**Product Design and Manufacturing**
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Lecture – 07
Elements of Visual Design (Part 2 of 3)

So, welcome back to the lecture on Elements of Visual Design. I will just try to do the recap, what we covered in the previous lecture.

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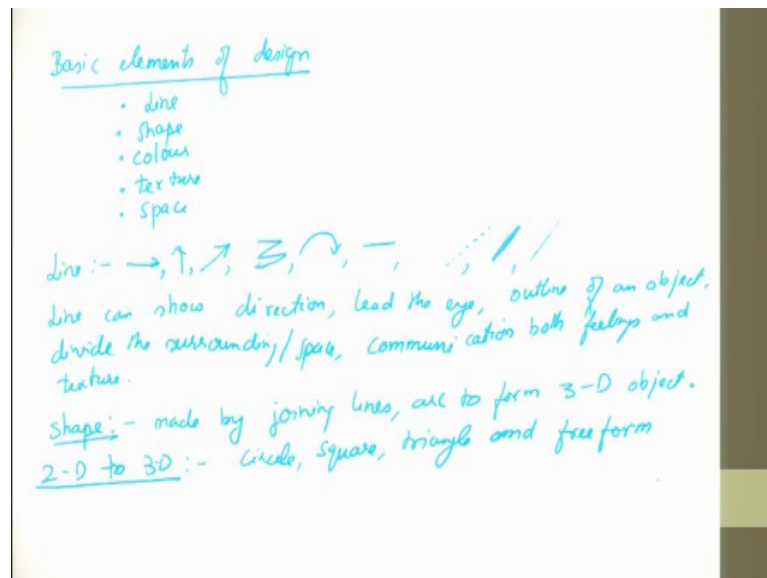
So, the basic elements of design are:

- Line

- Shape

- Color

- Texture

- Space

So, what is line? Line can be horizontal, can be vertical, can be diagonal, it can be zigzag; it can be curved, it can be straight, it can be dotted, it can be bold, and it can be fine. So, these are all different lines, which are used to draw basic elements of the design. So, line can show direction, line can lead the eye, line can lead the outline of an object, line can divide the surrounding, it can also communicate both feelings and textures.

So, the shapes are basically extension of these lines. Shapes are made by joining lines, arcs, to form 3-D objects or 3-D shapes. So, the 3-D objects, or 2-D extended to 3-D can be circle, it can be square, it can be triangle, it can be, or it can be any freeform surface, whatever you create in 2-D, can be extended to 3-D to identify a shape.

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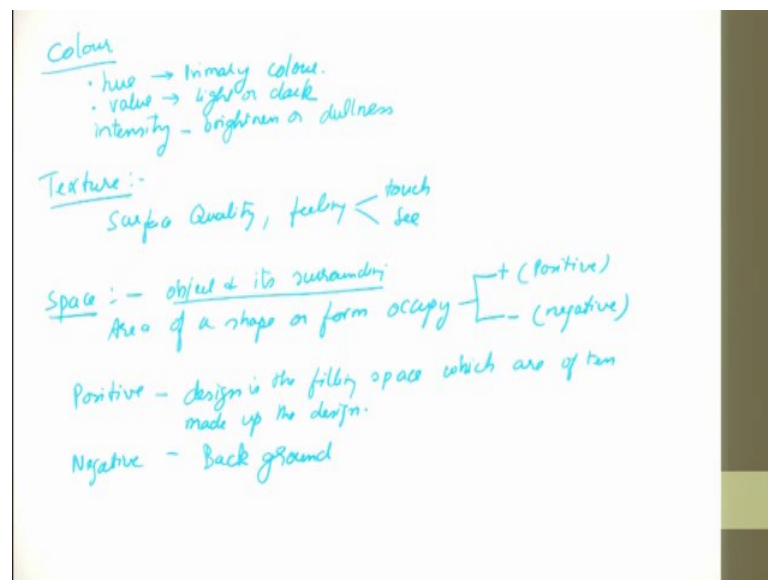
The next one is going to be the color. I we have discussed about hue, we have discussed about value, and we have discussed about intensity. In hue, we write about the primary color, and the in the value, we try to say whether it is light, or dark and in the intensity, we try to talk about brightness or dullness. This is what we talk about in the color.

Next one is texture, which gives you quality of the surface, it talks about surface quality. It gives a feeling of touch and to see.

So, the final thing is going to be the space, which talks about the area of your shape or form, which can occupy positive and negative.

So, positive space means the design is filling space, which often made up the design. Negative shape is the background.

So, these are the basic element features, which we saw.

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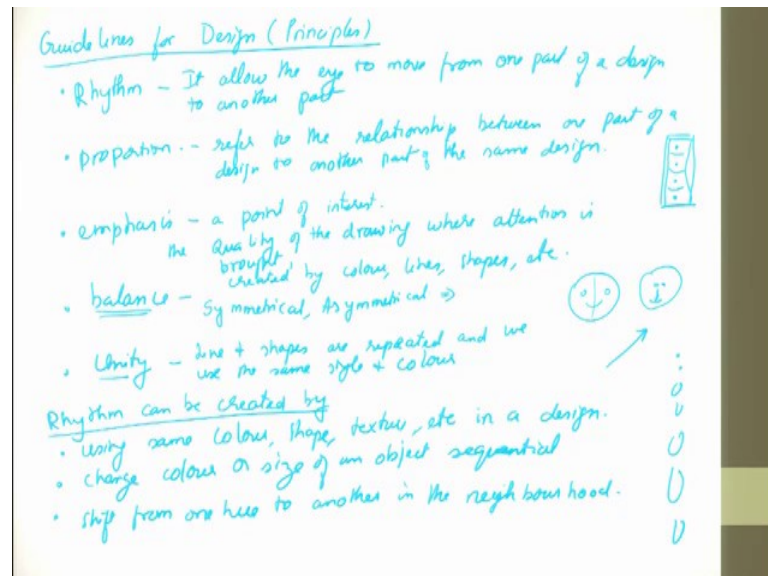
And then on top of it, we have the guidelines for design: -

- Rhythm

- Proportion

- Emphasis

- Balance

- Unity

➢ Rhythm: it allows the eye to move from one part of your design to another part.

So, rhythm is not only for music, it is also there for design. So, rhythm can be created by using some color, shape, texture, etc. in a design. So, that is how you create a rhythm. Next, you can change color or size of an object sequentially along one particular direction, you can keep extending. For example, you see water droplet coming.

So, it is sequentially expanding. You can have a beautiful size and color and you can also shift from one hue to an another in the neighborhood. So, this is how you try to create rhythm.

➢ Proportions: it refers to the relationship between one part of your design to another part of the same design.

Next one is emphasis:

➢ Emphasis: it is the quality of the drawing, where attention is brought.

So, you are trying to force the customer to look at a particular drawing, because it has something peculiar. So, we are trying to emphasis, may be an abstract, you are trying to emphasis. So, this can be created by lines, shapes, etc.

So, next one is balancing.
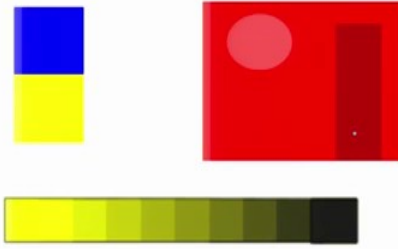
➢ Balancing: symmetry and asymmetry.

Balancing is nothing, but you are looking for symmetrical, and you are looking for asymmetrical. So, these things are there as balancing. So, symmetry and asymmetry balance is created in the drawing, such that it will try to attract the customer to look at it.

➢ Unity: the line and shapes are repeated and we use the same style and color, all along the drawing.

COLOR

- Terminology:

  ➢ A tint is given hue with added white.

  ➢ A tone is given hue with added black.

  ➢ A shade is given hue with added complement.

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COLOR- representation using hue:

Cool color meanings (calming): blue, green, silver, turquoise, etc.

Warm color meanings (exciting) : red, pink, yellow, gold, orange.

See if you see sun, and if you give a color of orange to the sun, so that means to say, it is evening sun. So, looking at the sun itself you will understand it is warm not hot. So, you can choose the color and these colors will try to convey to the customer without speaking.

So, choosing color for the required spot, or the situation is also very important.
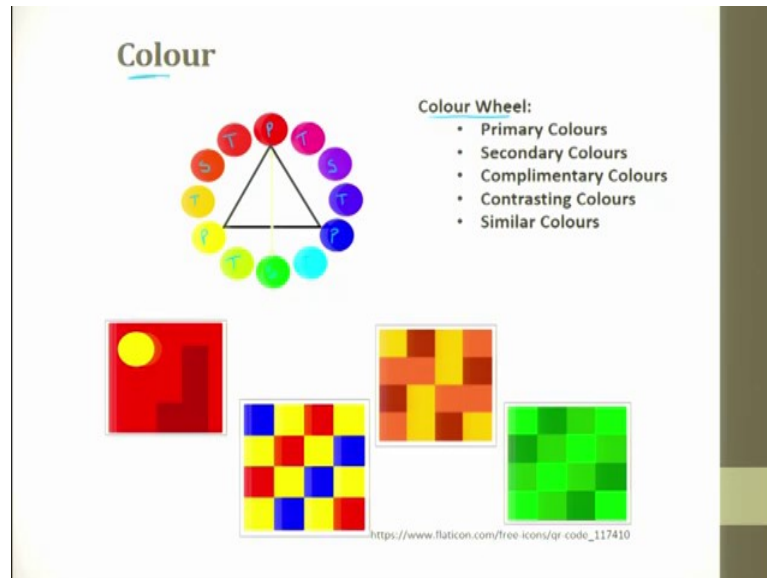
So, when we talk about colors, the important thing is the, Color Wheel. So, in color wheel, there are primary colors, and the next one will be a tertiary color. Something like that.

So, these are complementary colors, and you can have contrasting colors and similar colors. So, a color wheel is created and you have to look at the choices from the primary wheel. Take the color to the required drawing and then start designing.
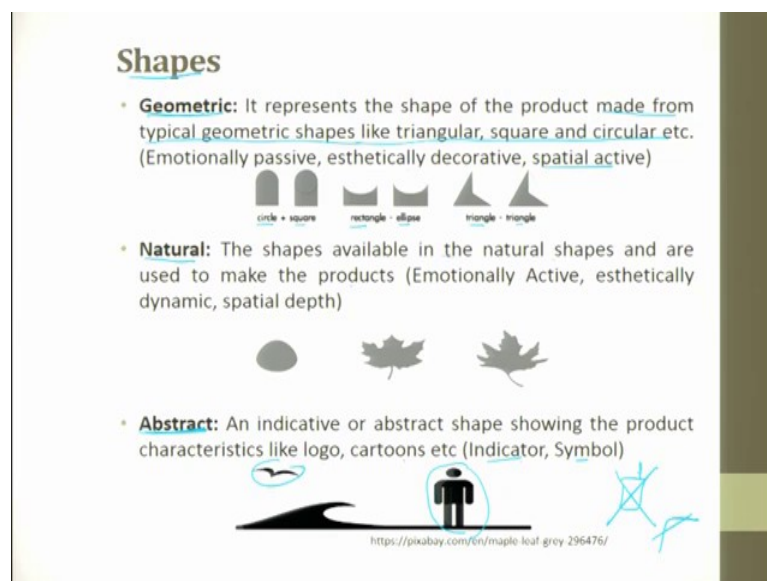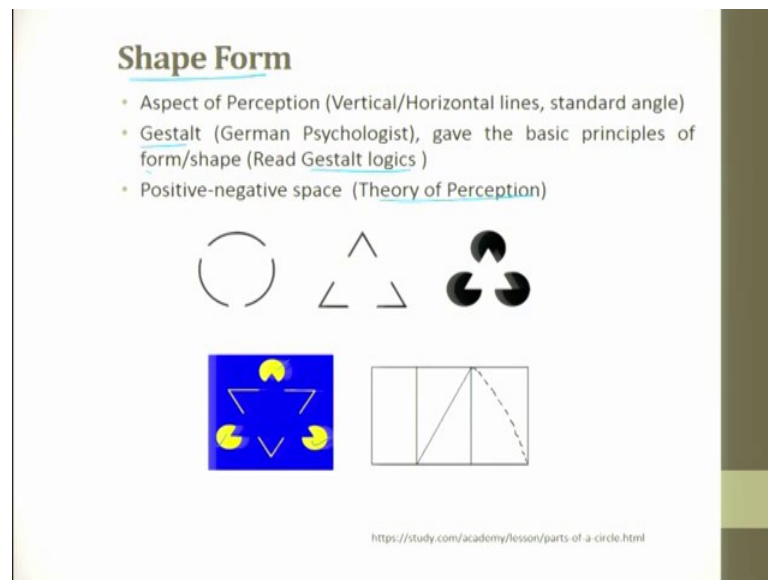
SHAPES:

- **Geometric**: It represents the shape of the product made from typical geometric shapes like triangular, square and circular, etc. (Emotionally passive, esthetically decorative, spatial active)

- **Natural**: The shapes available in the natural shapes and are used to make the products. (Emotionally active, esthetically dynamic, spatial depth)

- **Abstract**: An indicative or abstract shape showing the product characteristics like logo, cartoons, etc. (indicator, symbol)

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The shapes forms are aspect of perception, you can have vertical or horizontal lines or standard angles we can use, or Gestalt, a German Psychologist, gave a basic principle of form or shape. So, read Gestalt logics, then you can have positive or negative space which is theory of perception, positive or negative shape means, one ever each other or one is negative. So, something like a depth feature, or a positive feature.

So, that is what are the various shape forms, which we try to follow, when we try to do basics of design.
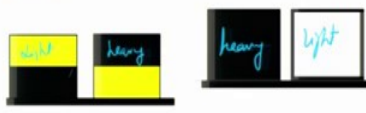
SIZE

- **Increasing size:**

  1. Loftiness, beyond human measure

  2. Feeling of specialty/dominance

  3. Relative, can be obtained by color and contrast

- **Creates illusion:**

  1. Produce a feeling of feeling of depth

  2. Feeling of strength/weight

  3. Feeling of power

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MASS

- **Aspect of Perception:**

  1. Mass is implied rather than actual.

  2. Size implies normally weight. Each piece has got its own weight and then individually weight in the total component.

  3. To accommodate normal size restraints or expectations.

  4. To convey a mood or provide emphasis.

  5. To create contrast.
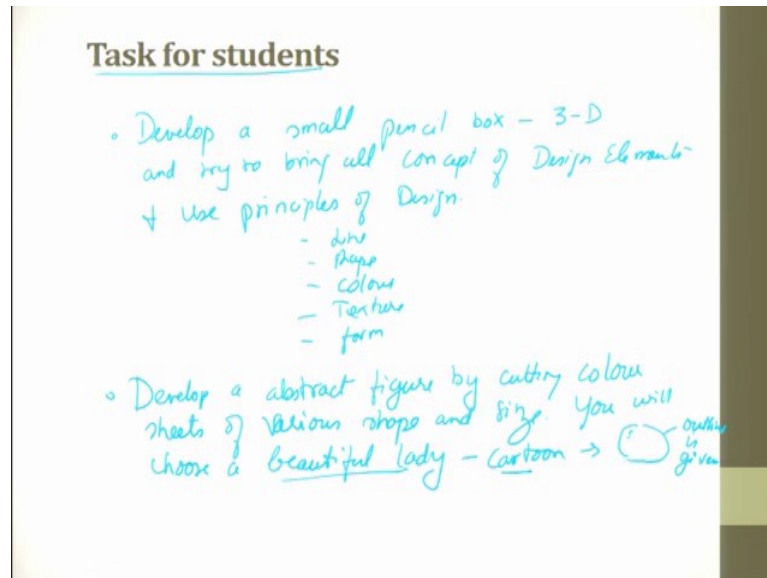
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CHANGE

- Change determine the way how the forms/ shape, size or mass are changing within the product.

- The changes can be actual, as in the case of graphics, etc. or it can be virtual, like a cartoons, illustration, etc.

- The principles of tempo or rhythm guides the use of change.

- Change can be in term of shape/form, size, color or value, etc.

So, we have seen enough of Elements of Design and then Principles of Design. Now, I would request all the students to do a small assignment, and the happy news is that, you do not have to submit it, we will not evaluate it. I want you to develop a small pencil box. Pencil box, which is three dimensional and try to bring all concepts of design elements and use principles of design. You have to do line, shape, color, texture and form fine. Next, you will try to develop an abstract figure by cutting color sheets of various shapes and size.

So, you will choose a beautiful lady from a cartoon. You will pick a cartoon, where its outline is given, then it has to be the beautiful lady from the cartoon, then you will try to take different color papers, cut it in to shapes, whatever you want, and start sticking on top of it and try to bring in your feelings to the figure.

So, please try to do these exercises, when you finish these two exercises, you will start appreciating the importance of color, shape and texture while designing a product.

Thank you very much.