This Isn't Color-Blind Vision

Deuteranope
Protanope
red/green color deficit

Tritanope
blue/yellow deficit (very rare)

Seeing Color: Cones

Color Blindness
- Approximately 10% of men are fully or partly color blind
- Approximately 0.1% of women are fully or partially color blind
- Red, green, or blue cones in retina are either faulty or missing

1931 CIE Chromaticity Chart
Cool & Warm Colors

Color Absorption (Subtractive)

Subtractive Color Model (Old)

Primary: Yellow
Primary: Red
Primary: Blue

Subtractive Color Model (New)

Primary: Yellow
Primary: Magenta
Primary: Cyan

Additive Color Model

Primary: Red
Primary: Green
Primary: Blue
Primary Colors (Traditional)

Secondary Colors (Traditional)

Tertiary Colors (Traditional)

Hue

Saturation

HUE = a pure color with no white or black added

SATURATION = the vividness or purity of a color
Tint

TINT = a hue with WHITE added

Shade

SHADE = a hue with BLACK added

Tone

TONE = a hue with GRAY added

Color Context

Picking Colors
Harmonious Color Schemes

- Monochromatic
- Analogous
- Complementary
- Triadic

Monochromatic Color Schemes

- Uses a single base color
- Extended through tints and shades
- Produces cohesive color theme

Monochromatic Colors

- Base color + tints & shades

Specifying in Photoshop

Monochromatic Page
Analogous Color Schemes

- Uses base color and two adjacent colors
- Vary tints & shades of secondary colors
- More nuanced than monochromatic scheme

Analogous Colors

Base color + adjacent colors

Complementary Color Schemes

- Hues are opposite each other on color wheel
- Use complimentary color only for accents
- Often grabs attention; vibrant

Complementary Colors

Base color + opposite color
Split-Complimentary Colors

- Base color and two colors adjacent to its complementary
- Less tension than with complimentary

Triadic Scheme

- Colors equally spaced around color wheel
- Combines balance and contrast
Triadic Colors

Base color + 2 others 120° apart

Triadic Page

Picking Colors Naturally

Colors from Nature

Colors from Nature