

# The Principles of Design

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## Introduction

There are many basic concepts that underlie the field of design. They are often categorized differently depending on philosophy or teaching methodology. The first thing we need to do is organize them, so that we have a framework for this discussion.

We can group all of the basic tenets of design into two categories: principles and elements. For this article, the principles of design are the overarching truths of the profession. They represent the basic assumptions of the world that guide the design practice, and affect the arrangement of objects within a composition. By comparison, the elements of design are the components of design themselves, the objects to be arranged.

Let's begin by focusing on the principles of design, the axioms of our profession. Specifically, we will be looking at the following principles:

- Balance
- Rhythm
- Proportion
- Dominance
- Unity

## Balance

Balance is an equilibrium that results from looking at images and judging them against our ideas of physical structure (such as mass, gravity or the sides of a page). It is the arrangement of the objects in a given design as it relates to their visual weight within a composition. Balance usually comes in two forms: symmetrical and asymmetrical.

### Symmetrical

Symmetrical balance occurs when the weight of a composition is evenly distributed around a central vertical or horizontal axis. Under normal circumstances it assumes identical forms on both sides of the axis. When symmetry occurs with similar, but not identical, forms it is called approximate symmetry. In addition, it is possible to build a composition equally around a central point resulting in radial symmetry<sup>1</sup>. Symmetrical balance is also known as formal balance.

### Asymmetrical

Asymmetrical balance occurs when the weight of a composition is not evenly distributed around a central axis. It involves the arranging of objects of differing size in a composition such that they balance one another with their respective visual weights. Often there is one dominant form that is offset by many smaller forms. In general, asymmetrical compositions tend to have a greater sense of visual tension. Asymmetrical balance is also known as informal balance.

Horizontal Symmetry



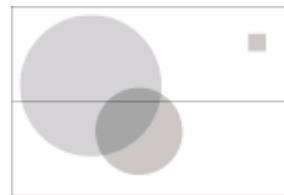
Approximate Horizontal Symmetry



Radial Symmetry



Assymetry

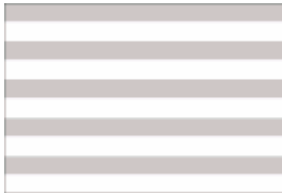


## Rhythm

Rhythm is the repetition or alternation of elements, often with defined intervals between them. Rhythm can create a sense of movement, and can establish pattern and texture. There are many different kinds of rhythm, often defined by the feeling it evokes when looking at it.

- Regular: A regular rhythm occurs when the intervals between the elements, and often the elements themselves, are similar in size or length.
- Flowing: A flowing rhythm gives a sense of movement, and is often more organic in nature.
- Progressive: A progressive rhythm shows a sequence of forms through a progression of steps.

Regular Rhythm



Flowing Rhythm

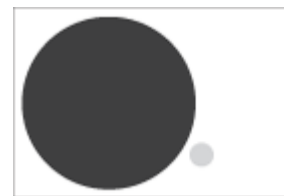


Progressive Rhythm



## Proportion

Proportion is the comparison of dimensions or distribution of forms. It is the relationship in scale between one element and another, or between a whole object and one of its parts. Differing proportions within a composition can relate to different kinds of balance or symmetry, and can help establish visual weight and depth. In the below examples, notice how the smaller elements seem to recede into the background while the larger elements come to the front.



## Dominance

Dominance relates to varying degrees of emphasis in design. It determines the visual weight of a composition, establishes space and perspective, and often resolves where the eye goes first when looking at a design. There are three stages of dominance, each relating to the weight of a particular object within a composition.

- Dominant: The object given the most visual weight, the element of primary emphasis that advances to the foreground in the composition.
- Sub-dominant: The element of secondary emphasis, the elements in the middle ground of the composition.
- Subordinate: The object given the least visual weight, the element of tertiary emphasis that recedes to the background of the composition.

In the below example, the trees act as the dominant element, the house and hills as the secondary element, and the mountains as the tertiary element.



## Unity

The concept of unity describes the relationship between the individual parts and the whole of a composition. It investigates the aspects of a given design that are necessary to tie the composition together, to give it a sense of wholeness, or to break it apart and give it a sense of variety. Unity in design is a concept that stems from some of the Gestalt theories of visual perception and psychology, specifically those dealing with how the human brain organizes visual information into categories, or groups<sup>2</sup>.

Gestalt theory itself is rather lengthy and complex, dealing in various levels of abstraction and generalization, but some of the basic ideas that come out of this kind of thinking are more universal.

## Unity (continued)

### Closure

Closure is the idea that the brain tends to fill in missing information when it perceives an object is missing some of its pieces. Objects can be deconstructed into groups of smaller parts, and when some of these parts are missing the brain tends to add information about an object to achieve closure. In the below examples, we compulsively fill in the missing information to create shape.



### Continuance

Continuance is the idea that once you begin looking in one direction, you will continue to do so until something more significant catches your attention. Perspective, or the use of dominant directional lines, tends to successfully direct the viewer's eye in a given direction. In addition, the eye direction of any subjects in the design itself can cause a similar effect. In the below example, the eye immediately goes down the direction of the road ending up in the upper right corner of the frame of reference. There is no other dominant object to catch and redirect the attention.



### Similarity, Proximity and Alignment

Items of similar size, shape and color tend to be grouped together by the brain, and a semantic relationship between the items is formed. In addition, items in close proximity to or aligned with one another tend to be grouped in a similar way. In the below example, notice how much easier it is to group and define the shape of the objects in the upper left than the lower right.



## **Related concepts**

There are many additional concepts that are related to the principles of design. These can include specific terms and/or techniques that are in some way based on one or more of the above tenets. In the end, they add to the collection of compositional tools available for use by the designer.

### **Contrast or Opposition**

Contrast addresses the notion of dynamic tension—the degree of conflict that exists within a given design between the visual elements in the composition.

### **Positive and Negative Space**

Positive and negative space refers to the juxtaposition of figure and ground in a composition. The objects in the environment represent the positive space, and the environment itself is the negative space.

### **Rule of Thirds**

The rule of thirds is a compositional tool that makes use of the notion that the most interesting compositions are those in which the primary element is off center. Basically, take any frame of reference and divide it into thirds placing the elements of the composition on the lines in between.

### **Visual Center**

The visual center of any page is just slightly above and to the right of the actual (mathematical) center. This tends to be the natural placement of visual focus, and is also sometimes referred to as museum height.

### **Color and Typography**

Many would place color and typography along side the five principals I have outlined above. I personally believe both to be elements of design, so I'll give them some attention in my next column. In addition, both topics are so robust that I plan on writing an entire article about each of them in the future.

## **Conclusion**

In Web design it is too easy to get engrossed in the many unique constraints of the medium and completely forget some of the underlying concepts that can strengthen any design. To better discuss such concepts, we need to step back from our specific discipline and look to the history of the field. It is here we find the axioms of our profession.

In this article we looked at half of those axioms, the principles of design. The principles of design are the guiding truths of our profession, the basic concepts of balance, rhythm, proportion, dominance and unity. Successful use of these core ideas insures a solid foundation upon which any design can thrive.

In the next column, I will discuss the elements of design—the basic components used as part of any composition including point, line, form (shape), texture, color and typography. Comments or suggestions are welcome and appreciated.