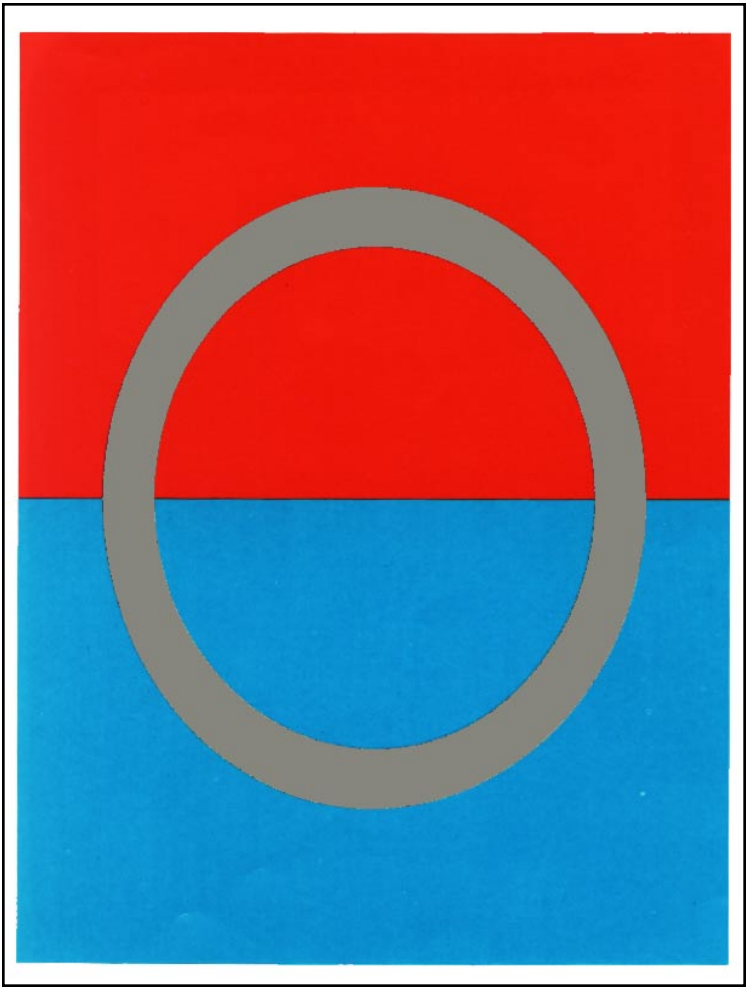
What the Color-Blind See

Most color-blind people confuse the colors red and green. To them they look like nearly identical grays, as shown on the right half of the demonstration.

Simultaneous Contrast

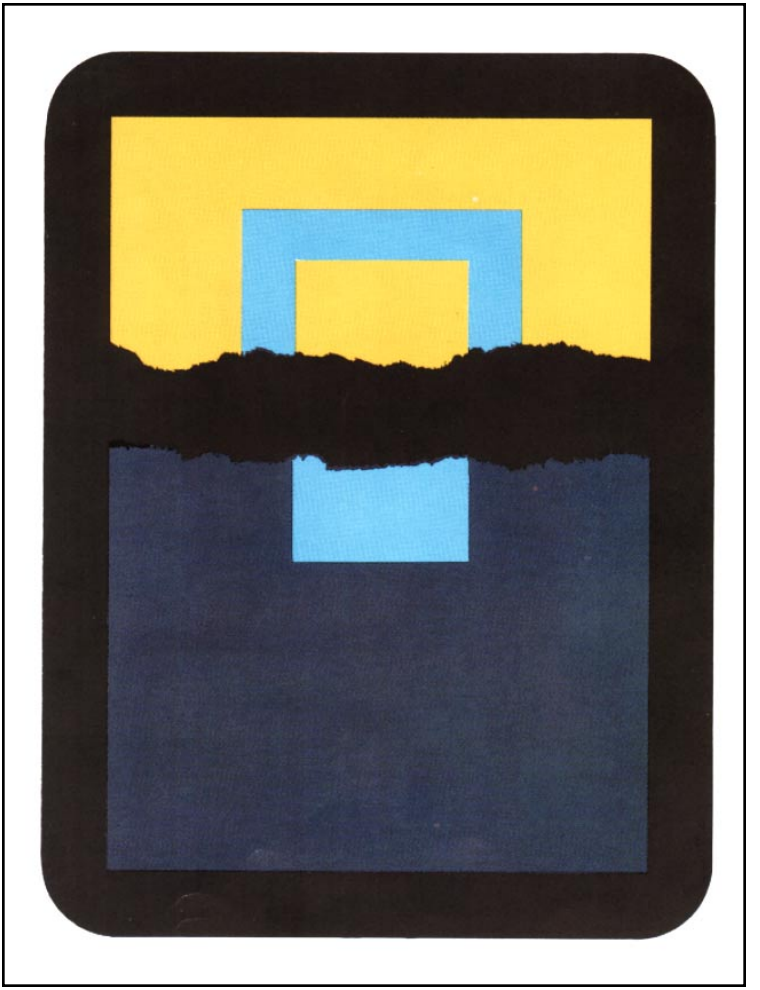
Background colors affect foreground colors in many unexpected ways. Both arrows are the same shade of gray. Note the difference in hue and lightness because they are on different background colors.

Simultaneous Contrast



Although this is a continuous ring of the same color gray, you can change its color by placing your finger or a pencil along the line separating the red and blue.

Simultaneous Contrast

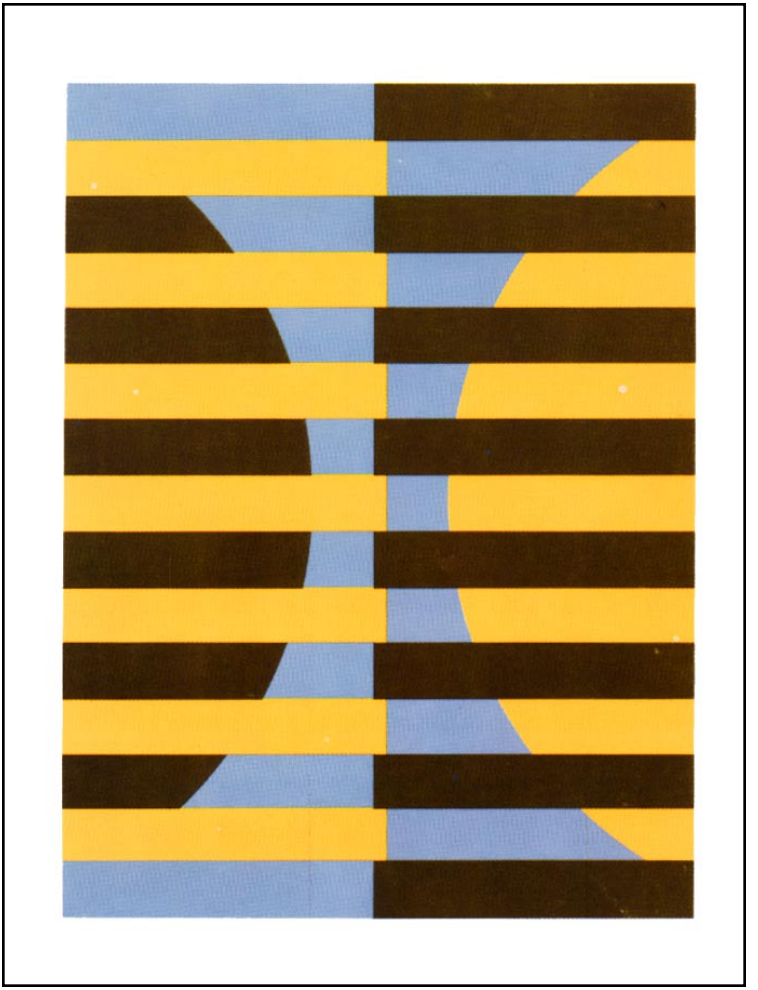


The two light blue colors in the demonstration appear different but are actually printed with the same color ink.

Simultaneous Contrast

All of the “leaves” in the demonstration appear to be about the same color gray. Actually, the leaves on the yellow panel match the light gray side of the flower pot. The leaves on the maroon panel match the dark gray side of the flower pot.

Contrast Stripe Effect

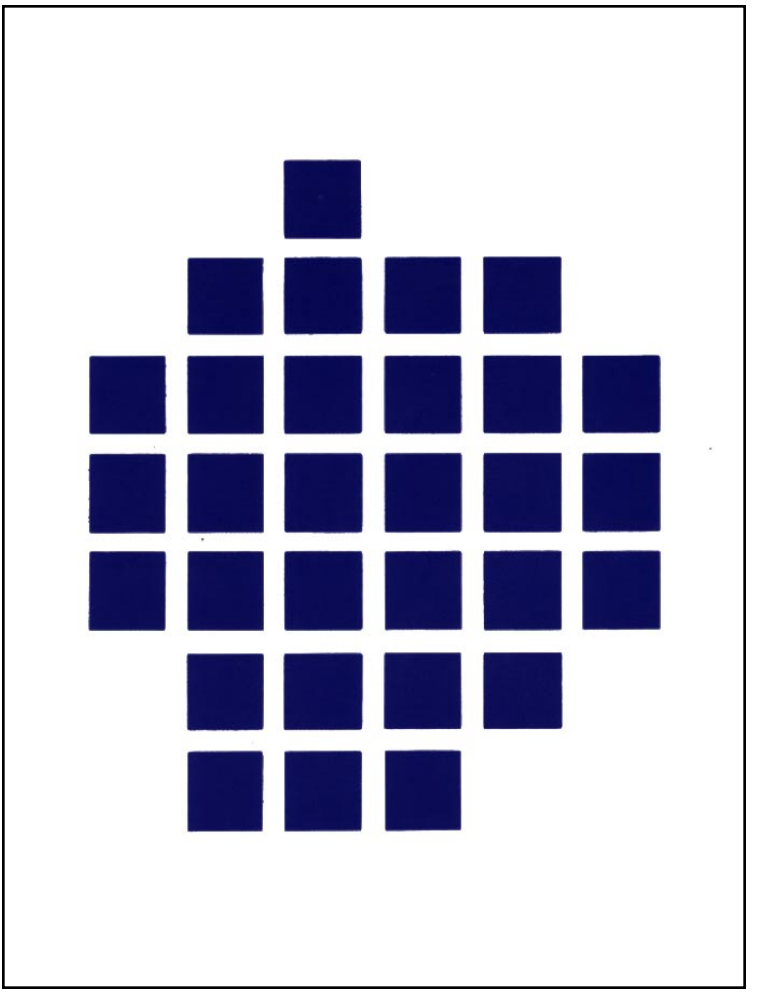


Colors on a non-uniform background are subject to many unexpected changes. The blue areas in the pattern are printed with exactly the same color ink. Not how different they look. To observe heightened effects tilt the design or look at it from a distance.

Vibration

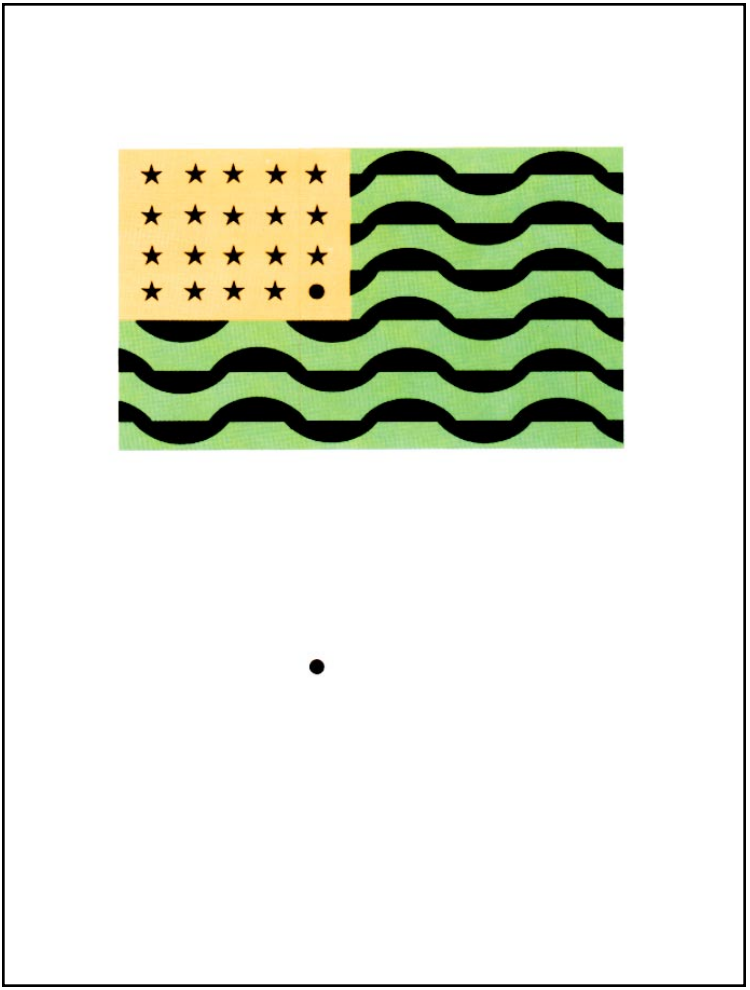
Look steadily at the demonstration. Complementary colors of equal lightness and high saturation have a tendency to make each other appear more brilliant. To some this is a visually disturbing effect.

Spots Before Your Eyes



Flickering gray spots appear as you glance at the checkered pattern. Look at one particular gray spot and it disappears. Keep staring to see other effects.

Negative Afterimage

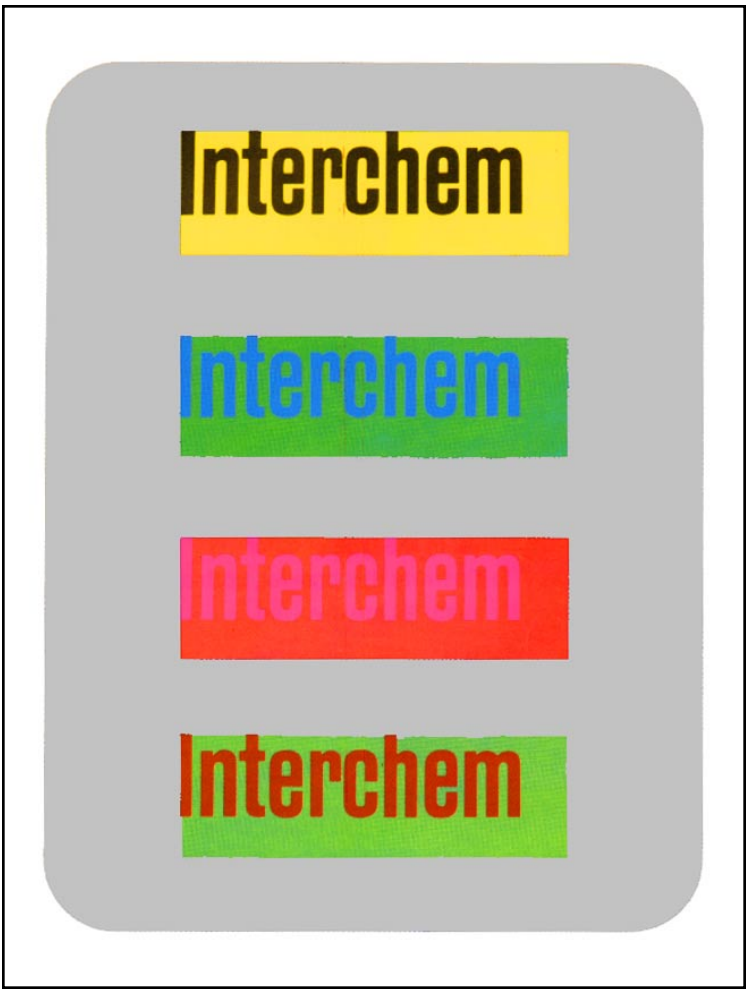


Stare at the black dot in the flag for half a minute. Then look at the black dot below it and the US flag will appear. Prolonged staring at the green, black and yellow reduces the sensitivity of the eye. This results in the appearance of the complementary colors!

Advancing and Receding Colors

The red wall at the end of the hall seems closer than the blue wall. Red is an advancing color and blue is a receding color.

Legibility



Two of the examples have good legibility. The others are hard to read at a distance or in dim light. Differences in hue or saturation are not as important in achieving good legibility as the difference in lightness between the letters and the background.