



CREATIVE MEDIA **FUNDAMENTALS**

VISUAL PERCEPTION IN PHOTOGRAPHY



CMF007

VISUAL PERCEPTIONS

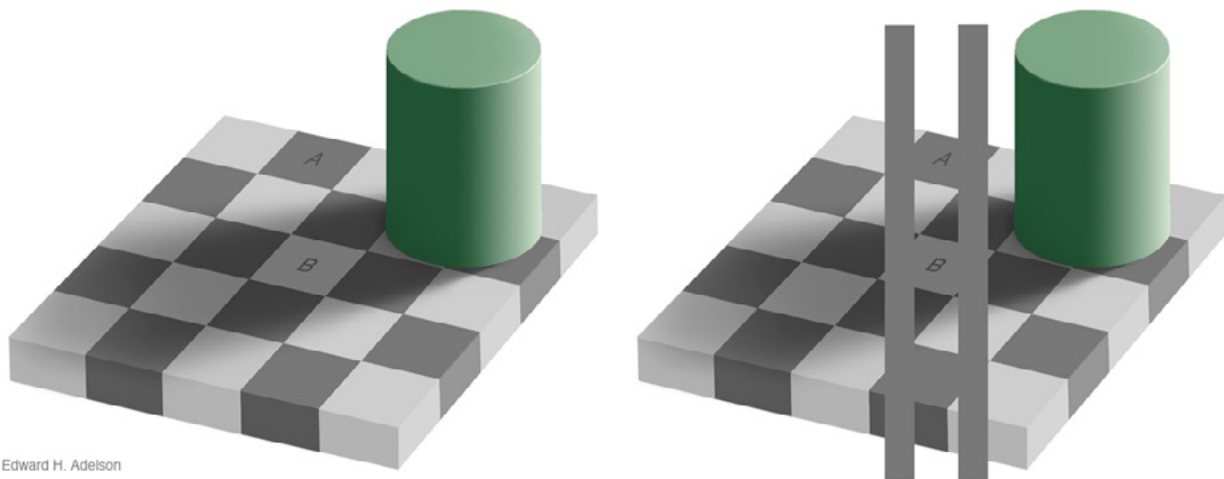
VISUAL ILLUSIONS

The human eye is an incredible and complex organ that allows us to see the world around us. However, it is not a perfect device and can be easily fooled in various ways. Understanding visual principles can improve our photos.



MATCHING GRAY SQUARES

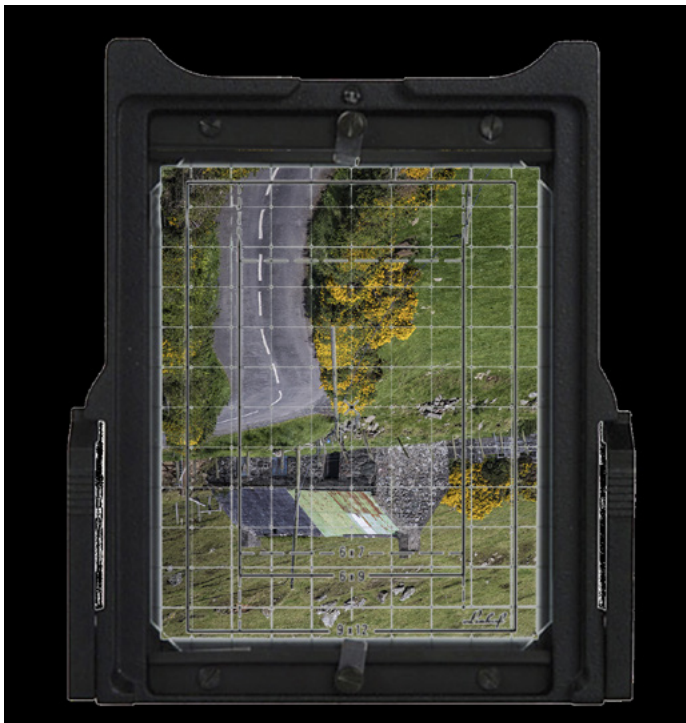
The checker shadow illusion is an optical illusion published by Edward H. Adelson, professor of vision science at MIT in 1995. You can stare at this checkerboard all day and swear that square “A” is a darker tone than square “B”, but in reality, they are both the same exact tone of gray. This is because square A is surrounded by light tones and B is surrounded by dark tones. That’s all that is needed to fool our eyes.



Edward H. Adelson

UPSIDE DOWN STAIRCASE

This staircase in Portugal is upside down. This is a perceptual constancy illusion, which occurs when our brain adjusts our perception to maintain a stable understanding of objects despite changes in viewing conditions. We perceive and understand that light is usually above and shadows below, which is why the upside down image of the stairs looks correct to our eyes.



NEW VIEW ON COMPOSITION

Looking at scenes upside down, as old time photographers did while looking at their old view camera viewing ground glass, lets us see our scenes differently and can help in composition.

GESTALT THEORY

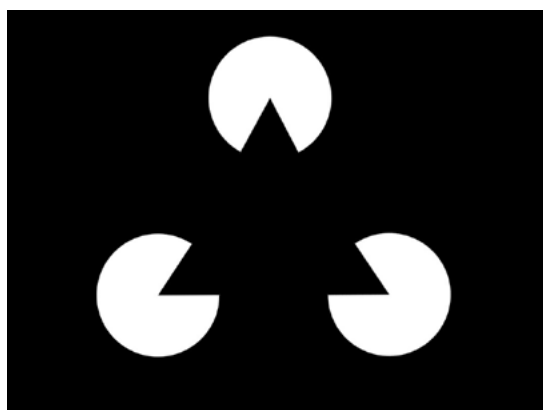
The Gestalt theory, which is typically pronounced as “guh-shtahlT”, is a psychological framework that focuses on how WE visually perceive, organize, and understand the world around us. It emphasizes how we perceive and interpret visual stimuli as organized wholes rather than individual parts, highlighting the importance of context, grouping, and the mind’s tendency to fill in missing information.

Some of the principles of Gestalt theory:

- Figure/ground
- Familiarity
- Closure
- Similarity
- Proximity
- Continuation

FIGURE/GROUND

Do you see a triangle or three Ms PacMan figures lined up?



FEDEX LOGO

The arrow in the FedEx logo is an example of figure/ground



CLOSURE PRINCIPLE

When we look at a complex arrangement of visual elements, we tend to look for a single, recognizable pattern. When you see an image that has missing parts, your brain will fill in the blanks and make a complete image so you can still recognize the pattern.



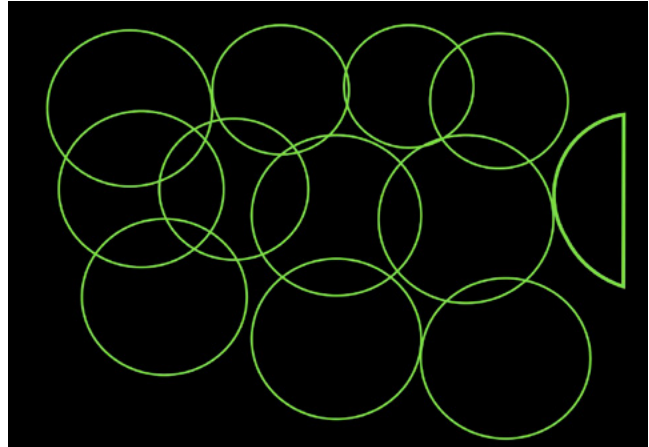
SIMILARITY PRINCIPLE

Instead of collecting pieces to put together, similarity can create visual cohesion within a photograph. Placing related objects or subjects close to each other or incorporating similar visual attributes can establish a sense of unity and connection within the image. This can be achieved through elements such as color, shape, texture, or size, but they do not have to be duplicates.



PROXIMITY PRINCIPLE

The proximity principle is the idea that placing similar design elements close together produces a more effective visual design. Incorporating similar visual attributes can establish a sense of unity and connection within the image.



FAMILIARITY PRINCIPLE

Familiarity when we see everyday objects as “Anthropomorphic” meaning we see faces in rocks and clouds, as we attribute human and other characteristics to inanimate things.



CONTINUATION PRINCIPLE

Our eyes follow a continuous path of lines, curves, or intersections until it encounters another path or intersection.



LESS IS MORE

Less is more in photos because it adds focus and clarity. When a photograph contains fewer elements, the viewer's attention is naturally drawn to the main subject or focal point. By eliminating distractions, the subject becomes more prominent and easier to understand. This enhances the clarity and impact of the image.

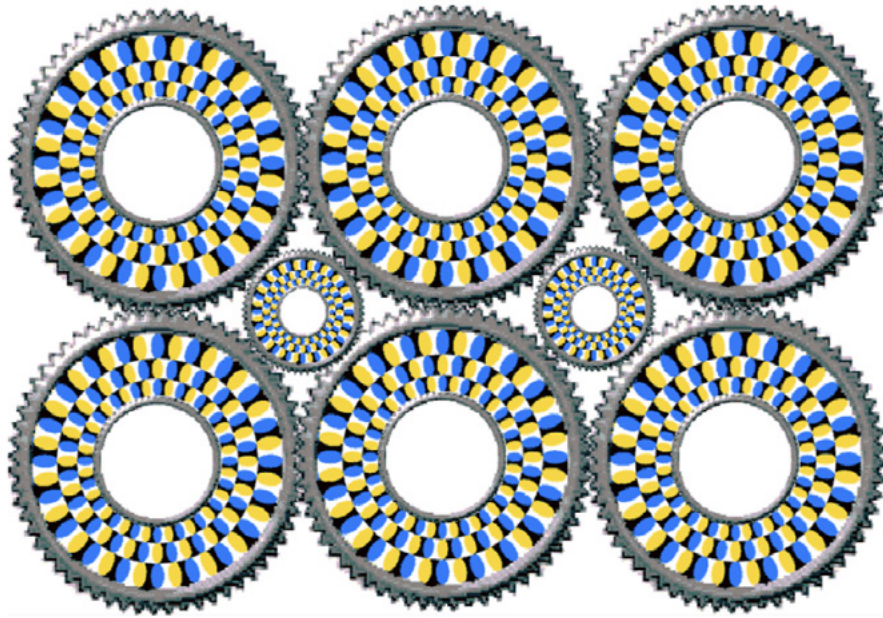




THE WHOLE IS GREATER THAN THE SUM OF THE PARTS

When we look at a tree, we don't think about the leaves, the branches, the bark and the trunk separately, as individual pieces. We look and see the entire tree as a whole.

In the town photo, it's not about the individual buildings, but rather it's all together as a town.



COLOR PERCEPTIONS

Opposite colors, yellow and blue in this wheel illusion, vibrate to make it appear the wheels are moving. They move in your peripheral vision. Looking directly at any one and it stops. This illusion may not work as well small as it does larger.



Other examples of contrasting colors to add impact in the photos. They would not look as powerful as black and white photos.



COLOR IS SUBJECTIVE

Different people react to color differently as there is rarely a “correct” color. In the US, people living on the East Coast tend to like warmer tones in photos, while people on the West Coast like cooler tones.

In the examples of the Tokyo at night in the photos below, which is the “correct” color? The answer is the one you like best is the correct color.



PERCEPTION OF SIZE

We have no perception of size in photos unless we have something to compare so we can see the real scale. In the example on the right, the two orange balls are the same size. The illusion is caused by what they are next to, just like the first illusion with the gray checkerboard.

Without the tourists in the photo at right, we wouldn't know how monumental this monument really is.

