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DEPARTMENT: ARCHITECTURAL ASSISTANTSHIP

SEMESTER: 6th

SUBJECT: Elective-II Interior Design (Practical)

LIGHTING

Ambient, Task and Accent Lighting

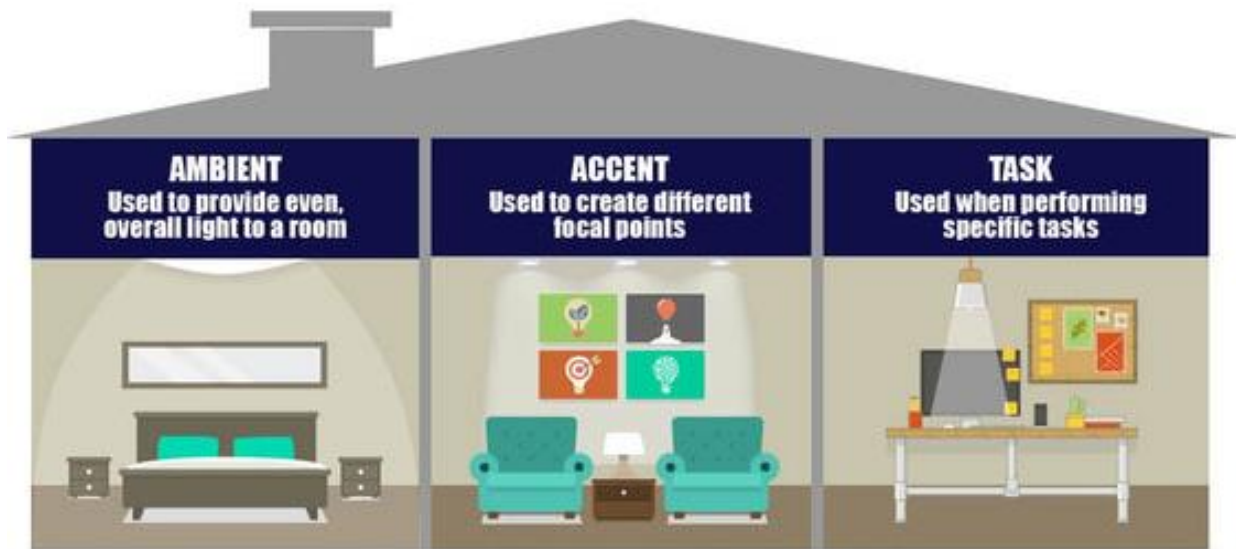
Ambient Lighting: Ambient lighting provides overall illumination and is meant to create a general and uniform lighting level. It sets the tone of a space. That's why it's typically soft or diffuse, and often dimmable to accommodate day and nighttime settings.

Ambient lighting is especially important in hallways and stairs for optimal orientation and visibility. It also is useful in kitchens or home offices, where fixtures with wide light beams provide a consistent level of lighting.

Task Lighting: This direct, intense illumination is ideal for detailed task work, such as reading and writing at a desk, grooming, and preparing food. It's focused on the particular area where the task is performed and is brighter than ambient lighting. Effective task lighting is glare free and strong enough to prevent eyestrain. Task lighting is key in the kitchen, where under-cabinet lighting or pendants increase visibility on countertops and food preparation areas. Table and floor lamps provide useful task lighting in living areas and bedrooms, and can reinforce the room's desired design style.

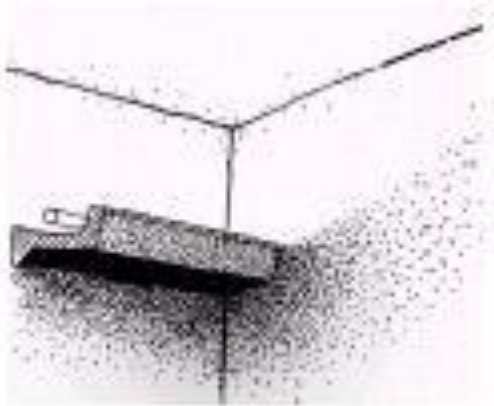
Accent Lighting: Intended to highlight a specific object or area, accent lights are typically three times as bright as ambient lights. Accent lighting draws attention to a feature, such as artwork, furnishings or architectural details, converting them into focal points. Adjustable fittings are preferred for this type of lighting, as they allow precision focusing on small areas or objects. Accent lighting differs from the other types of lighting in that its primary objective is aesthetic, creating a point of

interest for the viewer. It adds style and drama to a space, and is especially suited to living and garden areas, entrances, and anywhere the goal is to display special features. Recessed ceiling lights, track lights or wall-mounted luminaires are very effective in living or common areas as they can be angled and directed to create a highlight.



Types of Lighting

Cove Lighting. Lighting by means of sources shielded by a ledge or horizontal recess that distributes light over the ceiling and upper wall. This system requires a cove, or pocket, to be built into the ceiling or wall. The light units, typically fluorescent or cold cathode, are concealed from view and provide indirect light.



Cornice lighting: Lighting by means of light sources shielded by a panel parallel to the wall and attached to the ceiling



Soffit lighting: The underside of a structural component, such as a beam, arch, staircase, or cornice. A light built into a soffit.



Valance Longitudinal shielding member mounted across the top of a window or high on a wall to conceal light sources



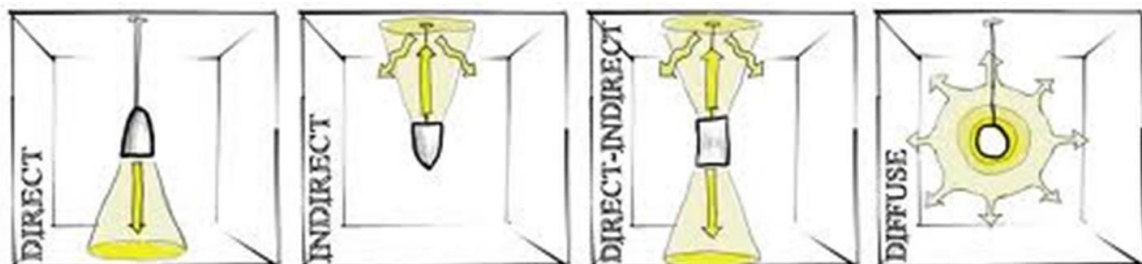
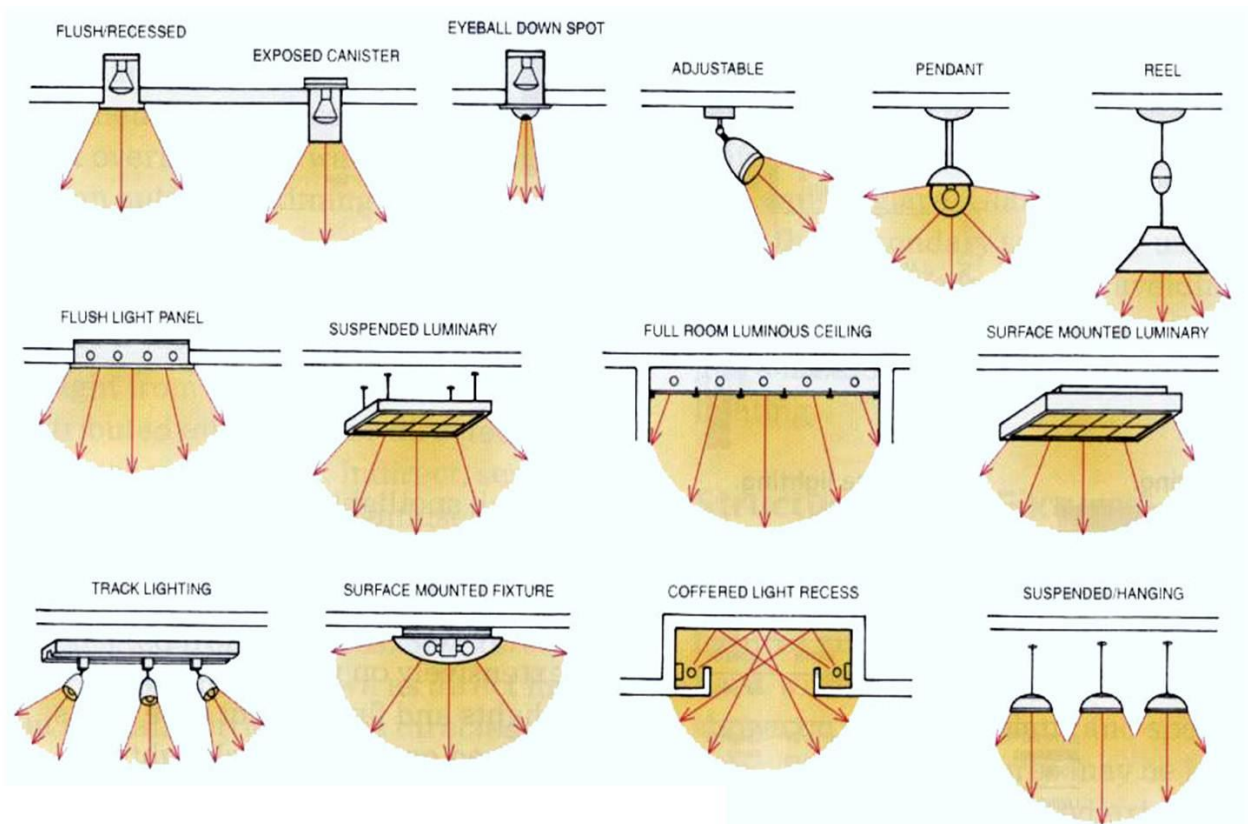
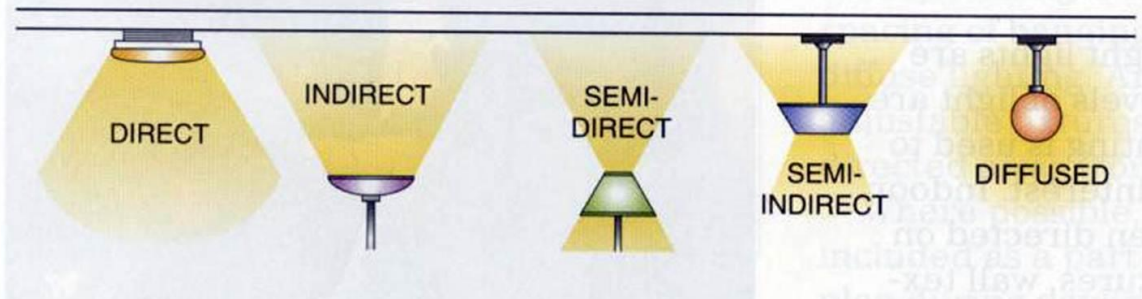
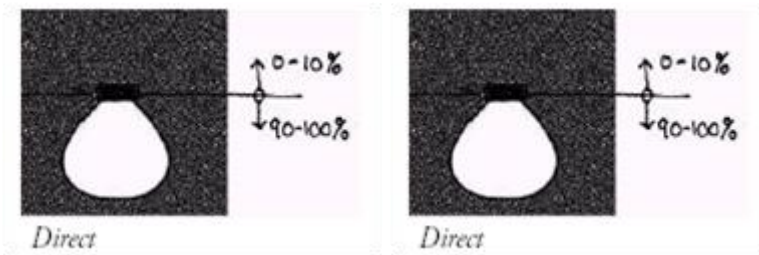


Fig. 31-13 ■ Methods of light disperement.

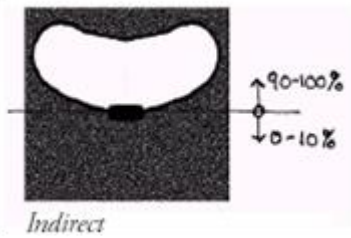
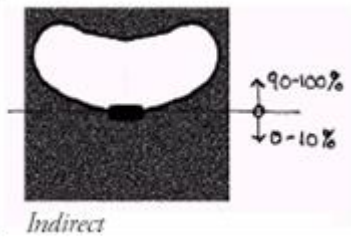
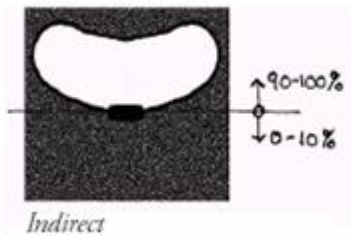
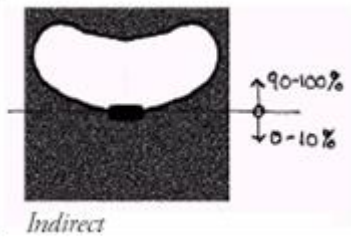


TYPES OF LIGHT DISTRIBUTION:

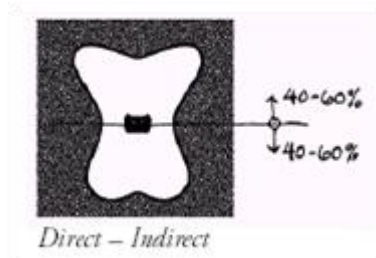
DIRECT: Sharpest contrast between light and dark. Used to emphasize objects



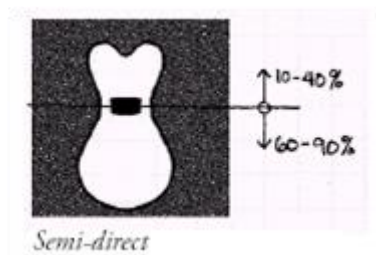
INDIRECT: source is hidden, light is directed to ceiling, a cove or another surface from which it is reflected.



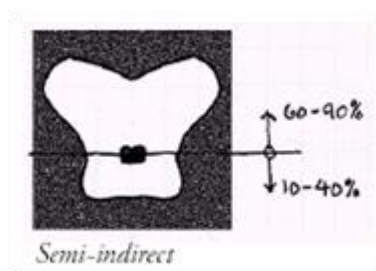
DIRECT – INDIRECT: light is distributed evenly in all directions. The fixture has a bulb on both sides, inside and outside the reflector.



- **SEMI DIRECT:** more light is directed towards work plane



- **SEMI INDIRECT:** more light is directed towards ceiling or upper wall



Material for kitchen countertop

1. Granite:

- It is a hard natural stones which is cut into slabs and polished before installation.

- Granite is very suitable for countertops.
- It's super strong, heat-resistant and can stand up to extreme levels of wear and tear.
- Granite comes in a myriad natural colors and patterns.
- The price varies and therefore more people can access it
- It is easy to clean, but it is a porous natural stone, so we need to apply sealant over the granite.

2. Marble:

- It is similar in price to granite
- Marble is a high-end kitchen countertop material that is known for its aesthetic appeal.
- Marble comes in a wide range of colors and patterns.
- Marble holds up well against heat and it is resistant to cracking, chipping, or breaking, allowing it to last for years without problem.
- It is vulnerable to scratching and staining.

3. Quartz (Engineered Stone):

- It gives natural stone appearance of marble or granite with less budget.
- It is resistant to staining.
- It is nonporous thus regular sealing is not required
- It comes in a wide range of colors and patterns
- It's an easy-to-clean material that is resistant to mold, mildew, and bacteria, making it a great choice for the kitchen where food is prepared.
- It is vulnerable to heat damage and may begin to melt so avoid placing hot objects on it.
- It can fade under direct sunlight.

4. Solid surface material:

- Solid-surface material is made out of a blend of acrylic particles and resins that have been pressed into sheets to create kitchen countertops.
- This type of material was first designed as an alternative to natural stone countertops
- It is more cost-effective.

- It comes in a variety of colors, patterns, and styles, including duplicates of granite and marble.
- The seams on the material are almost invisible and it is resistant to stains
- It is not heat resistant and it's vulnerable to abrasive damage.

Other materials suitable for kitchen counter tops are Soapstones, Ceramic tiles, Laminates, wood, stainless steel, concrete

Material for Bathrooms

The most suitable natural stones for the bathroom are granite, travertine, basalt, slate or quartzite.

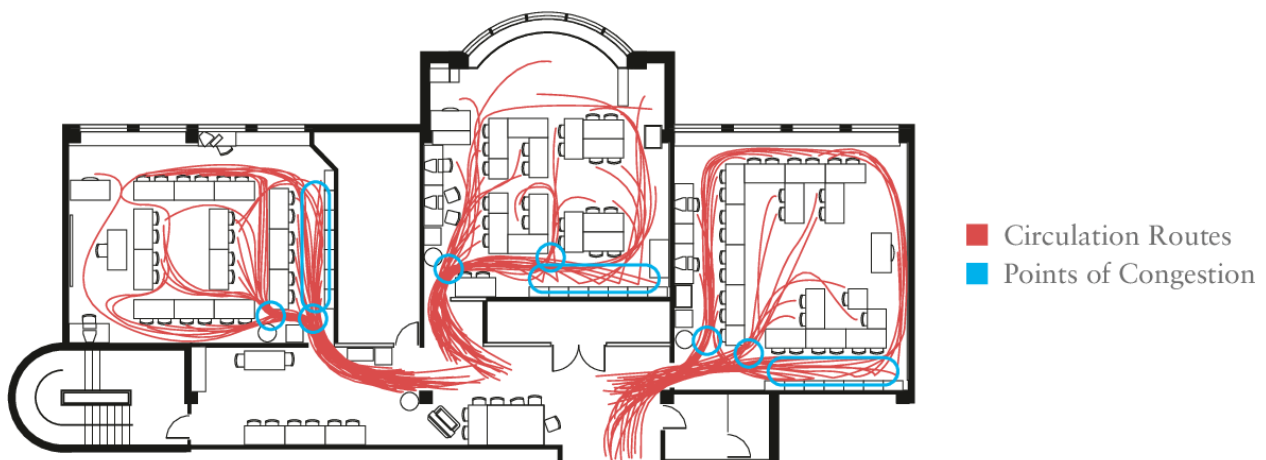
Circulation in Interior Design

Circulation within Interiors refers to the way in which people move through and around a building throughout time.

It can be broken down into direction, the type of use, the frequency of use and the time of use.

The speed of the movement of circulation can be fast or slow.

It also tells about points of congestion in the design.



Living room and Drawing room

The drawing room is typically found near the entrance to the home, and is a place where you would receive guests. It is a formal space for attending the guests.

Living room is an informal space where recliners, media units, and chairs are kept. This is a space for all of life: resting, spending time with the family, reading, working, and entertaining. It can be near the kitchen of house.

Lobby and Lounge

A lobby is an entryway or reception area whereas a lounge is a domestic living room or waiting room in office, airport etc.

Difference Between Incandescent Bulbs and Fluorescent Lamps

1. The fluorescent lamps are newer and more technologically advanced and have better characteristics compared to incandescent bulbs
2. Incandescent bulbs produce light by heating a metallic filament until it starts to radiate light. On the other hand, fluorescent lamps produce light by exciting a gas and causing it to glow.
3. incandescent bulbs produces warm light, more like the light from the Sun whereas fluorescents produce clinical white light and accordingly can be used in interior design

Woods

Teak Wood:

- Teak is naturally water-resistant and physically very strong and durable.
- It is not prone to significant expansion or contraction with humidity changes.
- It is weather-resistant and it requires basically no care when left outside
- Teak wood is largely used in making furniture.
- Teak wood is expensive but it is considered to be most effective and durable.
- As it has waterproof quality, it is used for bathroom cabinets.

Rosewood:

- Rosewood provides a shiny and smooth texture on the surface of the furniture.
- Furniture especially beds is often chosen to be made of rosewood owing to the luxurious finishing they give.
- It is slightly more expensive than teak wood
- Rosewood is commonly used for furniture, musical instruments, decorative items and veneers
- Highly resistant to wear and tear

Sal wood:

- Sal wood is heavier and harder than teak wood and is considered a cost-effective choice in interior design.
- Sal wood is a water-resistant kind of hardwood.
- It is the best wood type to make furniture, window and door frames, and beams.
- Sal wood is sturdy, resilient, close-grained, termite-resistant, and durable.
- Sal wood's best quality is its ability to get stronger and tougher with age.
- Sal wood may bend and twist if it is not well seasoned.
- Sal wood may only be treated with paint or a protective coating rather than polish.
- When exposed to direct sunshine, it begins to break

Oak wood:

- Oak wood has toughness, beautiful texture and durability.
- Oak wood comes in a variety of colors.

- They are very resistant to insect and fungal infestations.
- Oak is commonly used for furniture, joinery, flooring, paneling, kitchen cabinets, decking and veneers.
- Good water resistant properties, highly resistant to wear and tear

Cedar wood:

- Cedar wood can withstand harsh weather conditions.
- It provides aesthetic beauty, low shrinkage and high decay resistance.
- It can be found in both cheap and expensive depending upon the species of cedar.
- It is used in interior paneling of rooms, cladding, ceiling, clothes storage, fencing etc.
- It requires regular maintenance, color fade away due to chemical reaction and it is weak to use as a construction material.

MDF boards:

- MDF stands for Medium Density Fiberboard.
- MDF is an engineered wood product made from wood fibres and resin.
- As MDF boards have a uniform density and thickness, they are easy to machine and finish.
- The smooth, flat surface makes it ideal for laminating, painting, and veneering.
- MDF comes in various thicknesses and grades, including moisture-resistant and fire-resistant varieties.
- Due to its high density and high-grade composite materiality, strong MDF Board is useful in many ways:
 - Furnishing of residential as well as commercial construction
 - Cabinets and shelves
 - Roofing materials
 - Decorative items
 - Doors and frames
 - Flooring
 - Soundproofing

- In the construction business, MDF is becoming one of the most used sheet materials.

False Ceiling

June 14, 2023

False Ceiling

- False ceiling is provided below the roof slab on suspended supports.
- The false ceiling is usually provided for temperature control (heat insulation for AC), to install lights, or to conceal electrical and other networking cables and ugly or too high ceiling.
- False ceiling is an example of modern construction and architecture in both residential and commercial applications.

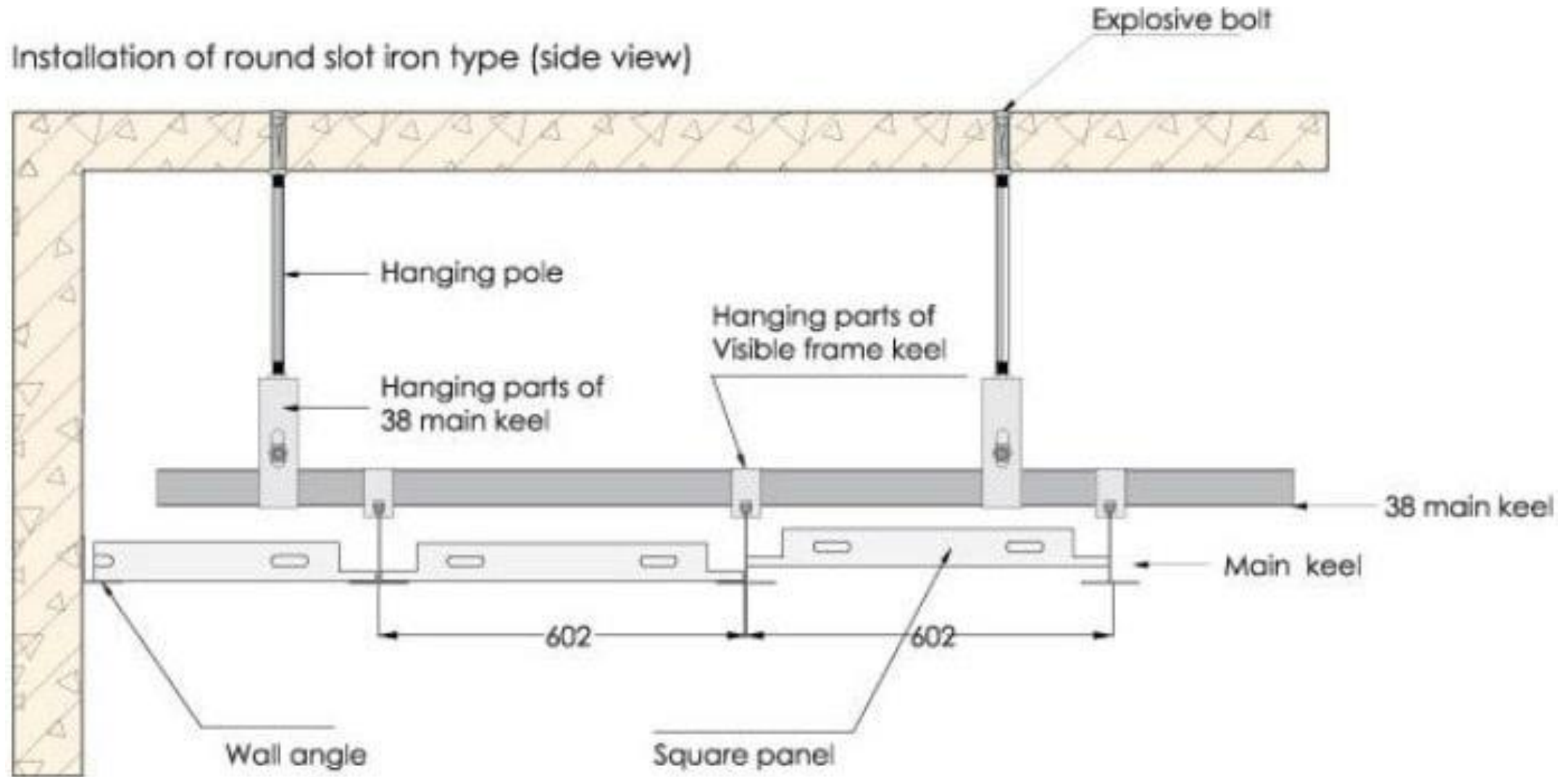
Advantages of False Ceiling

- It provides a smooth homogeneous surface to the roof.
- It provides fire protection as it creates compartmentation.
- False ceiling helps in acoustical treatment.
- It conceals all the non-pleasing elements and hides it from the viewer's eyes.
- It also hides the pipelines and the electrical cables running in the room. All the ducts of air-conditioning can be hidden under it.
- False ceiling materials are easy to install and cheap as compared to traditional roof systems.

Disadvantages of False Ceiling

- The major disadvantage in a false ceiling is pests. They can get through into the space between and can start their own breeding which might lead to a lot of trouble.
- Putting up the decorations or hangings in a false ceiling as the strength and durability of ceiling are important factors
- The false ceiling would reduce the height of the ceiling considerably and hence decent ceiling height is required in the room.

A type of Installation of False Ceiling



Types of False Ceiling

False ceilings can be differentiated into many types based on their uses, material used and appearance and visibility. The major classification based on materials used are listed briefly below,

- Gypsum Ceiling
- PVC Ceiling
- Plaster of Paris Ceiling
- Fiber Ceiling
- Wooden Ceiling
- Glass Ceiling
- Metal Ceiling
- Synthetic Leather or Cloth Ceiling

Gypsum False Ceiling

- Gypsum false ceiling is a hydrated sulfate of calcium.
- This type of false ceiling are lightweight, sound insulated, fire resistance, soft and thermally insulated.
- Gypsum false ceiling comes in the shape of square boards that are hung with the help of iron framework.
- The finishing work on these boards like paints, laminates, wallpapers and texture finish gives good look.



Gypsum False Ceiling

- Uninstalling or repairing gypsum ceiling is difficult and may require the entire ceiling to be broken
- It cannot be used in moist areas like the bathroom, toilet, laundry room etc.
- It can not be molded like a POP false ceiling



PVC False Ceiling

- PVC or polyvinyl chloride is a common material in false ceiling design.
- They have long life span of more than 10 years with low maintenance.
- PVC ceilings are cost-effective alternative to the conventional ceiling.
- PVC is a lightweight plastic material that comes in PVC panels of various designs, sizes, and colors. They have hollow core and smooth shiny surfaces.



PVC False Ceiling

- PVC panels incorporate with flush fitting, hidden ceiling lights, and can access air vents, hatches, and sprinklers without any trouble.
- Hassle-free and easy installation.
- PVC panels are strong and highly durable, Lightweight, Easy to clean, Waterproof.
- PVC is dangerous to health.
- These ceilings are less attractive compared to pop or gypsum ceilings.
- Not resistant to heat.
- **As PVC panels are waterproof, they are suitable in moist or damp areas like bathrooms, toilets, basements, etc.**

Plaster of Paris False Ceiling

- POP or Plaster of Paris is a gypsum-made ceiling.
- POP materials are found in powder form in the market which can be utilized to prepare a paste and use it on wooden boards and fiberboard with the intended shape and design.
- It is highly long lasting and gives good insulation against cold and heat in the room.
- POP false ceiling looks very attractive and outstanding with proper lighting and paintwork.



Plaster of Paris False Ceiling

- POP does not contract when setting and thus does not create cracks after hardening.
- It has a long life span and need less maintenance.
- It can effortlessly molded into any shape as per the design.
- It can not be used in moist areas like toilets and bathrooms
- Lots of wastage during application
- The site needs to be cleaned well after installation

Fibre False Ceiling

- The fiber false ceiling material is prepared by blending synthetic and natural materials like bitumen, wood fibers, tars etc.
- It has good insulation features like soundproofing and acoustic nature.
- Fiber acts as a reinforcement, it provides properties like hardness and toughness and can resist fire that making **it suitable for commercial buildings like offices, shopping malls, retail shops etc.**



Metal False Ceiling

- Metal is a hard and durable material
- When the metal surface is polished it gives a shiny surface
- The metals used in this are galvanized iron and aluminum.
- It needs coating to protect from corrosion
- The hidden members of the structure are easily accessed as the panels are easily removable and reattached.
- It is costly but the installation, fixing and maintenance is low.
- **It is normally used in Industries, schools, hospitals, offices, homes**



Glass False Ceiling

- The glass material is non-crystalline and has brittle and transparent features.
- It has good heat insulation features and is also utilized for false ceiling for office and residential buildings.
- It comes in various shape, size and color and it is utilized in the form of panels in ceiling.
- It is used in restaurants, offices, libraries etc.
- It makes a small space look bigger.



Glass False Ceiling

- It makes a small space look bigger.
- Coloring, laminating are possible.
- Dust and dirt are easily visible on the glass
- It is very expensive
- Requires proper maintenance and regular cleaning

- **It is normally used in Jewelry shops, resorts, libraries, book store etc.**

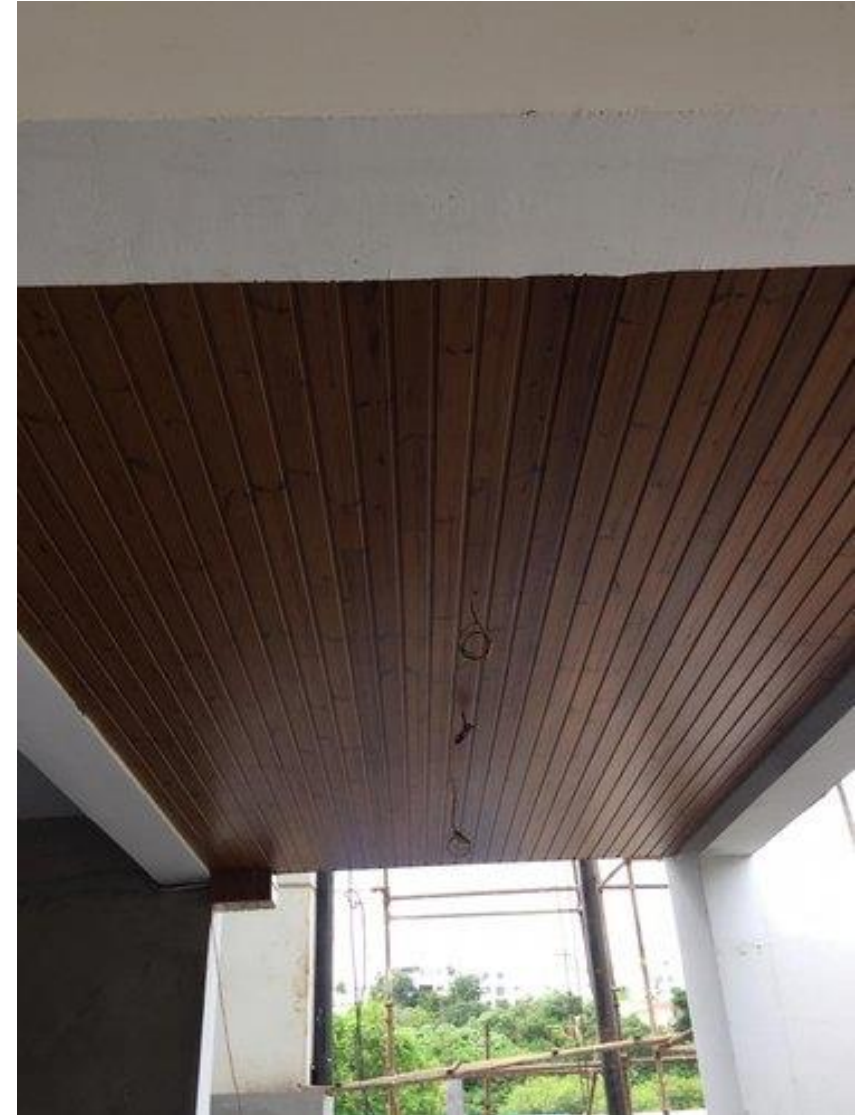
Synthetic Leather or Cloth False Ceiling

- The material utilized is cloth and leather.
- As the material is prepared in factories, it can be of any shape & size.
- It gives an outstanding sight appearance.
- It is suggested for temporary building and tents false ceiling work.
- It has easy and quick installation and it is affordable.
- It collects dust and stains easily
- It has low light transferring capacity
- It is not useful for home decoration.
- **It can be used in Tent, yoga room, event room, exhibition room, restaurant etc.**



Wooden False Ceiling

- Wood is often used in false ceiling due to its natural patterns and textures.
- Wooden false ceiling gives a warm and rustic look to the room interior
- Wooden panels come in the form of hollow blocks, panels, or boards, and plywood.
- Can also add paint or various finishes like laminates, and veneers to give the ceiling attractive and luxurious look.
- It is easy to install, durable
- Possible to sound proof the space using sound absorbent wooden panels
- This type of false ceiling is very useful in cold regions.



Wooden False Ceiling

Some Disadvantages are

- These types of ceilings are prone to termite attack and warping.
- Prone to fire damage.
- The room should be thermally controlled to reduce the moisture.
- Requires high maintenance.
- Very costly.

- **It is normally used in Residential buildings, homes, and Restaurants.**

Thank You

Interior Design

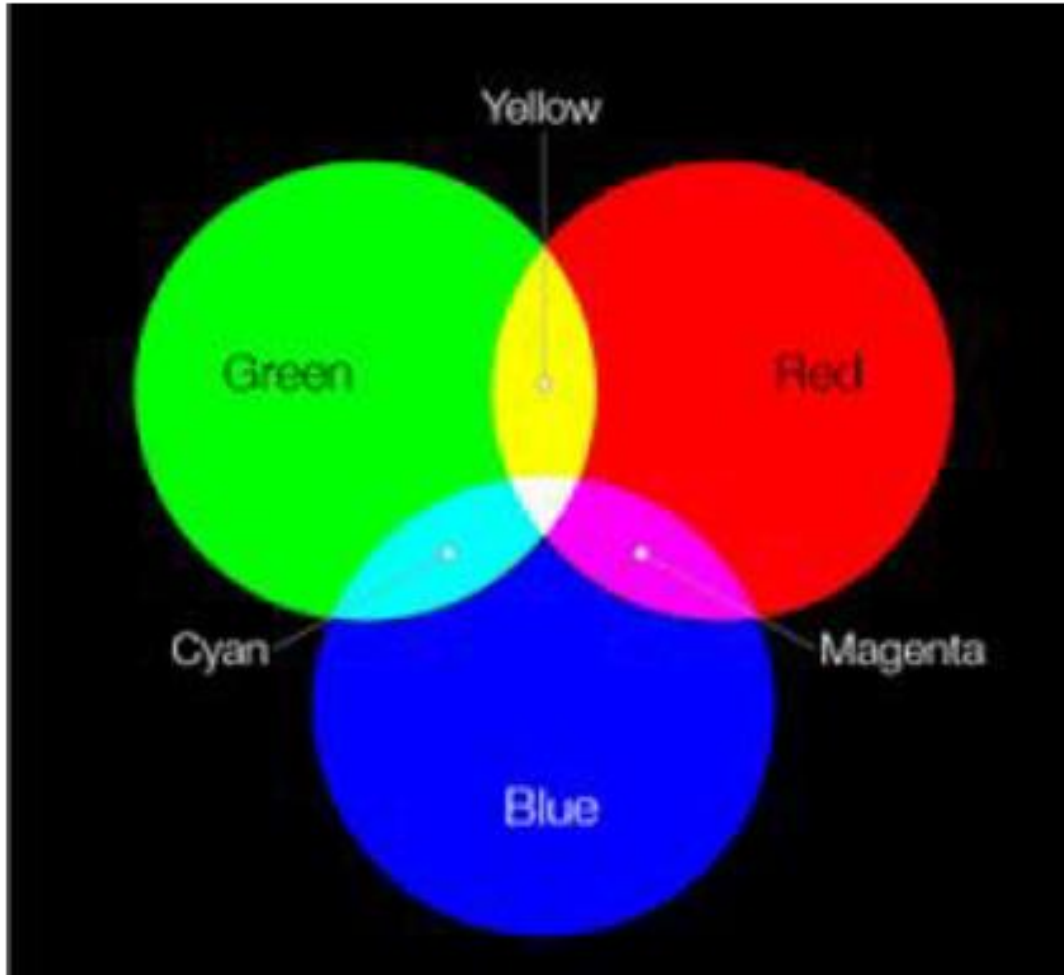
(Study Material : Colour Theory)

Use of Colour theory

Color theory is the collection of primary rules and guidelines that surround color and its use in creating aesthetically pleasing visuals.

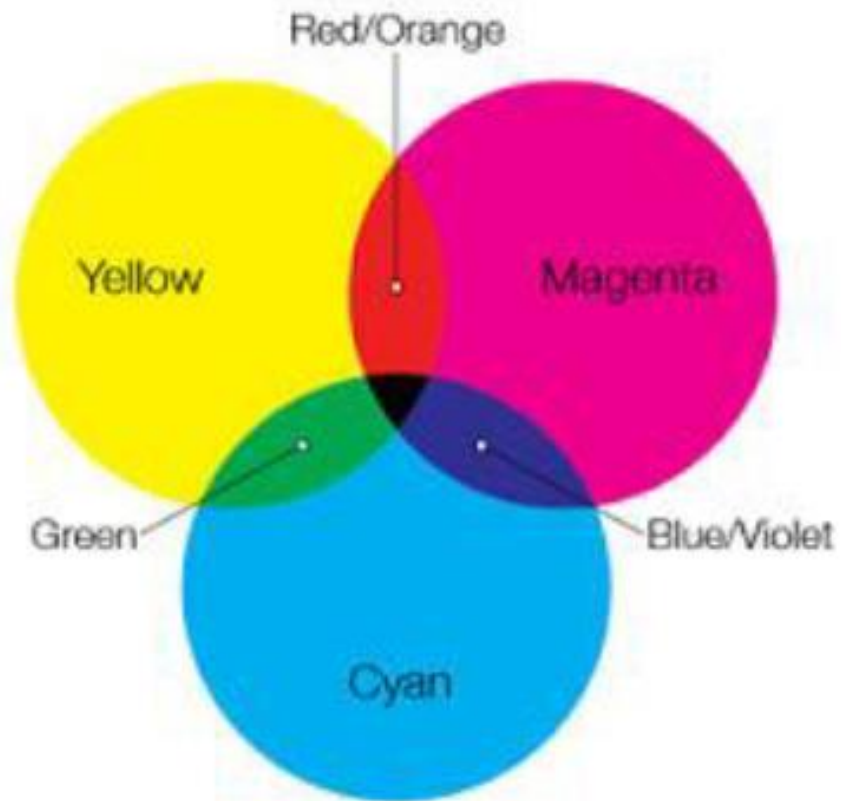
- Required for basic understanding of colors
- Will help in all kinds of designing like graphics, interior, artworks etc.
- Will be used in practice after studying architecture

RGB Colour Model



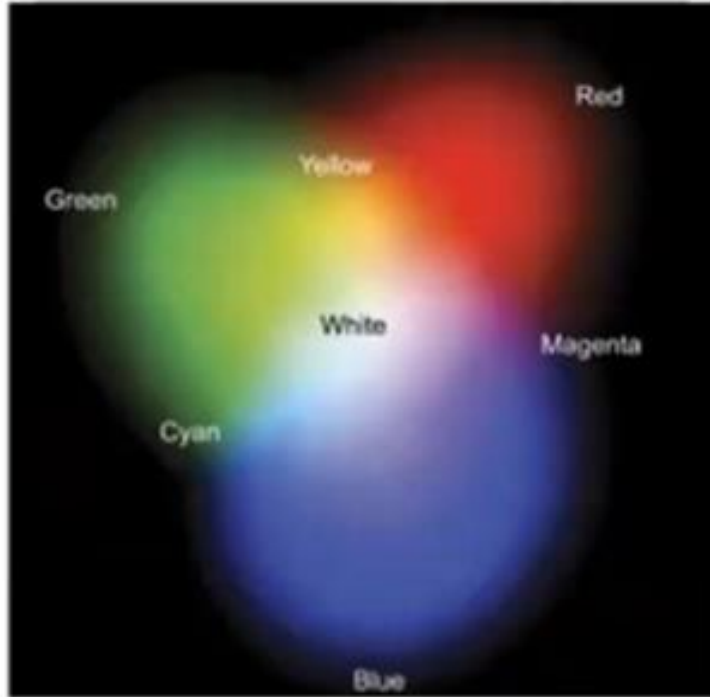
- **Additive colors** are created by adding **colored** light to black.
- The **additive colors** are red, green and blue, or RGB.
- Additive color starts with black and adds red, green and blue light to produce the visible spectrum of colors. As more color is added, the result is lighter. When all three colors are combined equally, the result is white light

CMYK Colour Model



- **Subtractive colors** are created by completely or partially absorbing (or subtracting) some light wavelengths and reflecting others.
- **Subtractive colors** begin as white.

Additive and Subtractive Colour System

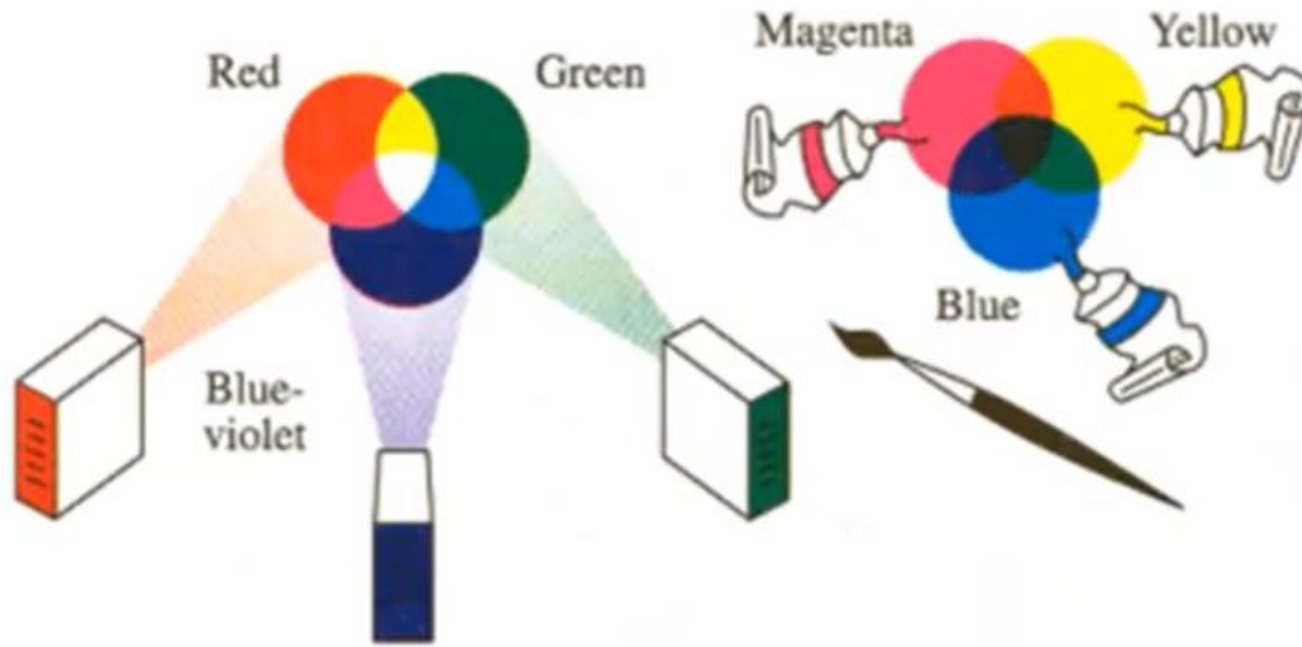


Additive Colour System



Subtractive Colour System

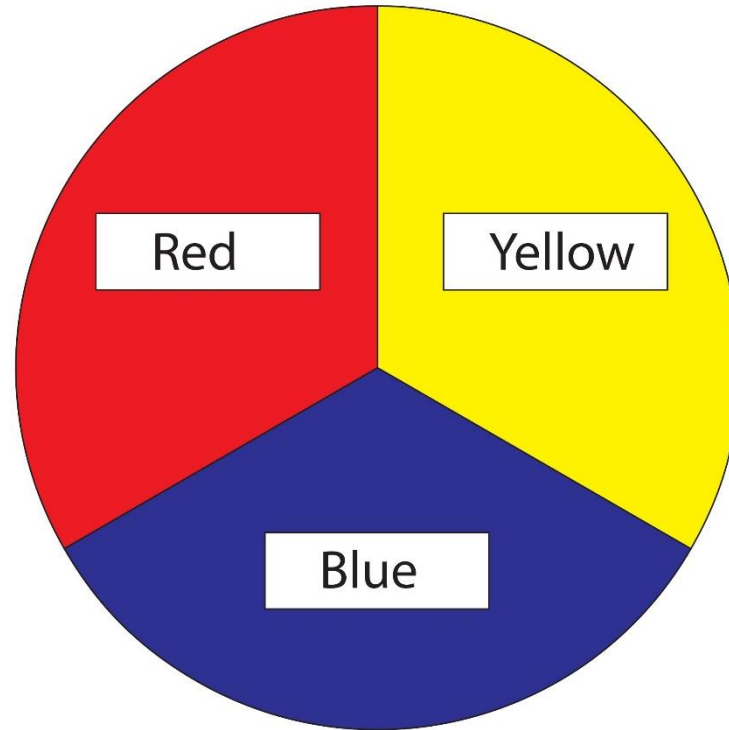
Additive and Subtractive Colour System



Additive Colour System

Subtractive Colour System

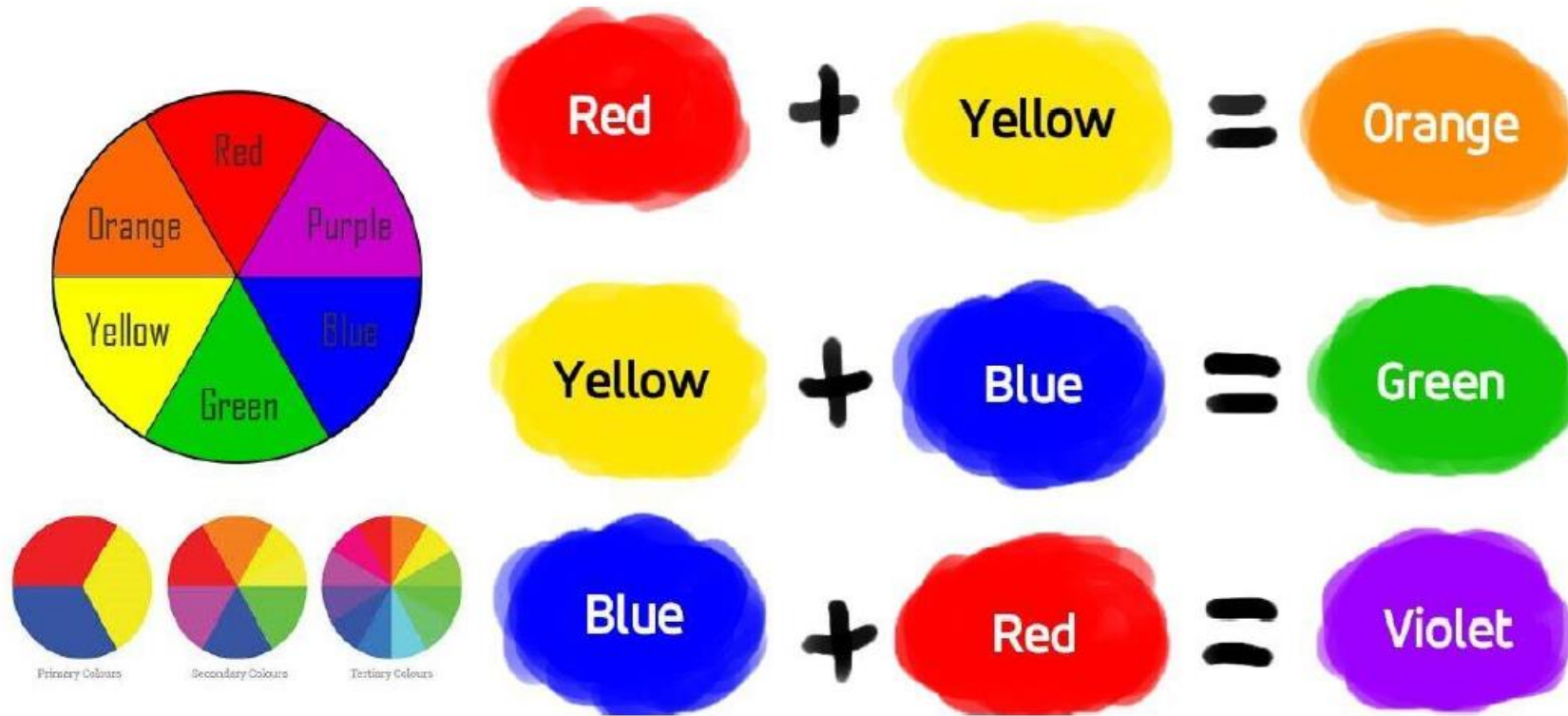
Primary Colours



Primary colors are sets of colors that can be combined to make a useful range of colors.

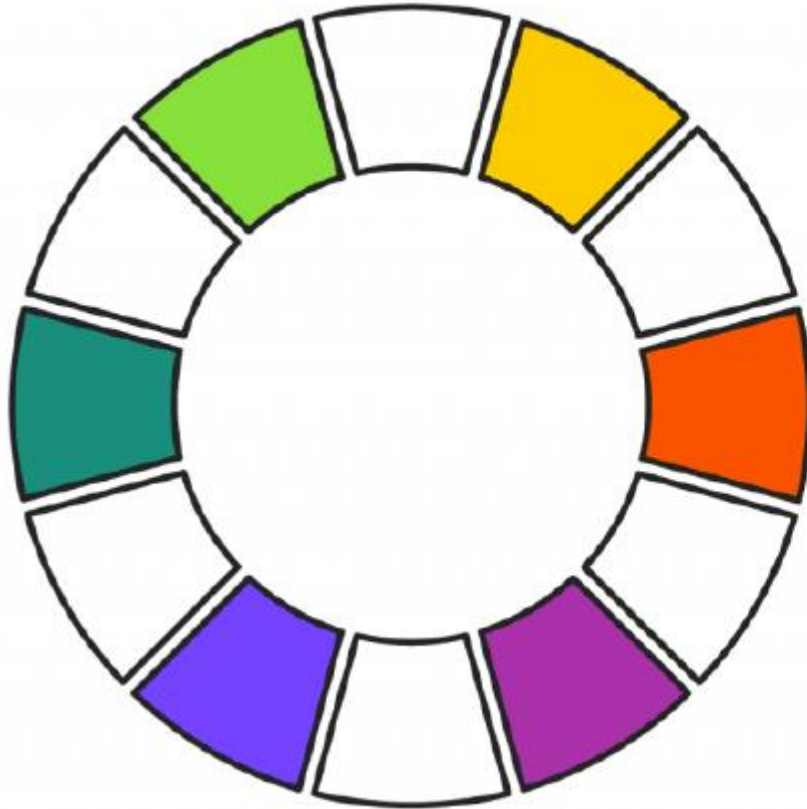
The primary colors are those which cannot be created by mixing other colors in a given color space.

Secondary Colours



Secondary Colours

Tertiary Colours



TERTIARY

YELLOW ORANGE

RED ORANGE

RED VIOLET

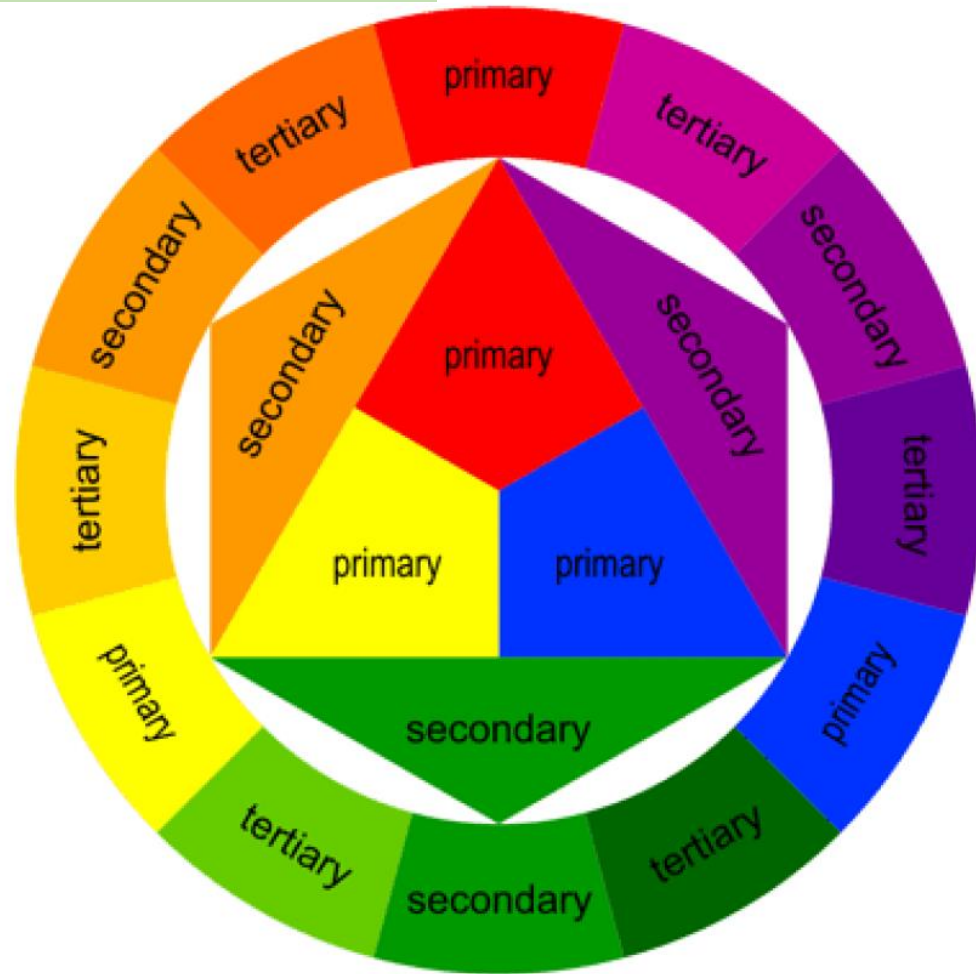
BLUE VIOLET

BLUE GREEN

YELLOW GREEN

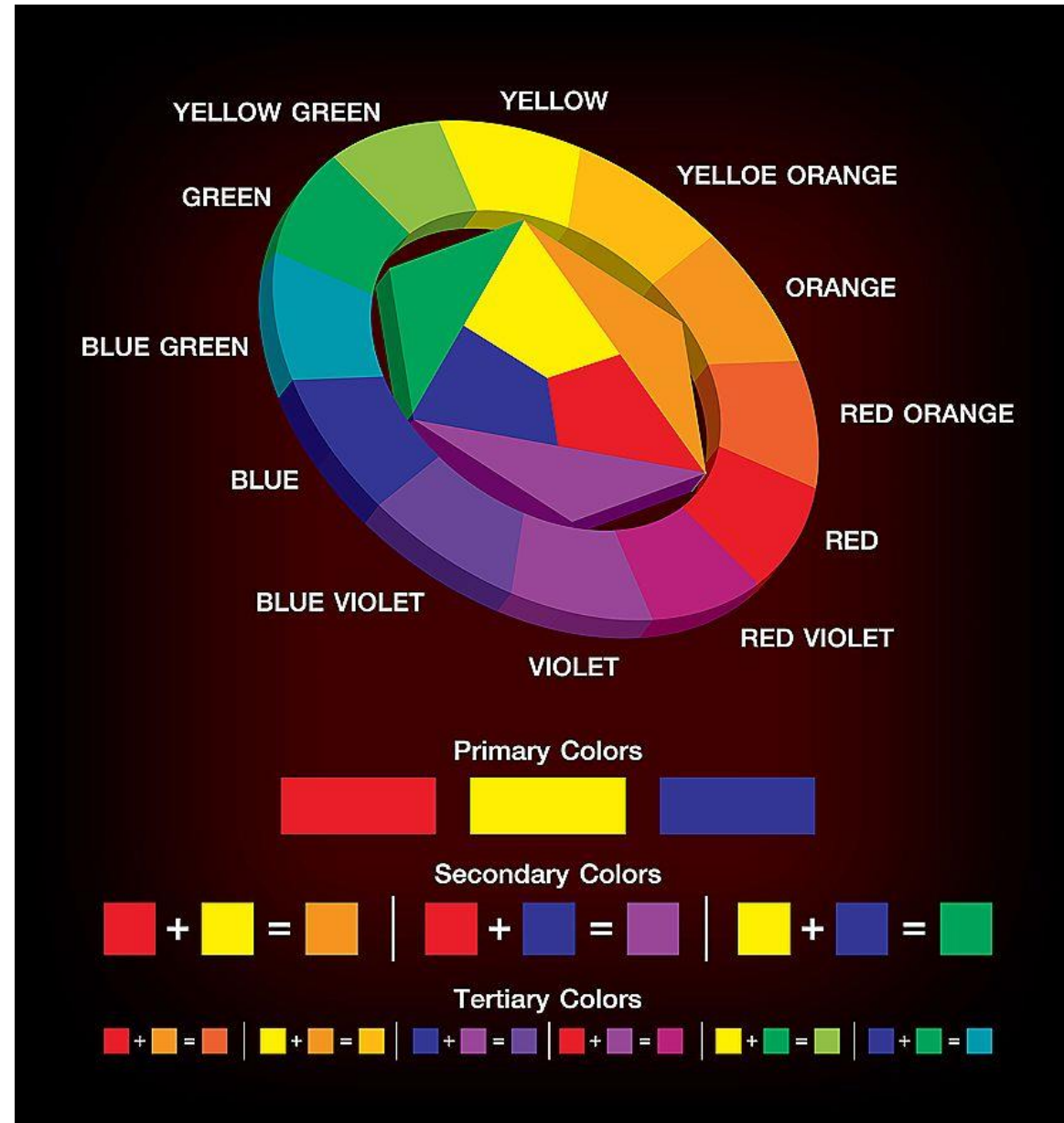
A tertiary color or intermediate color is a color made by mixing full saturation of one primary color with half saturation of another primary color and none of a third primary color, in a given color space such as RGB,

12 Part Colour wheel



This is the basic colour wheel and it will guide you in making colour choices. ... Red, blue, and yellow are primary colours. When you mix red and yellow, you get orange; mix blue and yellow, you get green; mix red and blue, you get violet. Orange, green and violet are hence called secondary colours.

12 Part Colour wheel

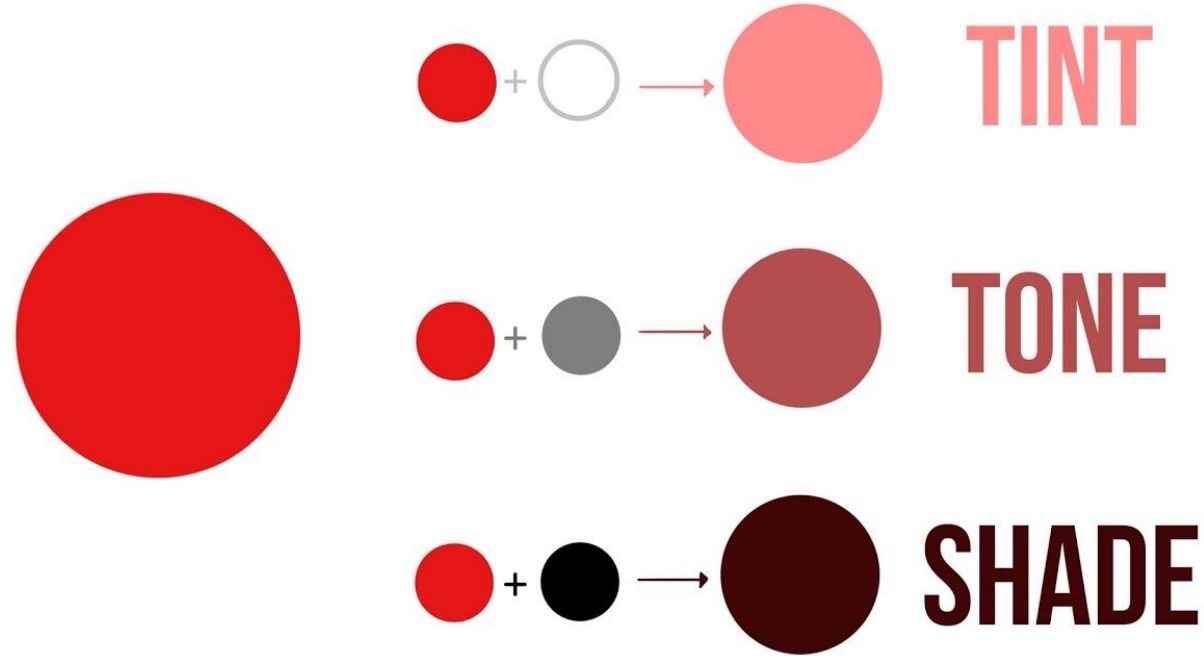


Colour Terminologies



- **Hue** – How it appears (e.g., “is green”).
- **Chroma** – How pure it is: i.e., if it has shades (black added), tints (white added) or tones (grey added).
- **Lighting** – How pale or saturated it appears.

Tint, Tone and Shade

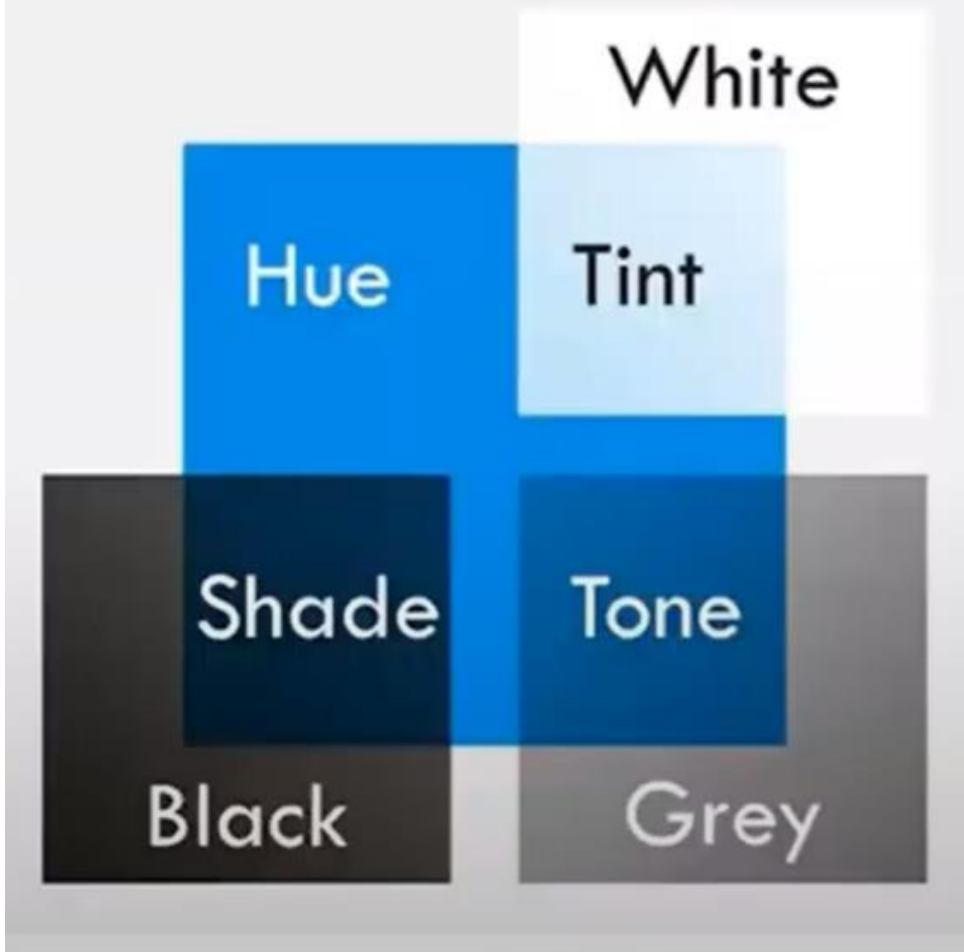


In colour theory, a tint is a mixture of a colour with white, which increases lightness, while a shade is a mixture with black, which increases darkness.

Tints are light values that are made by mixing a colour with white. For example, pink is a tint of red, and light blue is a tint of blue. Shades are dark values that are made by mixing a colour with black. Maroon is a shade of red, and navy is a shade of blue.

Tint, Tone and Shade

Hues, Shades, Tints & Tones



Warm Colours and Cool Colours

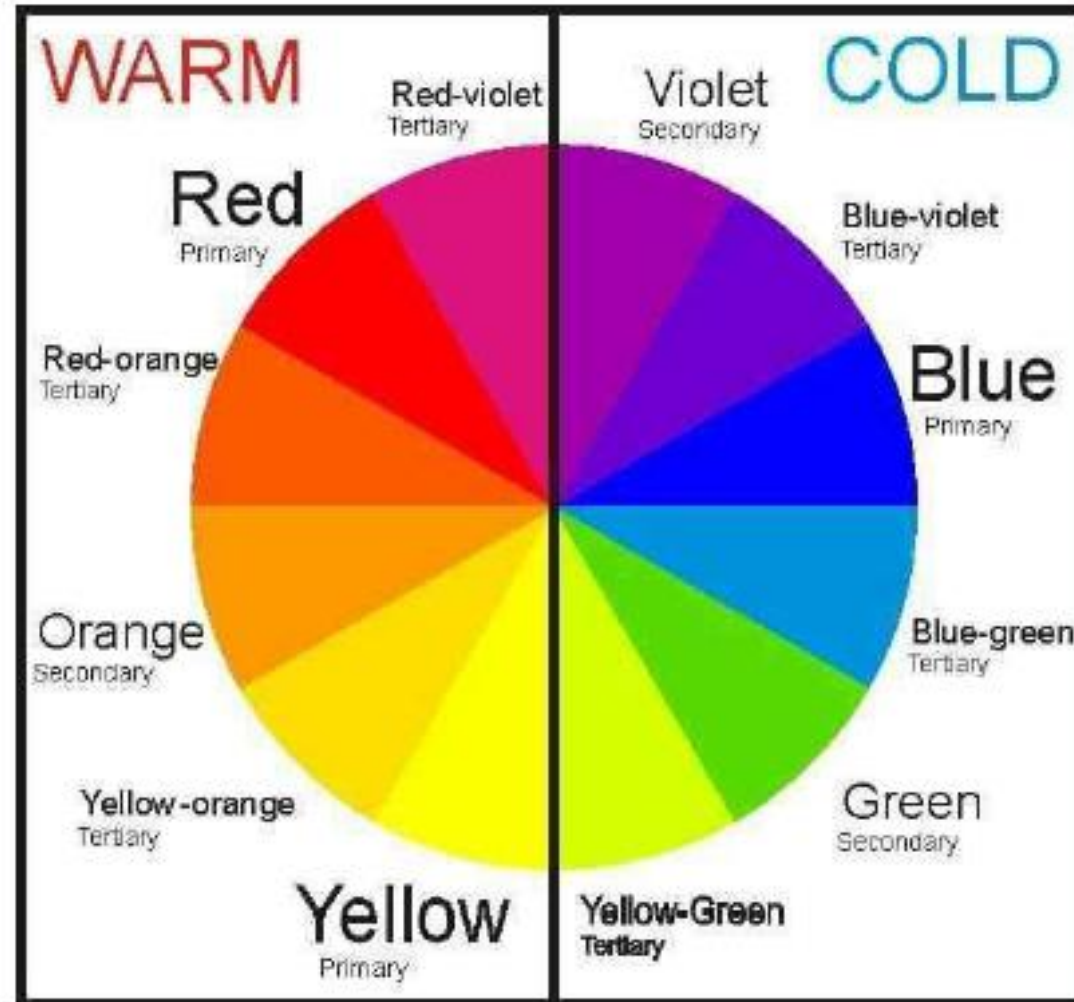
Warm colour

One group of colours in the colour wheel is associated with the sun, warmth and fire. These colours are called warm colours since they evoke warm feelings in people. Yellow, red, orange and different shades of these colours are warm colours.

Cool Colour

Cool colours include green, blue, and purple, and variations of those three colours. Blue is the only primary colour within the cool spectrum. Greens take on some of the attributes of yellow, and purple takes on some of the attributes of red. They are often more subdued than warm colours.

Warm and Cool Colours



Warm and Cool Colours



Warm Colours



Cool Colours

Colour Schemes

Color schemes are logical combinations of colors on the color wheel.

The purpose of a color scheme is to create an aesthetic feeling of style and appeal.

Monochromatic Colour Scheme

- Monochromatic colour scheme is comprised of variations of one hue by adjusting the shades, tones and tints

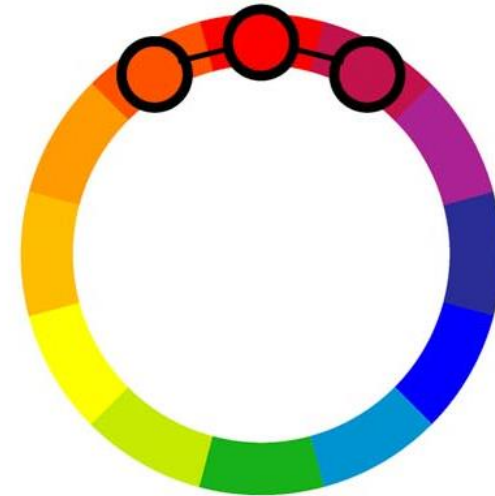
Monochromatic



Analogous Colour Schemes

- Analogous colour scheme is comprised of colors that are next to one another on the color wheel
- It is a set of 3 continuous colors

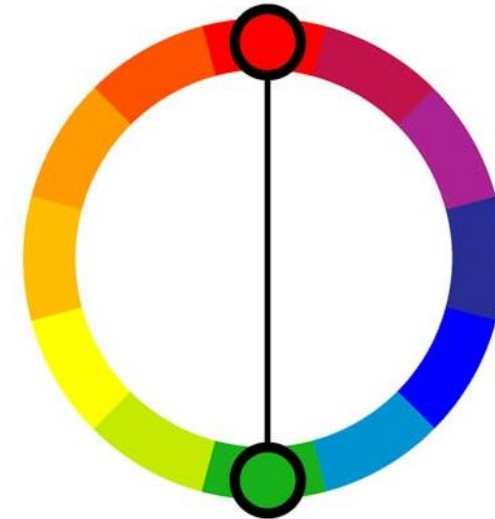
Analogous



Complementary Colour Schemes

- Complementary colour scheme is comprised of two colors that are opposite to one another on the color wheel.
- This color scheme is used to create contrast.

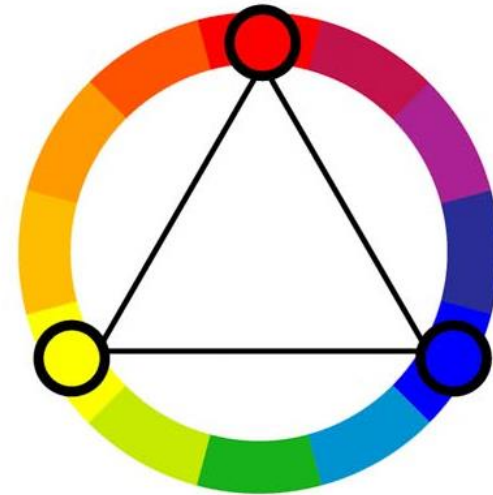
Complementary



Triadic Colour Schemes

- Triadic colour scheme is comprised of three colors that are equidistant from one another on the color wheel.
- They form an equilateral triangle

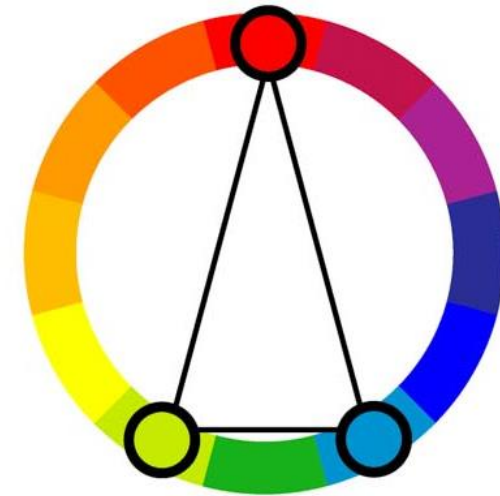
Triadic



Split-Complementary Colour Schemes

- Split-complementary colour scheme is comprised of opposite colors like complementary color scheme but adjacent colors of any one color are taken
- It is a set of 3 colors and it is also used to create contrast.

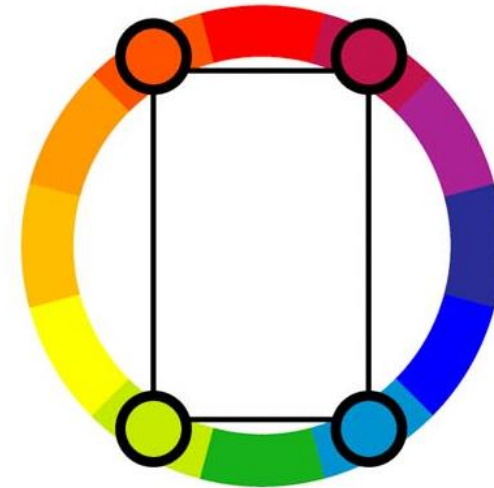
Split-Complementary



Tetradic Colour Schemes

- Tetradic colour scheme is comprised of two sets of complementary colors in color wheel
- They forms a rectangle
- It is also known as double-complementary color scheme as there are two complementary pairs.

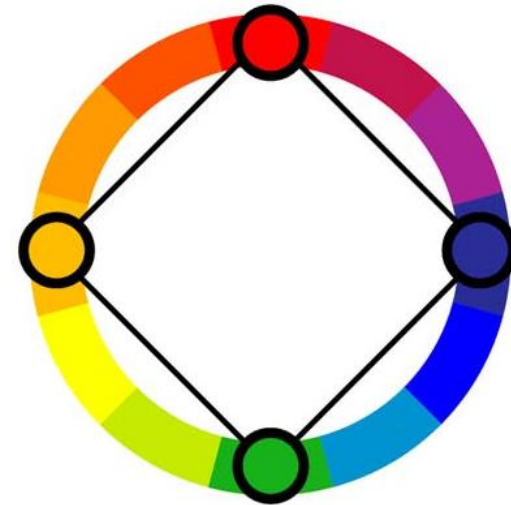
Tetradic



Square Colour Schemes

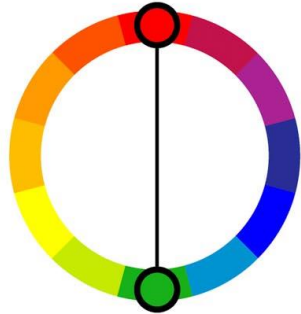
- Monochromatic colour scheme is a four-color combination consisting of a base color and three colors that are 90 degrees apart from the base color
- They make a square on the color wheel

Square

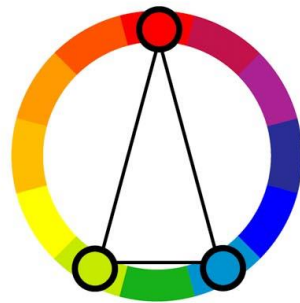


7 Colour Schemes

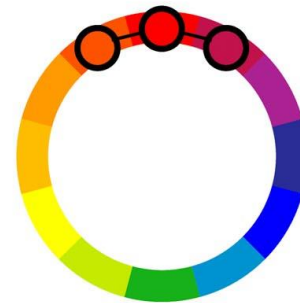
Complementary



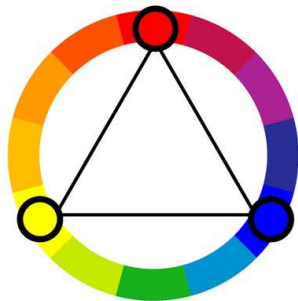
Split-Complementary



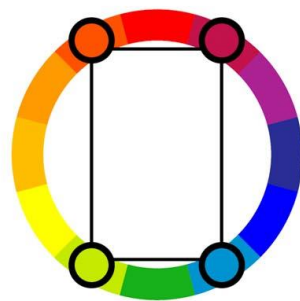
Analogous



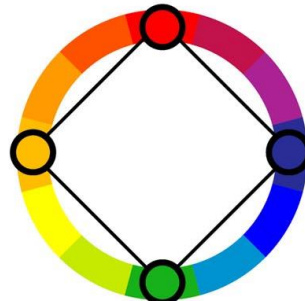
Triadic



Tetradic



Square



Monochromatic



Thank You

Terminologies

May 09, 2023

Pelmet

A strip of wood or cloth fixed above a window in order to hide the curtain rail



Cornice

An ornamental moulding round the wall of a room just below the ceiling.



Parquet

Parquet flooring is a traditional style of hardwood flooring, that is used to create decorative and mosaic-like patterns in homes and interior settings. The decorative hardwood flooring is made from short wooden battens that are slotted and placed together in often intricate, geometric and mosaic arrangements.



Stucco

Stucco is a finish that is used on walls and surfaces to give it a desired color and texture. It is tough and can be used for interior and exterior surfaces.

It can be used on the exterior of a house or even on the base of a kitchen island



Screens

They illustrate depth and add visual interest in a room.

They can hide unsightly clutter or divide a room in half.

They can also serve as a patterned backdrop in place of costly wallpaper.



Banquette

An upholstered bench along a wall, especially in a restaurant or bar.



Coping

A coping is an architectural fabrication that lays on top of a wall and comes down the sides of it, encasing the brick and providing weather protection. However, a capping sits on the wall with its edges flush to the width of the wall.



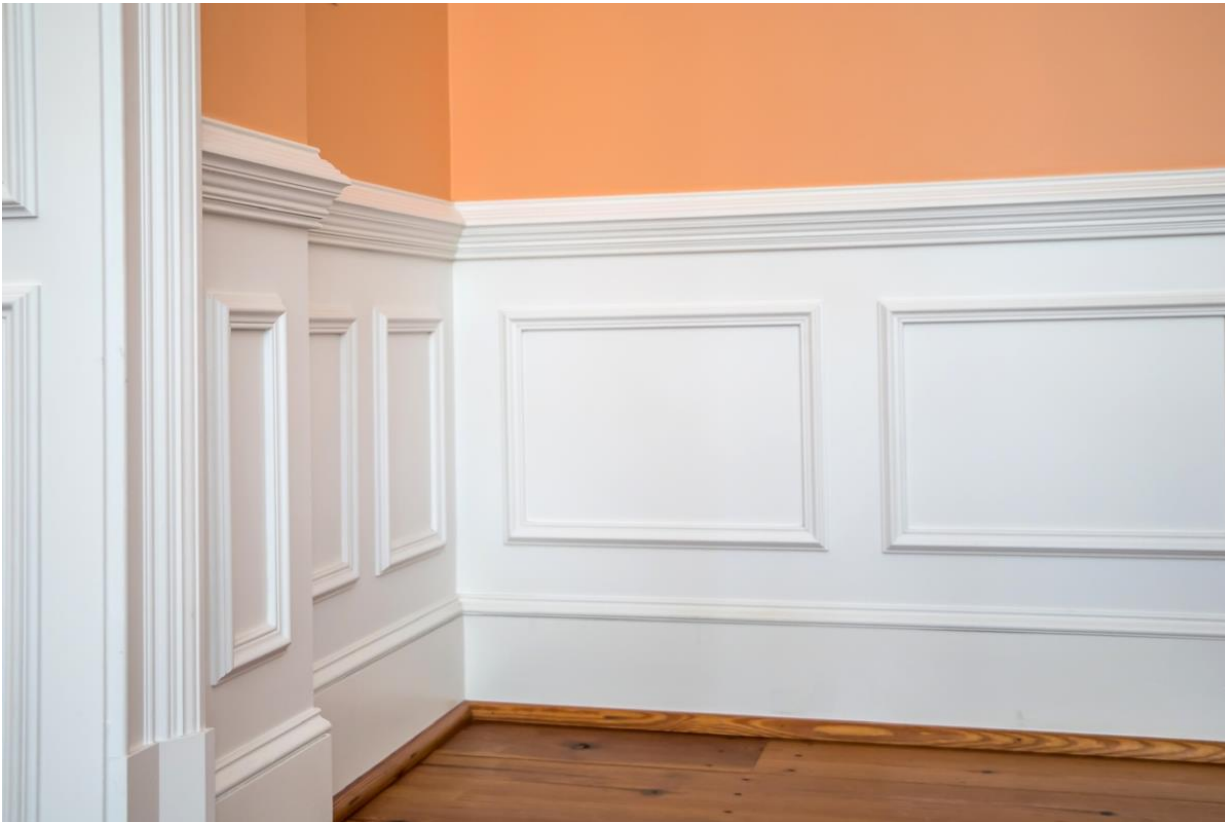
Skirting

Skirting is a board that runs along the border between the interior wall and the floor. It covers the improper edges, avoids scratches from furniture and gives a room a good finish.



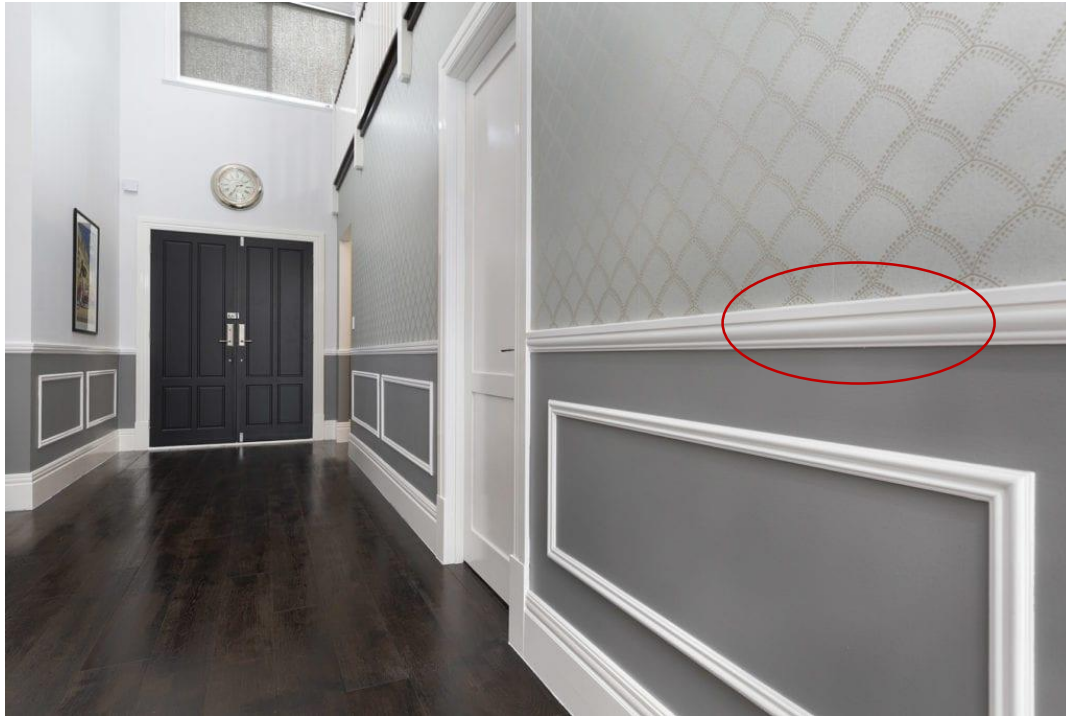
Wainscoting

Wainscoting is a type of decorative paneling. It is to protect the walls from chair or table damage, scuff marks from footwear, and other damaging elements



Dado rail

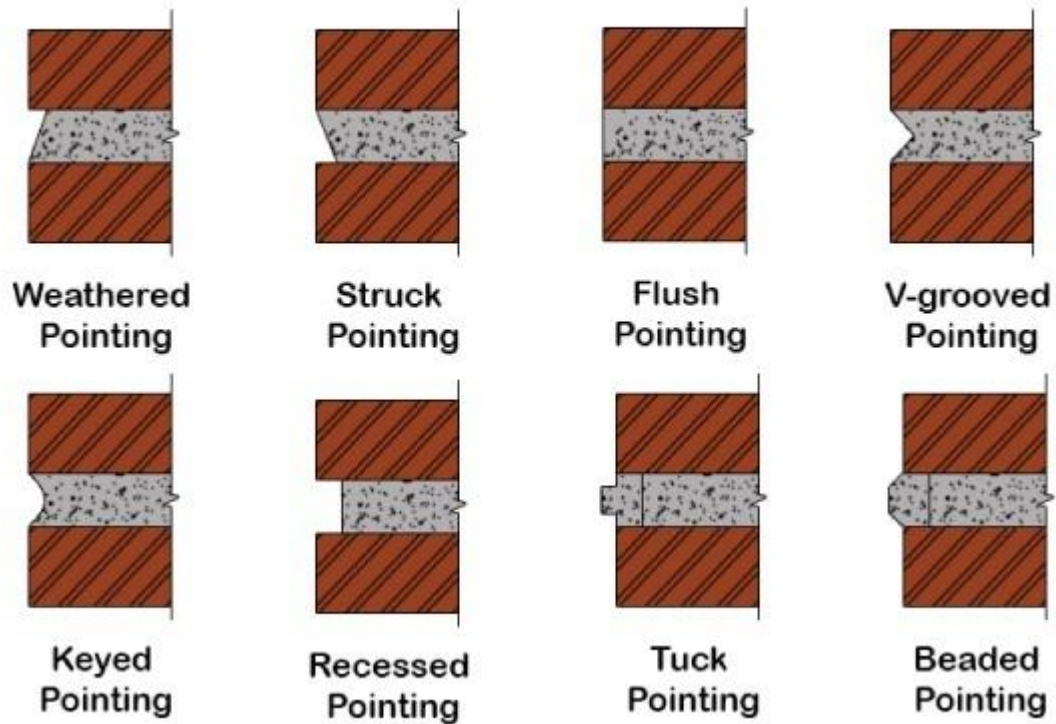
The dado rail, also referred to as a chair rail, protected the wall in areas that would be of high traffic and have people passing or furniture touching the wall.



Pointing

Pointing refers to the finishing of mortar joints in masonry whether it's stone or brick.

Types of Pointing



Cupboard, Wardrobe and Closet

Cupboard

A cupboard is a piece of furniture with doors at the front and usually shelves inside.

These are built-in shelves behind doors. They are mainly found in kitchens.

Example : She was in the kitchen, opening cupboards, moving boxes and cans to see what lay behind.

Wardrobe

A wardrobe is a tall piece of furniture, usually in a bedroom, that has space for hanging clothes.

Example : I hung my dress up in the wardrobe.

Closet

A wardrobe is sometimes built into the wall of a room, rather than being a separate piece of furniture.

a built-in wardrobe is called a closet.

Example : There's an iron in the closet.

Cupboard, Wardrobe and Closet



Cupboard



Wardrobe



Closet

Drawer

A sliding, horizontal compartment, as in a piece of furniture, that may be drawn out in order to gain access to it.



Thank You