Defining Basic Visual Elements

Elements of Form

Whether geometric or organic, all form is built on basic elements: dots, lines, planes, and volumes.

DOT

A dot is the visual expression of a point, which is an indicator of location. A dot can take any shape, geometric or organic. It is generally simple in shape (figure 3-11).

LINE

A line is the connection of two or more dots that are so close they cannot be individually recognized (figure 3-12). It can be a continuous mark or a series of short dashed lines or separate dots visually connected by their similarity and placement. It can be straight or move in different directions. A line can also be a grouping of type, symbols, images, or simple markings.

Lines can create shapes and divide space. They are useful for isolating and grouping form and information. Depending on their appearance and position in a composition, along with the experiences we bring to viewing form, lines can connote emotional qualities.

PLANE

Plane refers to an area outlined by lines or defined by a grouping of images, type, symbols, or markings (figure 3-13). It is an expression of height or length and width.

The physical surface of a composition is often called the picture plane. Similar to dots and lines, a plane can be geometric or organic in shape.

VOLUME

Volume is a product of dots, lines and planes. It refers to the illusion of a three-dimensional form on a two-dimensional surface, and to the illusion of space within a form (space is discussed later in this chapter). Volume of the first type is created through the grouping of several dots, lines, or planes (figure 3-14).
3-15
Self-Portrait, 1977
Chuck Close

Dots can be repeated and placed to create larger forms and meanings. Close uses dots as basic building components of identifiable forms that, while whole, maintain a sense of fragmentation.

3-16
Heads, 1995
Kevin Donahue

Lines can describe the outline or contour of forms, their movements, and relationships. This work reveals the ability of lines in varying weight, length, and gesture to serve as the sole vehicle for describing mood and personality.

3-17
Cartography, 1996
Sam Gilliam

Planes can be defined physically and by areas of markings or color that can appear to advance or recede, float or remain stationary.
Ways of Finding Relationships

Proportions

Proportions help describe the visual forms we see each day, from buildings to household objects. They also represent the nonvisual, such as the amount of time we work in a given day. Whether in visual or nonvisual form, proportions can be compared, measured, and analyzed.

In visual form, the term *proportion* refers to the size relationship between parts of a form. Width and height can be compared to determine proportions in a two-dimensional form. Such a comparison might examine the relationship between the form's external dimensions as well as its internal dimensions (figure 5-4). For example, the width and height of this page are external dimensions, while the width of this text column and the white space to the left are internal dimensions.

In addition to creating harmony, proportions can help us make sense of our place in the universe. To some, harmonious form suggests the expression of a higher order or that the universe is in order. Although proportions can make a form more visually inviting, they can also enhance functionality (figure 5-5) and the communication of meaning, and can be used to persuade or create a desired impression (figure 5-6).

5-5
Diagrams from *The Measure of Man, 1955*
Henry Dreyfuss Associates

These diagrams reveal the basic proportions of some human bodies. These, and others, have been used for the design of a variety of industrial products from chairs to automobiles.
Finding and Using Proportions

The first reference point in finding and understanding proportions is the human body. Your height (and what it allows you to see) and the length of your arms (and how far you can reach) are two continual factors that influence how you understand and interact with the things around you.

For centuries, the human body has served as the model for measuring and understanding the world. The fathom, which is the length of an average man’s outstretched arms, was developed by the Greeks in 600 B.C. as a way of measuring distances. The metric system, based on units of ten (ten centimeters in a meter, ten meters in a kilometer, and so on), relates to our ten fingers.

Perhaps the best-known study of human body proportions was done during the Renaissance by Leonardo da Vinci (Italian, 1452–1519), who examined and compared parts of the body in relation to basic geometric shapes. His studies sought to find a system of proportions usable for architecture and for the depiction of human form (figure 5-7).
Ways of Directing Understanding

Attention and Hierarchy

Capturing, maintaining, and focusing attention are important considerations in strengthening the appearance and meaning of a form. The choice and arrangement of components can lead our eye in a particular direction and keep it there or encourage it to move on.

Attention can be drawn through the use of hierarchy, in which some components or ideas stand out before others when arranged in dominant and subordinate areas. A dominant area is called the focal point (figure 5-8).

Hierarchy can make a composition more active and engaging, and aid the viewer in discerning which elements belong together. When some elements are presented over others, it is easier to understand the whole form and its function.

Research into how the human eye examines complex objects suggests that we are attracted primarily to elements in a composition we consider important and essential to understanding (figure 5-9). While such research can aid your ability to compose, it is important to note that scientific studies are generally conducted in controlled environments and that their outcomes are difficult to apply broadly. Many variables influence attention, including the physical environment in which a work is viewed or used, and one's cultural background, which may condition responses to shape and color.
5-10
Emiliano Zapata, 1995
Mauricio Lasansky

A focal point (the eyes in this example) can contribute to the character of a work.

5-11
Order Form for Emigre, 1997
Rudy Vanderlans

Viewing order and usage can be directed by the use of simple visual elements and grouping. In this form, repeated dots, and lines common in size and alignment, define clearly identifiable sections, each with its own function.
Contrast

Attention and hierarchy are created through contrast, which refers to differences among elements and their degree of conflict or discord. We experience, desire, and create contrast daily for purposes of enrichment and identity as expressed in the clothes we wear. Contrast can also serve as an important tool of recognition as evidence by road signs whose color is generally in stark contrast their surroundings. In the animal world, contrasts of movement, color, and pattern are an aid to survival as they often signal danger and initiate action.

Contrast can be achieved through opposing visual elements such as shape, direction, and color (figure 5-12). The interactions among contrasting elements are analogous to those in the physical realm. Although physical forces such as gravity are perceivable and thus more evident, visual forces are only observable.

We tend to favor compositions in which the parts are related in some way but also have differences, however subtle or pronounced. Contrast can attract and maintain our attention and move our eye to specific areas. It can reveal relationships and help us differentiate information. Organizing information according to contrast can also be a way of making qualitative judgments, as discussed in chapter 2.
5-14

*Exercise in Contrast, 1967*
Emil Ruder

Changes in shape and value can create contrast, texture, and movement. Univers is a typeface whose simplicity and uniformity among weights allows for unified groupings and clear transmission of ideas.

5-15

*The Church at Picuris Pueblo, New Mexico, 1963*
Laura Gilpin

Contrast can create a focal point and heighten the meaning of a composition.
Creating and Organizing Multiple Forms

Rhythm

The natural environment provides an abundance of physical forms, patterns, and movements that establish rhythms. Since the beginning of recorded history, nature has influenced the creation of human-made rhythms. For example, the Nile's periodic flooding in ancient times inspired the creation of scales to mark flood levels and calendars to identify harvest times. Today, we continue to use nature's rhythms and movements—the Earth's revolution around the sun, the weather, the temperature—to regulate and plan our activities.

In two-dimensional design, rhythm is the movement from one idea, compositional area, or element to another. It is the result of hierarchy, contrast, and structure, and involves timing and spacing (figure 5-16). In music, time is manipulated through the pacing of components. To create an understandable and engaging rhythm in visual form, the spacing or intervals among elements becomes an important consideration.

The series of page spreads in figure 5-18 are related by idea and held together by symmetry, while the sizes and colors of the elements change in accordance with the pacing of the text.

By its nature, rhythm also involves repetition and can lead to the formation of patterns. Throughout history, patterns have served as decorative elements and as a means of conveying tradition or power. Patterns are created by grouping a single element or repeating multiple elements (figures 5-19 and 5-20).

5-17

Bar Code

The spacing between the vertical lines of a bar code not only conveys pricing information but also creates a simple visual rhythm.
The rhythm in layering among pages seeks to heighten the reading of a text that suggests the best design is often no design.

Repetition can change or reveal the meaning of a single form. In this instance, a simple compositional method serves as a commentary on mass production and the icons of popular culture.

Repetition of a given organization can create a larger pattern in which the single unit assumes a new appearance.
Ways of Creating Continuity

Structure

Structure refers to the internal parts of a form that support and define its appearance and contribute to conveying its message. Forms of all types have an underlying structure from those natural, such as the skeletal structure of our bodies to the internal framework of the buildings in the human-made environment. Structure holds components and ideas together, and is generally necessary to create meaning and a sense of continuity.

In a composition, structure can be revealed through elements, including those depicted literally, as in figure 5-22. The male figures create distinct triangles with their arms and legs, which contrasts with the stable vertical background and lamenting figures to the left. Taken together, this relationship heightens the work's symbolic meaning of men leaving for battle to the anguish of their loved ones.

Structure can also be revealed through the use of grids, which are (generally) evenly spaced vertical, horizontal, and/or diagonal lines (figure 5-21). The intersections of the lines result in quadrants where components can be aligned or placed in contrast. Grids are generally determined by the type, shape, size, and quantity of the corresponding material and are used extensively for organizing ideas and information. The simple, visible grid in figure 5-23 is both a visual element and a vehicle for creating hierarchy.
5-23

*Poster for an Exhibition of Posters, 1980*
Josef Mueller-Brockmann

Grids can structure information and create continuity among separate elements.

"The grid allows endless individual variations."?

Josef Mueller-Brockmann

5-24

*Map of Washington, D.C., 1887*
Designer Unknown

In addition to organizing form, grids can have symbolic functions as well. Structure can further a sense of power and place value on elements. In this example, the primary buildings of the legislative, judicial, and executive branches are emphasized over other governmental buildings and the city at large.