7. Color Theories and Schemes in Interior Designing

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7.1 Introduction:

Color is one of the most important elements of any design whether its interior designing or fashion designing, because it is the first element which attracts the eyes. Beauty and attraction colors also affect the moods of the humans as some colors keep the mind calm and quiet where as some colors give energy and so on which we will study later in this chapter. This is known as color physiology.

A person with a normal vision can distinguish over 10,000 colors. Now the question is what are the factors that help us to see and recognize the colors?

In history we have many theories to prove how colors were created according to old theories all the colors were created through white and black but the first modern theory of color is proved by Sir Isaac Newton in 1666. He first introduced the color wheel which is still used by artists and Designers.to develop color harmonies.

7.2 Importance of Colors in Interior Designing:

Interior Designing is related to creativity but all the interior designers follow some rule based on design principles and elements when they are used in a balanced way then only interior designer can create an aesthetically pleasing interior, and it also brings an increased functionality.

There are seven elements which are taken into consideration in interior designing they are Space, Line, Form, Light, Color, Texture, Pattern. All these elements are to be put together in a balanced way, here in this chapter we will discuss only one element ie. Color.

Color is one of the most important elements in interior designing as it creates mood, defines unity, and perception. Color evokes memories, mixes emotions effects psychologically.

Before deciding a color for a room, the interior designer has to think about for what purpose the room is of what activities are going to occur in that room, how the natural and artificial light is affect the color both in day and night, and even the space and size of the room also matters a lot as lighter colors will create an illusion of large space for a smaller space and darker colors will create a powerful dimension to larger space. So, in this chapter will have a detailed study of colors implemented by an interior designer.

A. To Experience Color Three Factors Are Must:

- Light this is the main source of color after many experiments' scientists Have proven that light is the main source of color when light passes through a prism in a dark room it split into all the components of the spectrum and we can see different colors like red, orange, yellow, green, blue, purple etc.
- Surface is the second factor that helps us to see the color when the light falls on the surface in different angles and in different directions, we are able to see different colors, such as Red, Orange, Yellow, Green, Blue, Indigo, Violet.
- The third factor of experiencing color is the eye as eye is the perceiver of color We can see the color through the interaction of light with the colored object. The color of an object is seen because the object reflects, absorbs, and transmits one or more of the colors.

B. All the Colors Have Three Characteristics:

A. HUE: This is the name of the color such as red, yellow, blue, green etc. The term hue should not be changed with the term color. Hue refers to only one dimension of color.

B. VALUE: This is also known as tone**.** This is the lightness or darkness of the color. It is the quality which makes difference between two same colors for example light blue and dark blue and so on.

If white is added to the hue, it becomes lighter, more the white lighter the color and after certain stage the color will look white**.**

If black is added to the hue, it becomes dark. More the black dark the hue and after certain value addition the hue becomes black.

C. CHROMA: This is the purity of the color. It is the clarity, intensity, brightness or dullness of a hue. That is how pure is a color is tested and the quality of one color makes the difference with other color. For example, the quality of yellow makes the difference with ocher yellow or lemon yellow. It is measured with the colors of the spectrum as it is these colors are pure in chroma.

7.3 What is Color Theory?

The color theory uses various principles such as hue, value, intensity, and temperature to harmonize colors. By combining different tints, shades, and hues of a single color or mixing multiple colors, interior designs can create effects that evoke emotion or convey a message. Color theory is that theory where the basis for the primary rules and guidelines that surround color is taught and its use in creating aesthetically pleasing arrangement is done. By understanding color theory basics, you can begin to parse the logical structure of color for yourself to create and use color palettes more strategically. The result means evoking a particular emotion, vibe, or aesthetic. For the understanding of color theory color wheel is the best tool this is of great help for all the interior designers as with the help of color wheel it becomes easy to match and mix colors and to create the required aesthetic, combinations,

of the home decor. The color wheel is of basically traditional one and the other is a modern one, earlier the traditional color wheel was used but after the digital development the digital color wheel gained much popularity which can be taken from different online sites. In this chapter we will see traditional color wheel.

7.4 Characteristics and Use of Color:

The color wheel explains the color relationship and promotes our understanding of colors mixing and color schemes. This is a continuous circle of pure colors, with the colors occurring in the same sequence as the rainbow. That is known as VIBGYOR. The traditional color wheel and the modern color wheel are the same but due to the light effect there is a slight difference in the colors of both the color wheels. The below is the basic traditional color wheel details

Primary colors: Primary colors are the basic colors and these colors cannot be derived by mixing with any other colors but all the other colors can be derived by these colors in different ratios. So, these colors are also known as mother colors. These colors are RED, YELLOW and BLUE.

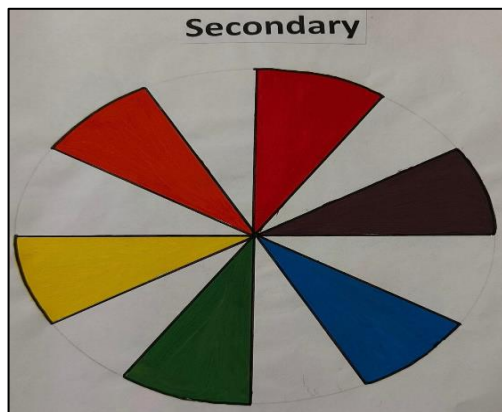**RED**

YELLOW

BLUE
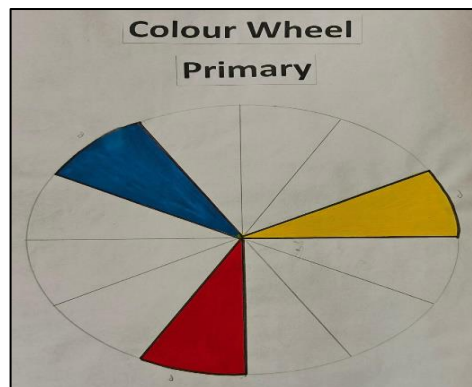
Secondary Colors: Secondary colors are derived from the primary colors. When any two primary colors are mixed in equal ratio then the color derived is known as primary color. When we mix

RED +BLUE = VEILOT

BLUE + YELLOW = GREEN

YELLOW +RED = ORENGE

So violet, green and orange are known as secondary colors.

Territory colors – when one primary color and one neighboring secondary color are mixed in equal quantities then the color derived are known as territory colors.
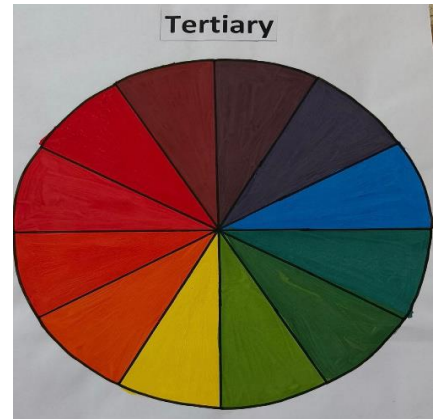
RED+ORANGE=ORANGISH RED

ORANGE+YELLOW = YELLOWISH ORANGE

YELLOW+GREEN =YELLOWISH GREEN

GREEN+BLUE = BLUISH GREEN

BLUE+VIOLOT=BLUISH VIOLOT

VIOLOT + RED = REDISH VIOLOT

The above color wheel is having all the three parts of the color wheel primary, secondary and tertiary colors.

7.5 Color Schemes:

Color schemes are the relationships between different colors in a design. This is the combination of colors that can be used to suit the eye and the mood and the place where, when or to the taste of the individual.

A. **Achromatic colors scheme:** This is the color scheme which always uses only black, white and gray in different combinations. According to this combination the effect may be soft or bold but it always looks smart and attractive.
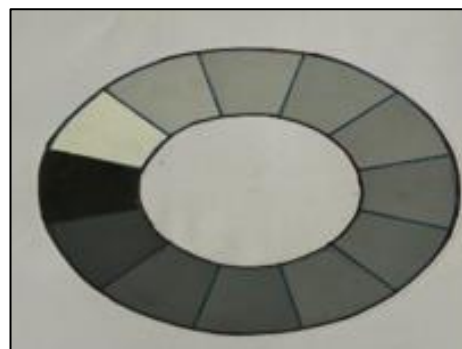
Figure 7.1: Achromatic Colors Scheme

B. **Monochromatic Color Scheme:** When only shades and tints are created from only one hue they are known as monochromatic colors as we know shades are created by using black in a hue in different ratios and tints are created by using white in a hue in different ratios. For example, when pink red and maroon are used together, pink is derived when white is combined in red and maroon is derived when black is mixed with red.
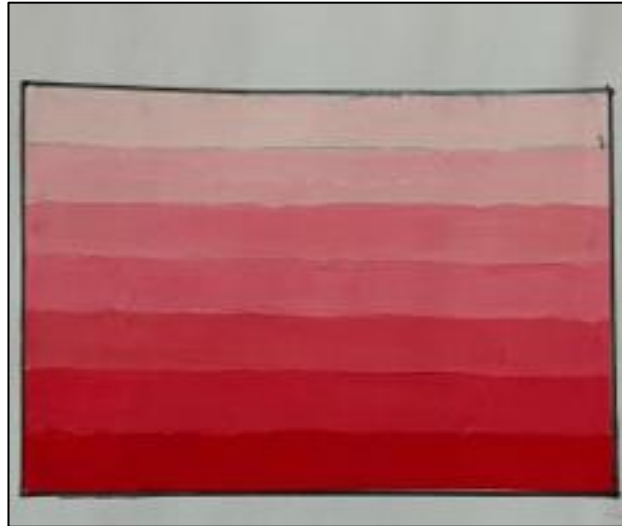
Figure 7.2: Monochromatic Color Scheme

C. **Complementary Color Scheme:** When the colors opposite to each other in the color wheel are used then this combination is known as complementary color. As the opposite colors complement each other Here all the hues, shades, tints and tones opposite to each other will come under complementary color scheme examples are Red & green, blue and orange, yellow and violet etc.
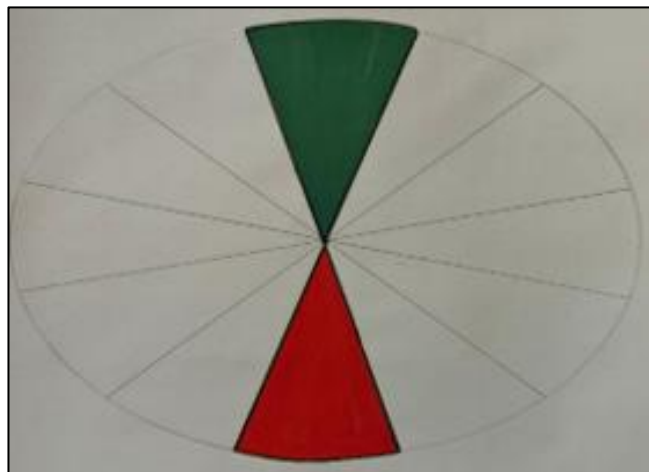

Figure 7.3: Complementary Color Scheme

D. **Split Complementary Color Scheme:** This color scheme consists of one hue and two hues which are on either side of the opposite hue that is the opposite hue is not taken but the immediate next hue opposite of the basic hue in the color wheel is taken, for example if red is taken as the first color then the opposite color in the color wheel is green that color is not considered but the next color that is either blueish green or yellowish green is chosen in this color scheme.
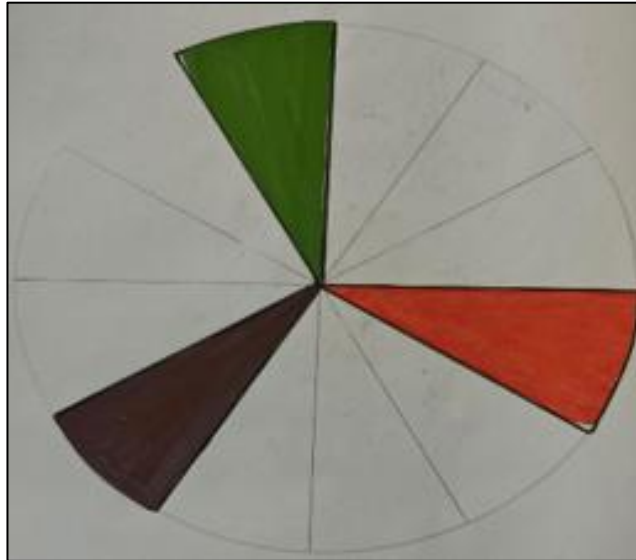
Figure 7.4: Split Complementary Color Scheme

E. Analogous Color Scheme: This color scheme uses any two or three neighboring continuous hues on the color wheel or any of their shades, tints or tones. Example are yellow, yellowish green and green.

Figure 7.5: Analogous Color Scheme

F. Tetradic Color Scheme: In this color scheme any four colors are taken into consideration with equal distance that means if we choose green from the color wheel then we have to take yellow, red, and violet in combination.
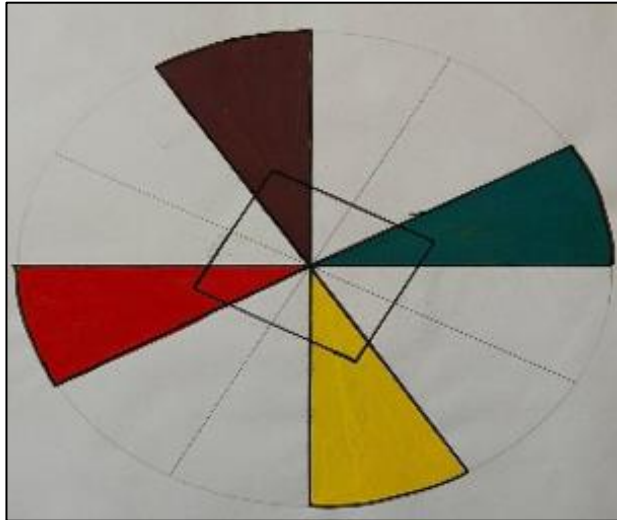
Figure 7.6: Tetradic Color Scheme

G. Triadic: In this color scheme any three colors with equal distance in the color wheel are taken into consideration as we know in the color wheel is divided into 12 parts so in this scheme, we have to choose any three colors by giving a gape of three colors i.e. we have to leave three colors after choosing one color. For example, if we take blue then we have to take yellow and then red etc.
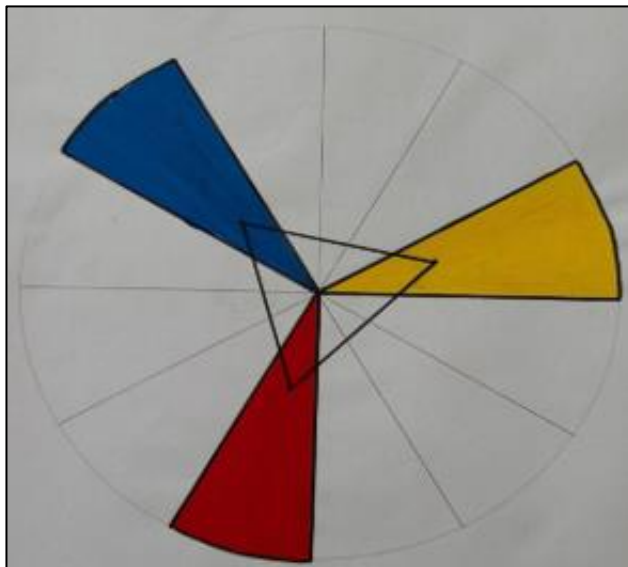

Figure 7.7: Tetradic

Other than this we can even use the combination of primary, secondary, and tertiary colors or their shades, tints and tones as color schemes. These color schemes are also known as triad color schemes as they form an equilateral triangle on the color wheel.

7.6 Color Temperature:

While we observe colors, we can understand that some colors give warmth and some colors give cool effect this effect is known as color temperature and a designer has to take good care while selecting colors so that we always get a positive effect.

Know we will see around which colors all the warm colors are surrounded and which colors are around the cool colors**.**

Warm Colors: When the color wheel is divided into two equal parts then colors of one half are known as warm colors, they are REDISH VOLITE, RED, REDISH ORANGE, ORANGE, YELLOWESH ORANGE, YELLOW Warm colors represent heat they give warmth to the eyes they appear to be advance and attract eyes they even make the space look smaller so while selecting warm colors much care has to be taken.
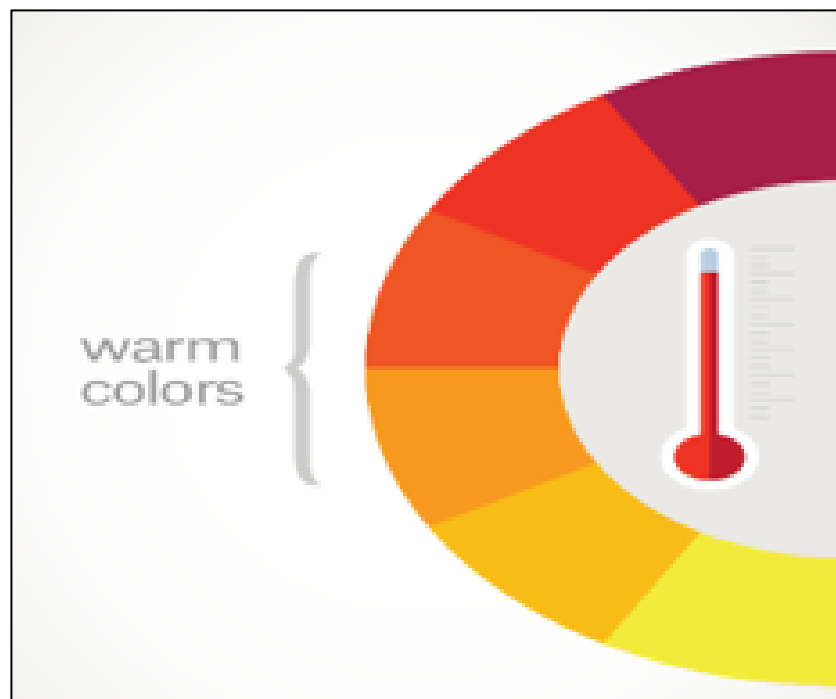
Figure 7.3: Warm Colors

Cool Colors: As we have seen one half of the color wheel represents warm colors the other half represents cool colors, they are violet, bluish violet, blue, blueish green, green, and yellowish green.

These give a cool sensation when we use these types of colors and they are associated with sea, water, ice, sky and glass. Cool colors recede and make objects appear similar and more distant. If these colors are used in interiors, then they give an illusion of big and wide space to a smaller space.

Figure 7.3: Cool Colors

7.7 Color Types:

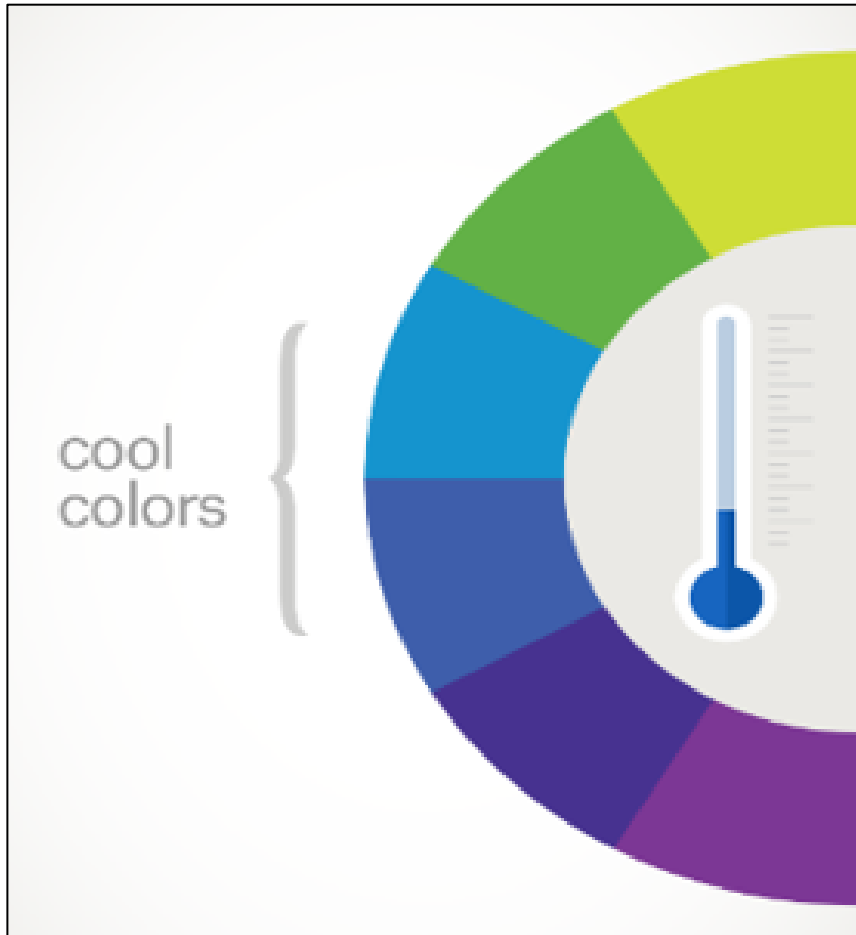For a designer it is very important to know which color goes well with other colors and how to create more color shades from each base color colors are called differently based on their mix

A. **Hues:** These are the pure colors which are there in the color wheel. These are derived by mixing one color with the other color in equal quantities.
B. **Tints:** Tints are derived when hues are mixed with white in different ratios. The way of increasing of white will lighten the hue and decreasing of white will increase the hue.
C. **Tones:** To get a tone both white and black are mixed in a hue or we can say gray is mixed in a hue to get a tone and the ratio of these three i.e. hue, black and white while change the tone we will get different tones.
D. **Shades:** When only black is added to a hue in different ratios then the color derived is known as the shades of that hue, the ratio of the mixing of black will change the hue color more the black darker the shade less the black dim is the shade.
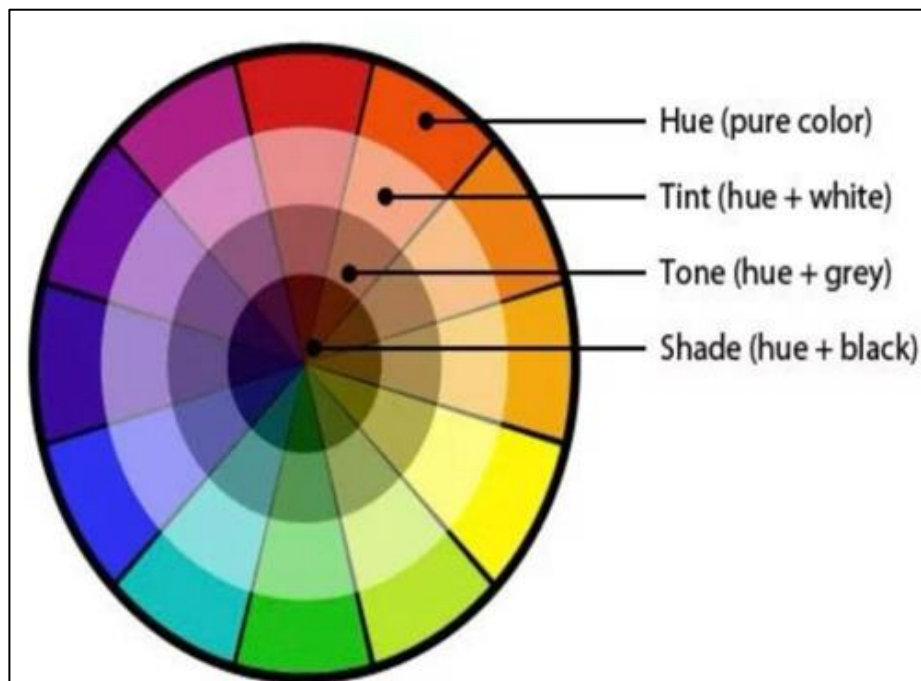
Figure 7.3: Color Types

7.8 Psychological Effects of Different Colors:

Introduction As we know colors not only attract the eyes, they also influence the human moods, effect emotions in addition to aesthetics they even create illusions. Earlier we have a detailed study of colors now we will study about the psychological effect of each color. As this helps an interior designer to select the colors more effectively to give the designer's best.

An interior designer combines a person's choices of colors, woodworks, glass and ceramics in such a way that it creates a natural and logical flow of the place, this also shows a person's inner self where the colors play very important role as with the help of colors used the designer can create many illusions. As the clients for whom designing has done spends hours with his family and friends and with his near and dear ones in the rooms. So, the designer must know the psychological effect of each color in detail.

What is Color Psychology?

Color psychology is purely based on the scientific effect of different hues, tone, tints and shades on human brains, it is the color theory how each color affects a person's creativity, mood and productive. In an overall way we can say that there are certain hues which make a person feel relaxed and will have a calm mind such as blue, green as they are known as watercolors. Whereas colors like red, orange, maroon colors are fire colors, a person surrounded by these colors will feel energetic and active. In the same way some colors are known as neutral colors such as white and gray which makes the person dual and calm**.**

So, a designer has to go through the color schemes that suits the persons tastes, desires his personality and habits as the spent hours in between the colored walls, lights, and other decors of the items, It makes the clients feel comfortable, and relaxed in their homes and this increases productivity in the work place.

7.8.1 Effect of Different Colors:

A. Red:

Red color is the most viberant color out of all the colors. This is the color of fire. All shades of red weather dark like maroon and light tints like pink create an atmosphere of love, passion, energy, excitement to the entire room. Red can be used in home offices, living rooms, bed rooms or office buildings. As this color inspires leadership, willpower, friendship and creates high energy levels, it even creates anger so while using this color care should be taken to mix it with some cool or calm colors.

All the shades of Red, color when used in living room inspires friendship, and enhances conversation but it gives an illusion of less spaces space.

This is the color of love so when the shades of this color is used in bedroom it creates kind feelings like love, desier, and passion. So, this is one of the best colors for bedrooms.

This color is associated with different emotions like love, passion, desier, energy, power, strength, sexuality, joy, determination, peadership, corage, will power, danger, war, hunger, warmth, anger so when this color is used it has to be balanced with calm and subdued tones in the overall room which will improve the passion while controlling the blood pressure levels with the help of complementary colors like light greens, yellows, or white. Generally, it is balanced by using only one wall with red or shades of red or opposite walls with it and keeping the other walls in lighter shades.

B. Orange:

Orange is also another vibrent color this is also an element of fire, sunshine and nature. All the shades of orange have positive effects. One of the tones of orange is gold which represents wealth and prosperity and desier for success and fame.

Like red orange also inspries love, appetite, sexuality, and this color has a calming effect and it inspries people for laying on beaches, to drink tropical beverages. This color is best for bedrooms and kitchens, and in exercise areas with complementary colors of different tints and tones which will calm down the extreme effects of this color.

This color is associated with emotions like joy, love, attraction, sexuality, pleasure, encoragement, success, determination, wealth, prestige, aggression, healing energy, creativity, dominence, wisdom, attachment, vibrations, fesationation, distrust, adventure, so this color has to be used with proper balance of calm colors as it has both positive and negative effects on the moods of the persons.

C. Yellow:

The yellow color is the symble of sunshine so it spreads light and happiness, as this is very close to gold color so this is also associated with prosperity. In interior designing this coloer is best suited for kitchen, dining areas, and bathrooms. This color in itself uplifts the sprits and makes the rooms bright and sunny.

All the shades of yellow are having positive effects but some dull yellows have negivate effects dull yellows bring sickness, doom, and decay. Due to its complete optimistic effect full yellow rooms brings uncontrollable emotions and even increases blood pressure with a feel of anger and cause to lose temper, this color should also be used with its complementary colors to balance the shades. Yellow addes sophistication to the rooms where it is used, and if it is used with gray and whites it enhances the acessthitces many times.

Use of yellow color in proper way will bring care, joy, intelligence, obediance, happiness, energy, freshness, caution, , encoragement, productivity, cordiality, excellence, and if not proper yellow is selected then it gives a feel of sickness doom, decay, jealousy etc.

D. Green:

Green color is associated with nature which gives a feel of freshness, peace, and trust. So green is widely used in interior designing but different shades, tints, and tones of green have different effects, it is a versatile color as light green and aqua green has calm effect whereas dark green has the effect of greed and jealousy, olive green has the effect of peace and harmony**. Different shades of green can be used in the whole house with neutralizing dark greens with light greens giving the whole house a calming effect and sense of security. Due to this specialty this is an ideal color for designing.

Nature, growth, fertility, freshness, healing, harmony, peace, security, protection, safety, joy, calmness, comfort, sincerity, are some of the positive effects of green color. Whereas greed, jealousy, over ambition, cowardice, sickness, and conflicts are some of the negative effects of different shades, tints, and tones of green**.**

E. Blue:

Blue is a color related to water and sky which is the most calming, and relaxing color, it relaxes the mind which helps in reducing heart rate and blood pressure, hypertension, etc. Nearly all the dark blue shade represents elegance, luxury, and royalty. All the watery shades of blue such as sky blue, and light blue have very good healing effects on the mind. It is the only color which have no negative effects it reminds the mind of swimming pool and inhabitants of water.

All shades of blue can be used all over the house some dark shades of blue may sometimes give a feeling of trapped in ice but this can be neutralized by adding a touch of warm colors. Primary blue paired with yellow can be used in kitchen and playroom where as different combinations of blues can be used in bedrooms and dining rooms.

Blue color is associated with emotions like calmness, tranquility, softness, knowledge, wisdom, intelligence, power, faith, healing, luxury, prosperity, seriousness, truthfulness, courage loyalty, integrity and many more positive effects.

F. Violet:

Violet is the color of royalty and elegance it is best when used in the areas of creativity and designing. Dark shades of violet add flair to design and light shades of violet create calmness.

As violet is the inspiration for creativity this color is much suitable for dressing rooms, walk-in-closets, kitchens and in -house – studies etc. this color is best suited for teenagers' rooms also as it inspires them towards creativity, performing arts, and helps them to select their path. As this is the symbol of luxury this color is also suitable for living rooms. This color enhances the emotions of elegance, luxury, sophistication, creativity, calmness, mystery, excitement, depth, richness etc.

G. White:

All the colors of spectrum emerge into white it is the symbol of purity, cleanliness and peace. It also symbolizes simplistic living**.** It is a very powerful color scheme. White also have different shades. It is such a color that it can be used in any place of the house it can be used in bedrooms, living rooms, bathrooms or the whole house can be painted white.

The implementation of white makes the rooms seem larger and cleaner this color helps those who have the fear of closed spaces. This color also helps those people who are suffering with anxiety and hypertension. It is easy to spot any mark or dirt from the surface when white is maximum used. White color can be paired with any other color for a vibrant effect. For luxurious effect it can be paired with gold, gray, or yellow, it can even be paired with red, green, or orange. It can also be paired with blue for giving calmness and relaxation.

There are different emotions with such as peace, harmony, openness, cleanliness, hygiene, trust, creativity, productivity, efficiency, elegance, luxury, prosperity, control, functionality, fraternity and many more.

H. Black:

Black color represents versatility and elegance, it signifies simplicity and functionality, it is best suited for modern designs. An all-black room will be overwhelming and gloomy but when it is paired with colors like red, blue, white or any other color then it's a very excellent contrast combination. In modern designing black is excellent in living room, kitchen, dining room and in bathrooms.

Black color is associated with plenty of emotions like functionality desire, simplicity, elegance, control, beauty, sophistication, terror, modernism protectiveness, depression, untidiness etc.

I. Gray:

Gray is a combination of white and black and is a neutral color and is associated with elegance and style. If this color is properly used then it has very positive effects in human brains. This color is mostly used for neutralizing different vibrant colors schemes. When dark gray is used with happy colors such as white, yellow, or pink it gives elegance and sophistication to the design.

The various shades of gray have different emotional effects one different people for some it provides calmness and for some it takes them to depression so it's always better to use gray on textiles which are used foe interior designing rather than on walls.

Strength, power, productivity, rigidity, determination, willpower, elegance, simplicity, gloominess, depression form, functionality are some of the emotions attached to the color gray.

J. Pink:

Pink is although a shade of red but it is widely used in modern interior designing, this color mostly influences emotions related to heart all shades of pink create an atmosphere of love and compassion when used in a proper way.

In general pink is known as female color but if properly arranged it can be used in male gender also. Pink color is best suited for bedrooms as it gives a feeling of love and comfort, Vibrant shades of pink create a statement so with natural color combination this can even be used in living rooms, bathrooms and is best suited for teenage girls' bedrooms.The emotions related to this color are sweetness, comfort, love, compliance of loss, romance, glamour, feminism, warmth, nurturing, cleanliness, sophistication, so this color creates it best when used with natural colors.

K. Brown:

Brown is a lighter and softer version of red so when used with natural hues it gives special effects in vast spaces, it gives very different elements of modernism and classic effects best suited for large spaces. While using brown color other elements of the home décor must also be taken care in a very special way the it gives a feel of comfort.

Brown color tends to relax the senses to much which may move towards inactivity and lack of goals, and when combined with vibrant shades and other natural hues it gives resilience and security. For creating rustic look and somber look this color is best suited, as this color has the tendency of depression so it has to be combined with happy colors like white, red, green, and orange.

The emotions related to this color are loneliness, starkness, vastness, depression, solidarity, sadness are some negative emotions and if designed cleverly then it creates comfort, safety, security, dependability, warmth, comfort, strength, power, sophistication and many more.

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