

Colour and lighting

UNIT 3

The Meaning of Colors

How do colors affect moods? While perceptions of color are somewhat subjective, some effects have universal meaning. Colors in the red area of the spectrum can be yellow-based such as scarlet red and red-orange are known as warm colors. These warm colors evoke emotions ranging from feelings of comfort and warmth to feelings of hostility and anger. Reds can also have an undertone of blue and are known as cool colors such as burgundy, ruby, raspberry, deep cherry. These colors are often described as calm but can also call to mind seriousness and dignity.

Application Of Colour Harmonies in The Interiors and Exteriors: -

The human brain seeks a visually balanced experience. If an image is visually boring, the viewer will not be engaged, and the design, along with the brand it represents, will be forgotten. However, if an image is chaotic, the viewer may not be able to understand it, and it too will be dismissed. Our visual experiences need to have a logical structure in order for us to understand them. Colour harmony provides that structure. Harmony itself is simply a pleasing arrangement of different things. Thus, colour harmony is easily defined as the combining of colours in order to produce a pleasing effect.

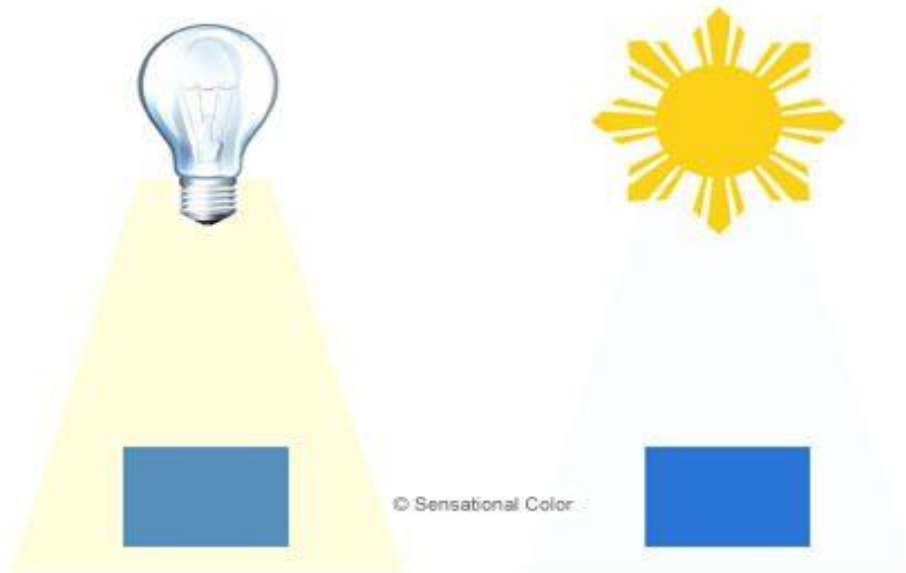
There are many theories for colour harmony, but these two basic ideas are probably the easiest.

Complementary colours: Any two colours that are directly opposite from each other on a tertiary (12part) colour wheel.

Analogous Colours: Any three colours that are next to each other on a tertiary (12 part) colour wheel. One of these three is usually the dominant colour in a colour scheme.

Colour harmony is the relative amount of different colour areas represented as a proportion on which colour harmony depends. Colours in the colour scheme of an interior and exterior space are usually not applied in equal proportions of surface areas and considering the complex relations of colours in interior and exterior spaces, it is important to search for the principles of colour harmony and area effects in interiors and exteriors.

EFFECT OF LIGHT ON COLOUR: -



The value and the intensity of colours are affected by the amount of light. Colours appear darker and less intense. As you increase the amount of light, the value lightens and the intensity increases until you reach its actual colour. The colour you see for an object depends on the mix of light frequencies that reach your eye. That mix in turn depends on two things the frequencies that reach the object absorbs, and the frequencies in the original light source.

All of the colours we see are a byproduct of spectrum light, as it is reflected off or absorbed into an object. An object that's reflects all of the light rays will appear white, which absorbs all of the light beams black, millions of other colours are a combination of light rays absorbed and reflected. Grass for e.g., it absorbs all colours except the ones that make up its colour of green.

The effect of colour on natural light: -

Natural light can vary greatly depending on the weather, the season, the time of the day, the sun's position with sky, the location of the building. Understanding these factors can help you to anticipate how natural light will affect colours.

The effect of colour on artificial light: -

The type of artificial lighting in an area influences how a colour looks. Some of the most common sources are fluorescent and incandescent light bulbs, halogen bulbs, and LED bulbs. For e.g.: incandescent lighting cast a warm glow that can enhance reds, oranges and yellows, cool fluorescent light works best with blues, violets and greens.

ILLUSION OF COLOUR: -

Colour is an illusion. Light and its spectrum exist in the physical world, but colour is all in your mind. Having said that, colour can be measured quite accurately, for an illusion, under some common practical conditions, and its influence on people behaviour is well understood for something that is not real. Colour illusions are images where the object's surrounding colours trick the eye into incorrectly interpreting the colour.

Colour illusion is all about how we perceive colours. We start off with two identical, flickering-coloured stripes that remain unchanged throughout the demonstration. However, different surroundings will make these stripes appear completely different. When the stripe is flanked by a yellow/blue pattern, drifting to the left, it changes appearance, and looks red and cyan, drifting to the right, while the same stripe, flanked by a red/cyan pattern drifting to the right, suddenly looks yellow and blue, drifting to the left. This illusion shows that one and the same object can look completely different depending on its surroundings flickering coloured stripes that remain unchanged throughout the demonstration. However, different surroundings will make these stripes

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PSYCHOLOGY OF COLOUR: -

Color psychology is the study of hues as a determinant of human behavior. Carl Jung has been credited as one of the pioneers in this field for his explorations into the properties and meanings of colors in our lives. Jung is quoted for saying, "colours are the mother tongue of the subconscious Color influences perceptions that are not obvious, such as the taste of food. Colors have qualities that can cause certain emotions in people. Colors can also enhance the effectiveness of placebos. For example, red or orange pills are generally used as stimulants. How color influences individuals may differ depending on age, gender, and culture. For instance, heterosexual men tend to report that red outfits enhance female attractiveness, while heterosexual females deny any outfit color impacting that of men.^[4] Although color associations can vary contextually between cultures, color preference is to be relatively uniform across gender and race.

Color psychology is also widely used in marketing and branding. Marketers see color as important, as color can influence a consumers' emotions and perceptions about goods and services. Logos for companies are important, since the logos can attract more customers. This happens when customers believe the company logo matches the personality of the goods and services, such as the color pink heavily used on Victoria's Secret branding. Colors are also important for window displays in stores. Research shows that colors such as red tended to attract spontaneous purchasers, despite cool colors such as blue being more favourable. Red and yellow, as a combination, can stimulate hunger, which may help to explain, in part, the success of fast-food restaurants such as McDonald's, Burger King, and In-N-Out Burger. The phenomenon has been referred to as the "ketchup & mustard" theory.

colour psychology is the study of how certain colours impact on human behavior

How colours determine human emotions

How colours influence your choice and feelings

How colours can have psychological effects on everything from human behavior to mood to personality

It is the study of how colours affect different individuals and their actions

Colour psychology is largely impacted by personal preference. Colour psychology involves the use of colour theory – the practical application of mixing and matching various hues to explore concept like colour perception and the effect of colour combinations. The proper combination leads to the right emotions.

Colour can play an important role in conveying information non-verbally, creating certain moods, influencing people's decision

In the early 20th century, Swiss psychiatrist Carl Jung studied the effects of colours on the human mind. He has been credited as one of the pioneers in this field for his explorations – meanings of colours in our lives.

EFFECT OF COLOUR UPON EACH OTHER: -

Simultaneous contrast refers to the way in which two different colours affect each other. The theory is that one colour can change how we perceive the tone and hue of another when the two are placed side by side. The actual colours themselves don't change, but we see them as altered.

How do colours work together

When we mix any 2 of the primary colours together, we get the secondary colours. These are orange, green and purple. When we mix a primary colour with a secondary colour, we get a tertiary colour. These are the colours that sit between the primary and secondary colours on the colour wheel.

1 Red:

Red attracts the most attention and is associated with strong emotions, such as love, passion, and anger.

It's the universal color to signify strength, power, courage, and danger. Red is vibrant, stimulating and exciting with a strong link to sexuality and increased appetites.

Red is energizing and exciting, motivating us to act. It can also give confidence to those who are shy or lacking in willpower.

It's warm and positive, generally associated with our most physical needs and our will to survive. It exudes a strong and powerful masculine energy. It enhances metabolism, increases respiration rate, and raises blood pressure.

Wear red to energize the group or the meeting but in smaller patches of the outfit, such as a blouse or scarf. It also does wonders to uplift your mood in a dark green, grey, black and navy basic ensemble. Red ties are also favoured by politicians as part of the red and blue tie partnership they wear with everything.

A little can go a long way, however, and in large areas red can cause visual strain. Wearing it too much, too often can brand you as a person in charge, but also as a bossy person!

2. Orange:

This is the hue of encouragement, optimism, and self-confidence, marking the extrovert. Orange radiates warmth and happiness, combining the physical energy and stimulation of red with the cheerfulness of yellow. Orange can inspire courage, enthusiasm, rejuvenation, and vitality. It can also have a stimulating effect, particularly on the appetite.

It can also be a sign of pessimism and superficiality.

In business applications, orange gives the impression of affordability, depending on the shade chosen and its combination with other colors. More gentle than red, orange represents more feminine energy and the energy of creation.

For networking or a business social gathering, wear it boldly in a blazer. Pair it with coordinating multi-coloured top and solid slacks, or more cautiously in small patches in a printed top or scarf. It also combines naturally and beautifully with the Autumn shades of the Northern US taking on an artistic or grounded feel with brown and spicy shades. The downside of wearing orange is that orange dye lots vary in quality. Be sure to check your orange purchase in daylight as the harsher light can downgrade the tone. Orange ties for men are still on the power list so wear in an expensive silk foulard so that the colors gleam and radiate success.

3. Yellow:

Yellow is the color of the mind and the intellect, resonating with the left, logical side of the brain. It is creative, the tone of new ideas and new ways of doing things. Post-it notes and legal pads were invented in yellow for a very good reason!

Being the lightest hue of the spectrum, yellow is uplifting and illuminating, offering hope, happiness, and fun. It's a warm and happy color that creates a sense of cheerfulness and playfulness, brightening people's spirits.

However, too much yellow can cause anxiety, nervousness, apprehension, agitation, and confrontation particularly in people who are already stressed. It can also suggest impatience, criticism, and cowardice, and motivate people to become overly critical, judgmental, and deceitful.

Avoid dressing in yellow when trying to influence men. They tend to see it as cheap and unsophisticated. However, it's brilliant to help stand out from the crowd and can easily be paired with a moderating shade to add more authority such as mid-blue or forest green. Yellow ties have fallen from the power tie rack recently but can still be worn successfully in a yellow and blue foulard print or polka dot.

4. Green:

Green is of nature, of balance and growth. It is restful and secure, symbolizing harmony, healing, and stability.

It also represents security and self-reliance. Darker greens relate to money, wealth and prestige, while lighter greens relate to rebirth, growth, and freshness.

However, too much green can lead to feelings of envy, greed, jealousy, and selfishness.

In business, green is beneficial for anything to do with health and healing and promoting natural, safe, organic, environmentally friendly products. Dark green is a good choice for money and financial websites.

Wear it safely and to your advantage at work, in sales presentations, asking for funding or a loan. On the lighter side of the green, turquoise and aqua are two of the most popular colors, like the darker teal, all made from varying amounts of blue and green. They remind one of sunlight on a blue sea, health, peace and abundance. Use the colors in solids or prints as tops, blouses and shells under pantsuits with camel, beige, taupe as well as purple and charcoal. Men can wear teal ties to their advantage when they want to look approachable and authoritative.

5. Blue:

Blue is the color of trust, serenity, and peace. It suggests loyalty and integrity as well as conservatism and predictability.

This has the opposite effect on the brain than red. It is calming, reducing tension and fear, slowing the pulse rate and reducing appetite. While inspiring wisdom and higher ideals, it is sincere, reserved, and quiet. Being cool, it creates a sensation of space.

Because blue is the most universally favored color of all, it is the safest to use in business and airline uniforms. It relates to trust, honesty, and dependability, therefore helping to build customer loyalty. Blue works well for the corporate world and is often used in important meetings. Wear it when interviewing, and meeting business professionals such as accountants, insurance companies, bankers and other financial companies where trust and reliability are important.

The downfall of blue and especially navy is that it can seem mature, conservative, boring or denote a rigid outlook. However, there are many blues that are more exciting than the navy. Think of a royal or a teal blue that is credible yet more interesting.

Royal blue ties are the politician's uniform and very predictable. Great for a conservative audience perhaps. Vary it a little with a blue or navy suit and white or pale blue shirts. What about a tie in varying shades of blue with a splash of red!

6. Purple:

Purple is the color of imagination and spirituality, inspiring high ideals. It can be creative and individual or immature and impractical. It is also an introspective tone, allowing us to connect with our deeper thoughts.

People drawn to purple are usually sensitive and compassionate, understanding and supportive, thinking of others before themselves. They will often have a peaceful and tranquil quality, with quiet dignity about them.

Purple implies wealth, even royalty, as well as quality, fantasy, and creativity. This tone heightens people's sense of beauty and their reaction to more creative ideas.

It is often used to denote a high-quality or superior product. If you are in a service business, use some purple in your marketing to promote your premium service.

On your next shopping trip look for purple which is a much more creative choice than buying another black jacket. It's a good substitute for red and goes well with most pastels to give a high contrast look of authority, without resorting to the black and white cliché. Wear it with the confidence that you are going to look expensive and creative. Purple ties and pastel mauve or pinstripe shirts for men are often favored by the more adventurous, creative dressers. Wear them with confidence if you are representing a creative industry, service or product.

Red Excitement Strength Love Energy	Orange Confidence Success Bravery Sociability	Yellow Creativity Happiness Warmth Cheer	Green Nature Healing Freshness Quality	Blue Trust Peace Loyalty Competence
Pink Compassion Sincerity Sophistication Sweet	Purple Royalty Luxury Spirituality Ambition	Brown Dependable Rugged Trustworthy Simple	Black Formality Dramatic Sophistication Security	White Clean Simplicity Innocence Honest