A Compilation of the Terms and Concepts Comprising the Fundamental Vocabulary of Visual Literacy

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Note: This document complements "A Fundamental Vocabulary of Visual Literacy: An Assessment" by Mingyu Li. The content in this document, including the images, the text, and everything else shall not be reprinted without permission. Questions and comments should be directed to Mingyu Li, minggbt@vt.edu.

Visual Elements & Selected Supporting Terms

Dot/Point

It is the smallest, simplest, irreducible unit of any visual. A dot is usually circular in shape, but not necessarily perfectly round. Dots can suggest other visuals, such as shapes, textures, and many other complex visuals. Dots also have personalities. For example, fuzzy dots tend to indicate excitement, whereas perfectly rounded dots are calm and stable.

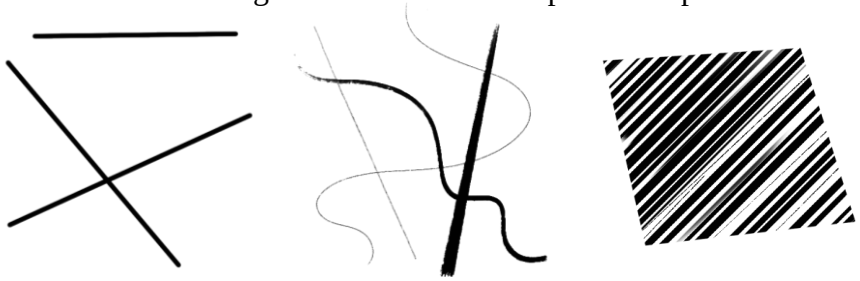
I-A typical perfectly rounded dot. II-Variances of a fuzzy dot. III-A triangle (shape) suggested by a group of dots.

I II III

Line

A line can be thought of as a chain of dense and indistinguishable dots. Lines can be curved or straight, thick or thin, short or long. Lines can be implied by separate but closely placed dots or other visual segments. Lines can also indicate direction. Similar to dots, lines can be arranged and manipulated to imply other visuals and invoke personalities.

I-Variants of a straight line. All three suggest directions. II-Curves and straight lines with various thicknesses. III-An arrangement of lines that implies a shape.

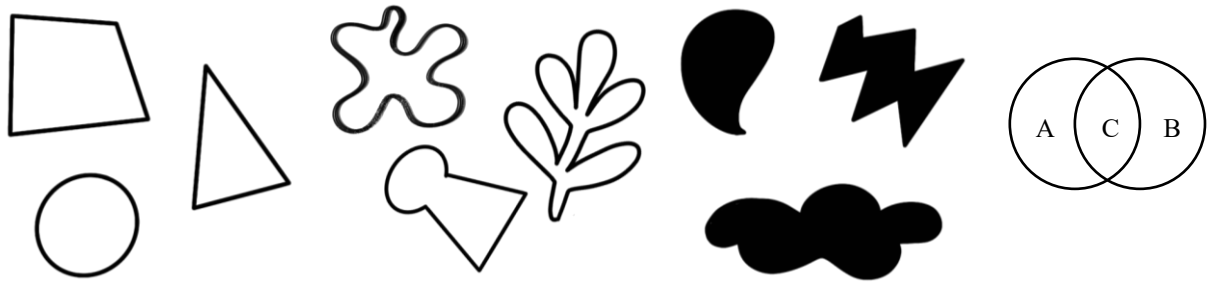


I II III

Shape

A shape can be formed when a line returns to itself, defined by the contour of an object, or by a contrast of value, color, and many other elements. Shapes come in many variations, such as geometric shapes and organic shapes. Shapes are often used in graphs and charts to show relationships and/or processes.

I-Geometric shapes. II-Organic shapes. III-Shapes defined by filled areas. IV-Shapes used to indicate qualitative relationships, i.e., C is part of both A and B.

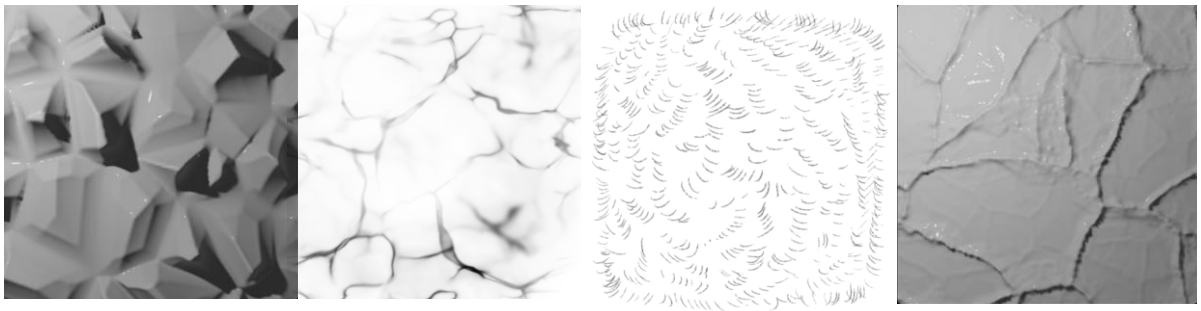


I II III IV

Texture

Texture refers to the actual or simulated surface quality of an object and often can be perceived by see, touch, or a combination of the two. Adjectives used to describe texture include smooth, bumpy, rough, hard, soft, etc. Texture can be used to fill a defined or abstract area to serve various purposes.

All the following four textures are implied using different visual techniques.

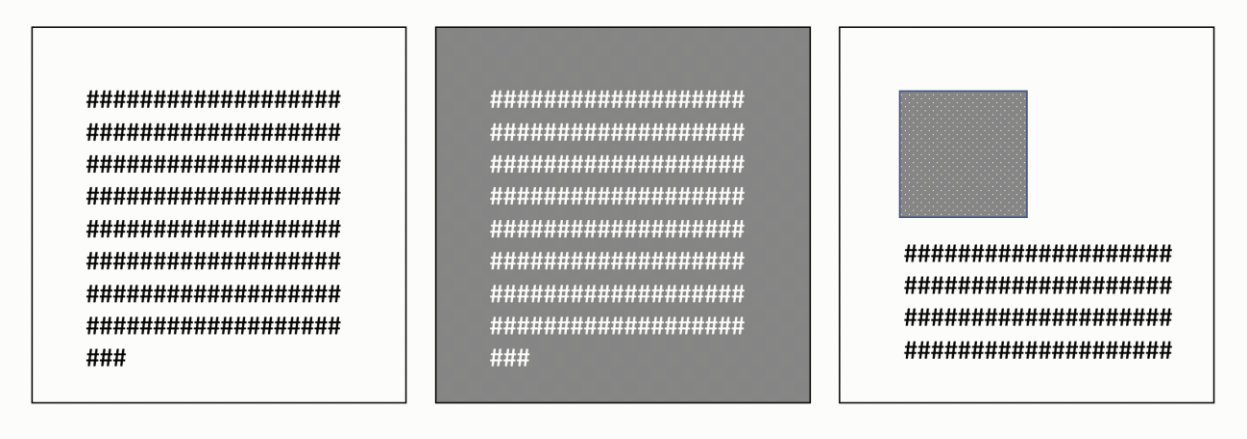


I II III IV

Space/White Space

Referred to as “white space” despite the actual color or texture of the area, space is an often-neglected visual element. It is frequently used to organize content and is critical to the overall balance of the design.

The blinking area in the following three squared frames represents the white space in the frames.

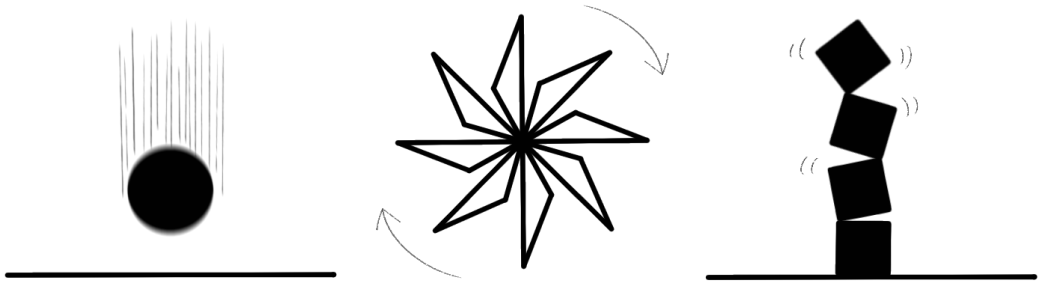


I II III

Motion/Movement

Movement or motion is often implied or suggested in a visual by manipulating other visual elements, such as lines and tones. Although it is often found in comic books, movement is widely used in instructional visuals, such as those used to teach physics concepts.

I-Movement is implied using lines and blurred visuals. II-Motion is implied using arrows. III. Motion is implied by the positioning of the squares and the short curved lines next to the squares.



I II III

Value/Tone

The value or tone of a color refers to the relative lightness or darkness in a color. A difference in value creates contrast, although it is not the only factor in determining the strength of contrast. Meanwhile, value influences the personality of a design. Light tones indicate a sense of softness, while dark tones evoke strength.

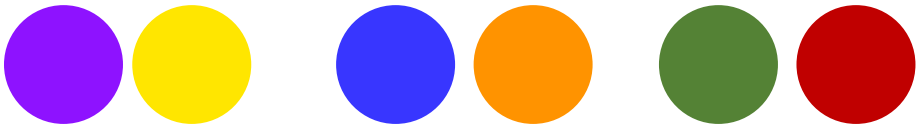
I-The second row shows the values corresponding to the colors in the first row. II-A big difference in value creates a strong contrast. III-Light tones on the right look softer than the tones on the left.

I II III

Complementary Colors

Colors that are directly opposite each other on the color wheel are known as complementary colors. They are used to create contrast, which makes the design dynamic and make certain objects stand out when used appropriately and purposefully.

I, II, and III are three pairs of complementary colors.

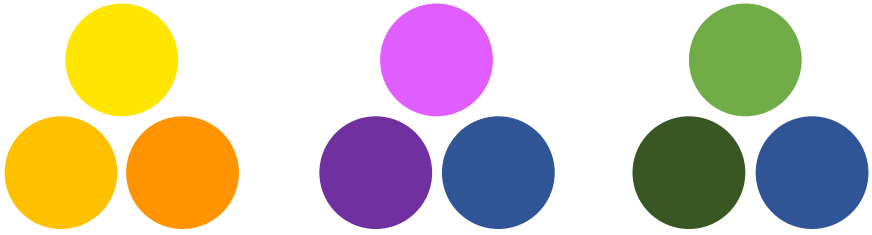


I II III

Analogous Colors

Analogous colors are those that are right next to a given color on the color wheel. They are easy on the eyes and create a seamless flow when used together.

I, II, and III are three groups of analogous colors.



I II III

Monochromatic Colors

Monochromatic colors are those of a given color mixed with different levels of black or white. A monochromatic color theme can create a sense of unity and harmony. Meanwhile, because monochromatic colors are produced from one given color but of different values, they can be used to create hierarchy and serve other roles.

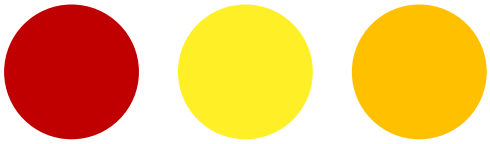
I-Three groups of monochromatic colors. II-The letters appear to be in a hierarchy from left to right although their size and font are the same. The monochromatic colors applied to the characters made viewers perceive the hierarchy.

I II

Warm Colors

Warm colors are those that are commonly perceived by humans as being warm, such as red, yellow, and orange. The colors also share a physical quality in that they have relatively long wavelengths.

I, II, III are three examples of warm colors.

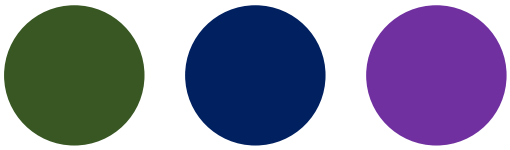


I II III

Cool/Cold Colors

Cool/Cold colors are those that evoke a sense of psychological or emotional coldness, such as blue, green, and purple. The wavelengths of these colors are relatively short.

I, II, III are three examples of cold or cool colors.



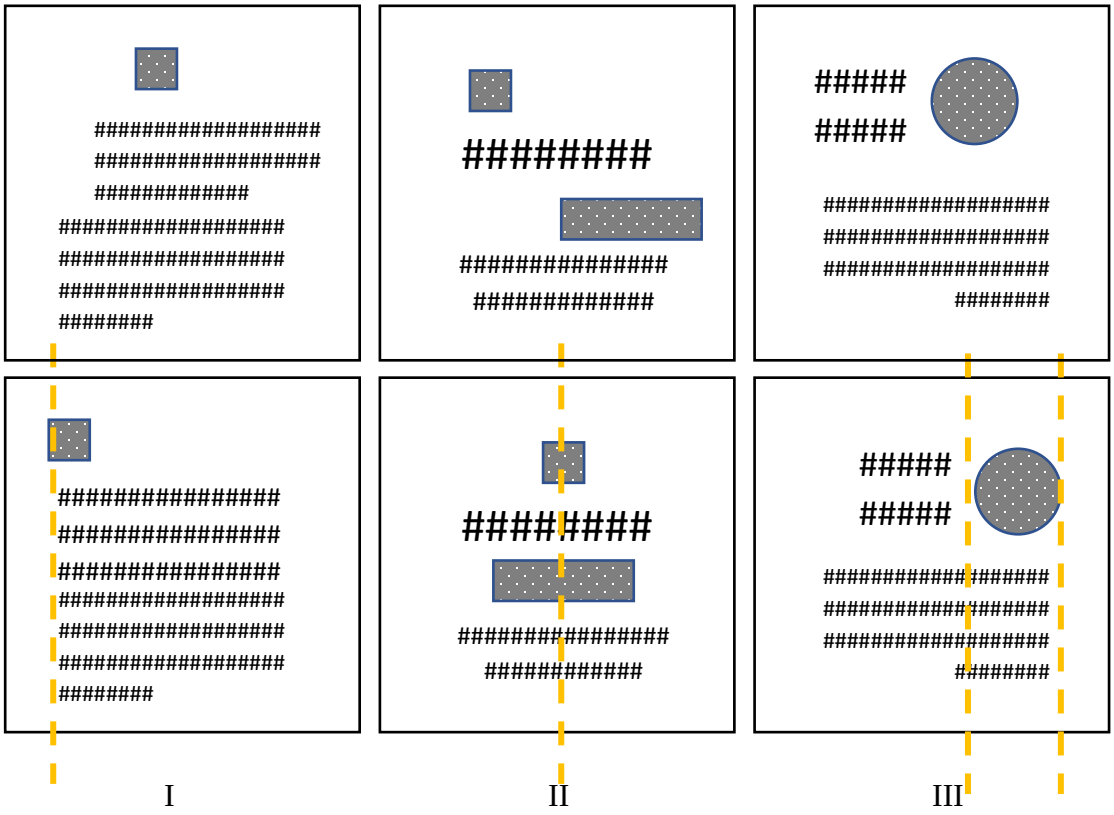
I II III

Visual Actions/Techniques/Arrangement

Alignment

This technique emphasizes that no visual piece should be randomly placed on a design. Instead, the objects should be organized so one or more invisible lines can be easily perceived by the human eye. The most common types of alignment are left alignment, center alignment, and right alignment. We tend to perceive visual pieces that are aligned as related.

I, II, III are three groups of "before" and "after" the implementation of the alignment technique. I is left alignment. II is center alignment. III is right alignment.

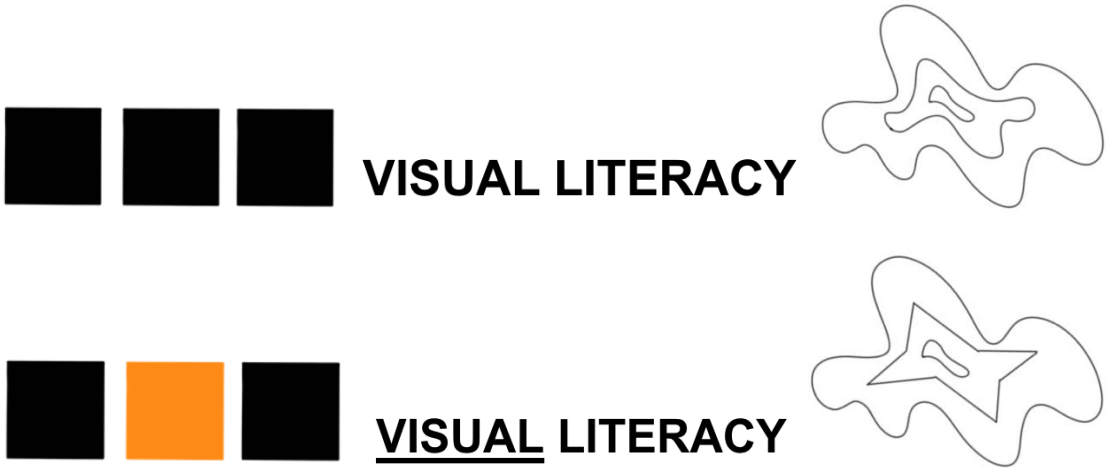


I II III

Contrast

The key to Contrast is to create visual differences by manipulating visual attributes of objects such as color, size, texture, etc. Contrast supports learning and training purposes in many ways, such as building a hierarchy, focusing attention, using visual contrast to indicate contrasting concepts, etc.

I, II, III are three groups of "before" and "after" the design action of contrast. As seen in the images, contrast is created by manipulating attributes of objects to make them look different. I-using color to create difference. II-using an underline to create contrast. III-changing one of the smooth shapes to a shape with sharp angles.



I II III

Repetition/Similarity/Consistency

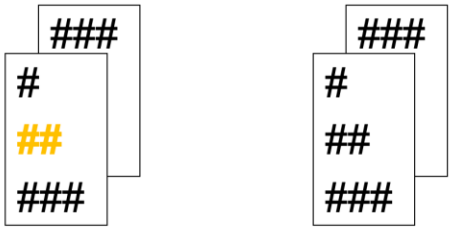
This visual action is employed to facilitate the mind in perceiving connections between pieces in a design by keeping some visual element or attribute of the pieces consistent. This technique is based on research on our visual perception. Specifically, we tend to perceive visually similar objects as being in a group.

I, II, III are three groups of "before" and "after" visuals of the technique of repetition. Similar to contrast, this technique is achieved by manipulating attributes of objects. However, the purpose here is to eliminate the difference so viewers would perceive the visually similar objects as being in one group. I-reserving the font style. II-removing the border of the middle square. III-keeping the font color consistent.

I

II

III

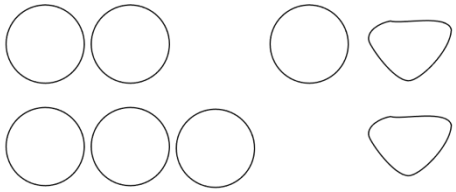


Proximity

This technique organizes information by placing related pieces close to each other to inform the viewer that they are connected. Conversely, when there is too much space between objects, it is likely that the viewer will question if they are connected even though they are inherently related.

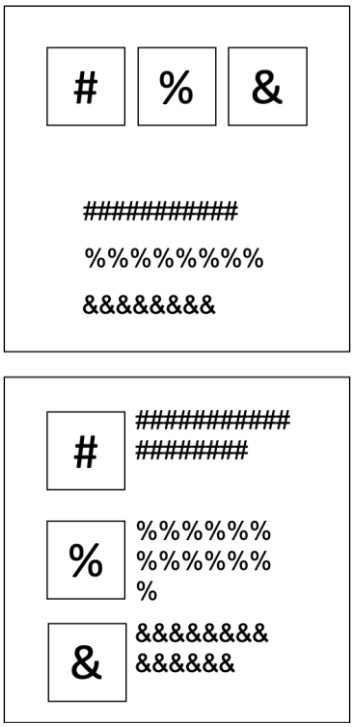
Below are three groups of “before” and “after” visuals demonstrating the technique of proximity. I-Placing the objects that are related closely to each other. II-By positioning C close to AB, viewers perceive ABC as being in one group. III-Placing the connected objects close to each other.

I



II

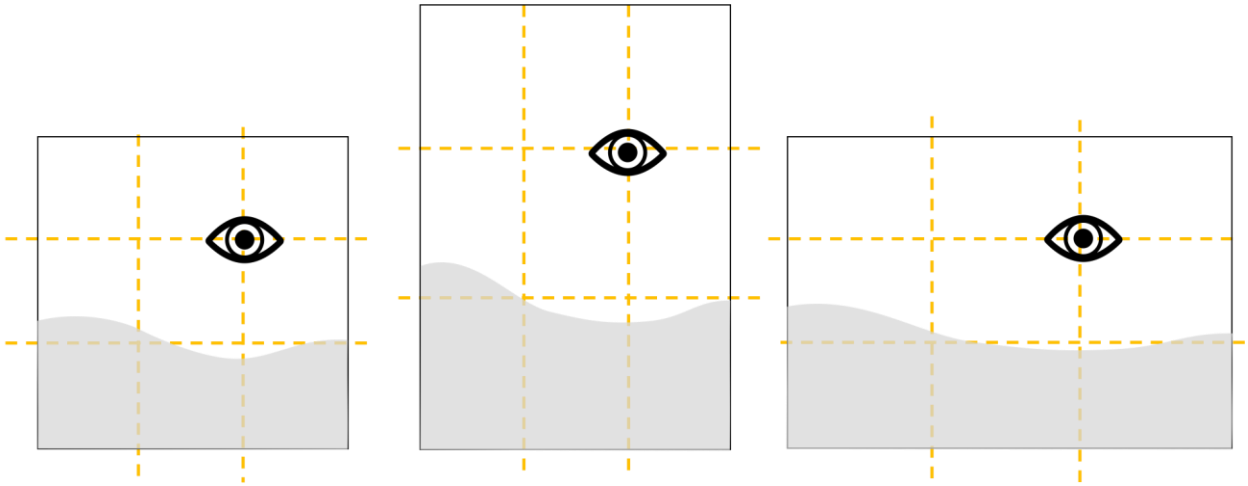
III



Rule of Thirds

The rule of thirds technique suggests placing the focal points of a design on or near the intersections of the imaginary horizontal and vertical lines that divide a frame into nine equal pieces.

I, II, III are three pages in different aspect ratios. The rule of thirds has been applied to all three to focus the attention of viewers on the eye shapes. The wavy shape at the bottom of the pages, roughly aligning with one of the horizontal lines, balances the frame as a whole.

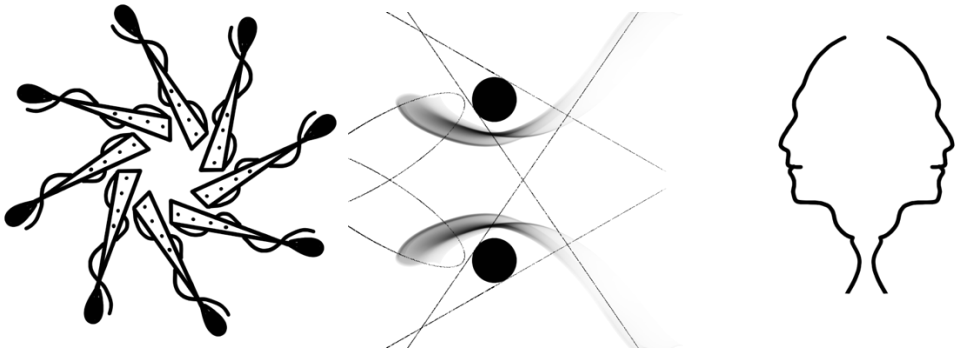


I II III

Symmetry

Symmetry is a good way to evoke a sense of balance. There are many types of symmetry. For example, bilateral or mirror symmetry indicates that objects on one side of a center line or axis is mirrored on the other side. Rotational symmetry or radial symmetry is achieved by rotating objects around a central axis.

II and III are two variants of mirror symmetry arrangement. I presents an example of rotational symmetry.

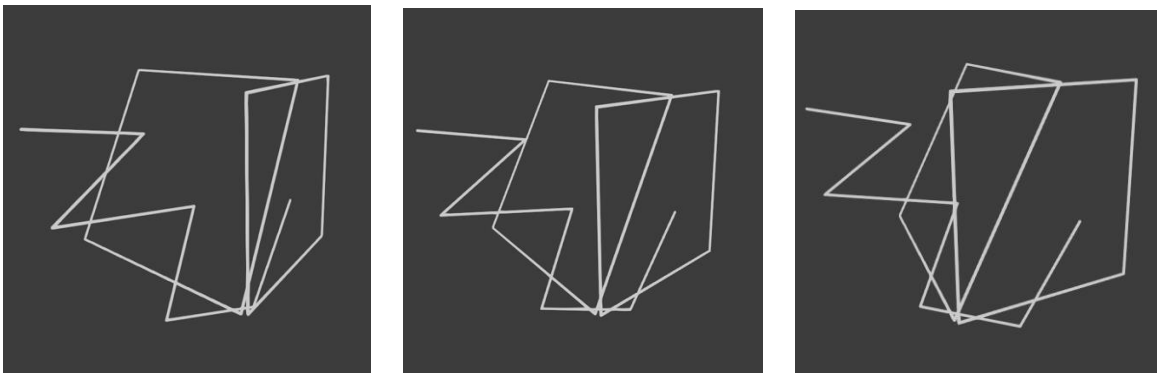


I II III

Perspective/Point of View

Perspective is a way of arranging objects in a 2D environment to suggest depth, distance, and proportion.

I, II, III are one group of objects arranged corresponding to three different perspectives (mainly horizontal differences).



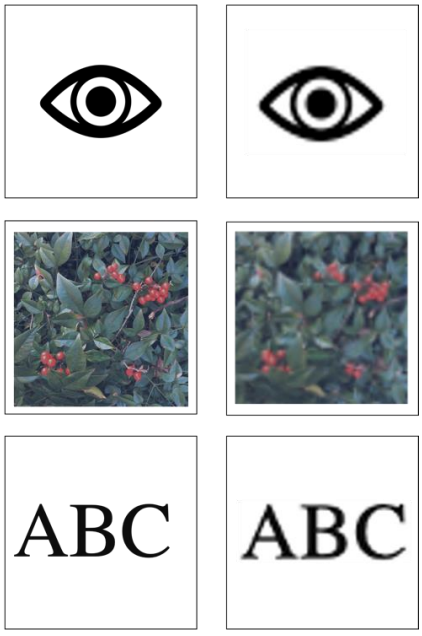
I II III

Foundational terms for Digital Visual Communication

Resolution

Resolution describes the degree of fineness, sharpness, or clarity of a digital image or a printed digital image. A high-resolution image is crisp, while an image in low-resolution is often referred to as “pixelated”.

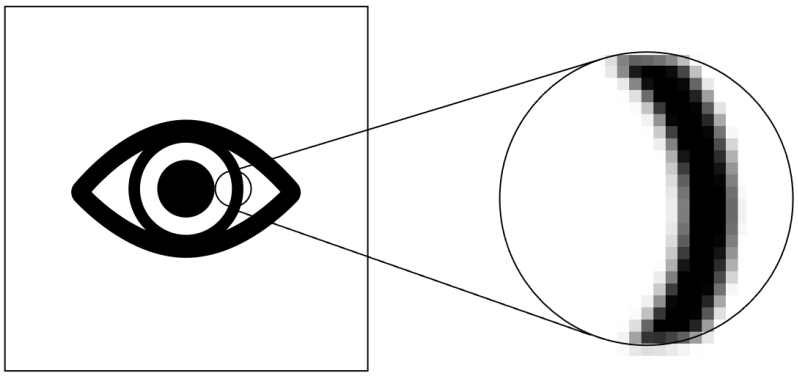
As indicated below, the resolution of the images in I is higher than that of II.



I II

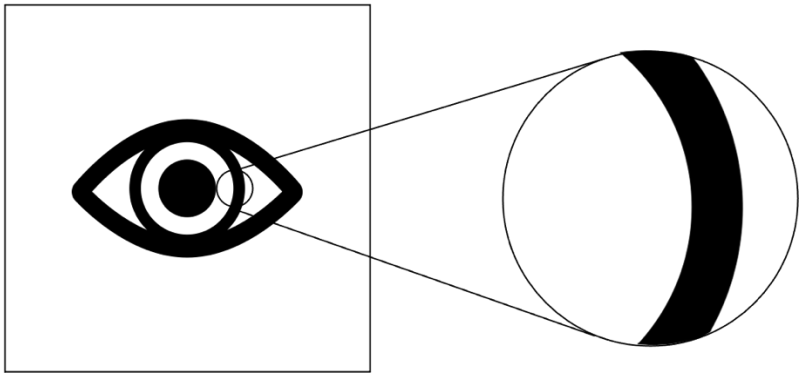
Raster/Bitmap Graphics

Images made up of pixels. When zoomed in to a certain degree, individual pixels or squares can be detected. Photos and scanned documents are typical raster graphics. Common bitmap graphics are in JPEG, GIF, BMP, etc.



Vector Graphics

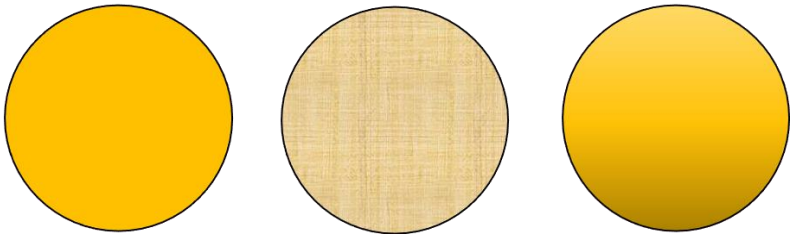
Vector graphics are formed by mathematical formulas and not resolution dependent. They can be precisely scaled without losing details or clarity. Common file types are AI, EPS, and SVG.



Fill

The space enclosed by a closed stroke or path that is assigned some kind of quality, such as color, gradient, or texture.

I-A solid color fill. II-A texture fill. III-A gradient fill.

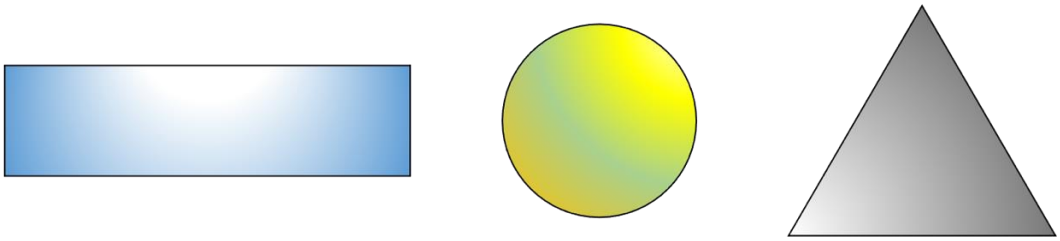


I II III

Gradient

A type of fill that shows gradual, usually smooth color or tonal change.

The following are three variants of gradients.



I II III

Font

Font is a collection of letters, numbers, special characters in a specific style. Font has personalities.

I-A relatively formal font. II-An energetic font because the characters appear to be stretched vertically. III-A playful font.

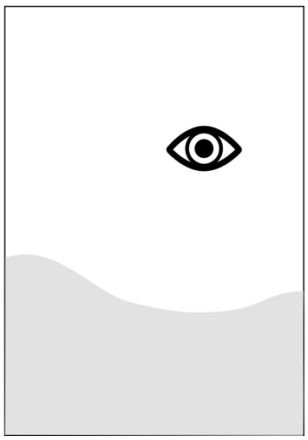
I

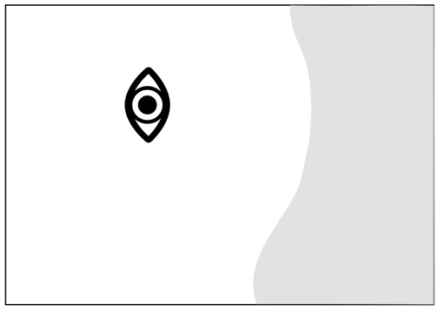
II

III

Orientation

General direction of visual pieces or the entire page design. The orientation of a page design is usually either horizontal or vertical.





Serif

A type of font that contains serifs, which is a short line or wedge shape attached to the letter, number, or character. This type of font is associated with a classical feeling. Meanwhile, when the size of the text is relatively small, a serif font is not recommended for digital text display.

A N & $ 7 2

Sans Serif

Contrary to serifed font, a sans serifed font does not contain the short line or wedge shape. This type of font is often perceived as being modern. Meanwhile, it is a better choice for displaying small or regular-sized text on a digital screen.

A N & $ 7 2

Leading/Line Spacing

Leading or line spacing is the vertical space between lines of text, which impacts the readability of the text. Also, since leading interferes with our perception of the white space on a page, it influences the viewers' perception of the balance in the design.

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Kerning

Kerning is the horizontal space between individual letters or characters of a word. Similar to leading, kerning impacts the readability of text. Meanwhile, kerning can communicate emotions. For example, when the value of kerning is overly small (see the first row of text below), the crowded visual can evoke a sense of stress. Conversely, when the value of kerning is inappropriately big, it could be difficult to read for many and therefore creates negative emotions.

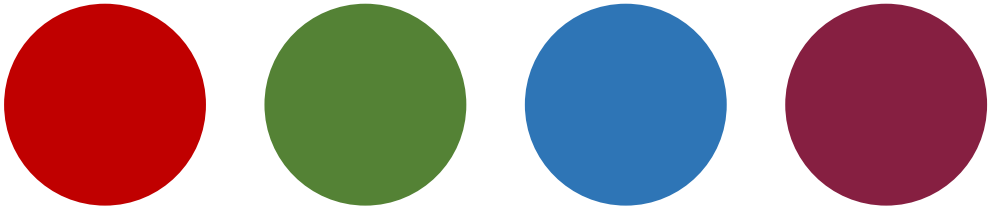
VISUAL LITERACY

VISUAL LITERACY

VISUAL LITERACY

RGB

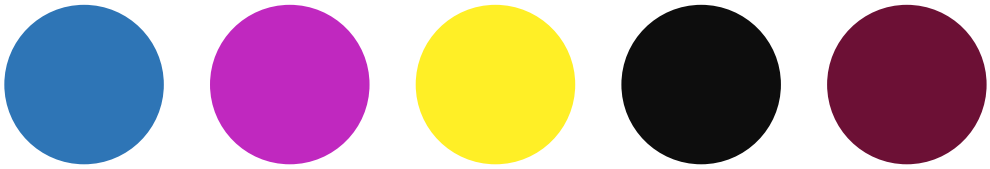
A type of color mode used for digital display. The colors are made from red, green, and blue. An example code of a RGB color is: 134, 31, 65



R G B. RGB code: 134, 31, 65

CMYK

A type of color mode typically used for print. When you notice the printed colors are different from how they look on the screen, it means CMYK is not selected as the color mode for your digital design. The colors are mixed from cyan, magenta, yellow, and key/black. An example code of a CMYK color is: 15, 100, 37, 45



C M Y K CMYK code: 15, 100, 37, 45