

PERCEPTION

by Yolanda Sánchez

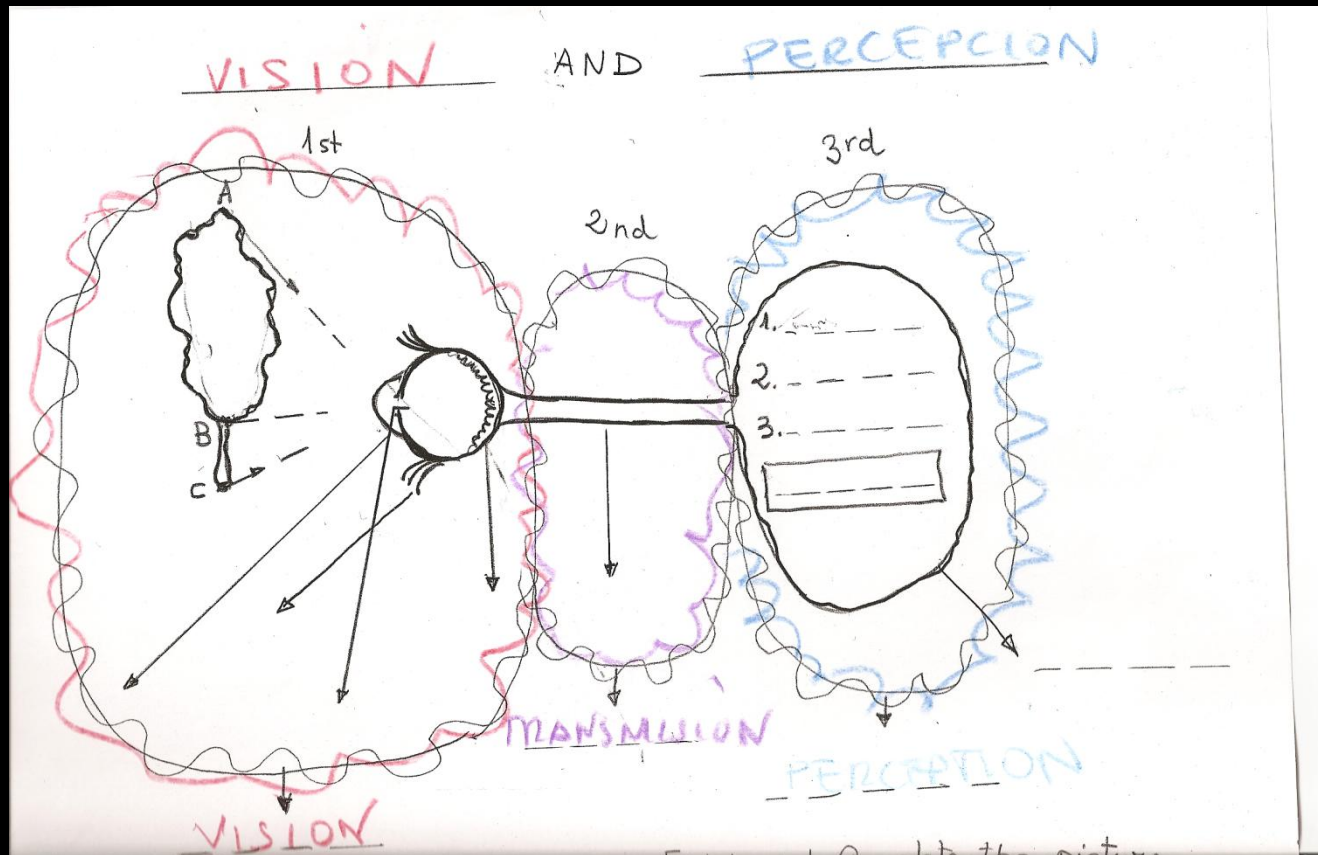
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1-VISION/PERCEPTION

- **Perception, the process by means of which the conscience integrates the sensorial stimulation objects, facts or situations and it transforms them in useful experience. It happens in the brain.**
- **It's a sensitive process that happens in the eye.**

2. VISION AND PERCEPTION PROCESS



Eye process and organs ...

- The **cornea** is a transparent structure found in the very front of the eye that helps to focus incoming light. Just behind the cornea there is a colored circular-shaped membrane called the iris.
- The **iris** has an adjustable opening called the **pupil**, which can expand or contract to control the amount of light coming through the eye. Your iris will enlarge in dim light, and contract in bright light to adjust for proper light to see.....

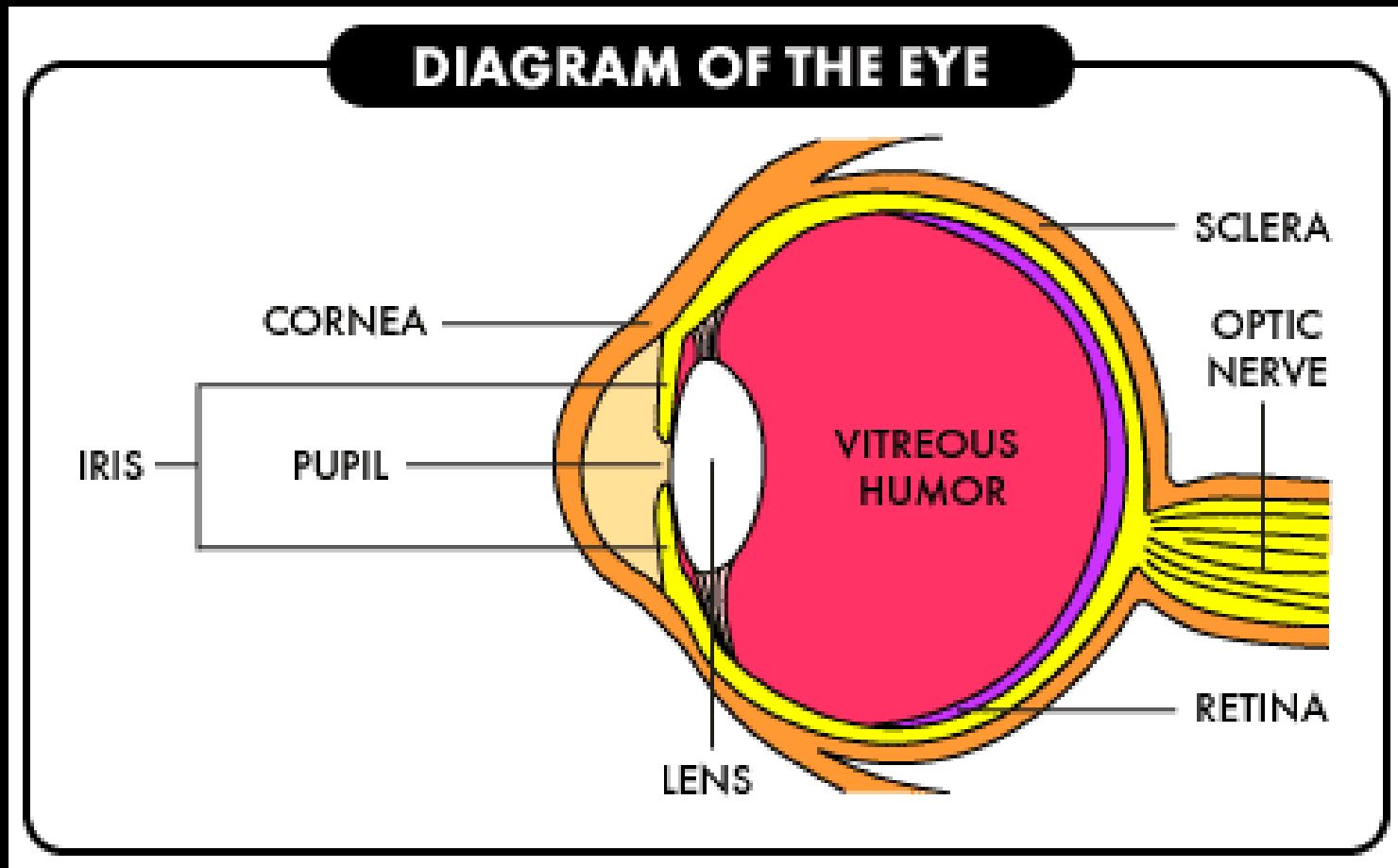
Eye process and transmission

...

- Light enters your eye through the lens and travels through the inside of your eye which is filled with a tissue called the **vitreous humor** and eventually hits a layer of cells called the **retina**.
- The **retina** is the innermost of three tissue layers that make up the eye and consists of millions of sensitive cells called **rods and cones**.
- When light hits the rods and cones, it's changed into a signal that is sent to the **brain** through the **optic nerve**.
- The **brain** then converts these signals into the images that we see.

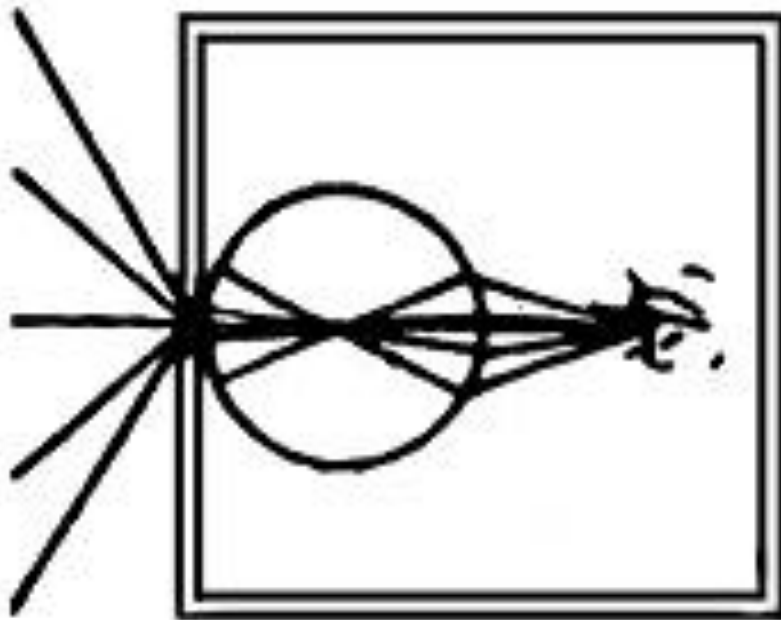
Vision Process

YouTube - How Light Enters the Eye



Vision Focus

[YouTube - The Human Eye](#)



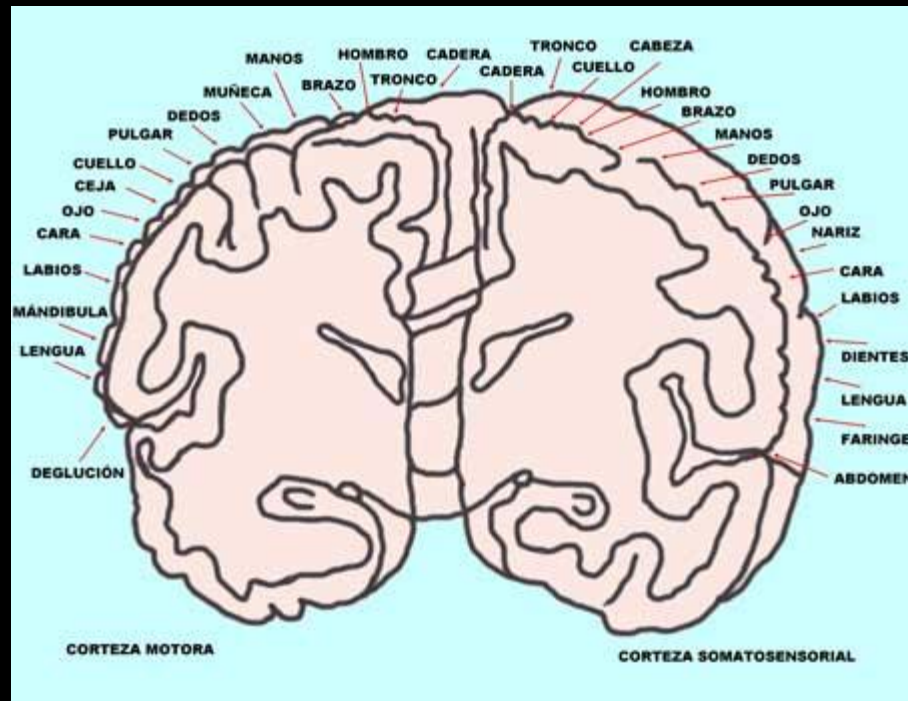
CHArt

Computers and the History of Art

VISION = CAMARA
PERCEPTION = BRAIN



OUR BRAIN ORGANIZES THE INFORMATION...



Explain The Problem

- **VISION:** The camera and the eye have the same function; they perceive the image and they project the image. The eye in the retina and the camera in the film.
- **PERCEPTION:** The brain and the computer do the same thing; they analyse, organise, complete, look for resemblance and finally name an image.

HAVE A TRY!!!!!!

Intenta decir el color de cada palabra, no la palabra sino el color con el que está escrita

AZUL ROJO VERDE
ROJO AMARILLO
NEGRO AZUL VERDE
AMARILLO ROJO
VERDE AZUL

Tu parte derecha del cerebro quiere decir el color pero tu parte izquierda insiste en leer la palabra.

3. PERCEPTION LAWS

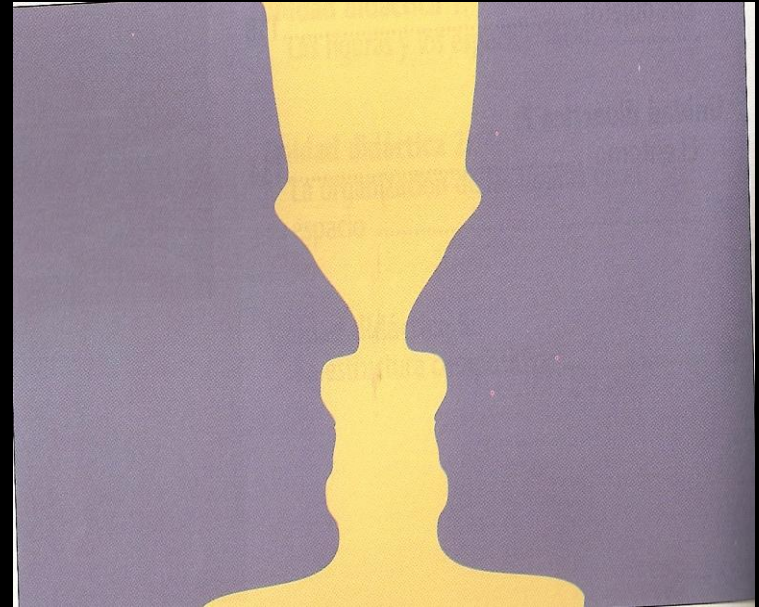
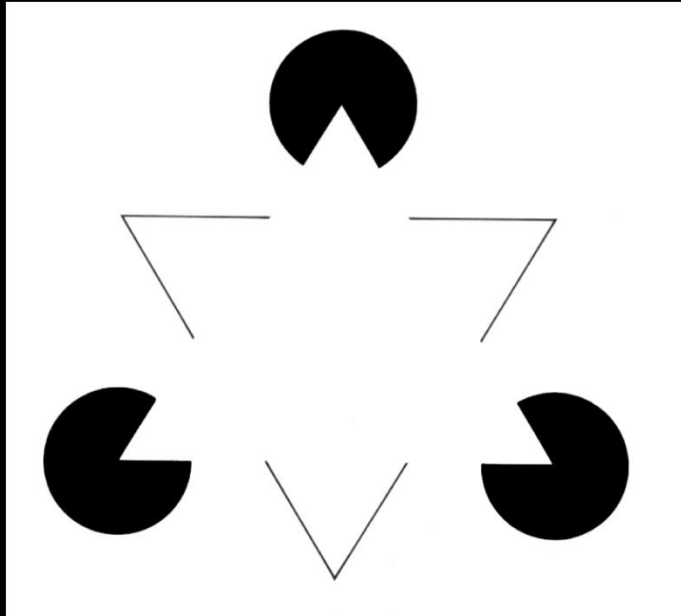
(also called GESTALT LAWS)

- The Gestalt laws are the summary of the research done by scientifics to try to know why and what the brain prefers to perceive.
- The eye sees everything; the brain organizes the information step by step and always with the same order.

3. PERCEPTION LAWS

- The brain has sequential reading of information.
- The brain prefers perfect shapes (the simplest shapes, and perfect geometric shapes)
- The brain prefers well-known shapes.

Explain these two pictures:

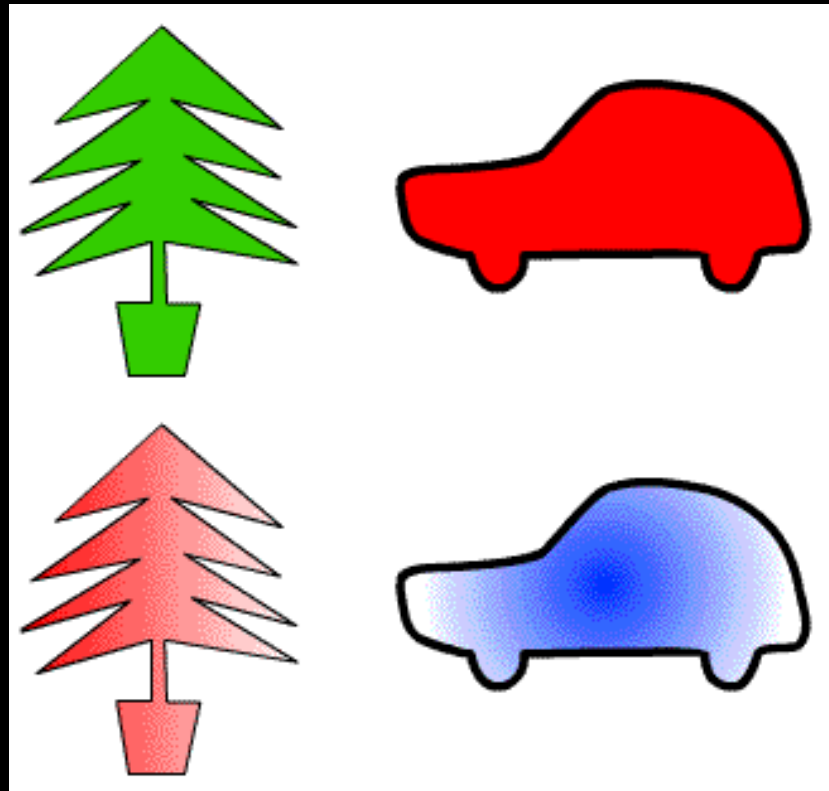


Good Shapes

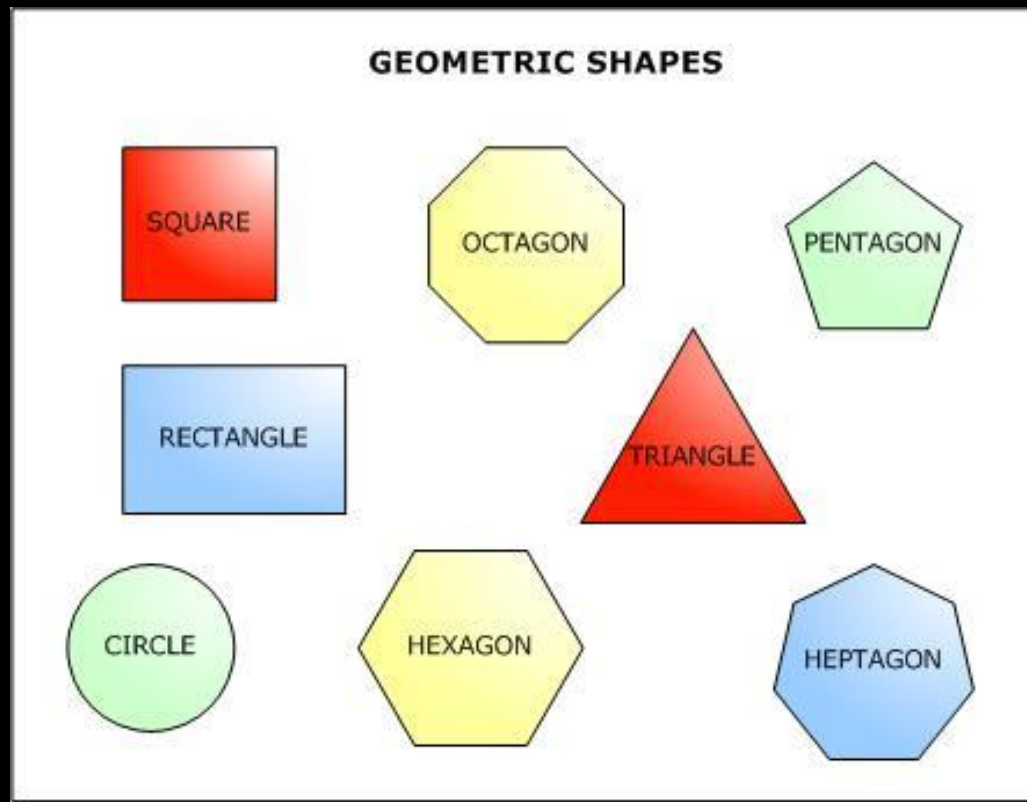
- **The shape of an object located in some space refers to the part of space occupied by the object as determined by its external boundary.**

More information in Shape - Wikipedia, the free encyclopedia

Examples of simple shapes



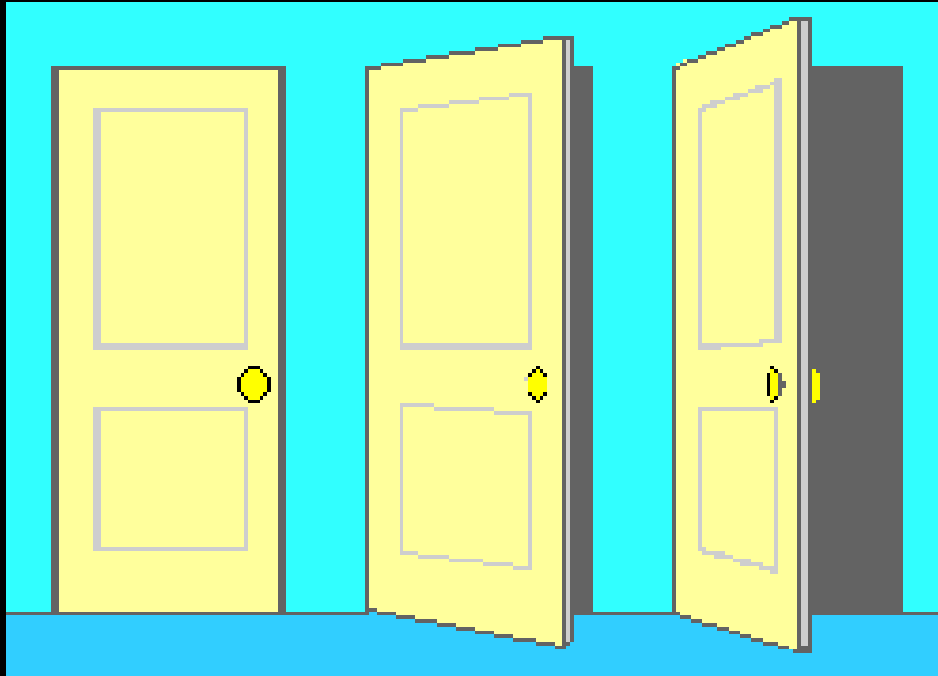
Examples of geometric shapes



4- PERCEPTION CONSTANCIES

- **This phenomenon of your perceiving the "real" shapes, shades, colours or sizes of objects regardless of their retinal projections is called constancy.**
- **More information in Shape Constancy**

Shapes Constancy



This is an example of shape constancy

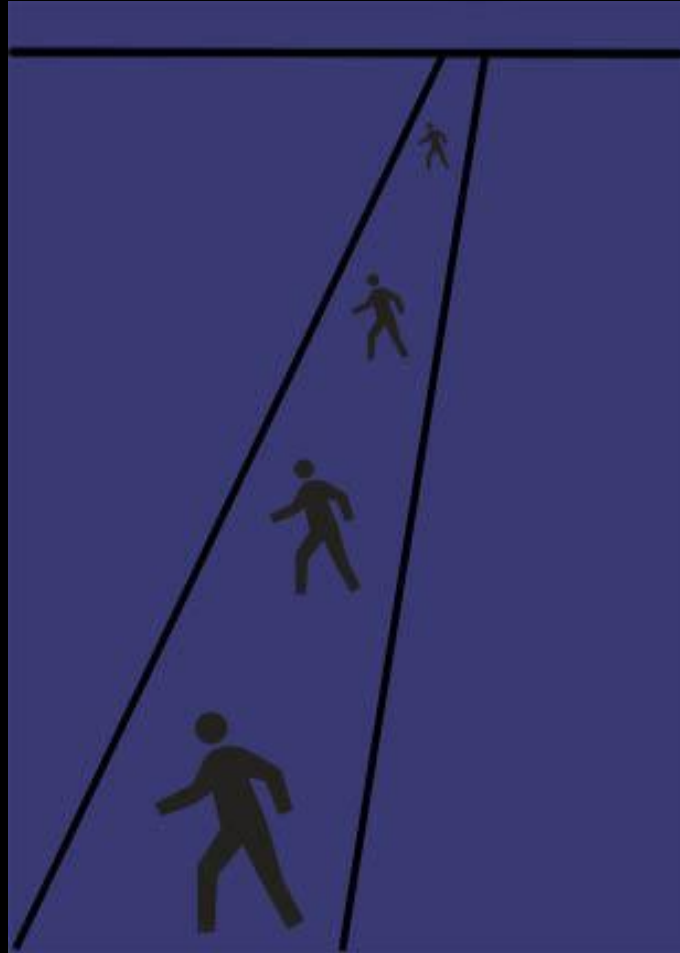
**More examples in shapes constancy -
Busqueda Google de imágenes**

Perception Constancies

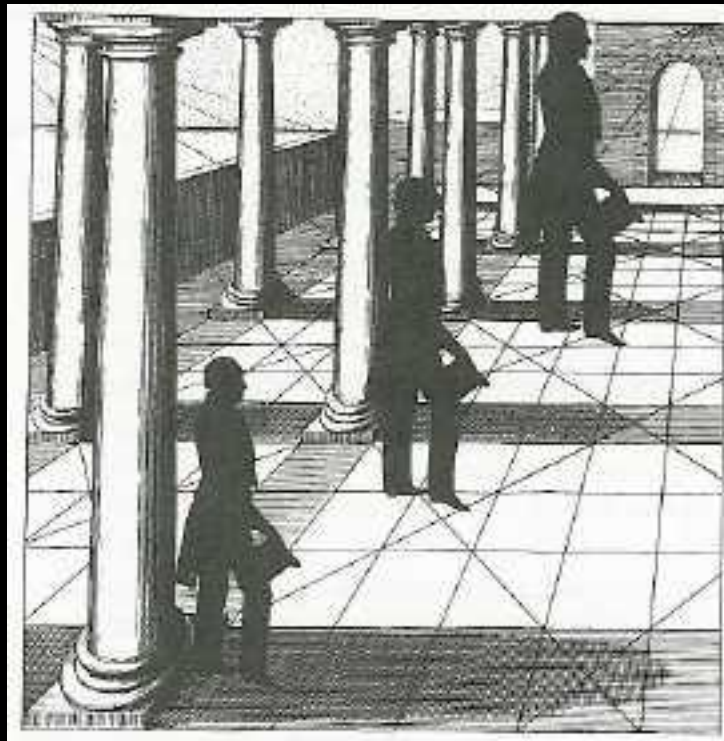
- **Size constancy:** Size constancy refers to the fact that our perception of the size of objects is relatively constant despite the fact that the size of objects on the retina varies greatly with distance.

More information in [Size Constancy](#)

Same Sizes?



More examples of size constancy



Perception Constancies

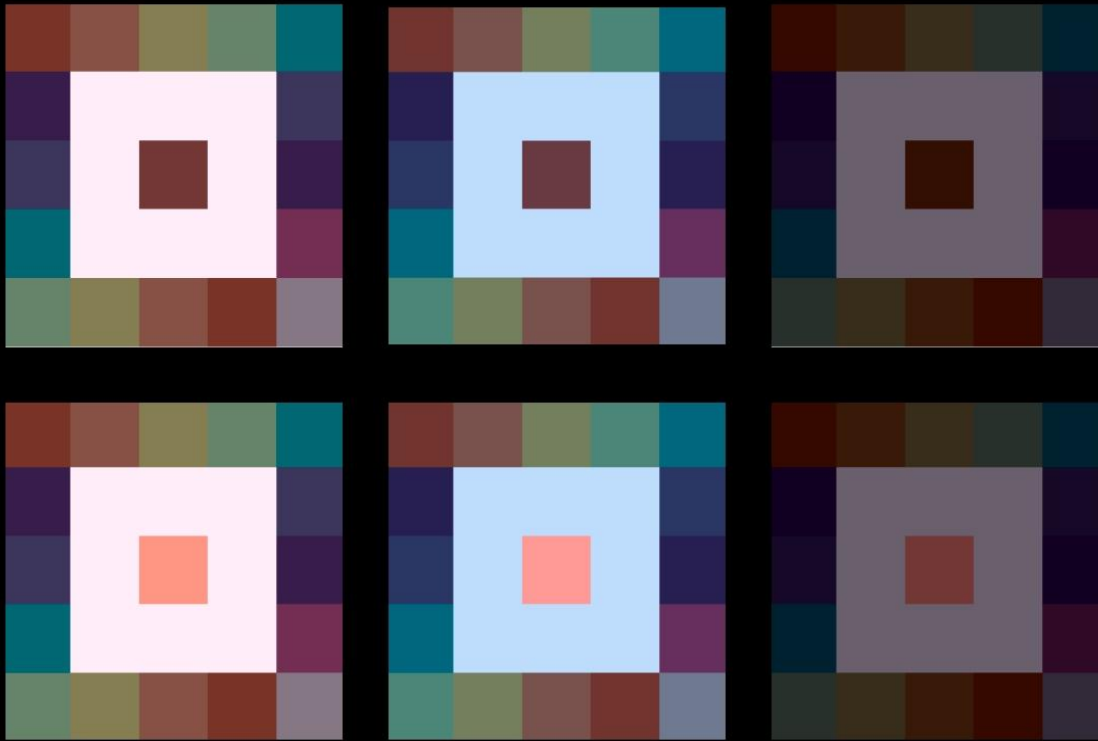
- **Colour constancy:** Color constancy is a feature of the human color perception system which ensures that the perceived color of objects remains relatively constant under varying illumination conditions.

More information in [Color constancy - Wikipedia, the free encyclopedia](#)

Same Colours?



More examples of colour constancy



5-OPTICAL ILLUSIONS

YouTube - BEST OPTICAL ILLUSIONS IN THE WORLD!
- 50 Movement Illusions

- **The impossible images are optic illusions or illusions that deceive the eyes and confuse our perception.**
- **They don't have their origin in an error or lack of vision, neither in a psychic suggestion, but rather they depend on the light, on the visual angle or on the way the drawing has been carried out.**

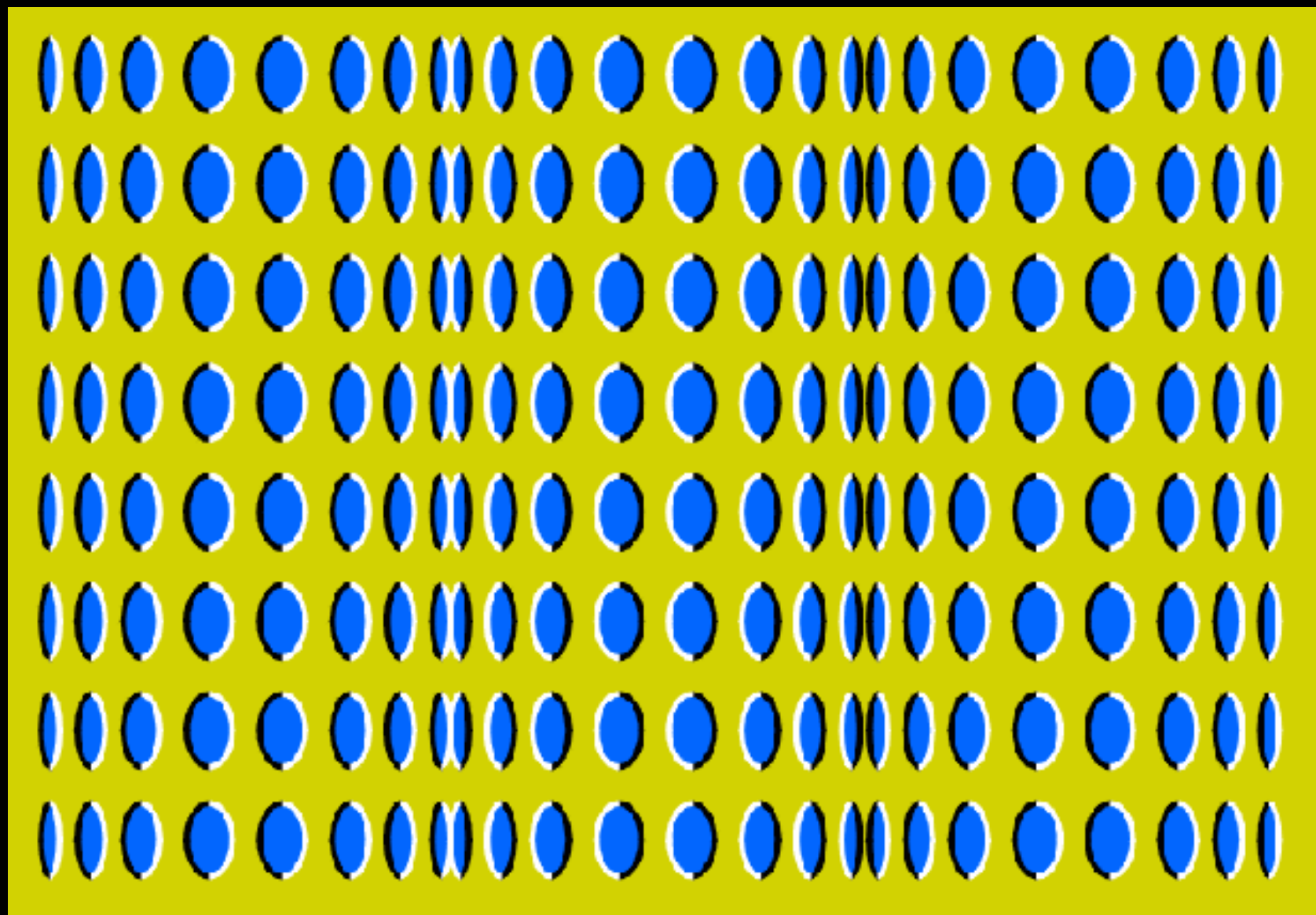
KINETIC ILLUSIONS

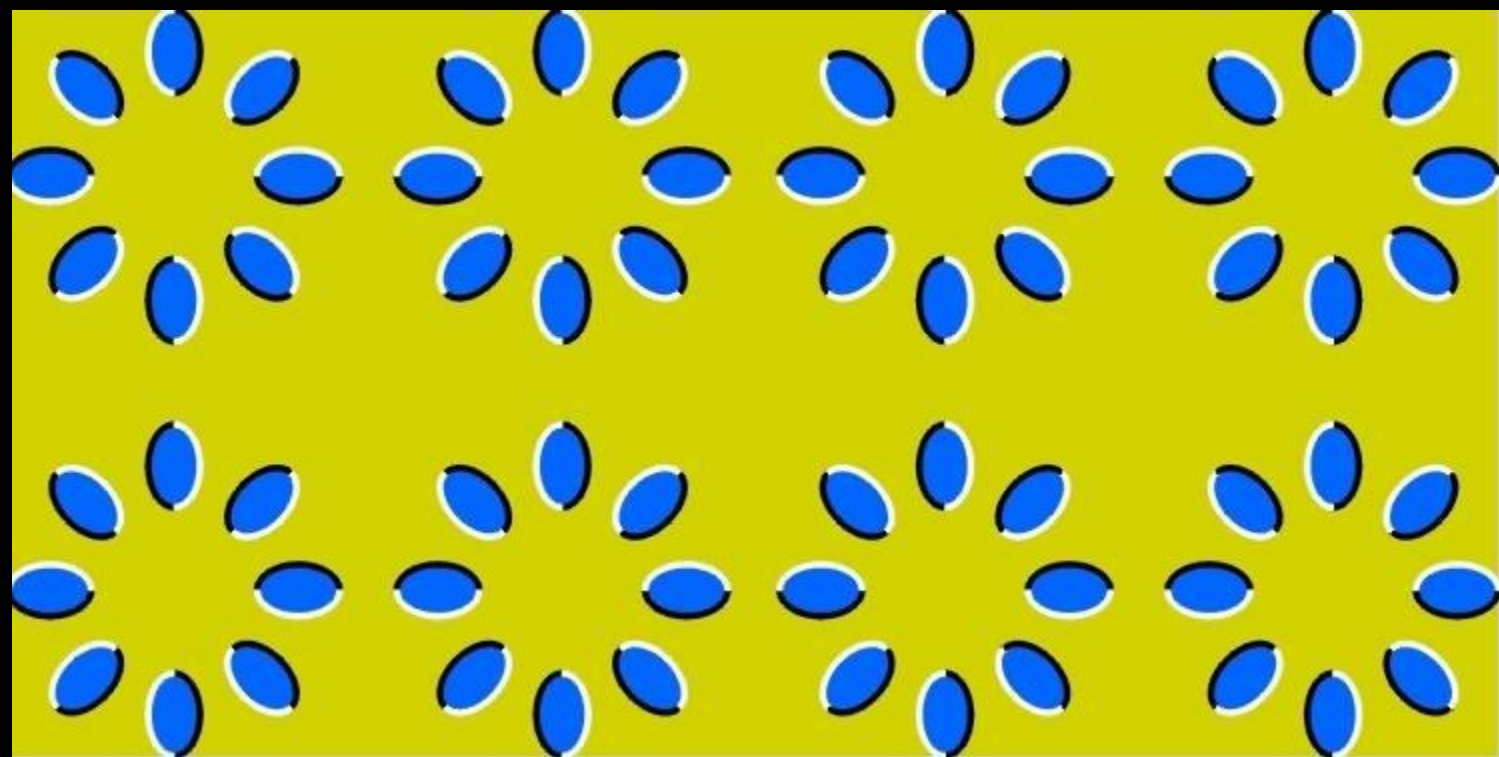
There are optical illusions that try to create movement sensation.

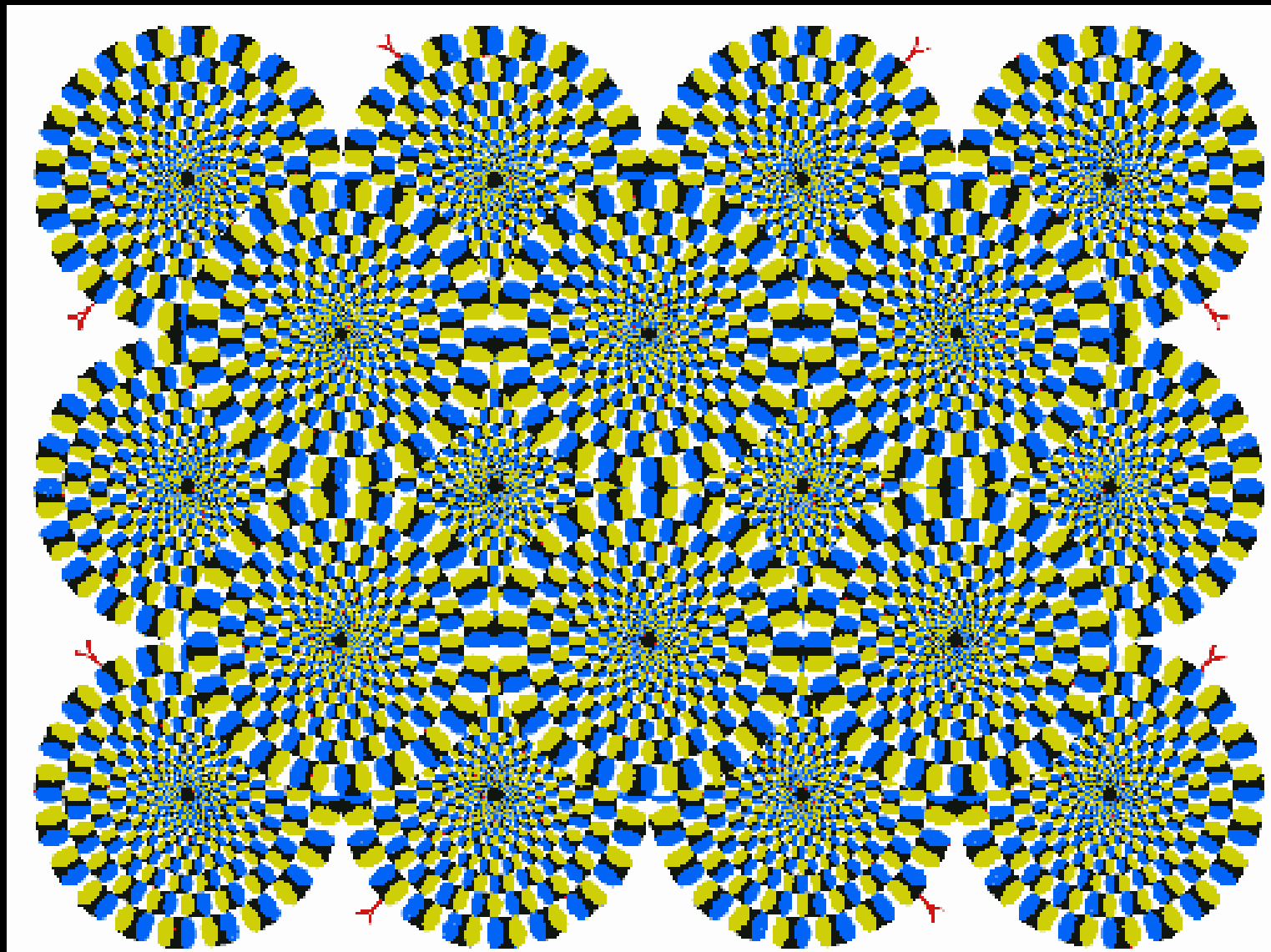
This is done through the use of colors to produce contrast in the eye and using shadows to direct the view toward one direction.

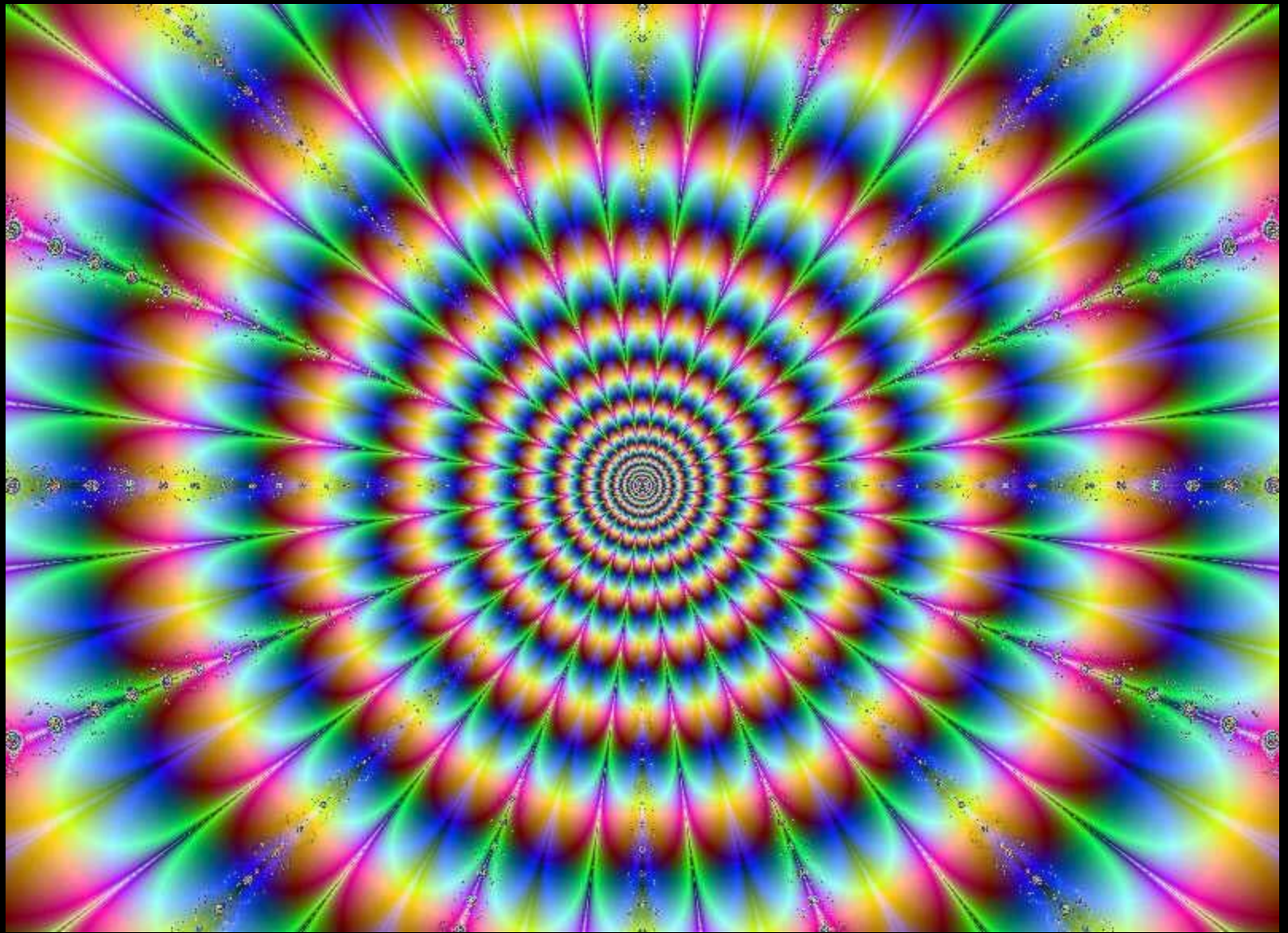
Is It Moving?

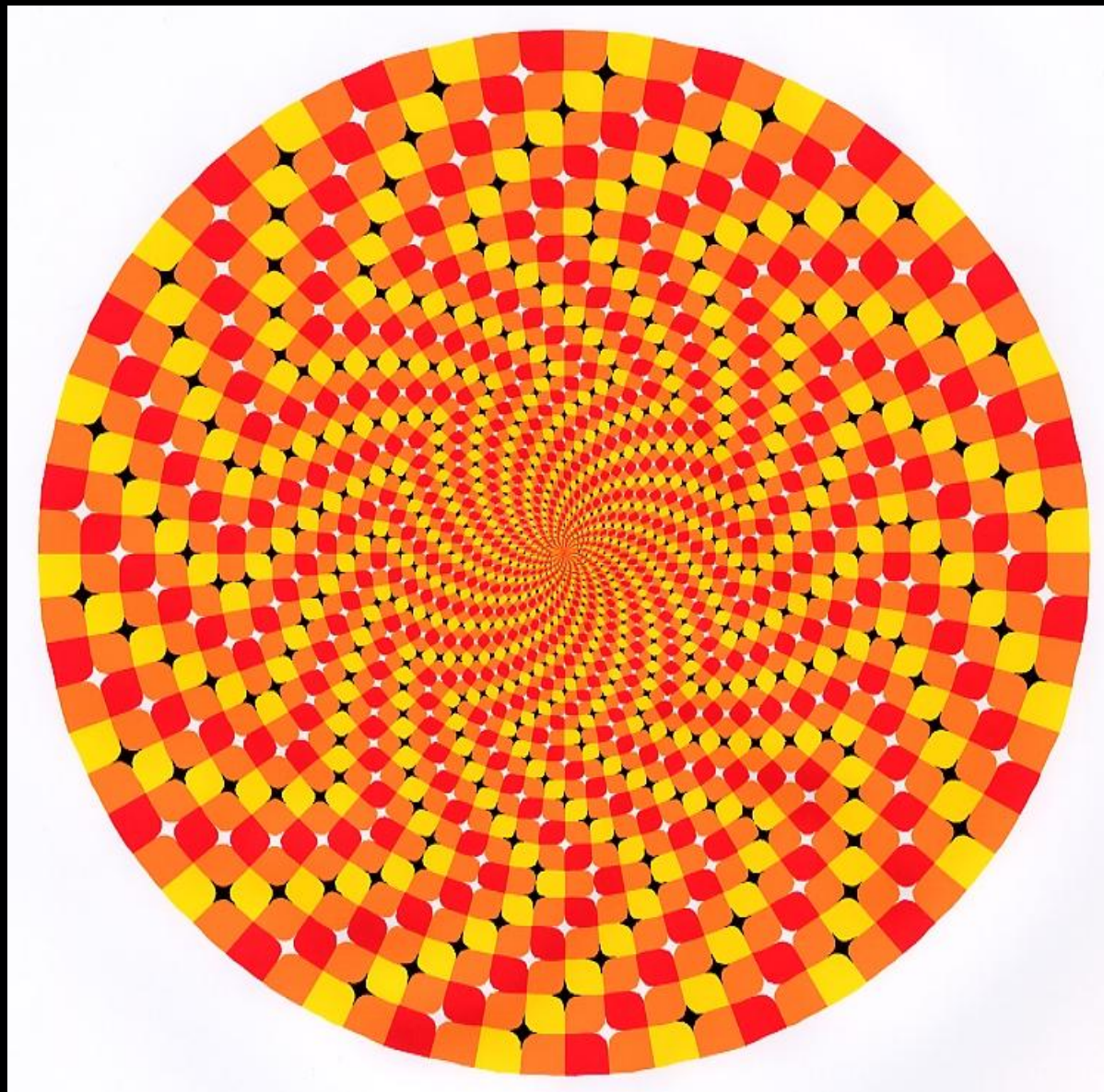


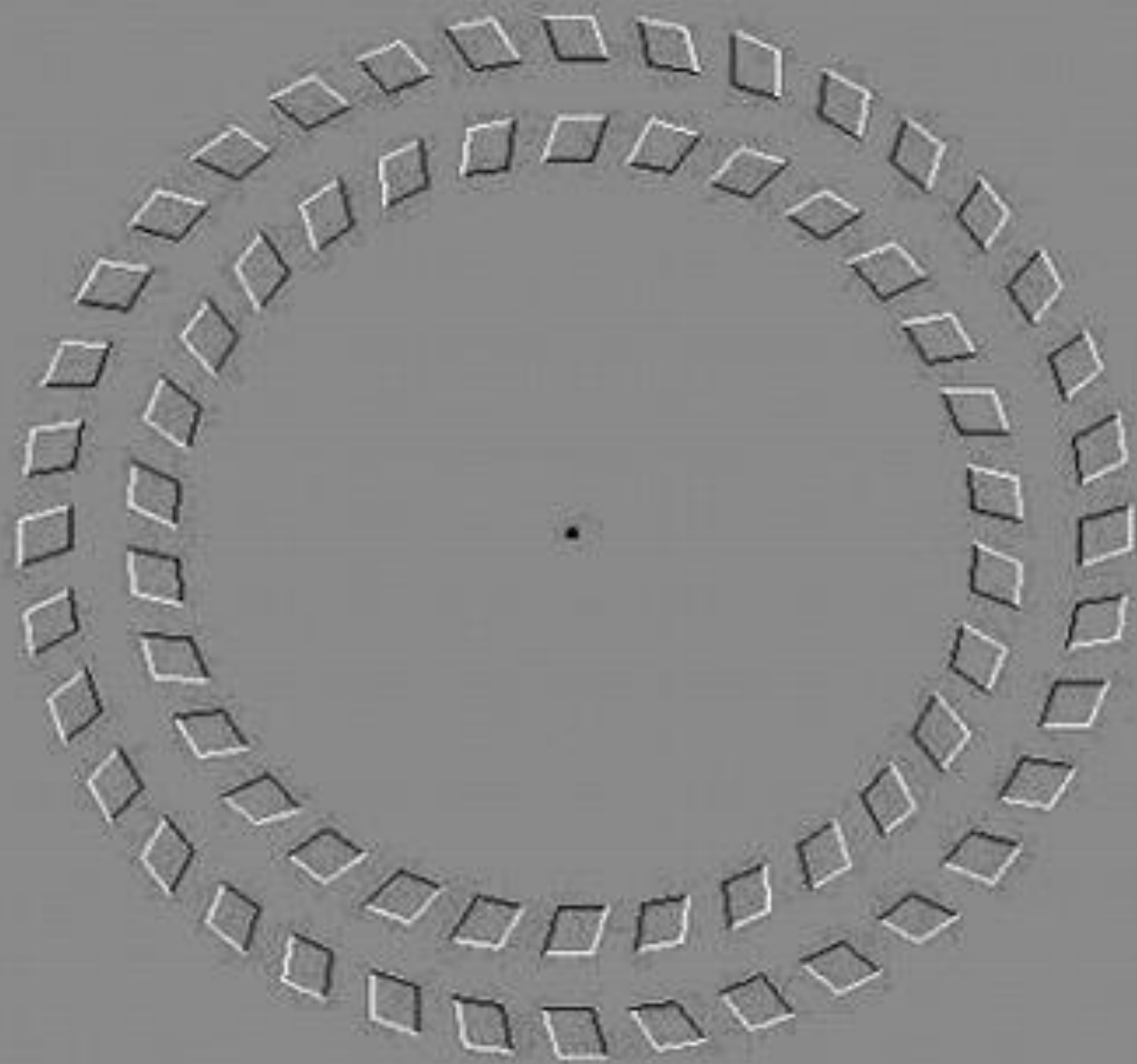


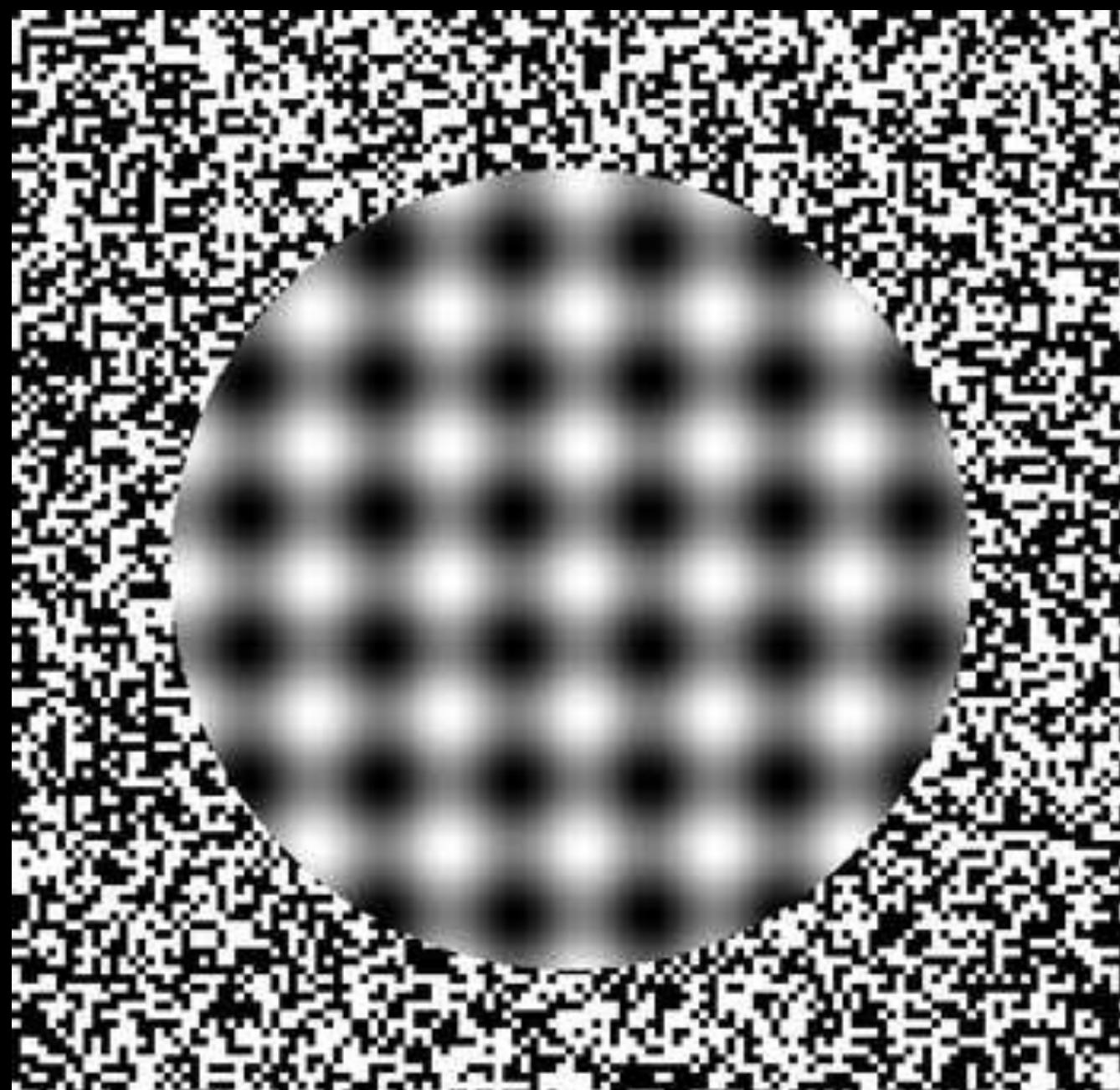


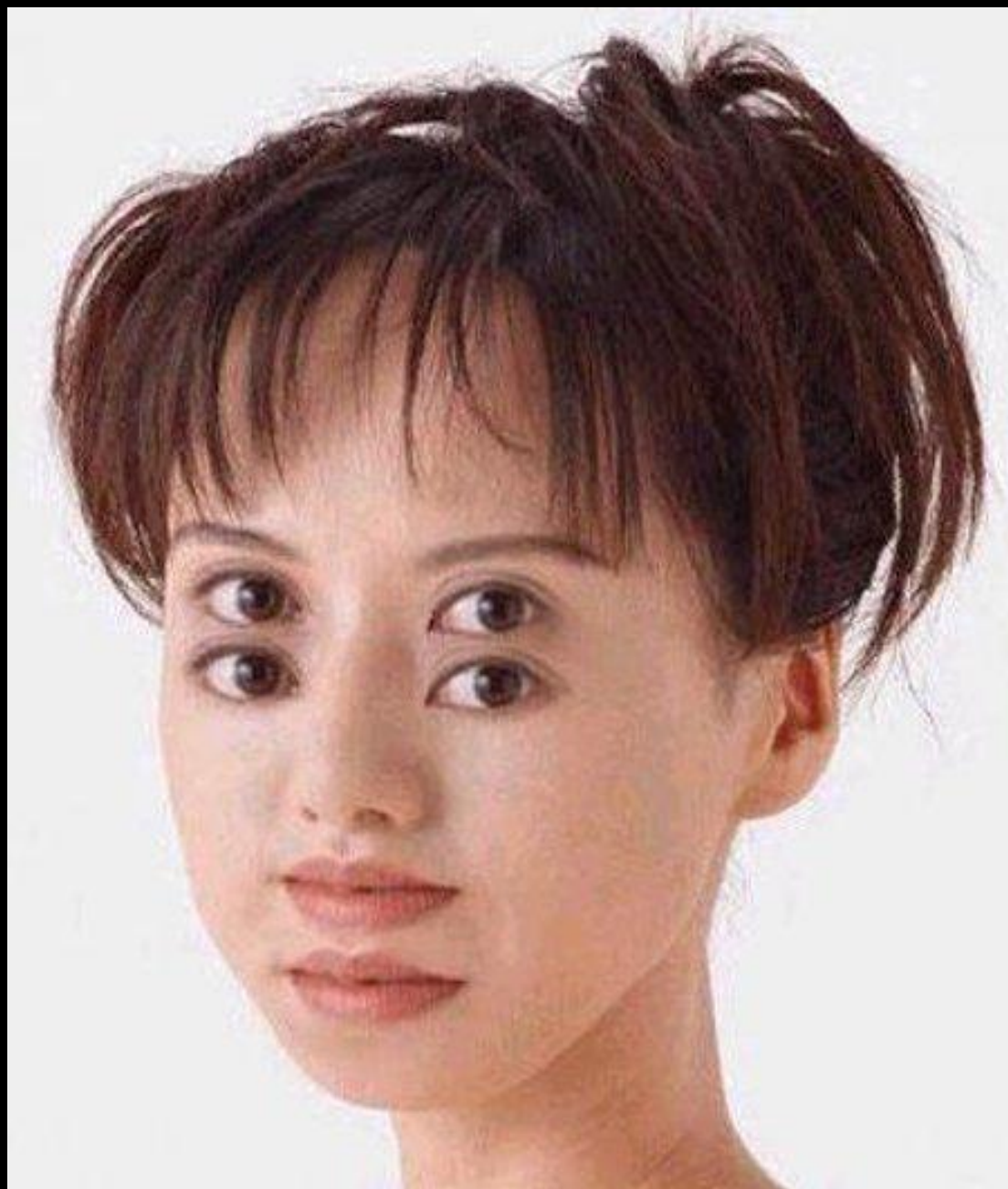






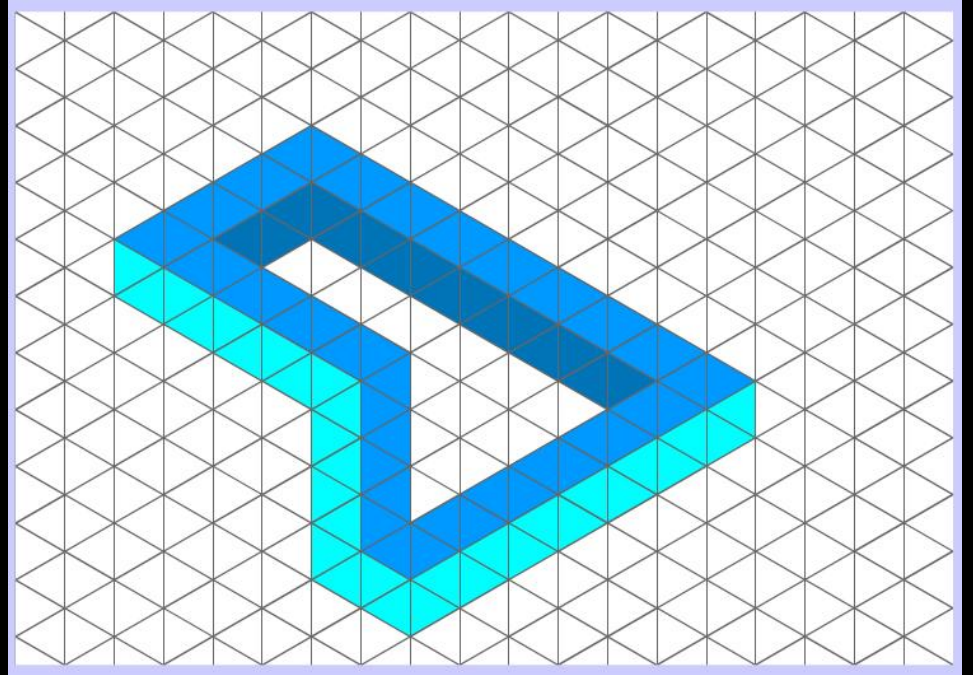
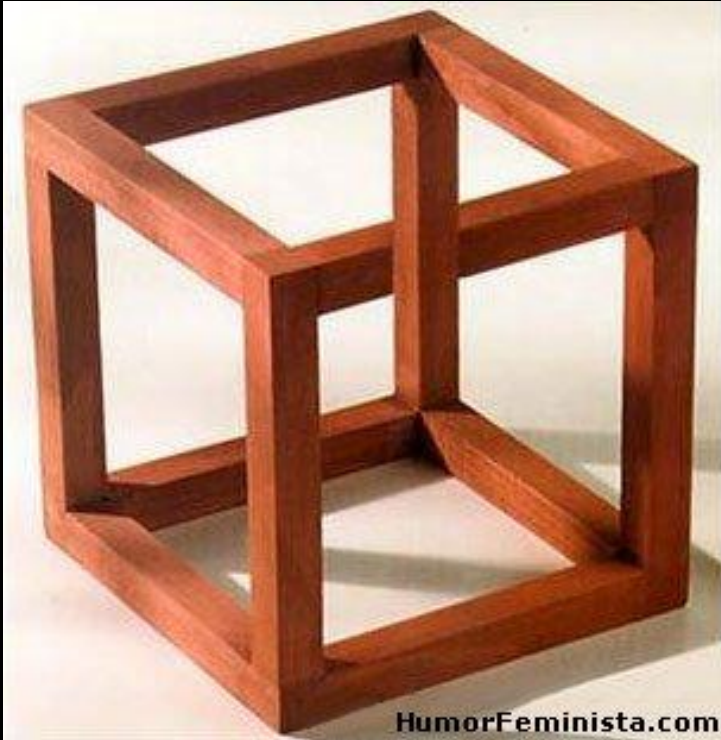


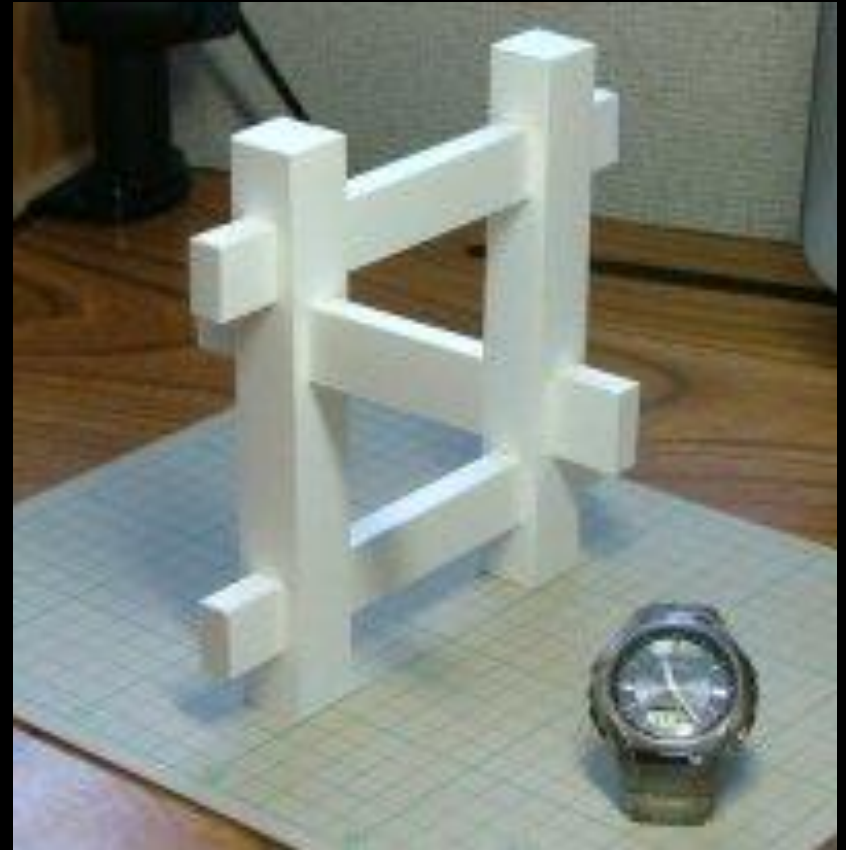




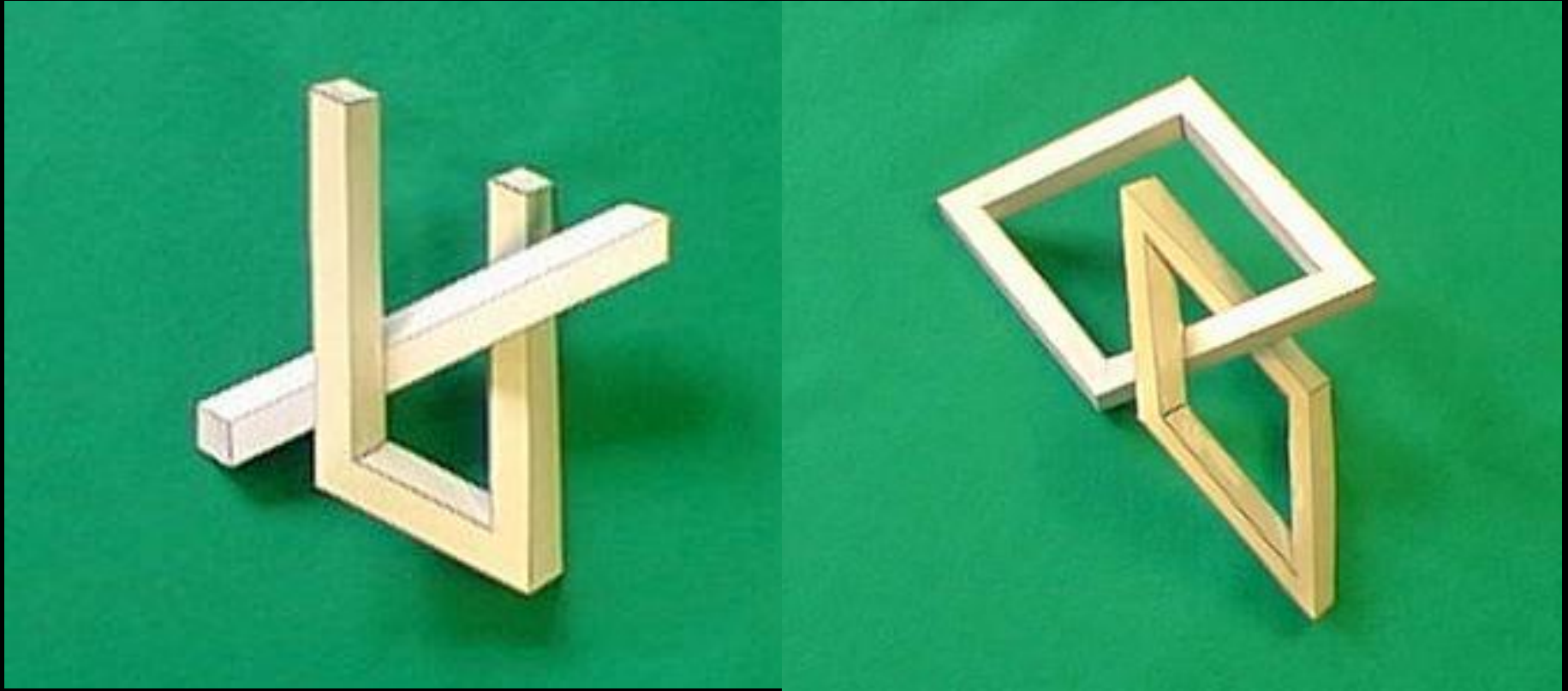
IMPOSSIBLE FIGURES

It is a picture of an object that at first sight looks three-dimensional but cannot be a two-dimensional projection of a real three-dimensional object.

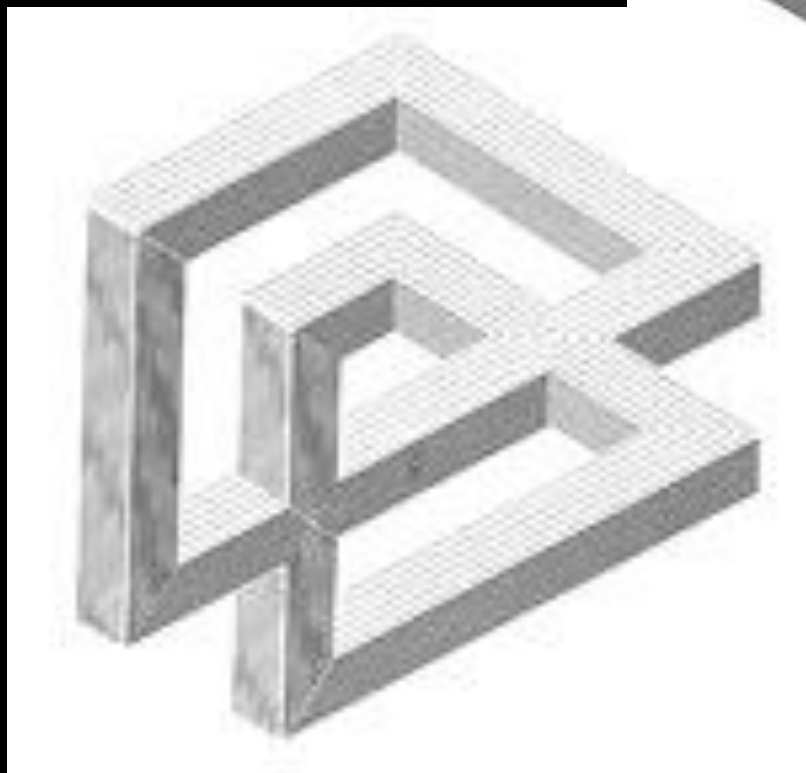
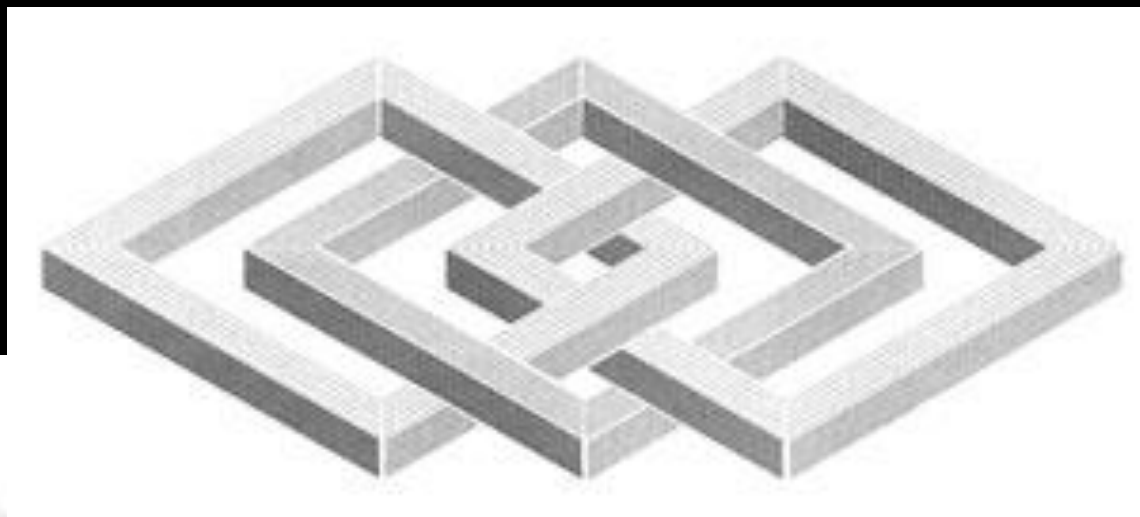




Ikeuchi Hitochi



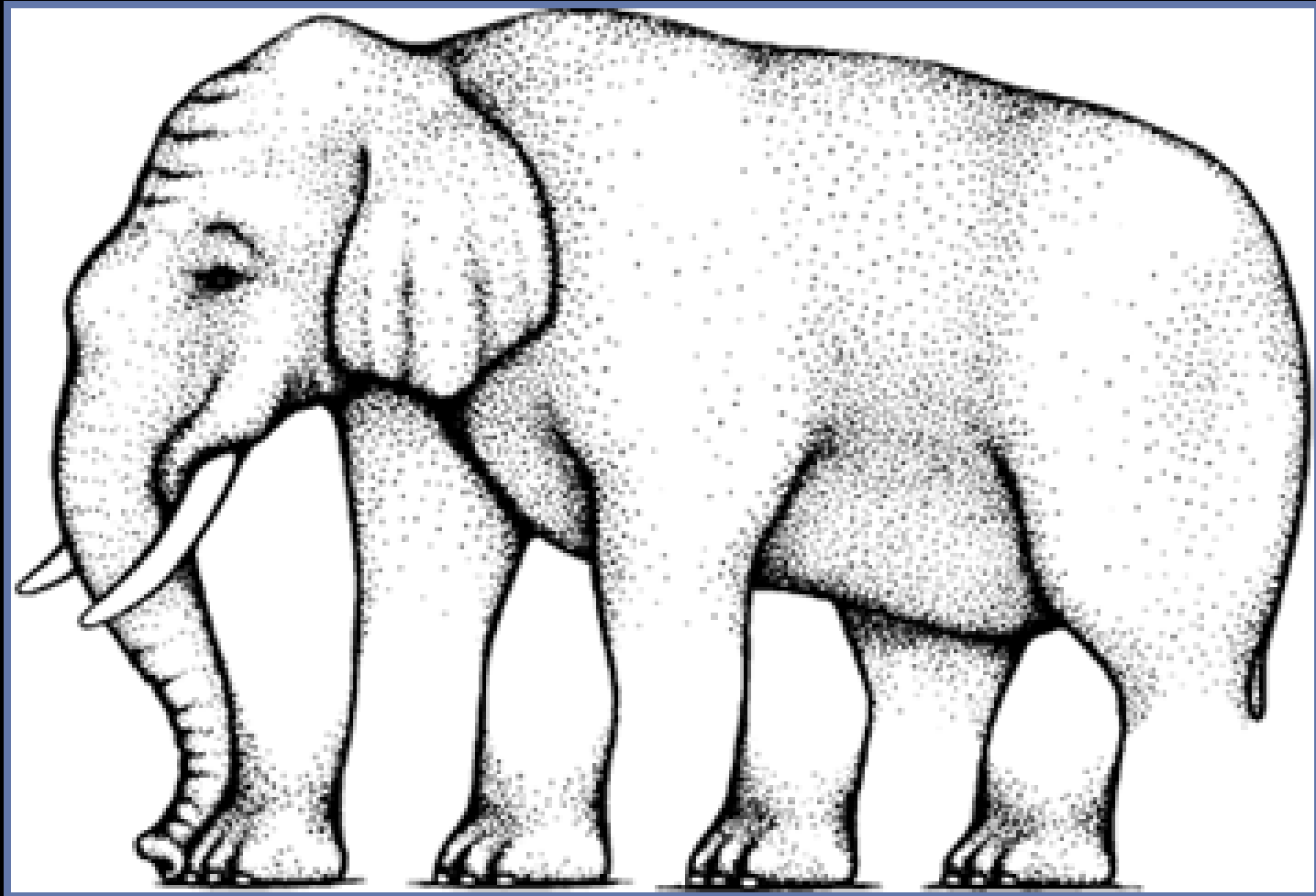
Kokichi Sugihara.



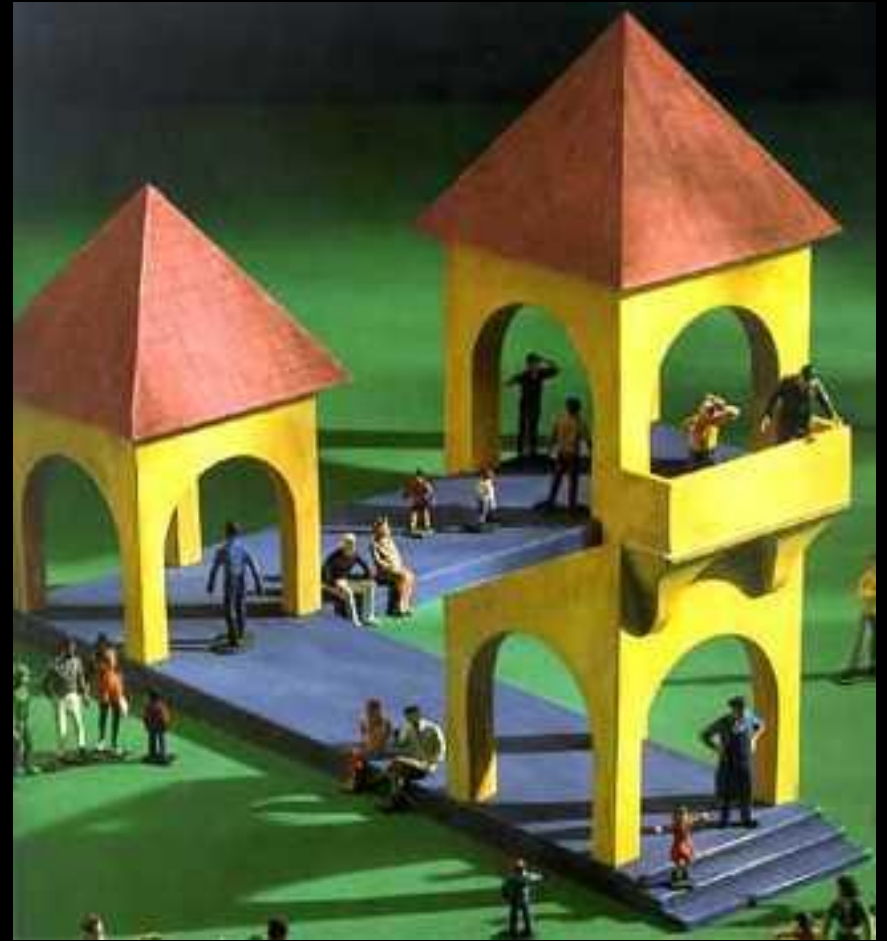
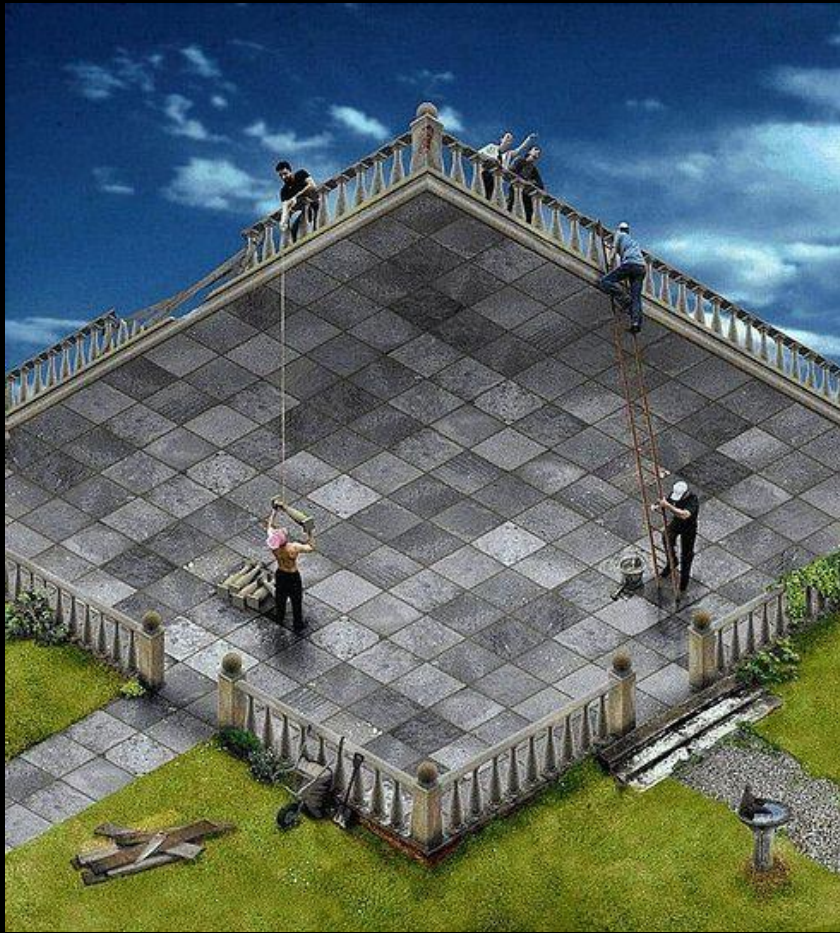
Diego Uribe



How many columns have this monument, 2 or 3?



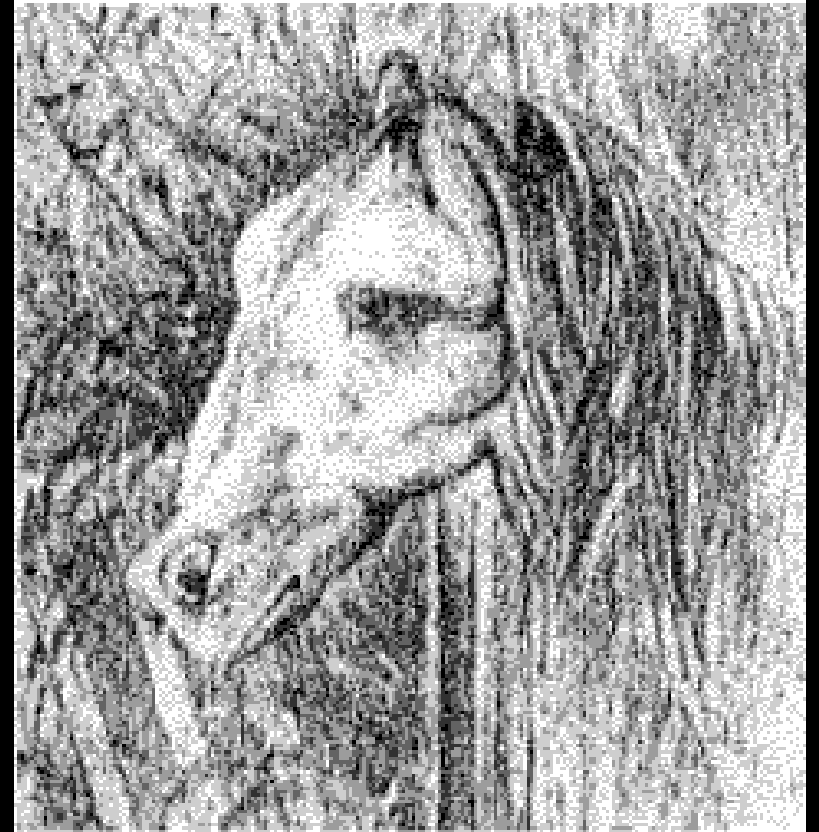
How many feet is the elephant?

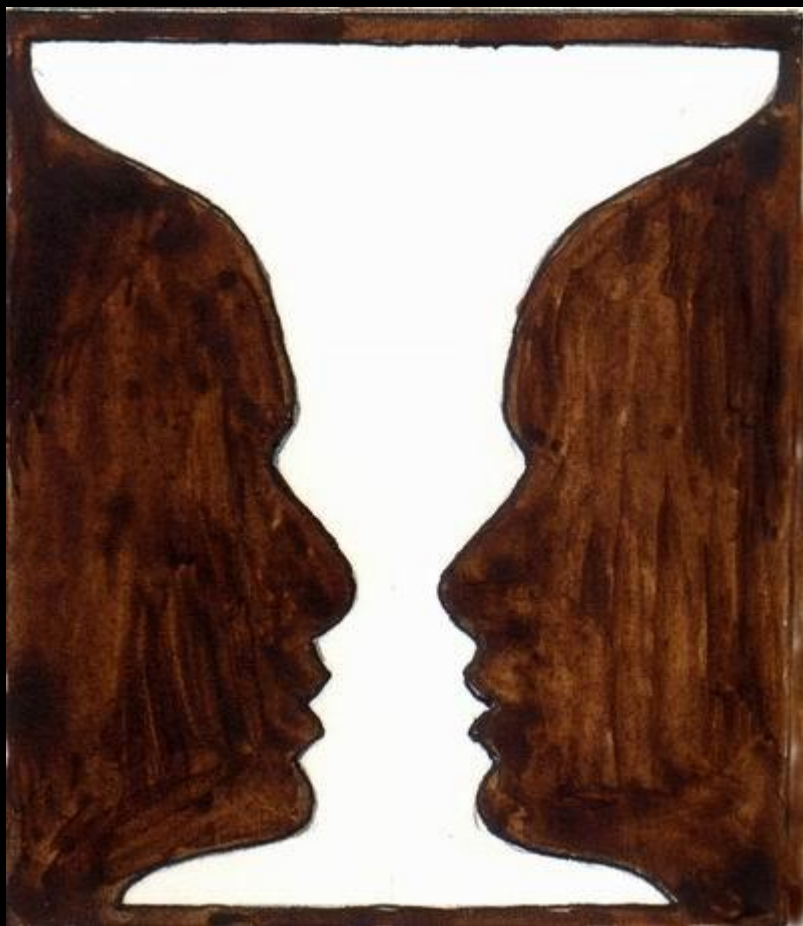


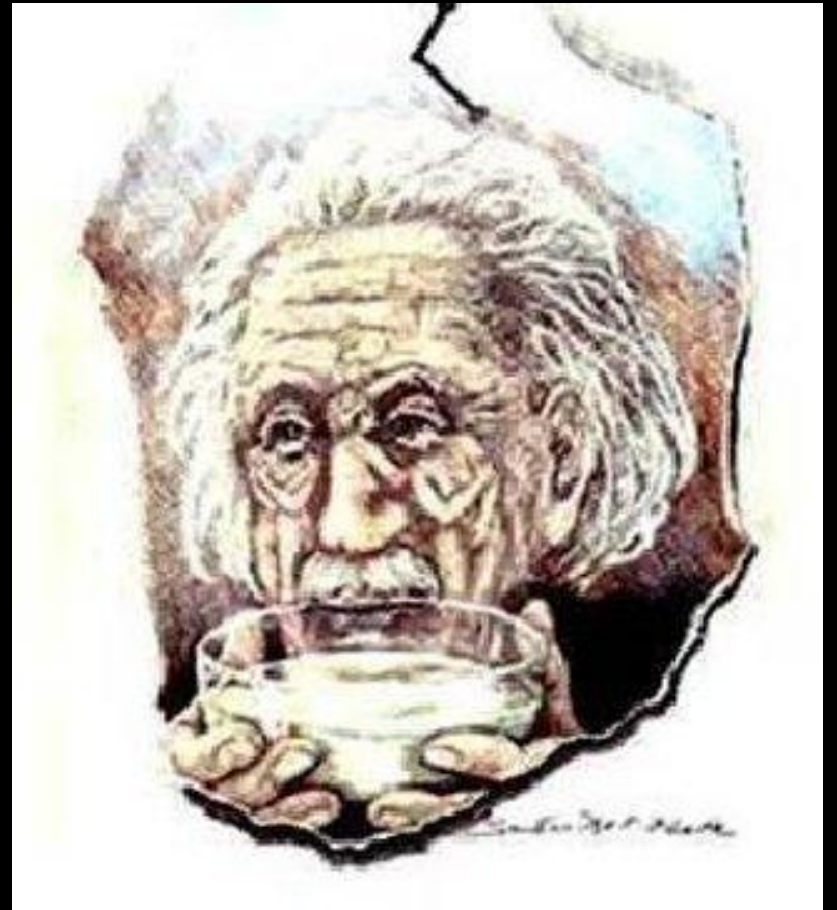
Where is the ground, up or down?

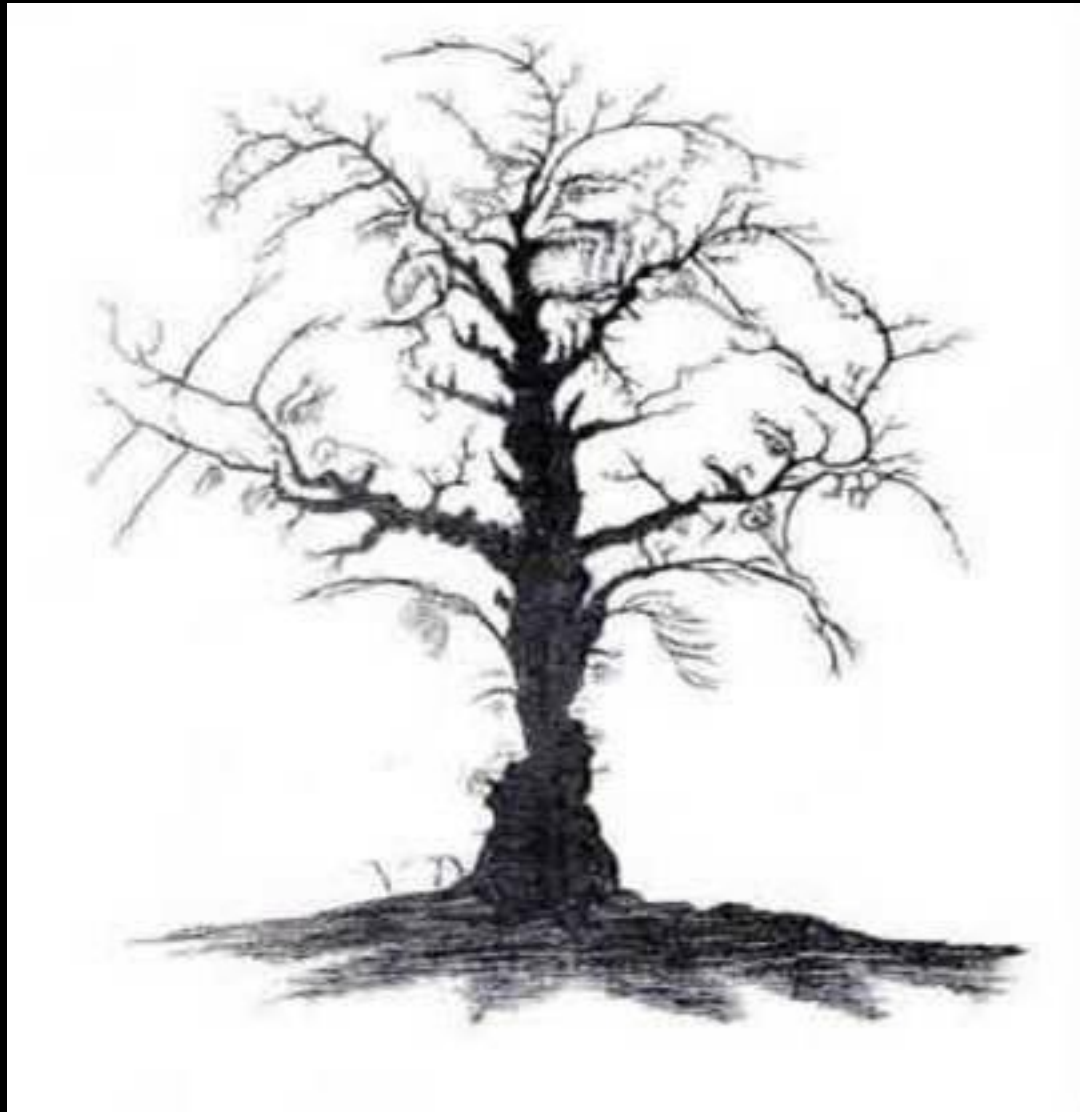
AMBIGUOUS FIGURES

There are pictures of a subject which the viewer may see as either of two different subjects, or as the same subject from either of two different viewpoints.

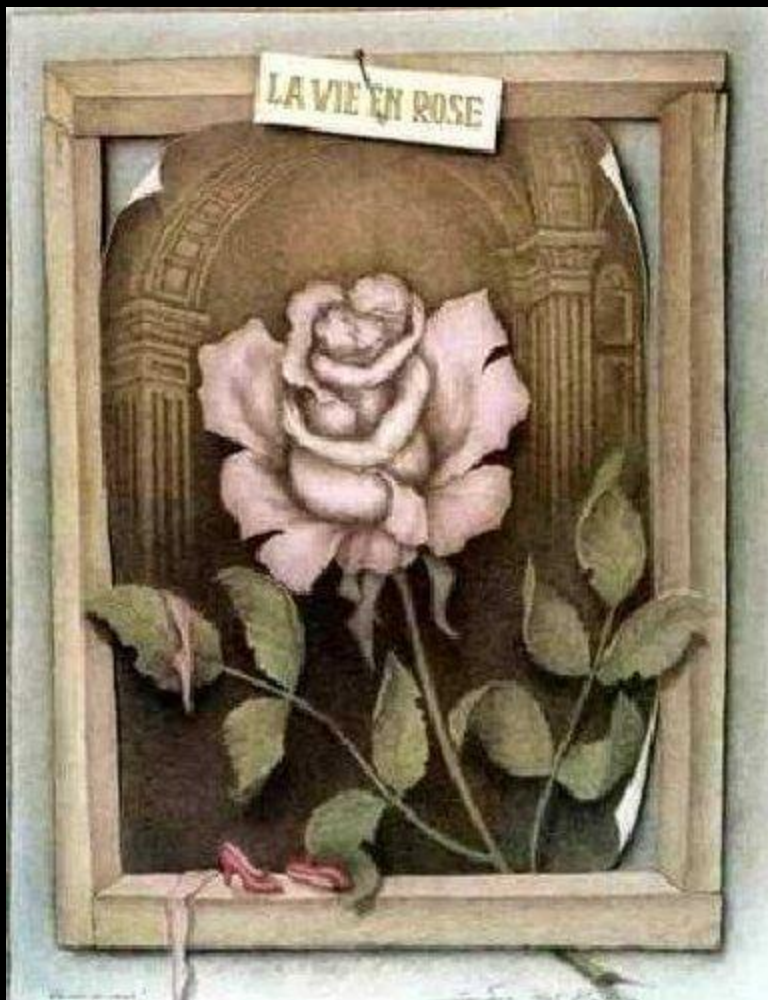




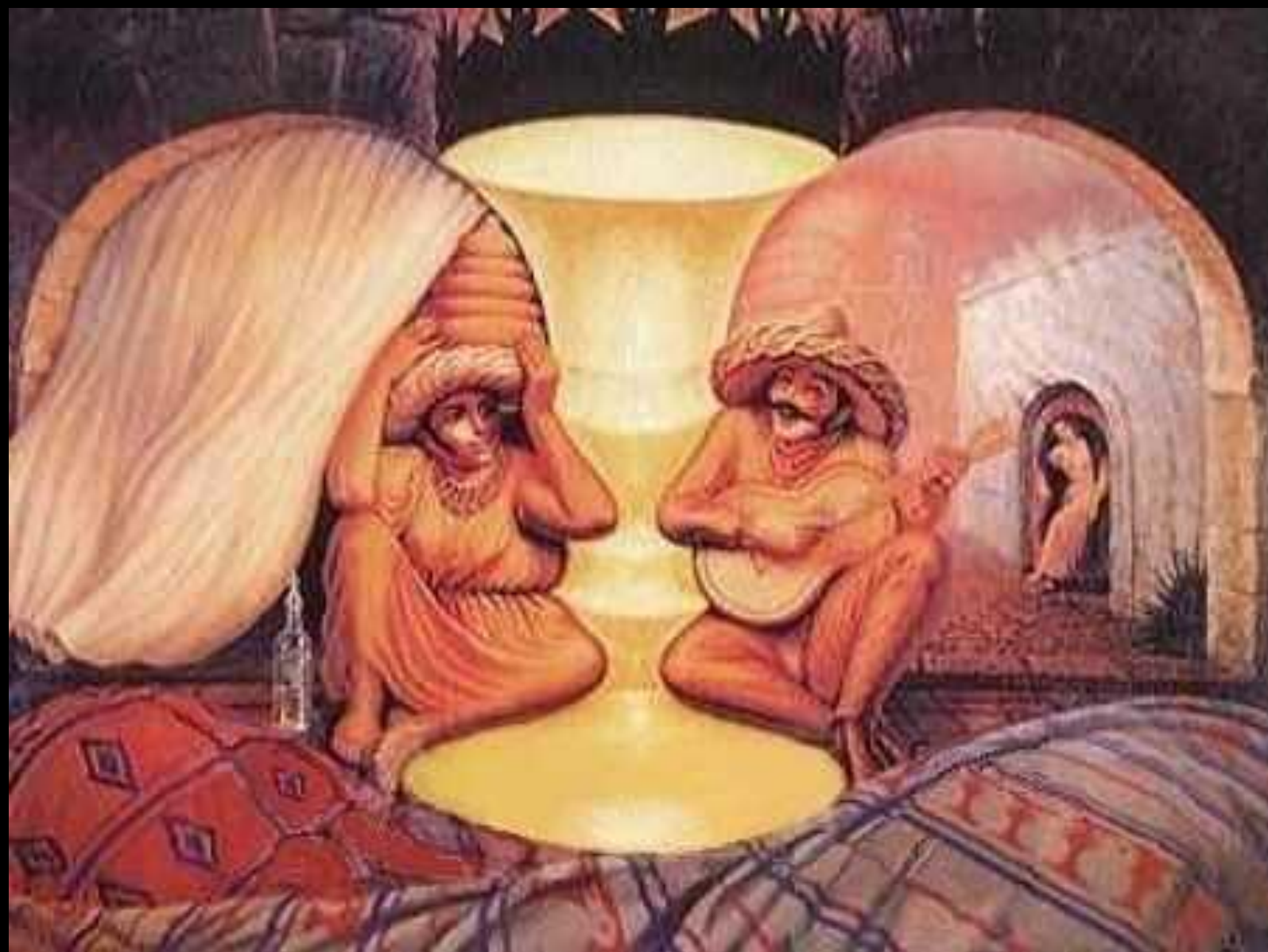


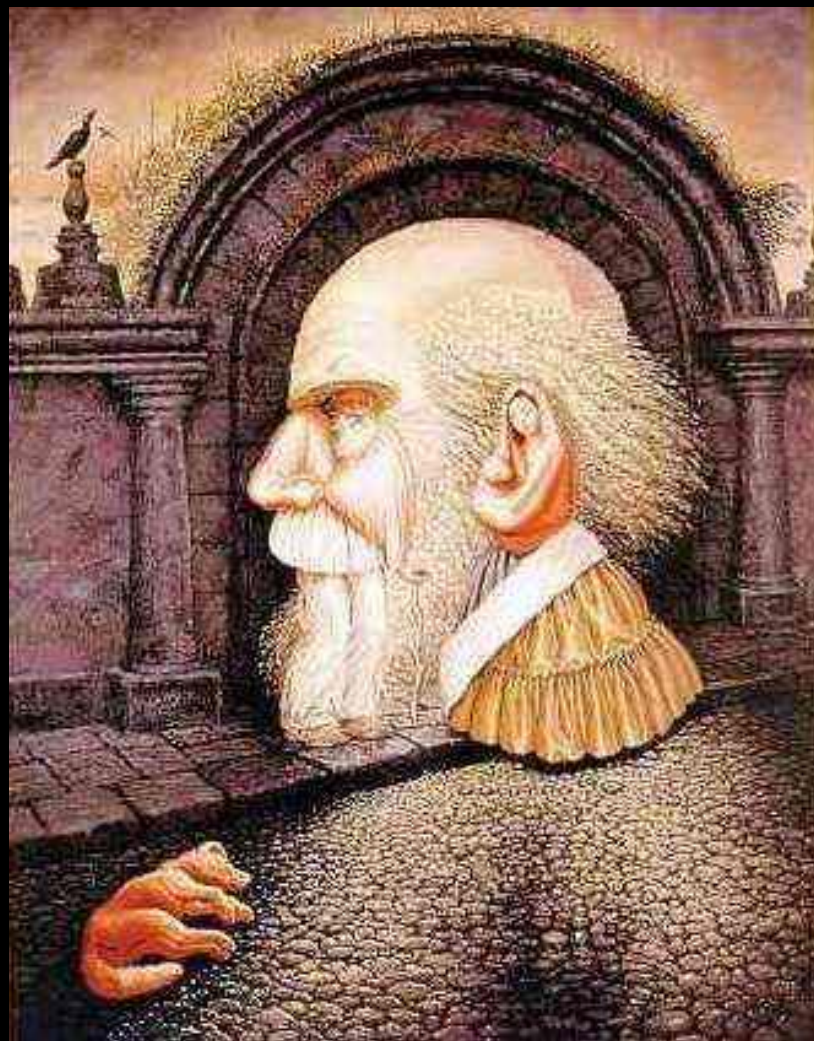


Descubre las 10 caras







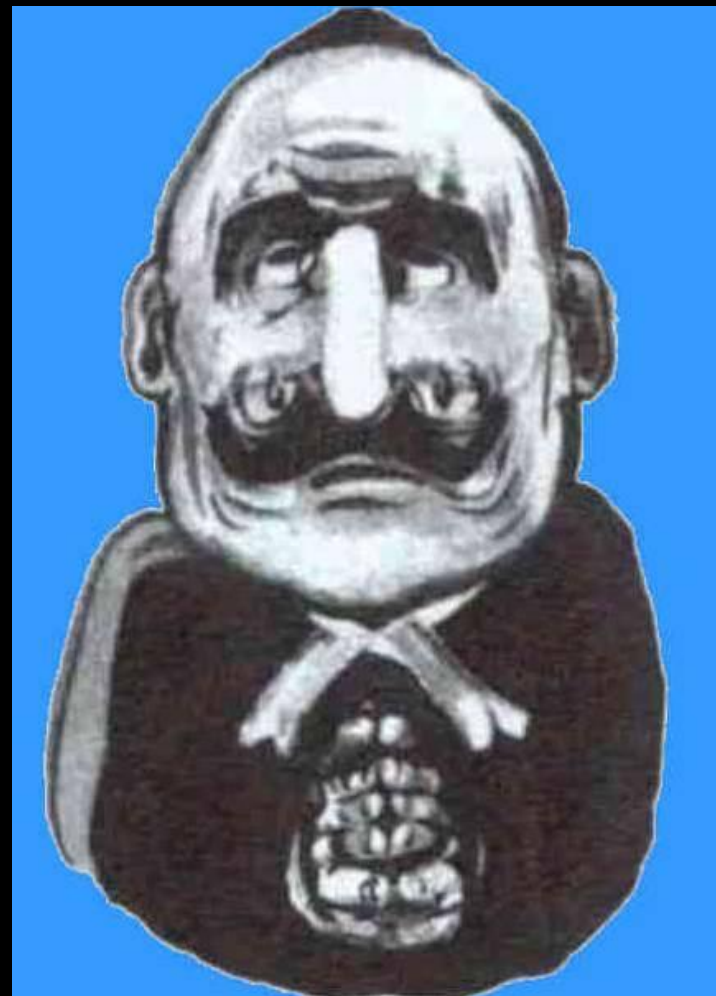




Fija la mirada en los 4 puntitos del centro y mantenla ahí durante 30 segundos sin parpadear.

Luego dirige la mirada hacia una pared blanca y parpadea. ¿Qué ves?





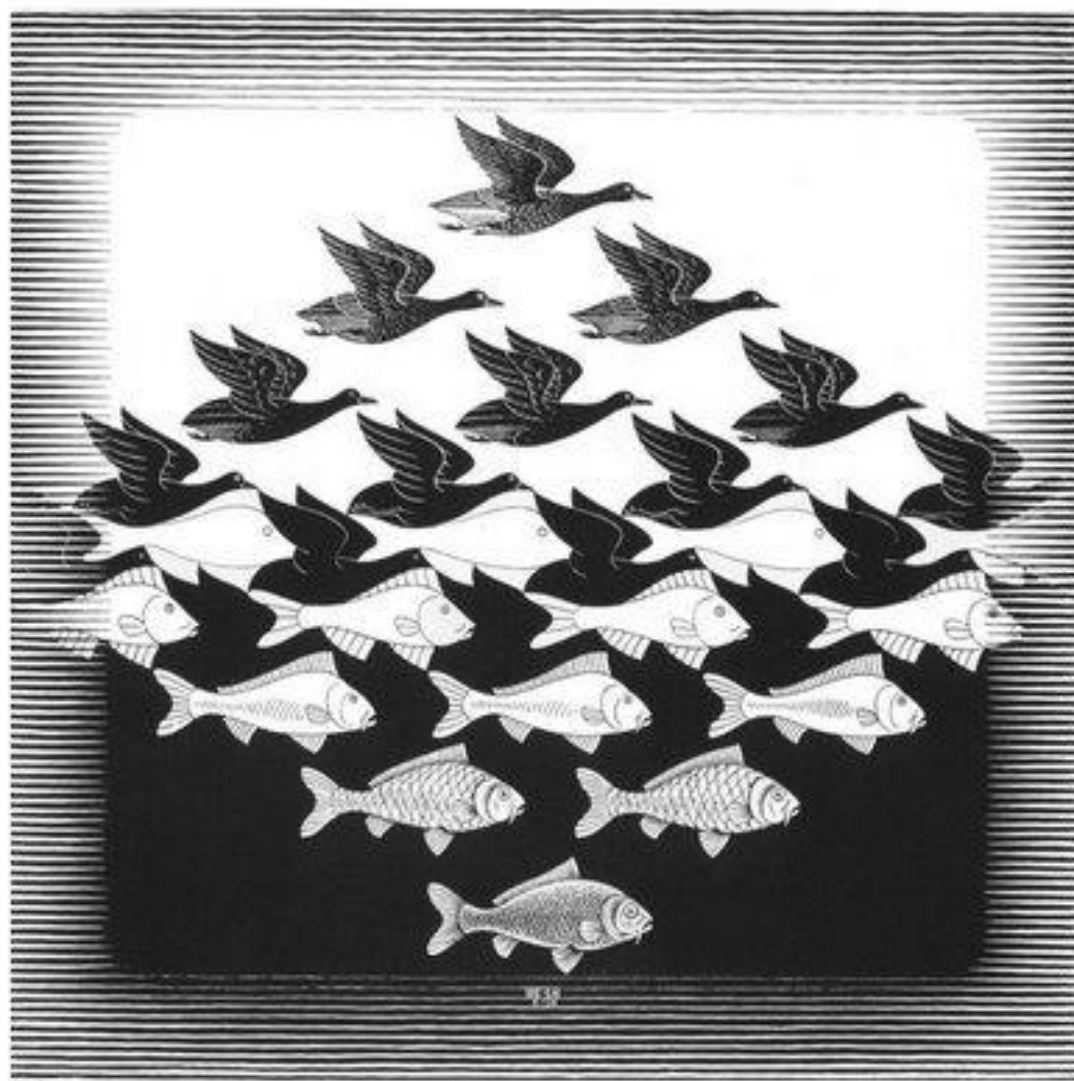
M. C. ESCHER

M.C. Escher was a Dutch graphic artist, most recognized for spatial illusions, impossible buildings, repeating geometric patterns, and his incredible techniques in woodcutting and lithography.

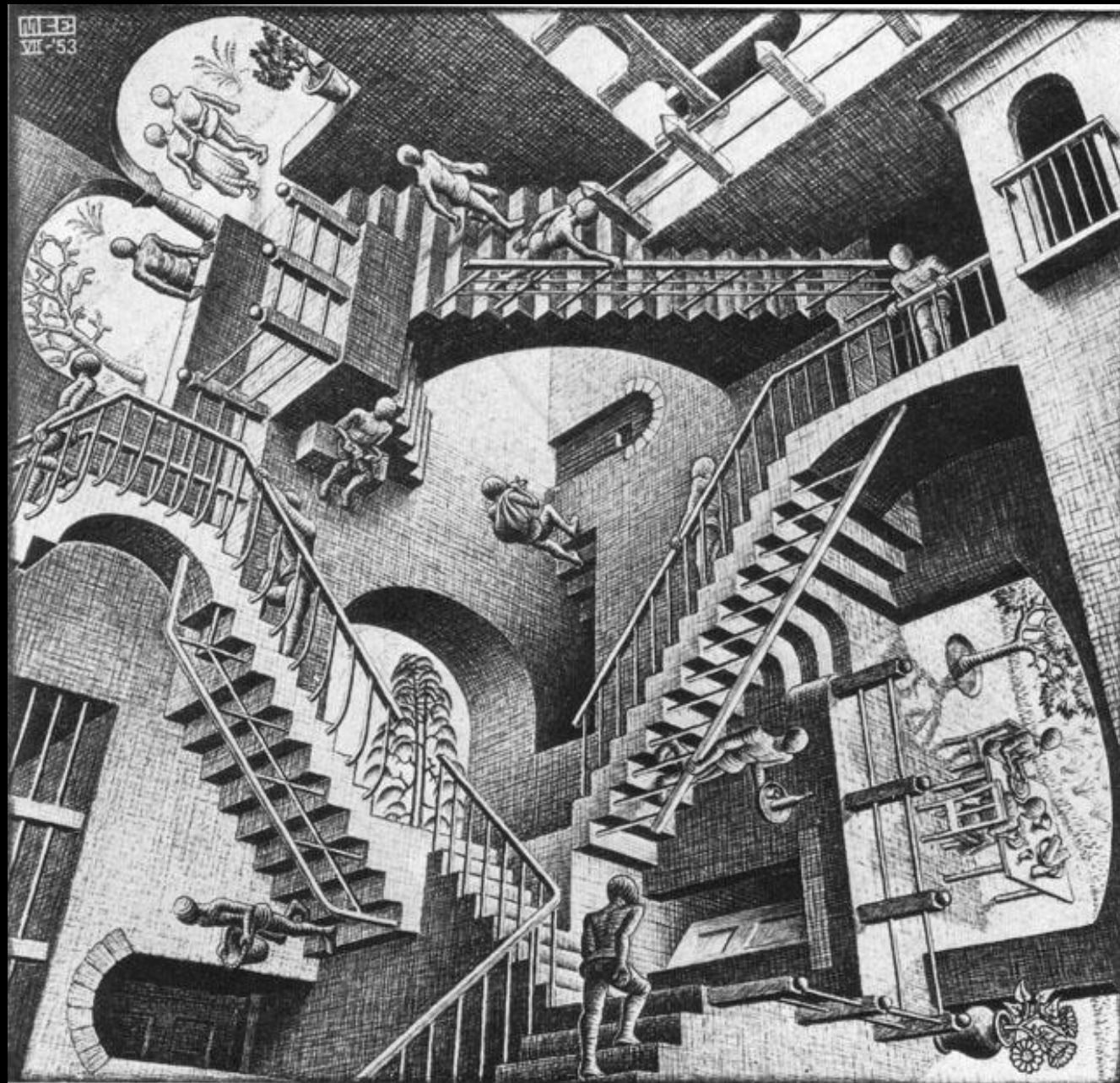
He was a man studied and greatly appreciated by respected mathematicians, scientists and crystallographers. Yet he had no formal training in maths nor science. He was a humble man who considered himself neither as an artist nor as a mathematician. His work continues to fascinate both young and old across a broad spectrum of interests.

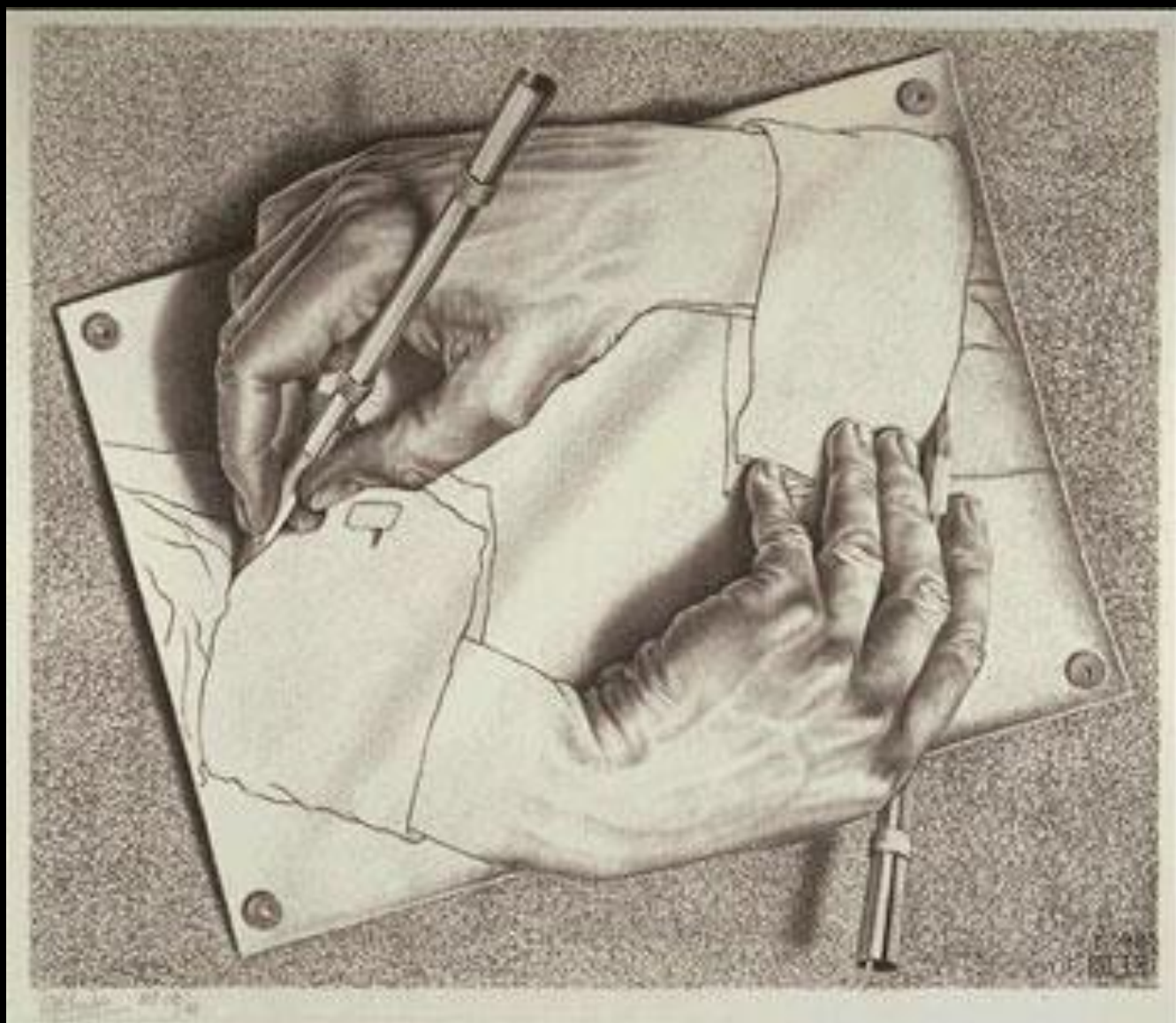
Intricate repeating patterns, mathematically complex structures, spacial perspectives all require a "second look". In Escher's work, what you see the first time is most certainly not all there is to see.





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SOME INTERNET LINKS:

- **Visual Perception Notes**
- **Visual perception - Wikipedia, the free encyclopedia**
- **Ilusionario**
- **YouTube - Gestalt Principles of Perception**
- **YouTube - An illusion is a distortion of a sensory perception**
- **YouTube - BEST OPTICAL ILLUSIONS IN THE WORLD 2**
- **YouTube - BEST OPTICAL ILLUSIONS IN THE WORLD!**