



# DESIGN PRINCIPLES, ELEMENTS

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SPACE PLANNING AND THE HUMAN EXPERIENCE  
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# Outline

- **THE PRINCIPLES OF DESIGN**
  - **THE ELEMENTS OF DESIGN**
    - **INTERIOR DESIGN STYLES**

# Objectives

- To define each principles related to interior design.
- To illustrate the space planning elements.
- To understand the styles of spaces.

# THE PRINCIPLES OF DESIGN

**Design principles** are the abstract concepts that constitute the theory, bylaws, or governing ideas that determine the success of a design. Each **element** in a design can be evaluated according to these principles.



## Table 3.1 | Principles of Design

**Design principles** are the abstract concepts that constitute the theory, bylaws, or governing ideas that determine the success of a design. Each element in a design can be evaluated according to these principles.

**Scale.** Overall size, such as the largeness or smallness of a room, object, or pattern.

**Proportion.** Size relationship or ratio of parts to whole, such as the size of a chair in relation to the size of its arms.

**Balance.** Equilibrium achieved by arranging components symmetrically, asymmetrically, or radially.

**Rhythm.** Flow of elements, usually organized according to a scheme such as repetition or alternation, progression or gradation, transition, opposition or contrast, or radiation.

**Emphasis.** Enhancement that produces a point of interest or focal point in a design.

**Harmony.** Compatibility of elements to create a pleasing whole, achieved through unity and variety.

# Scale

Scale deals with actual and relative size and visual weight. Scale is generally categorized as small or light, medium, large or heavy, or grand (extra large). One of the goals of pleasing interior design is to select furnishings that are in scale with one another. This implies a similarity of objects in overall dimensions or in mass (density), in pattern, or in other forms of visual weight.



## Proportion

Proportion is closely related to scale and is usually expressed in terms of the size relationship of parts to one another and to the whole. Proportion also deals with shapes and forms and their dimensions. It is, for example, the relationship of a chair seat or back to its base or arms or that of the size and scale of the tabletop to its legs. When the relationship or ratio is pleasing, the furniture is well proportioned.



Figure 3.3 This chest is divided according to the golden section, just below the halfway mark.

## Balance

Balance is **equilibrium**, or the arrangement of objects physically or visually to reach a state of stability and poise.

### ▪ **Symmetrical Balance**

Symmetrical balance is also known as formal, **bisymmetrical**, or **passive balance**. Symmetrical balance creates a mirror image by the placement of items that are exactly the same on both sides of a central point.

### ▪ **Asymmetrical Balance**

Asymmetrical balance is also known as informal, **active**, **optical**, or **occult balance**. Asymmetrical balance can be accomplished in two ways:

1. Dissimilar objects can be placed at varying distances from the center point.
2. Objects of similar visual weight or form may be balanced at equal distance from an imaginary central dividing line.

- **Radial Balance**

Radial balance is a state of equilibrium based on the circle.

It is seen as chairs surrounding a round table or as concentric circles in a chandelier or lighting fixture



Figure 3.5 Studied symmetry is found in the matching bookcases, chairs, and accessories. The asymmetrical placement of the plants, art, and door relieves the exactness.



Figure 3.6 Asymmetrical or informal balance is evident in the artwork of this Modern staircase area. The graphic red/white and black/gray panels and the pottery arrangements in this lighted niche are different on each side of the center, yet handsomely balanced. Framed artwork on each flanking wall is also placed

# Rhythm

Rhythm is a concept familiar in music as the beat that continually carries along the melody. In interior design, rhythm carries the eye along a path at a pace determined by the elements that illustrate it. For example, rhythm might be found in the repetitive use of a color, pattern, texture, line, or furniture piece or style.

Figure 3.7 Repeated vertical rectangles in the cabinetry, the art glass windows, and the table show rhythm by repetition in this early Modern-inspired kitchen. *Photo courtesy of Andersen Windows*





## Emphasis

Emphasis is the creation of a **focal point**—an area visually important enough to draw and hold attention. Examples of dramatic, demanding focal points include a beautiful fireplace, a view from a window (or even an art glass window), a wall of dramatic art, or an impressive piece or grouping of furniture. A rhythmic

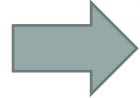


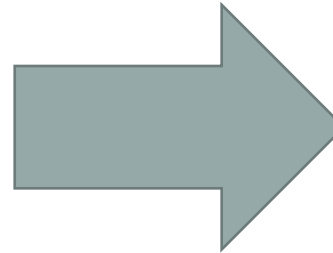
Figure 3.10 Rhythm by radiation is seen in concentric circles in the steps and as spokelike lines in the glass arch of the winter garden at the World Financial Center in New York City. © Rafael Macia/Photo Researchers, Inc.

## Harmony: Variety and Unity

Harmony is the combination of design elements, architecture, and furnishings into a pleasing or orderly whole—a state of agreement or a feeling of rightness.

# THE ELEMENTS OF DESIGN

Design elements are the concrete, quantifiable components of any design. They embody the principles of design and transform theory into reality.



## Table 3.2 | Elements of Design

**Design elements** are the concrete, quantifiable components of any design. They embody the principles of design and transform theory into reality.

**Space.** Open and closed areas; space may be positive (filled) or negative (open).

**Shape.** Two-dimensional outline, often seen as a geometric figure such as a rectangle or triangle.

**Form.** Three-dimensional shape, such as a cube, cone, or sphere.

**Mass.** Weight, density, or relative solidity of a form; mass may be actual or visual.

**Line.** Connection between two points; line may be vertical, horizontal, angular, or curved.

**Texture.** Smoothness or roughness of a surface; texture may be read visually or through touch.

**Pattern.** Arrangement of motifs in a repetitive or varied order; a small pattern may be read visually as texture.

**Light.** Natural, artificial, or a combination of both; light affects the appearance of all other elements of design.

**Color.** Hues that vary from light to dark and from intense to dull and can be mixed with one another and combined in color schemes; color is the most personal and emotional of the elements of design.

## Space

Space exists as a diffuse, endless entity until it is defined. The definition of space occurs with building construction, resulting in exterior and interior spatial allotments.

Space-restricting devices within the building—walls, floors, ceilings, and furnishings—create a series of spaces with individual dimensions and qualities.



Figure 3.12 This small room-sized loft is filled with interesting shapes and forms in the built-in bench, cushions, and pillows, the oval window, dado paneling, and doors. Other elements of design are well selected: the rich pattern and colors of the Oriental rug, the red pillows, and neutralized green wood trim. Upper walls and ceiling are lighter, visually expanding this small space. *Design by Bernhard & Priestley Architects/ photo © Brian Vanden Brink*

## Shape or Form

While we sometimes think of shape as only a two dimensional outline, form (which is an extension of shape) is the three-dimensional configuration of the objects within the interior.



fill it are pleasing shapes an well proportioned one to another. There are several kind of shapes: two-dimension; outline shapes or planes—such as rectangles, square triangles, circles, and other geometric shapes—or mear dering, curved, or angular shapes that do not fit neatl

Figure 3.13 The shape or form of new Modern design is one of its most compelling features. Each of these pieces has a distinctive and pleasing form. (A) The Eames molded plywood chair is a classic Midcentury Modern form, (B) Smala sofa, (C) Yang sofa. (A) Courtesy of Herman Miller; (B and C) Photos courtesy Roset USA Corp., Smala designed by Pascal Mourgue; Yang designed by Francois Bauchet

## Mass

Mass is the solidity, matter, or density that is defined by shape or form. In furniture, mass is **actual density** when the material is filled in, such as a solid block of wood. Mass can also be **optical density** where the material may not be solid.

Figure 3.14 Grouped photos are examples of massing to create a unified *group mass* for a weighted and more important appearance. On the left wall, photos and accessories are massed, as are the pillows on the bed. *Photo courtesy of HGTV*



## Line

Line is the connection of two or more points. The eye also perceives line when two planes meet and when shape is seen in silhouette as an outline. Lines may be **straight** (horizontal or vertical), **angular** (diagonal or zigzag), and **curved** (circular, flowing, or tightly curved). Lines are used by interior designers to create effects such as increased height, width, or the impression of movement.



## Texture

Texture is the surface characteristics and appearance inherent in every element and component of interior design. As the relative smoothness or roughness of a surface, texture is determined in two ways: by touching the physical texture and by visually reading the surface, which may appear quite different to the eye than it actually is to the touch.



## Pattern

Pattern is the arrangement of forms or designs to create an orderly whole.

Pattern often consists of a number of motifs, or single-design units, arranged into a larger design composition. Pattern is seen in printed and woven

textiles such as upholstery and drapery fabric, floor rugs

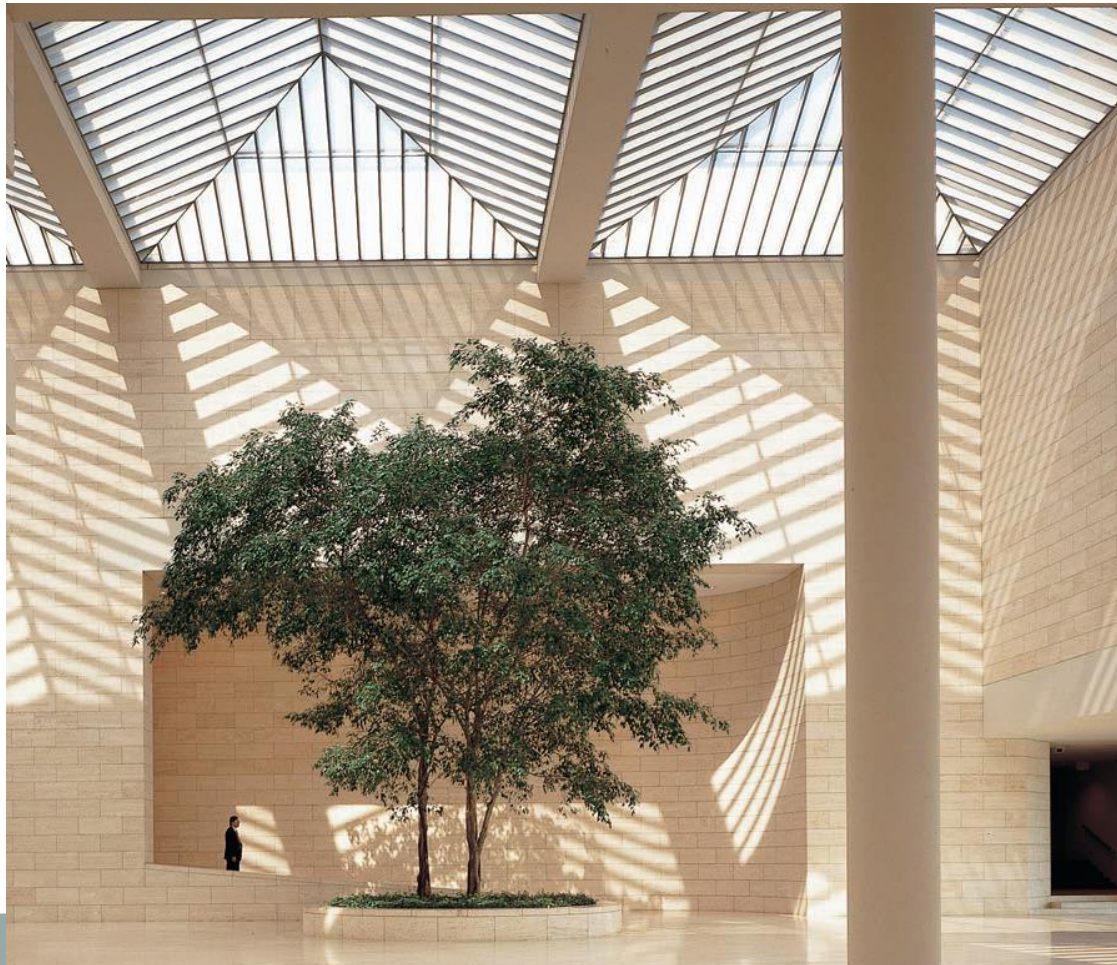


Figure 3.18 Colorful patterned pillows and cushions follow the rules of varying the size and scale of the related patterns. These patterns are similar in character and have a harmonized color scheme. Design by Bernhard & Priestley Architects/photo © Brian Vanden Brink



## Light

Light in interior design has two sources: natural light and artificial light.



## Color

Color, the last element of design, is the most emotional and personal of all the elements.

# INTERIOR DESIGN STYLES

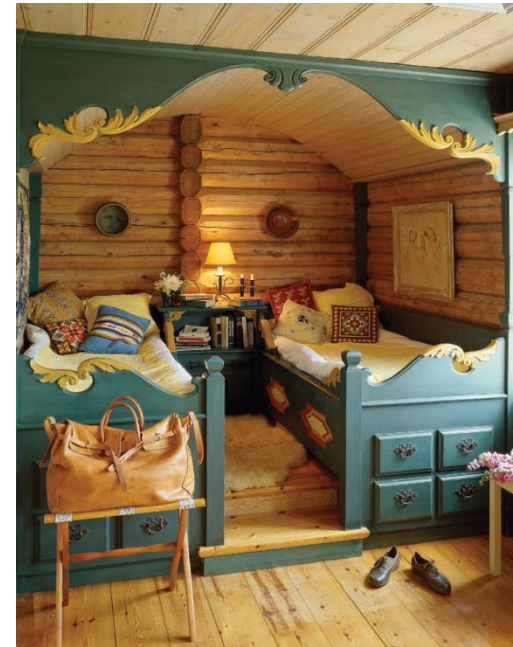
➤ **Decorative design** is also called “applied” or “ornamentive” design and refers to the ornamentation, or embellishment, of the object or structure.

**1. Naturalistic design** looks so real we could mistake it for a photo or the real plant, animal, or object from nature.

**2. Conventional design** uses designs from nature in a simplified, stylized, or adapted way. The design is “inspired” by nature but does not copy it accurately.

**3. Geometric design** is based on geometry: circles, diamonds, squares, and rectilinear shapes and patterns.

**4. Abstract design** is pattern or shape where the source or inspiration is not clear; it could be a combination, for example, of conventional and geometric designs.



# Finding a Personal Style

- Pare back before piling on extras. Sorting through personal possessions and giving away things that are no



Figure 3.27 Organized spaces are devoid of clutter. When needs are met without piling on extras, the space appears clean and orderly—a prerequisite of good design. *Photo courtesy of HGTV Dream House*

- Rearrange what you already have
- Think “need,” not “want
- Simplify and organize.
- Cultivate creativity.
  - Personalize
  - Cultivate good taste

# Interior Design Styles

- Authentic historic or period styles developed in specific geographic areas or countries during a definite developmental or political period with a unity of style in exterior and interior architecture, furniture, wall and floor coverings, window and bed treatments, lighting and accessory styles, and color palette. These are presented in Chapter 15.
- Formal Traditional takes components from formal European and American historic design: the Renaissance and Baroque, Early and Late Georgian, French Rococo, Neoclassic/Federal, Greek Revival/American Empire, and Victorian. The look is elegant, with refined materials, textures, and patterns, and compatible, blended furnishings of historic significance that are comfortable for today's lifestyles.
- Informal Traditional, Colonial, or American Country is a less refined style with a handcrafted charm from



- Informal European style comes from three areas with common backgrounds and similar furnishings. These are Country or Provincial France, Tuscany, Italy, and Colonial Spain, which spread throughout the Americas. See also Chapter 15.
- Casual Contemporary is a look of relaxed comfort, with handsome furnishings and low-maintenance materials. This style varies according to geographic and regional influences. It may use wicker or natural wood, durable materials and sturdy but comfortable fabrics combined in an easy-living style with personally meaningful accessories.
- Asian or Oriental styles are primarily from China and Japan. See Chapter 15. Today these styles may be indicated as art or accents.
- International Modern originated in Europe and spread to the United States as a contract and residential style. It is a stark, clean style with expansive windows, plain



Modern style is a clean, open style with spare furnishings. This style includes International Modern, Organic Modern, and here, Scandinavian Modern. Modern may be pure, or it may be contemporary or retro, with some elements that are less pure but intended to bring contemporary warmth to the setting. *Design by Hutker Architects/photo © Brian Vanden Brink*



- **Organic Modern** is a style by Frank Lloyd Wright, whose Prairie Style seemed to grow from the ground, harmonious with its setting. It also includes the Craftsman style with its Arts and Crafts Interiors, a product of the Greene Brothers as architects, Gustav Stickley as furniture designer, and William Morris as textile surface designer. See Chapter 15.
- **Scandinavian Modern** is a blend of International and Organic styles as interpreted by Scandinavian and American architects and designers. Large windows and sliding glass doors open to nature. Interiors have wood ceilings and, often, floors, and rooms are furnished sparsely with midcentury Scandinavian Modern furniture, which is found in Chapter 15.
- **Retro Modern** is a nostalgic contemporary interplay of International, Organic, and/or Scandinavian Modern styles blended with midcentury American culture.

- **Contemporary Organic** is a style of open cleanliness with generous use of wood on floors, walls, and ceilings as vertical or horizontal planks, paneling, or logs. This style uses a variety of window styles and furnishings from Colonial to Modern. It is popular in waterfront or nature-based homes.
- Influences of **Art Nouveau** and **Art Deco** may be seen as unique pieces in many of the above interiors. These styles are also discussed in Chapter 15.
- **Eclectic design** uses furnishings from different styles and periods in a cohesive, interesting, unique, and artistic composition. Each piece should have merit and stand on its own in terms of excellent design. Eclectic



- **Thematic interior design** is contemporary or current design based on a theme.

The sources for themes are varied and nearly limitless. Examples include culture/countrystyle themes, sports, nature, pop culture, fashion, juvenile themes, space exploration, movies, or fantasy character themes. Some themes will be temporary, and as a child grows or an interest or hobby wanes, the need for refurnishing is more frequent, making theme-based interior design less sustainable and responsible than long-lived design that can adapt to changes in demographics.

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THANK YOU