Elements of Visual Representation

Prof. Shatarupa Thakurta Roy
Department of Humanities and Social Sciences
Indian Institute of Technology, Kanpur

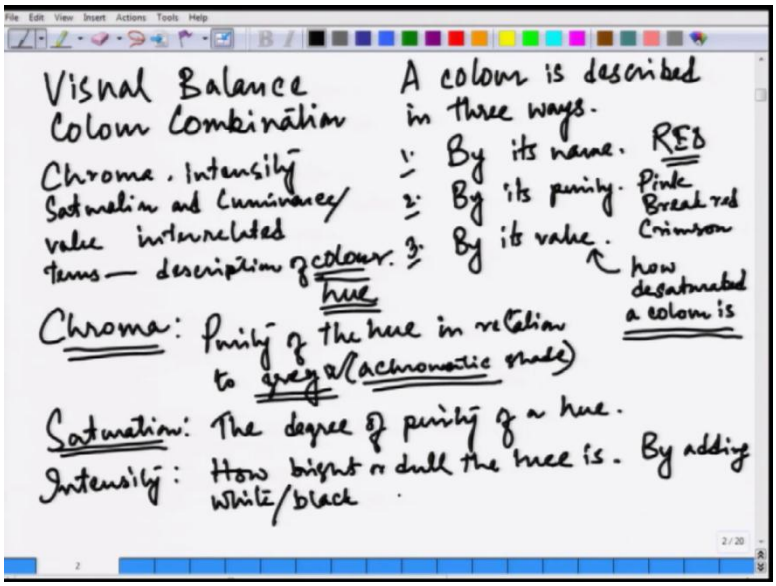
Lecture – 39

Colour is another very important consideration as far as visual balance is concerned. So, to get some harmony or even if we want certain quality to be slightly disharmonious for the sake of a better expression, we take help of the color that we are applying on paper. Though we discussed in earlier lectures that we look at color in terms of it is value, to be very precise and grounded, let us think about one example like. If we want to create a combination of colours like yellow and purple, they are the contrasted colour, they have a good combination.

But when we are combining them we need to know that we need to choose the right yellow for the right purple. Now, by saying that I am addressing another issue that is connected to the value of that particular shade. So, yellow and purple does not necessarily mean that it is, we are addressing all yellows and all purples in a range. So, we will realise will understand all these things and we will totally clear our ideas of how to choose colour, how to apply color and how colours react when gesture pose in a condition.

So, a color will look different in a cool background, whereas the same color may look different in a warm color background. So, color changes it is characteristics in different contexts and we will see how we solve all those problems and how we professionally use colour, how we choose colours from the color palettes, how we create the color wheels and so on. And at the end of this lecture and the next one we will be getting some idea of, how to choose colours cerebrally and consciously.

(Refer Slide Time: 02:09)



A color is described in three ways, one by it is name for example, red that is the name of the colour, then by it is purity, how pure the color is. So, if red is a little less pure then it becomes either pink or break red maybe crimson and so on and so forth and then by it is value and value indicates, how light or how dark the color is. So, this is mainly how desaturated the color is...

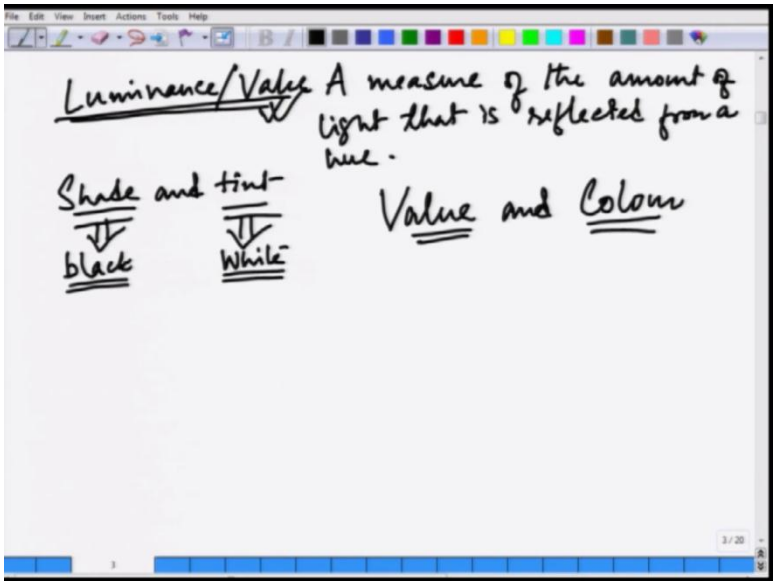
So, through this general notion, let us also see, what are the basic meanings of all these terms called chroma, intensity, saturation and luminance or value and all the words that are the interrelated terms that will have to do with the description of color. So, chroma indicates how pure a hue is in relation to grey and hue is the term that we must say, like we must use for colour. This is one replacement and this is more appropriate, hue actually means color, color covers a wider range whereas, hue is a simpler term.

So, chroma says it talks about the purity of the hue in relation to grey and grey is an achromatic color. So, when something is achromatic; that means, there is no chroma that is present. So, no hue condition gives us the grey, so grey is achromatic and then we judge the purity of the hue in relation to the grey and that gives us the indication of the chroma.

And what is saturation? That is the degree of purity of a hue in a range, intensity of a color depends on the brightness and dullness of the hue. How bright or dull the color is, one may change the intensity by adding white or black. So, by adding white which is the

highest value color or black, which is the low value color in it is lowest value, the intensity of a color may change.

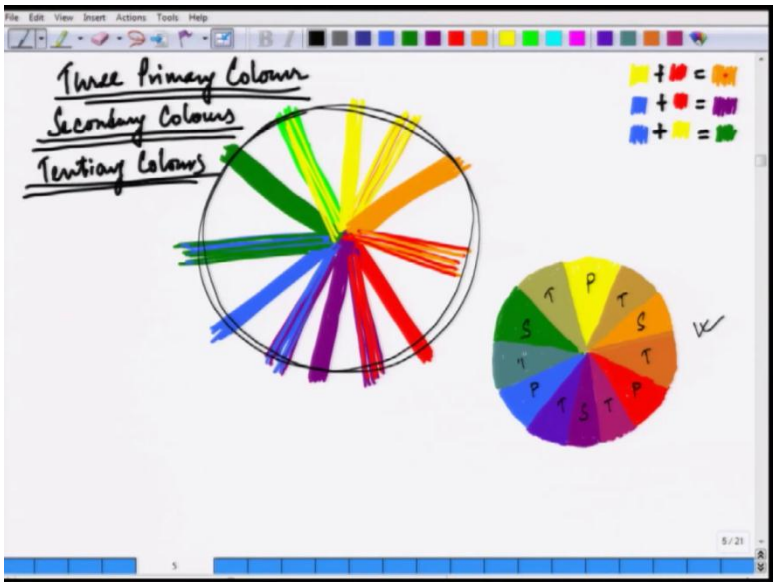
(Refer Slide Time: 06:27)



And then let us talk about the luminance or value which is a measure of the amount of light that is reflected from a hue that determines the value of a colour. So, to put it simply those hues with light content of white have a higher luminance or value. So, a lighter color is high in value, a darker color is low in value and then let us talk about the shade and tint, what is the difference between these two words, they are terms that refer to a variation of a hue. So, what becomes shade and tint let us realise that in terms of the black and white.

So, a hue when we add black to the hue it produces a shade, when we add white to a hue it produces a tint. So, value and color they are very closely related, value is simply the artistic term for light and dark. So, some areas value is the relative lightness or darkness in the given context. Let us see how we can use a color combination in a much more strategic way by using color wheel, what is the color wheel, how the colours are arranged in the wheel and how scientifically they are related to each other by different color combinations, and we will see what are the possible color combinations that can be produced by using a color wheel and how they function.

(Refer Slide Time: 08:34)



So, in a color wheel we have three primary colours, they are yellow, blue and red and then we have the secondary colours they are also three in number and secondary color is produced by mixing the two primary colours, for this color wheel it is the when we mix yellow with red what we get produce orange, then blue and red will produce a violet and blue and yellow will produce green. So, these three colours are the secondary colours in this range.

So, let us put that in the color wheel a place for orange, a place for a purple or violet and then this is the place for green and then we can take another round by mixing this two shades in between. So, if we have a green and yellow here, we can also get a tertiary shade in between that is a greenish yellow or yellowish green, you get another shade that is a orangeish yellow or yellowish orange, a reddish orange, a reddish purple or purplish red we can get a bluish purple or a purplish blue or a greenish blue.

So, our color wheel will look something like for the purpose, so what we have are the three primary colours, three secondary colours and 1, 2, 3, 4, 5 and 6 tertiary colours, through which we can go for interesting combinations in a color wheel. So, with the knowledge of arrangement of how to place the primary, secondary and tertiary colours one after another. We can mix and match and by using the logic of the nature of the colours, how the colours behave, how they act together we can get amazing color

combinations which are pleasing for our eyes and they are also able to create some visual harmony as well.

So, this is one color wheel that we are getting out of what we have tried earlier. So, in this color wheel what we get to see is, there are all these colours present that we have realised from this particular drawing and then this is an outcome of the same drawing, where we get a three primary colours, three secondary colours and then six tertiary colours. So, this is our color wheel and we will see how it works.

(Refer Slide Time: 12:43)

Now, through this color wheel we are realising some interesting color combinations that is by using this as a template the relationship between the color are will be easy to identify. So, there is a relationship that is known as the monochromatic relationship of colours that are shade obtain variations of the same hue. So, if we look for a monochrome, in this color wheel what we will get is that we can choose the monochrome of yellow.

So, the yellow monochrome will give us another range that will be divided till the edge and will have variation of yellow in the same range. Similarly, if we get a monochrome of red then we will get different tents of red and as we know that we get the tent by adding white to it. So, it will be a range that will go from light to dark, so this is the range where it is dark and this is light and we can produce a whole painting with the help of the ranges of a single colour.

And monochrome means, mono is single one and chrome is colour, so when by the name we can make out that it is the range of a colour. So, we can paint a whole picture with different shades of blue. So, at the edge it will be darker, it will be slowly lighter as it comes to the centre this will be much lighter. So, that is monochrome we can take different kind of colours even we can pick up any of the tertiary colours and get a monochrome out of it.

So, monochromatic range is something which is the safest in the category and we can keep on doing experiment by a value change and get good result in a monochromatic color combination. And then there is another relationship that is known as the complementary relationship of colours. So, complementary colours are the colours that are usually sit across from each other on the color wheel.

So, the complementary color for yellow will be purple, the complementary color of green will be red, complementary color of a blue will be orange and this way the color combinations will be decided. So, every time we look for a complementary color we will see that they are sitting opposite to each other on a color wheel and they can make amazing contrast and it is more like when we have the complementary colours there is another clue how to identify them.

So, if a color is complementary relationship to another color like, if we pickup colours like green and red, if we mix these two colors, we would not get any shade which is much pleasing. So, we will just get a mustard shabby tent out of it, so if we put them together side by side it would not give us another signal of another color like, if we put colours like blue and yellow together it gives us a sense of a green. But green and red are complementary and they would not give us any sensation of another colour.

So, they are considered as the strong contrast they are opposite and they are very interesting and memorable as combinations. Because, when we see a combination of red and green we are not carrying any other message or any other color in our mind. So, we will remember it as red and green, so the color combination has it is own advantage there. So, that is a complementary relationship, we can combine two colours that are sitting opposite on the color wheel and make interesting combinations.

And then there is another relationship between this two colours, so as we can go by the complementary relationship like green and red together. We can also make a variation of

this complementary color that is known as the split complementary relationship. So, there what we will do is, we will choose red and instead of choosing green we will make sure that we will take two other colours which is sitting at the either side of the green.

So, what we are doing here, we are picking up the color which is red and reds complementary color the direct complementary color is green. So, we say a no to the green and will choose two other colours and will have a range of a combination which is this two, so we say yes to this and this with red. So, what we are getting is a combination of these three colours and that is a variation it is a tri color combination with the use of red and two tertiary shades which are at the either side of the green, which is it is complementary shade and we call it a split complementary combination, these are good combination that can be used for different purposes.

So, we will try another combination which is known as a double complementary combination and that is something that we can guess now that instead of choosing the complementary colours, like if we leave both the colours, if we do not consider this main opposite shades and we choose the other colours which are like here in this range, this one, this one, this one and this one. So, we will get a combination which can also be very interesting.

So, a combination of this is one example of a double complementary color and you can make out that it can be created by different variation. For this example, we are considering this two complimentary shades there are many other complementary shades, like blue and orange or yellow and purple. And we can choose a complementary colours from either sides of those primary colours and get a whole range of this kind of combinations.

Then, we have another combination which is also very interesting that is known as the analogous color combination. So, what is analogous, analogous is one word that is closely connected to the word called analogy, analogy indicates similarity. So, in this combination we pickup these similar colours, so analogous relationship are going to take place with colours that are located adjacent to each other on the color wheel.

So, we can pick up any adjacent color from anywhere of the color wheel, like if we take a whole range of a color from here to here, all colours side by side that will produce a very beautiful analogy. So, this all colours are similar to each other and they will have a

similar characteristic that will give us a very good result of an analogous combination. We can make some change into it, we can pick up another shade by shifting it, adding another color to it, these are also the analogous color range.

Similarly, we may shift and get some more analogous color combination from the same color wheel. And that way we can keep on shifting and getting new ranges of analogous color combination and they are very useful for our color combination and color ranges, there is the last variation that will even expand the arrangement more that is when we have a triad combination. So, every time we choose a range that gets a shape like this.

So, we take this colour, this color and this color like this, this and this, so it gives us a triad relationship of a combination. So, the triad relationships are when three hues are equally positioned on a color wheel, so it may keep on shifting in it is range. So, whenever there is a color like, this one, this one and this one that are sitting at the equal distance, they are positioned on the color wheel in equal distance they will be counted as a good color combination which is in harmony.

So, from this knowledge we can keep on creating more and more color combinations and keep on getting balanced color combinations. So, we got some examples of some interesting color combinations which are in harmony. So, from that if we at all want some disharmony in our combination, maybe some color discord or the similar things where there are colours which are conflicting to each other.

We can choose from the other side of it, right there are colours like pink and orange with no relationship at all we cannot put them in any of the categories of analogous or split complement or maybe a double complementary combination or the triad combination or the analogous combination or anything else. So, those two colours or maybe from the same range if we pick up light purple with a light greenish yellow or a yellowish green, they also do not fit under any of the category.

So, they are some good examples of color discord and discarded colours can also make strong statements, they can be experimentally used in fashion industries, for logo, for other commercial purpose and they can really be very, very striking and memorable if not harmonious. So, color harmony also gives us the clue how to create disharmony in color and then handle it with different kind of value changes, if we maintain the value in a proper harmonious scale and compromise with the colours and shades.

Then, we can also get a good result out of it, it all depends on how experimental we are with combining colours and getting interesting results. So, in our next lecture we are going to talk about the same thing like how the grey the achromatic ranges they are related to color and how we can get interesting results by considering the value if not color and we will see how they work.