Visual Design Elements and Principles
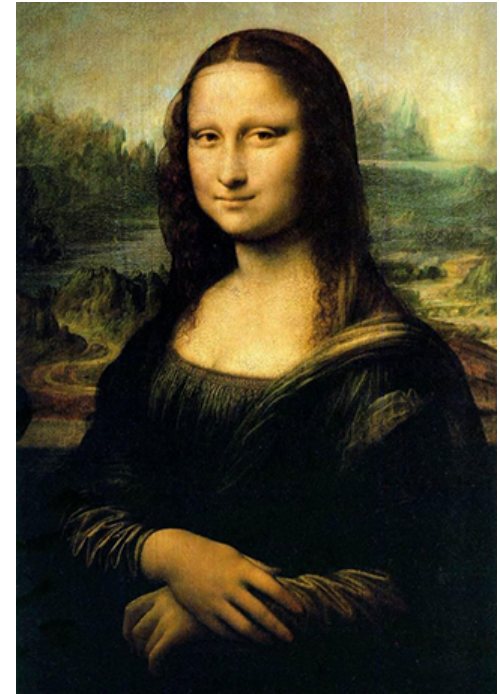
Tony Scarlatos

"Consensus" Visual Design Process

Elements ➡ *Principles* ➡ **Product**

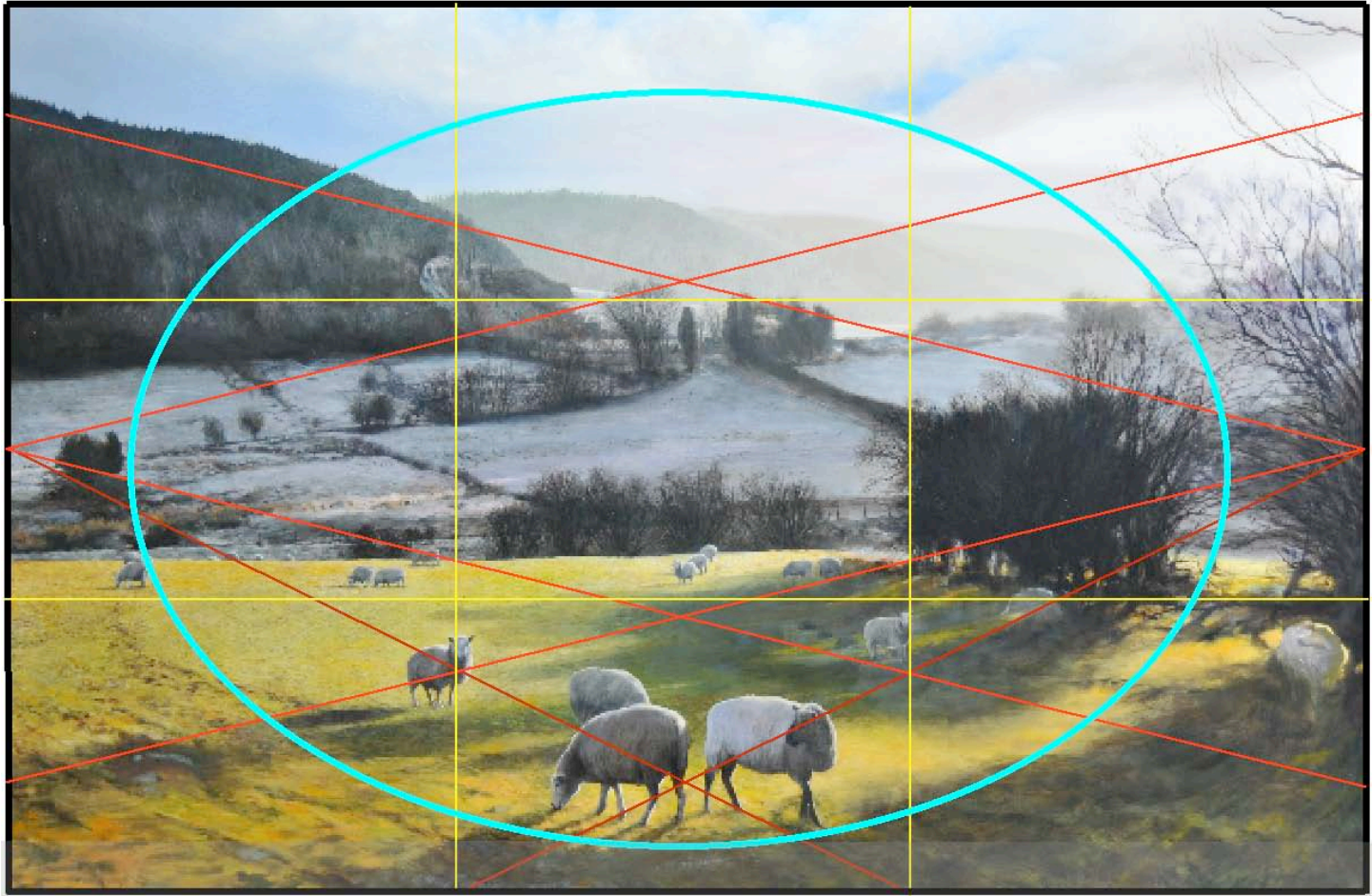|		
1. Space	1. *Balance*	
2. Color	2. *Emphasis*	
3. Contrast	3. *Pattern*	
4. Line	4. *Variety*	
5. Shape	5. *Movement*	
6. Texture	6. *Proportion*	

Elements: Space

- Space is the dimension and the shape of the:
  - Window or Frame
  - Canvas, Support, or Ground
- It has an aspect ratio and resolution
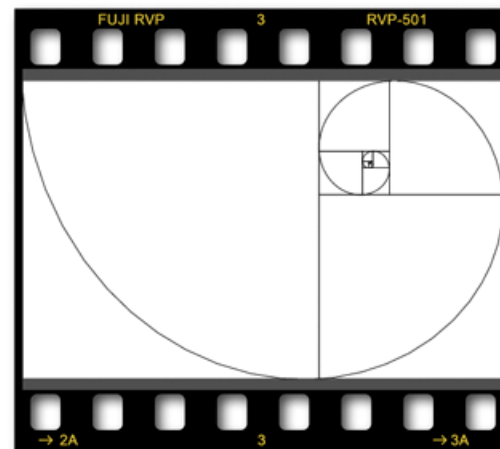- It has an orientation
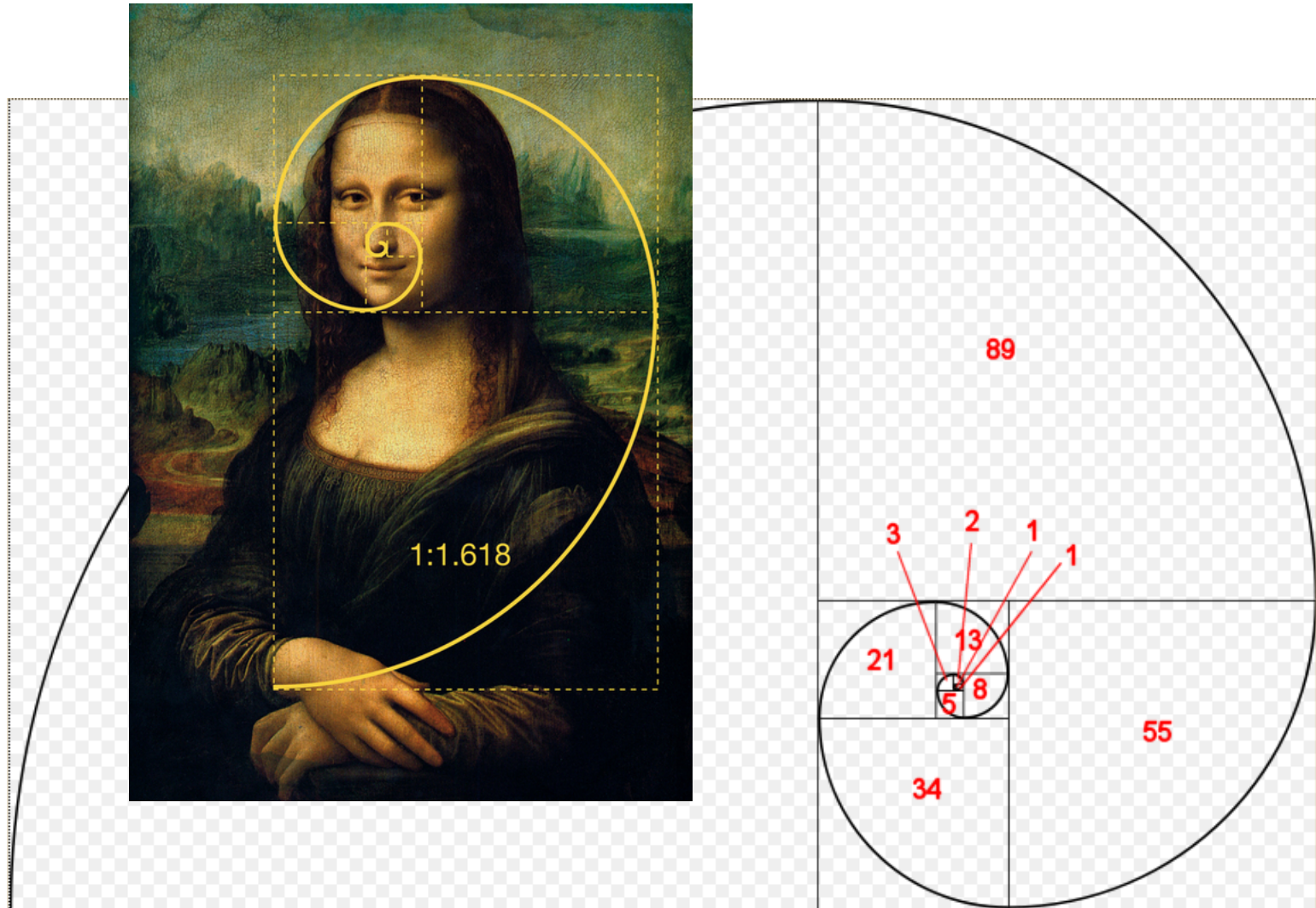- It has a point of view

Composing a space

The Fibonacci Series, Phi, & the Golden Mean

- 0, 1, 1, 2, 3, 5, 8, 13…

- Values increase at a ratio of 1 to 1.61 (Phi)

- Like the ratio of 3.14 (Pi) this ratio is common in natural forms

- This ratio yields a shape called the Golden Rectangle
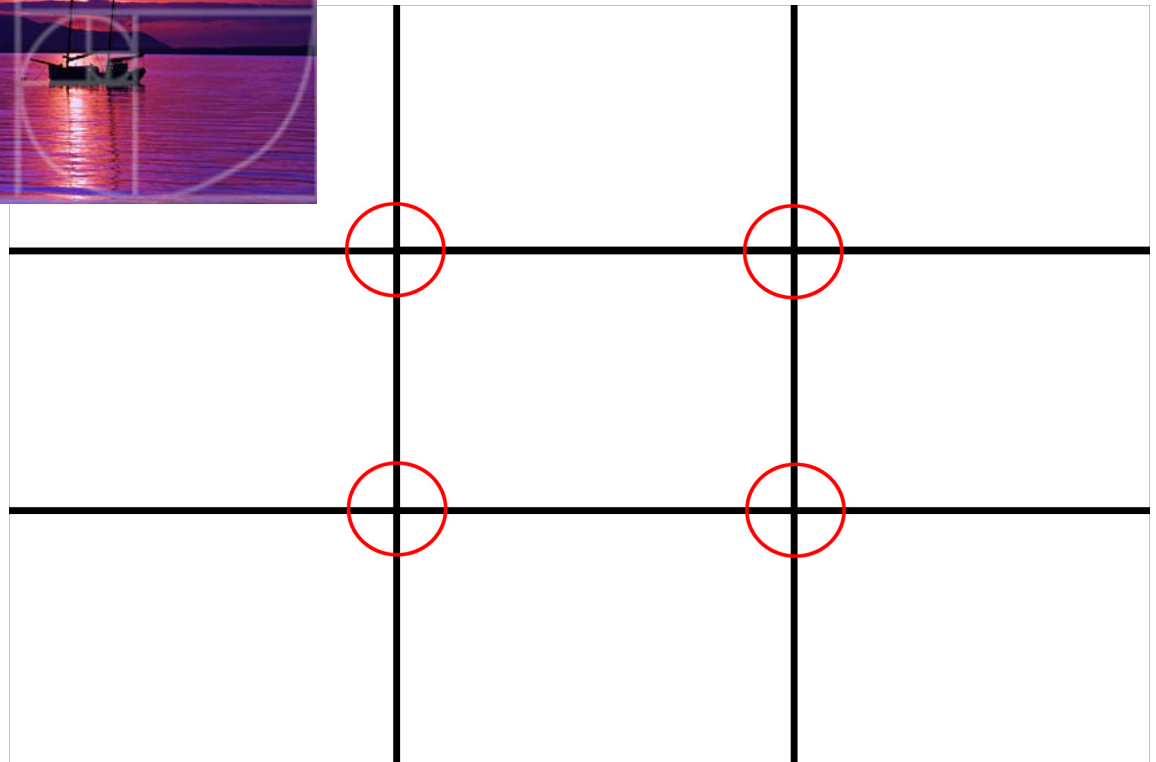
The Golden Rectangle

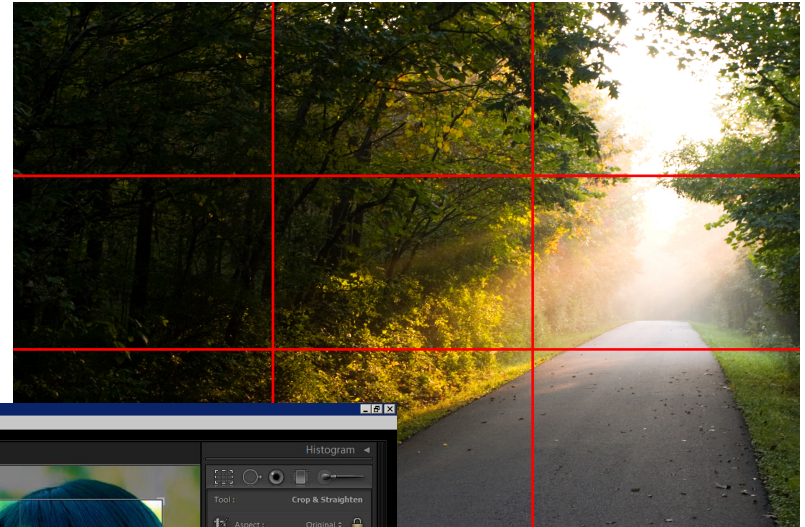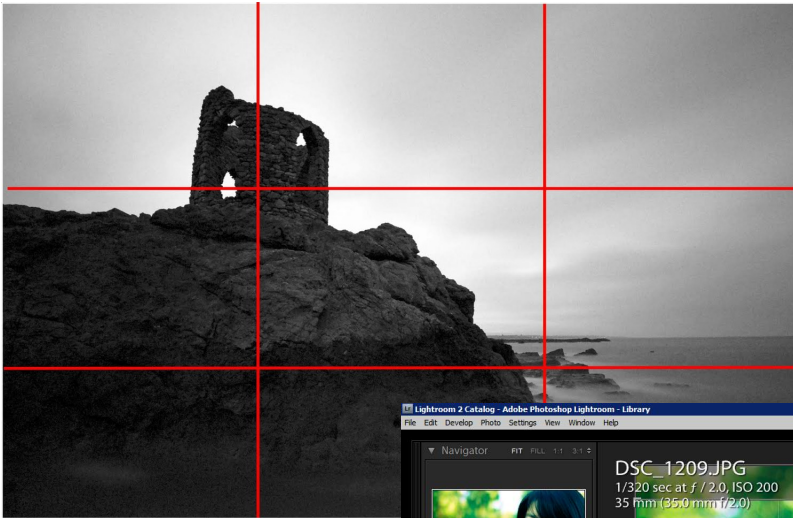1:1.618

The Rule Of Thirds

Four points of interest in a rectangle.
Typically the ratio is:
1 : 1.5 - close to the golden mean.
(3 X 2 is the ratio of 35mm film.)

The rule of thirds helps designers provide focus and balance to their compositions
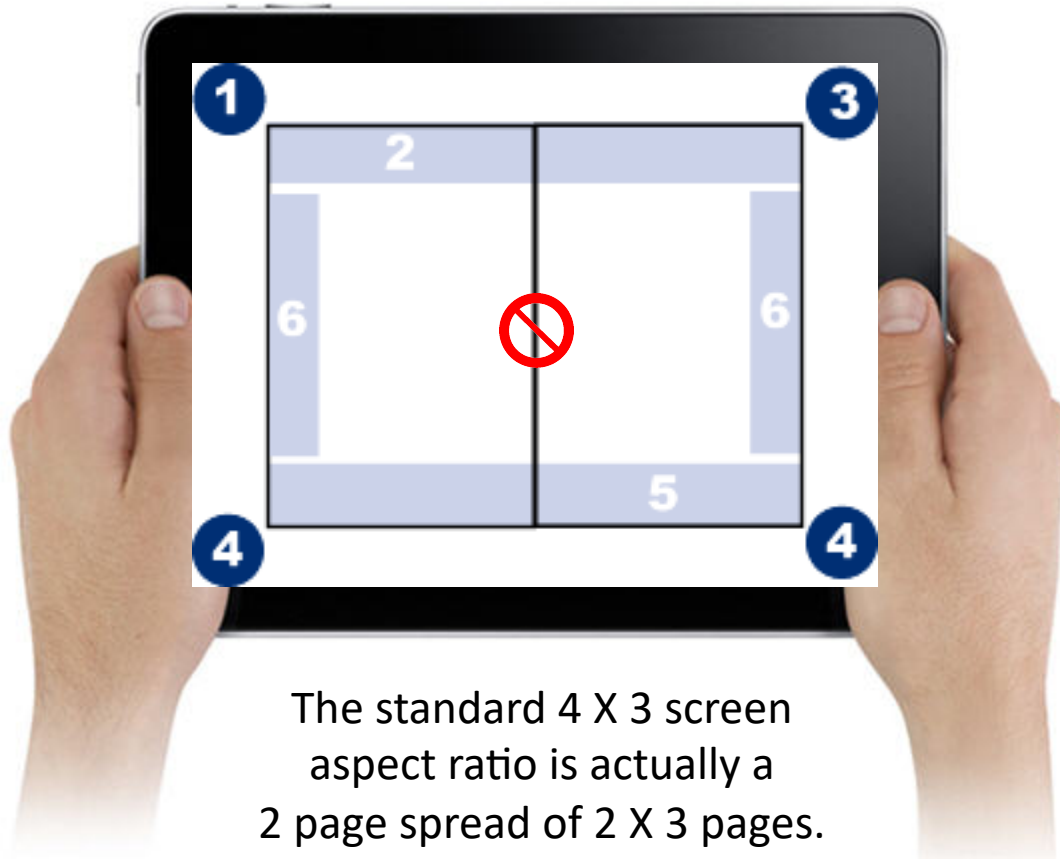
Examples of the rule of thirds

Above, Adobe Lightroom now has an option to crop photos based on the rule of thirds.

Screen Prominence

The standard 4 X 3 screen
aspect ratio is actually a
2 page spread of 2 X 3 pages.

For Western cultures that read left to right, the upper left corner of the screen is the most prominent part of the screen, followed by the upper right, and the two lower corners. The center of the screen actually has the least prominence (it's the gutter of the book).

Portrait & Landscape Orientation

Landscape:
Horizontal, Calm, Pastoral, Contemplative

Portrait:
Vertical, Arresting,
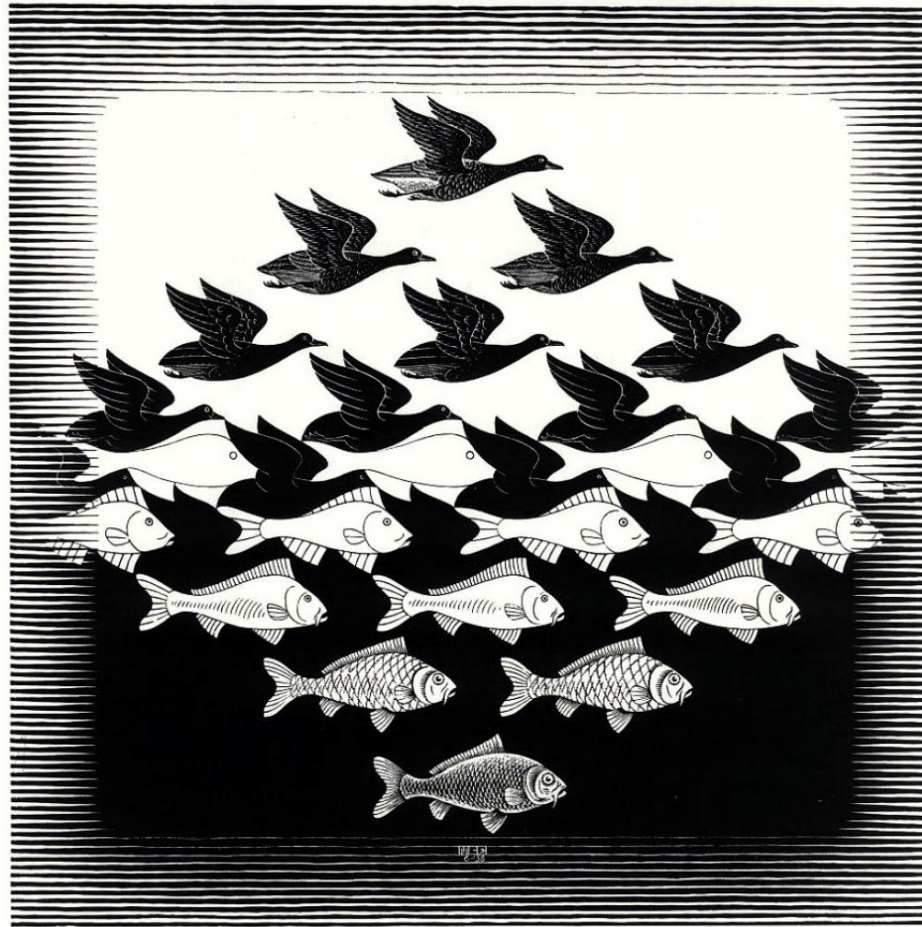Alerting, Commanding
Attention

Viewpoint

The position of the viewer is a crucial aspect of how a visual story is told.

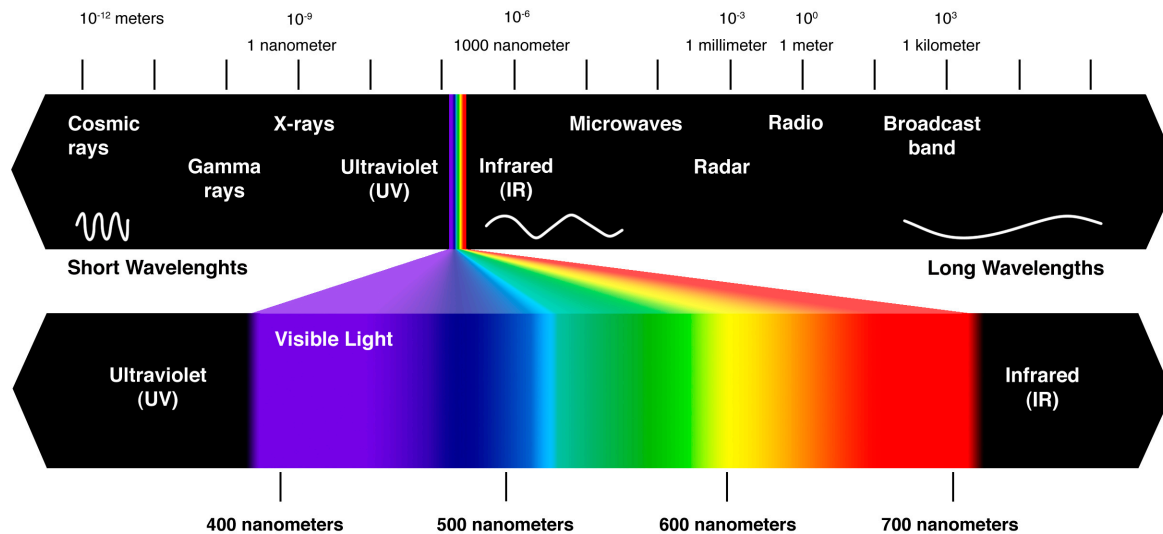# Figure/Ground – Positive/Negative Space

M.C. Escher's "Sky and Water" provides a good illustration of Tufte's "1 + 1 = 3" rule
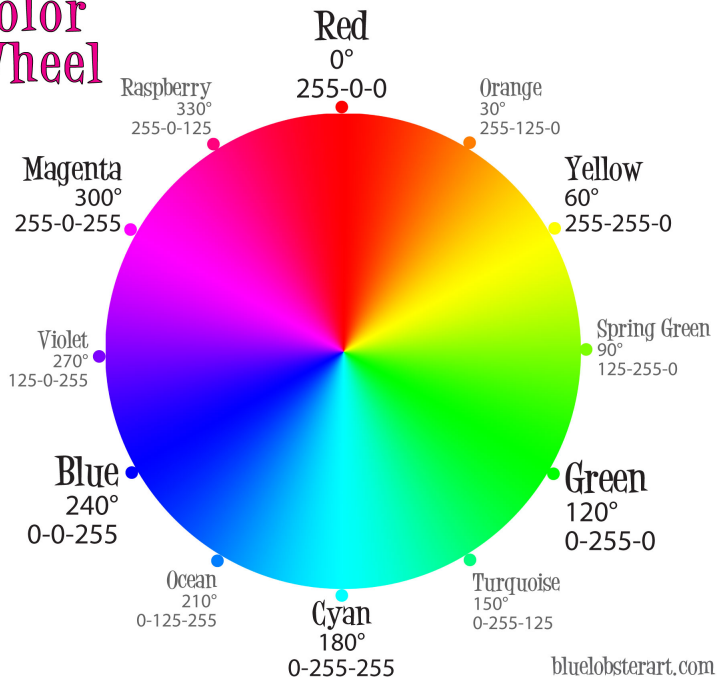
Examples of Figure/Ground Relationships

Elements: Color & The Visible Spectrum

- Cool colors have a higher frequency and a shorter wavelength.

- Warm colors have a lower frequency and a longer wavelength.
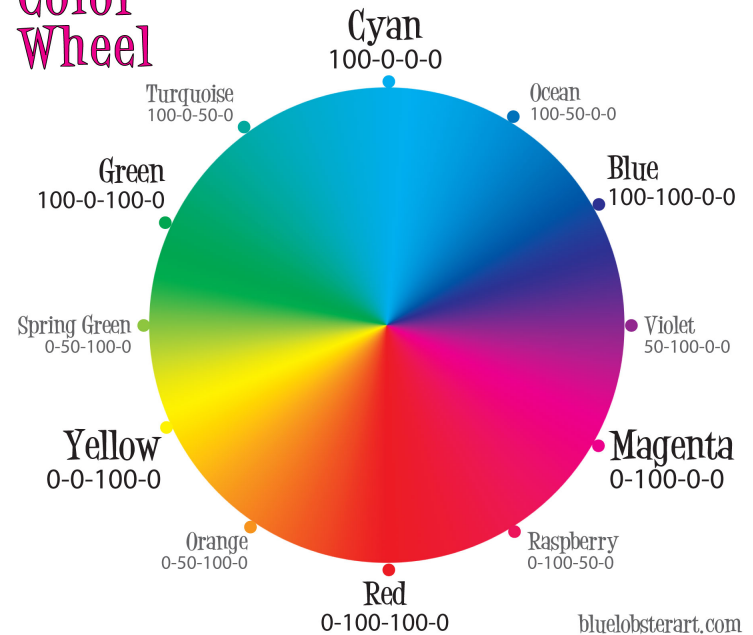
Color models

RGB Color Wheel

Red
0°
255-0-0

Raspberry
330°
255-0-125

Orange
30°
255-125-0

Magenta
300°
255-0-255

Yellow
60°
255-255-0

Violet
270°
125-0-255

Spring Green
90°
125-255-0

Blue
240°
0-0-255

Green
120°
0-255-0

Ocean
210°
0-125-255

Turquoise
150°
0-255-125

Cyan
180°
0-255-255

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CMYK Color Wheel

Cyan
100-0-0-0

Turquoise
100-0-50-0

Ocean
100-50-0-0

Green
100-0-100-0

Blue
100-100-0-0

Spring Green
0-50-100-0

Violet
50-100-0-0

Yellow
0-0-100-0

Magenta
0-100-0-0

Orange
0-50-100-0

Raspberry
0-100-50-0

Red
0-100-100-0

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Additive:
Emitted Light
Light Primaries
The primaries at full strength = white light

Subtractive:
Reflected Light
Pigment Primaries
(Black is added in 4 color printing)

Color Properties

Colors have three properties

– Hue: simply what the color is, related to the primary, secondary, and tertiary colors

– Saturation: the difference between the color and neutral gray (greater difference = greater saturation)

– Lightness (sometimes also called Brightness or Value): the level of illumination, or how bright the color is
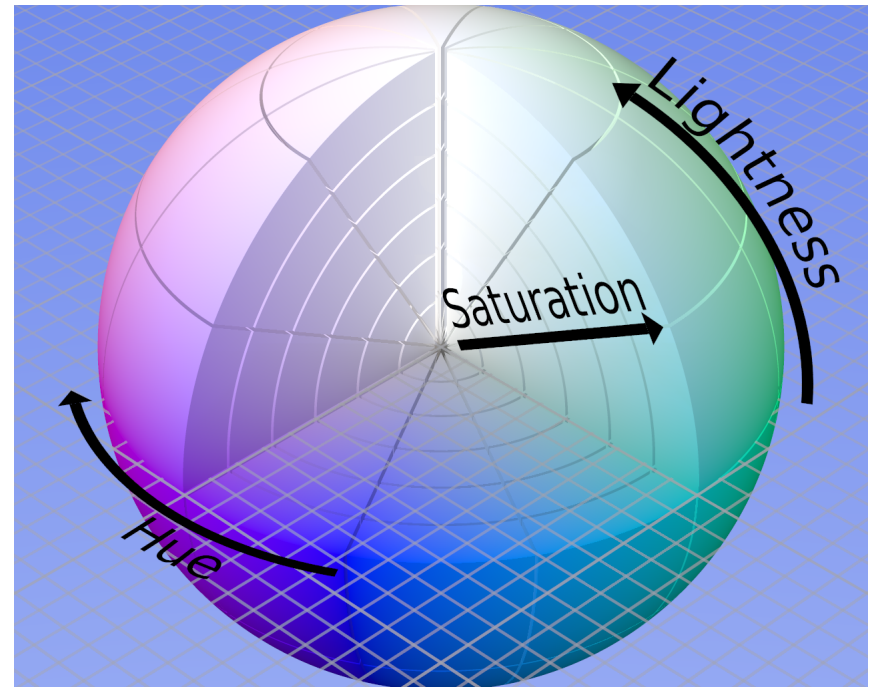
Complementary Colors
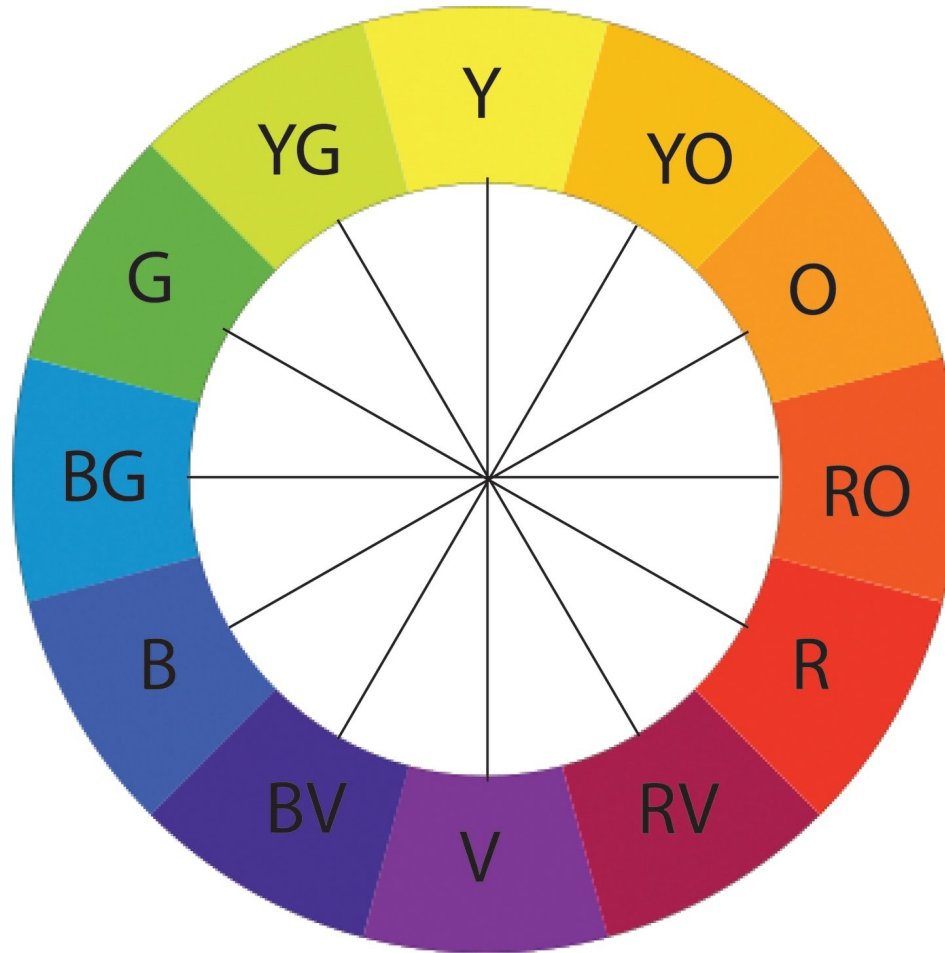
The complementary color of any hue is the mix of the two other primary or secondary colors.
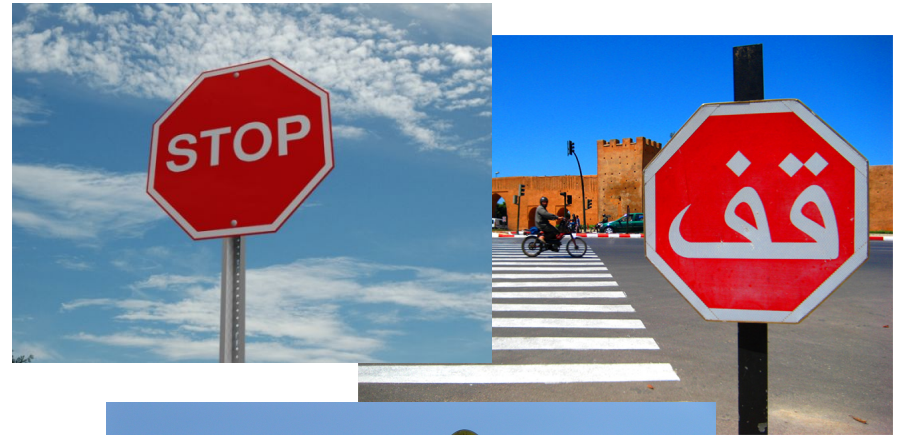
Atmospheric Distortion &
The Blue Shift

Warmer, more saturated colors move forward; and cooler, less saturated colors recede

Color Psychology: Warmer Colors

- Red
  - Rare in the natural world
  - Associated with fire, blood, danger
  - Commands attention
- Orange and Yellow
  - Color of the sun
  - Motivator, makes people happy and decide rapidly
- Green
  - Pastoral
  - Puts people at ease

Color Psychology: Cooler Colors

- Blue
    - Most common color in the natural world
    - Color of the sky and the ocean
    - Light blue conveys access and assistance
    - Dark blue conveys authority
- Violet
    - Infrequent color in nature
    - It's unusual and exceptional
    - The color of royalty, intrigue and mystery

HEDEWIGE MARQ. D'ARQUIEN,

Color Psychology: Neutral Colors

- Brown
  - Color of the earth
  - Dependable and full of promise
- Black
  - Color of night
  - Formality (and fear)
  - Judicial
  - Funerals in western cultures
- White
  - Color of clouds
  - Purity
  - Weddings in western cultures

Elements: Contrast
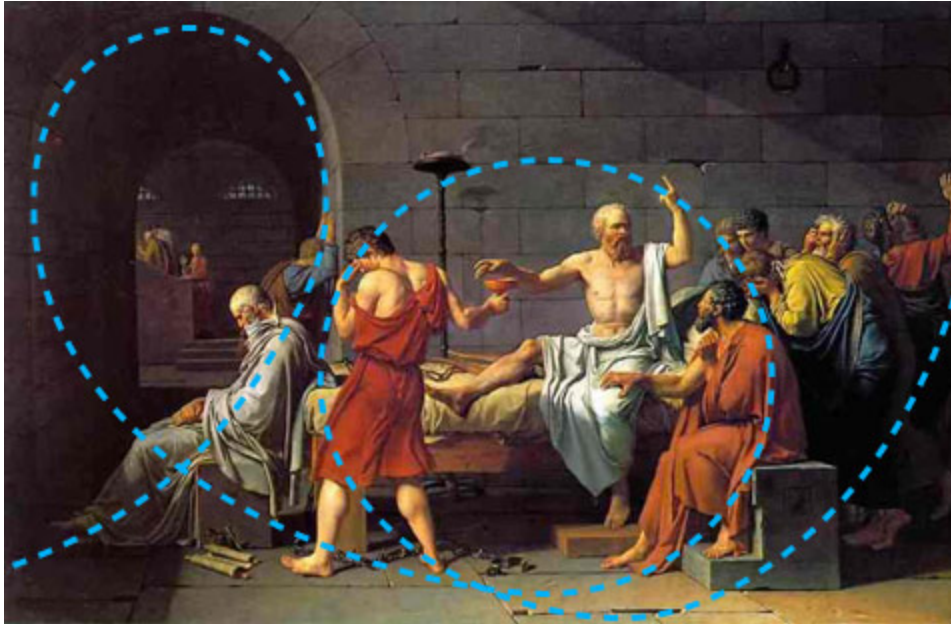

Color contrast

Value contrast

Elements: Diagonal Lines

Diagonal lines are very powerful compositional elements. They provide drama and a feeling of motion, space, and time.

Curved Lines

The use of curves in compositions is vital for conveying movement.
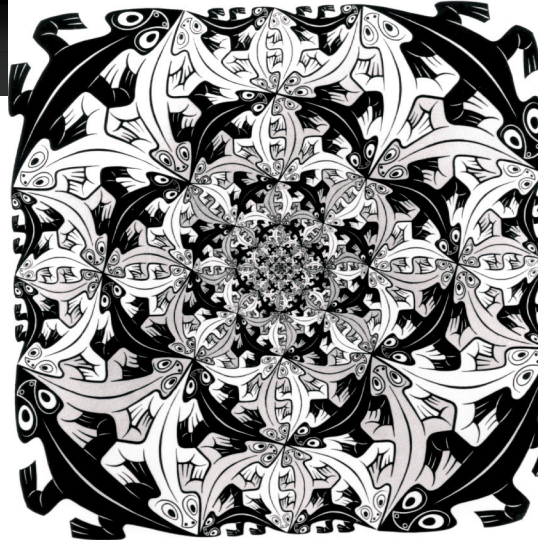
Principles: Balance

Symmetrical Balance

Symmetry evokes stasis.
It suggests timelessness;
it's iconic and monumental.

Radial symmetry is a special
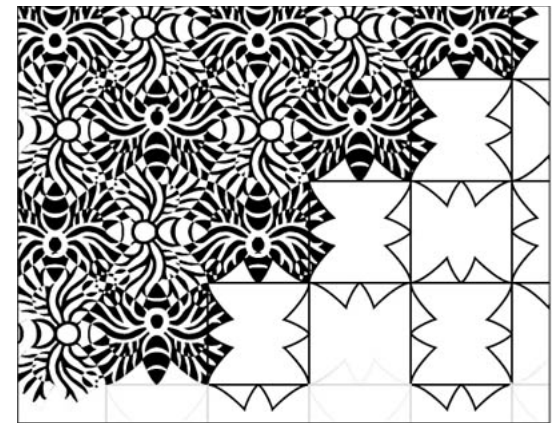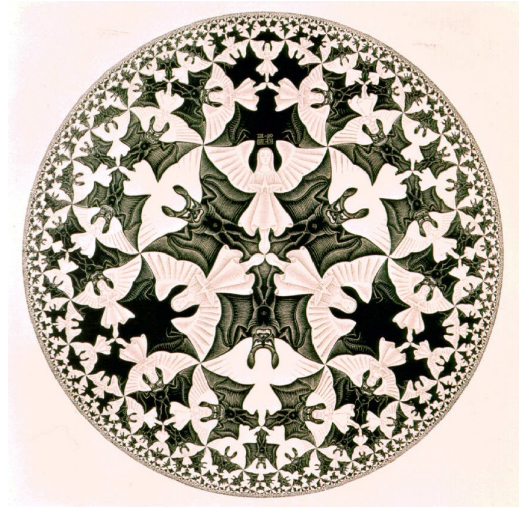instance. Iterative patterns
suggest infinity.

Asymmetrical Balance

In asymmetric balance the relationships seem more temporal, which creates more tension and interest.

Principles: Emphasis

Principles: Pattern

Principles: Variety

Principles: Movement

Note the strong "S" curve that unifies the composition and sets the elements in motion.

Principles: Proportion