Principles and Elements of Design Applied to Architecture
Six integral components used in the creation of a design:

- Line
- Color
- Form and Shape
- Space
- Texture
- Value
Line

Types

Vertical – Represents dignity, formality, stability, and strength

Horizontal – Represents calm, peace, and relaxation

Diagonal – Represents action, activity, excitement, and movement

Curved – Represents freedom, the natural, having the appearance of softness, and creates a soothing feeling or mood
Vertical Lines

The Empire State Building
Architect: Shreve, Lamb, and Harmon

Brandenburg Gate
Berlin

Skyscraper
Madrid, Spain
Horizontal Lines

Community Christian Church
Kansas City, MO
Architect: Frank Lloyd Wright, 1940
Diagonal Lines
Curved Lines

Sydney Opera House
Jorn Utzon
Color has an immediate and profound effect on a design.
Color

Warm Colors
   Reds, oranges, yellows

Cool Colors
   Blues, purples, greens
Colors can affect how humans feel and act
Form and Shape

**Form:** (3D) The shape and structure of something as distinguished from its substance or material.

**Shape:** (2D) The two-dimensional contour that characterizes an object or area.
Form and Shape

Oriental Pearl Tower
Shanghai
Architect: Jiang Huan Cheng,
Shanghai Modern Architectural Design, Co.

Marie-Elisabeth-Lüders-Haus
Berlin, Germany
Space

By incorporating the use of space in your design, you can enlarge or reduce the visual space.

Types

• Open, uncluttered spaces
• Cramped, busy spaces
• Unused vs. good use of space
Texture

The surface look or feel of something

Smooth Surface – Reflects more light and therefore is a more intense color.

Rough Surface – Absorbs more light and therefore appears darker.
Smooth Texture

Glass façade of a high rise office building

Exterior metal façade of Disney Concert Hall
Los Angeles
Rough Texture

Park Guell – Barcelona, Spain
Architect: Antonio Gaudí
Value

The relative lightness or darkness of a color

Methods

  Shade – Degree of darkness of a color
  Tint – A pale or faint variation of a color
Value

Downtown buildings in Bangalore, India
Seven principles encompass an interesting design.

- Balance
- Rhythm
- Emphasis
- Proportion and scale
- Movement
- Contrast
- Unity
Balance

Parts of the design are equally distributed to create a sense of stability. Both physical and visual balance exist.

Types

• Symmetrical or formal balance
• Asymmetrical or informal balance
• Radial balance
• Vertical balance
• Horizontal balance
Balance

Symmetrical or Formal Balance

The elements within the design are identical in relation to a centerline or axis.

The Taj Mahal Mausoleum
Agra, Uttar Pradesh, India

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Balance

Asymmetrical or Informal Balance

Parts of the design are not identical but are equal in visual weight.

Chateau de Chaumont
Saone-et-Loire, France
Balance

Radial Balance

Design elements radiate outward from the center.

Dresden Frauenkirche
Deresden, Germay

Galleria Vittorio Emanuele II
Milan, Italy
Architect: Giuseppe Mengoni
Balance

Vertical Balance

The top and bottom parts are equal.
Balance

Horizontal Balance

The parts on the left and right sides are equal.

Chi Lin Buddhist Temple and Nunnery
Kowloon City, Hong Kong

Hearst Castle
San Simeon, CA
Architect: Julia Morgan

Building façade
Limberg, Germany
Balance
Rhythm

Repeated use of line, shape, color, texture or pattern

Types

• Regular rhythm
• Graduated rhythm
• Random rhythm
• Gradated rhythm
Rhythm

Regular Rhythm

An element is repeated at the same repetition/interval each time.

Cube house design
Rotterdam, Netherlands
Random Rhythm

The beats of the element are random or are at irregular intervals.
Graduated Rhythm

The repeated element is identical with the exception of one detail increasing or decreasing gradually with each repetition.
The feature in a design that attracts one’s eye – the focal point

• Emphasis can be achieved through size, placement, shape, color, and/or use of lines
Proportion and Scale

Comparative relationships between elements in a design with respect to size

3:5 ratio is known as the Golden Mean
Movement

Flow or feeling of action
Contrast

Noticeably different

Can be created with

• Color
• Proportion and scale
• Shape
• Texture
• Etc.
Unity

Unity is achieved by the consistent use of lines, color, material, and/or texture within a design.
Unity
Image Resources


