

## **Practical No 5**

### **Colour and its attributes**

#### **Colour**

Colour affects our moods and personal characteristics. Webster defines “colour as the sensation resulting from stimulating the eye's retina with light waves of certain lengths”. Those sensations have been given names such as red, green and purple.

#### **What is Colour?**

Light is the source of colour. Light rays or waves, which vary in length and rate of vibration produce different sensations and appear as different colours. Colour is typically seen when a colour stimulus acts on the receptors in the eyes and they in turn set off activity in the nervous system which ends in the colour response. Colour then is the name given to the reflections of wavelengths from surfaces. Colour is all around us. It is a sensation that adds excitement and emotion to our lives. Everything from the clothes we wear, to the pictures we paint revolves around colour. Without colour; the world would be a much less beautiful place. Colour can also be used to describe emotions; we can be red hot, feeling blue, or be green with envy.

There are three properties or qualities which may be called the dimensions of colour, and which are distinct from one another. These colour dimensions are:

#### **Hue (symbol H)**

Hue is the term used to indicate the name of the colour, such as red, blue, or green. White light is broken down against a white background a spectrum appears, in which all the rainbow hues are spread out in a band. These colours, just as they appear in the spectrum, are commonly called **normal colours**.

#### **Value (symbol ‘V’)**

Value, the second dimension, describes the lightness or darkness of a colour (Fig.4.4). There are many degrees of light and dark, ranging all the way from white to black, but for the sake of convenience in use, nine typical steps are selected. Dr. Denman W. Ross gave these nine steps names and symbols to aid in visualizing them. White has the highest value, and no hue can be as light as white. Black has the lowest value, and no hue can be so dark. Halfway between black and white comes middle value. The value scale begins with White at the top (symbolized by W). Values can be changed by adding white or water to lighten and by adding more pigment or black to darken them.

#### **Intensity (symbol ‘I’) or Chroma (symbol ‘C’)**

Intensity or chroma is the dimension that tells the brightness or dullness of a colour –its strength or its weakness. In other words, it is the property describing the distance of the colour from gray or neutrality. Intensity is the quality of colour that makes it possible for a certain hue – such as red – to whisper, to shout, or to speak in a gentlemanly tone. Chroma, intensity, saturation and luminance/value are inter-related terms.

## Standard colour harmonies

### Harmonies of related colours

Related colour harmonies are those in which the colours are similar. They include:

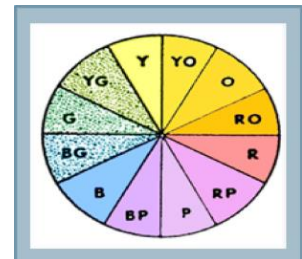
1. One hue harmony (monochromatic)

- Simplest scheme
- Uses differences in value and intensity (such as pink, red and rose together)
- May look tiresome with boring effect



2. Analogous or adjacent colour harmony

- Shows one colour running throughout the entire group of colour harmony e.g. green, blue-green and yellow-green
- Uses different values and intensities



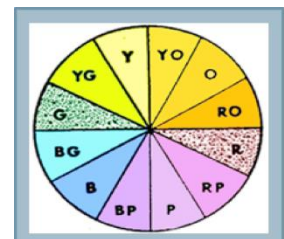
### Harmonies of contrasting colours

Combinations of opposite colours on the colour wheel are more difficult to use than those of neighboring colours. Special care must be taken when using contrasting harmonies in clothing. However, when done properly, they are richer than related harmonies, and more satisfying to the eyes.

Contrasting harmonies are classified as:

1. Complementary harmony

Two colours opposite to each other on the colour wheel e.g. green and red, blue and orange etc.



One of the complements used should be dull, light, quiet and restful. Warm colours are always complement with cool colours in this scheme

2. Split Complementary harmony

- Combines a primary colour with colours on either side of its complement e.g. blue, yellow-orange and red-orange
- Cannot start with a secondary colour because its complement, a primary cannot be split
- Adjust amounts of different values and intensities



### 3. Double Complementary harmony

- Two directly adjacent colours and their complements used together e.g. yellow and yellow-orange with purple and blue-purple
- Pick only one hue to be outstanding and used in largest account (dulled)
- Vary intensities and values of other hues, as well as amounts



### 4. Triad colour harmony

Richest harmony if well-used

Equilateral triangles create triads such as red, blue, yellow; green, orange, purple; yellow-orange, blue-green, red-purple; and yellow-green, blue-purple, red-orange.



### 5. Tetrad colour harmony

Consist four colours that are equidistance from one another on the colour wheel such as red, yellow-orange, green and blue-purple.



### 6. Accented neutral colour harmony

Consists the major domination of neutral colour with highlights of bright tints such as grey and turquoise blue, black- red.