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Visual Features
Shape, colour, texture, size, orientation and position
by
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IDC, IIT Bombay

Source:
https://www.dsource.in/course/visual-features

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Source:
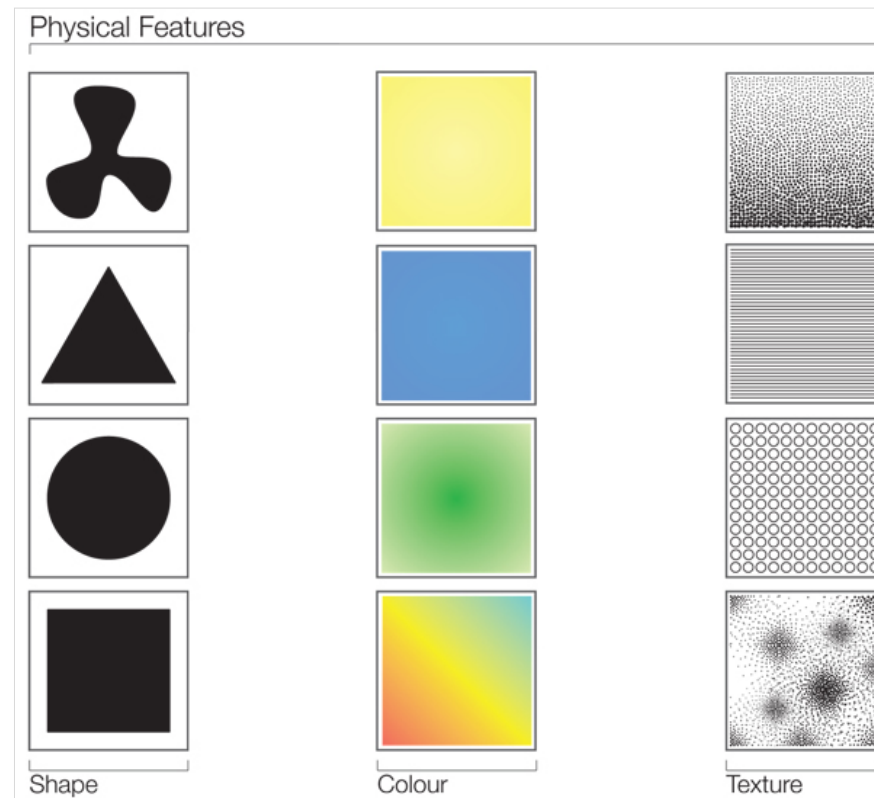https://www.dsource.in/course/visual-features/introduction

Introduction

Visual Features
The visual features of elements are shape, colour, texture, size, orientation and position. The Visual features in turn can be thought in terms of physical and relational features.

Physical Features:

• Shape
• Colour
• Texture

The physical features of the visual elements make them visible and distinguishable from its surroundings. At a particular instant of time, an object or its representation has a certain shape, colour and texture.

Physical Features
Shape   Colour   Texture

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Source:
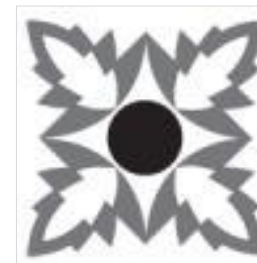**https://www.dsource.in/course/visual-features/introduction**

Relational features:

• Size
• Orientation
• Position

The interrelationships of visual elements are governed by relational features. An object has a definable size, orientation and position in relation to other objects and to the frame of reference of the visual field.

Relational Features

Size   Orientation   Position

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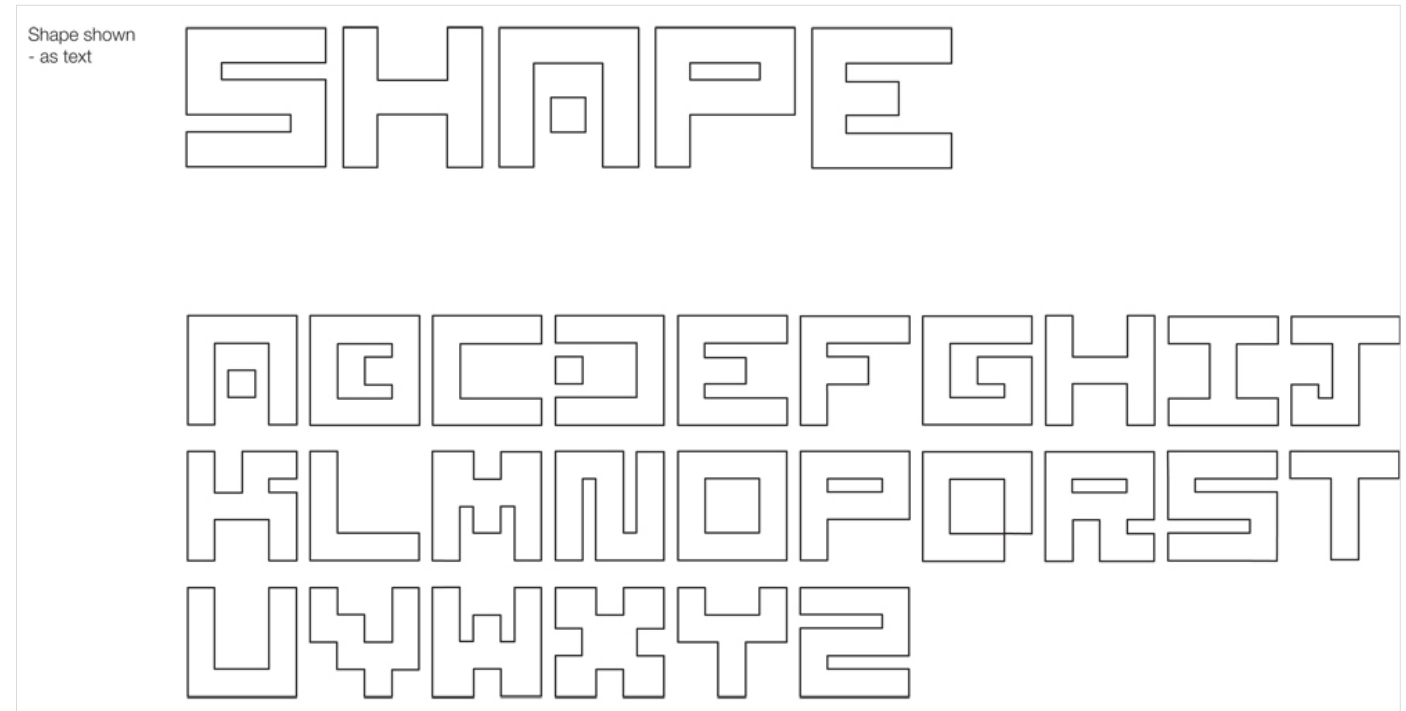
Source:
**https://www.dsource.in/course/visual-features/
shape**

Shape

Shape as Text

Notes - Annotation

Relationship

Example

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Shape as Text

Shape shown - as text

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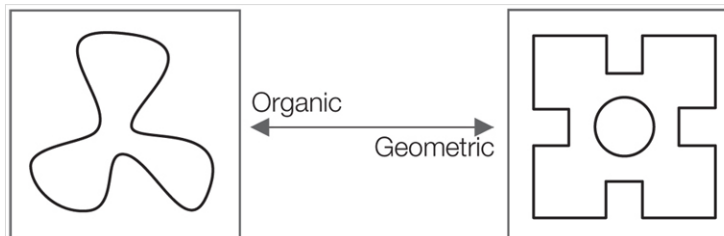by
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shape/notes-annotation

Notes - Annotation

Formal Aspects

All visual elements/objects are made up of shapes. Shape is the perceived visible surface boundary of a visual element/object. It is defined by its contour/outline/edge.

Shapes can also be seen as an area enclosed by a line or an area enclosed by other shapes.

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**Source:**

Enclosing shape with surrounding shapes can create positive and negative spaces (also known as figure and ground). So, shapes can be either inner or outer surfaces.

Simple shapes can be combined to form complex shapes.

Organic ← → Geometric

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A shape can be any of these:
- organic or geometric,
- realistic or abstract,
- complex or simple,
- dynamic or static,
- free or structured.

Semantic Aspects
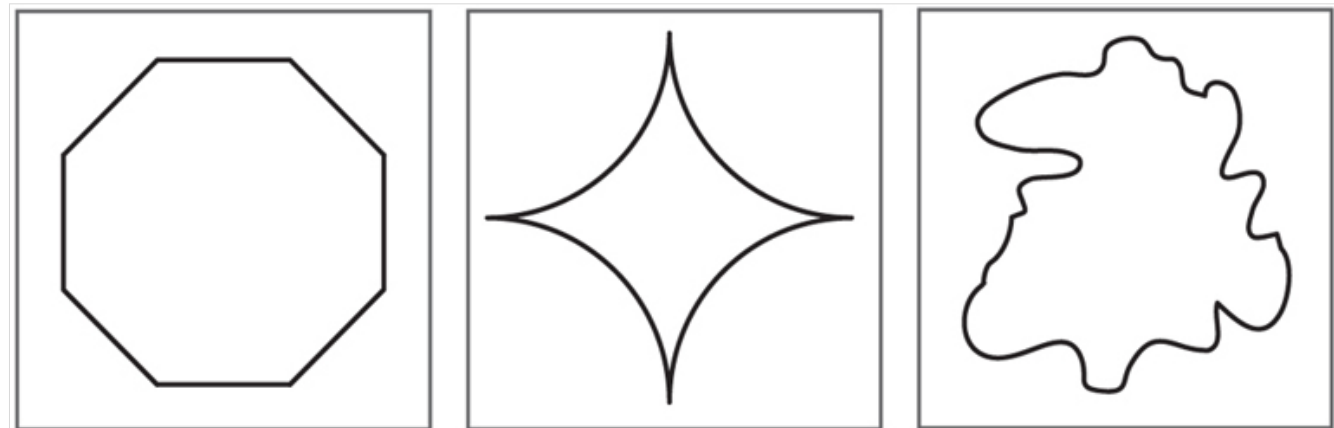
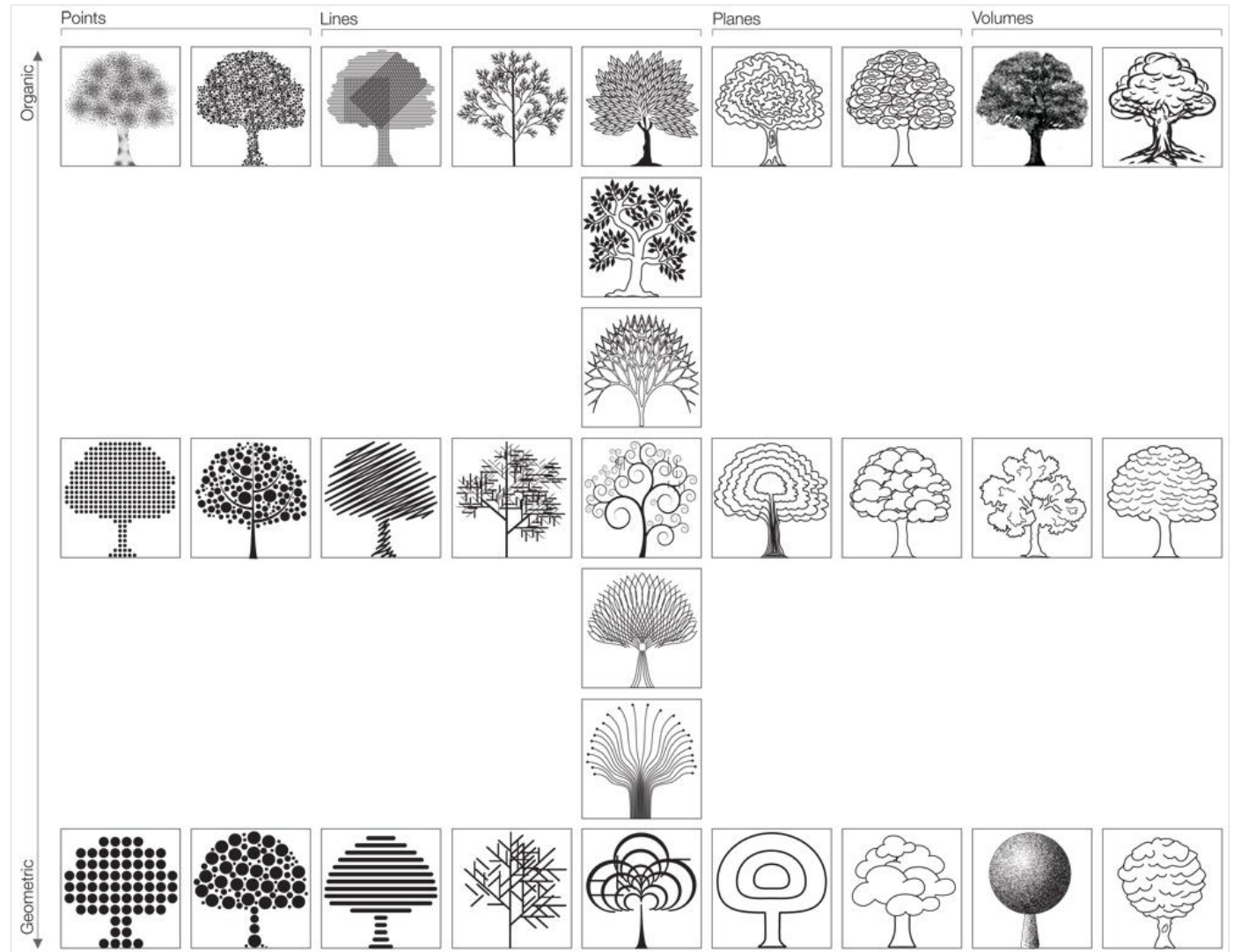The identity of an element/object is most often perceived through its shape.

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Source:
https://www.dsource.in/course/visual-features/
shape/notes-annotation
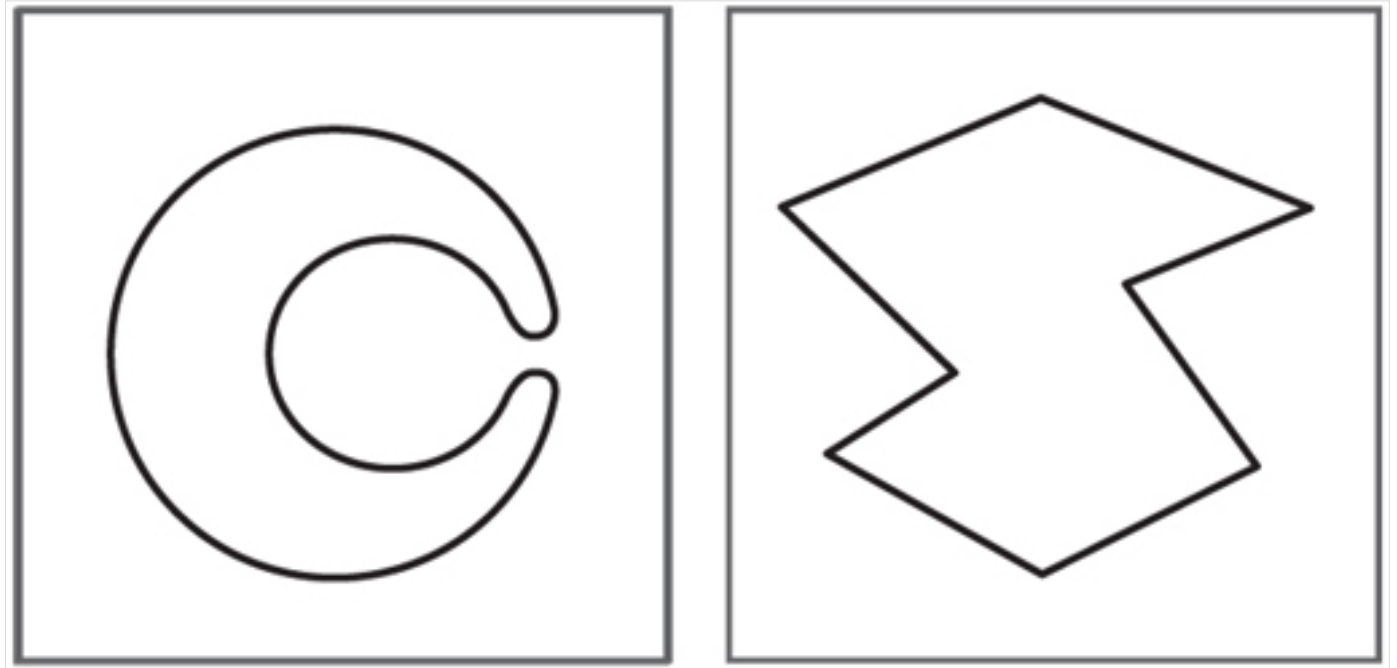
Shapes denote contour, edge, outline, area or enclosure
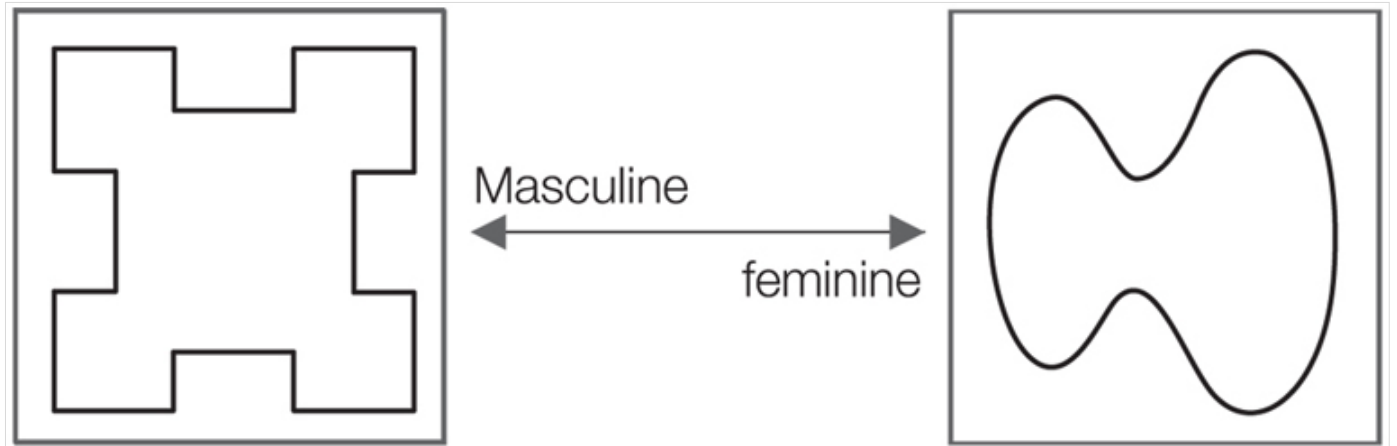
Shapes can convey strong meanings. Shapes can be masculine or feminine, violent or calm, light or heavy, friendly or hostile, progressive or regressive, and so on.

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Practical Aspects

Shape can represent objects.
Shape can be used to create identity for an organisation. The shape variations can be used to create unique forms.

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Source:

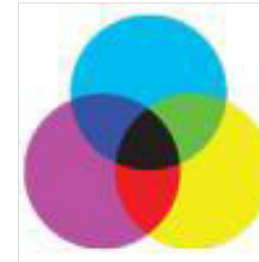## Relationship

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Example

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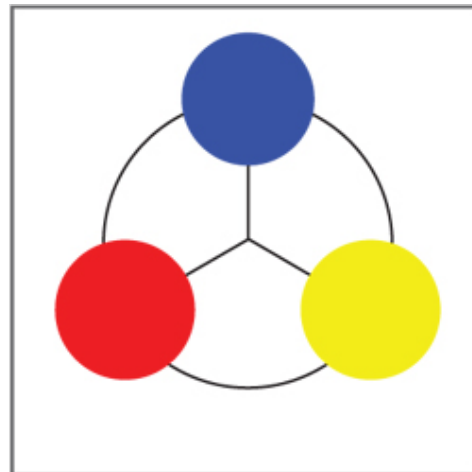by
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Source:
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Colour

Colour as Text

Notes - Annotation

Relationship

Example

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colour/colour-text

Colour as Text

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Notes - Annotation

Formal Aspects

Colour is reflected light.
The colour of an object depends on the colour of the light source and which wavelengths of light the object reflects. An apple under white light reflects red colour and hence is seen as red.

Colour wheel:
Primary Colours: Blue, Yellow and Red Primary colours can be mixed to make other colours.

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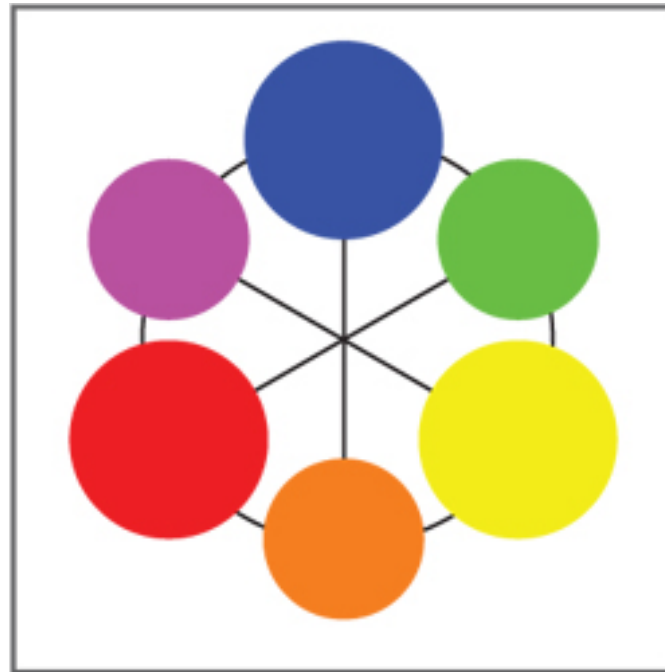
Colour wheel and mixing of colours:
Secondary Colours: Green, Orange and Purple. Mixing of two primary colours results in secondary colours.

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Colour wheel and mixing of colours:
Tertiary Colours:
Tertiary colours lie in between the primary and secondary colours. Mixing a primary and secondary colour results
in a tertiary colour.
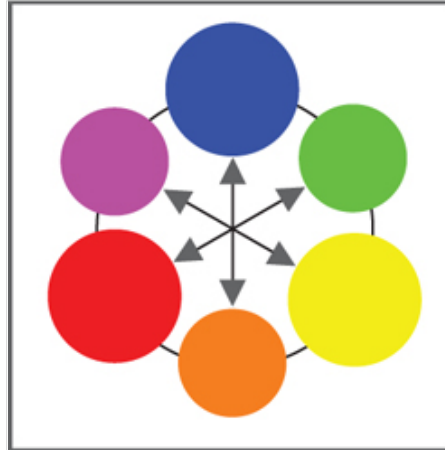
Colour wheel and colour combinations:
Complimentary Colours:
Complimentary colours lie on the opposite side of the colour wheel.
- makes for contrasting combinations

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Colour wheel and colour combinations:
Analogous Colours:
Analogous colours are adjacent to each other on the colour wheel.
- makes for harmonious combinations

Colour wheel and colour combinations:
Triadic Colours:
Triadic colours are three colurs that are equally spaced on the color wheel.
- makes lively combinations

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Colour characteristics:
Hue:
The quality which distinguishes one colour from another. It is the name given to the colours - blue, green, yellow, orange, red, etc.
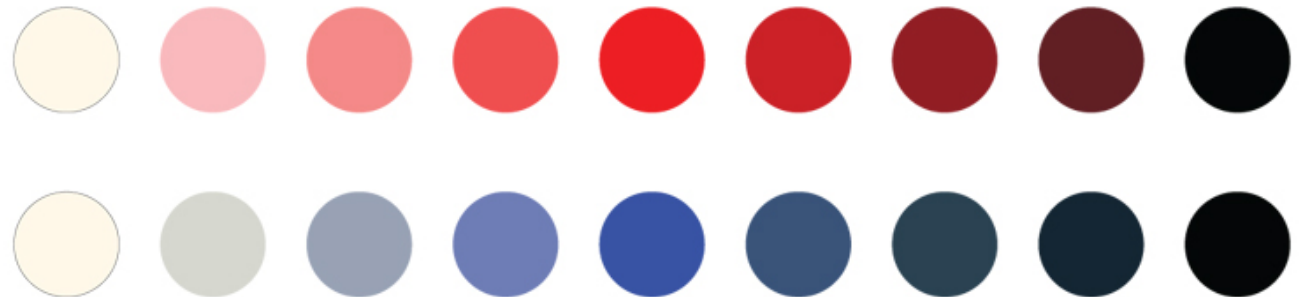
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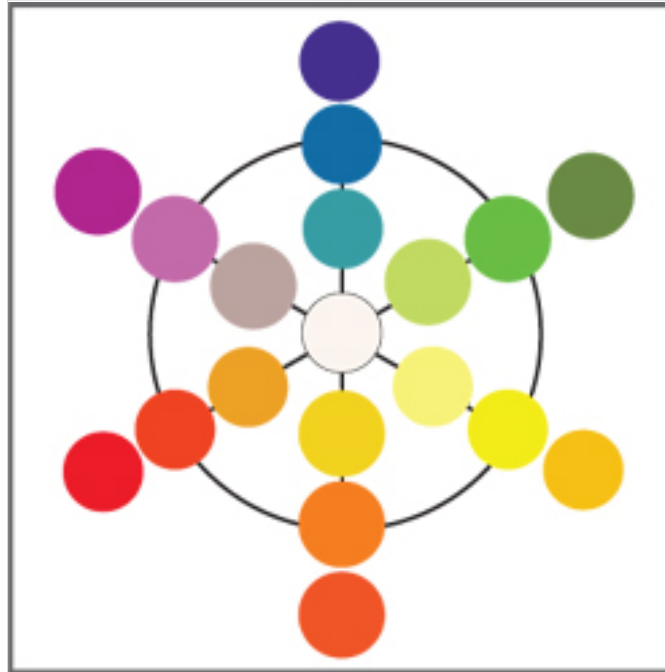
Colour characteristics:
Value:
The quality of lightness or darkness of a colour. Adding white or black changes the value of the colour.

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Colour characteristics:
Chroma:
The quality of brightness or dullness of a colour. It refers to the colour saturation or the measure of colour intensity.

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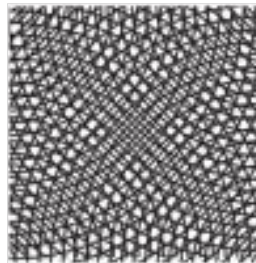
Colour reproduction:
Additive: Red, Green, Blue (RGB). The additive colours RGB is created from emitted light and when combined results in white colour. Examples are colour reproduction on Televisions, Mobile screens, Computer monitors, etc.

Colour reproduction:
Subtractive: Cyan, Yellow, Megenta (CYM). Subtractive colour is created from light reflecting off a surface. Examples are in printing, painting, etc. The subtractive colours CYM when combined results in black colour represented as 'K' in CYMK (a commonly used abbreviation in printing).

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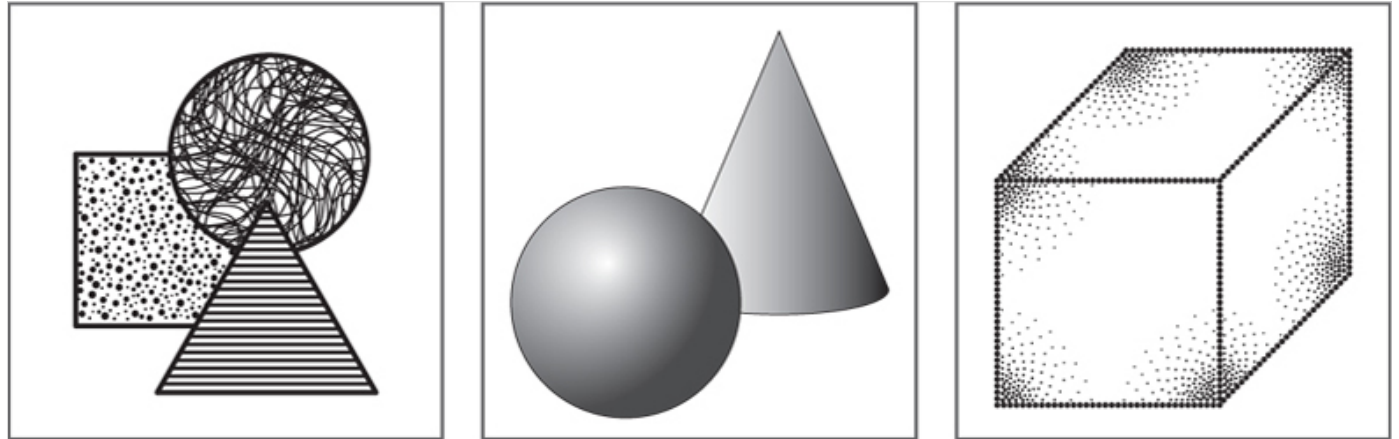
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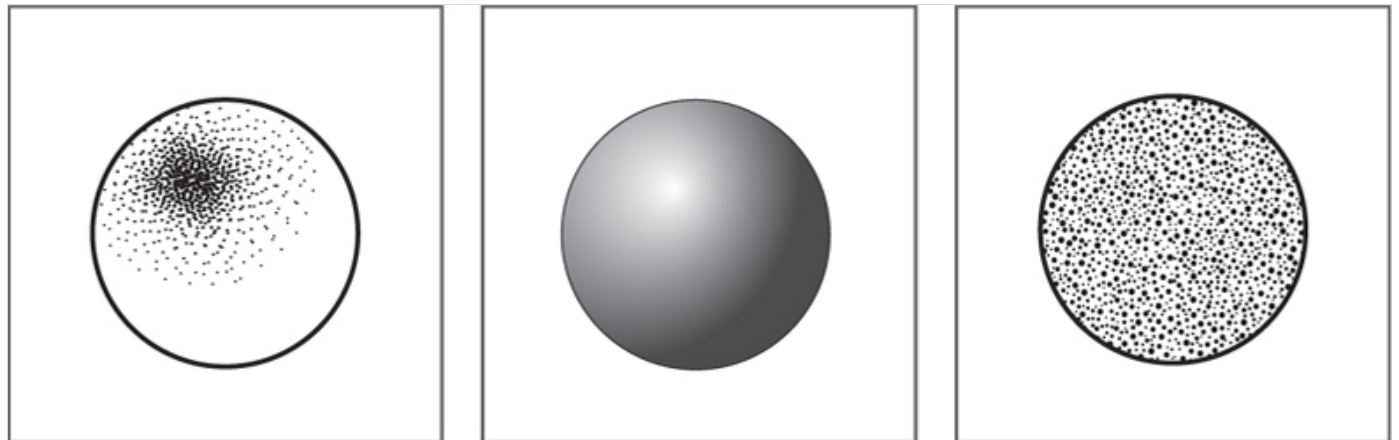by
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Example

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Texture

Texture as Text

Notes - Annotation

Relationship

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Texture as Text

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Notes - Annotation

Formal Aspects

All objects have surfaces. And all surfaces have textures. Texture is the appearance and feel of the surface and also refers to the variations on the surface. Texture is defined by the quality of the surface's structure or pattern.

Textures may be plain or decorated, smooth or rough, shiny or dull, transparent or opaque, matte or glossy, and, soft or hard.

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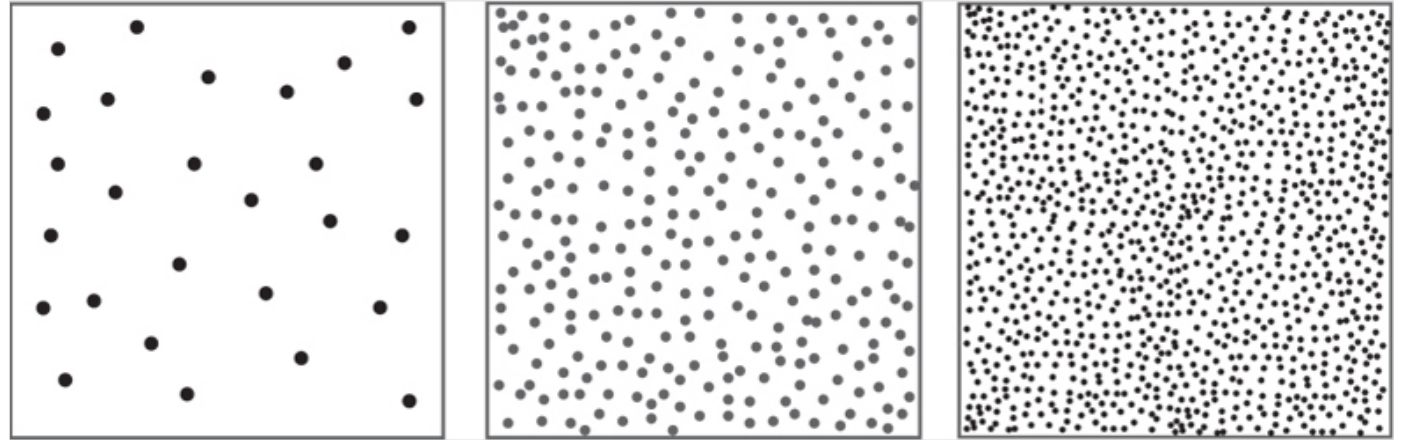
Texture is created by massing together small visual elements or particles into an arrangement whose visual character derives from their combination as a whole. The character of the texture varies in terms of the structure of the individual elements and the spaces in between them.

Textures in the physical world:
Materials in the physical world have different textures. These are tactile and can be physically felt by the sense of touch. Textures that can be felt are referred to as 'tactile'.

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Textures in the represented world:
Textures when represented on an image or illustration are perceived as the actual texture of the surface. Here the surface quality is felt through the sense of sight.
These textures are referred to as 'visual textures'.

Semantic Aspects
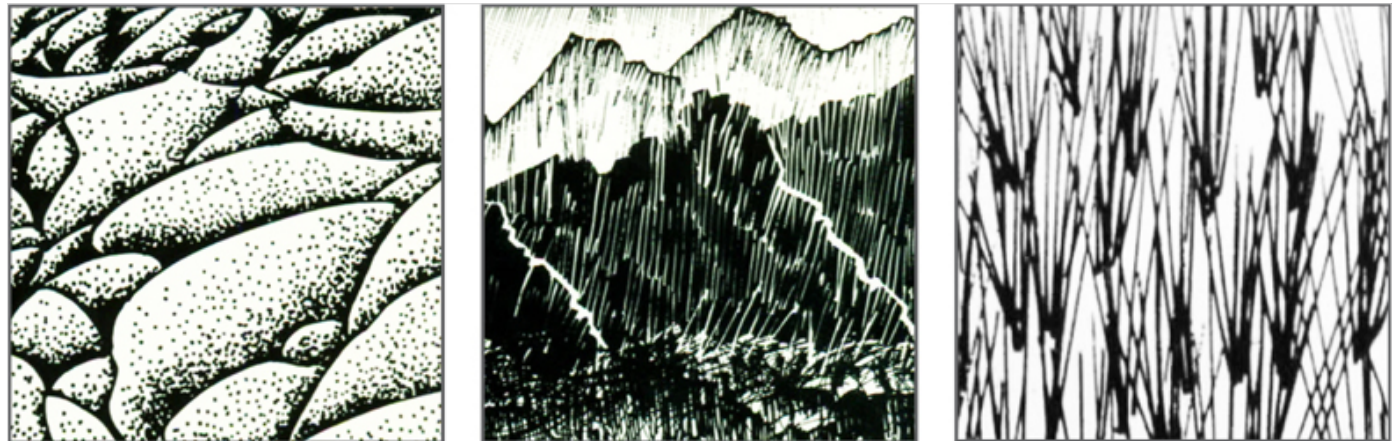
Textures show the quality of the physical surfaces. It can express meanings and can be designed to be rough, smooth, earthy, old, futuristic, fresh, energetic, and so on.

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Source:
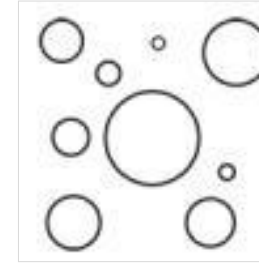**https://www.dsource.in/course/visual-features/texture/notes-annotation**
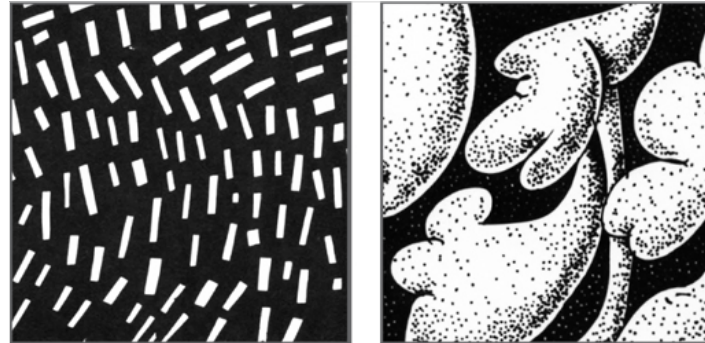
Textures can also be abstract, symbolic or descriptive.

Practical Aspects
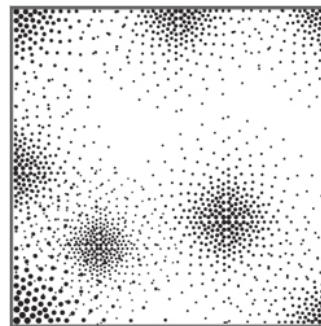
Textures depict the characteristics of the surface. It can be designed to be soft, smooth, rough, rugged, shiny, sticky, etc. depending on the function it is supposed to serve.
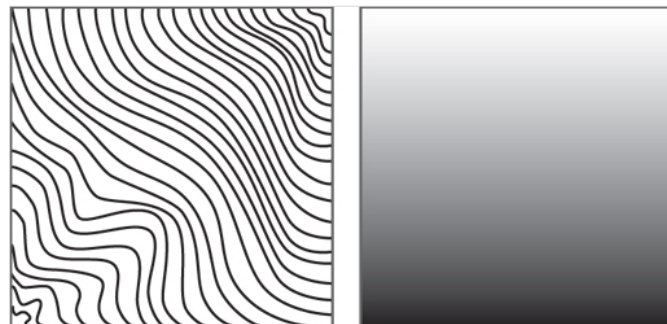
Texture gradients are a useful means for the depiction of depth.

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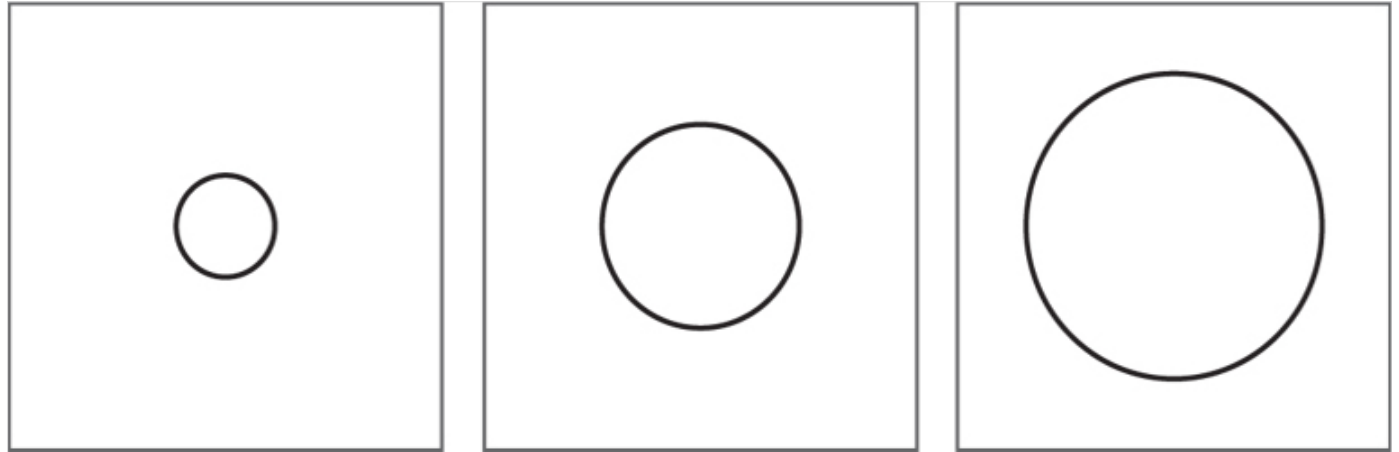
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Size

Size as Text

Notes - Annotation

Relationship

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Size as Text

Size shown
- as text
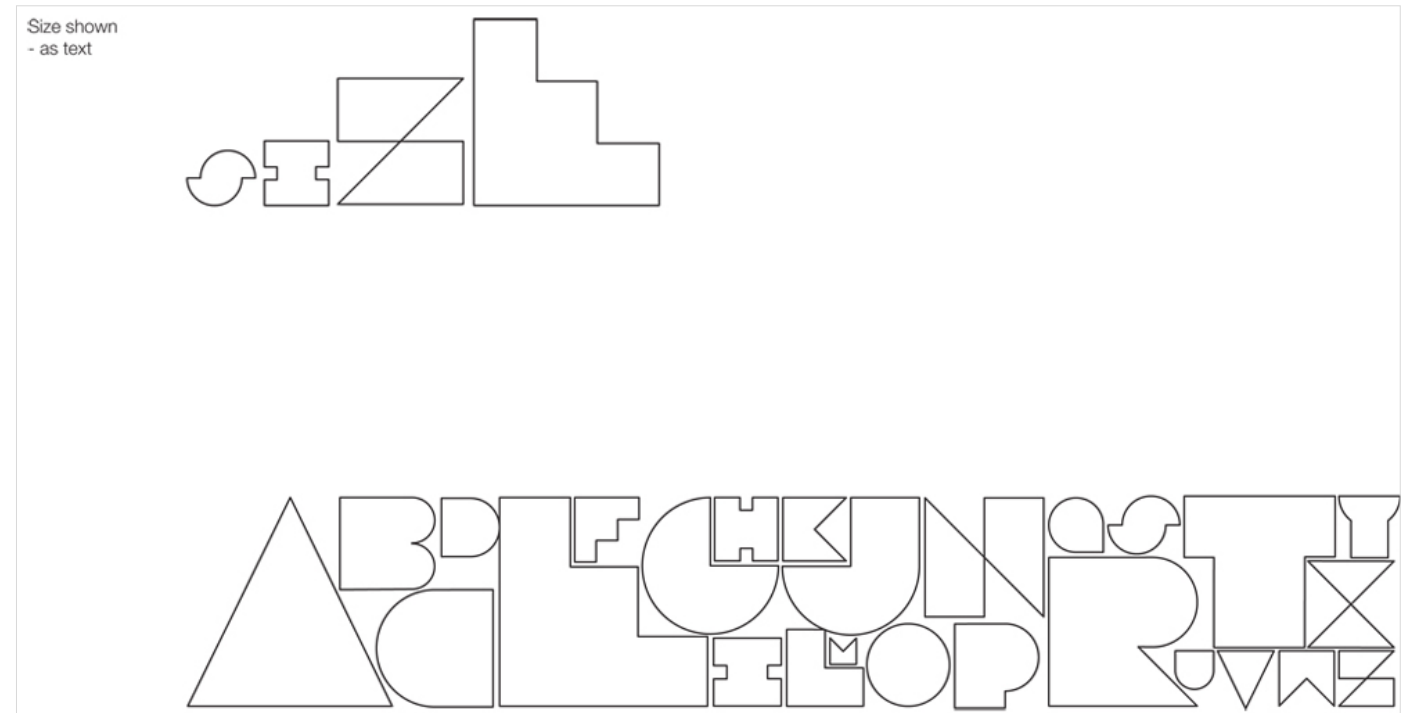
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## Notes - Annotation

Formal Aspects

Size concerns the physical dimension of an element/object or its representation in terms of the space it occupies.

Size is a relative factor. We can say that an object/representation has a particular size in relation to another. The relationship between different sizes of objects (or representations) or between the dimensions of an object (or its representation) is referred to as 'proportion'.

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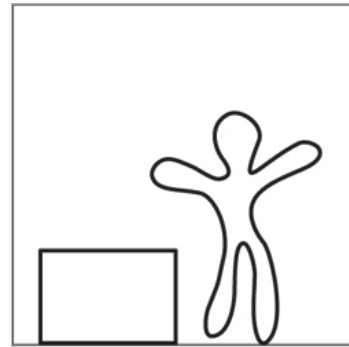
The size of the elements in comparison to the world in general is referred to as 'scale'. Scale is often compared to the size of human body and the space surrounding it. Examples of reference to scale are miniatures, life-size, larger-than-life, monumental scale, etc.
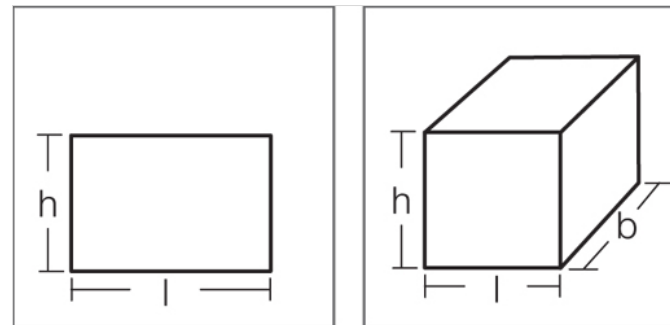
Size can be measured by an object's (or representation's) physical dimensions of length and breadth for area or length, breadth and height for its volume.
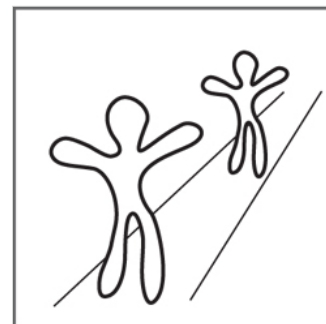
When seen in perspective, the size of the closer object is represented as larger and farther objects are represented as smaller.

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Semantic Aspects
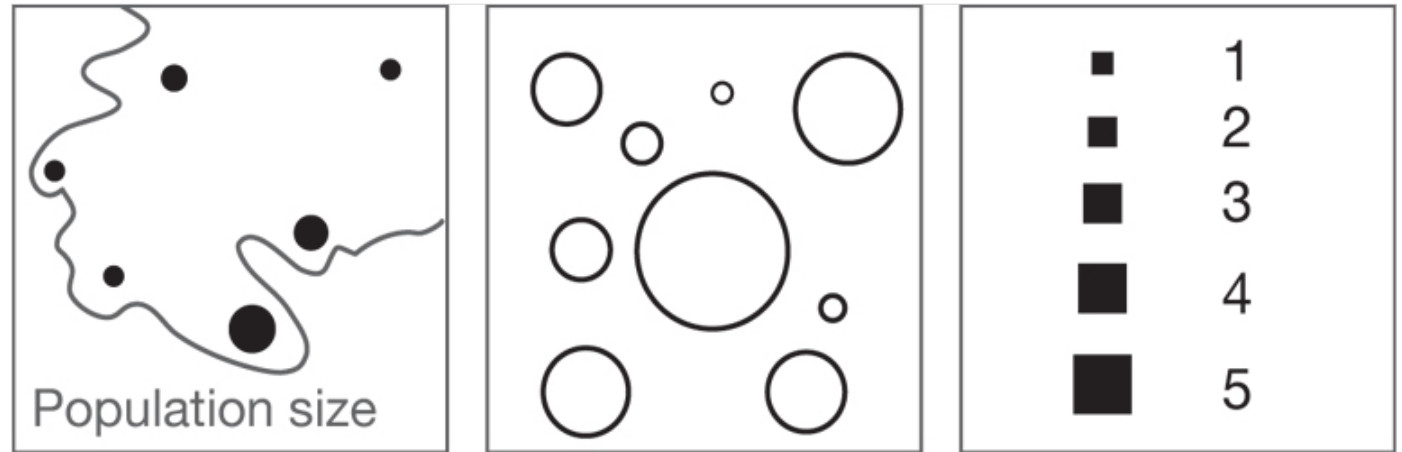
Size variations can be used to denote heirarchy, importance and order.

The size of some features are exaggerated in caricatures. This is to emphasize and bring out the uniqueness of these features.

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Practical Aspects

Size indicates the physical dimension of an object or representation.
Size can be altered to denote smallness or bigness of an object or representation in relation to one another.
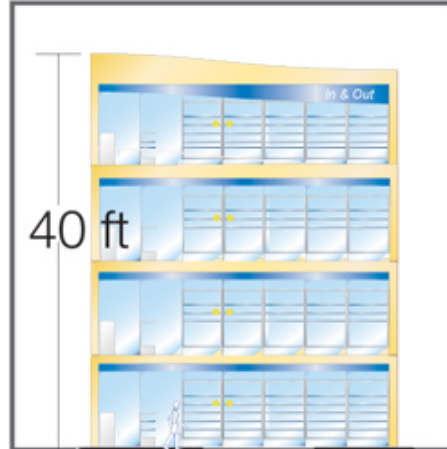
For practical reasons, drawings and models are done in smaller size to depict objects that are large. This is done by scaling in proportion to the size of the actual objects. For example, architectural drawings can be in ratios of 1:10, 1:20 to the actual size of the building.
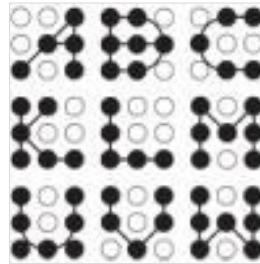
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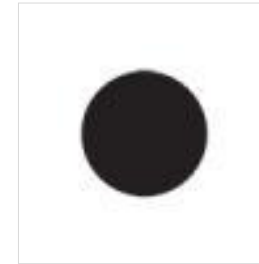by
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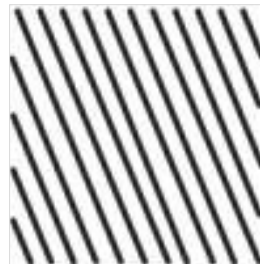by
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Orientation

Orientation as Text

Notes - Annotation

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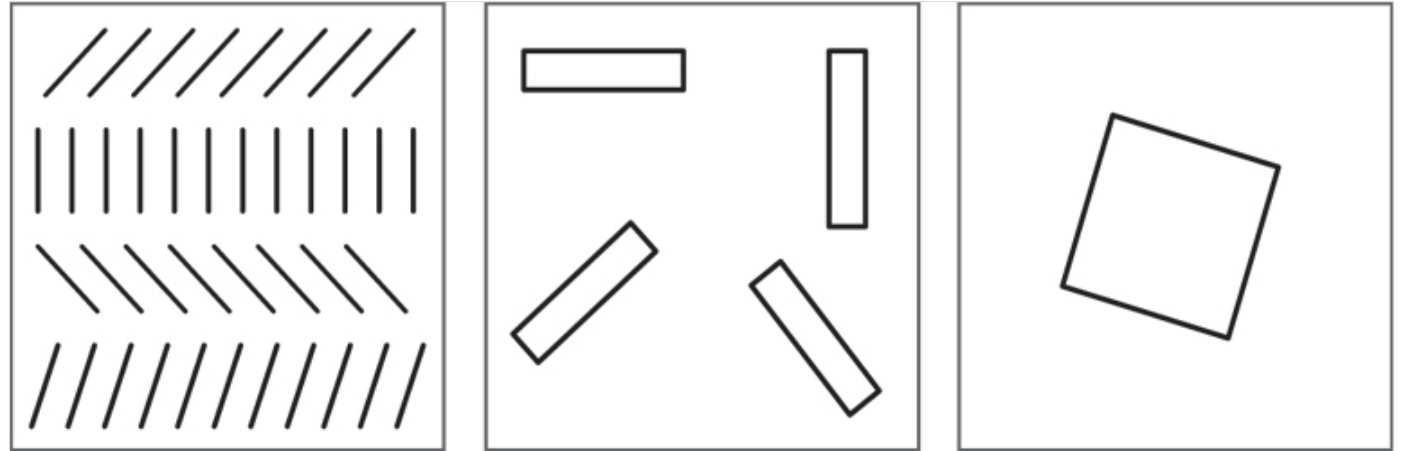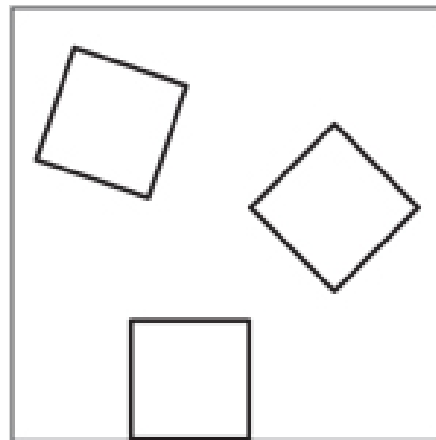
Orientation as Text

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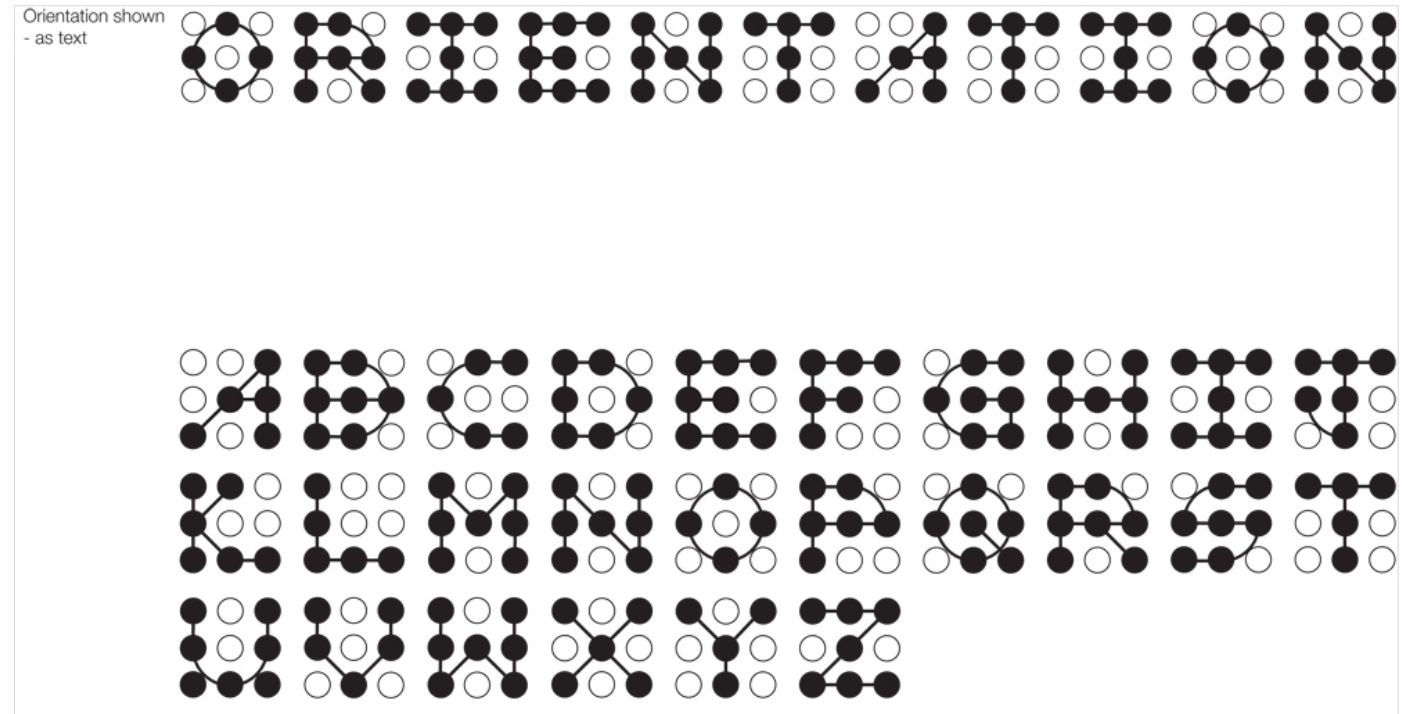
Notes - Annotation

Formal Aspects

Orientation refers to the direction of the elements or the representation.
Orientation of an element depends on how it is related to the observer, to the frame of reference or to the other elements in the field.

Orientation is a relative factor. We can say that an object/representation has a particular orientation only in relation to another.

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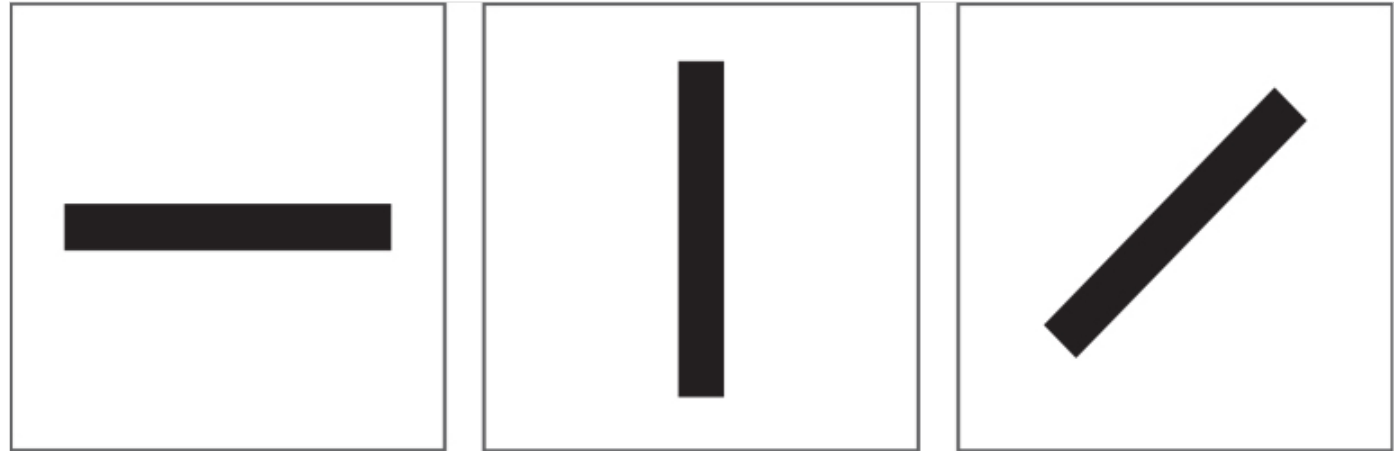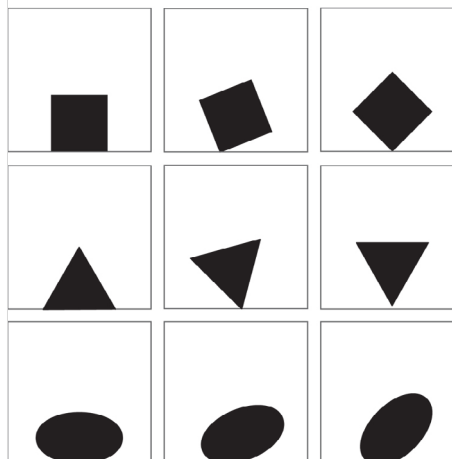
The primary directions are horizontal, vertical and the diagonal.

Similar Orientation:

Gradational Orientation:

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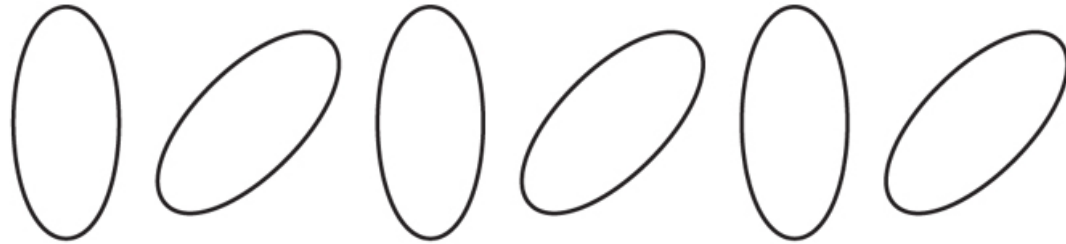
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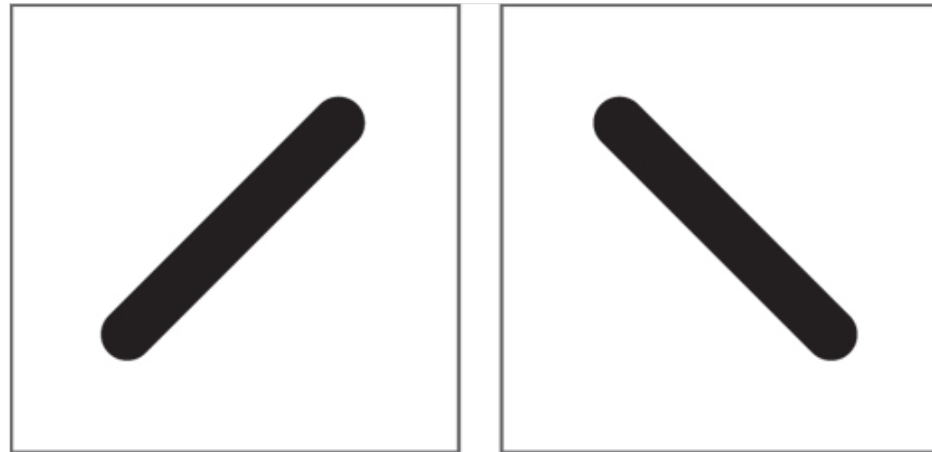Shape, colour, texture, size, orientation and position
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IDC, IIT Bombay

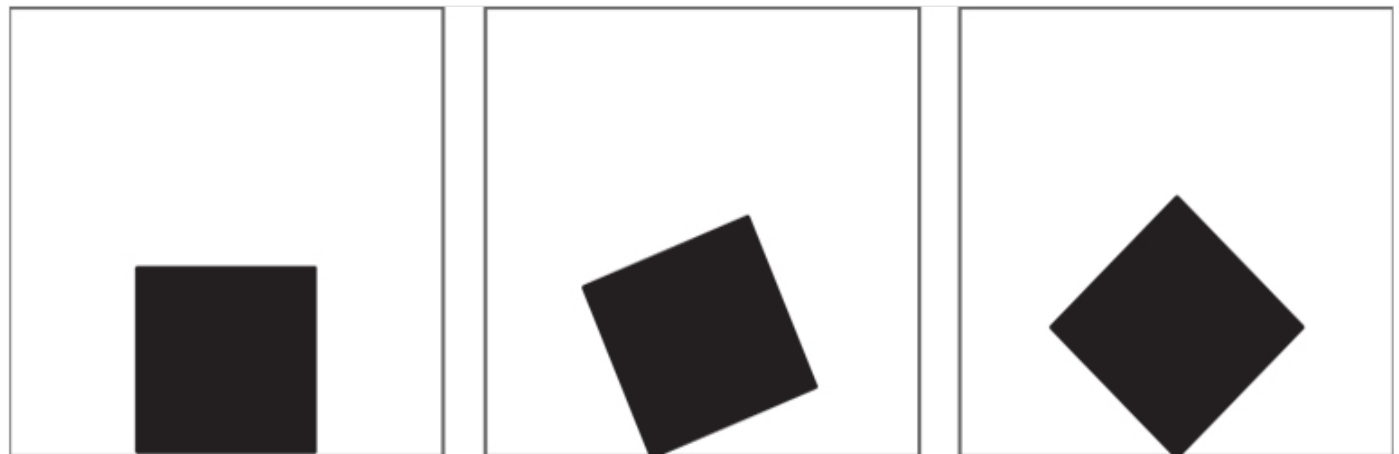**Semantic Aspects**

Orientation of an element or object can give rise to a strong sense of movement or dynamism, especially along the diagonal direction. Compared to this, the vertical and horizontal direction represents a sense of balance, stability and calmness.

A horizontally placed square that looks static, on changing its direction along the diagonal axis, becomes dynamic.

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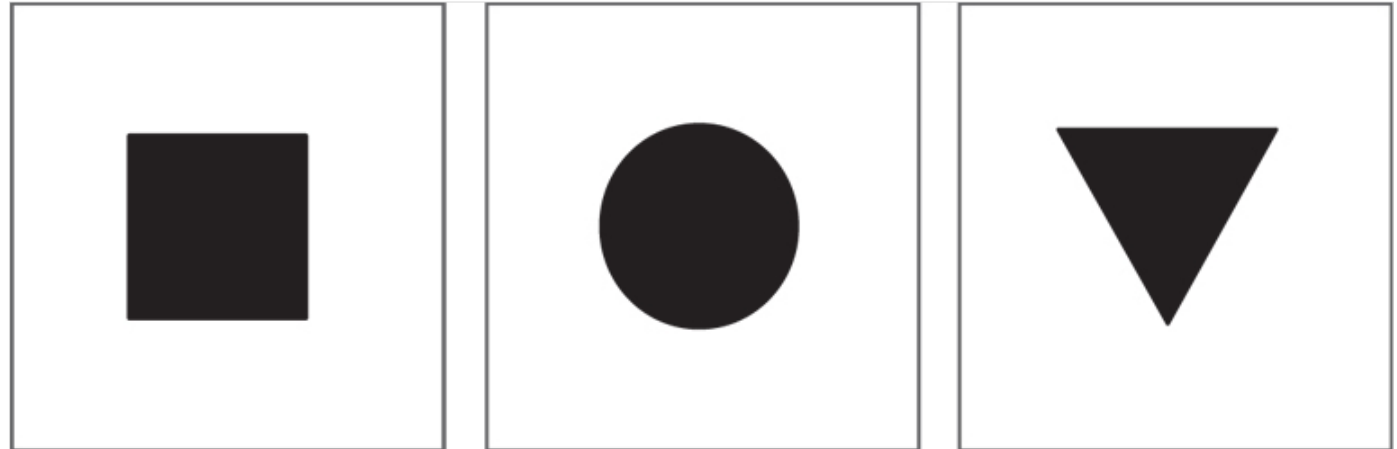Shape, colour, texture, size, orientation and position
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Source:

Square: denotes stability
Circle: denotes unity and wholeness
Triangle: denotes dynamism and conflict

Practical Aspects

Orientation indicates the direction of an object or representation.
Direction is useful for aligning different elements or objects in a frame of reference.

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Source:
https://www.dsource.in/course/visual-features/
orientation/relationship

Relationship

Digital Learning Environment for Design - www.dsource.in

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Example

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Source:
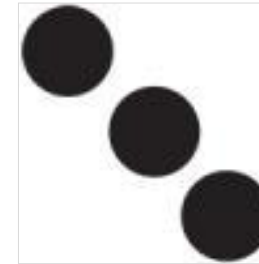**https://www.dsource.in/course/visual-features/**
position

Position

Position as Text

Notes - Annotation

Relationship

Example

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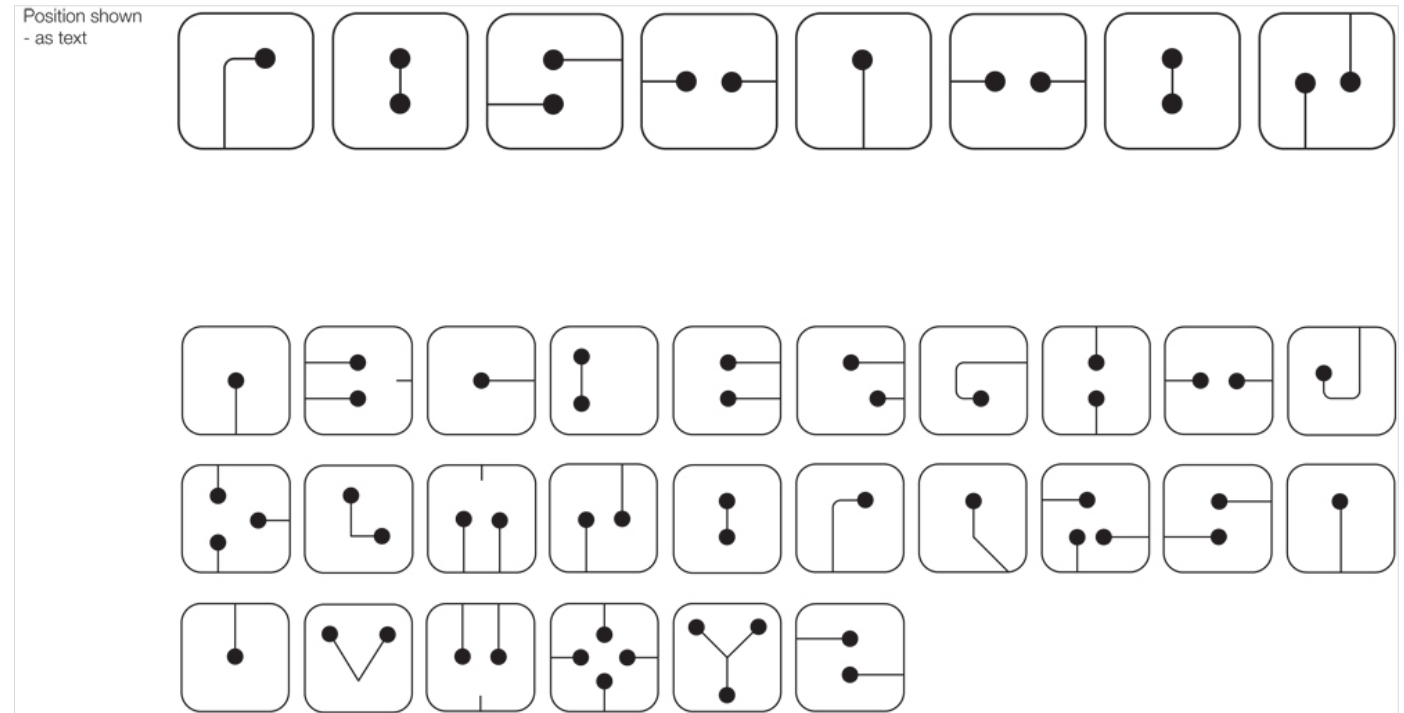IDC, IIT Bombay

Position as Text

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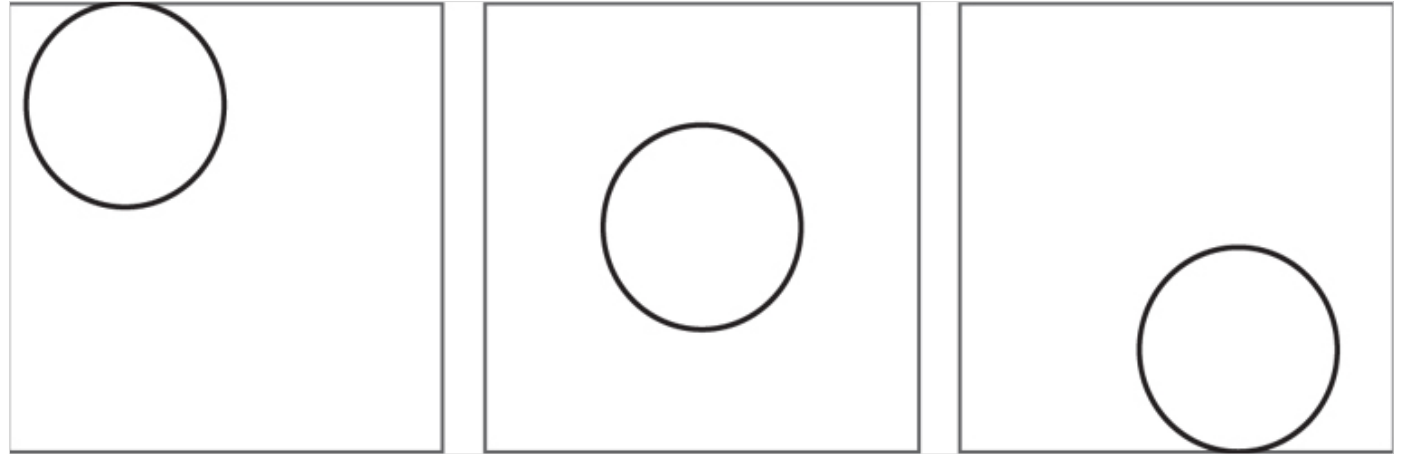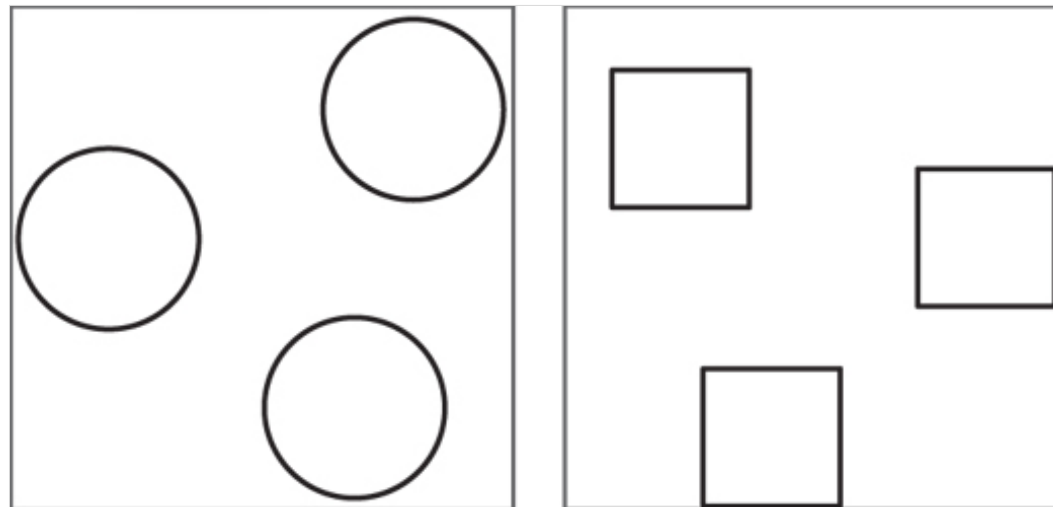IDC, IIT Bombay

Notes - Annotation

Formal Aspects

Position refers to the location of the visual element/object in a visual environment.
Position of an element/object depends on how it is related to the observer, to the frame of reference or to the other elements in the field.

Position is a relative factor. We can say that an element/object has a particular position only in relation to another.

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Source:
https://www.dsource.in/course/visual-features/position/notes-annotation
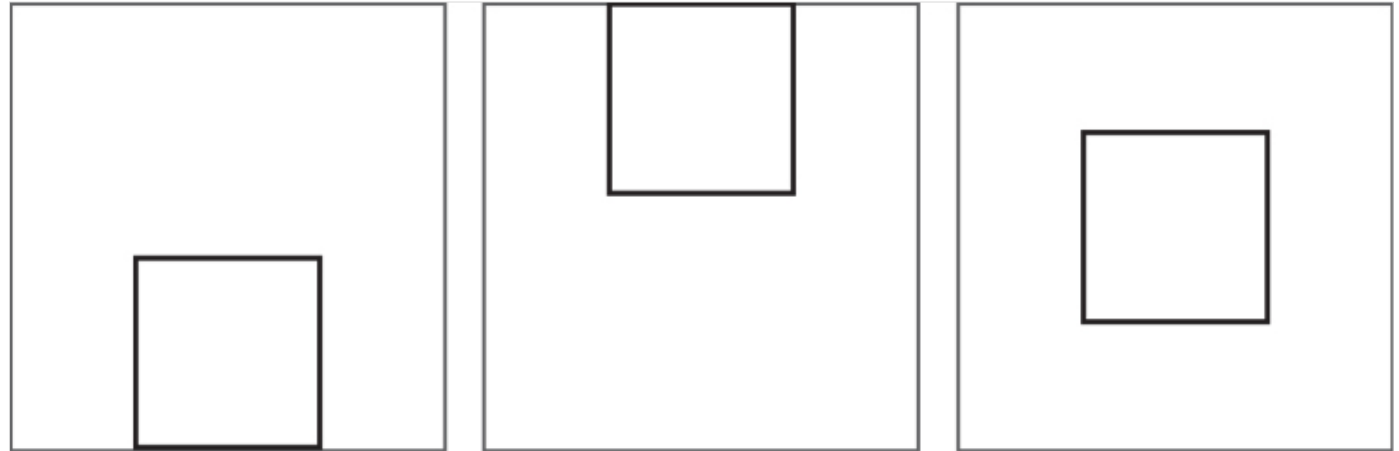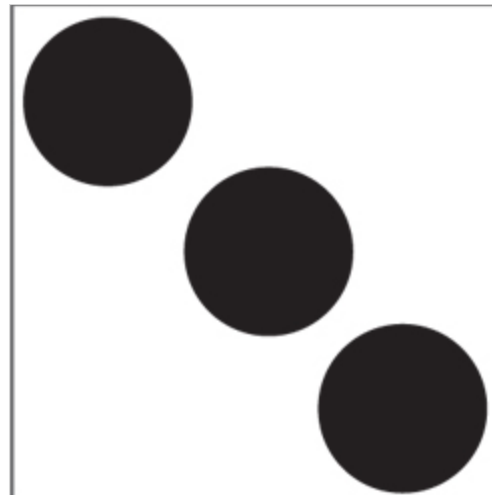
The primary positions are horizontal, vertical and centered.

Semantic Aspects

The position of an element/object can give rise to a feeling of mass or lightness, stability or movement, etc.

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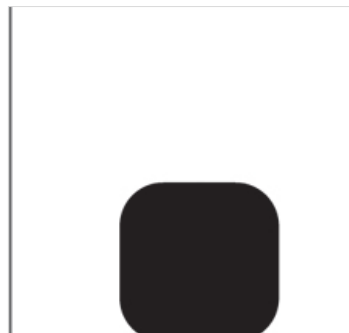**Source:**
https://www.dsource.in/course/visual-features/position/notes-annotation
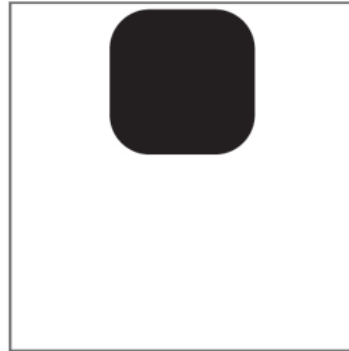
The position on the top of the frame of reference gives the element a feeling of lightness - as if it is defying the downward gravitational pull.

The position on the bottom of the frame of reference gives the element a feeling of heaviness and flatness - as if it is heavy and difficult to move.

The position on the corner of the frame of reference gives the element a feeling of being cornered - as if it is seeking safety and protection.

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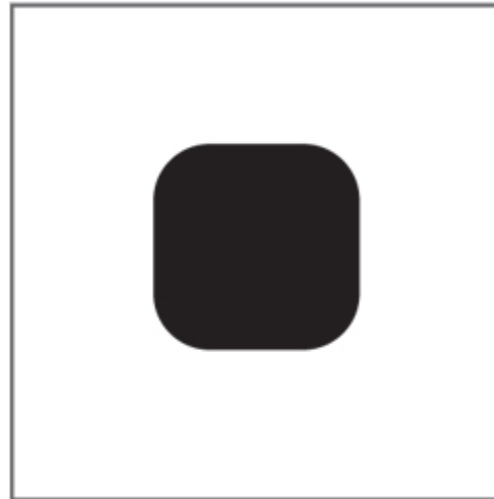Shape, colour, texture, size, orientation and position
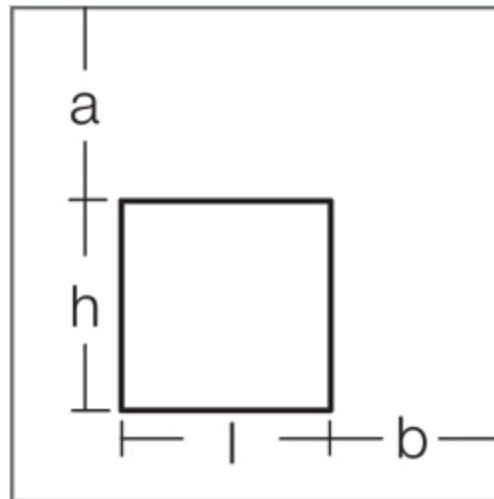by
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The primary positions are horizontal, vertical and centered.
The position in the centre of the frame of reference gives the element a feeling of importance - as if it is seeking attention of being by the centre.

Practical Aspects

Position indicates the location of an element/object or its representation within a frame of reference. With the use of mesurements, the exact location and dimensions can be marked within this frame of reference.

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Source:
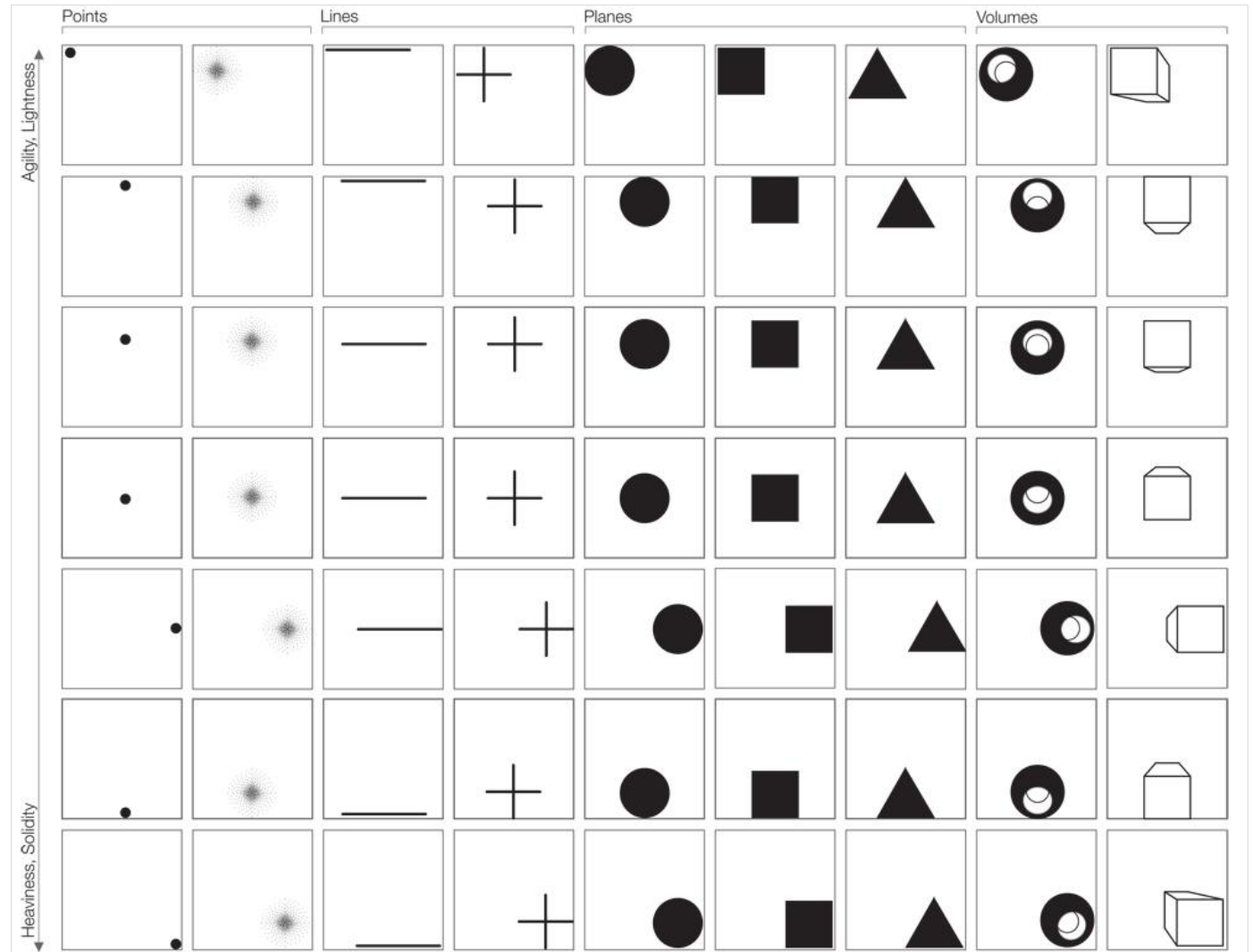**https://www.dsource.in/course/visual-features/position/relationship**

Relationship

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Source:
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Example

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Source:
https://www.dsource.in/course/visual-features/contact-details

Contact Details

This documentation for the course was done by Professor Ravi Poovaiah, faculty at IDC, IIT Bombay.

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