

ExplorNet's Digital Media I



Objective 102.01 15%

Explain design concepts used to create digital graphics.

Part 1: Elements of Design

- Color
- Line
- Shape
- Texture

Color

- Helps identify objects in a design.
- Creates visual flow in a design.
- Communicates feelings and moods to the audience or viewer.
- Consists of hue, saturation, and brightness.
- Watch this video on [Color Theory Basics](#)

Color

- ❑ Particular colors in a design can communicate certain moods and feelings to the audience

RED - excitement, anger, danger, love

BLUE - calm, sadness, serenity

GREEN - envy, luck, peacefulness

YELLOW - cowardice, sympathy, cheerfulness

ORANGE - liveliness, energy, warmth

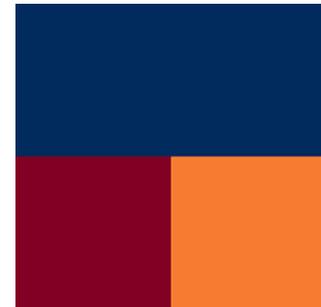
PURPLE - royalty, dignity, mystery

BLACK - mourning, despair, sophistication

WHITE - innocence, purity, faith

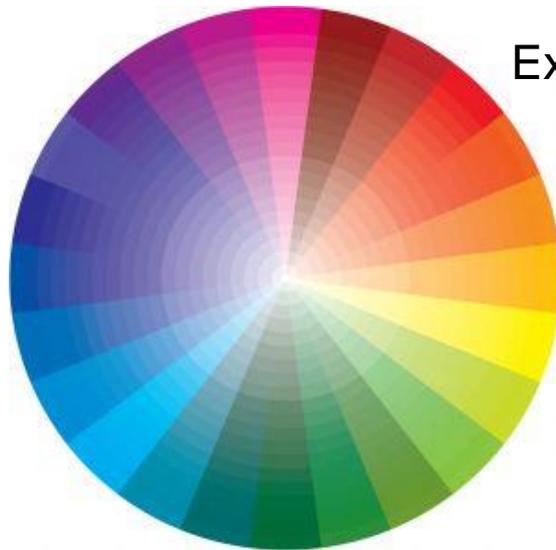
Color Scheme

- The purposeful selection of colors for use in design.
- Sets a mood, attracts attention, or makes a statement.
- Color can be your most powerful design element if you learn to use it effectively.
- Color schemes usually are limited to 2 or 3 colors.



Complementary Colors

- ❑ Colors across from each other on the color wheel work well together when used in a design

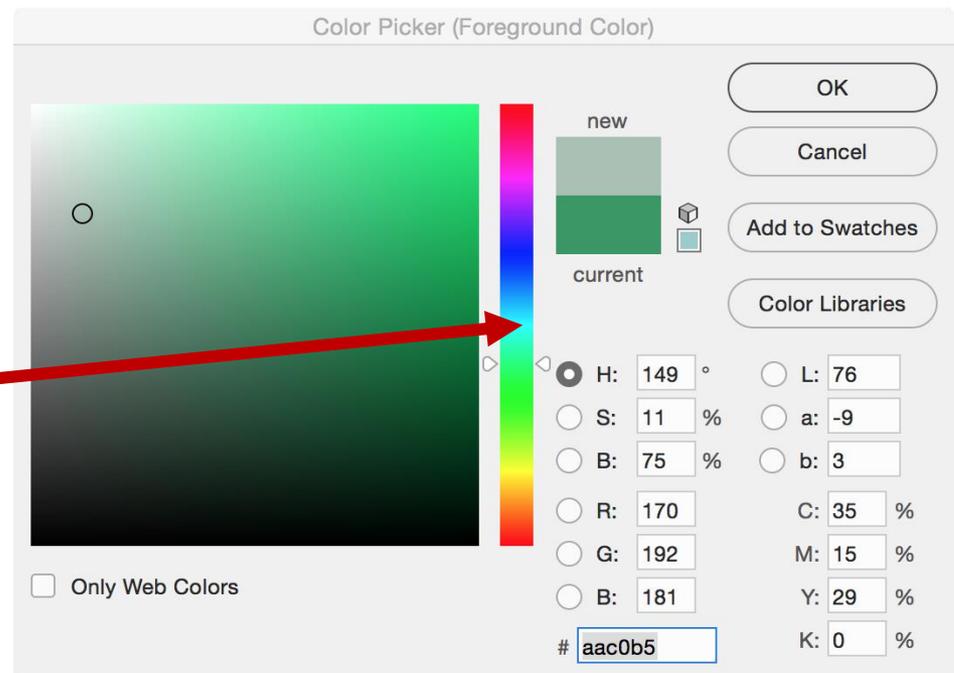


Example : Purple and Green

Hue

- ❑ The name given to a color
 - ❑ Within a particular hue, a variety of individual colors can be created by changing saturation and brightness

Select Hue on color bar using sliders.

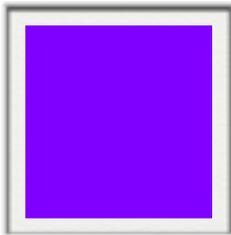


Saturation

- ❑ The amount of hue used in a particular color.
 - ❑ Example : PURPLE



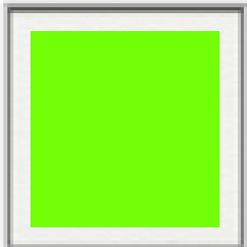
Less saturated with the purple hue.



More saturated with the purple hue.

Brightness

- How light or dark a color appears; adding black or white changes a color's brightness.
- Example : GREEN



Bright Green (white added to a green hue).



Dark Green (black added to green hue).

Lines

- Give direction to a design.
- Create movement in a design.
- Thick lines show importance, thin lines demonstrate quick movement.

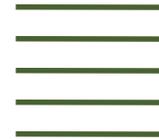


Lines



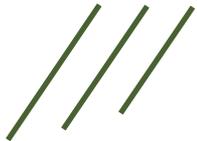
VERTICAL LINES

- carry eye up and down
- convey a feeling of awe or challenge



HORIZONTAL LINES

- carry eye left and right
- convey a feeling of calm or peacefulness



DIAGONAL LINES

- slanted
- add interest to a design

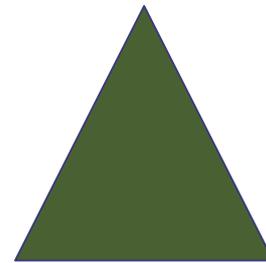
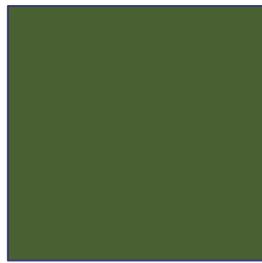
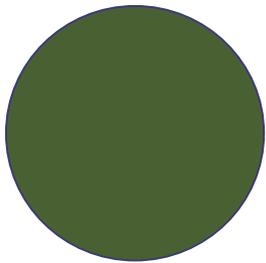


CURVED LINES

- gently bent
- give a soft, relaxed feel to a design

Shape

- The form of an object.
- When lines enclose a space.
- Can be used to help identify objects:
 - Example : circle = sun, oval = egg
- Three basic shape types:



Texture

- ❑ Combination of dots, lines, and colors used create the illusion of a surface appearance.
- ❑ Adds depth and dimension to a design.



Part 2: Principles of Design

- Proportion
- Balance
- Rhythm
- Emphasis
- Unity/Harmony

Proportion

- A size relationship between components of a design.
- Proportion can be:
 - Between one component of a design and another component .
 - OR
 - Between a component and the design as a whole.
- Good proportion adds harmony, symmetry, or balance among the parts of a design.

Balance

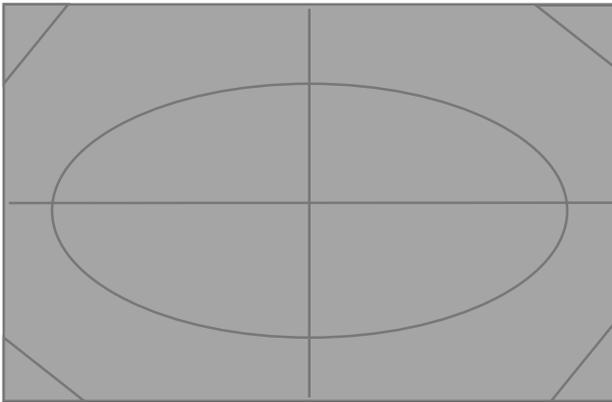
- How design elements are arranged either horizontally or vertically on the canvas.

- FORMAL BALANCE**
 - Also known as symmetrical balance
 - Design is exactly equal on both sides

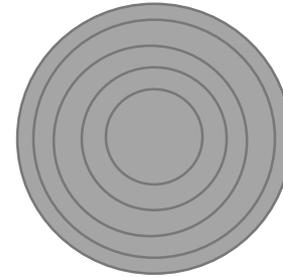
- INFORMAL BALANCE**
 - Also known as asymmetrical balance
 - Both sides of the design are not equal, but are still balanced

Symmetrical Balance

Horizontal Symmetry

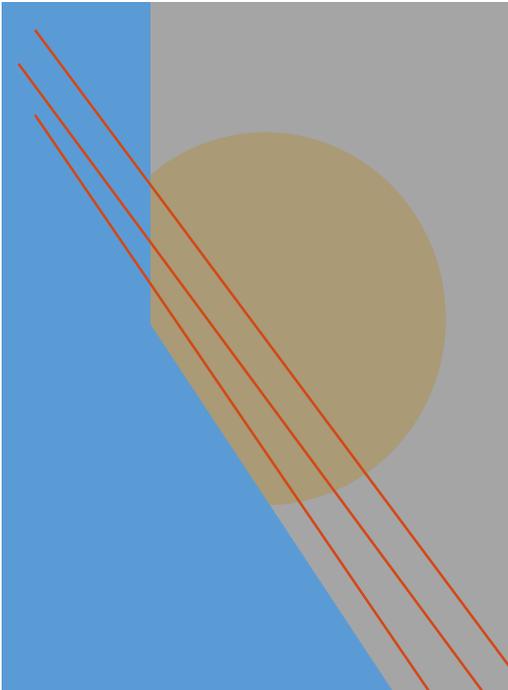


Radial Symmetry



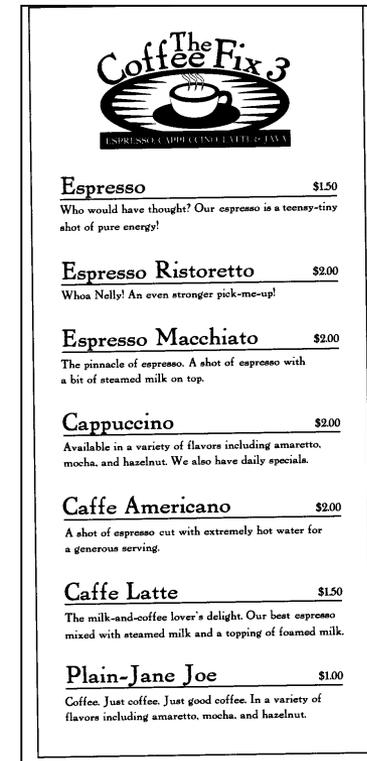
Approximate Horizontal Symmetry

Asymmetrical Balance



Rhythm

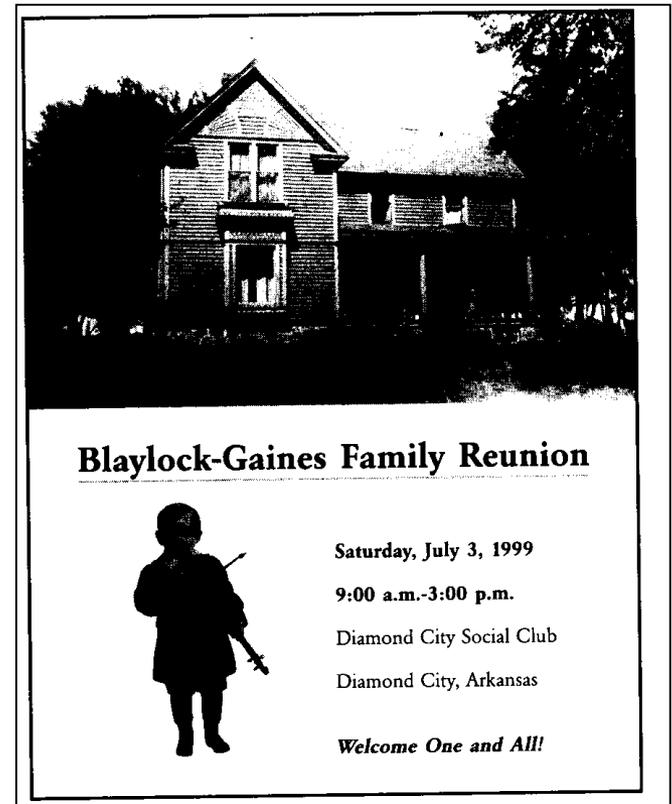
- ❑ Creating the feeling of movement in a design.
 - ❑ Generated through the repetition of lines, colors, shapes, and textures.



	
Espresso	\$1.50
Who would have thought? Our espresso is a teeny-tiny shot of pure energy!	
Espresso Ristretto	\$2.00
Whoa Nelly! An even stronger pick-me-up!	
Espresso Macchiato	\$2.00
The pinnacle of espresso. A shot of espresso with a bit of steamed milk on top.	
Cappuccino	\$2.00
Available in a variety of flavors including amaretto, mocha, and hazelnut. We also have daily specials.	
Caffe Americano	\$2.00
A shot of espresso cut with extremely hot water for a generous serving.	
Caffe Latte	\$1.50
The milk-and-coffee lover's delight. Our best espresso mixed with steamed milk and a topping of foamed milk.	
Plain-Jane Joe	\$1.00
Coffee. Just coffee. Just good coffee. In a variety of flavors including amaretto, mocha, and hazelnut.	

Emphasis

- Center of interest in a design.
- Component of the design that is noticed first by the audience.
- Creates visual flow or hierarchy which carries the viewer's eye through the design.
- Use differences in size, color, and type.



Unity/Harmony

- When all components of a design look as if they belong together. Achieved when the Elements and Principles of Design are used effectively.
- Alignment often impacts unity/harmony.
 - Arranging design components in an organized and visually appealing manner.
- White Space
 - The absence of text or graphics in a design; visual breathing room for the eye; helps avoid overcrowding and creates natural flow.

Part 3 Digital Graphics

- Any image or design created or edited by a computer.
 - Drawings
 - Logos
 - Photos
 - Advertising
 - Buttons
 - Icons
 - Diagrams
 - Charts

Digital Graphics

Bitmap Graphics

- Use square pixels arranged in a grid that have assigned colors.
- Lose clarity when viewed up close or zoomed in.
- Also referred to as Raster Graphics.

Vector Graphics

- Use mathematical formulas to define lines, points, curves, and other attributes.
- Do not lose clarity when viewed up close or zoomed in.
- Best type of graphic for printing in large scale.

Resolution

- Describes the clarity of Bitmap Graphics.
- Determined and defined by the number of Pixels Per Inch (PPI).
 - LOW RESOLUTION**
 - Blurry in appearance
 - Relatively small file size
 - HIGH RESOLUTION**
 - Very clear in appearance
 - Relatively large file size

Color Modes of Digital Graphics

- Black & White - uses only true black and true white.
- Grayscale - uses true black, true white, and all shades of gray in between.
- True Color - all possible color combinations.
- RGB (Red, Green, Blue) - optimized for viewing on a screen.
- CMYK (Cyan, Yellow, Magenta, Black) - optimized for printing purposes.

Color Depth

- The number of distinct colors a graphic is capable of displaying.
- Related to color mode:
 - Black & White
 - Indexed Color (256 colors)
 - True Color (16.7 million colors)

Color Terms

- Color Profile
 - A pre-determined subset of specific colors assigned to an image; preset for devices like scanners, digital cameras, monitors, and printers so that the color of an image remains true from source to destination.

- Color Gamut
 - The range of colors that is defined by the color profile; when working within a given color profile, color choices are selected from the gamut.

Color Terms

- Color Libraries
 - Color system manufacturers create standardized colors for communicating color information across apps and processes, i.e. Pantone.
- Dithering
 - If a particular output device (monitor, web page, etc.) cannot display colors within the assigned color profile, a process called dithering peppers in pixels of similar colors to replace the colors that cannot be displayed.