




Color Theory and Psychology

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Agenda



Color theory
Color and Pc
Color Psychology

Introduction

Colors are **everywhere**.

An **essential element** of art painting is color, so in this presentation we will go to explain the theoretical constructs underlying this concept.

Furthermore, what you will learn during this presentation will be useful for using the proposed software during the next days .





Color Theory

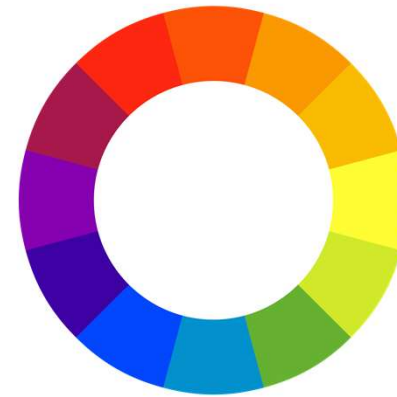
Understanding the color wheel and
color harmonies

Color Theory



Color theory is the collection of rules and guidelines which designers use to communicate with users through appealing color schemes in visual interfaces. To pick the best colors everytime, designers use a color wheel and refer to extensive collected knowledge about human optical ability, psychology, culture and more.

Sir Isaac Newton established color theory when he invented the color wheel in 1666. Newton understood colors as human perceptions - not absolute qualities - of wavelengths of light.



Color Theory

3 groups of colors:

- **Primary** (red, blue, yellow)
- **Secondary** (mixes of primary colors)
- **Tertiary** (mixes of primary and secondary colors)

Properties:

- **Hue** (Tint)- How it appears
- **Saturation** (Intensity - Chroma) - How pure it is
- **Value** (Shade) - How dark or light it is
- **Temperature** - Warm colors and cool colors





Color and Pc

Sottotitolo

Color and Pc

Two most common color models:

- **RGB** (Red, Green, Blue)
- **CMYK** (Cyan, Magenta, Yellow, Black).

RGB is best for websites and digital communications, while CMYK is better for print materials.

Understanding the RGB and CMYK difference is an essential part of successful graphic design.



RGB Scheme

RGB is an **additive** color model.

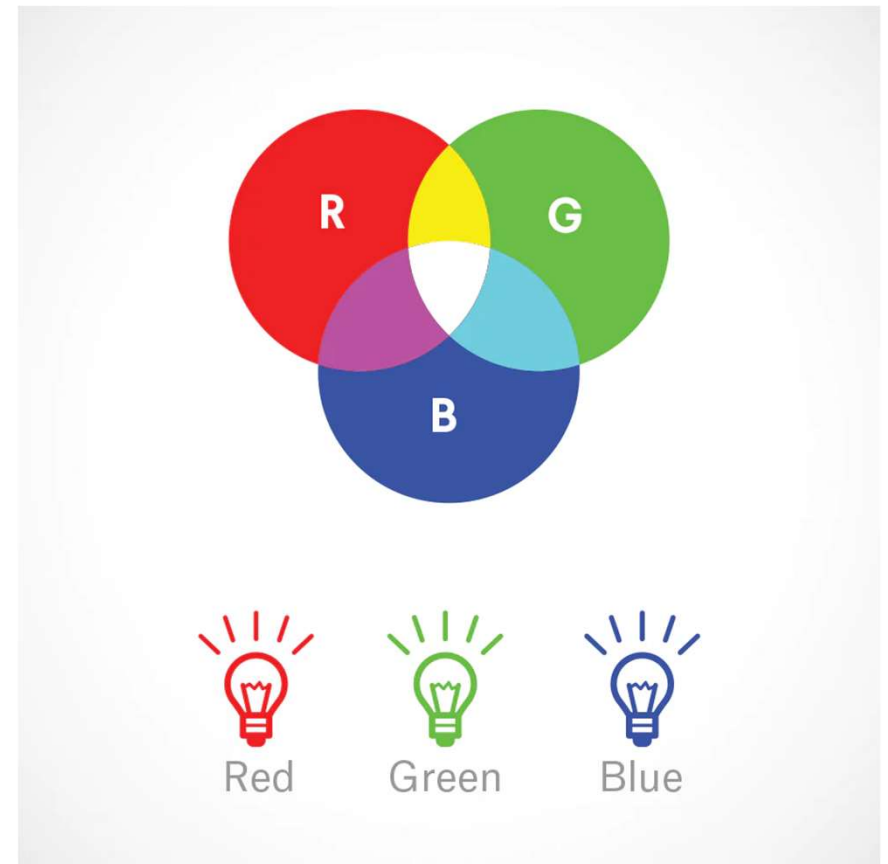
RGB uses white as a combination of all primary colors and black as the absence of light.

Graphic designers and print providers use the RGB color model for any type of media that transmits light, such as computer screens.

RGB is ideal for **digital media designs** because these mediums emit color as red, green, or blue light.

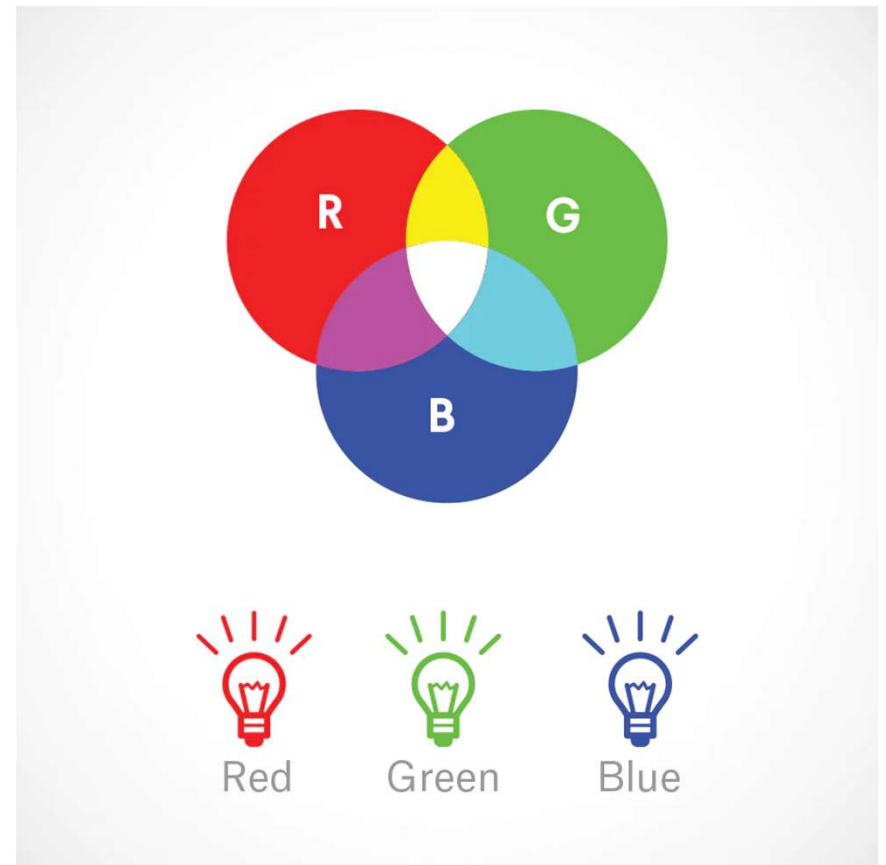
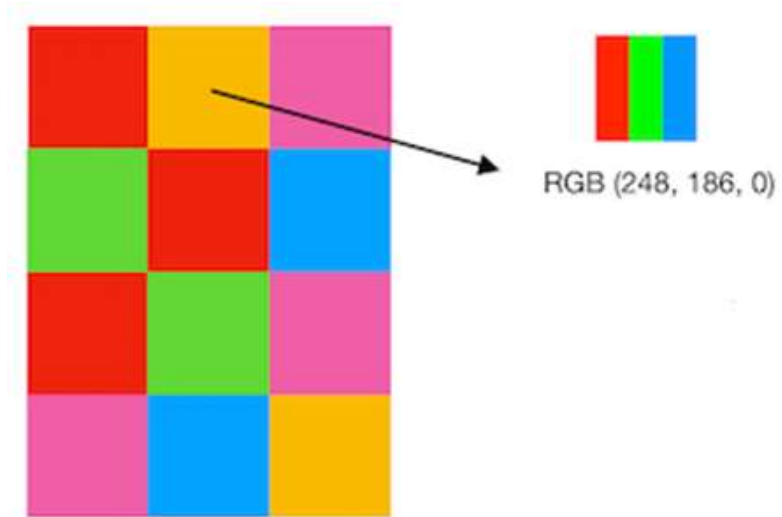
The more light you add, the brighter the color mix becomes. If you **mix all three colors of light**, you get pure, **white light**.

RGB color values range from 0 to 255



RGB Scheme

Every pixel in a display is represent by Red Green Blue color



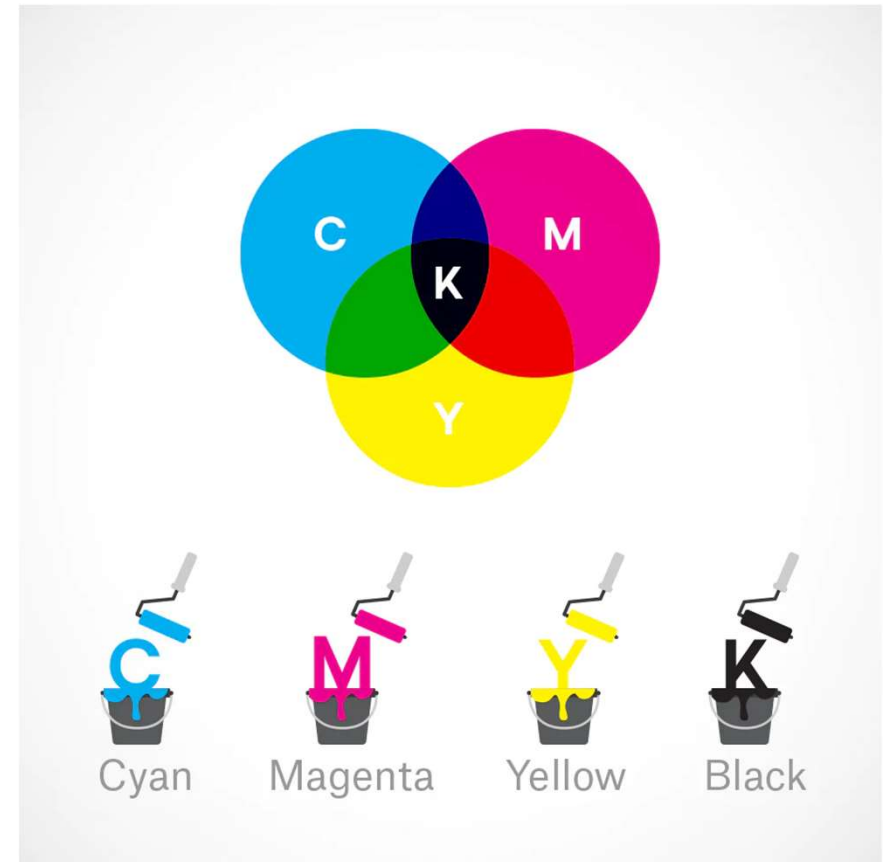
CMYB Scheme

CMYK is **subtractive** color model.

CMYK uses white as the natural color of the print background and black as a combination of colored inks.

CMYK is best for **print materials** because print mediums use colored inks for messaging. CMYK subtracts colors from natural white light and turns them into pigments. Printers then put these pigments onto paper in tiny dots spread out or close together to create the desired colors.

CMYK ranges from 0-100%.



Summary Color Theory

<https://www.youtube.com/watch?v=Yel6Wqn4I78>

Color Theory A QUICK REFERENCE

This is a quick reference sheet for designers whether in school or continuing their practice. A little reminder never hurt anyone.

THE INFORMATION ON THIS SPREAD IS TAKEN FROM THE BOOK DESIGN BASICS BY DAVID A. LAUER AND STEPHEN PENTAK (EIGHTH EDITION.)

MEANING

- ENERGY, WAR, DANGER, STRENGTH, POWER
- DEPTH, AND STABILITY, TRUST, LOYALTY, WISDOM, CONFIDENCE, INTELLIGENCE, FAITH, TRUTH, AND HEAVEN
- JOY, SUNSHINE, ENTHUSIASM, FASCINATION, HAPPINESS, CREATIVITY AND DETERMINATION
- ROYALTY, WISDOM, DIGNITY, INDEPENDENCE, CREATIVITY, MYSTERY, AND MAGIC
- POWER, INTELLIGENCE, FORMALITY, DEATH, EVIL AND MYSTERY
- ATTENTION GETTER, USUALLY ASSOCIATED WITH HOOD, SUNSHINE, JOY, HAPPINESS, INTELLECT, AND ENERGY
- LIGHT, GODDESS, INNOCENCE, PURITY, VIRGINITY, COLOR OF PERFECTION
- NATURE, GROWTH, HARMONY, FRESHNESS AND FERTILITY

TERMS

- CHROMA- THE INTENSITY OF A COLOR
- SATURATION- COLORFULNESS OF A COLOR, RELATIVE TO ITS OWN BRIGHTNESS
- TINT- SHADE OR VARIETY OF COLOR
- SHADE- WITH REGARD TO HOW LIGHT OR DARK IT IS, OR AS DISTINGUISHED FROM ONE NEARLY LIKE IT

Subtractive **Additive**

CMYK is the abbreviation meaning Cyan, Magenta, Yellow and Black.

RGB is the abbreviation meaning Red, Green, and Blue

Primary **Secondary**

Intermediate **Analogous**

Complimentary **Split Complimentary**

Monochromatic **Double Complimentary**

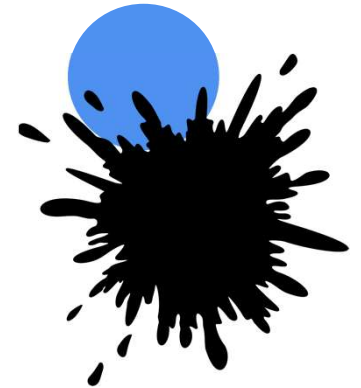
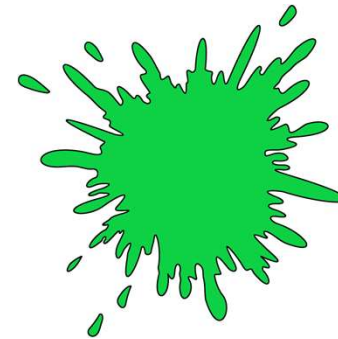
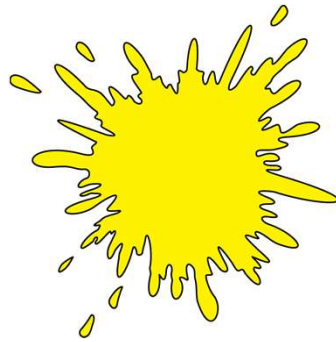
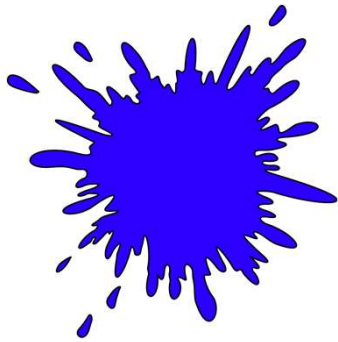
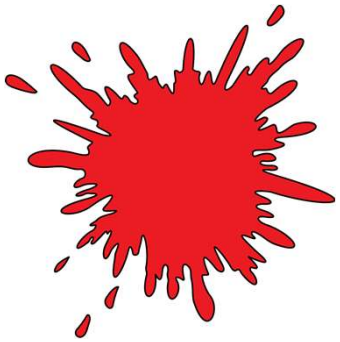


<https://color.adobe.com/create/color-wheel>



Color Psychology

Color Psychology



Color Psychology

	Red Anger, danger, warmth and passion. Can increase heart rate and raise blood pressure, and be overwhelming if used too much.		Black Bold, powerful, classic, confidence and sophistication. Makes designs feel edgier or elegant and is used for typography and other functional parts for neutrality.
	Yellow Positive, optimistic and energetic. Good for point of sale messaging and calls to action.		Green Growth, rebirth, nature, stability, endurance, and abundance. Has a balancing or harmonizing effect and is often used in relation to wealth.
	Blue Trustworthy, calm, and peaceful. Often used in banking. Light blue can be relaxing, while dark blue can signify strength and reliability.		



Color Psychology

Color psychology is the study of how colors affect your behavior, mood, and impression on others. Research shows that colors can greatly affect our moods and the way other people respond to us.

How color influences individuals may differ depending on age, gender, and culture



Which one looks more appetizing?



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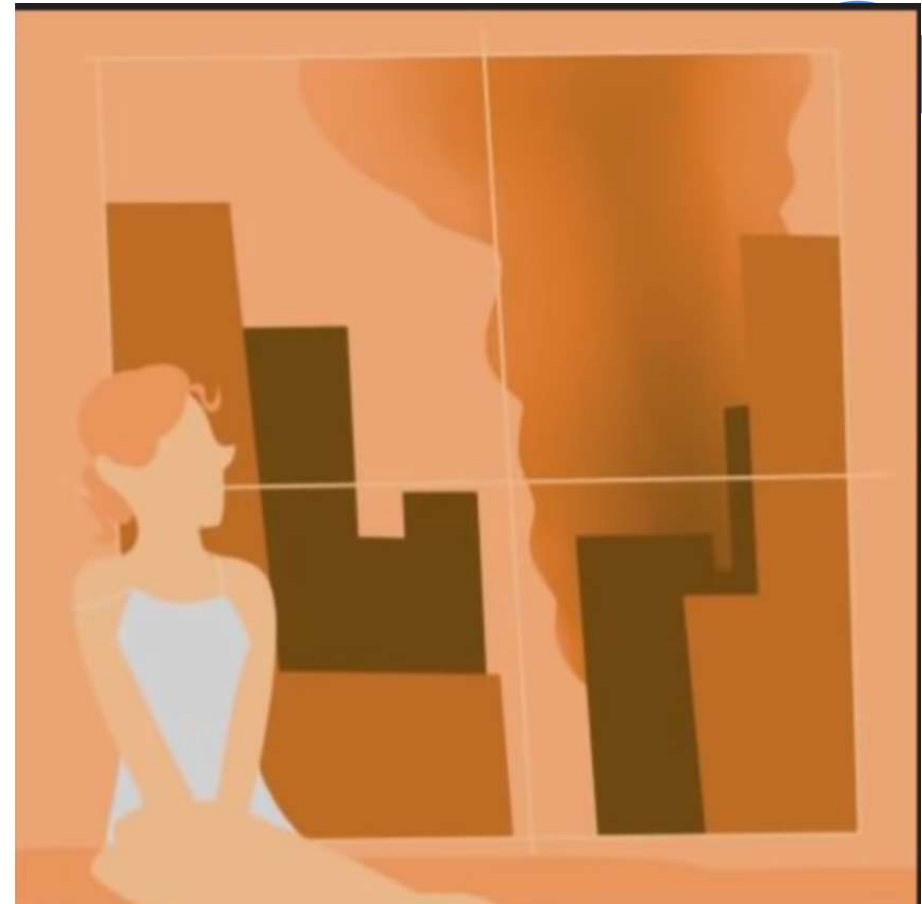
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Which picture looks more calming?



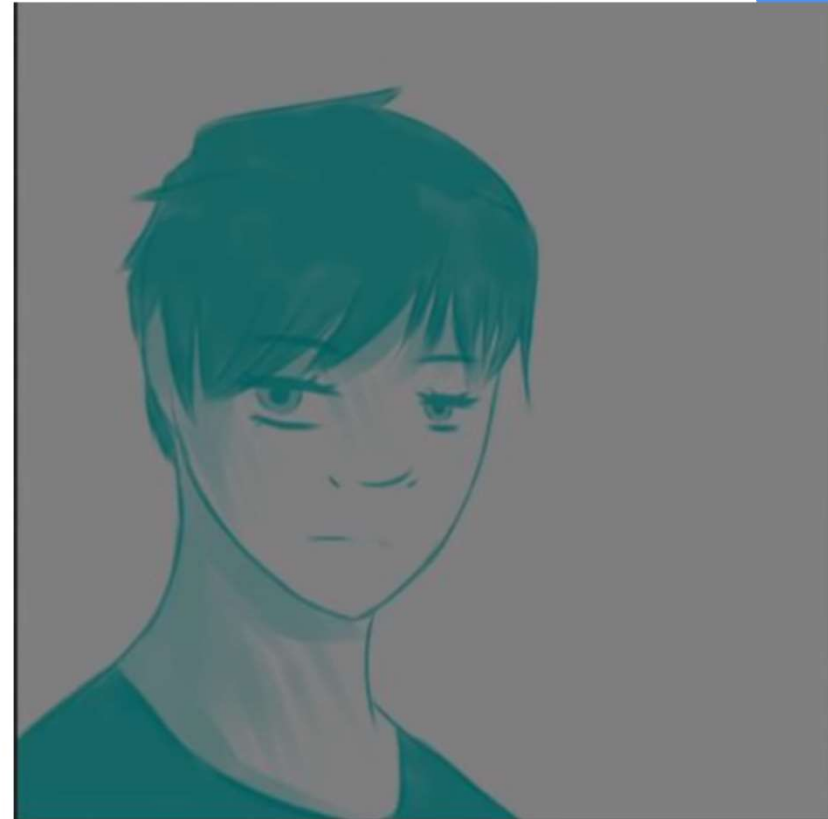
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Which person feels more threatening?



Color Psychology

<https://www.youtube.com/watch?v=B7c0W5FZw64>

Color Psychology

PRIMARY COLORS:

YELLOW

- Cheerful or warm
- Most likely to strain eyes or cause eye fatigue
- Makes Babies Cry
Don't paint a baby's room yellow, because they are more prone to crying.

BLUE

- The color most preferred by men
- Calmness or serenity
- Most used color for offices
People are more productive in blue rooms
- Curbs appetite
- Associated with water and peace

RED

- Evokes strong emotions
- Encourages appetite
(many restaurants use red in their signage/ads)
- Passion or intensity
- Red roses symbolize love

Studies show that red can make you do poorly on exams!
"Red is hypothesized to impair performance on achievement tasks, because red is associated with the danger of failure in achievement contexts and evokes avoidance motivation."



Thank you for
attention

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