

ART

AND VISUAL PERCEPTION

A psychology of the creative eye

By RUDOLF ARNHEIM

UNIVERSITY OF CALIFORNIA PRESS

Arnheim, R. (1974) *Art and visual perception: A psychology of the creative eye*. Rev. edn. Berkeley: University of California Press.

***Arnheim is **applying Gestalt psychology to visual art and design**, even though those terms are not always labeled explicitly in the book

Principles of Gestalt

- **R**eification
- **I**nvariance
- **M**ultistability
- **E**mergence

The whole is other than the sum of its parts.

Gestalt Psychology is a theory introduced in the late 1800's by the Austrian philosopher Christian von Ehrenfels, which asserts that in relation to perception, the mind forms a global whole with self-organizing tendencies. The movement of Gestalt Psychology was later founded by Max Wertheimer, Kurt Koffka and Wolfgang Koehler. Koffka is attributed with quoting the phrase 'The whole is other than the sum of its parts', Gestalt does not explain why these perceptions exist, only that they do exist.

Reification

Our minds fill in the gaps.

Reification is the constructive or generative aspect of perception, by which the experienced percept contains more explicit spacial information than the sensory stimulus on which it is based. More simply put, we fill in the gaps to create a unified whole from the parts and implied shapes.

2. Reification

What Arnheim argues

Arnheim explains that perception **fills in what is missing**. The mind actively completes incomplete forms, resolves gaps, and stabilizes ambiguous input into coherent shapes. Even when parts of a form are absent, perception supplies what *ought* to be there based on visual forces and expectations.

Implications for composition & design

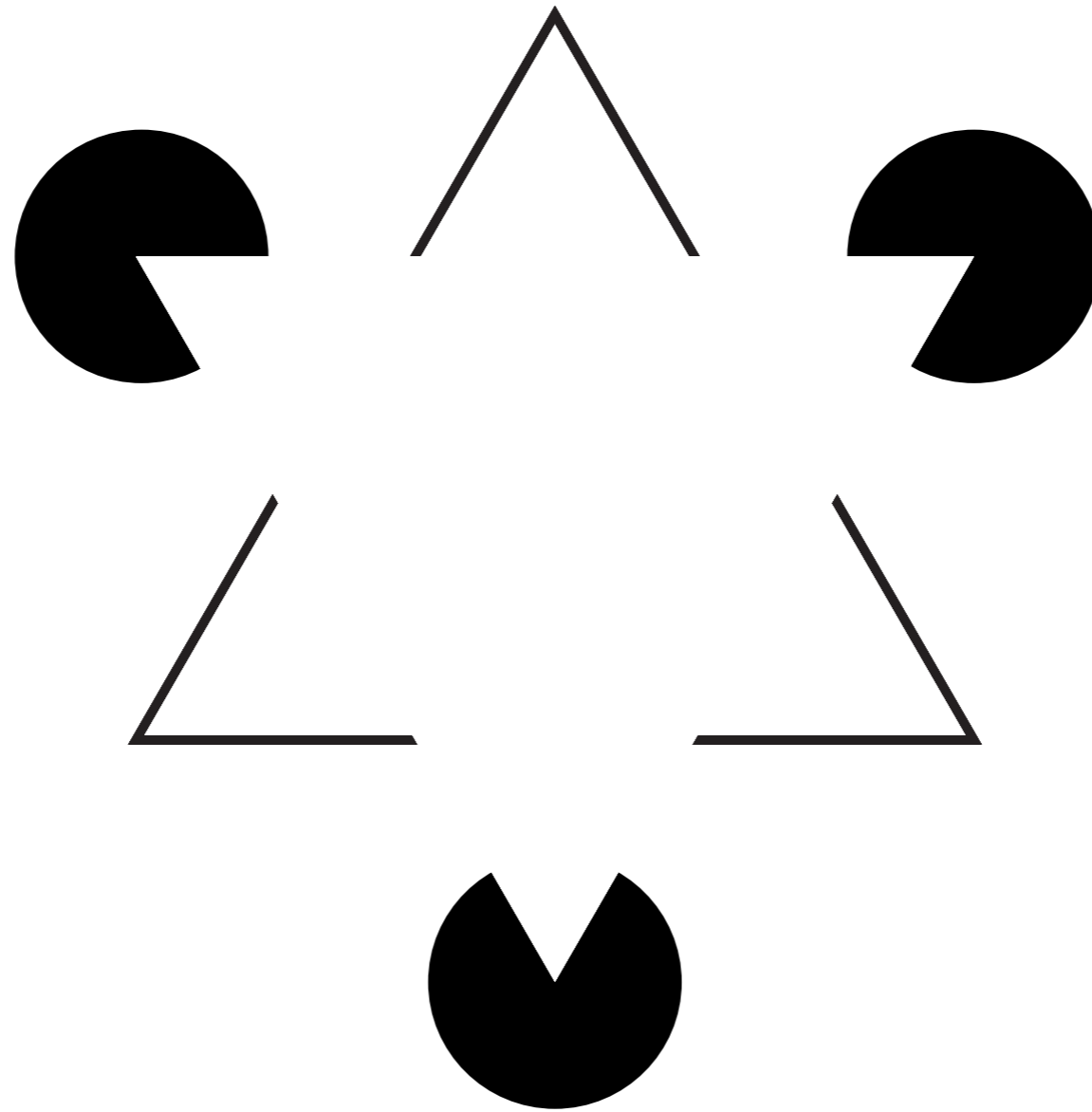
- Designers can **suggest rather than fully depict** forms.
- Negative space is as active as positive form.
- Simplification strengthens perception when it aligns with perceptual expectations.

Key idea:

What is *not* drawn can be just as perceptually powerful as what is drawn.

Arnheim saw this as essential to abstraction, logos, symbols, and modernist design.

Reification



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▶ music by Duke Ellington ◀

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Destroying nature is destroying life.

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Invariance

We recognize abstracted forms.

Invariance is the principle of perception which allows us to recognize forms when viewing from a different perspective. It allows us to recognize people and objects when they move through space or are abstracted, as opposed to a straight-on/static or photographic view. Shapes then become recognizable independent of rotation, deformity or scale.

4. Invariance

What Arnheim argues

Arnheim believed that perception seeks **structural constants**—relationships that remain stable despite changes in size, orientation, viewpoint, or medium.

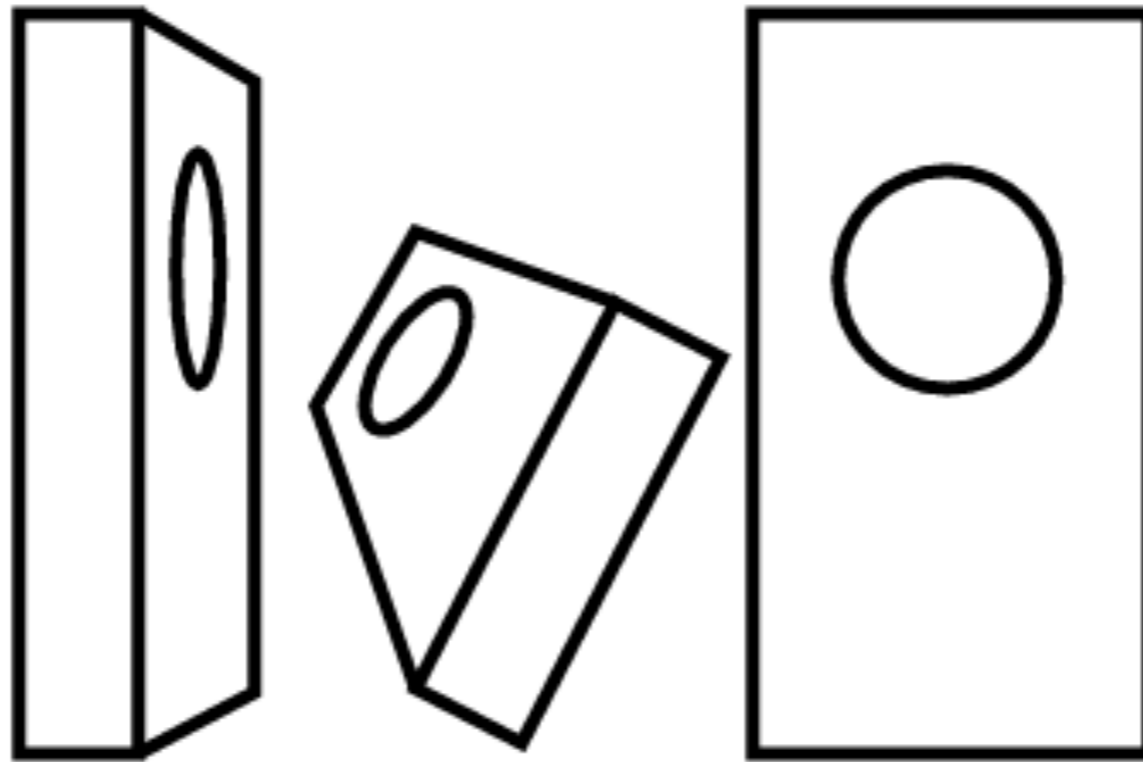
We recognize forms not by exact measurements, but by **relational patterns** (proportion, balance, directional forces).

Implications for composition & design

- A strong design maintains its identity across:
 - scale changes
 - reproduction
 - media shifts
- Visual coherence depends on **relational consistency**, not decorative detail.
- This explains why simple, well-structured designs reproduce and endure better.

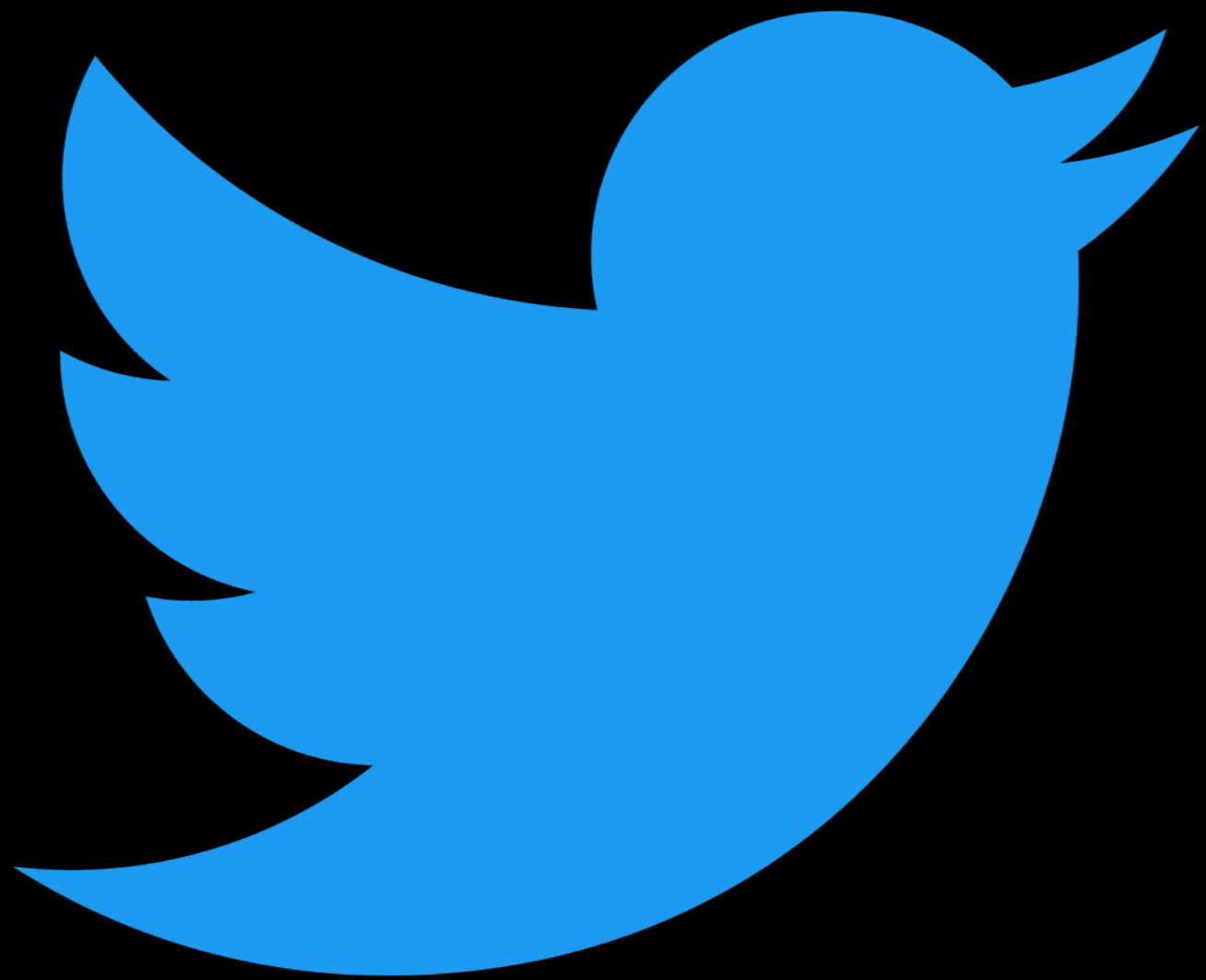
Design takeaway:

If the underlying structure is sound, the form remains recognizable under transformation.



Invariance









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Multistability

Our minds fill in the gaps.

Multistability is the tendency of ambiguous perceptual experiences to pop back and forth unstably between two or more alternative interpretations, as seen in the Necker Cube and the Duck Rabbit. What sets multistability apart from the other principles from a philosophical standpoint is the ability for one image simultaneously to have two meanings, and although we are capable of knowing the two meanings, we are forced to perceive one or the other.

3. Multistability

What Arnheim argues

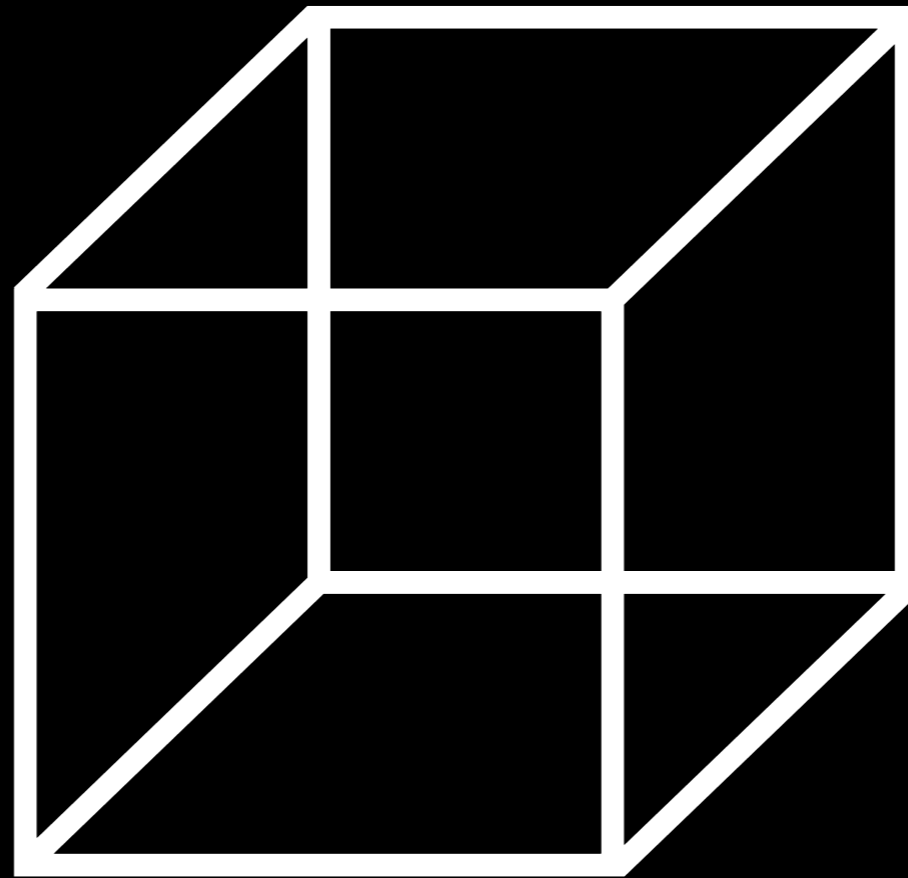
Arnheim discusses perceptual ambiguity—situations where a visual arrangement supports **more than one stable interpretation**, but only one can be perceived at a time. He was deeply interested in how **visual tension** arises when competing organizational forces are equally strong.

Implications for composition & design

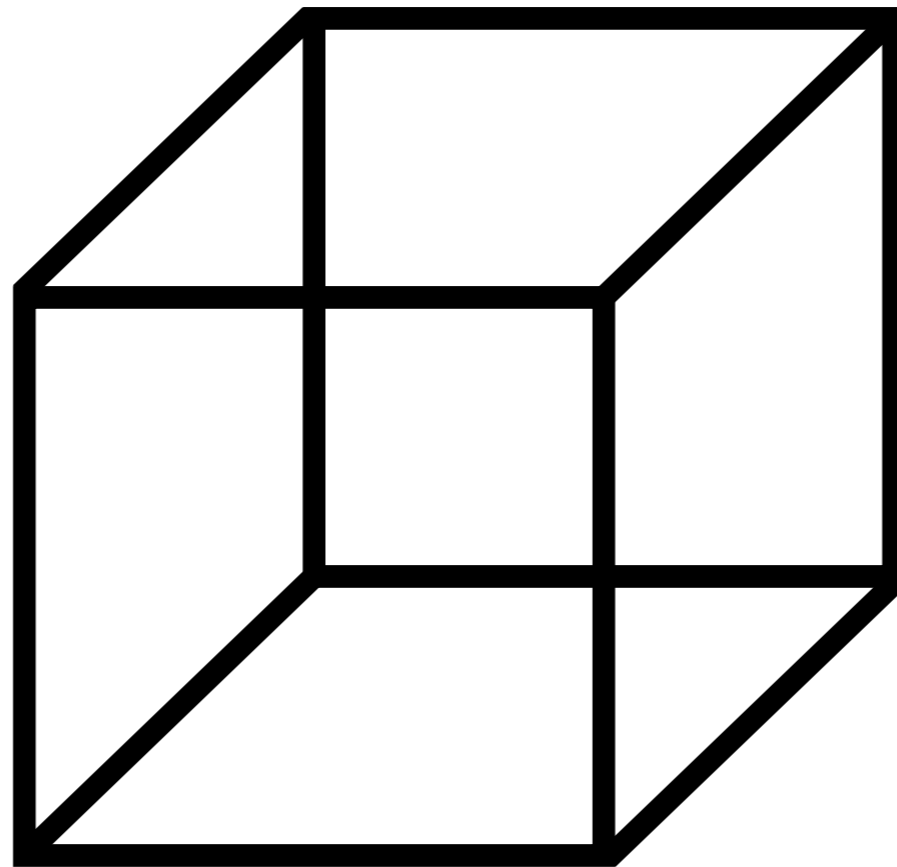
- Multistability can be used deliberately to create **visual interest, play, or conceptual depth**.
- However, in functional design (signage, information graphics), it can be a liability.
- Designers must decide whether ambiguity is **expressive** or **confusing**.

Arnheim's stance:

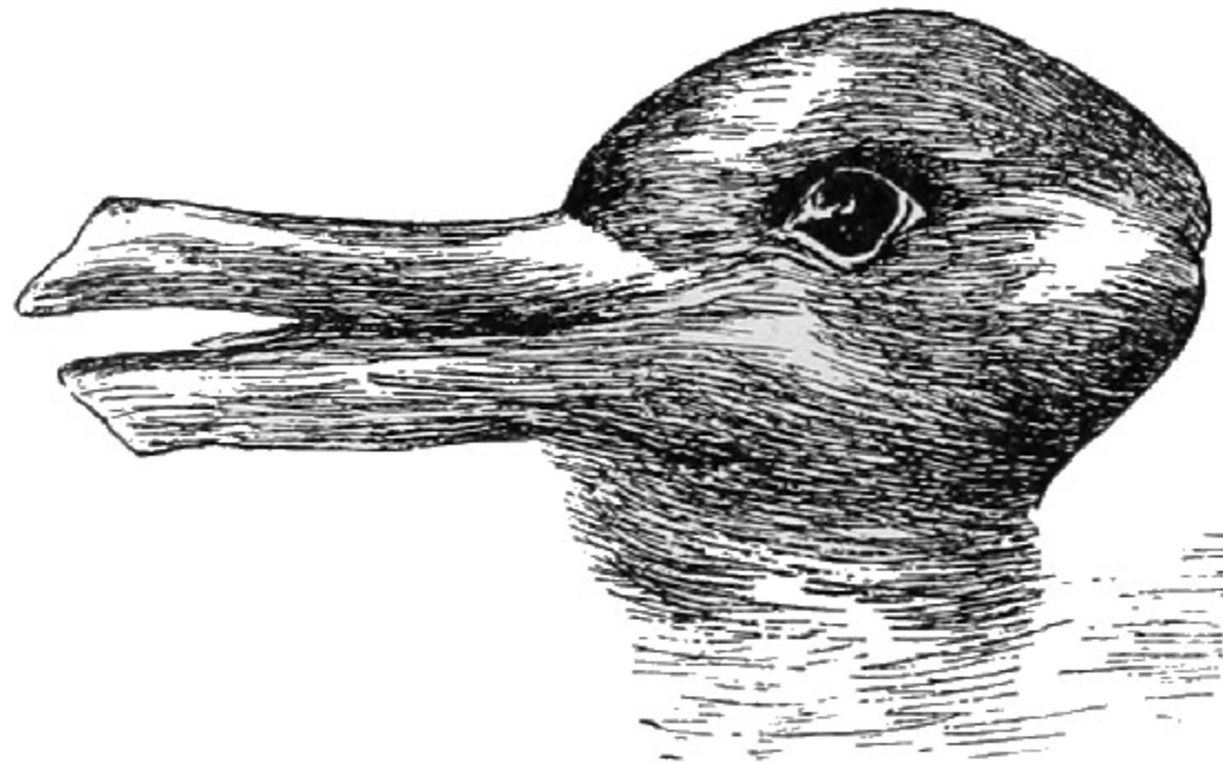
Ambiguity is not a flaw—but it must be *structurally justified*. Unintended multistability signals poor organization.



Multistability



Multistability





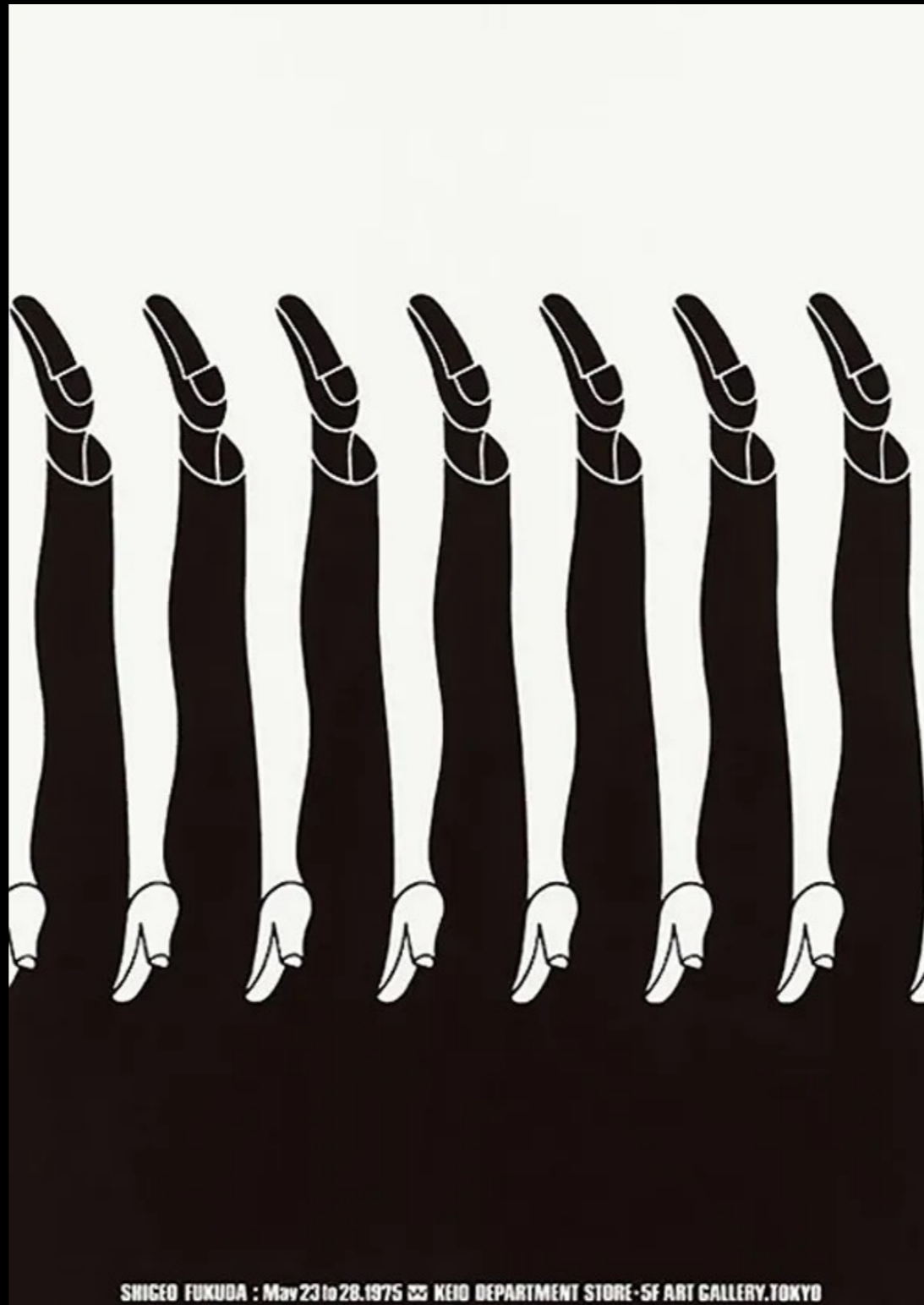
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A detailed illustration of a brown wolf in a snowy, winter landscape. The wolf is shown in profile, looking towards the right. The ground is covered in snow with scattered small red and black leaves or twigs. A large, white, irregularly shaped circle is superimposed over the scene, framing the title text. The overall style is painterly and atmospheric.

PETER
AND THE
WOLF

A SUZIE TEMPLETON FILM

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A FILM BY
GUY RITCHIE

SHERLOCK HOLMES

A GAME
OF SHADOWS

WARNER BROS. PICTURES PRESENTS
A WARNER BROS. PICTURES PRODUCTION
A FILM BY GUY RITCHIE
"SHERLOCK HOLMES: A GAME OF SHADOWS" STARRING JAMES NEAVE, JUDITH ANNE, AND JAMES NEAVE
CASTING BY JAMES NEAVE
PRODUCTION DESIGNER: JAMES NEAVE
EXECUTIVE PRODUCERS: JAMES NEAVE, JUDITH ANNE, AND JAMES NEAVE
PRODUCED BY JAMES NEAVE
WRITTEN BY JAMES NEAVE
DIRECTED BY GUY RITCHIE





LINDA COGGIN

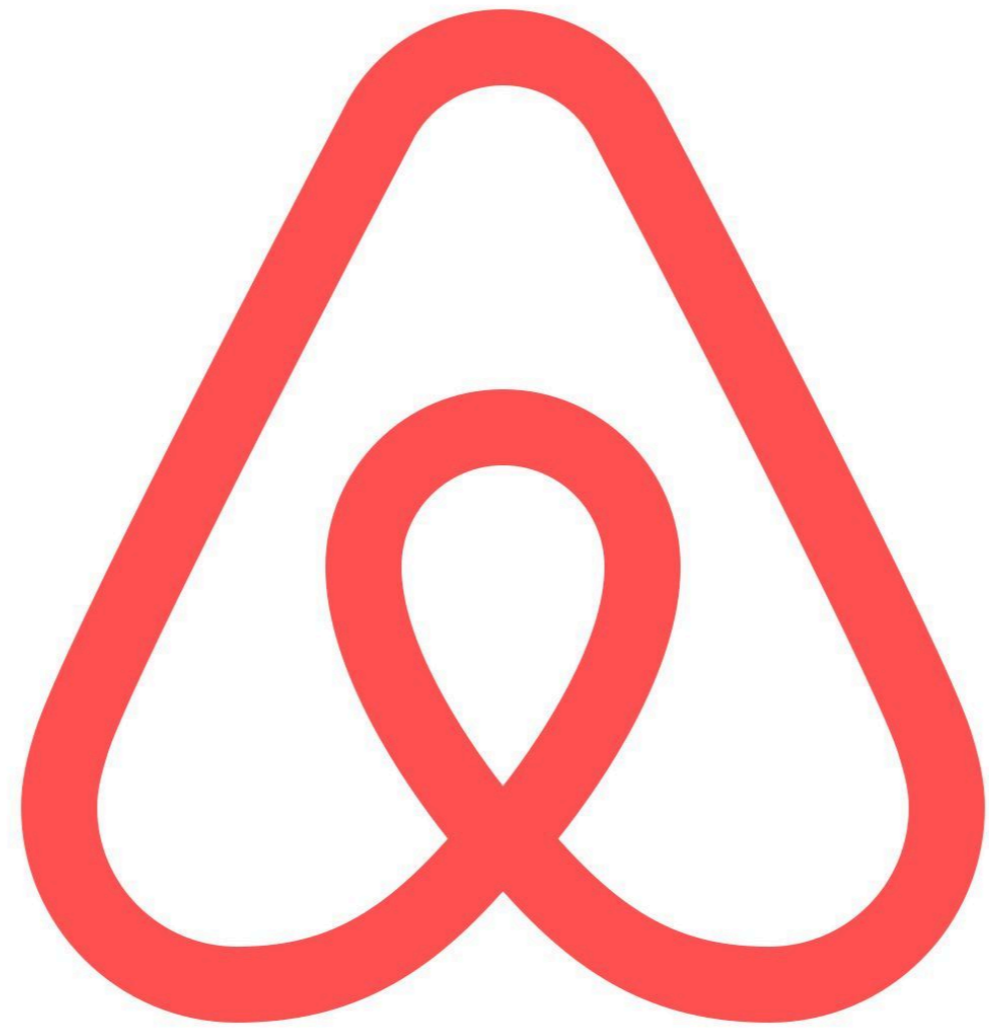


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WHITE
AND THE SEVEN DWARVES

Emergence

Images emerge from patterns.

As the name suggests, the theory of emergence is a process of complex pattern formation where images emerge from patterns. In the picture below, the dog is not recognized by first analyzing all of the individual shapes contained, rather it is perceived as a whole, all at once.

1. Emergence

What Arnheim argues

Arnheim emphasizes that **the whole is perceived before the parts**. When we look at a visual composition, we don't first register individual elements (lines, shapes, colors) and then assemble them. Instead, a **global structure emerges immediately**, and details are understood *in relation to that structure*.

Implications for composition & design

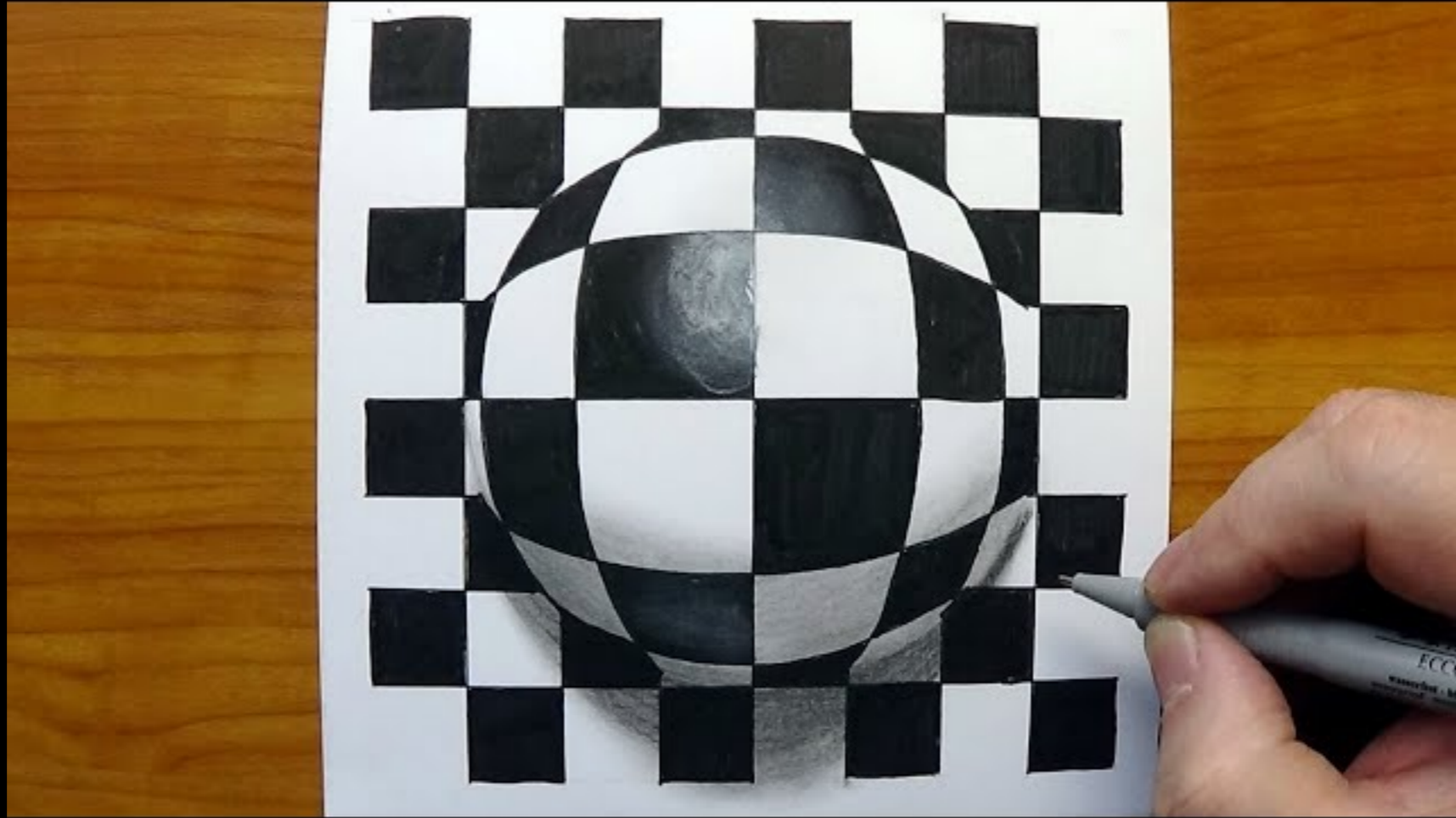
- A composition communicates its **overall meaning instantly**, before conscious analysis.
- Strong designs have a **clear dominant structure** (balance, axis, tension, rhythm) that "emerges" at first glance.
- Details should *support* the emergent whole, not compete with it.

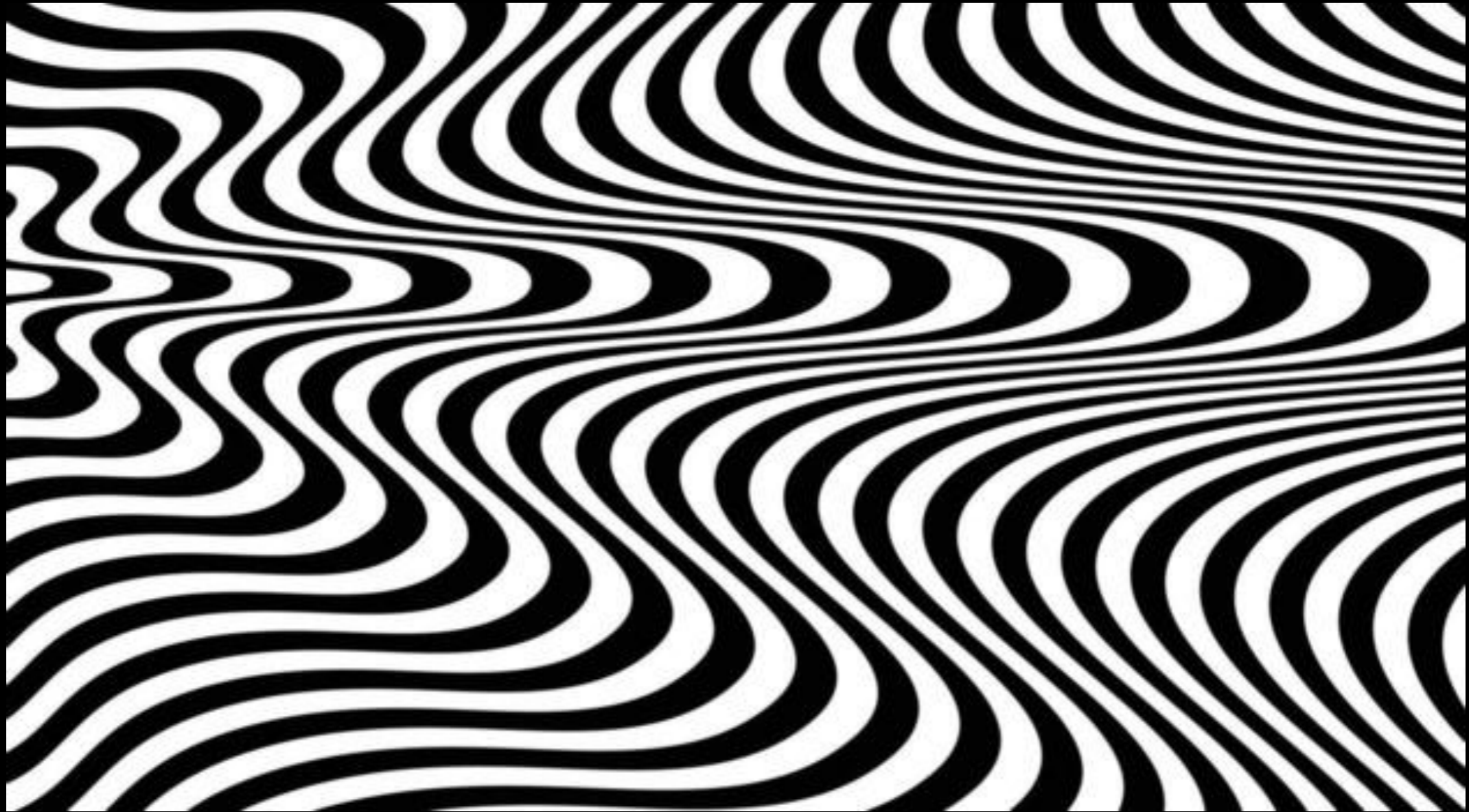
Arnheim's warning:

If the overall structure is weak or ambiguous, the viewer struggles to organize the image, leading to confusion or visual fatigue.

Emergence











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M. MOUSSORGSKY

„Eine Nacht auf dem kahlen Berge“

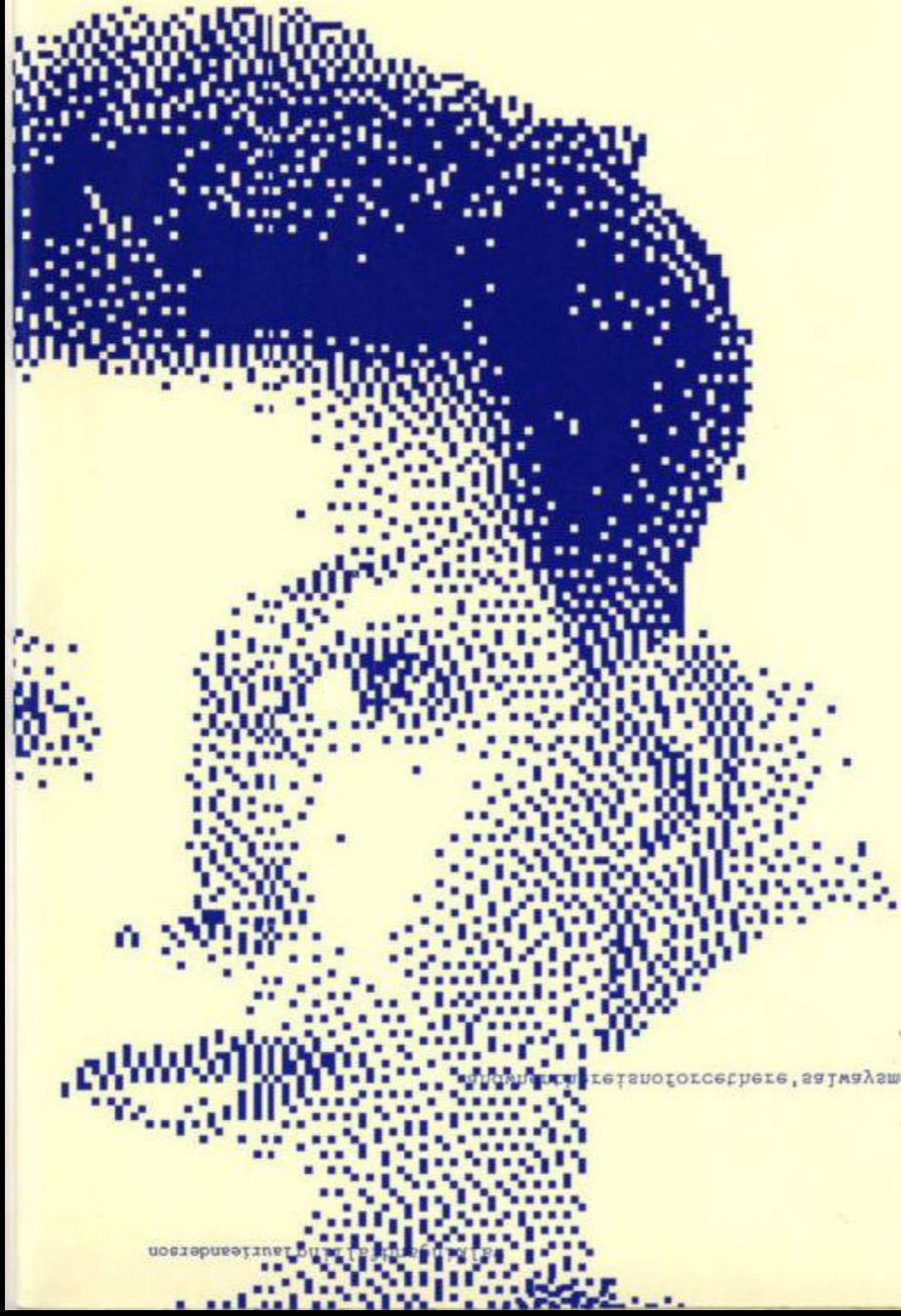
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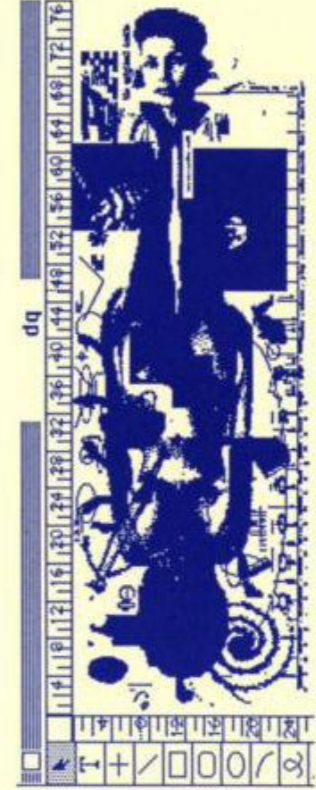
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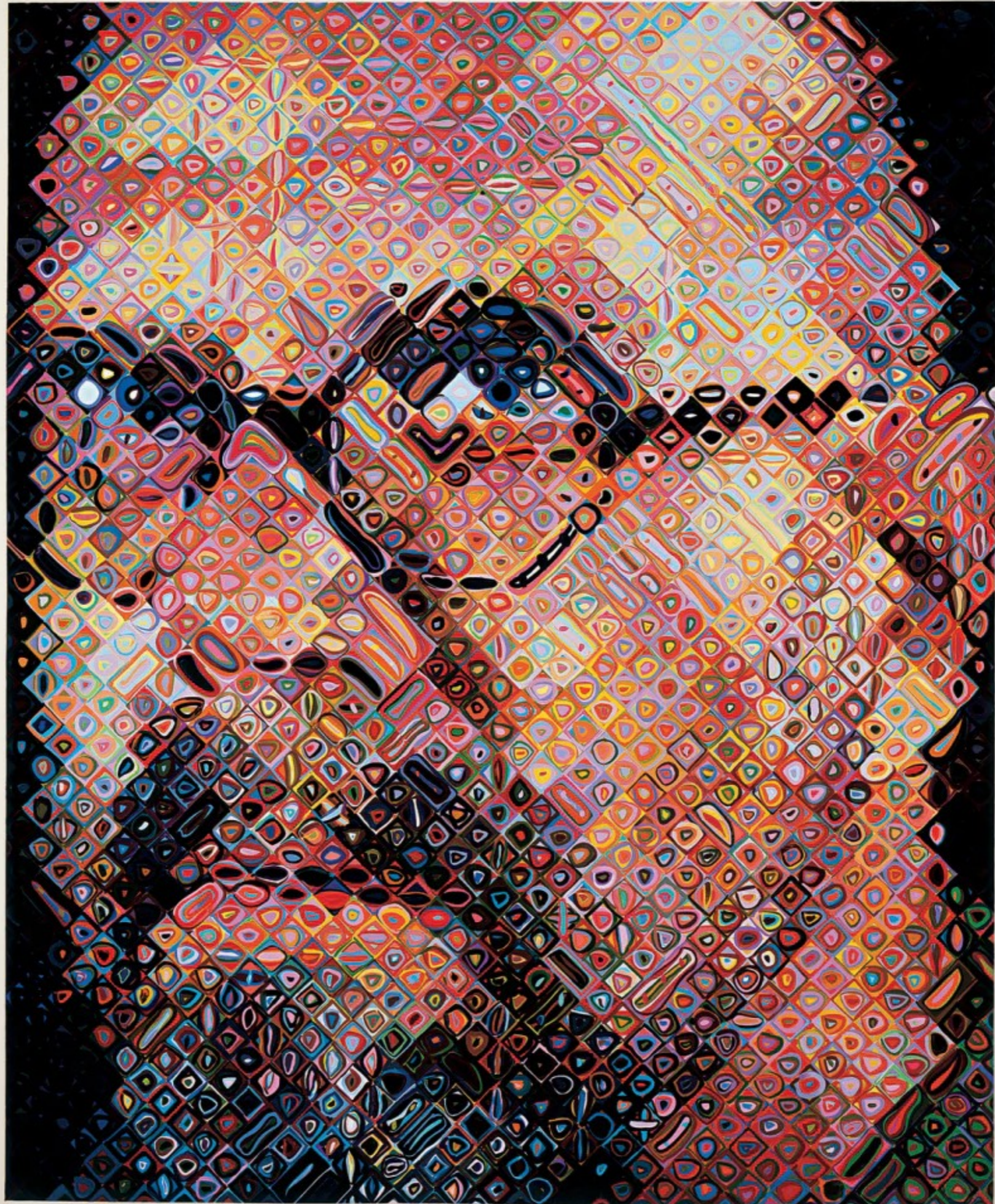
ry • be happy

Well, you don't know me, but I know you and I've got



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- **Good design shapes perception, not decoration.**
- **Structure communicates before content.**
- **Clarity is perceptual, not stylistic.**
- **Abstraction works when it aligns with how the eye organizes forces.**

Accessibility Statement

Gestalt 2026 Presentation

This presentation has been prepared in accordance with the Americans with Disabilities Act (ADA) and Web Content Accessibility Guidelines (WCAG) 2.1 Level AA standards.

Accessibility Measures Implemented

The following steps were taken to ensure accessibility of this document:

- All meaningful images include descriptive alternative text.
- Decorative graphics are marked appropriately and excluded from screen reader output.
- Text content is fully selectable and not embedded solely within images.
- Reading order has been verified to ensure logical navigation with assistive technology.
- Sufficient color contrast has been used to meet WCAG 2.1 AA contrast ratios.
- Optical illusions and perceptual examples include explanatory alt text describing their conceptual purpose.
- Photographic compositions constructed from graphic symbols include descriptions explaining emergent perceptual effects.
- No critical instructional information is conveyed exclusively through visual means.

Screen Reader Compatibility

The exported PDF has been structured to support screen readers and other assistive technologies. Image descriptions convey instructional relevance rather than purely aesthetic detail.

Known Limitations

Certain visual examples (e.g., multistable illusions and optical art) rely on perceptual ambiguity as part of the instructional content. Alternative text descriptions explain the perceptual effect, though the experiential aspect of visual switching cannot be fully replicated non-visually.

Ongoing Commitment

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A response will be provided within a reasonable timeframe, and accommodations will be made as needed.

END OF PRESENTATION