



UNIVERSITY OF IOWA
ART & ART HISTORY

01A:004:SCC Design Fundamental

This entry-level studio course explores two- and three-dimensional concepts of design. The emphasis is on creative thinking and problem solving. Course format consists of informal lectures, open class discussions and workshops, and assignments completed outside of class. Grading is based primarily on a final portfolio, but students are expected to submit projects for review throughout the course. Class will include a woodshop workshop for half of the semester. Required materials include drawing tools, paper, and film.

Gestalt Theory

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The study of gestalt originated in **Germany in the 1920s**. It is a form of psychology that is interested in higher order cognitive processes relative to behaviorism. The aspects of gestalt theory that interests designers are related to gestalt's investigations of visual perception, principally the **relationship between the parts and the whole of visual experience**.

The visual world is so complex that the mind has developed strategies for coping with the confusion. The mind tries to find the simplest solution to a problem. One of the ways it does this is to **form groups of items that have certain characteristics in common**.

Most of what you will study about gestalt is concerned with how these groups are formed and what effect they have on perception. **The stronger the grouping, the stronger the gestalt**. It is this grouping that contributes to the unity in a design.

Gestalt is one of the most powerful tools available to a designer for creating unity. **The same concepts that form groups can be reversed to ungroup items** -- to make them look unique and stand alone. That is the basis for creating variety. Variety is what adds interest to an image.

The trick is to strike a balance between unity and variety. Too much unity and the design can look boring and repetitive; too much variety and it can look chaotic and disconnected. Understanding gestalt concepts can help a designer control unity and variety.

Gestalt Theory

Similarity

What an items looks like and how that effects gestalt

Proximity

Where items are in relationship to each other and how that effects gestalt

Closure

The mind supplies the missing pieces in a composition

Continuity

The eye continues in the direction it is going

Figure/Ground

Relation between What you notice and what everything else is

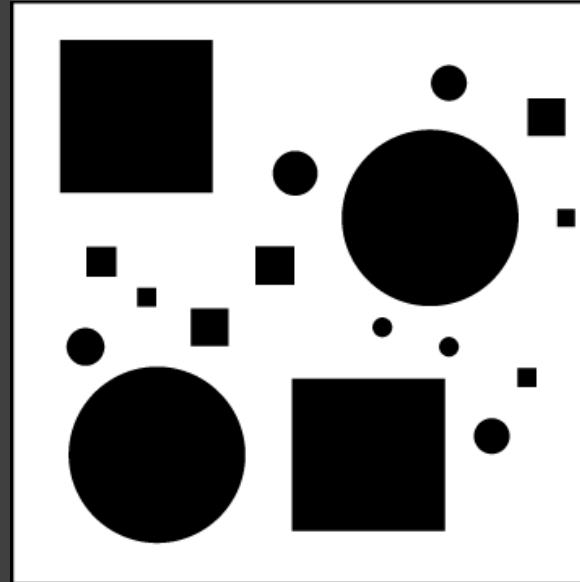
Similarity

Subject matter will be eliminated for this discussion because gestalt is based on what items look like not what they are like.

There is a limit to the amount of information that the mind can keep track of. **When the amount of visual information becomes too great the mind tries to simplify by grouping.** Groups are formed in logical ways based what information look like and where the various items are located. Similarity is concerned with what items look like.

Similarity is a powerful grouping concept and as such can contribute significantly towards achieving unity. **The more alike the items are, the more likely they are to form groups.** By the same token, if items are dissimilar, they will resist grouping and tend to show more variety. It is important to understand that all of the gestalt concepts can be used both ways -- to group and to ungroup.

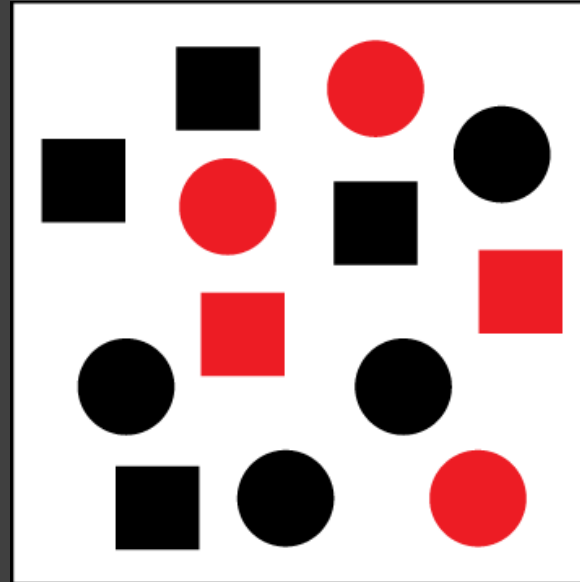
There are three major similarity types -- ways items can look alike (or look different) : **Size, Value/Color, Shape**



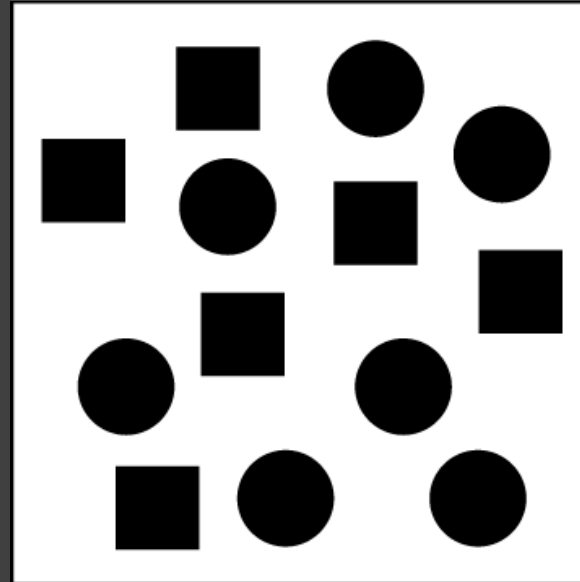
Notice in the example above that the squares and circles are presented in **two different sizes**. Do you first notice them grouping because of their shape or their size? The difference between the sizes is probably greater here than the difference in the shapes. Had they been only slightly larger the shape difference might have been noticed first. The potential, however, for size variation is greater than the differences possible in shape so size is usually a more dominant similarity type. Size has the additional advantage of letting items be **B I G** !

Similarity

Color/Value



Another powerful similarity type is value/color. The two are grouped together because value is part of color but can act independently (black and white images). Again notice that the **dominant grouping concept is color not shape**. Color makes items easy to identify and hence makes a good grouping tool. Value can work as easily as color, and in fact sometimes is a stronger design element.

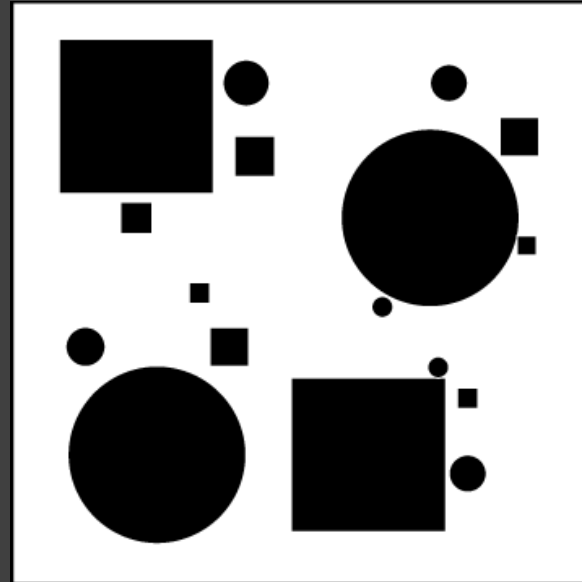


The squares and circles used here are simple geometric shapes. It is possible to make shapes that are more distinct and therefore more noticeable. Complex shapes may stand out more but **there is attractiveness to simpler shapes that makes them more powerful visual elements in most cases**. A simple example of using shapes to group is the use of italic or bold type to emphasis and separate parts of a sentence.

It is important to understand that it is possible, often necessary, to deliberately make items look different in order to make them stand out or to create more variety in a composition.

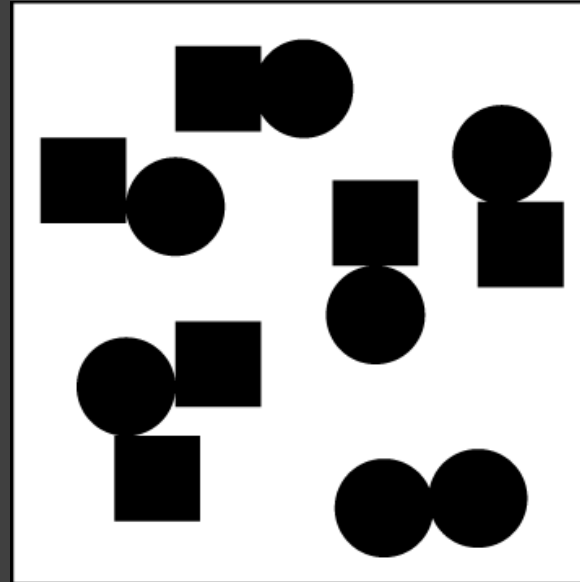
Proximity

Close Edge



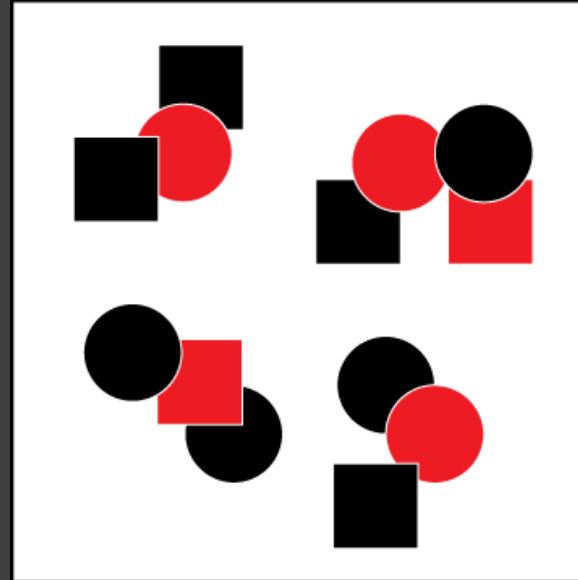
The general concept for proximity states that **the closer items are to one another, the more likely they are to be seen as a group**. The amount of space involved is relative.

Look at the example above and see how many groups you think there are.



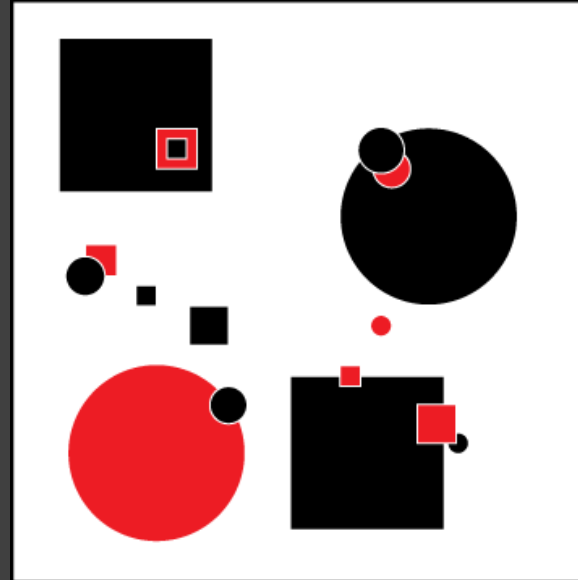
When items get close enough they touch. **They still are two different items but they seem to be attached together.** This makes for a stronger gestalt than close edge.

Notice in the example above that the touching groupings are stronger than the close edge groupings. In the example there are no size differences so the shape relationships are more noticeable.



The strongest gestalt between two items happens when they overlap. Two colors are used in the example to the left to show the overlaps better. When the two items are the same color they seem to form a new, more complex shape. The new shape seems flat.

When the items are different colors the overlap produces the illusion of a shallow space. The overlapped items form a strong group regardless of color. Notice the grouping hierarchy. The overlapped groups are the strongest. The two color groups are a close second to the all black group. Touching is next then close edge. Shape is probably the weakest gestalt in this example.



A significant characteristic of combining is that it both groups the items used and sets them apart from the rest of the information around them. This "highlighting" (another combining device) is perhaps the most significant aspect of this concept. It is used with information that the designer wants to call attention to.

There are many ways to combine items. Underlining items, putting boxes around them and putting items against a background (such as a color or a picture) are the most common.

In the example above **both proximity and similarity concepts are used**. Note that these are the items that stand out the most.

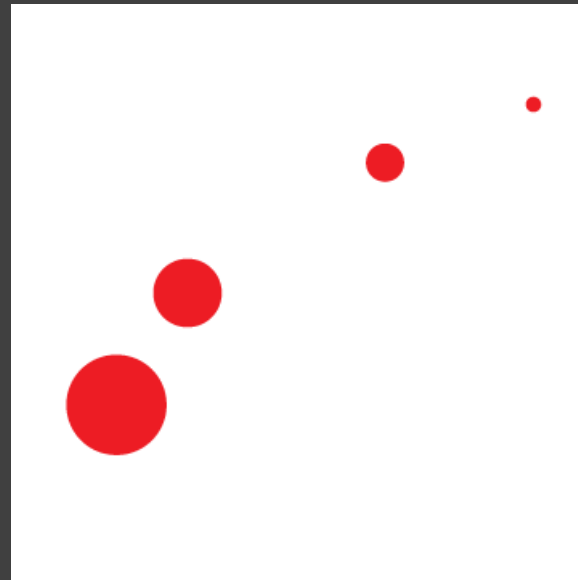


A complex object is really a group of simple items that the mind puts together as a single entity. **Your mind supplies the missing parts if enough of the significant features are visible.**

As more and more of each is removed the circle still remains identifiable until more is missing than is present. This is called closure because the mind "closes" the image by supplying the missing parts.

This works with a simple geometric shape because you need only a few clues to remind you of the shape. **More complex objects require more careful consideration as to what can and cannot be removed. Some information is critical and must be included; some information is unessential and can (and perhaps should) be eliminated.**

Closure is used extensively in art. It is not so much the quantity, but rather the quality of the information that lets you read an image. A clever artist leaves some things for the viewers to supply when they look at an image.



Continuity

This describes a device for directing the viewer's attention within composition. It is based on the idea that **once you start looking in a particular direction you will continue looking in that direction until you see something significant.**

In a sense this is a kind of closure -- a grouping of disconnected items by momentum. This feature is built into typography since we are taught to read left to right in our culture.



Figure/Ground

Figure

The part of a composition that we pay attention to is called **figure**. The figure is also called a **positive shape**. In a simple composition there may be only one figure. In a complex composition there will be several things to notice. As we look from one to another they each become figure in turn.

Recognizable objects (subject matter) are easy to see as figure. In compositions without recognizable subject matter what we see as figure will depend on the abstract relationship between the visual elements. The most interesting at any moment is the figure.



Figure/Ground

Ground

Everything that is not figure is **ground**. As attention shifts from figure to figure the ground also shifts so that an object can go from figure to ground and back.

Ground is sometimes thought of as background but this is not always true. In a flat composition there is nothing behind the figure (if there was there would be the illusion of depth). The shapes are side by side.



Figure/Ground

The figure always defines the ground and the ground defines the figure. They are inseparable -- you can not have one without the other. If you draw the figure in a composition, you are drawing the ground at the same time. The edges of one are the edges of the other.

The figure/ground relationship is so important that an artist must consider all of the composition when designing. It is a mistake to only plan the figure. The entire area of the format must be given careful consideration or the image will be only partially designed.