

Figure-Ground Relationship

Elements are perceived as either figures (objects of focus) or ground (the rest of the perceptual field).

The figure-ground relationship is one of several principles referred to as *Gestalt principles of perception*. It asserts that the human perceptual system separates stimuli into either figure elements or ground elements. Figure elements are the objects of focus, and ground elements compose an undifferentiated background. This relationship can be demonstrated with both visual stimuli, such as photographs, and auditory stimuli, such as soundtracks with dialog and background music.

When the figure and ground of a composition are clear, the relationship is stable; the figure element receives more attention and is better remembered than the ground. In unstable figure-ground relationships, the relationship is ambiguous and can be interpreted in different ways; the interpretation of elements alternates between figure and ground.

The visual cues that determine which elements will be perceived as figure and which as ground are:

- The figure has a definite shape, whereas the ground is shapeless.
- The ground continues behind the figure.
- The figure seems closer with a clear location in space, whereas the ground seems farther away and has no clear location in space.
- Elements below a horizon line are more likely to be perceived as figures, whereas elements above a horizon line are more likely to be perceived as ground.
- Elements in the lower regions of a design are more likely to be perceived as figures, whereas elements in the upper regions are more likely to be perceived as ground.²

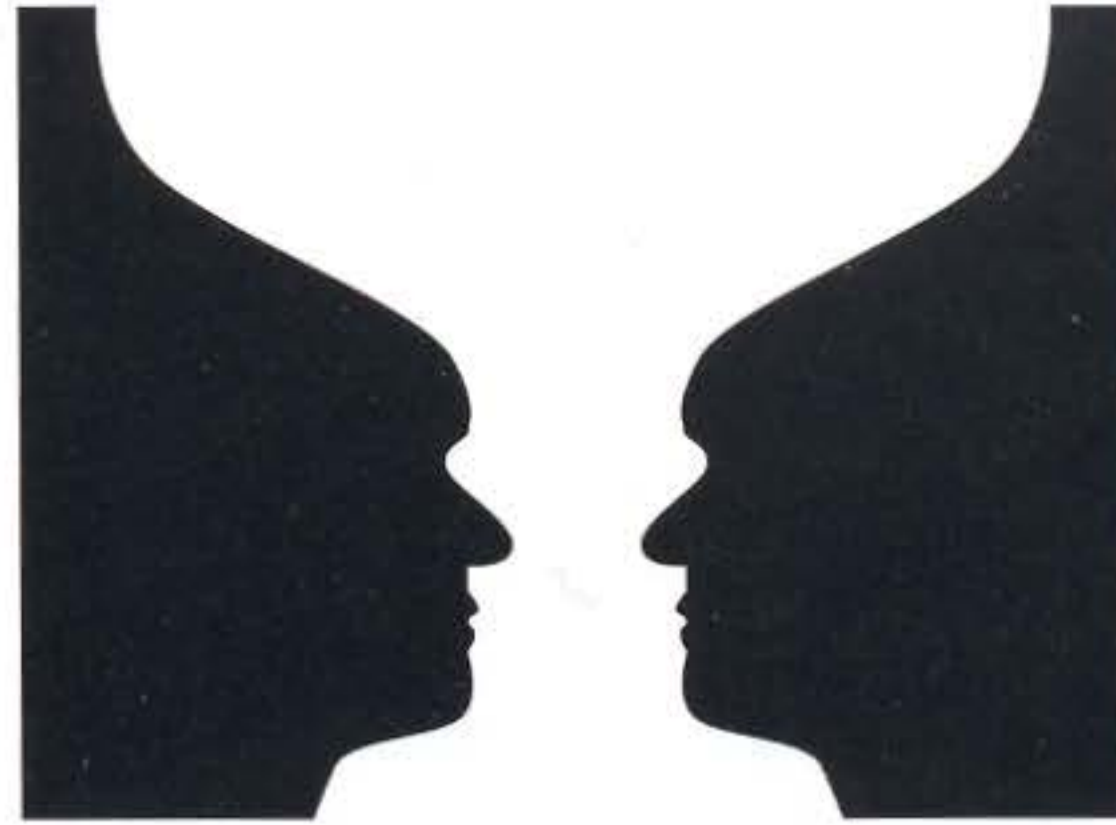
Clearly differentiate between figure and ground in order to focus attention and minimize perceptual confusion. Ensure that designs have stable figure-ground relationships by incorporating the appropriate visual cues listed above. Increase the probability of recall of key elements by making them figures in the composition.

See also Gutenberg Principle, Law of Prägnanz, and Top-Down Lighting Bias.

¹ The seminal work on the figure-ground relationship is "Synoplevede Figurer" [Figure and Ground] by Edgar Rubin, Gyldendalske, 1915, translated and reprinted in *Readings in Perception* by David C. Beardslee and Michael Wertheimer, D. Van Nostrand, 1958, p. 194–203.

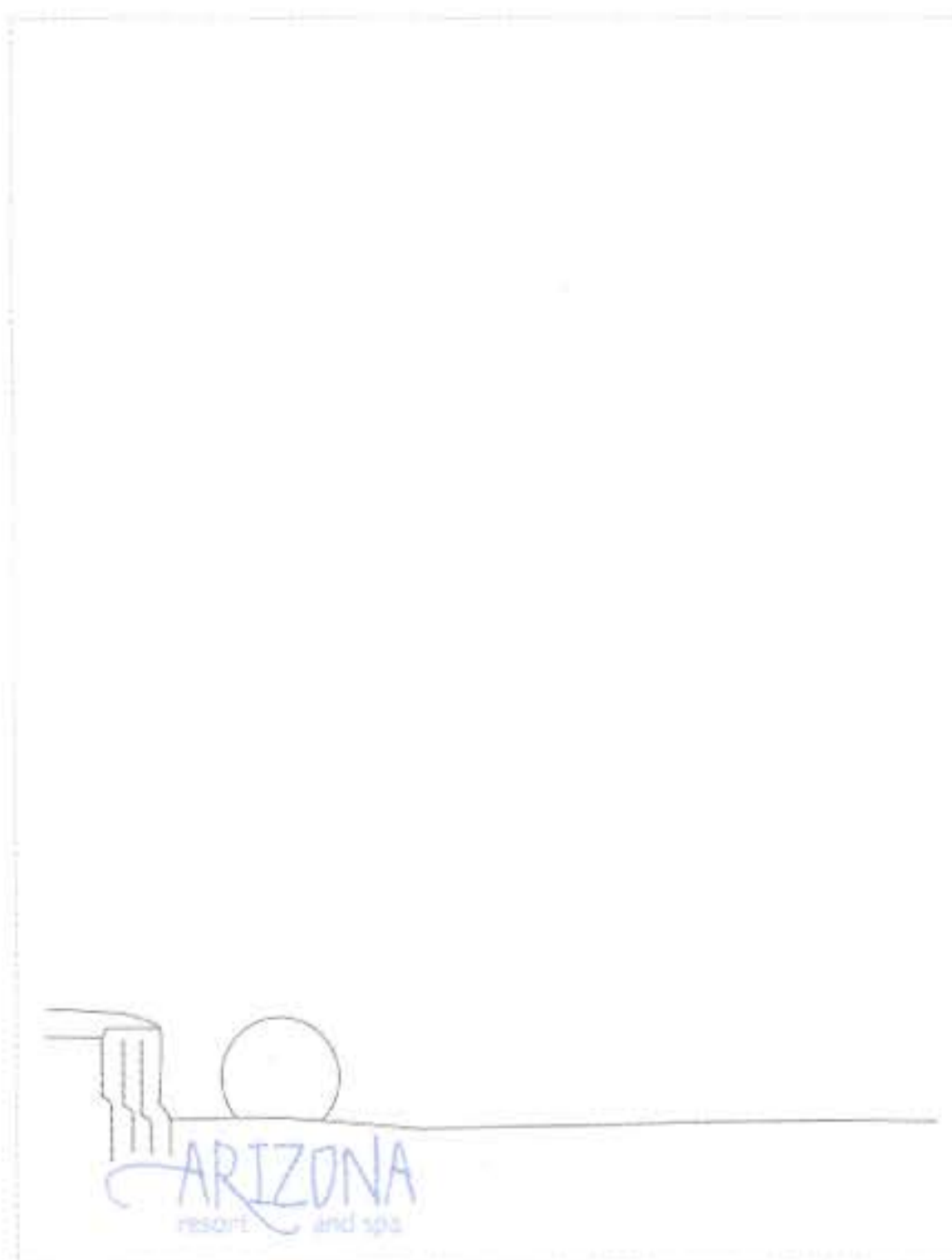
² "Lower Region: A New Cue for Figure-Ground Assignment" by Shaun P. Vecera, Edward K. Vogel, and Geoffrey F. Woodman, *Journal of Experimental Psychology: General*, 2002, vol. 131(2), p. 194–205.

The Rubin vase is unstable because it can be perceived as a white vase on a black background or two black faces looking at each other on a white background.

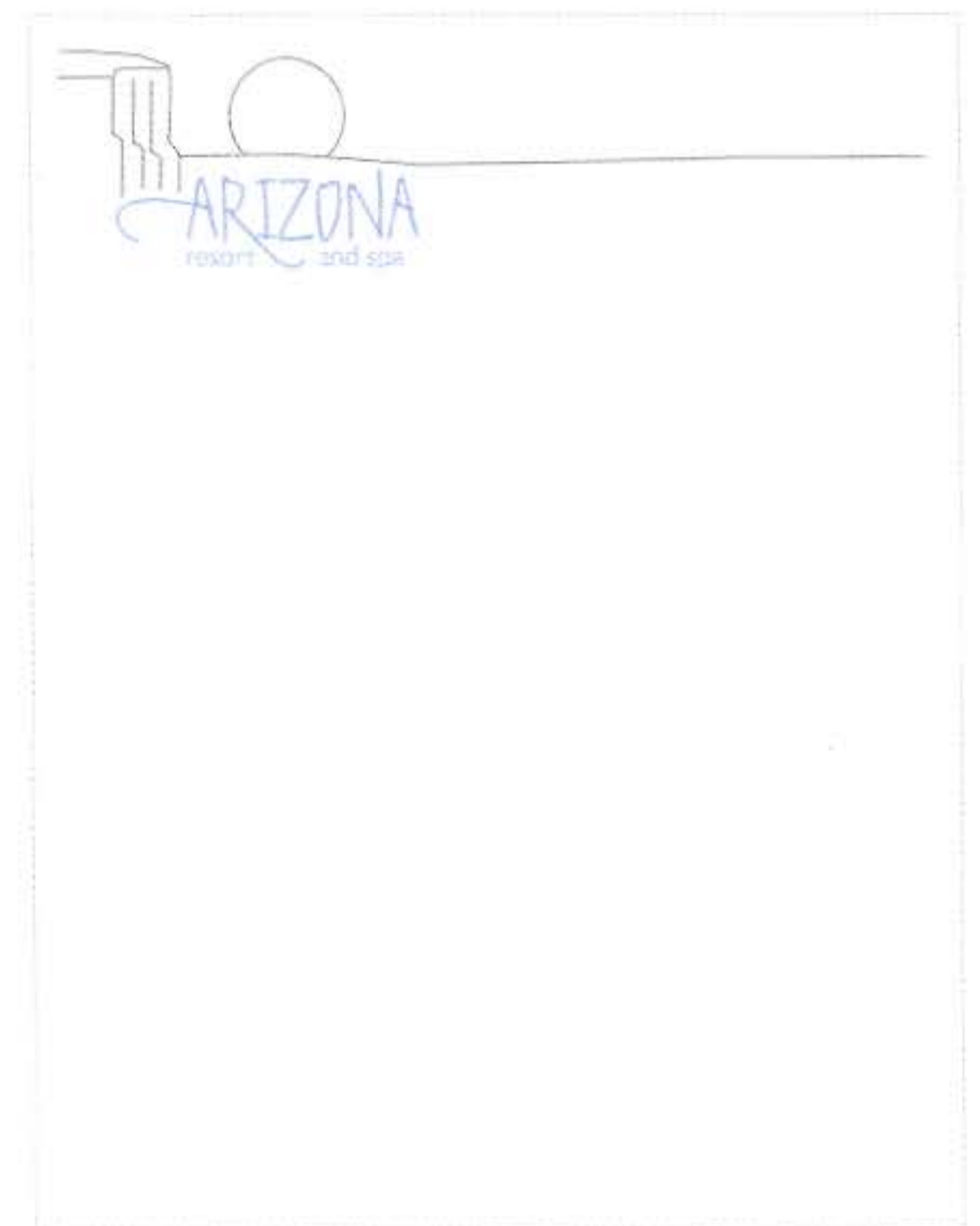


Initially, there is no stable figure-ground relationship in this image. However, after a moment, the Dalmatian pops out and the figure-ground relationship stabilizes.

Placing the logo at the bottom of the page makes it a figure element—it will receive more attention and will be better remembered than the logo at the top of the page.



Placing the spa name below the horizon line in the logo makes it a figure element—it will receive more attention and be better remembered than the design that places the name at the top of the logo.



Figure/Ground

The form of an object is not more important than the form of the space surrounding it. All things exist in interaction with other things.

In music, are the separations between notes less important than the notes themselves? Malcolm Grear

Figure/ground relationships shape visual perception. A figure (form) is always seen in relation to what surrounds it (ground, or background)—letters to a page, a building to its site, a sculpture to the space within it and around it, the subject of a photograph to its setting, and so on. A black shape on a black field is not visible; without separation and contrast, form disappears.

People are accustomed to seeing the background as passive and unimportant in relation to a dominant subject. Yet visual artists quickly become attuned to the spaces around and between elements, discovering their power to shape experience and become active forms in their own right.

Graphic designers often seek a balance between figure and ground, using this relationship to bring energy and order to form and space. They build contrasts between form and counterform in order to construct icons, illustrations, logos, compositions, and patterns that stimulate the eye. Creating figure/ground tension or ambiguity adds visual energy to an image or mark. Even subtle ambiguity can invigorate the end result and shift its direction and impact.

Figure/ground, also known as positive and negative space, is at work in all facets of graphic design. In the design of logotypes and symbols, the distillation of complex meaning into simplified but significant form often thrives on the taut reciprocity of figure and ground. In posters, layouts, and screen designs, what is left out frames and balances what is built in. Similarly, in time-based media, including multipage books, the insertion and distribution of space across time affects perception and pacing.

The ability to create and evaluate effective figure/ground tension is an essential skill for graphic designers. Train your eye to carve out white space as you compose with forms. Learn to massage the positive and negative areas as you adjust the scale of images and typography. Look at the shapes each element makes and see if the edges frame a void that is equally appealing. Notice how as the value of a text block becomes darker, its shape becomes more defined when composed with other elements.

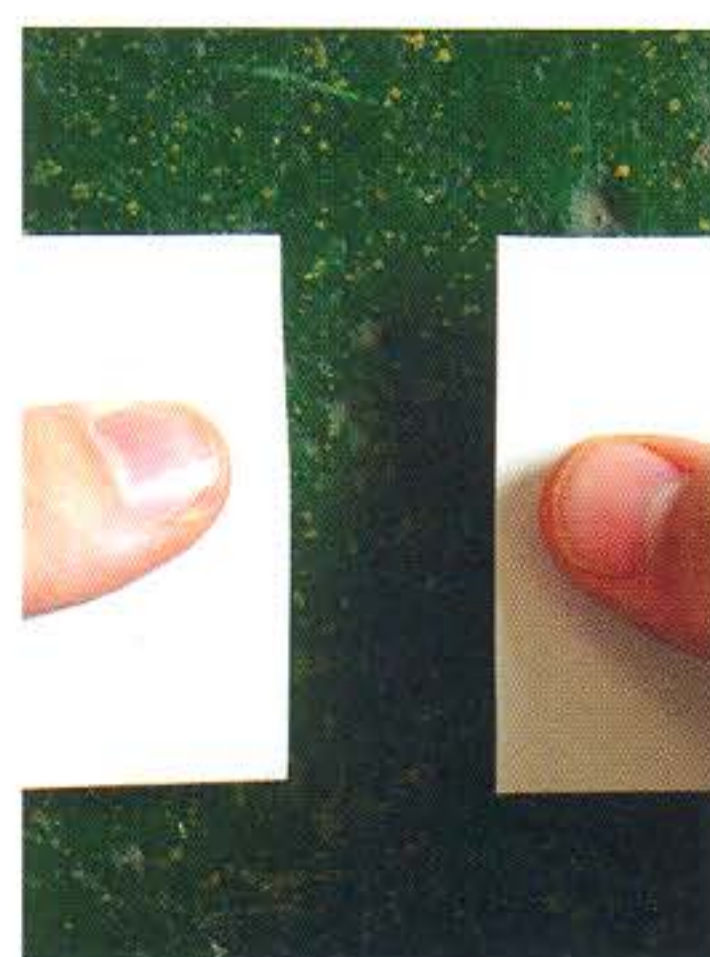
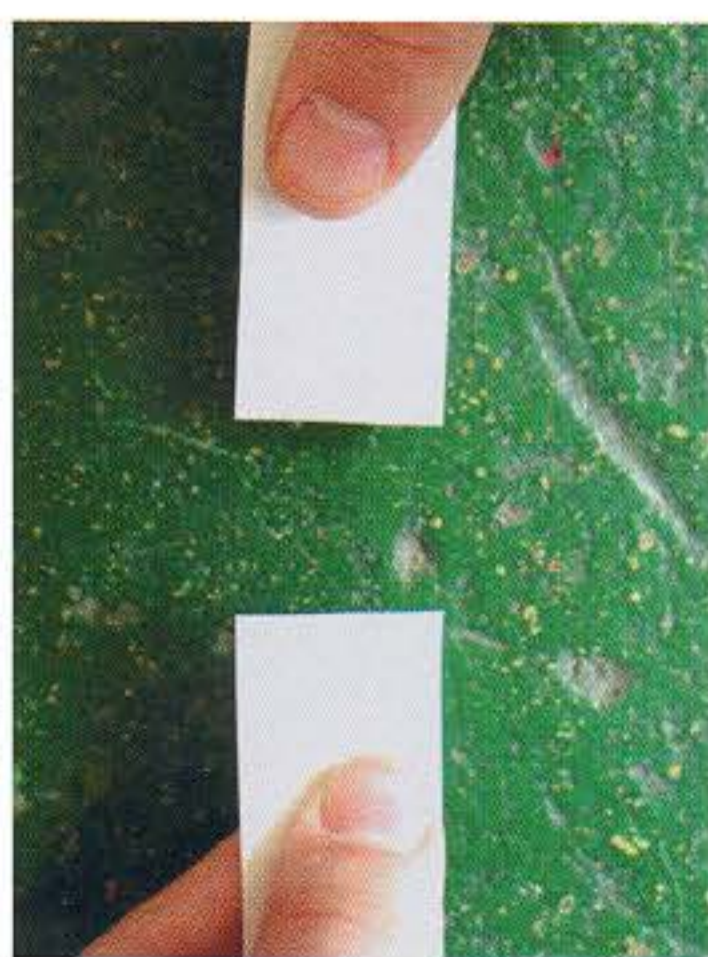
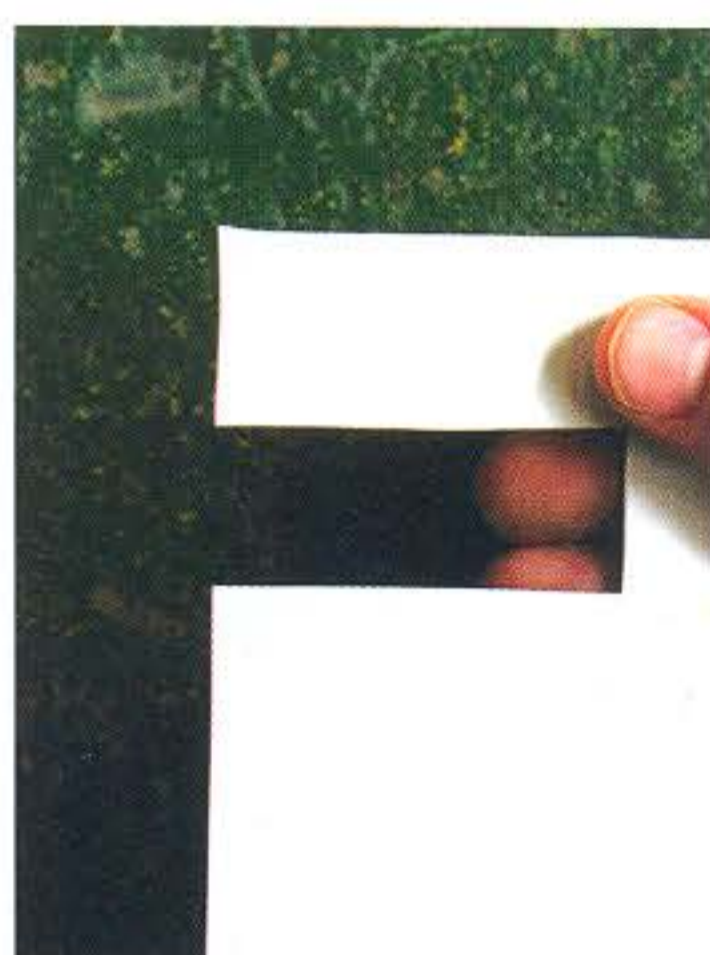
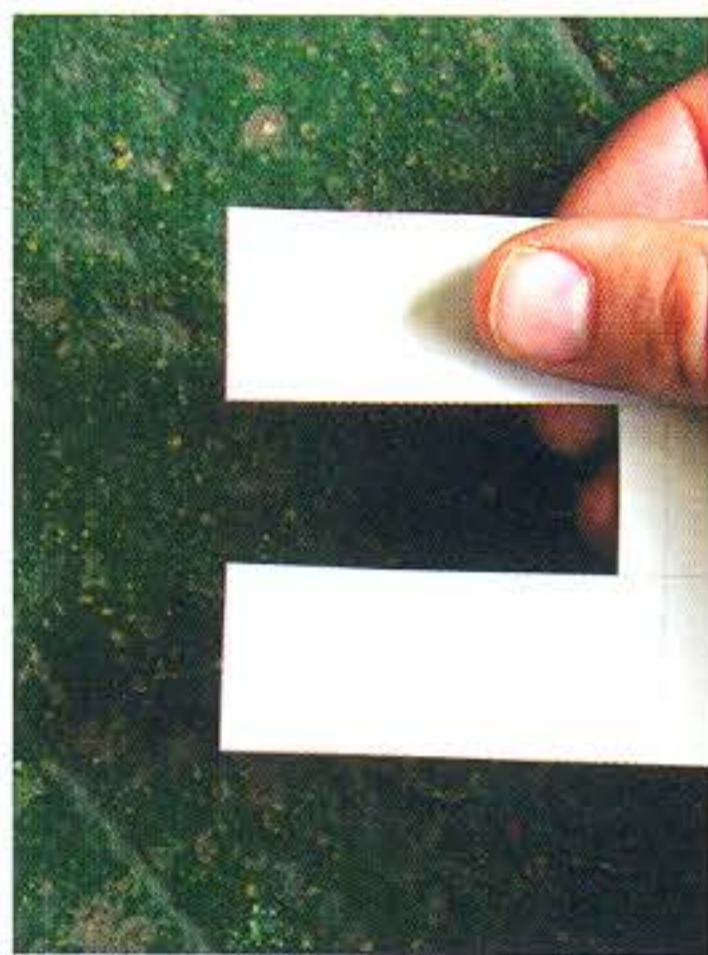
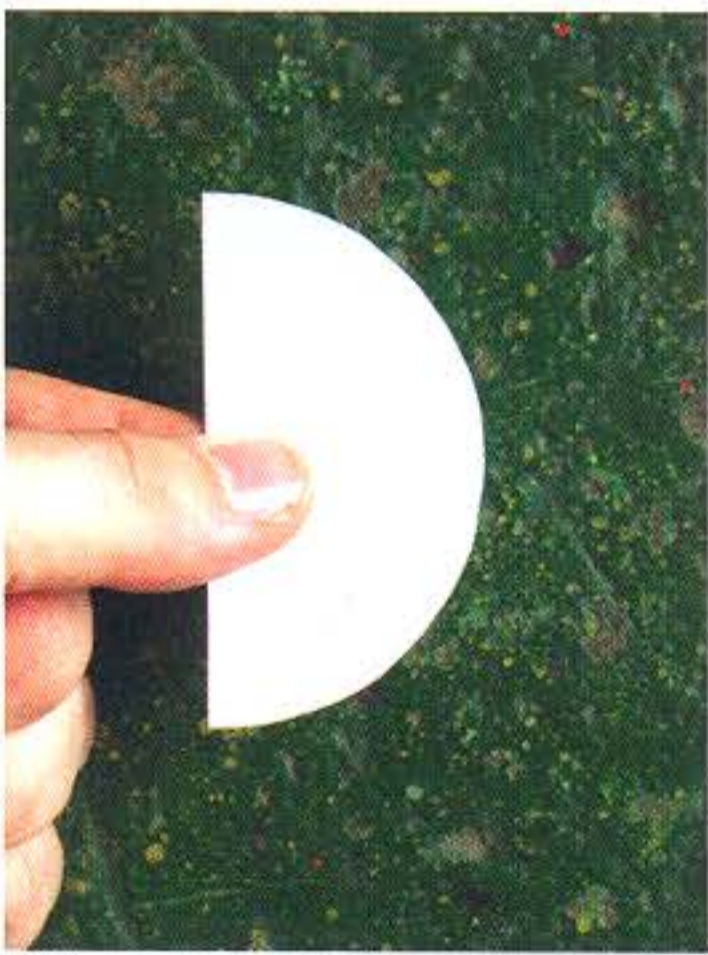
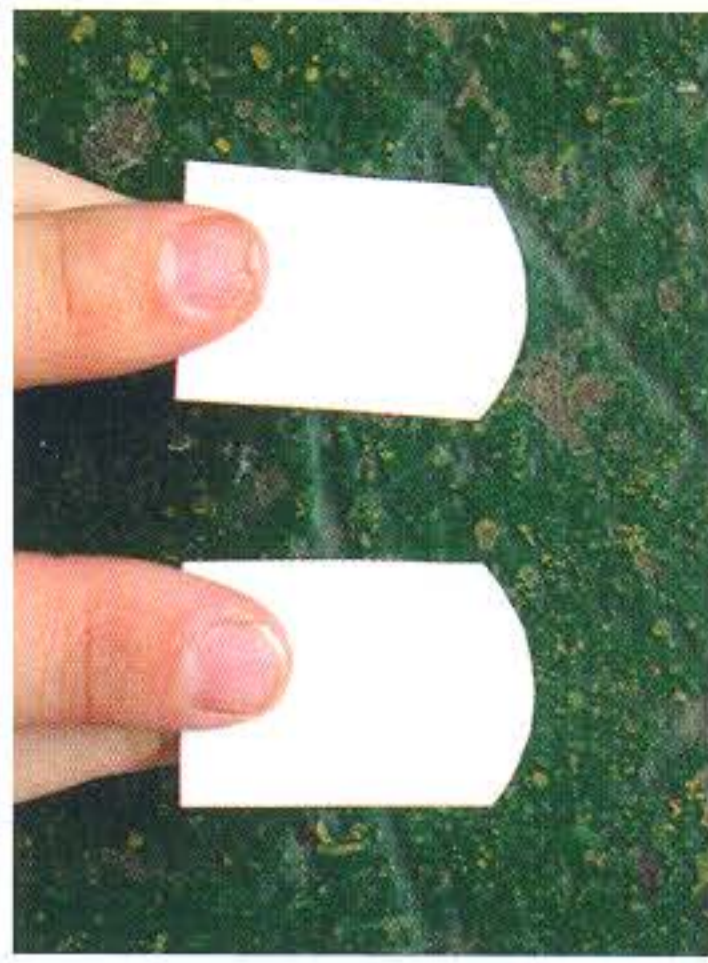
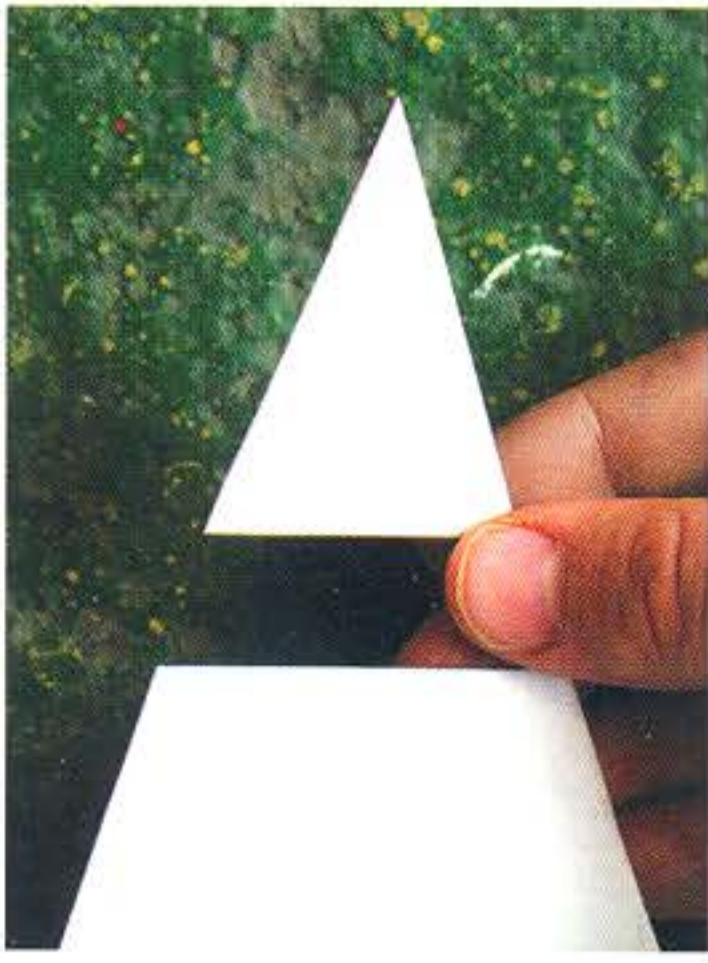
Recognizing the potency of the ground, designers strive to reveal its constructive necessity. Working with figure/ground relationships gives designers the power to create—and destroy—form.

Figure Sky These photographs use urban buildings to frame letterforms. The empty sky becomes the dominant figure, and the buildings become the background that makes them visible. Lisa Rienermann, University of Essen, Germany.





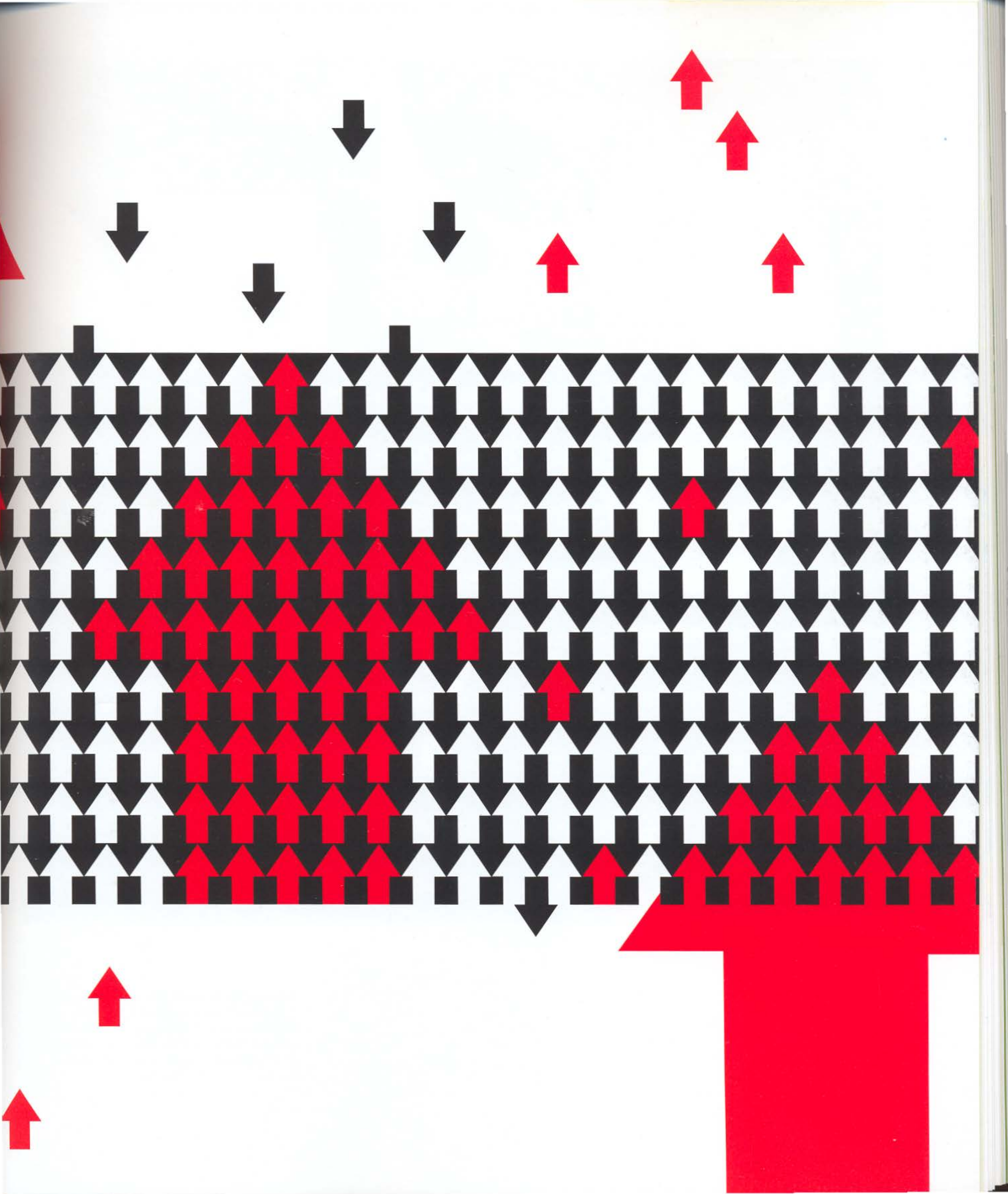
Seeing Jesus Simple stitches spell out a series of letters, which take form as the viewer's eye allows the background to move forward. The light stitches become counterforms for the dark letters. Needlepoint: Ralph Emerson Pierce (1912–1992). Photograph: Jeremy Botts, MFA Studio.

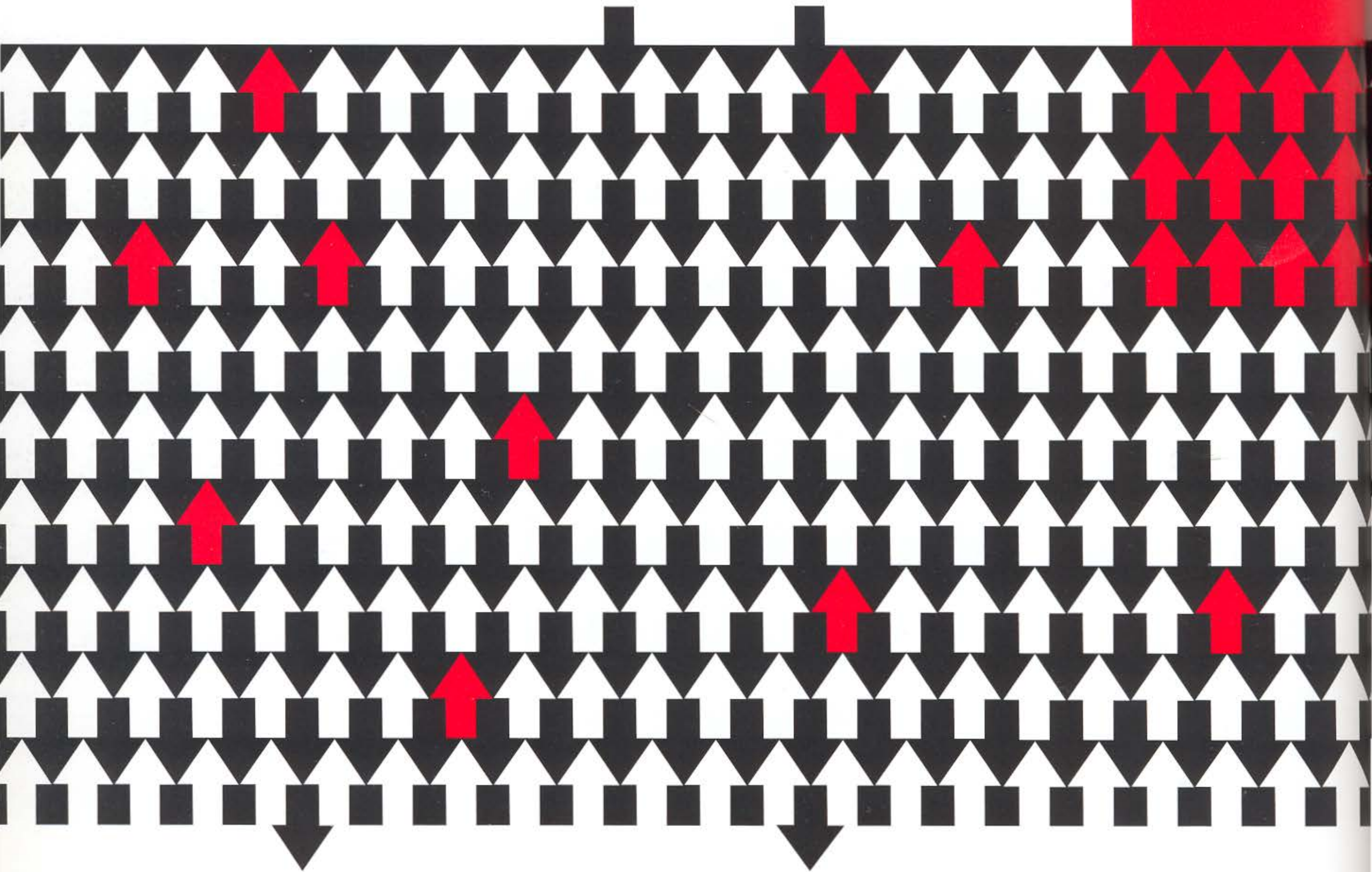
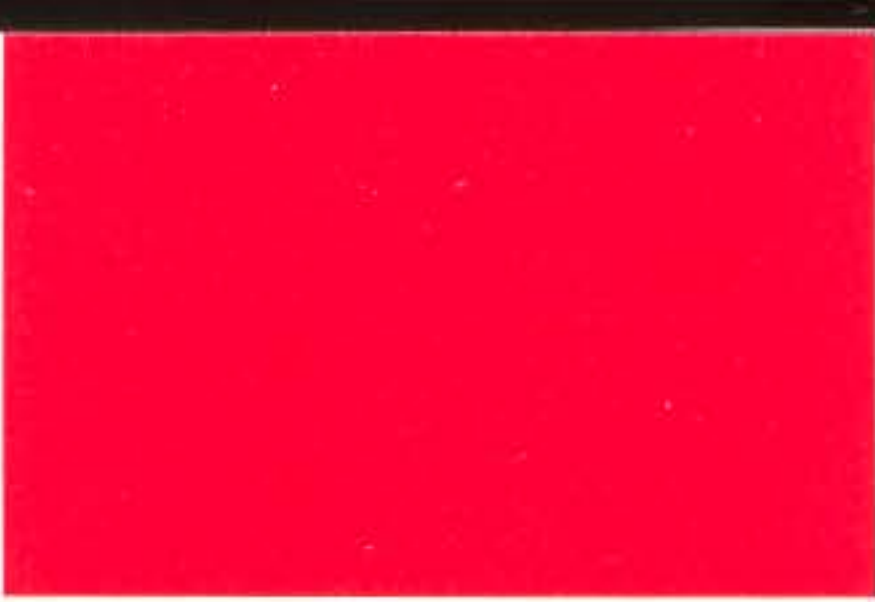


Counter Hand The simple device of cut white paper held against a contrasting ground defines the alphabet with quirky style and spatial depth. FWIS Design.



Artful Reduction A minimal stack of carefully shaped forms, in concert with exacting intervals of spaces, instantly evokes this sculptural landmark. Malcolm Gear, Malcolm Gear Designers.

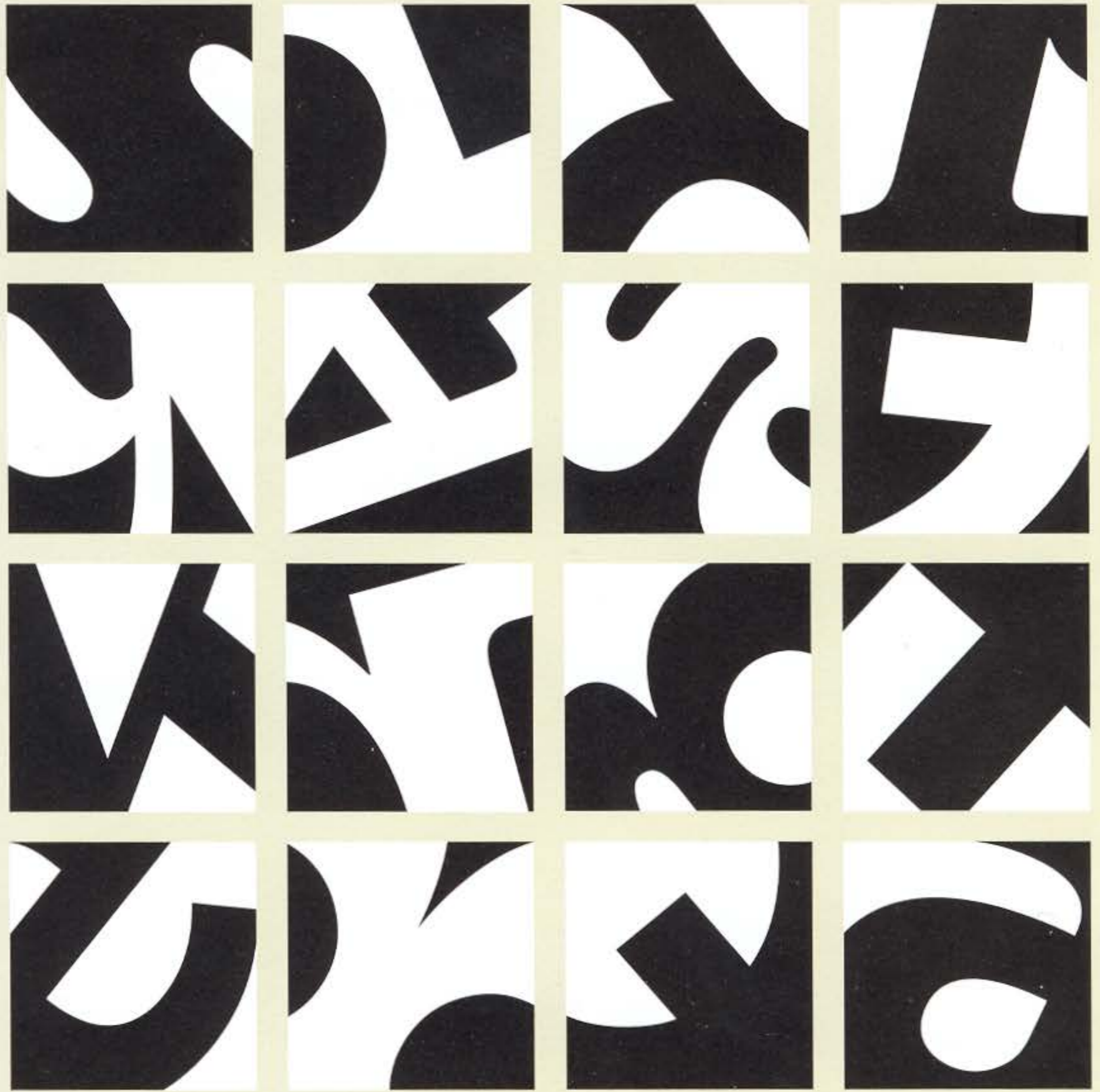




Figure/Ground Battalion These marching positive and negative arrows commingle and break away from the pack. The dynamic use of scale, direction, rhythm, and color ushers the viewer's eye in and around the composition. Superforms take shape out of the crowd. Yong Seuk Lee, MFA Studio.



Optical Interplay This mark for Vanderbilt University employs a strong contrast between rigid form and organic counterform. The elegant oak leaf alternately sinks back, allowing the letterform to read, and comes forward, connoting growth, strength, and beauty. Malcolm Gear, Malcolm Gear Designers.



Letterform Abstraction In this introduction to letterform anatomy, students examined the forms and counterforms of the alphabet in many font variations, eventually isolating just enough of each letter to hint at its identity. Each student sought to strike a balance between positive and negative space. Typography I. Jennifer Cole Phillips, faculty.

ZAPRASZAMY DO KIN

SHOOTING DOGS

Michael Gatton-Jones

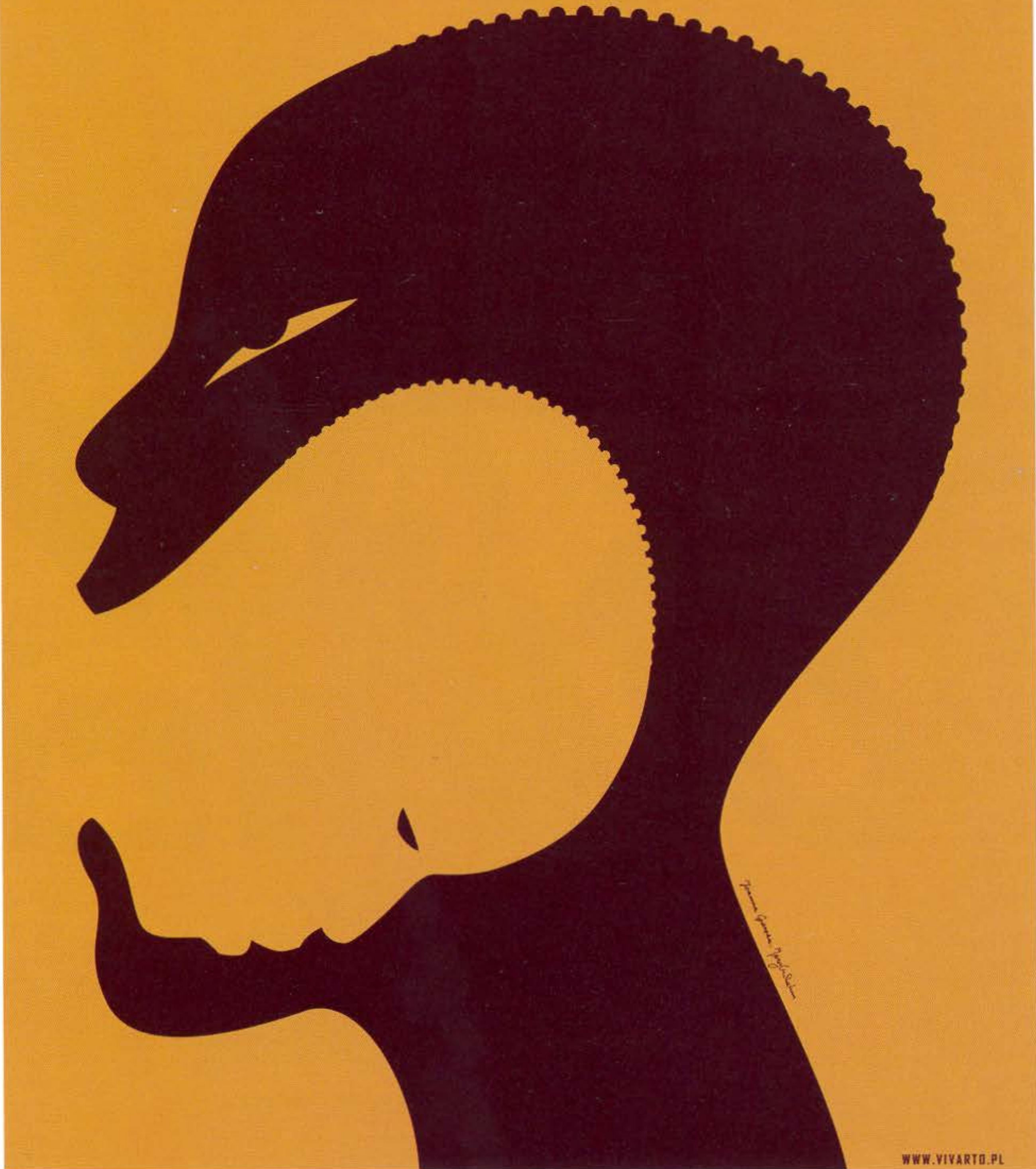
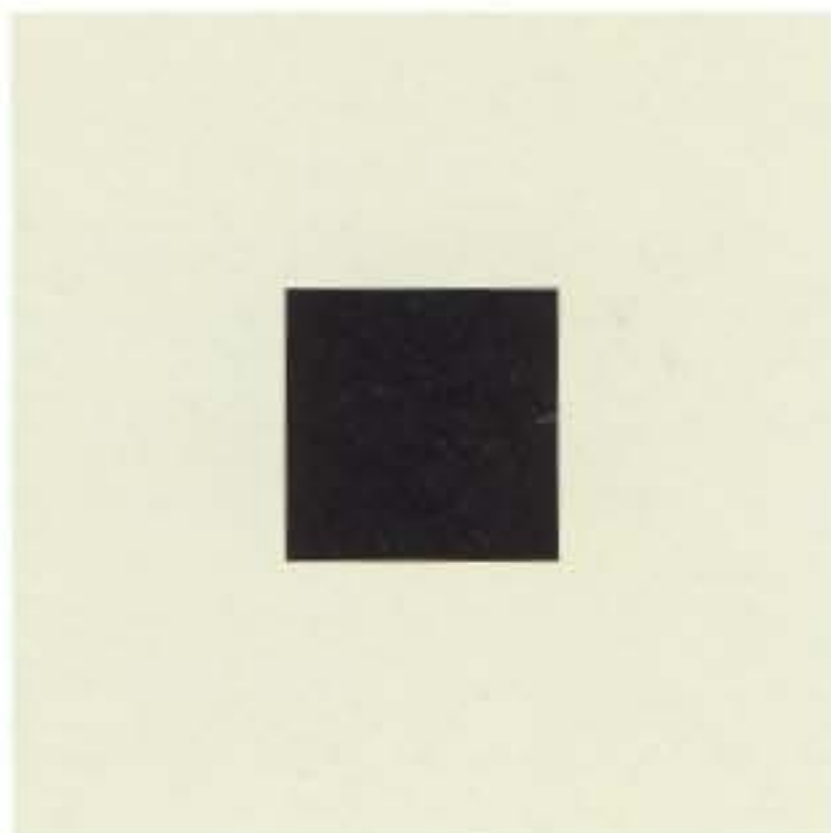
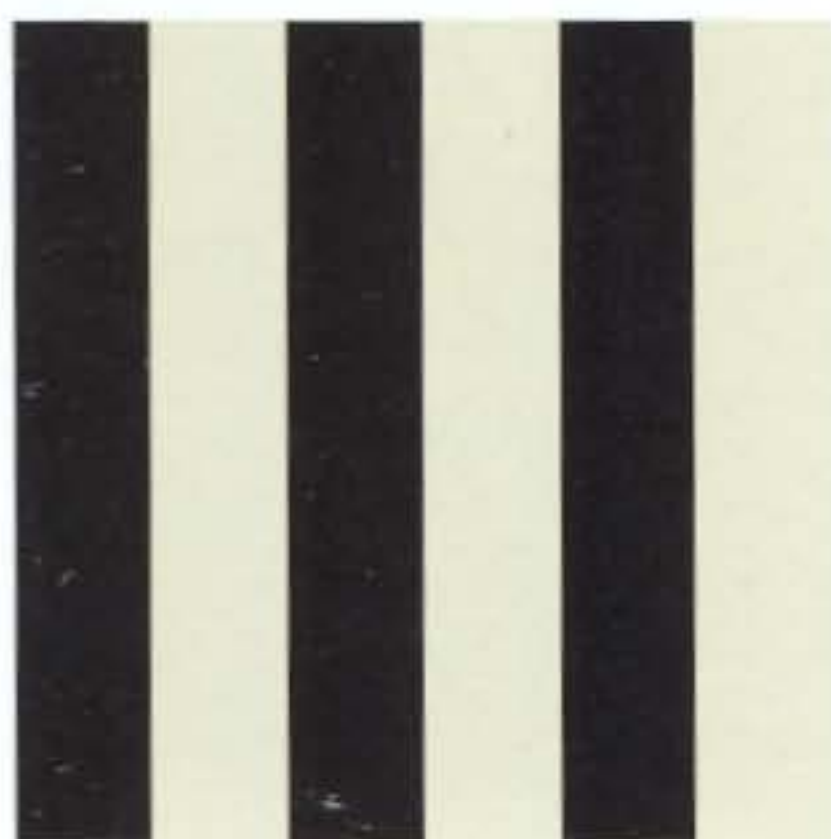


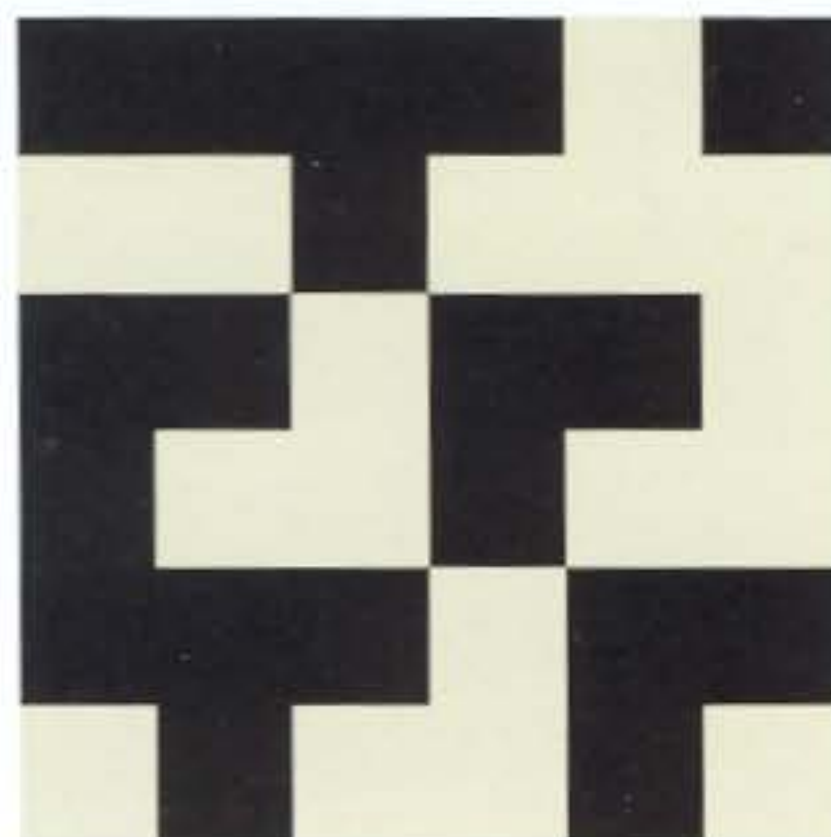
Figure Inside of Figure This poster reveals its subject at second glance. One head takes form as the void inside the other. The tension between figure and ground acquires an ominous energy. Joanna Górska and Jerzy Skakun, Homework.



Stable



Reversible



Ambiguous

Stable, Reversible, Ambiguous

A stable figure/ground relationship exists when a form or figure stands clearly apart from its background. Most photography functions according to this principle, where someone or something is featured within a setting.

Reversible figure/ground occurs when positive and negative elements attract our attention equally and alternately, coming forward, then receding, as our eye perceives one first as dominant and next as subordinate. Reversible figure ground motifs can be seen in the ceramics, weaving, and crafts of cultures around the globe.

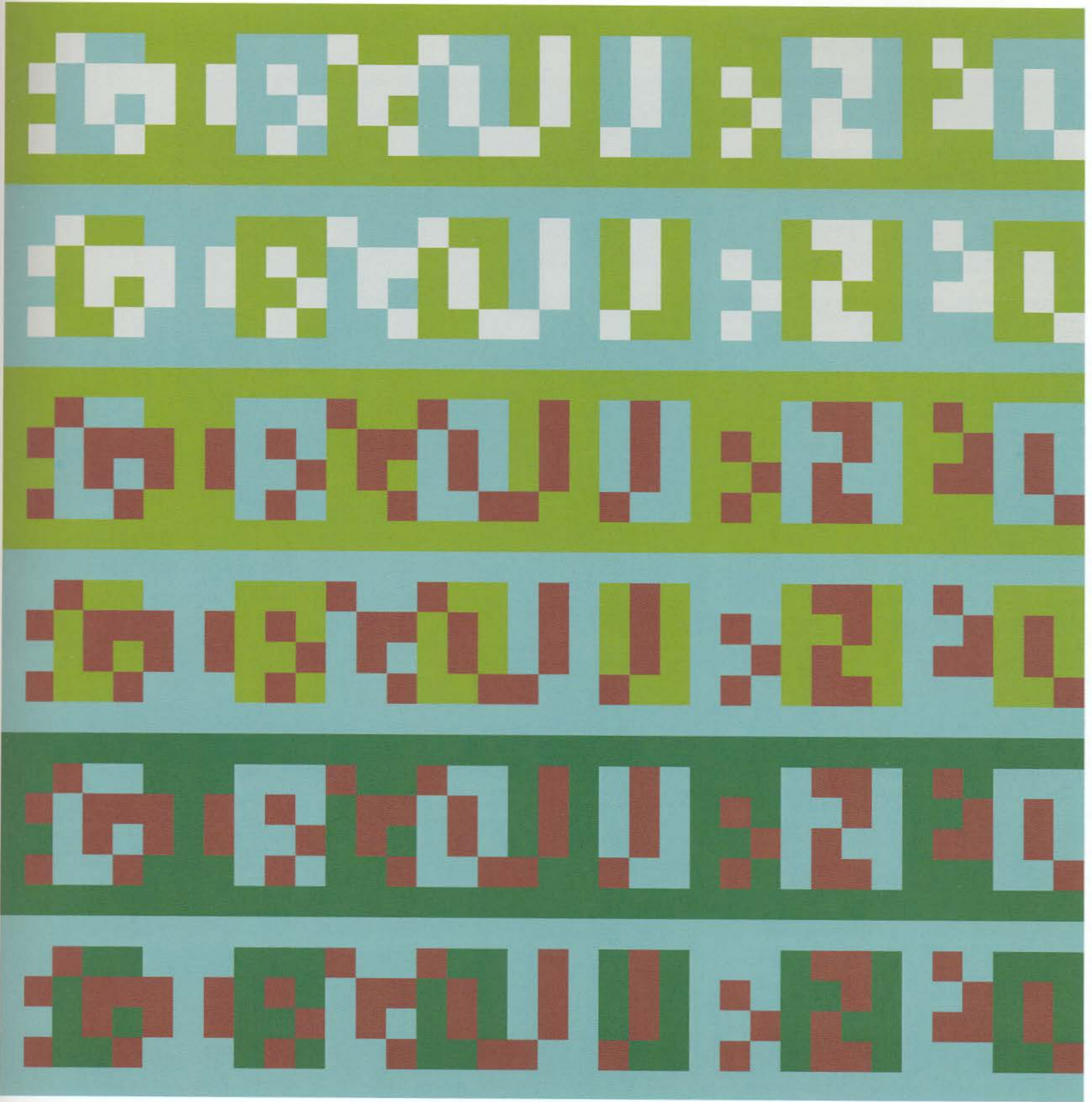
Images and compositions featuring ambiguous figure/ground challenge the viewer to find a focal point. Figure is enmeshed with ground, carrying the viewer's eye in and around the surface with no discernable assignment of dominance. The Cubist paintings of Picasso mobilize this ambiguity.

Interwoven Space

Designers, illustrators, and photographers often play with figure/ground relationships to add interest and intrigue to their work. Unlike conventional depictions where subjects are centered and framed against a background, active figure/ground conditions churn and interweave form and space, creating tension and ambiguity.



Form and Counterform Sculpture—like buildings in a landscape—displaces space, creating an active interplay between the form and void around it. Here, the distilled shapes and taut tension pay homage to Henry Moore, with whom this artist studied in the 1930s. Reuben Kramer, 1937. Photographed by Dan Meyers.



Inspired by Jesus The designer has interwoven the words "figure" and "ground" across each horizontal band. One word serves as the background or frame for the other, forcing the eye to shuttle between two conflicting readings. This complex study was inspired by the needlework at left. Jeremy Botts, MFA Studio.