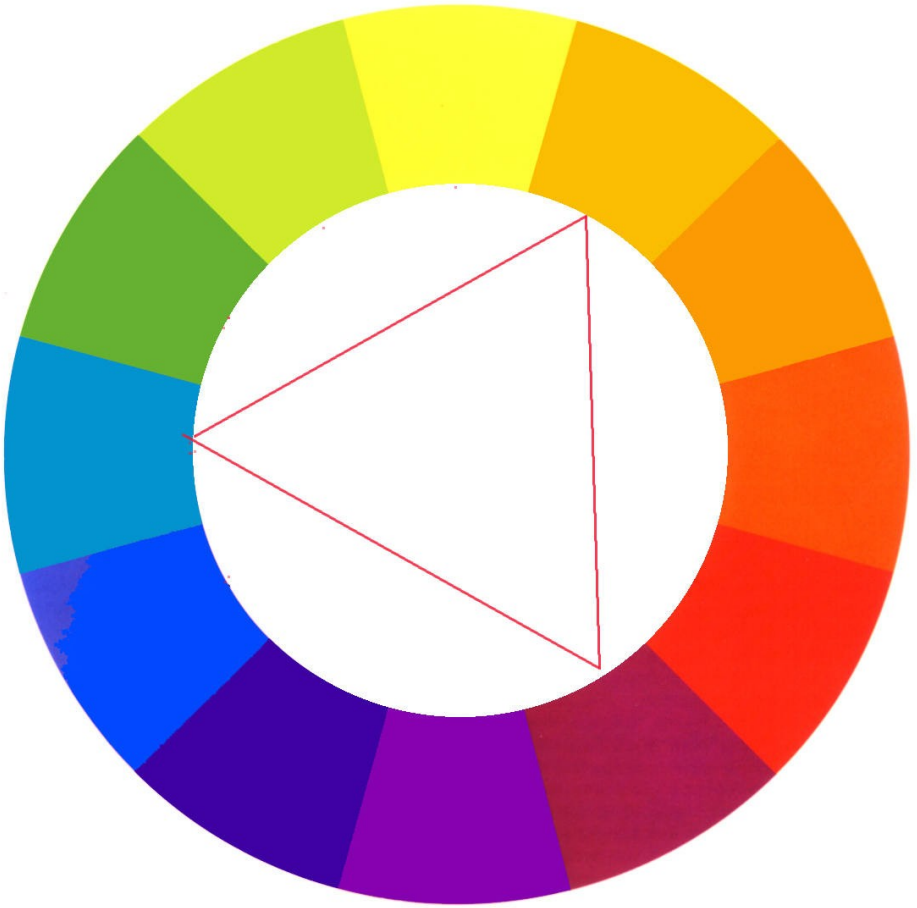
Secondary



Secondary

Secondary

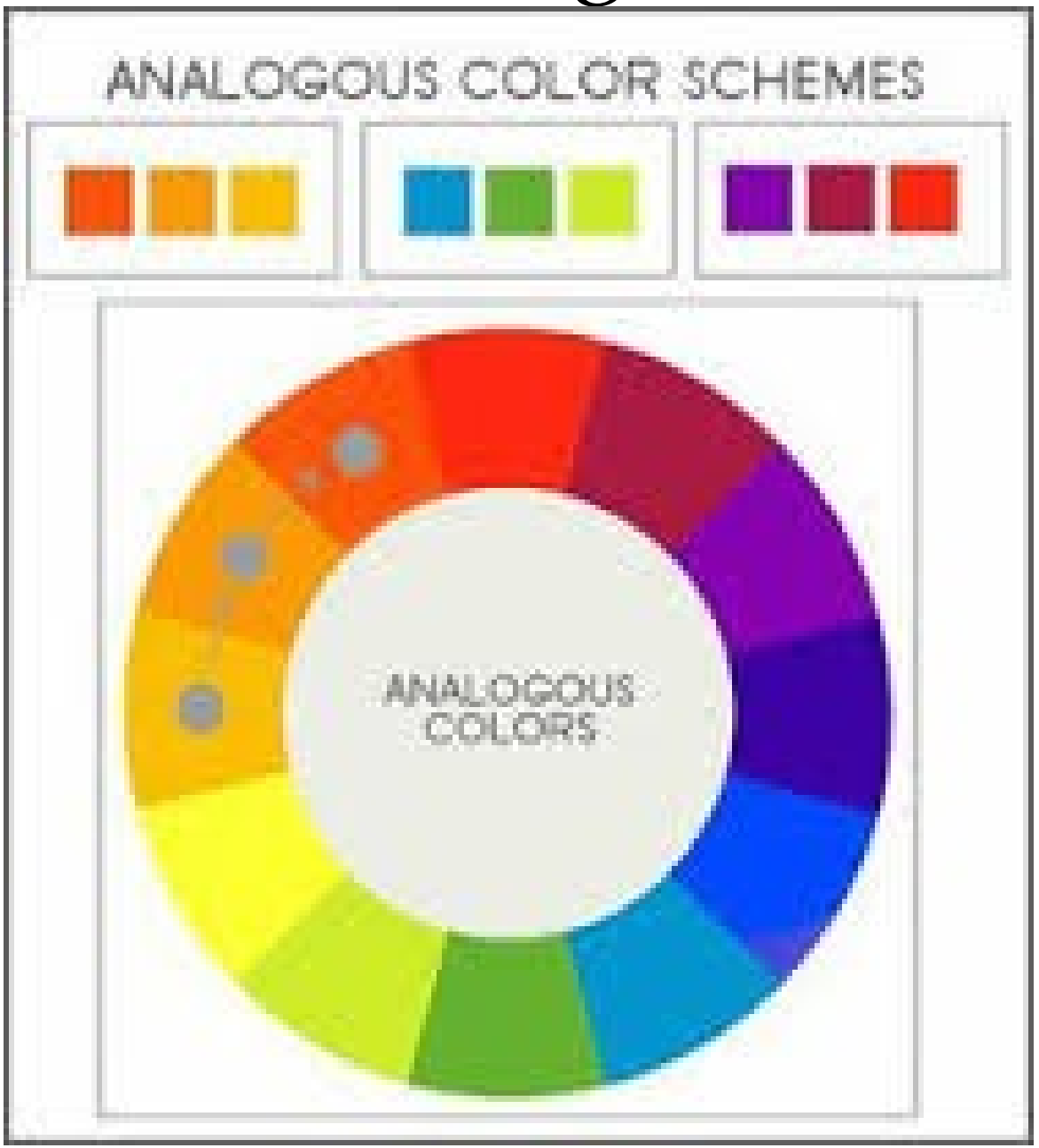
Tertiary Triad



Tertiary Triad

Tertiary Triad

Analogous



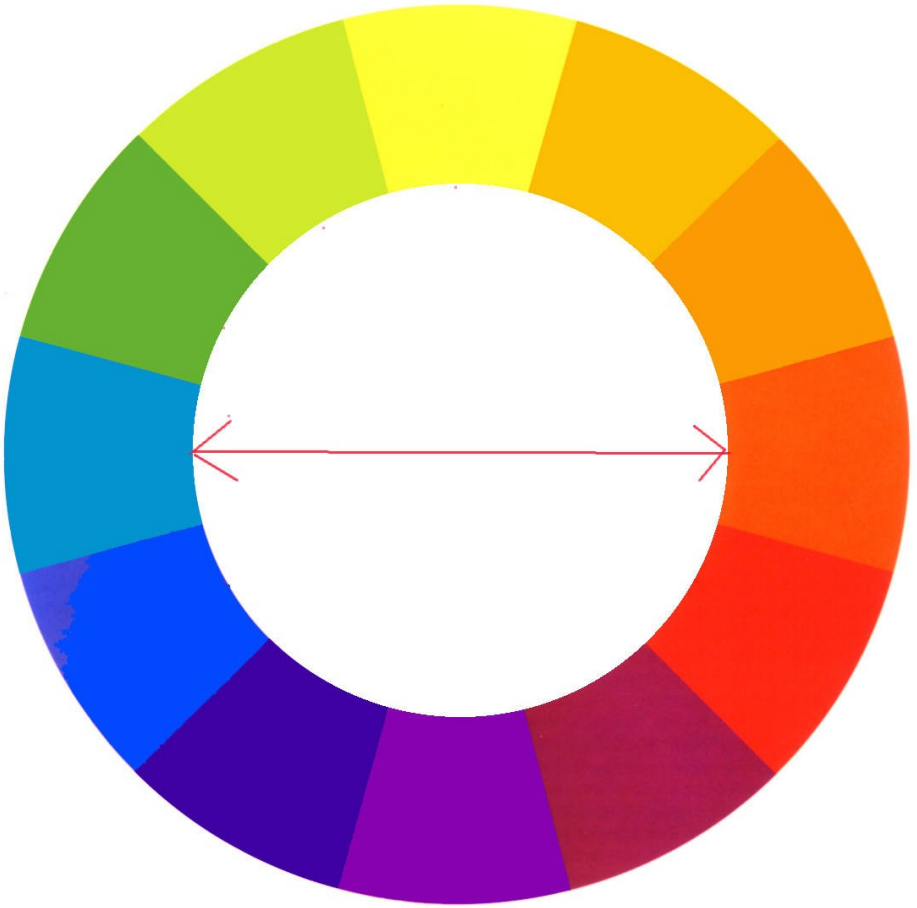
Analogous

Analogous

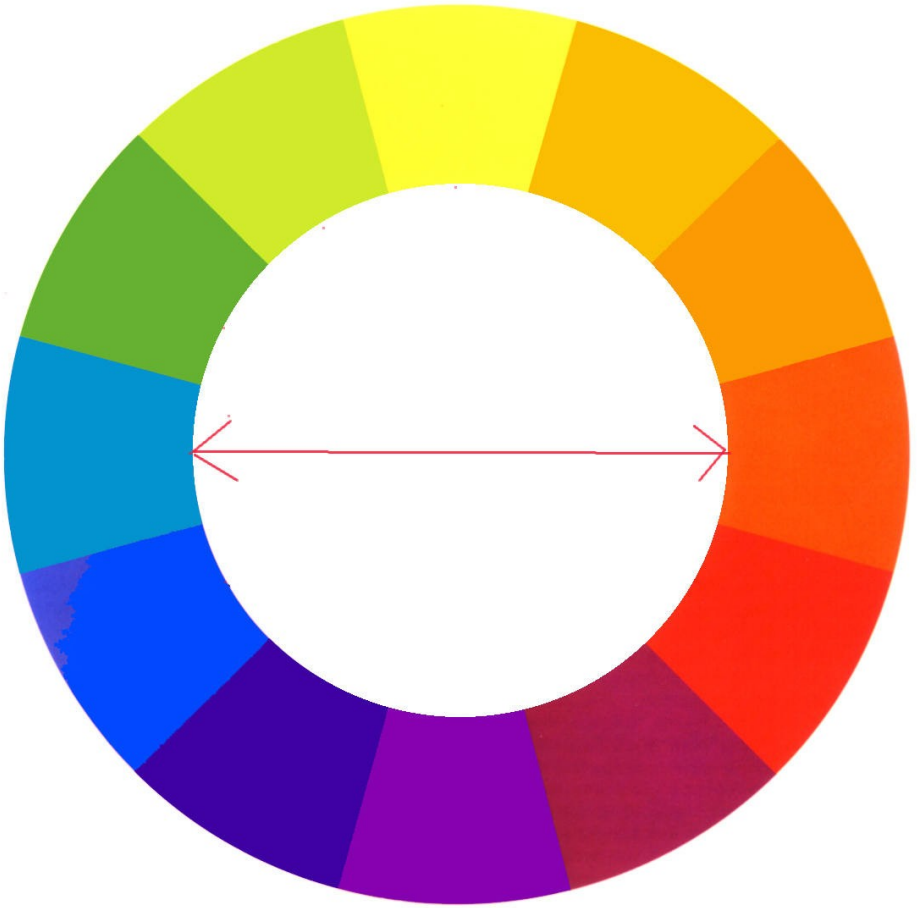
Analogous

Analogous

Complementary



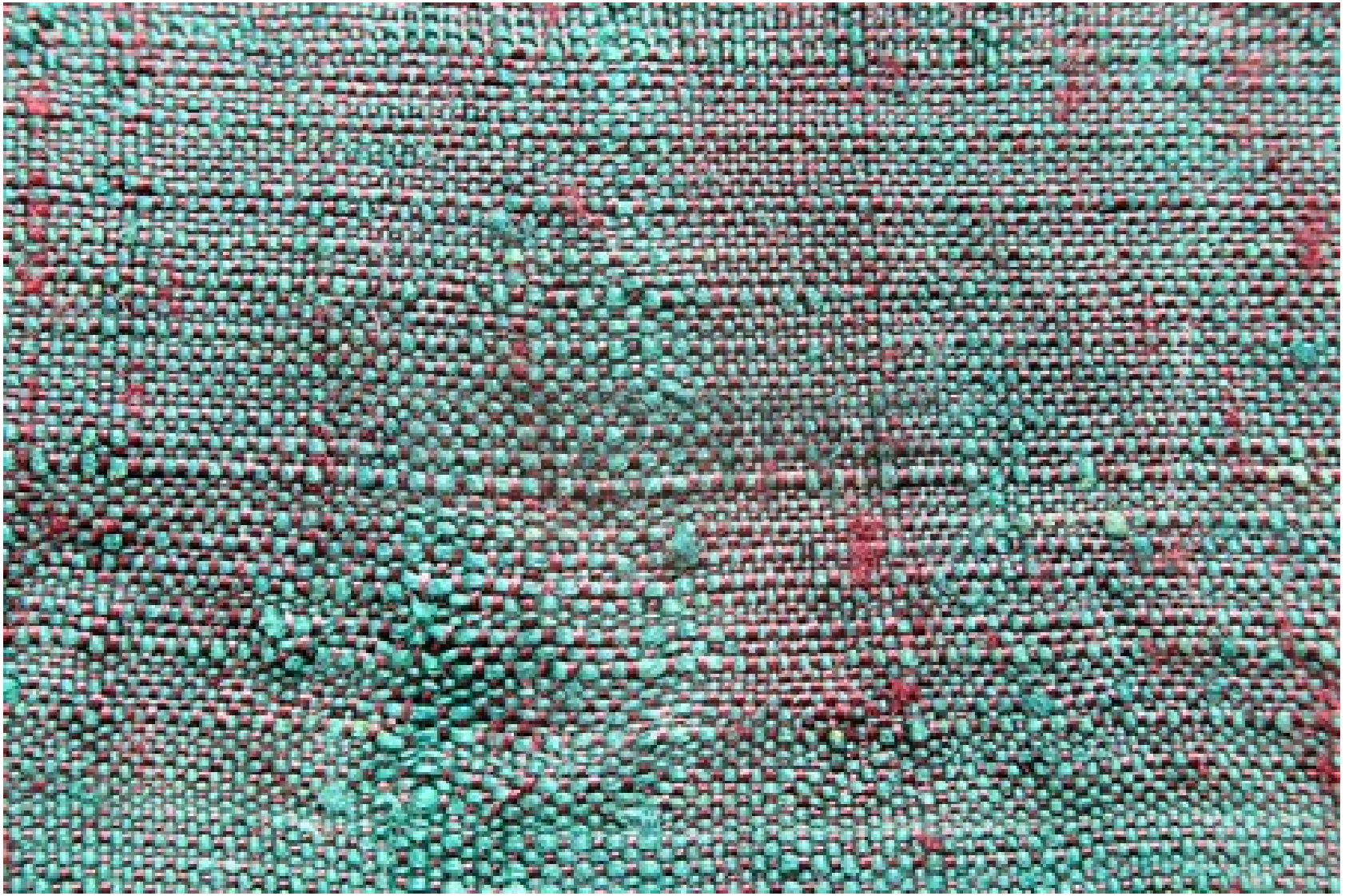
Complementary



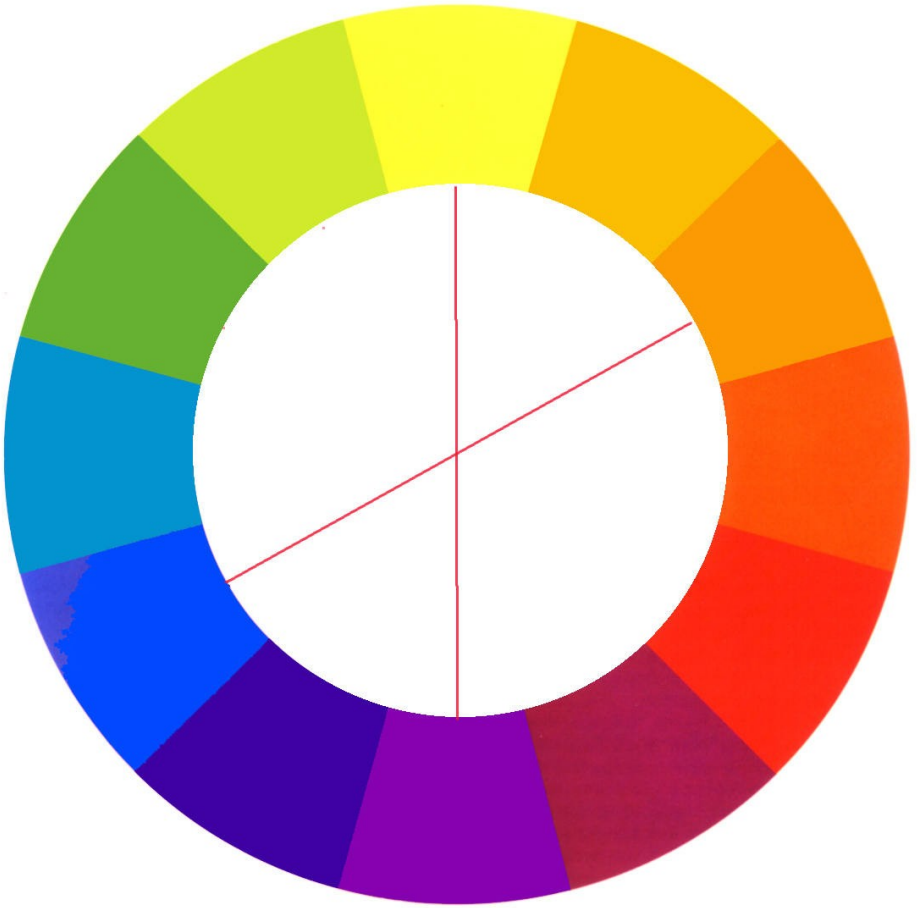
Complementary

Complementary

Complementary



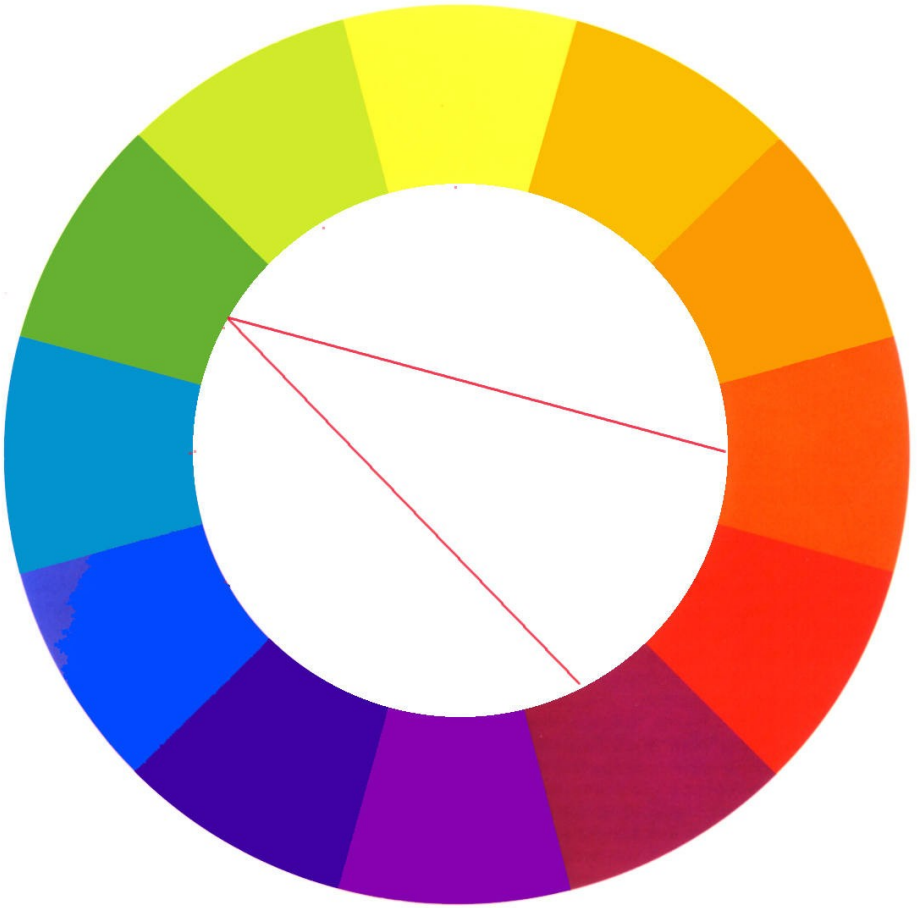
Tetradic or Double Complementary



Double Complementary

Tetradic or Double Complementary

Split-Complementary

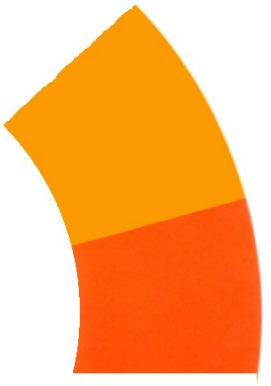


Split-Complementary

Split-Complementary

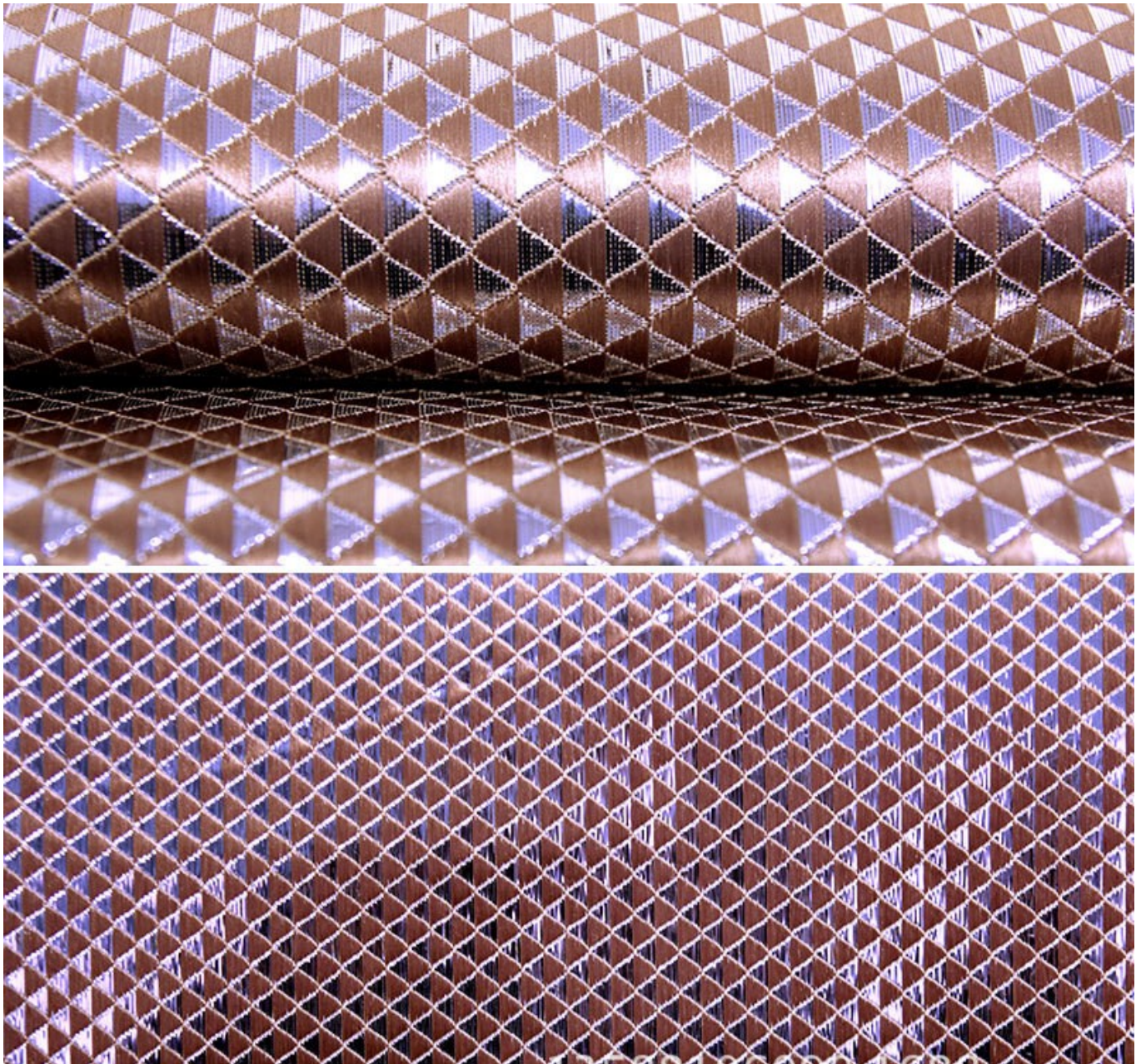
Monochromatic

Monochromatic



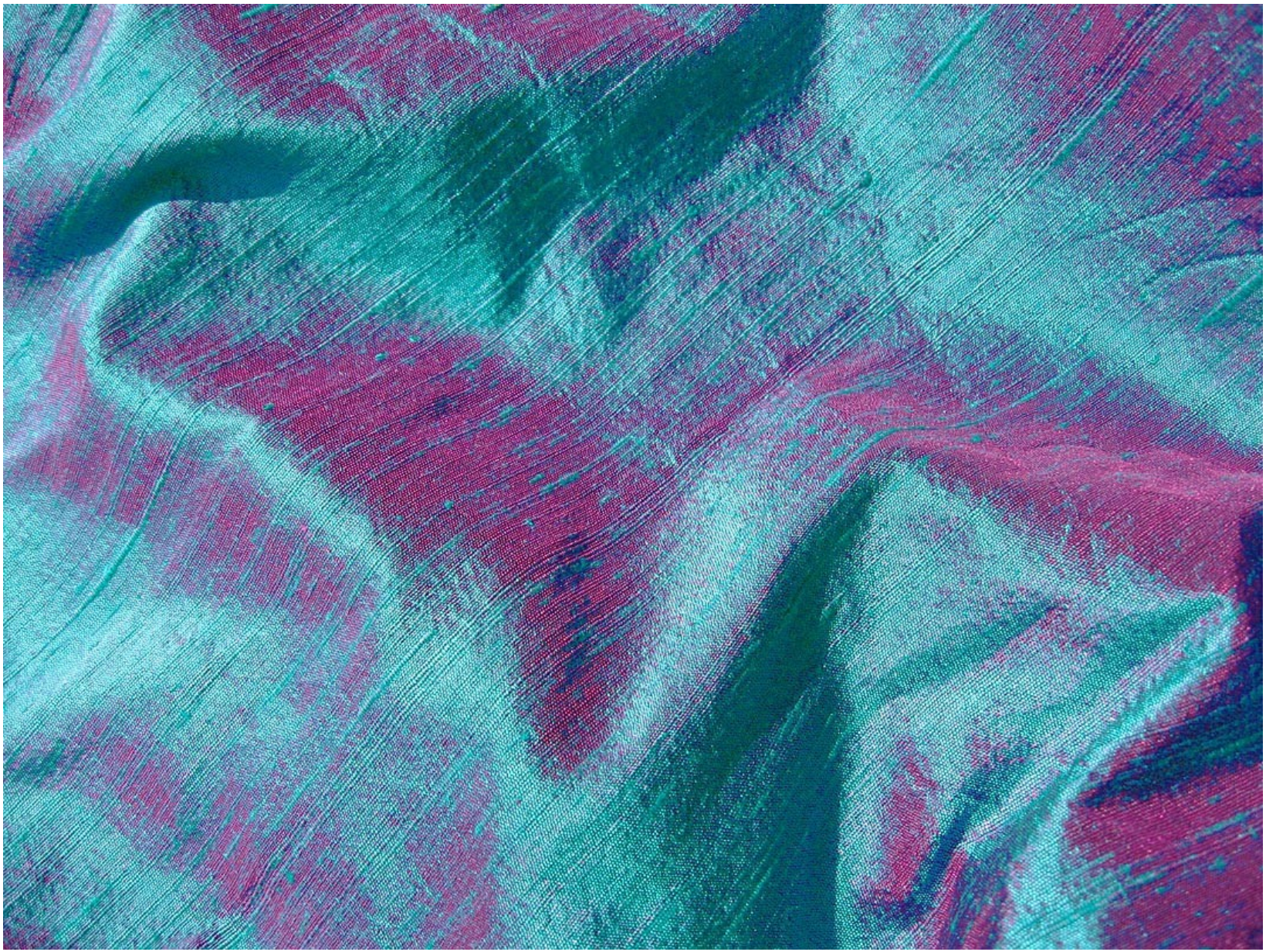
Monochromatic

Luster

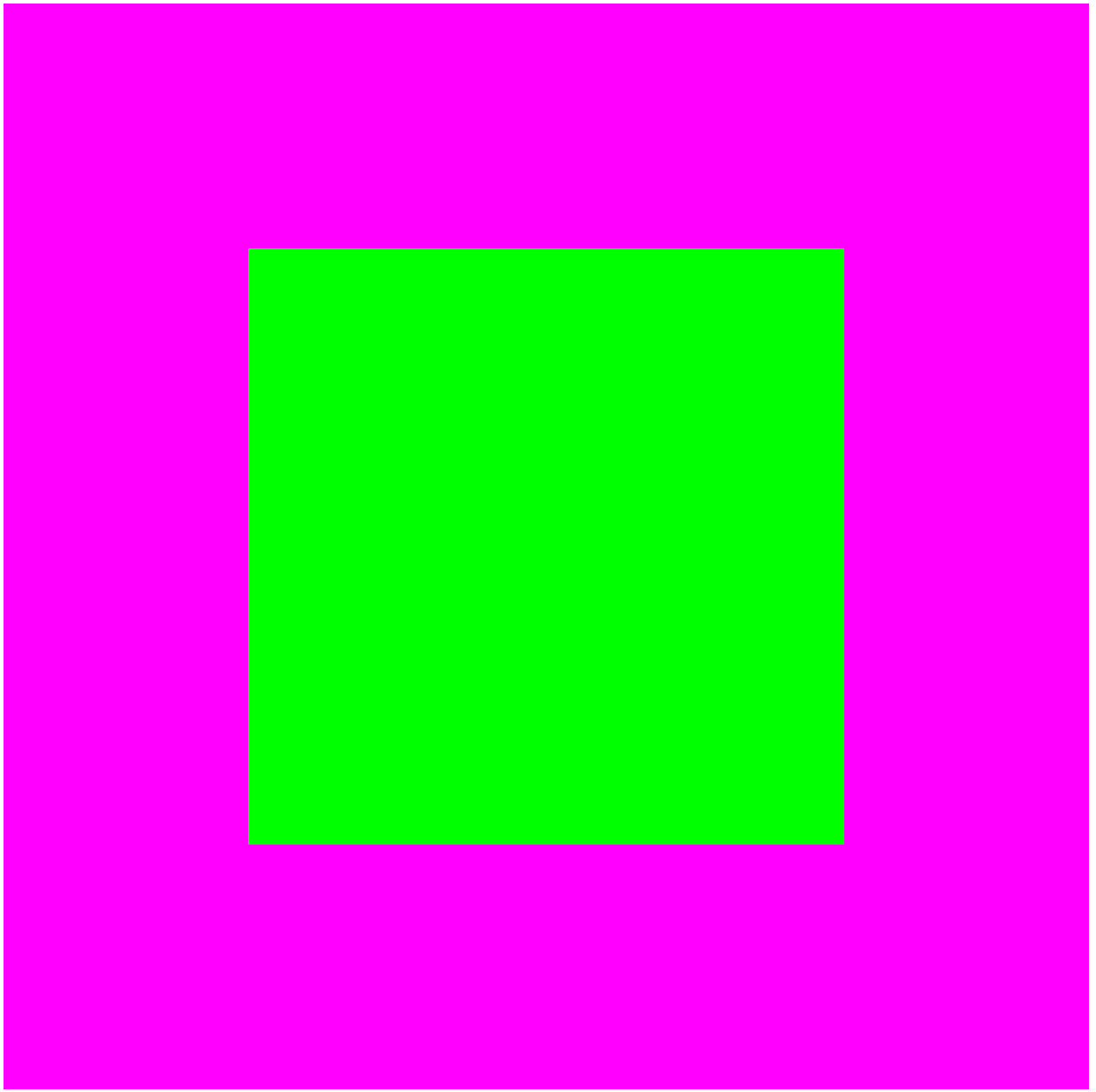


Iridescence

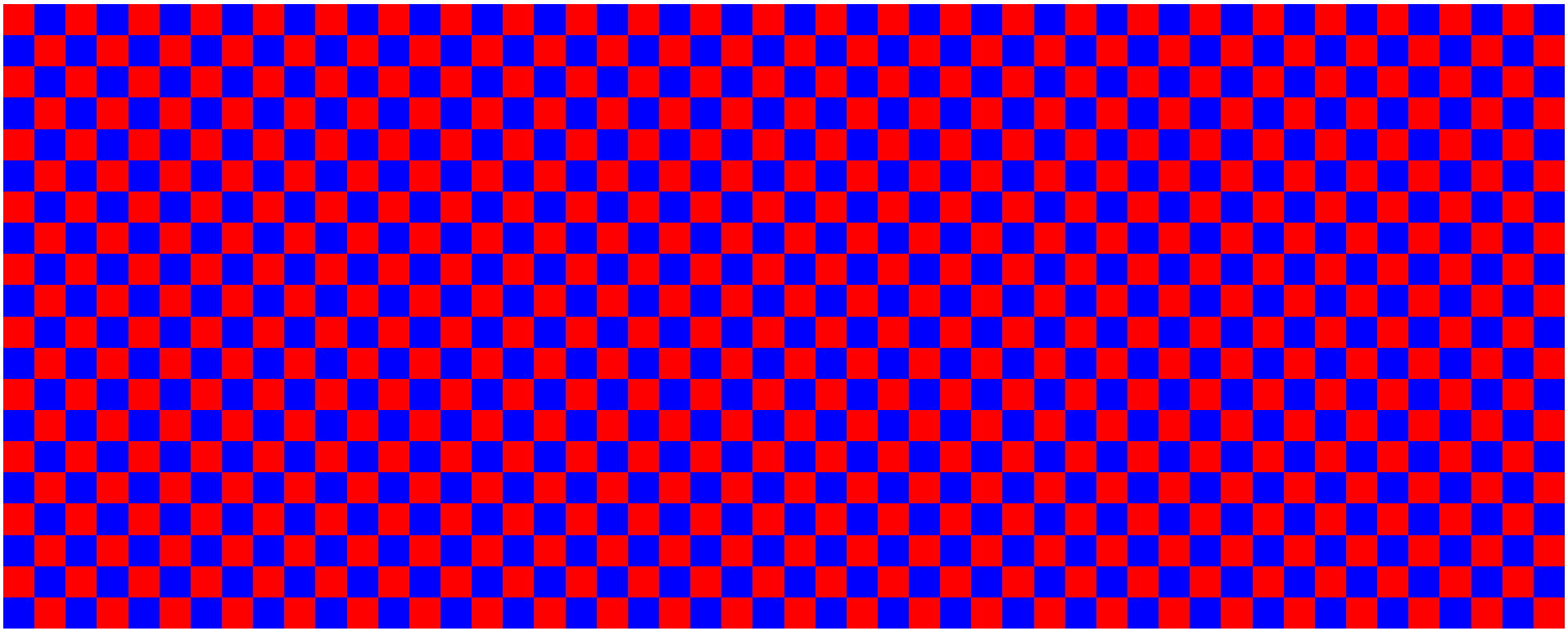
Iridescence



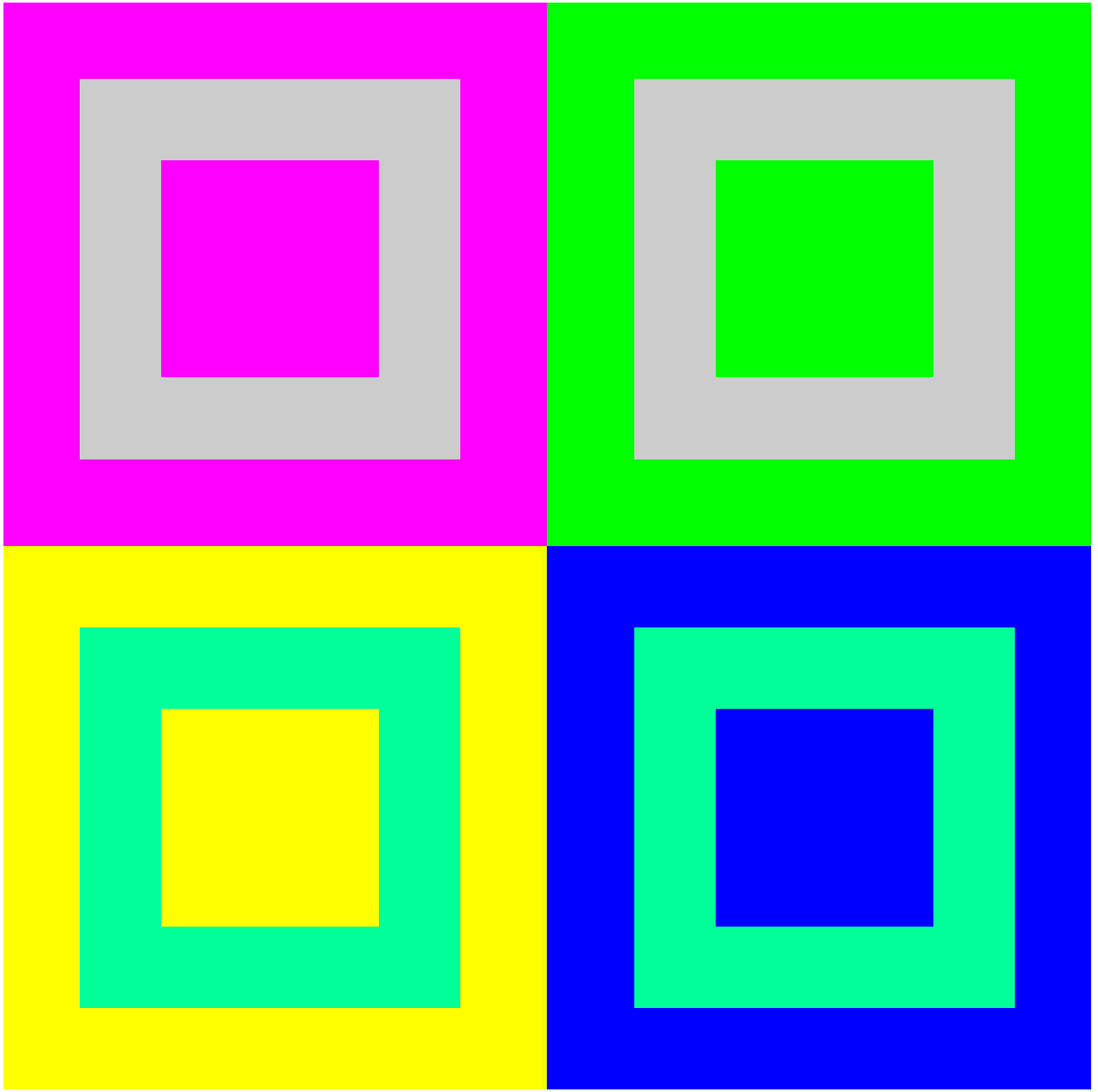
Simultaneous Contrast Effect



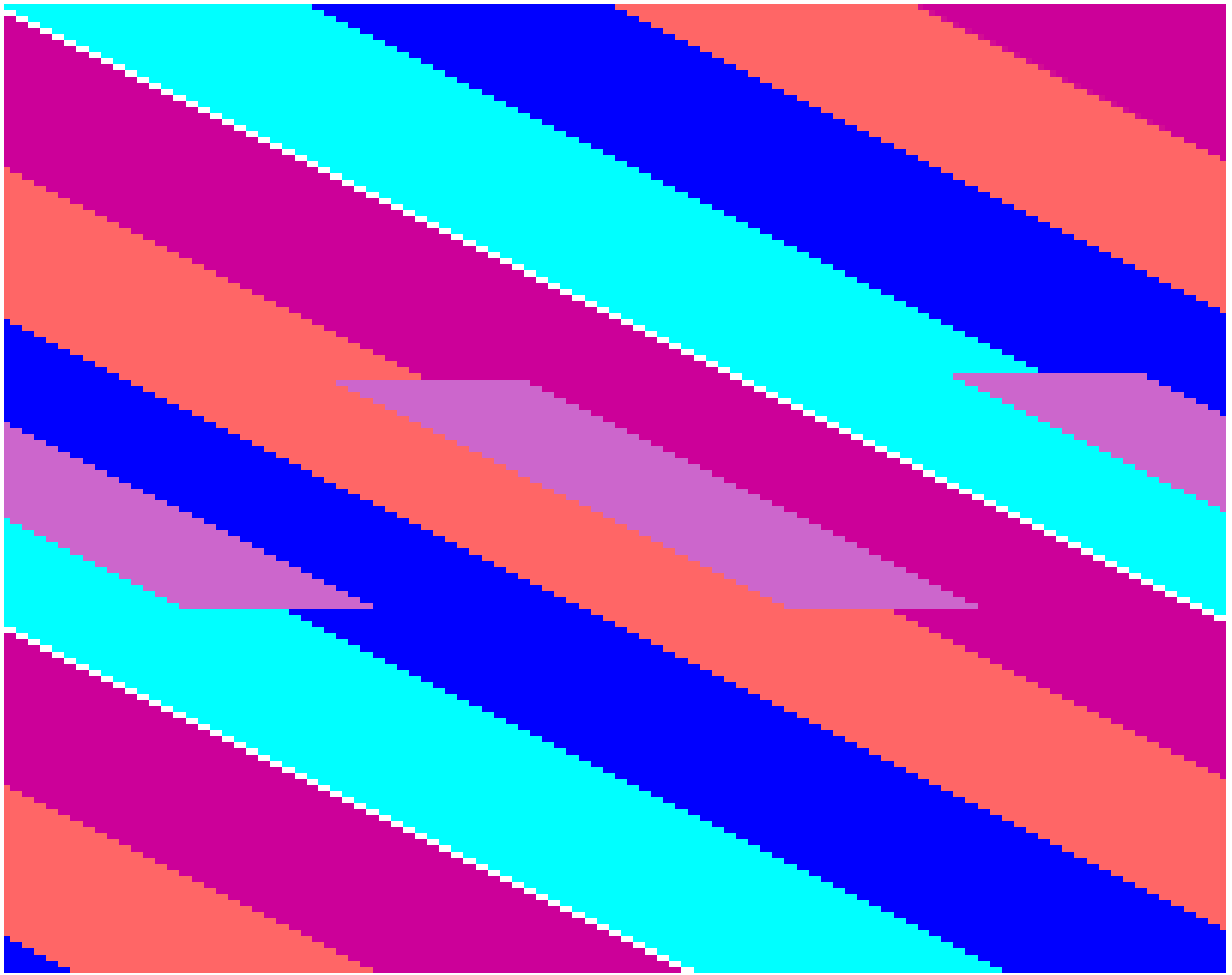
Bezold Effect in Iridescence



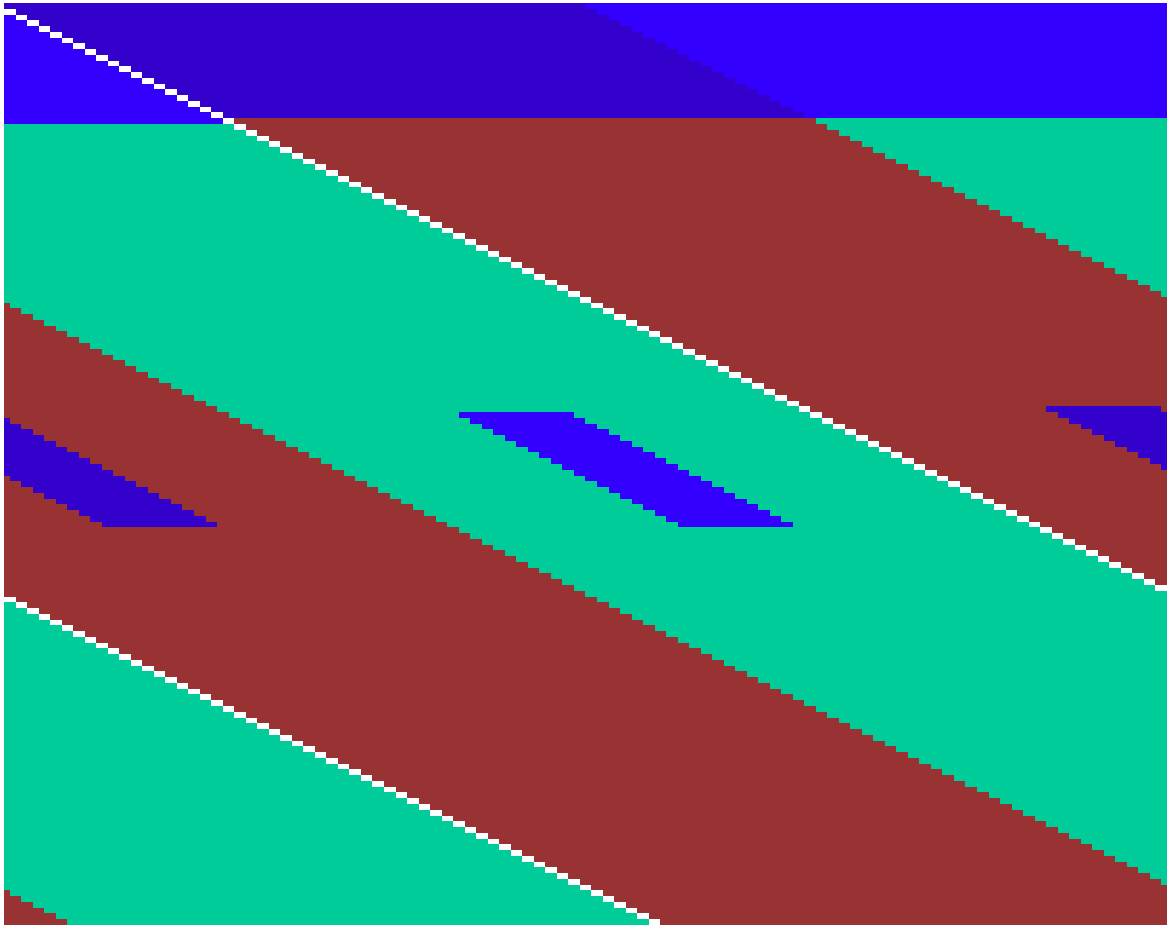
Successive Contrast Effect

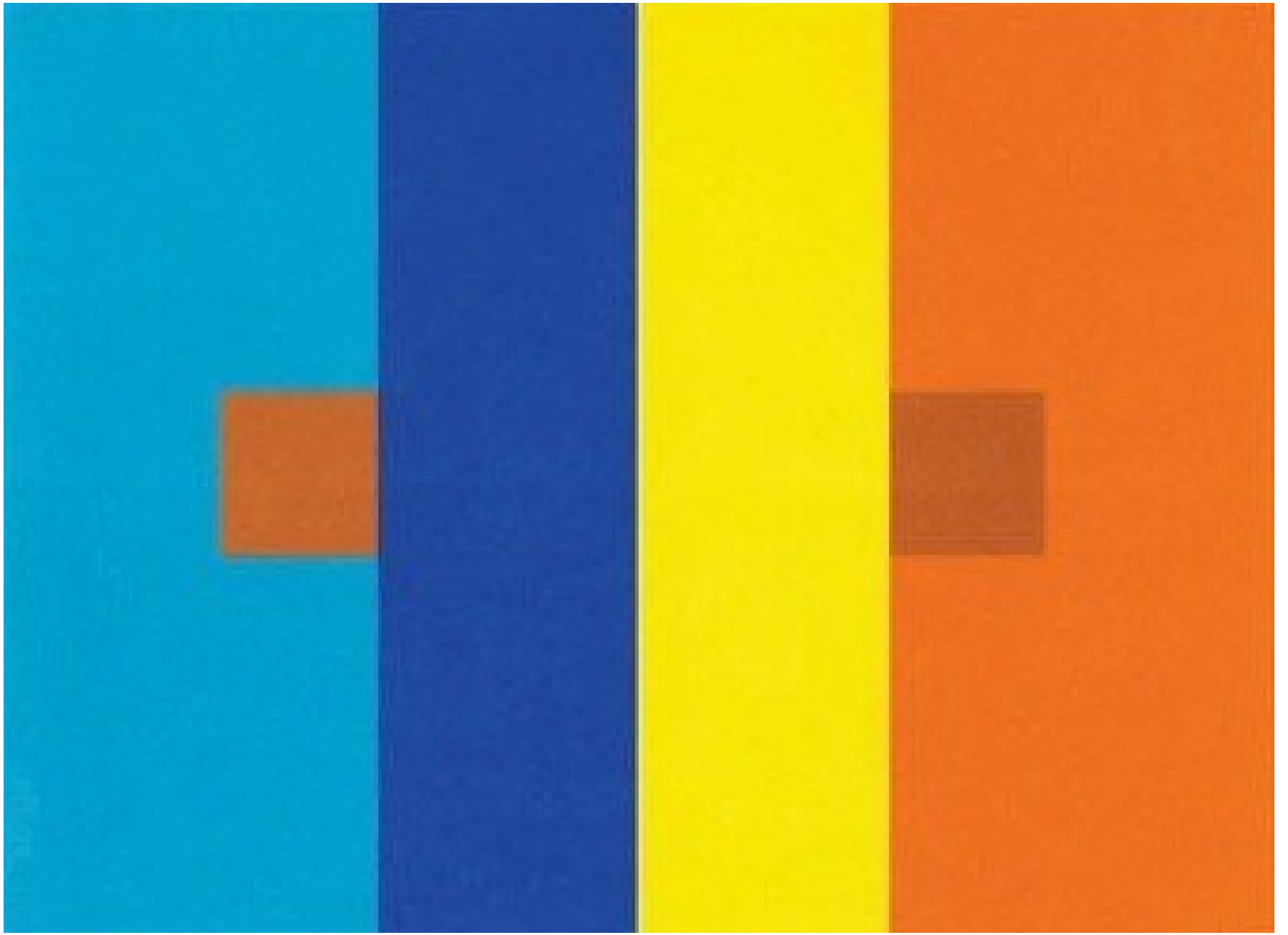


Successive Contrast Effect



Successive Contrast Effect

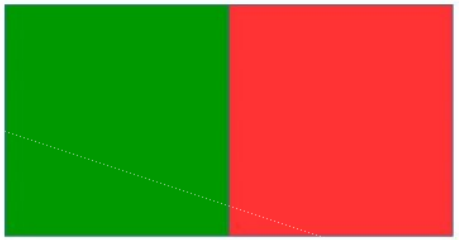


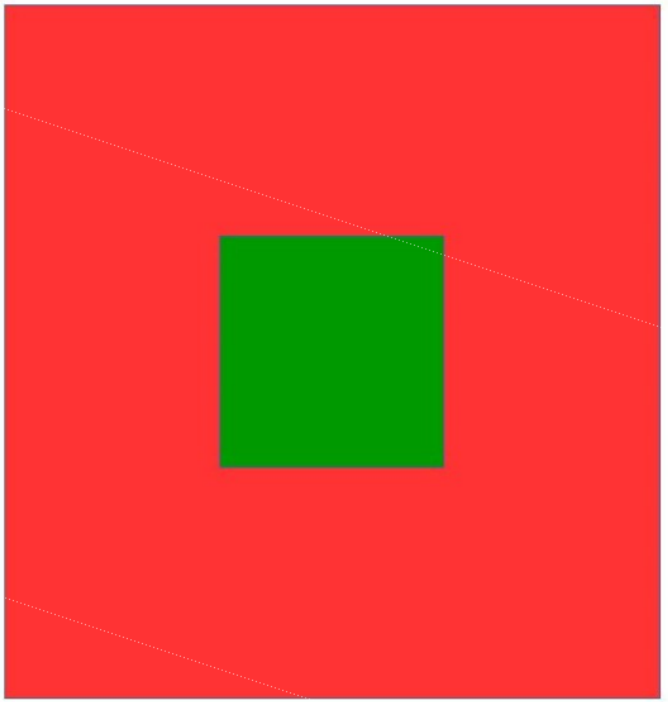


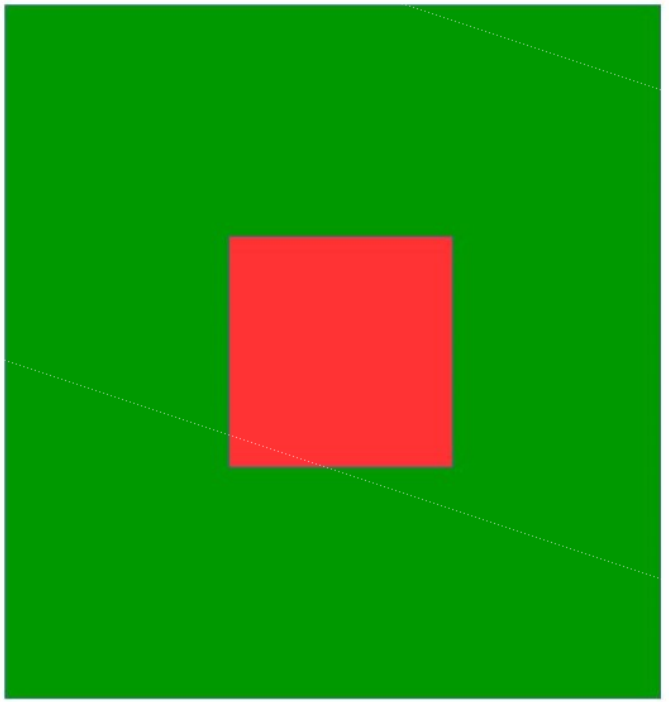
Simultaneous Contrast

- Two hues side-by-side will reflect the complement of each color onto the adjacent color.
- Dark colors will make adjacent colors appear lighter.
- Light colors will make adjacent colors appear darker.
- The color that occupies the least amount of space is changed the most.
- Complements in equal amounts will cause visual vibration.

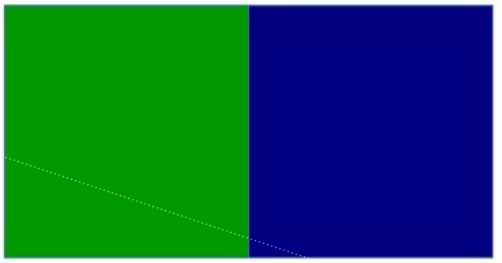
Two hues side-by-side will reflect the complement of each color onto the adjacent color.

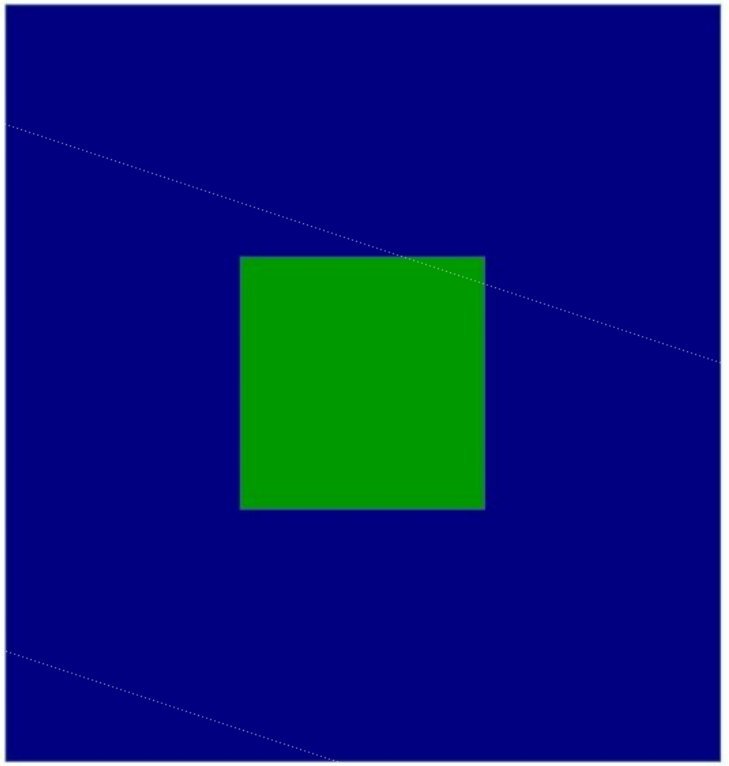


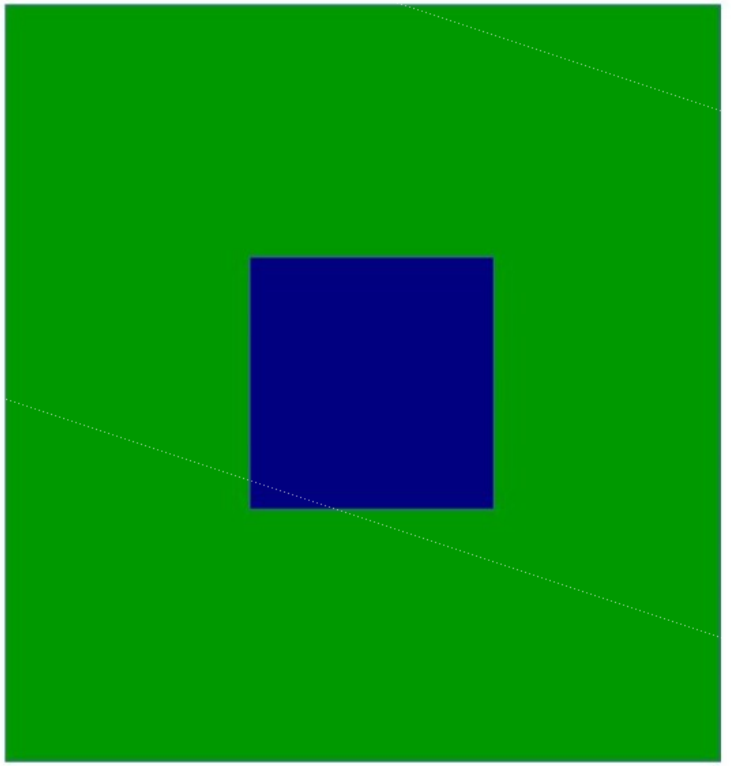




Dark colors make adjacent colors lighter.
Light colors make adjacent colors darker.

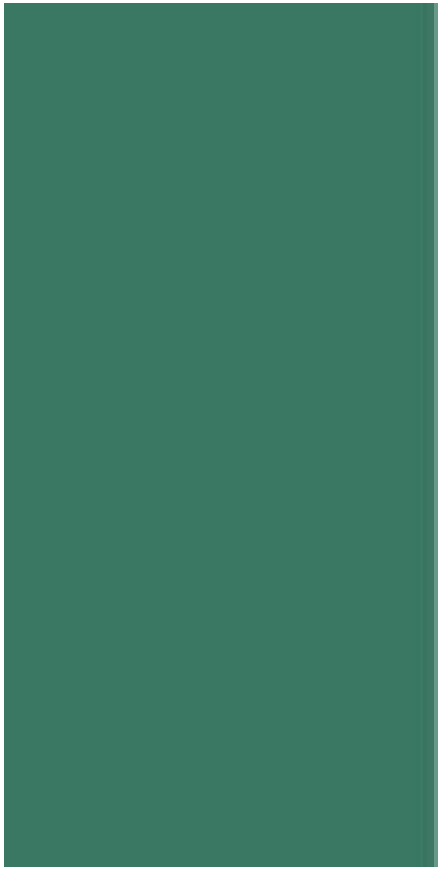






Let’s put it together

Add the complementary color.



Add analogous colors

Add analogous colors

Add analogous colors

Add a third, related color.

Palette

Start with Complements

Add Analogous Color

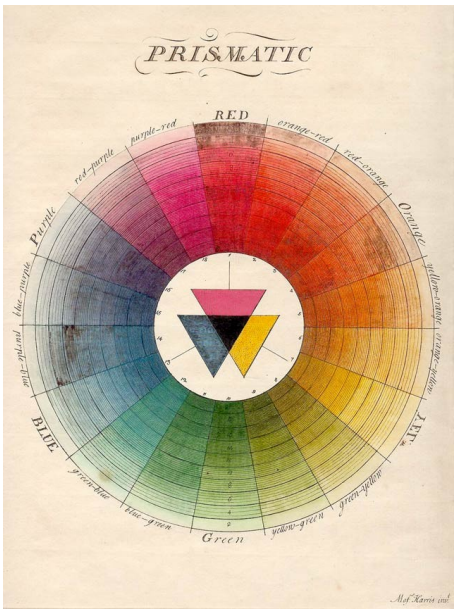
Add Third, Related Color

Add Chromatic Neutrals

Palette

Yarn Palette

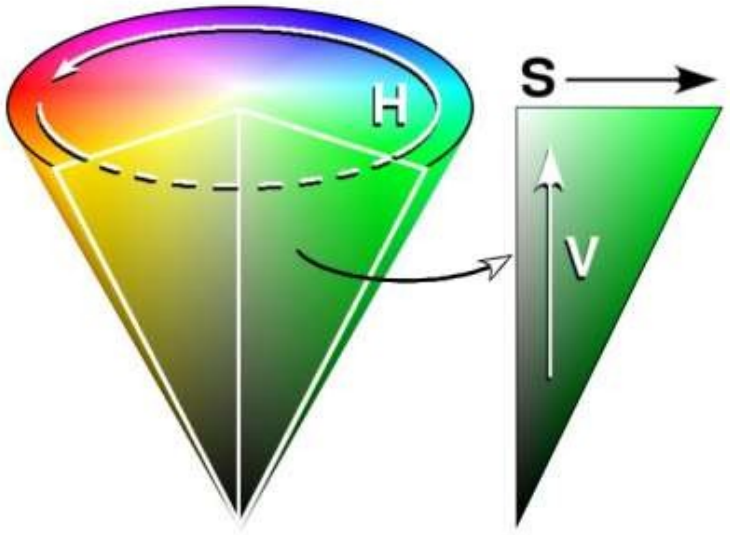
A Color Vocabulary



Moses Harris (15 April 1730 – c. 1788) was an English entomologist and engraver.

In the Natural System of Colours (between 1769 and 1776) he examined the work of Isaac Newton and tried to reveal the multitude of colours which can be created from three basic ones. As a naturalist, Harris wished to understand the relationships between the colours, and how they are coded, and his book attempted to explain the principles, "materially, or by the painters art", by which further colours can be produced from red, yellow and blue. Harris showed what is now known as the subtractive mixing of colours, observing that black is formed by superimposition of the three basic colours.

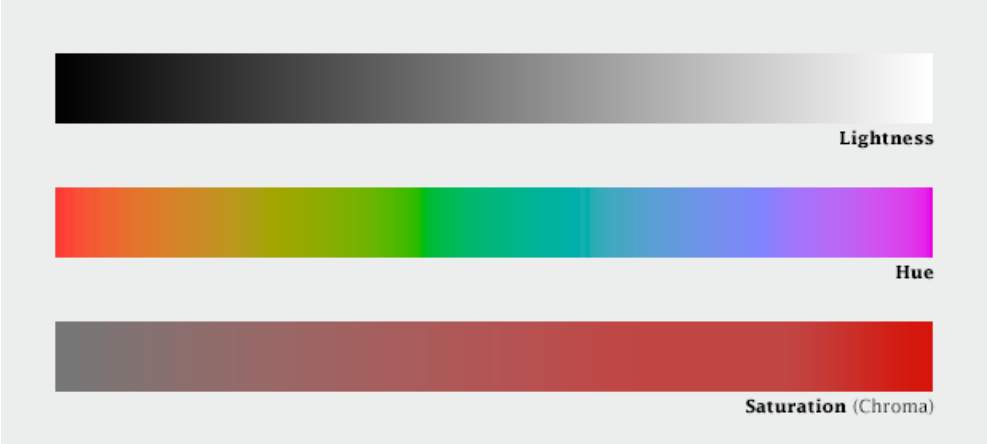
Hue, Saturation, Value



We have many words to describe colors, but it's useful to use the formal words to more accurately describe the colours.

Hue, Saturation and Value give us a good place to start.

Hue, Saturation, Value



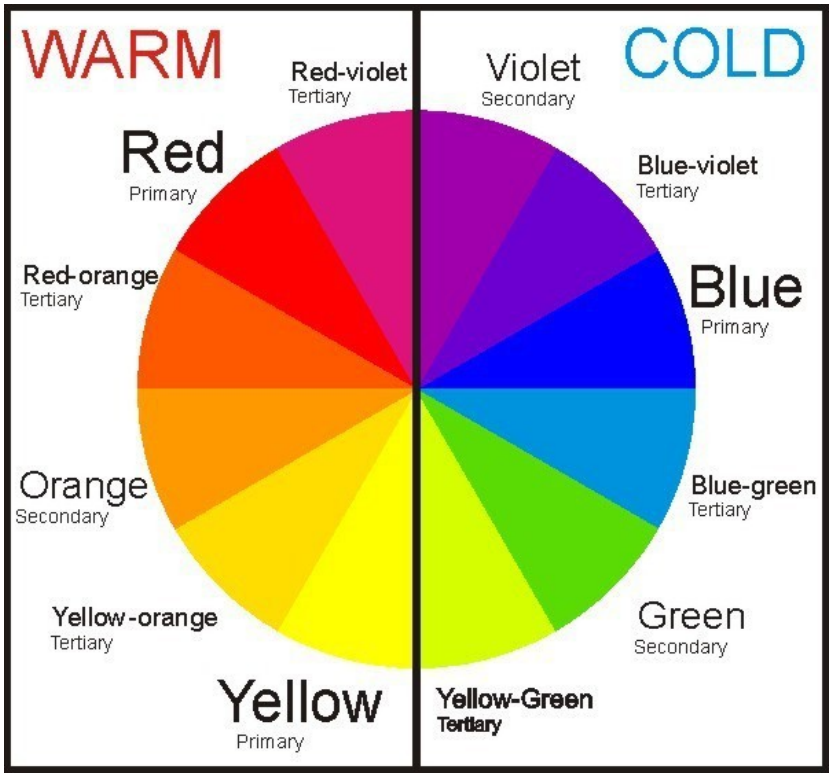
Hue: The color.

Value: The lightness or darkness of a color, created by adding white, grey, or black to create a tint, tone, or shade.

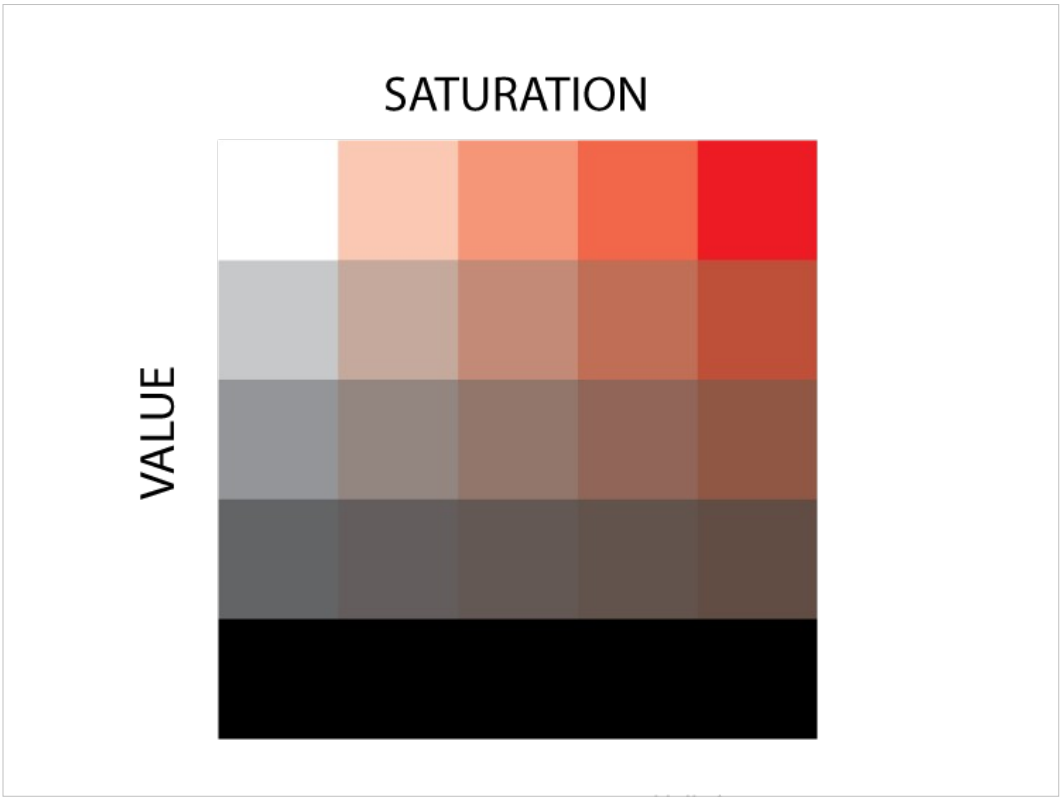
Chroma or Saturation: The Intensity of a color, lessened by adding the color's complement.

Hue

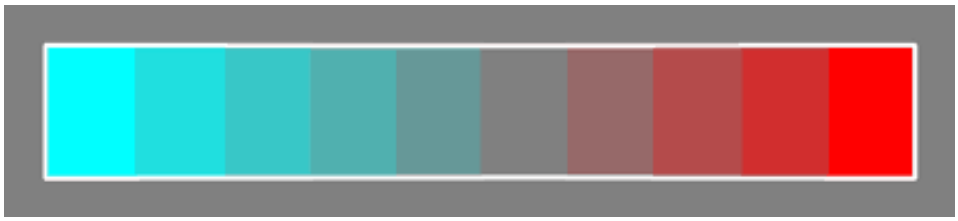
"Hue" is the attribute of a color by virtue of which it is discernible as red, green, etc., and which is dependent on its dominant wavelength, and independent of intensity or lightness.



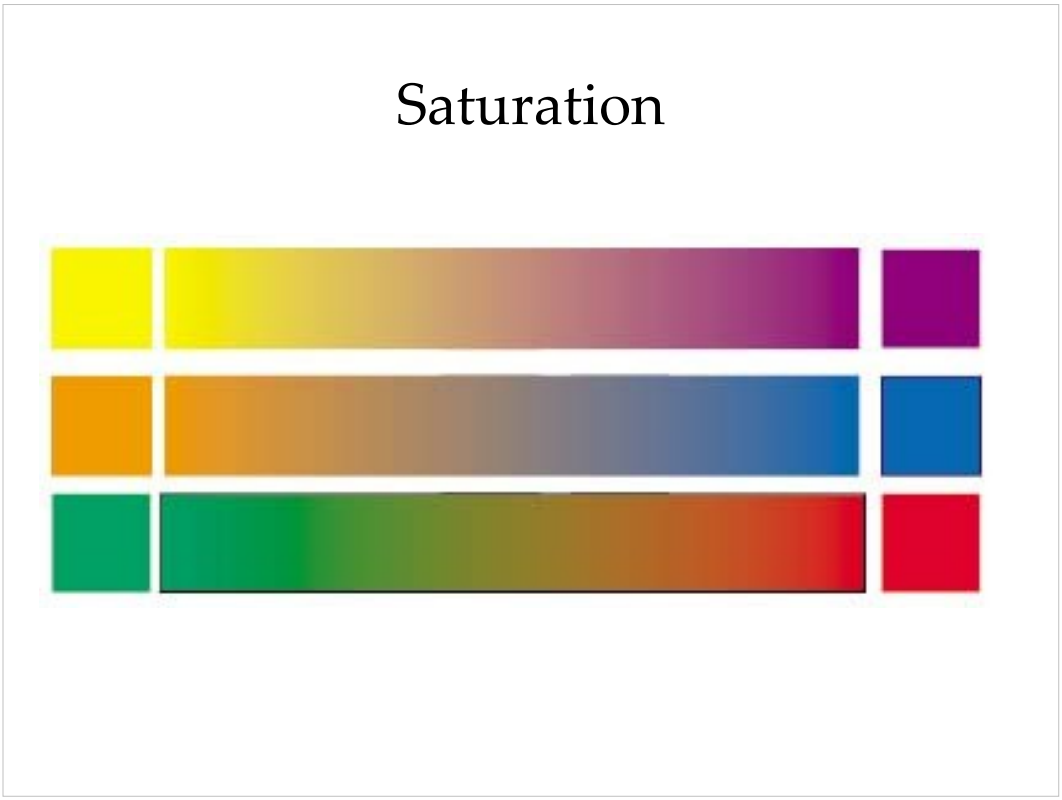
Colors can also be “warm” or “cold.”


SATURATION
VALUE

Saturation



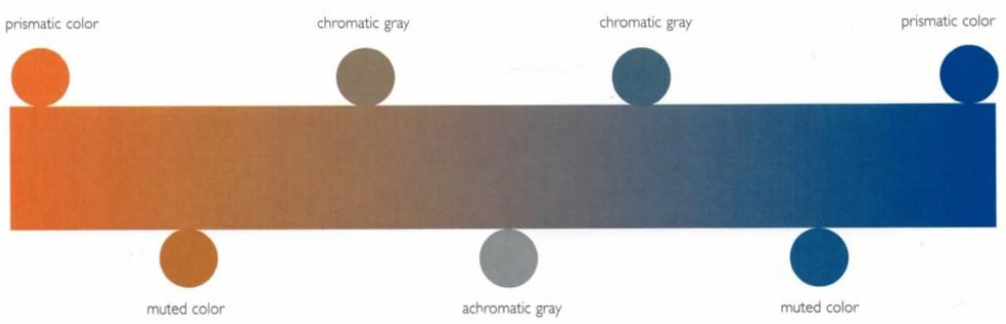
Saturation is the intensity, of a color.
A color is desaturated when it is mixed with its complement.



As you mix a color with its complement, it is less saturated, and moves toward grey, and then toward its complement.

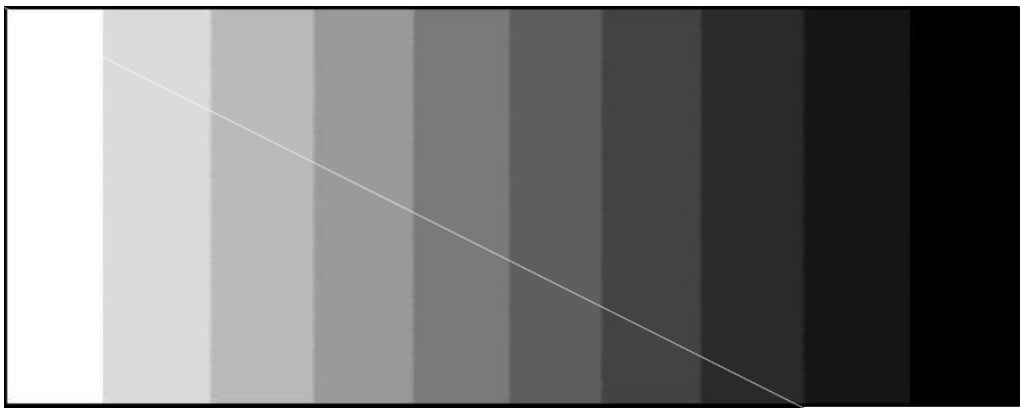
The colors we get as we mix complements are called “Chromatic Neutrals.”

Saturation

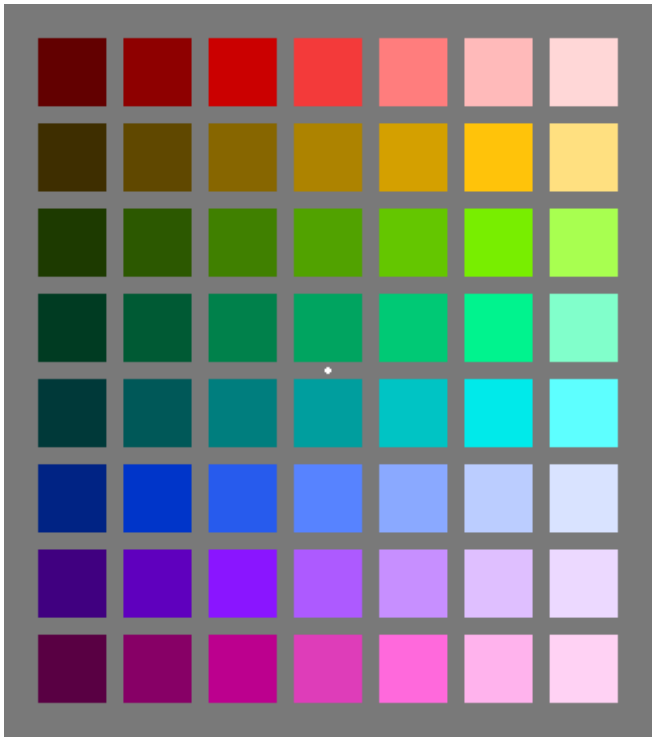


Here we see the chromatic neutrals of an orange grey and a blue grey.

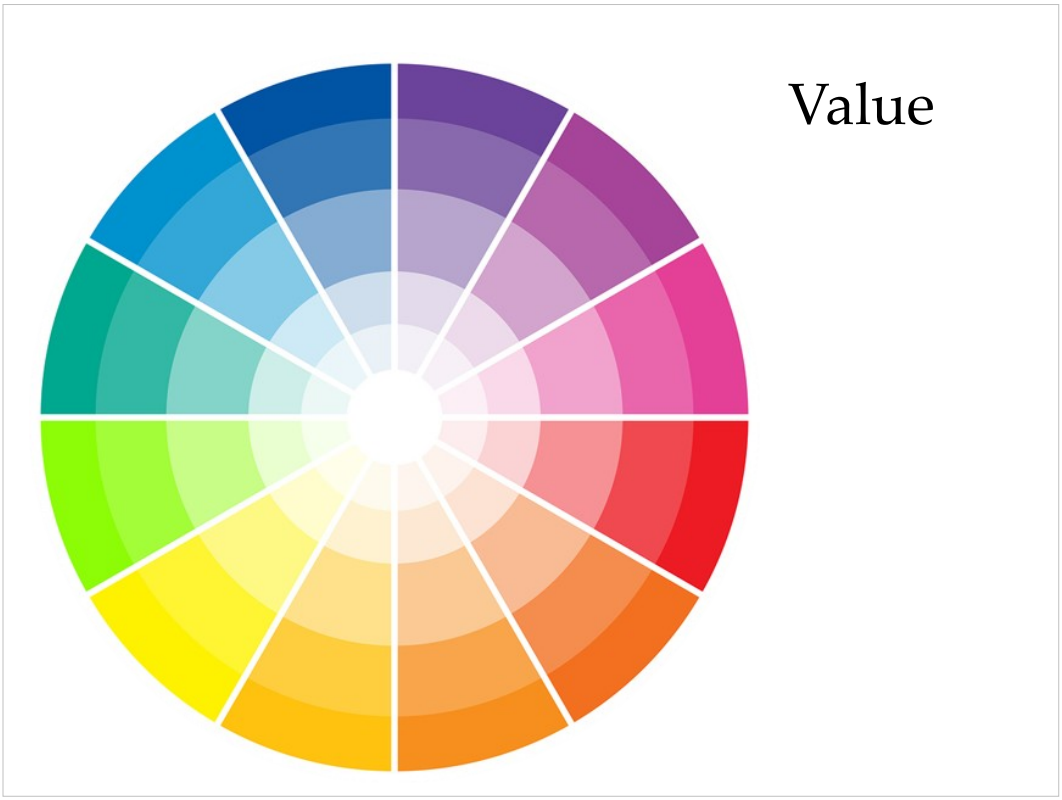
Value



Value is the lightness or darkness of a color. It is created by adding white, grey, or black to a color.



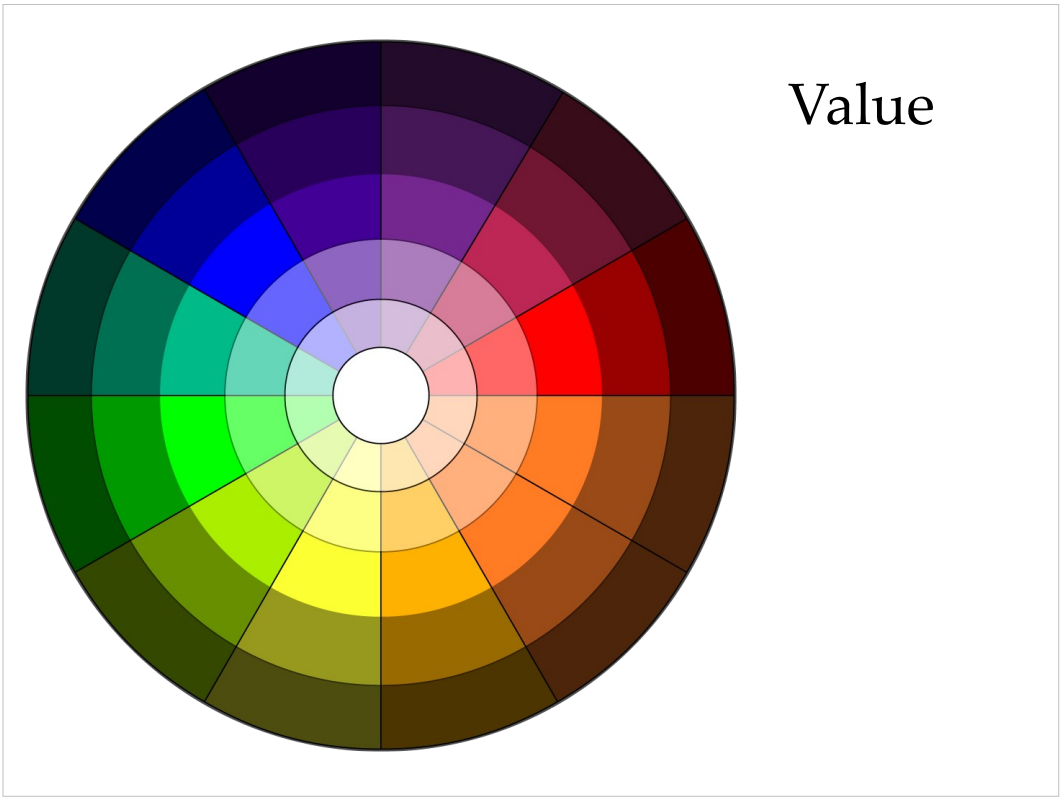
Value



Plus white = tints.

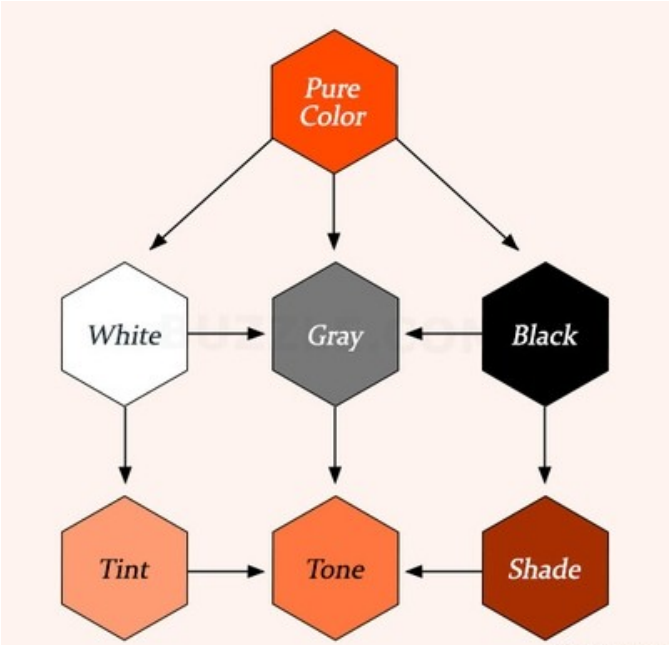
Value

Plus black = shades.

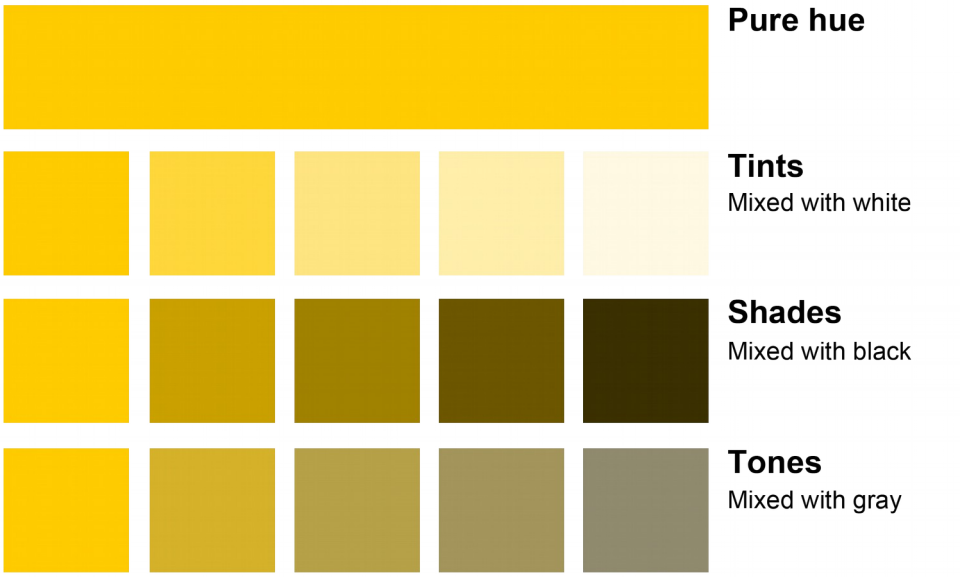


Tints and shades.

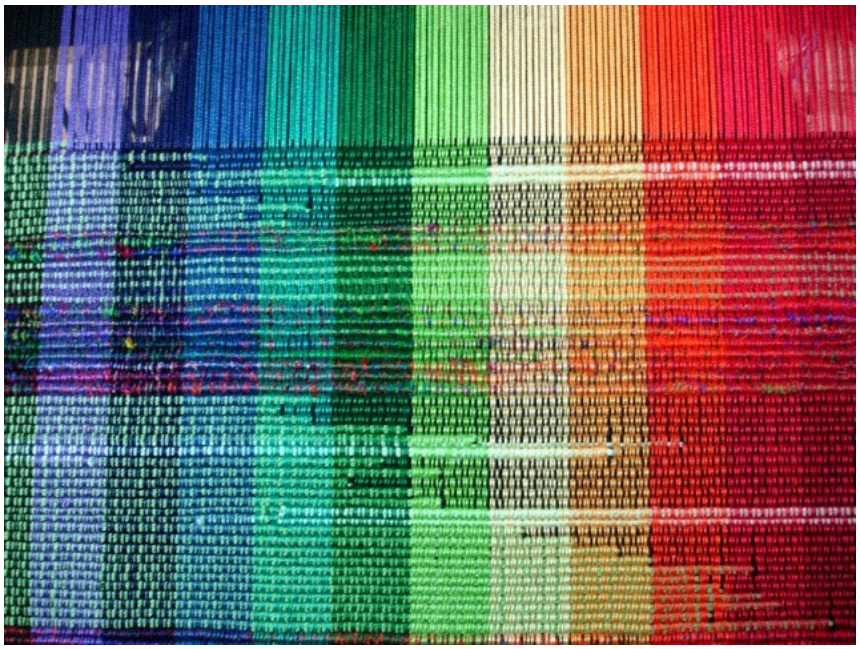
Tint, Tone, Shade



Tint, Tone, Shade

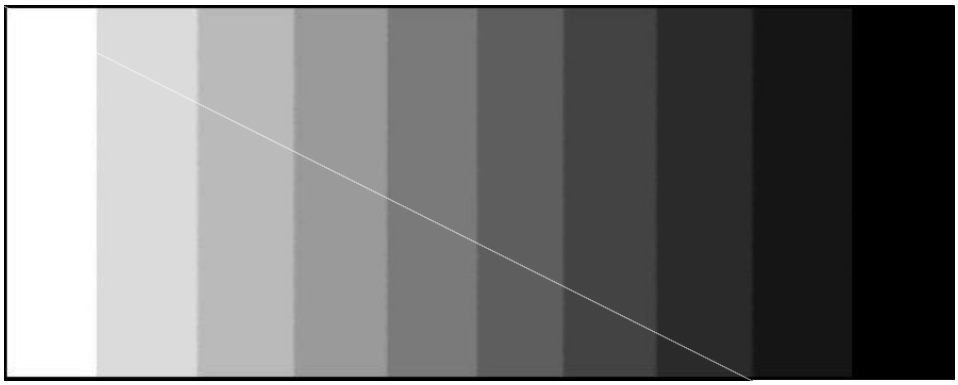


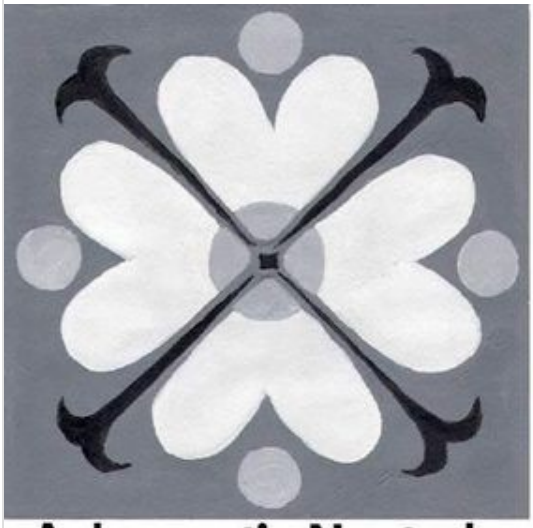
Value



Here we have a weaving sample of weft-clasped fabric, utilizing a dark and a light weft. The warp has the pure chromatic hues, which are shaded by the one weft, and tinted by the other.

Neutrals





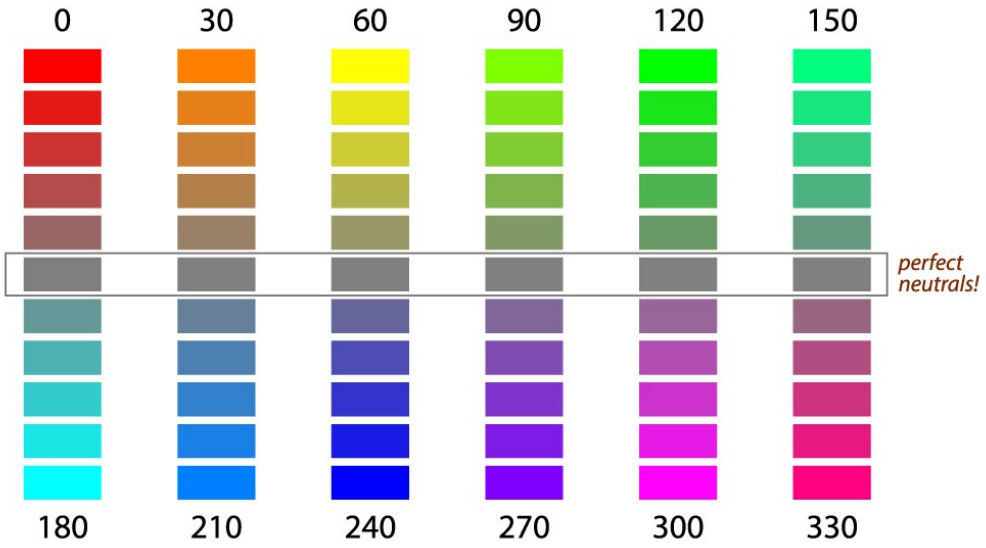
Achromatic Neutrals

Achromatic Neutrals contain no identifiable color. Gray, white and black are rarely seen on color wheels.

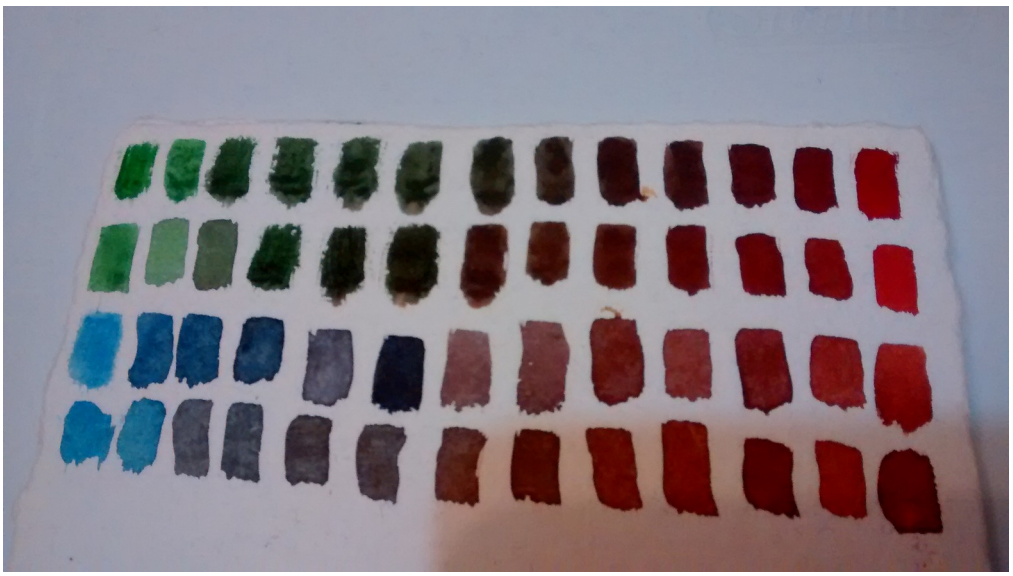
Chromatic Neutrals

Chromatic Neutrals are Dull Hues that contain some discernable color and warm or cool properties. Earth tones are considered neutral colors.

Chromatic Neutrals



Chromatic Neutrals



Here we see a watercolor sample of creating Chromatic neutrals by adding one complement to another.

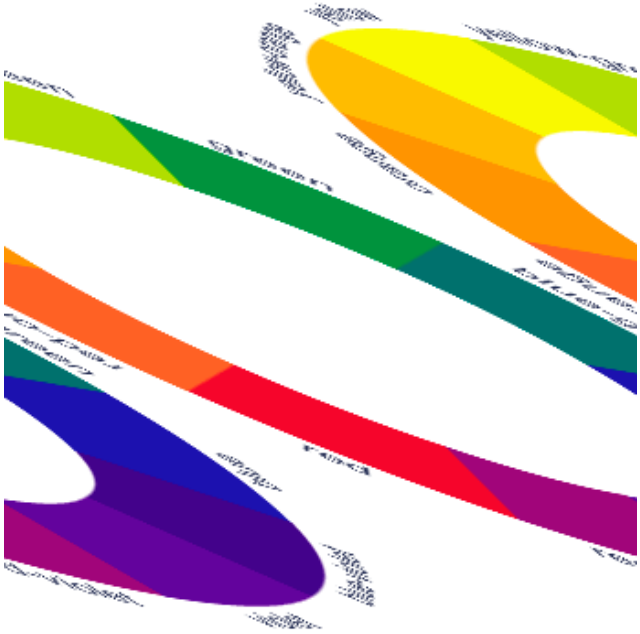
Hue

Joannes Itten's color system is comprised of 12 major hues: yellow, yellow-orange, orange, red-orange, red, red-violet, violet, blue-violet, blue, blue green, green, and yellow-green.

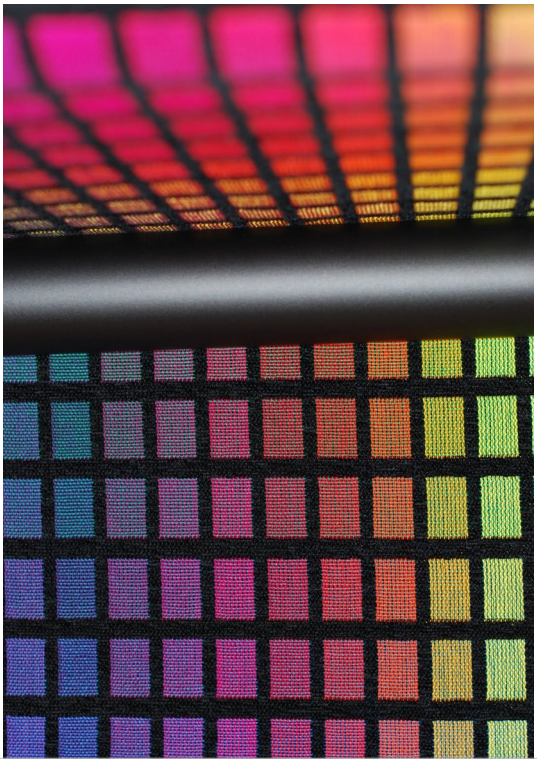
In contrast, the Munsell System is based on ten hues, with the five primaries of red yellow, green, blue, and purple.

And the NCS (Natural Color System) from the Scandinavian Color Institute of Sweden is based on 6 elementary colors: white—black, green-red, and yellow-blue.

Hue



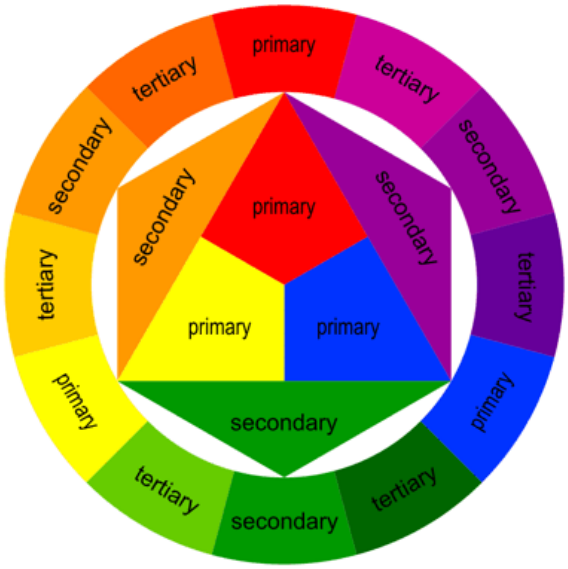
We’re going to largely stick with the Itten color system, because it’s generally the one we learned as children.



Hue

From under the loom by Dawn McFall of MacFallFiber Studio .

Hue



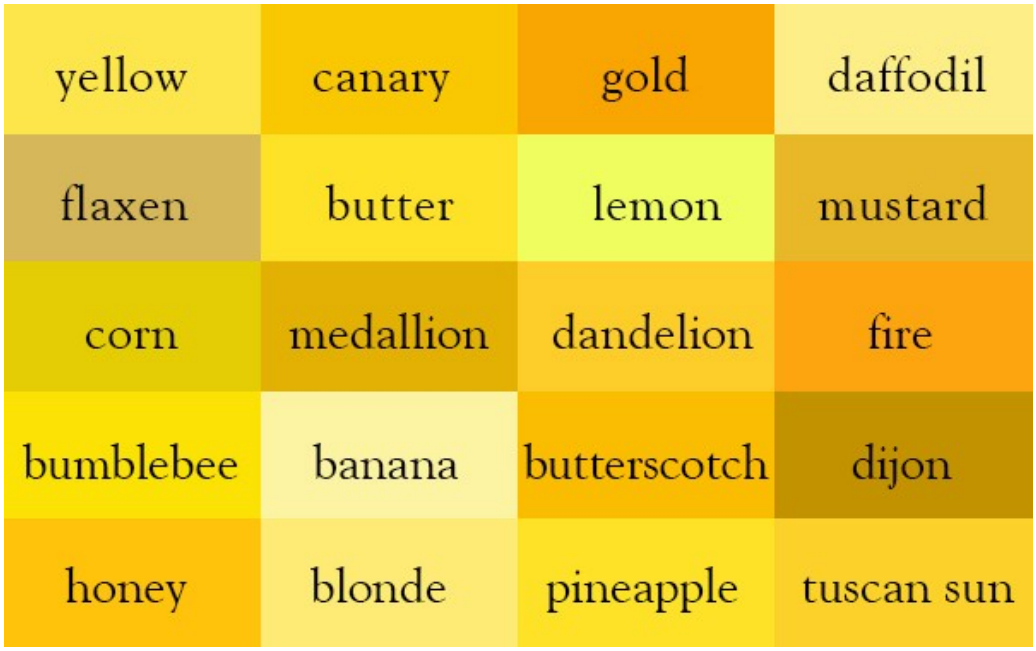
This version of an Itten color wheel shows us the relationship between the Primary, Secondary, and Tertiary colours.

Primary

On Ittens' colour wheel, Red, Yellow, and Blue are the primary colours.

Ingrid Sundberg, a writer and children's book illustrator, created a very useful infographic chart for anyone struggling with color names. These are from her "The Color Thesaurus."

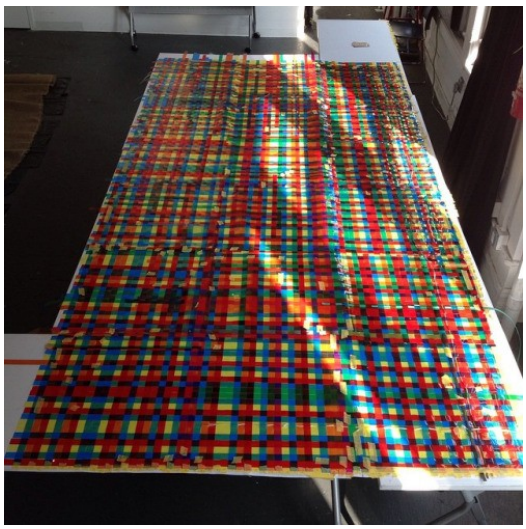
Here are 20 names for "red" for writers to use.


yellow
canary
gold
daffodil
flaxen
butter
lemon
mustard
corn
medallion
dandelion
fire
bumblebee
banana
butterscotch
dijon
honey
blonde
pineapple
tuscan sun


blue
slate
sky
navy
indigo
cobalt
teal
ocean
peacock
azure
cerulean
lapis
spruce
stone
aegean
berry
denim
admiral
sapphire
arctic

Primary

Primary



The unfortunate reality of using a primary palette in fully saturated hues is that the net effect is gaudy.

Left side, Garner Art Center

Right side, kid’s craft project from firstpalette.com

Primary

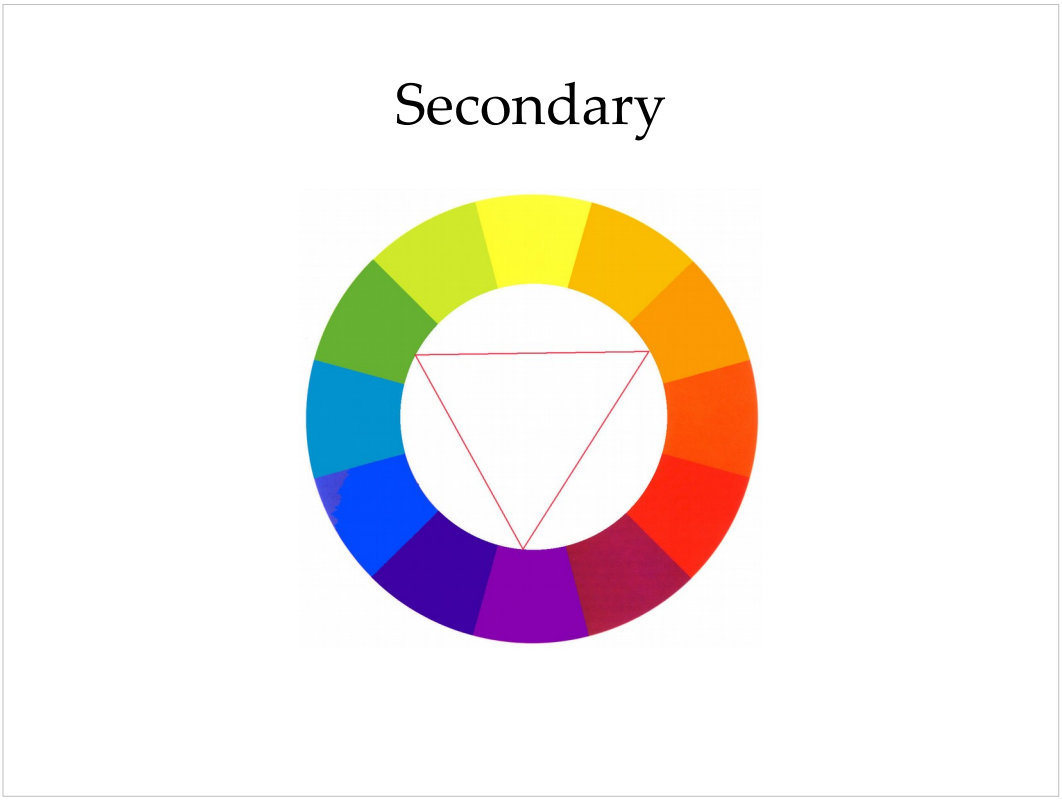
Tien Chiu's
Kodachrome.

Primary

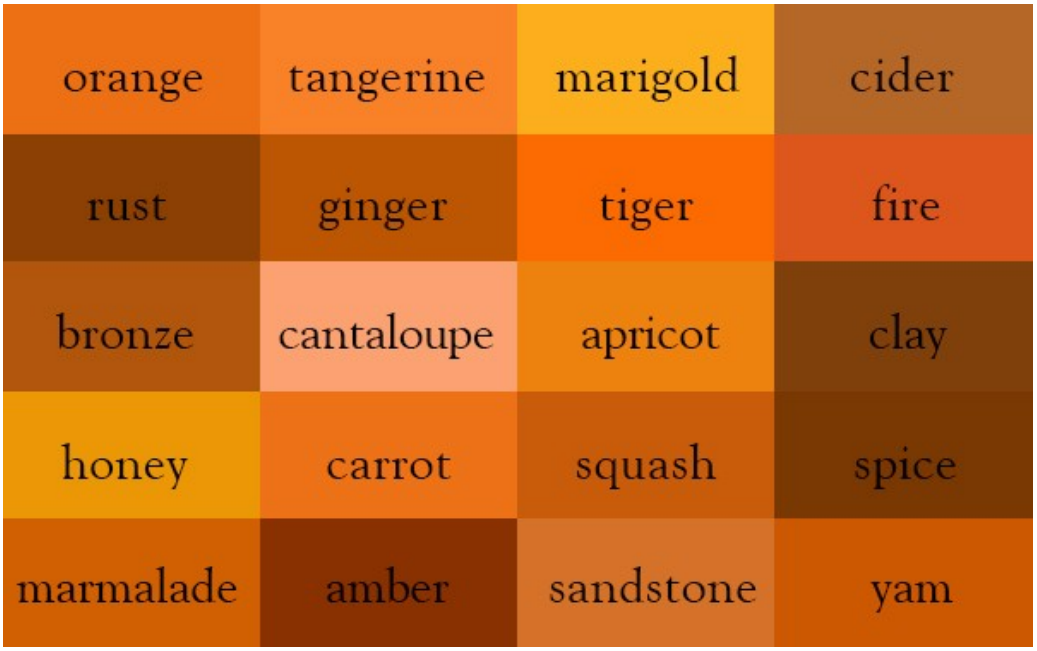
Bandana by Laverne Waddington of backstrapweaving.wordpress.com
Here, the primary colours have been subdued.

Primary

Tribal bracelet from A Sailor Who Weaves on Etsy.



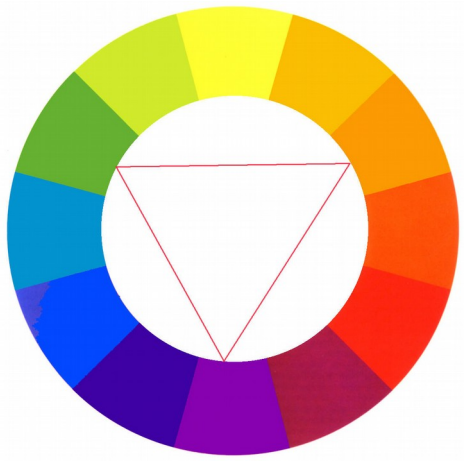
The secondary colours, which are mixtures of the primary colours, if you’re working in pigments, are orange, green, and violet or purple.


orange
tangerine
marigold
cider
rust
ginger
tiger
fire
bronze
cantaloupe
apricot
clay
honey
carrot
squash
spice
marmalade
amber
sandstone
yam


green
chartreuse
juniper
sage
lime
fern
olive
emerald
pear
moss
shamrock
seafoam
pine
parakeet
mint
seaweed
pickle
pistachio
basil
crocodile


purple
mauve
violet
boysenberry
lavender
plum
magenta
lilac
grape
periwinkle
sangria
eggplant
jam
iris
heather
amethyst
raisin
orchid
mulberry
wine

Secondary



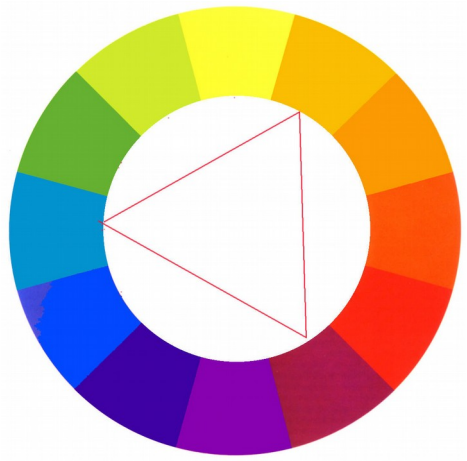
Secondary

Echo Weave on 12 Shafts by Lynette of
Dustbunniesundermyloom.com
is a secondary color scheme.

Secondary

Tien Chiu's
Autumn Splendor

Tertiary Triad



The triadic color scheme uses three colors equally spaced around the color wheel. This scheme is popular among artists because it offers strong visual contrast while retaining balance, and color richness. The triadic scheme is not as contrasting as the complementary scheme, but it looks more balanced and harmonious.

Pros: The triadic color scheme offers high contrast while retaining harmony.

Cons: The triadic color scheme is not as contrasting as the complementary scheme.

Tips: 1. Choose one color to be used in larger amounts than others.

2. If the colors look gaudy, try to subdue them.

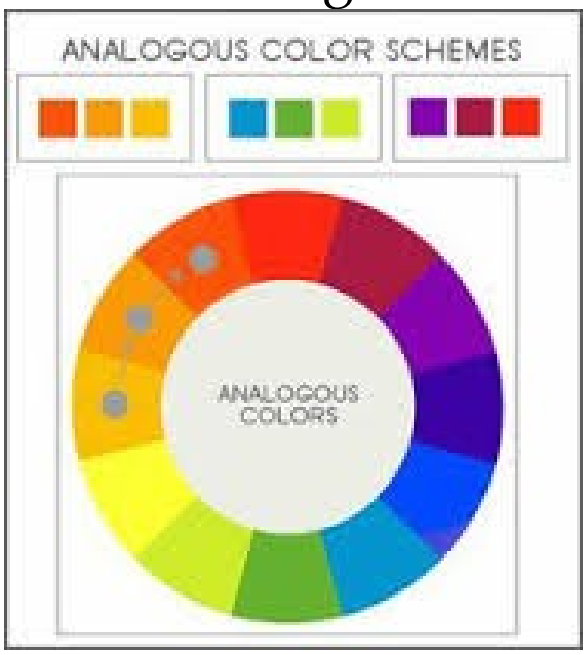
Tertiary Triad

Scarf from the Weaver's Guild of Greater Baltimore uses a
tertiary triad: Red-Blue, Blue-Green, and Yellow-Orange

Tertiary Triad

Handwoven Moroccan Berber rug, Blue with orange and white geometric design

Analogous



The analogous color scheme uses colors that are adjacent to each other on the color wheel. One color is used as a dominant color while others are used to enrich the scheme. The analogous scheme is similar to the monochromatic one, but offers more nuances.

Pros: The analogous color scheme is as easy to create as the monochromatic, but looks richer.

Cons: The analogous color scheme lacks color contrast. It is not as vibrant as the complementary scheme.

Tips: 1. Avoid using too many hues in the analogous scheme, because this may ruin the harmony.

2. Avoid combining warm and cool colors in this scheme.

Analogous

Analogous green babywrap from Pollora

Analogous

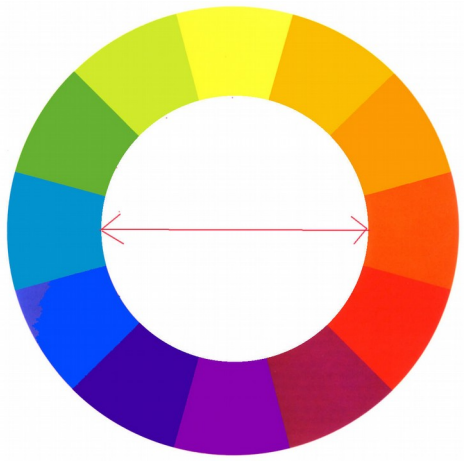
Analgous peacock babywrap from Jen Garrison Stuber at Angryspinner.com

Analogous green babywrap from Pollora

Analogous

Cally Booker’s Mighty Mug rugs

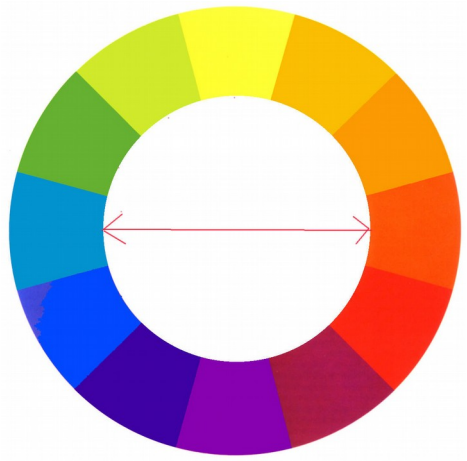
Complementary



The complementary color scheme is made of two colors that are opposite each other on the color wheel. This scheme looks best when you put a warm color against a cool color, for example, red versus green-blue. The complementary scheme is intrinsically high-contrast.

When using the complementary scheme, it is important to choose a dominant color and use its complementary color for accents. Using one color for the background and its complementary color to highlight important elements, you will get color dominance combined with sharp color contrast.

Complementary



Pros: The complementary color scheme offers stronger contrast than any other color scheme, and draws maximum attention.

Cons: This scheme is harder to balance than monochromatic and analogous schemes, especially when desaturated warm colors are used.

Tips: 1. For best results, place cool colors against warm ones, for example, blue versus orange.

2. If you use a warm color (red or yellow) as an accent, you can desaturate the opposite cool colors to put more emphasis on the warm colors.

3. Avoid using desaturated warm colors (e.g. browns or dull yellows).

4. Try the split complementary scheme; it is similar to the complementary scheme but offers more variety.

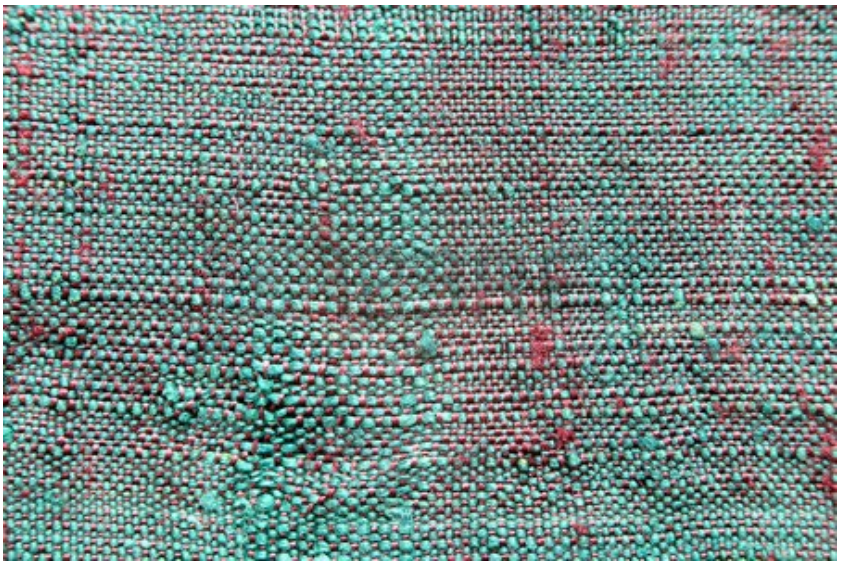
Complementary

Handwoven wool scarf by Kate of KGThreads.

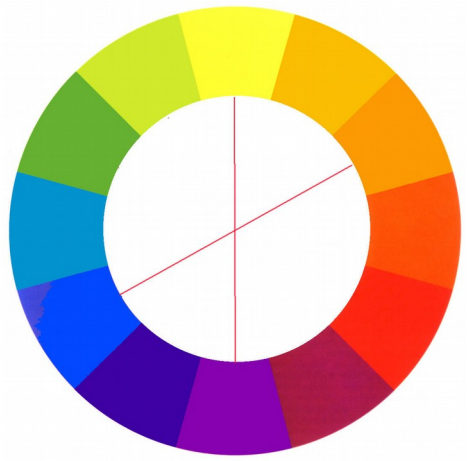
Complementary

Alice Schlein’s Lampas Handwoven/Handmade book.

Complementary



Tetradic or Double Complementary



Take one color, skip one, then pick the next. These plus their opposites create a double complement.

The tetradic (double complementary) scheme is the richest of all the schemes because it uses four colors arranged into two complementary color pairs. This scheme is hard to harmonize; if all four colors are used in equal amounts, the scheme may look unbalanced, so you should choose a color to be dominant or subdue the colors.

Pros: The tetradic scheme offers more color variety than any other scheme.

Cons: This scheme is the hardest scheme to balance.

Tips: 1. If the scheme looks unbalanced, try to subdue one or more colors.

2. Avoid using pure colors in equal amounts.

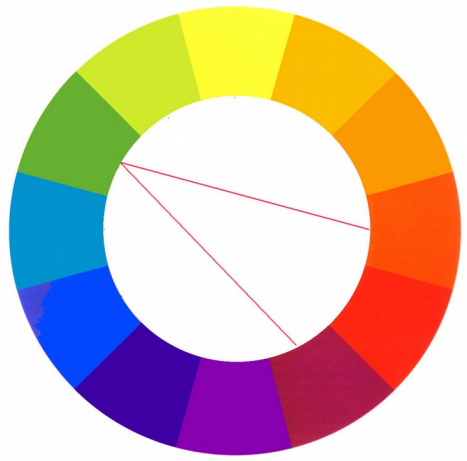
Double Complementary

Cally Booker, 8shaft Double Weave Blocks in Yellow-Violet and Orange-Blue Double Complement, or Tetradic Complementary.

Tetradic or Double Complementary

Rug, from Hillary at Crazy as a Loom

Split-Complementary



The split complementary scheme is a variation of the standard complementary scheme. It uses a color and the two colors adjacent to its complementary. This provides high contrast without the strong tension of the complementary scheme.

Pros: The split complementary scheme offers more nuances than the complementary scheme while retaining strong visual contrast.

Cons: The split complementary scheme is harder to balance than monochromatic and analogous color schemes.

Tips: 1. Use a single warm color against a range of cool colors to put an emphasis on the warm color (red versus blues and blue-greens, or orange versus blues and blue-violets).

2. Avoid using desaturated warm colors (e.g. browns or dull yellows), because this may ruin the scheme.

Split-Complementary

Annual Christmas Towels by Jenny Bellairs of Daisy Hill Weaving Studio.
Monk's Belt pattern from Handwoven Design Collection #18 in
light orange, red, green and yellow.

Split-Complementary

Tartan by Rocky Top Weaver.

Monochromatic

Clyde Aspevig's "End of June" is done with an analogous scheme with colors located between blue and yellow.

Monochromatic

The monochromatic color scheme uses variations in lightness and saturation of a single color. This scheme looks clean and elegant. Monochromatic colors go well together, producing a soothing effect. The monochromatic scheme is very easy on the eyes, especially with blue or green hues. The primary color can be integrated with neutral colors such as black, white, or gray.

Pros: The monochromatic scheme is easy to manage, and always looks balanced and visually appealing.

Cons: This scheme lacks color contrast. It is not as vibrant as the complementary scheme.

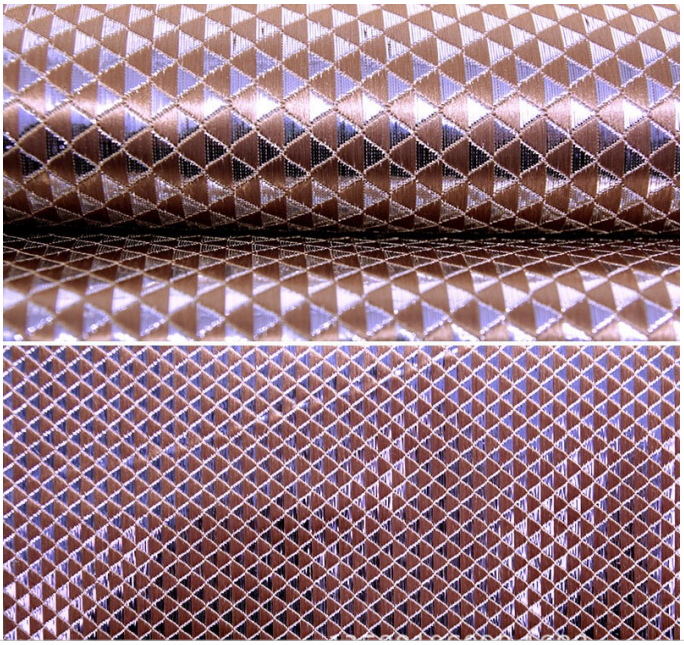
Tips: 1. Use tints, shades, and tones of the key color to enhance the scheme.

2. Try the analogous scheme; it offers more nuances while retaining the simplicity and elegance of the monochromatic scheme.

Monochromatic

Moss and Pond by Second Wind

Luster



Luster is the impression of subdued light.

Luster is best achieved by surrounding bright colours with a dark field (black or blackened neutrals) which make the hues appear brighter than they are.

Lustrous colours take on a shiny metallic quality.

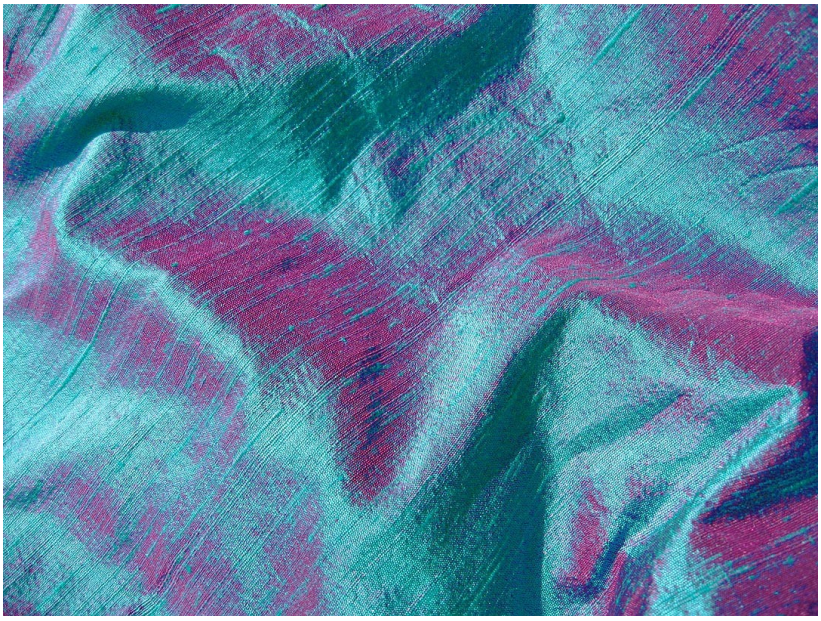
Consider the following to create luster: the background is medium to dark grey, the object is outlined in black, the area within the object is graded from light to near black.

Iridescence

Iridescence in fabric as having the characteristic of appearing to change color as you change your angle of view – or at least, one color predominates over the other as you change your angle of view. Color difference, luster in the yarn, and weave structure all affect the degree of apparent iridescence.

Two colour warp clasped weft scarf from Katie from Twisp of Fate.com

Iridescence

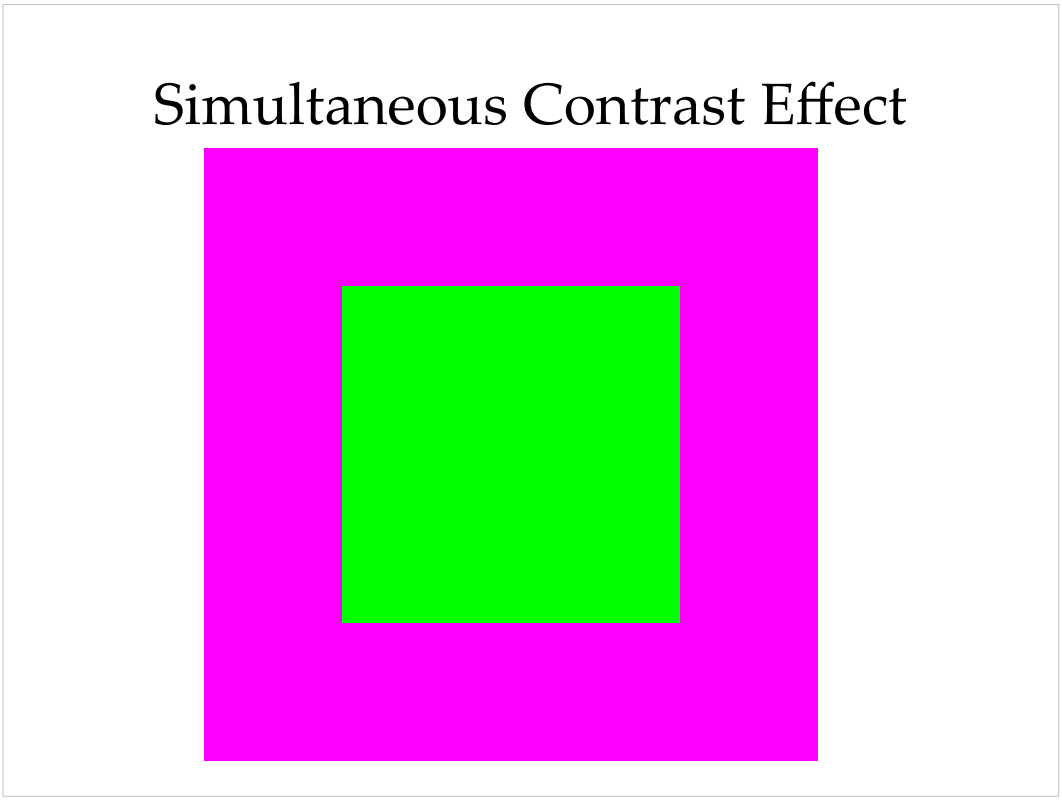


Hues must have white added to them to achieve iridescence.

The dominant hues used for iridescence should be equal in value to each other so there is no contrast.

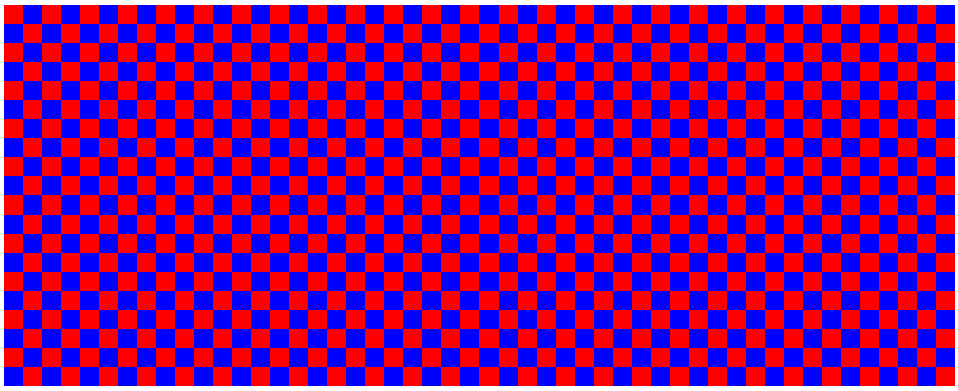
This gives iridescence a Simultaneous Contrast Effect.

Using adjacent or analogous hues will enhance the iridescent effect: think of the colors of peacock feathers: green, blue, and purple.



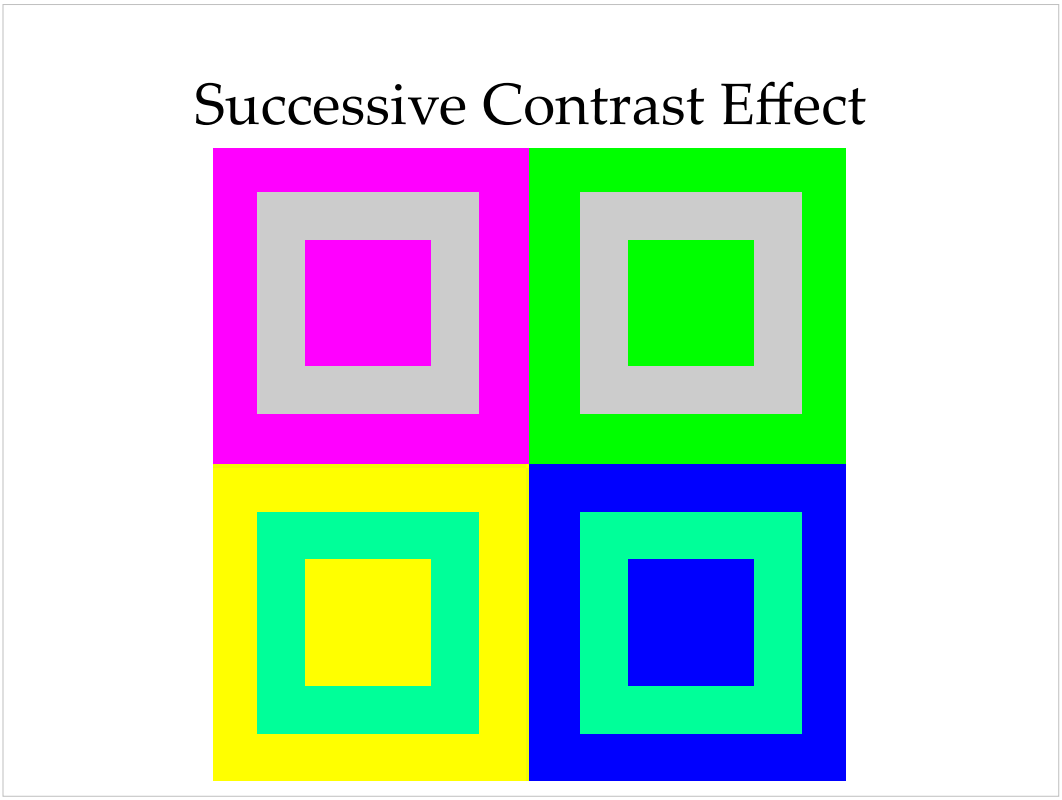
The simultaneous-contrast effect occurs between two adjacent complementary colors—for example, magenta and green—because each color takes on the hue of its complement and both colors appear to vibrate.

Bezold Effect in Iridescence



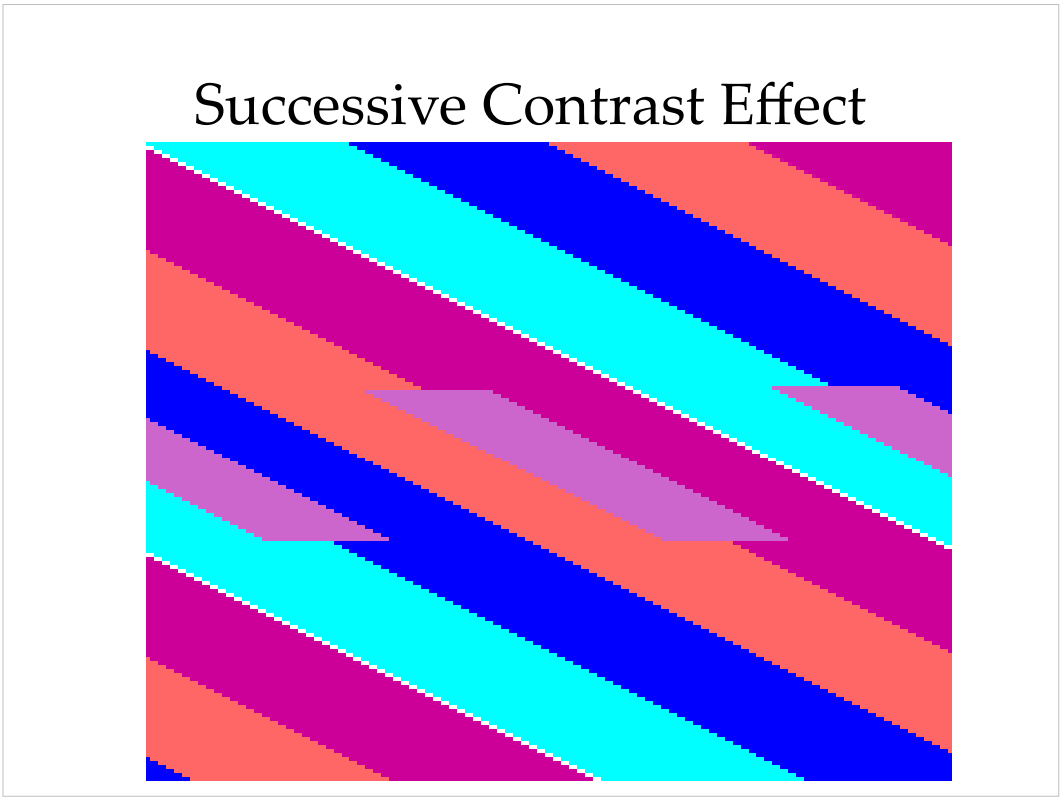
The Bezold effect is an optical illusion, named after a German professor of meteorology, Wilhelm von Bezold (1837–1907), who discovered that a color may appear different depending on its relation to adjacent colors.

Two-pixel squares of red and blue influence one another, so the red takes on a bluish cast and the blue takes on a reddish cast. This creates a very strong simultaneous-contrast effect.



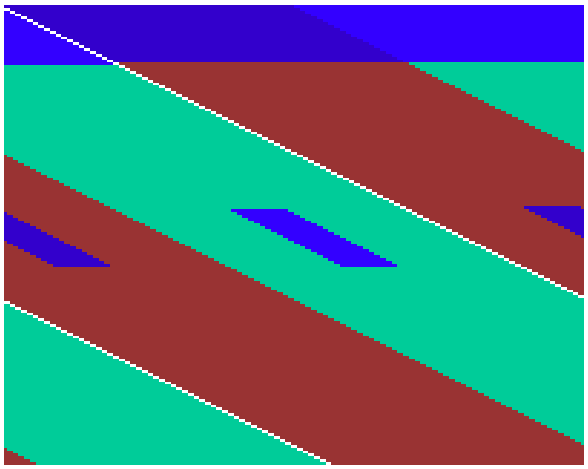
You can diminish the simultaneous-contrast effect by separating areas of complementary colors with black, gray, or white outlines.

When surrounded by magenta, silver (#CCCCCC) appears greenish; when surrounded by green, pinkish. Green (#00FF99) appears cool, or bluish, when surrounded by yellow (#FFFF00); warm, or yellowish, when surrounded by blue (#0000FF).

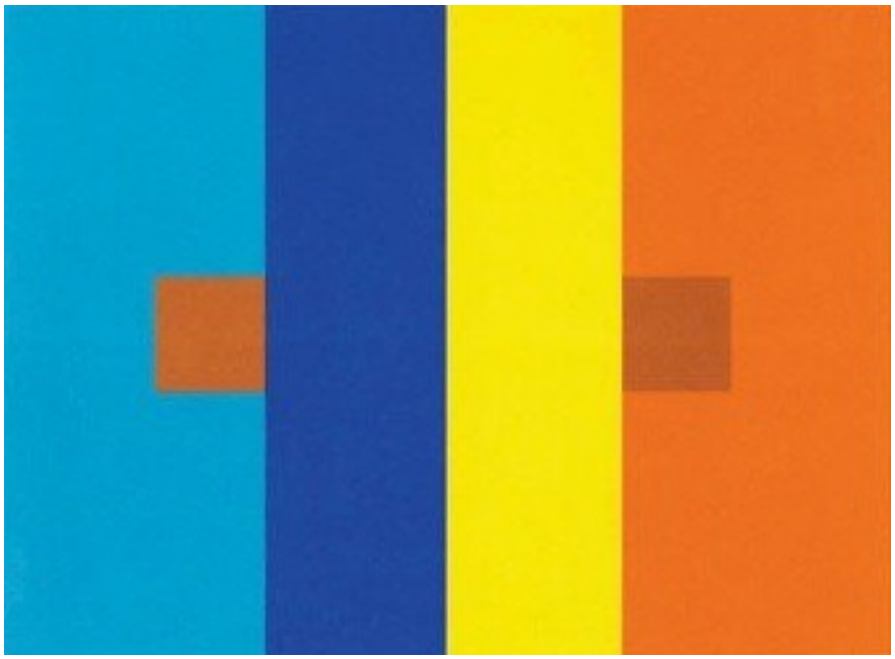


Two small rectangles of lilac (#CC66CC) surrounded by different colors appear to be different hues. The colors to the left and right of the rectangle on the left are cyan (#00FFFF) and blue (#0000FF); the rectangle on the right, coral (#FF6666) and bright cobalt violet (#CC0099). The rectangle on the left has an orange cast; that on the right, a blue-green cast. -

Successive Contrast Effect



On the same principle, two different hues can appear to be the same, depending on their background colors. In this example, two different blues—deep lapis lazuli blue (#3300CC) on a background of Persian rose (#993333) and lapis lazuli blue (#3300FF) on a background of deep thalo green (#00CC99)—appear to be the same hue.



This is one of the most famous examples of Successive Contrast Effect. It's the cover of Josef Albers' book, Interaction of Color.

Are the small orange squares the same colour, or different colours?

Simultaneous Contrast

- Two hues side-by-side will reflect the complement of each color onto the adjacent color.
- Dark colors will make adjacent colors appear lighter.
- Light colors will make adjacent colors appear darker.
- The color that occupies the least amount of space is changed the most.
- Complements in equal amounts will cause visual vibration.

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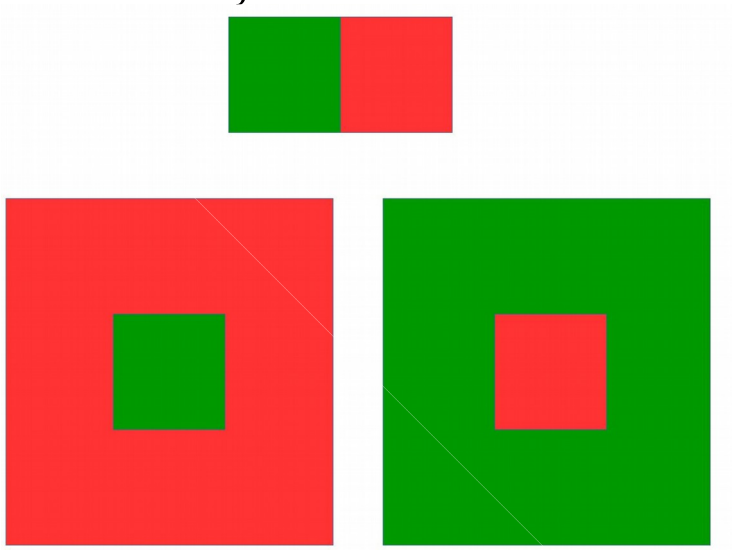
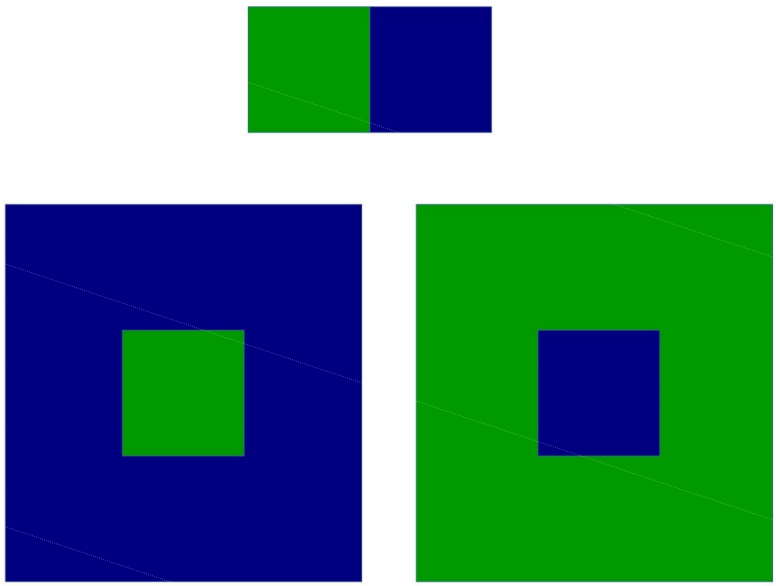


Dark colors make adjacent colors lighter.
Light colors make adjacent colors darker.



Let’s put it together

Add the complementary color.

Add analogous colors

Add analogous colors

Add analogous colors

Add a third, related color.

Palette

Now, this is from Design-Seed.com, and I engineered it backward, working from this photo and applying these color rules. But let’s see what it looks like the other way.

Start with Complements

Add Analogous Color

Add Third, Related Color

Add Chromatic Neutrals

Palette

Yarn Palette

Handtowels from Angryspinner.com

Visual (Weaving) Joke.

(“The End”)

From Angryspinner.com