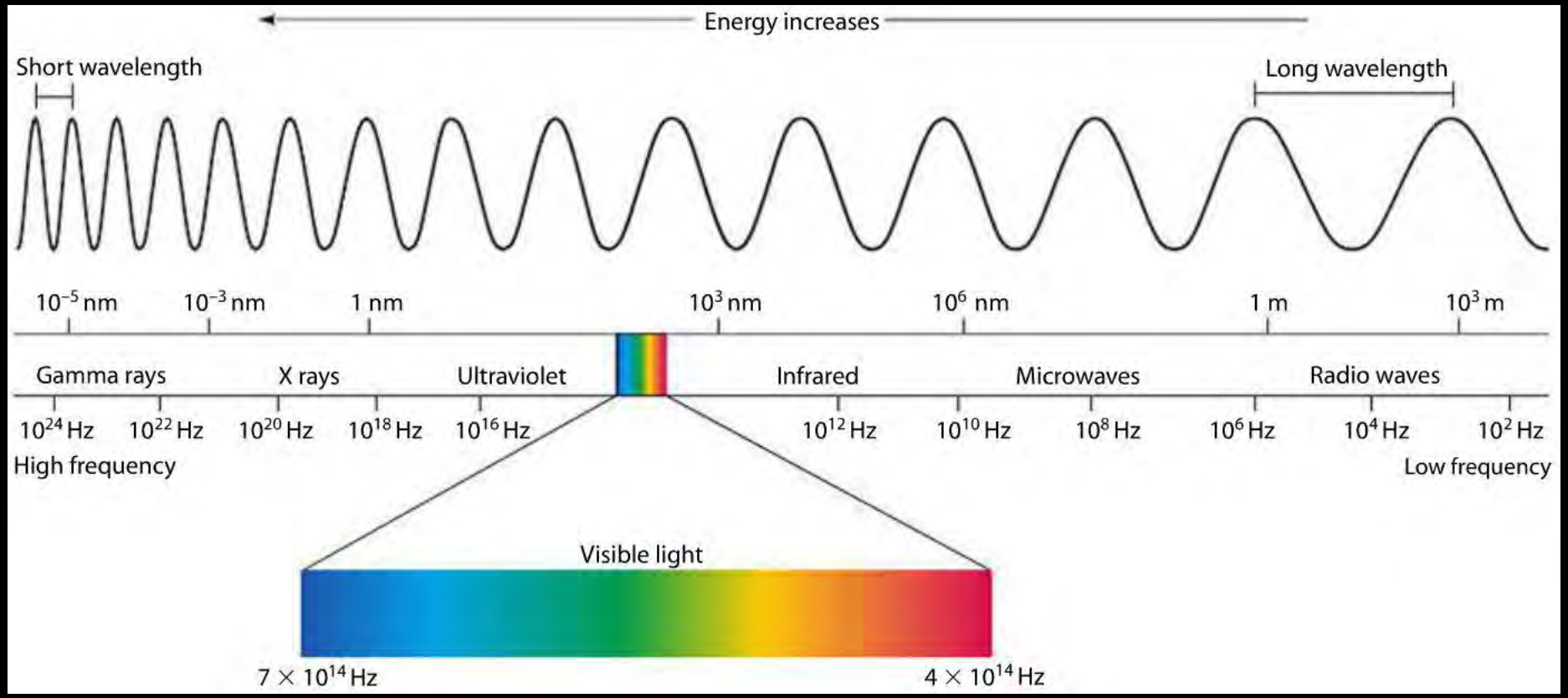
MassArt PCE - Intro to Digital Photo - Fall 2020 - Morrison
Class 5: 10/8/20

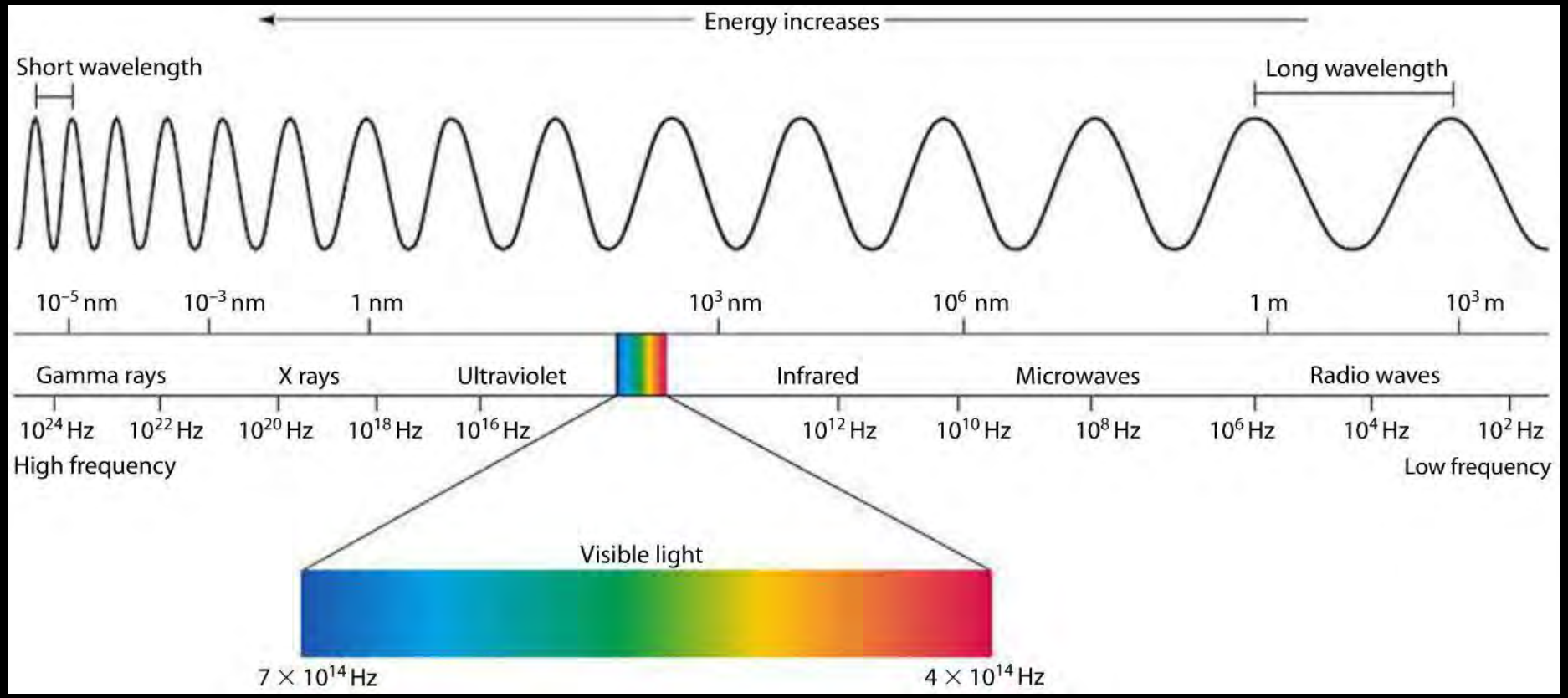
Color I:
The Color of Light

The Color of Light



Light is the visible portion of the Electromagnetic Spectrum

The Color of Light



Light is the visible portion of the Electromagnetic Spectrum

When all of the colors of the visible spectrum are ***mixed in relatively equal proportions***, that is **WHITE LIGHT**.

COLOR TEMPERATURE

12,000°K — Skylight (Open Shade)

7000°K — Overcast Sky

5500°K — Electronic Flash
Standard Daylight
(middle 2/3 of day
with sun and sky
All Daylight Films

3200°K — Photoflood Bulbs
Tungsten Balanced Films

2800°K — Incandescent Bulbs
Sunrise/Sunset

2000°K — Candlelight

Non-Continuous Spectrum Emitters (Non-White Light)

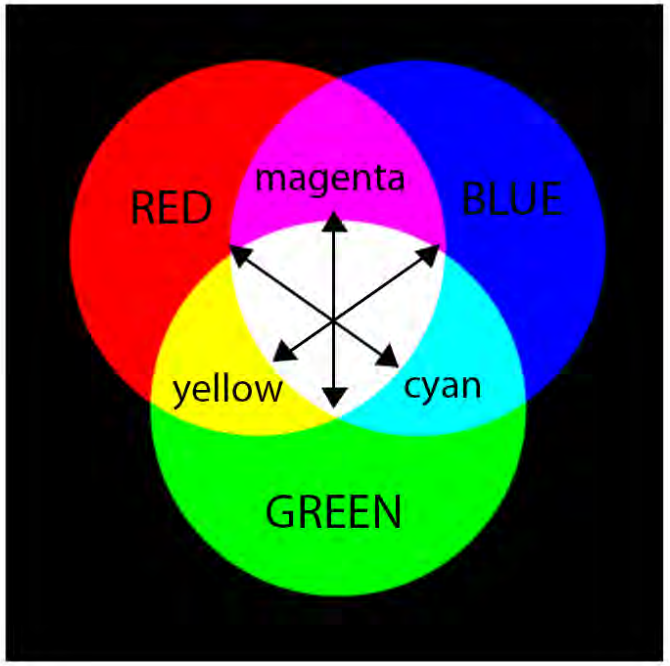
Sodium and Mercury Vapor Street lamps

Green Flourescents

Non-continuous spectrum emitters are NOT white light,
as they are missing one or more wavelength(s) of the visible spectrum

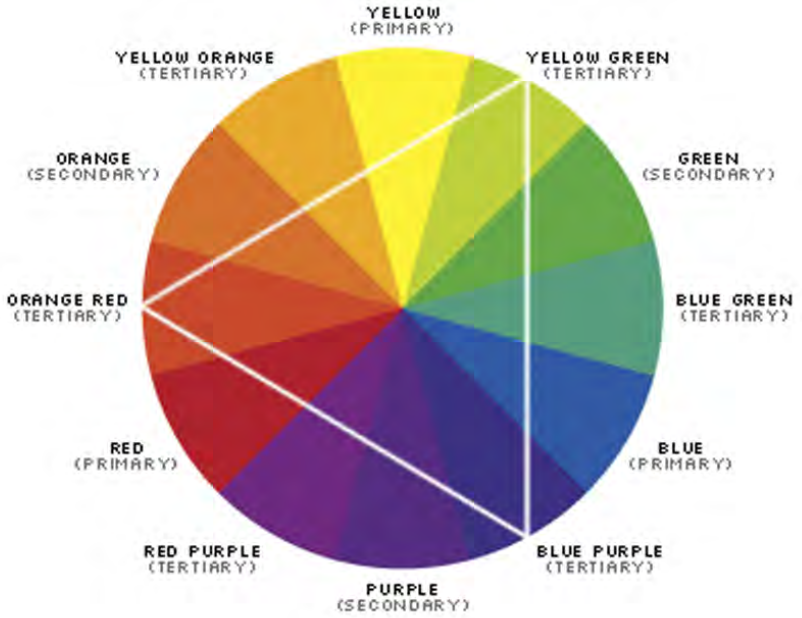
The Color Wheel of Light

Each color here is pointing at its opposite, or complement.
The circles--RED, GREEN, and BLUE---are the primary colors of light.
The points of intersection show the combinations of two primary colors.
All the colors of light cobined together---as indicated in the center---make WHITE LIGHT.



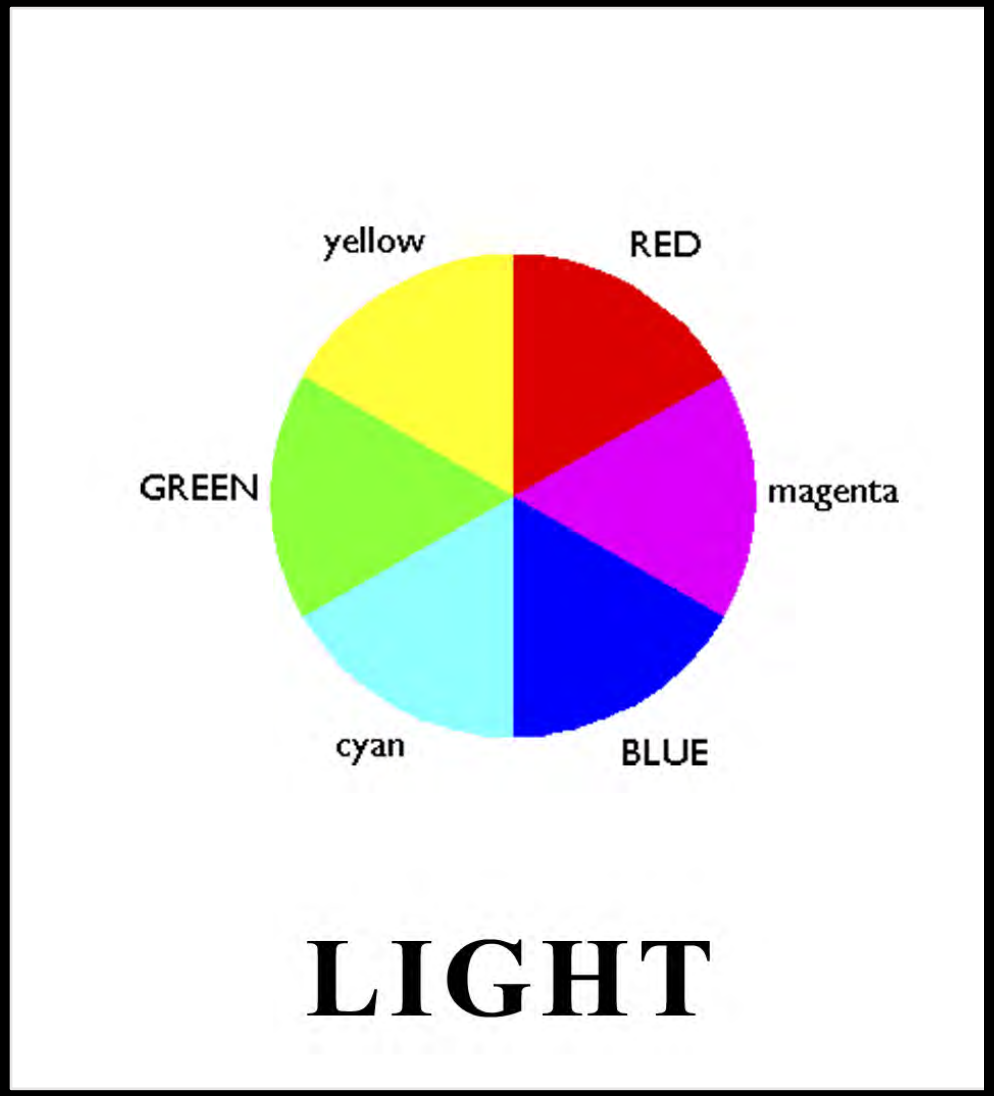
Light vs. Pigment

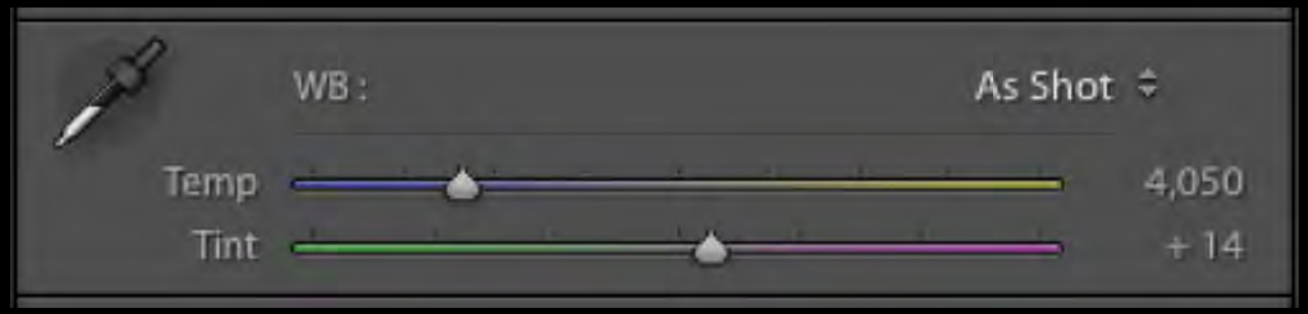
LIGHT



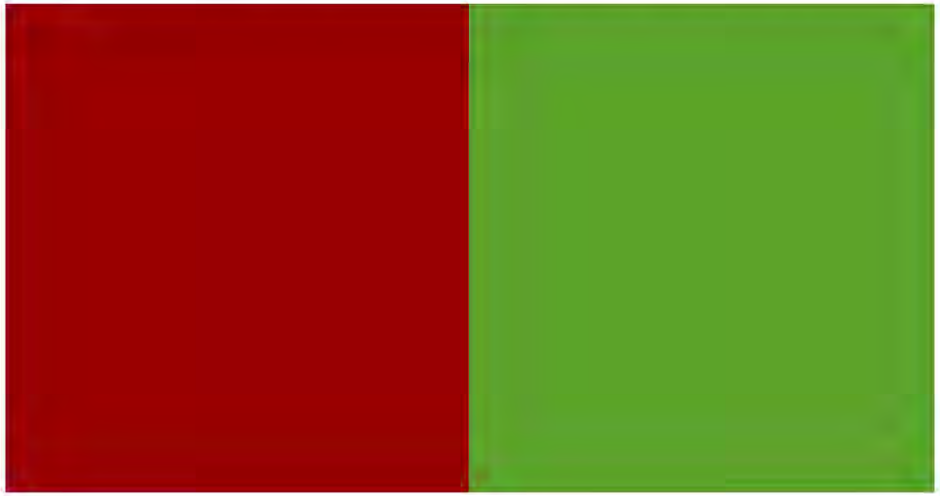
PIGMENT

Color Temperature and Tint





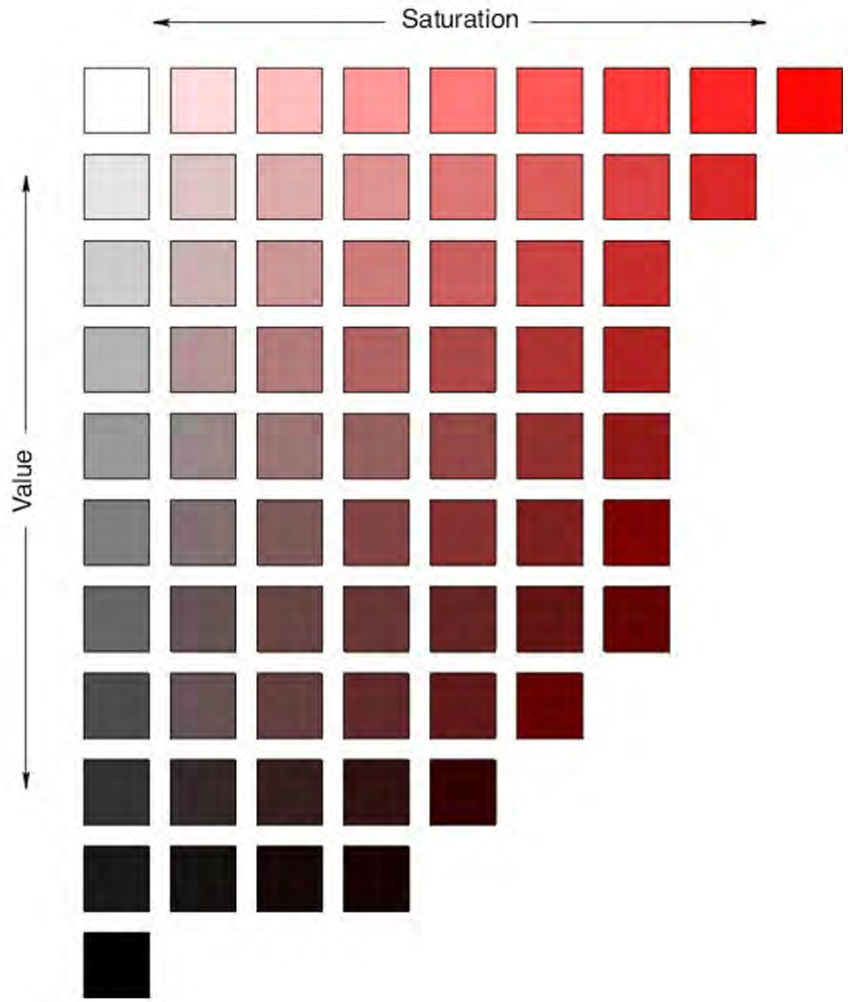
Color Contrast vs. Tonal Contrast



COLOR

GRAYSCALE

HSL



HUE

The name of the color

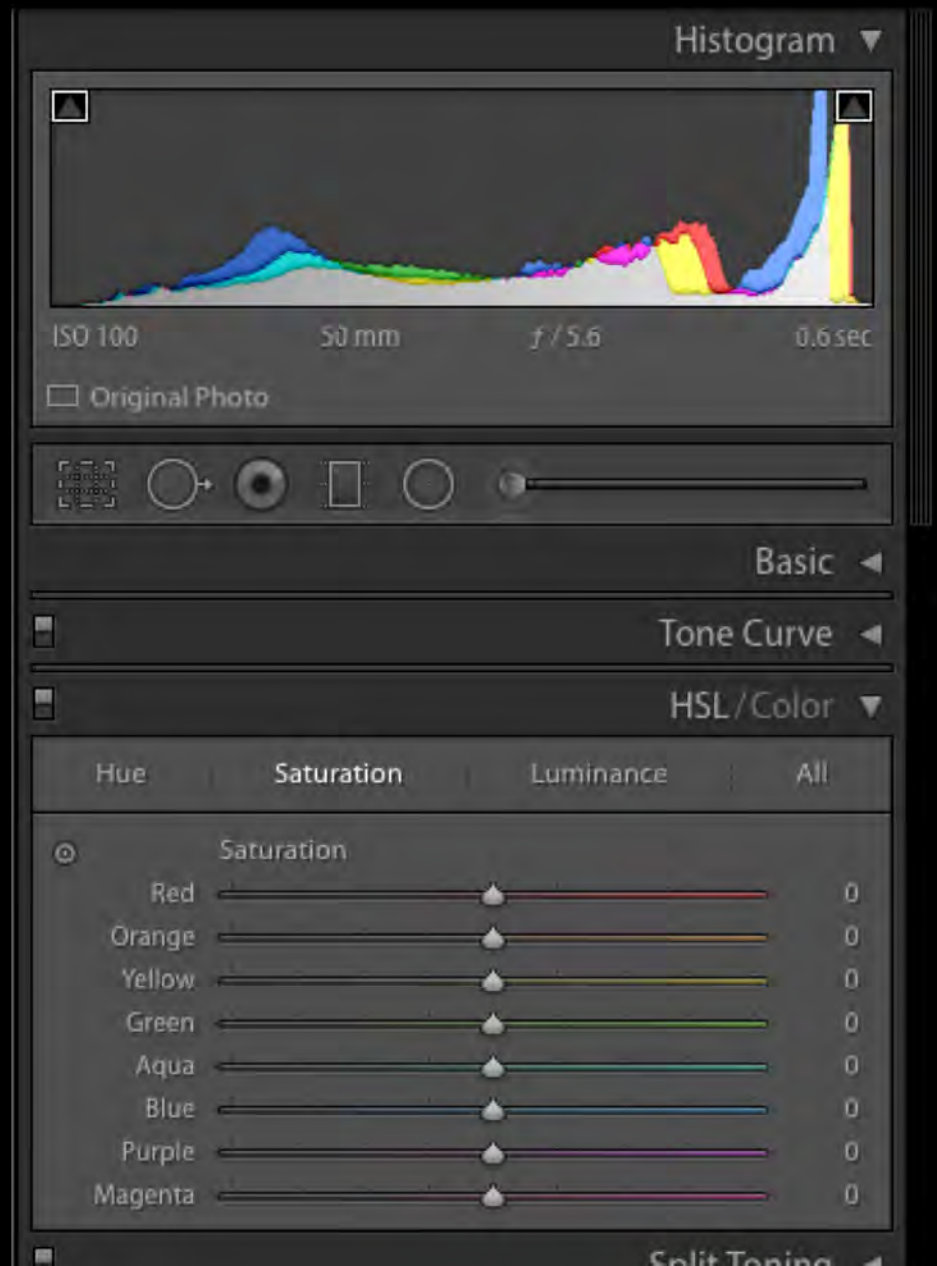
SATURATION

The purity of the color
(NO stauration = B&W)

LUMINANCE (Value)

The lightness or darkness of the color, on a scale from black to white
(Think SONE SYSTEM, but in color)

HSL (Hue, Saturation, Luminance in Lightroom)



PSYCHOLOGICAL IMPLICATIONS OF COLOR:
(Euro-American Societies)

HUE	POSITIVE	NEGATIVE
	*BLOOD, passion, energy, eroticism	*BLOOD, anger, aggression
	*HUMAN FLESH, warmth, (Hearth fire), accessibility	*HUMAN FLESH, weakness, lack of discrimination
	SUNSHINE, energy, happiness	Overwhelming energy
	Life, nature, restfulness (Foliage, green forests)	Toxicity, Artificiality decay (fungus, mold)
	"Coolness" (elegance) spirituality, sky	"Coolness" (distance) sadness, depression ("blues")
	Fantasy, playfulness, dream states (also royalaty)	Madness, Nightmares