FIGURE-GROUND

Figure-ground refers to our ability to separate elements, based on contrast, into an object and a background. A figure can be any object, person, shape, or sound. Ground is the limitless background or field on which figures sit. Our visual system interprets objects primarily in terms of their contours. Figure-ground reversal occurs when two shapes share the same edge and we switch our attention from one shape to the other, trying to separate the figure from the ground.

When we look at a painting on the white wall of a museum gallery, we have no difficulty focusing our attention on the painting. The artwork is the *figure* and the wall is the *ground*. This ability to separate the object of our attention from its surrounding environment develops very early in life—separating our mother's face from other stimuli, for example—and may have its origins in survival strategies, in our desire to be a hunter rather than prey. Whether distinguishing a lurking tiger from its lair in savannah grasses or identifying a mother's voice in the babble of a crowded

subway, our perceptual system is built on a foundation of figure-ground distinctions.

In the photograph in Figure 3.11, the ground appears to extend beyond the edge of our vision—that is, beyond the frame of the image. There is content in the ground but we have little difficulty assigning it a role secondary to the figure (the ladybug) in the image. So although the photograph frames a discrete section of a much larger visual field, it is still possible to separate the figure from the ground. This perception is supported by studies showing that figures have more definite shapes and grounds are usually shapeless (Koffka, 1935). Figures are also perceived as being smaller and closer to the viewer in space than grounds (Koffka, 1935). And recent studies indicate that areas or shapes appearing in the lower portions of a composition are more likely to be perceived as figures than those appearing in other areas of the composition (Vecera, Vogel & Woodman, 2002) (Figure 3.12).

Motion also determines figure-ground relationships. Consider camouflage in the animal kingdom. As long as the animal remains stationary, its protective

patterning and color allow it to merge with its environment; it is part of the ground. As soon as the animal moves and we detect its motion, it becomes a figure. This concept is useful in motion graphics and interaction design. Designers can direct users' attention through motion to particular locations in otherwise complex compositions, indicating the order in which to read information. It is also typical for interaction designers to use motion—for example, a flashing button—to tell users when the computer is waiting for an action.
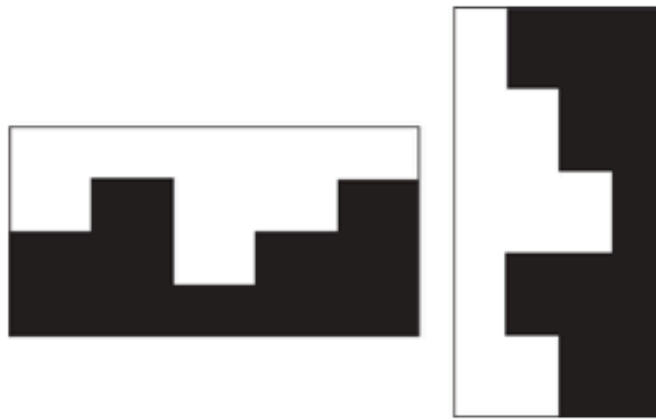
Figure 3.11
Figure-ground
Humans are perceptually wired to detect the difference between an object and its background.

Figure 3.12
Figure-ground orientation
When shapes share a horizontal contour boundary, there is less trouble in distinguishing figure from ground than in compositions where the shared contour boundary is vertical.

Visual compositions, therefore, often contain an object that appears to be complete—or nearly complete—and a background that is perceived to be around and behind the figure. When the object sits on an empty visual field, we often refer to the figure as *positive* and the ground as *negative space.* Communication designers sometimes refer to the ground in typography as *white space*, no doubt a reference to the white printing paper that sits beneath printed shapes (Figure 3.13).

Figure-ground relationships are fundamental to the

design of logos, which must appear on a variety of complex surfaces in the application of corporate identity systems ([Figure 3.14](#)). Because it is easier to apply contained shapes than soft-edged or textured forms in many different formats at many different sizes, designers often reverse simple elements out of solid geometric or typographic shapes. The surface on which the logo sits frequently shows through as the negative space, unifying the form with its background. This strategy also economizes on the number of colors required to reproduce the identity and allows logos to be interpreted quickly.
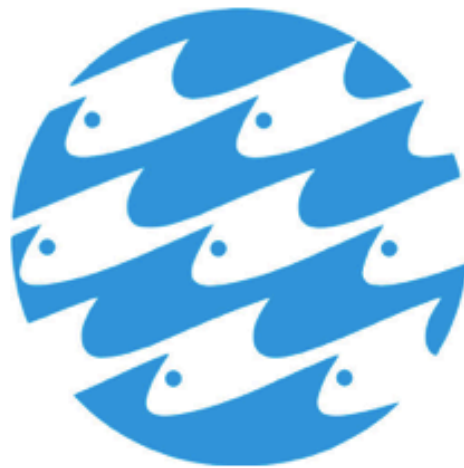
Figure 3.13
Driekoningenavond, De Theatercompagnie poster, 2006
Experimental Jetset Photography: Johannes Schwartz

Figure-ground relationships create ambiguity about what is object and what is "white space."

Figure 3.14
National Aquarium in Baltimore logo, 1980 Tom Geismar, Chermayeff & Geismar & Haviv

Logos make frequent use of figure-ground relationships to integrate these simple shapes with their backgrounds and other elements. Geismar's logo for the aquarium refers to water and sea creatures through shapes that shift from figure to ground.

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WALKER
WALKER-ITALIC

WALKER-UNDER
WALKER-BOTH
WALKER-OVER

Figure 3.15
***Kama Sutra* book cover, sketch Malika Favre**
Seeing the figures in this image for a book cover on the Kama Sutra depends entirely on shared contours and figure-ground reversals.

Under certain circumstances the relationship of figure to ground can be unstable. This phenomenon occurs when the amount of space occupied by each is roughly the same and cropping makes the outer contour of the

figure incomplete or shared equally with the ground. As a result, the viewer's attention shifts back and forth from one to the other. This unstable figure-ground relationship is called *aspect shifting*. Malika Favre's sketch for the cover of a book on the Kama Sutra depends on aspect shifting. Pairs of black and white figures emerge in the illustration through shared edges. Reading them as embracing couples requires shifting back and forth between the male and female figures (Figure 3.15).

Figure-ground relationships can be crucial to the readability and visual character of type design. Type designer Matthew Carter designs the whole space, the negative territory that surrounds the letterform as well as its positive strokes (Blauvelt, 2005). Carter's typeface for the Walker Art Center has been described as strokes interrupting the ground, an approach that is repeated in how the institution uses abstract pattern in combination with the typeface (Figure 3.16). Serifs, in Carter's type design, are often used to shape and expand the space between letterforms.

Therefore, an understanding of figure-ground is

essential in directing audience attention. The relationship either draws our attention to appropriate content for audience consideration or creates a dynamic interplay between objects and their surroundings, which compels us to resolve conflicting visual interpretations.

THERE IS NO GROWTH IN THE ARTS WITHOUT A PERSISTENT SEARCH FOR NEW EXPERIENCE.

PERSISTENT

FOR NEW

WALKER DESIGN

WALKER

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OPTION

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"I THINK OF THEM RATHER LIKE STORE WINDOW MANNEQUINS WITH GOOD BONE STRUCTURE ON WHICH TO HANG MANY DIFFERENT KINDS OF CLOTHING."

Figure 3.16
Walker typeface, 1994 Matthew Carter

Carter's typeface for the Walker Art Center offers a number of variations. It uses "snap-on" serifs that attach to the bold sans serif at the designer's discretion, creating new shapes in the negative spaces. In a 1995 article in Eye Magazine titled, "The Space between Letters," Walker design director Andrew Blauvelt described the font as "a revision of modernist typography insofar as it focuses attention on the space between letters, words, and lines of text."