



**THE
WHOLE IS
GREATER**

**THAN
THE SUM
OF HER
PARTS**



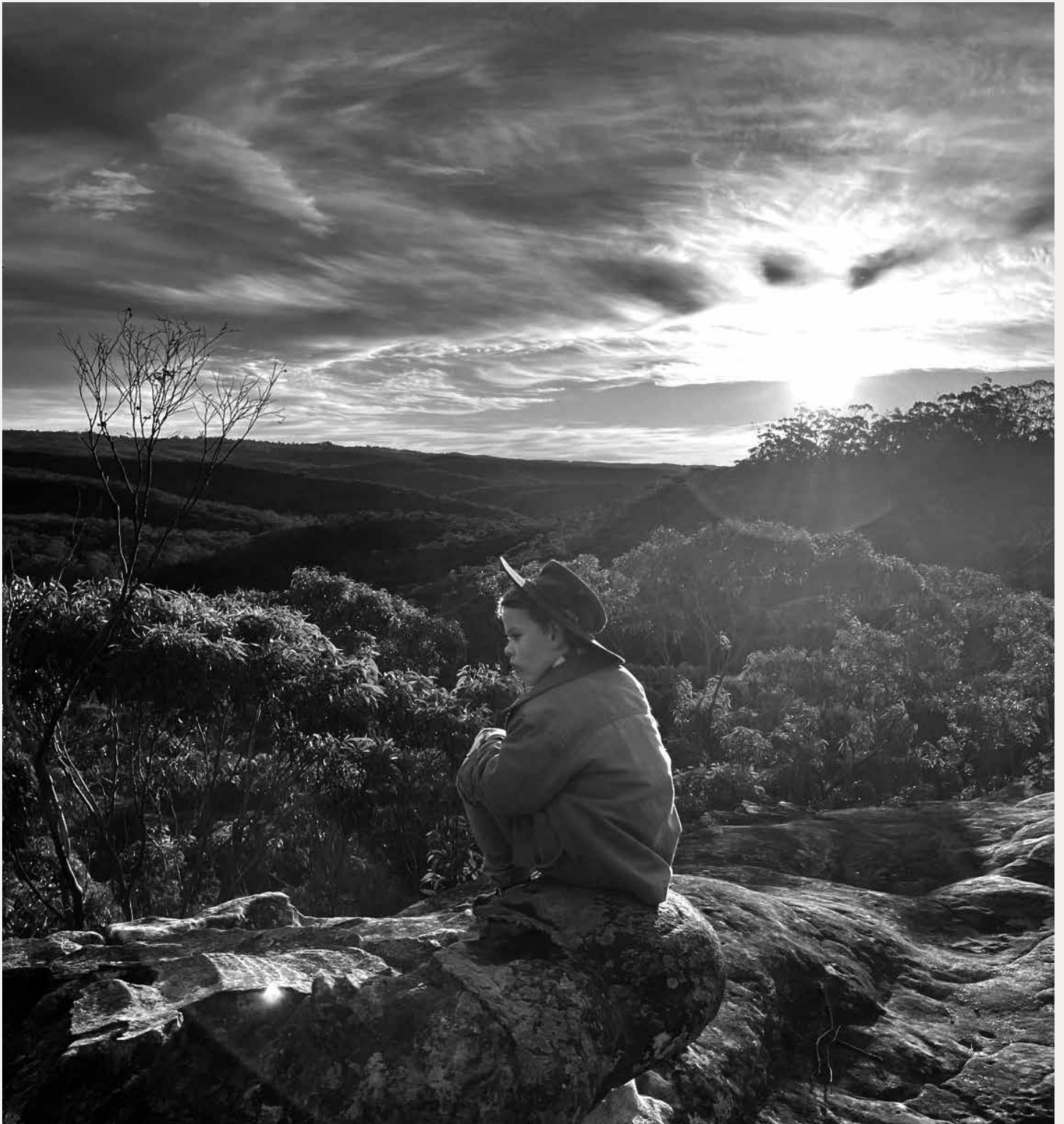
**sanné
mestrom**

31 MAY – 21 SEP 2025
NATIONAL GALLERY OF AUSTRALIA

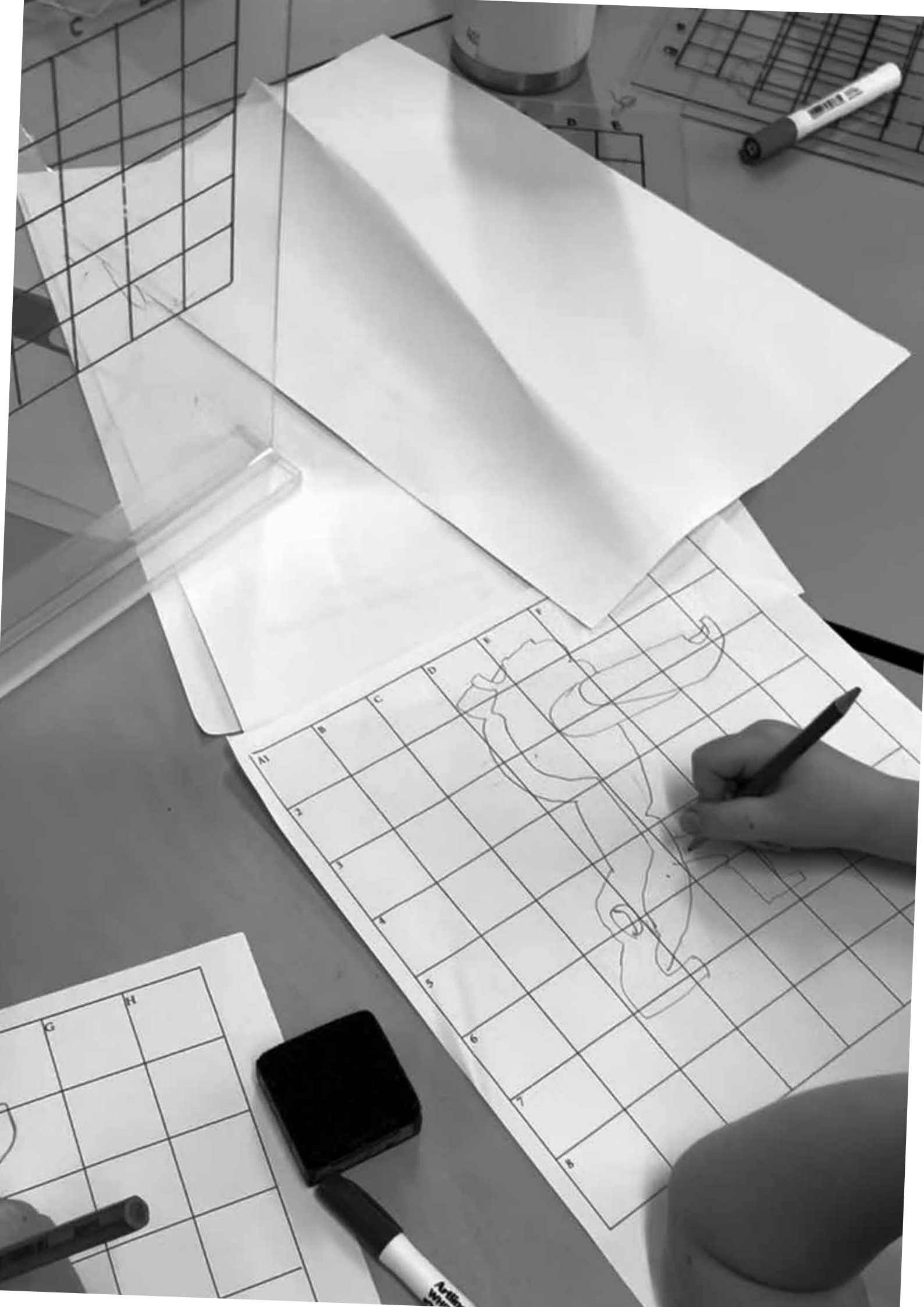
**Catalogue
and
Education
Resource**

ACKNOWLEDGEMENT OF COUNTRY

Here, where I live in the Blue Mountains, I recognise and pay respect to the Elders and communities – past, present, and emerging – of the Dharug and Gundungurra peoples. For thousands of years they have shared and exchanged knowledges across innumerable generations. Understanding play as a vital form of connection between humans and Country, I acknowledge those who have played, and continue to play on this land, upon which my son Danté and I have the daily privilege to play, live and work.



| | |
|--|-----------|
| ACKNOWLEDGEMENT | 2 |
| INTRODUCTION | 5 |
| OVERVIEW | 6 |
| WORK 1 THE FRACTURED GAZE | 8 |
| WORK 2 THE WEIGHT OF CONNECTION | 34 |
| WORK 3 LUDIC FOLLY | 42 |
| ESSAY 1 EMBODIED PERCEPTION | 46 |
| ESSAY 2 A FEMINIST VIEW | 48 |
| ESSAY 3 THE EDGE OF GROWTH | 50 |
| ACTIVITY COLOURING IN | 52 |



INTRODUCTION

DR SANNÉ MESTROM

SENIOR LECTURER,
SYDNEY COLLEGE OF THE ARTS,
UNIVERSITY OF SYDNEY

'The Whole is Greater Than the Sum of Her Parts' emerges from my sustained investigation of female representation within the Western art historical canon, particularly modernism. Through this lens, I reexamine iconic 20th-century modernist works, filtering their established art historical legacies through contemporary systems of reference that challenge conventional notions of lineage, originality, and artistic influence.

As both practicing artist and academic researcher, I strive to integrate my practice-led research on "play" within socially engaged public spaces. My approach seeks to fundamentally redefine play itself—transforming it from passive consumption to active creation by blending sculptural form with embodied experience. This creates opportunities for self-directed, open-ended engagement that empowers participants to become co-creators rather than mere observers.

My personal experience of motherhood further enriches this conceptual framework, where the body becomes understood as a space of shared utility, beauty, and discovery—constantly responsive to the evolving needs of a child. This intimate understanding of adaptive, nurturing interaction profoundly informs my approach to creating artworks that similarly respond and adapt to their users.

Building on artistic dialogues initiated by the exhibition *Cézanne to Giacometti: Highlights from Museum Berggruen / Neue Nationalgalerie* (31 May – 21 Sep 2025) this interactive installation draws direct inspiration from modernism's revolutionary history of abstraction. The work offers multiple entry points for engagement: dynamic modular sculptures that invite physical interaction, sensory tactile experiences that challenge traditional "look but don't touch" museum culture, and drawing activities that activate participants' own creative capacities across all ages.

The interactivity of 'The Whole is Greater Than the Sum of Her Parts' is informed by my broader **research program ART/PLAY/RISK**—an interdisciplinary project that provides creative and scholarly research into public art's vital role in designing and planning inclusive public spaces. By positioning playable art as an essential tool for learning, social interaction, and community engagement, my research pioneers new creative approaches to designing genuinely child-friendly cities. This research is supported by the Australian Research Council, reflecting its significance for contemporary urban planning and community development.

Purpose of This Educational Resource

This comprehensive educational resource has been developed by Mestrom specifically to accompany 'The Whole is Greater Than the Sum of Her Parts', providing educators, artists, families, and community facilitators with tools to explore the project's rich thematic content.

The resource is designed to:

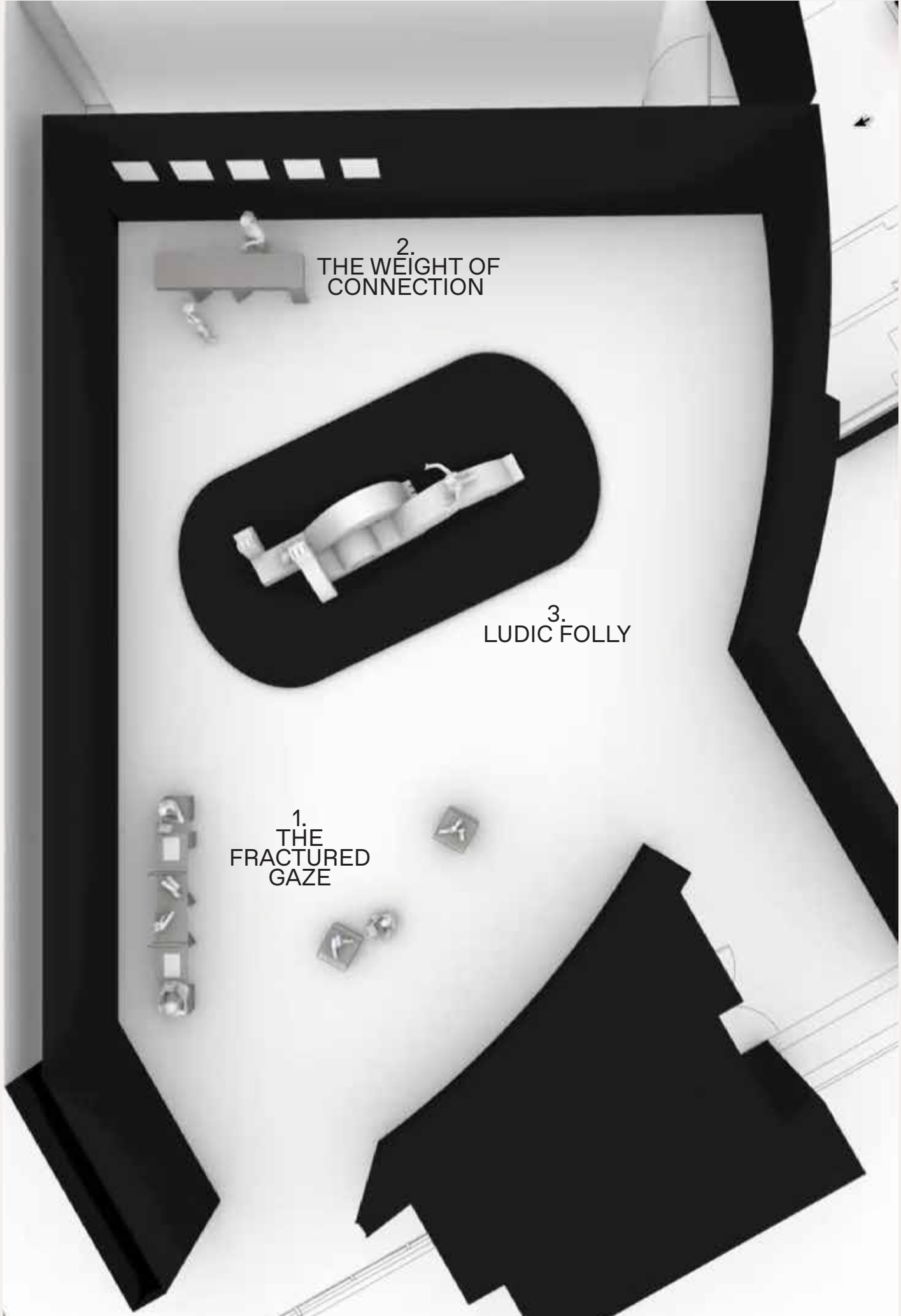
- Deepen understanding of how art can challenge traditional ways of seeing and knowing
- Provide practical activities that develop observational skills and critical thinking
- Demonstrate how play-based learning can address sophisticated artistic and philosophical concepts
- Support inclusive educational approaches that accommodate diverse learning styles and abilities
- Bridge connections between historical artistic movements and contemporary creative practice

How to Use This Resource:

This booklet is intentionally flexible—adapt activities to suit your specific context, age groups, and learning objectives. Whether you're an educator seeking cross-curricular connections, an artist exploring community engagement, or a family looking for meaningful creative experiences, these materials are designed to grow with your needs.

We encourage you to share this resource with others who might benefit from its approach to learning through direct engagement, multiple perspectives, and hands-on discovery. The educational philosophy embedded here—that understanding emerges through active participation rather than passive consumption—reflects the same principles that guide Mestrom's artistic practice.

Most importantly: These activities are designed to be starting points for your own creative exploration. Feel free to modify, expand, and reimagine them to serve your community's unique interests and needs.



2.
THE WEIGHT OF
CONNECTION

3.
LUDIC FOLLY

1.
THE
FRACTURED
GAZE

OVERVIEW OF WORKS

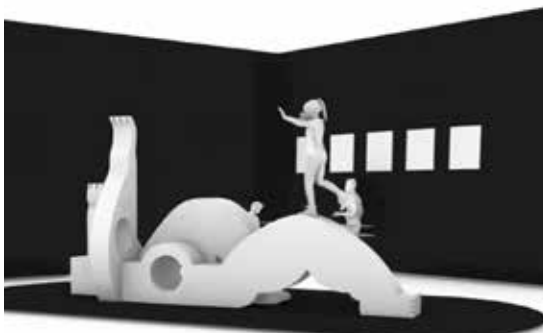
1. THE FRACTURED GAZE



2. THE WEIGHT OF CONNECTION



3. LUDIC FOLLY



1. THE FRACTURED GAZE

Sanné Mestrom invites you to experience how artistic viewpoints fundamentally change our perception of space and form. Through these two drawing systems, you'll engage with centuries-old questions of representation that continue to shape contemporary art.



ACTIVITY 1. RENNAISANCE PERSPECTOGRAPH



Experience the 800-year-old Renaissance technique that transforms complex subjects into manageable sections. The perspectograph breaks down what you see into a grid, helping you draw exactly what's there—not what you think should be there.

Materials: Perspectograph, gridded drawing paper, pencil

Setup:

- Arrange a simple still life on your table
- Position the perspectograph so your still life fits completely within the viewfinder and fills most of the screen
- Close one eye and look through the viewfinder—you'll see your subject divided into grid squares

Drawing Process:

- Start with the center square (C3)
- Draw only the shapes and lines you see in that square
- Move outward to surrounding squares, one at a time
- Keep one eye closed throughout to maintain the flat, two-dimensional view
- Focus solely on each individual square—ignore what you know the object "should" look like

Reminders: Draw what you actually see, not what you think you see. When you focus on one square at a time, you'll stop seeing "a hand" or "a leg" and start seeing specific curves, shadows, and shapes.

Reflection Questions:

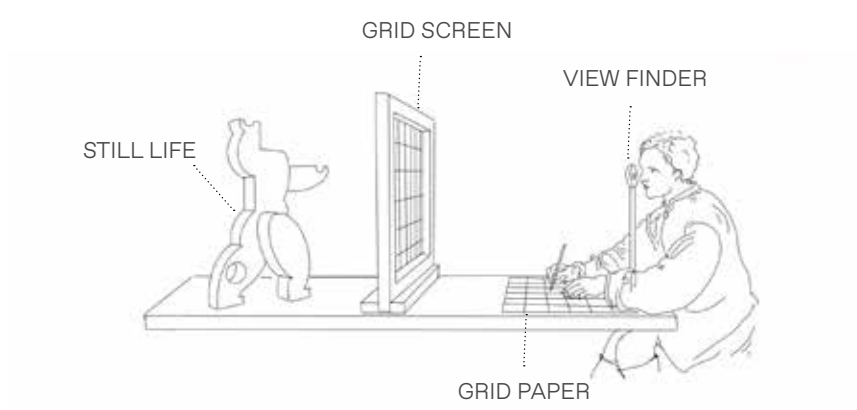
- Do you discover details you missed at first glance?
- How does breaking the image into squares change your perception?
- What happens when you stop thinking about the object and focus only on the shapes?
- Which squares surprised you most with their actual content?
- How does your finished drawing compare to your initial mental image of the still life?

Extension Challenge:

Try drawing the same still life without the grid, then compare both drawings. Which captures more accurate proportions and details? Why might Renaissance artists have valued this methodical approach?



ACTIVITY 1 PRINTABLE
Renaissance Perspectograph
Gridded drawing paper



| | A | B | C | D | E |
|---|---|---|---|---|---|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |



Key Ideas:

These observational drawing activities explore the profound educational value of teaching children to "draw what they see in each square, not what they think should be there." This approach helps students overcome symbolic drawing tendencies (like drawing a house with a triangle roof regardless of perspective) by breaking subjects into abstract sections that must be observed individually.

The content is structured around a number of key themes:

1. Overcoming symbolic drawing

Children naturally draw what they "know" rather than what they actually see;

2. Developing true seeing skills

The grid method helps students see abstract shapes rather than named objects;

3. Building spatial awareness

Students learn how 3D objects project onto 2D surfaces

4. The philosophical tension between the "seeing mind" (raw visual data) and the "knowing mind" (conceptual knowledge);

5. The grid as a philosophical tool that fragments symbolic wholes and bypasses cognitive biases;

6. Political dimensions of observational drawing - challenging singular narratives, valuing diverse perspectives, and developing critical visual literacy.







FURTHER ACTIVITIES AND DISCUSSION POINTS

THE FRACTURED GAZE: HAND DRAWING CHALLENGE

Part 1. Observational sketch

Students remain seated with fresh paper and pencils.

Look at your hand and draw what you see. Take about 3 minutes.

Note: Hands are considered one of the most challenging subjects to draw. Why do you think that is?

- Complex structure with many parts
- Many joints and angles
- Constantly moving
- We have preconceptions about how hands 'should' look

Our hands are complex three-dimensional forms, and we use them so constantly that we think we know exactly what they look like. But do we really? Let's try a different approach.

Part 2. Grid Window Tracing

Distribute portable perspectographs and whiteboard markers to each student.

Hold your hand out as though it's holding an apple. Place the grid window over your hand, and use the whiteboard marker to trace the outlines of what you see directly onto the window.

Focus on tracing exactly what appears in each grid square—don't worry about whether it 'looks like a hand,' just trace the shapes you see.

Look at your grid tracing now. Does your drawing look more like your actual hand than previous drawings you've made? The difference can be striking, even for people who don't consider themselves 'artistic.' The grid doesn't add skill—it removes barriers that prevent us from truly seeing what's in front of us.

When we trace what we see through each square, we're focusing on the actual shapes rather than what we think a hand 'should' look like.

This is pure observational drawing—drawing exactly what our eyes see, not what our mind tells us should be there.

Expanded Discussion

Now that you've traced your hand through the grid window, let's discuss what you've discovered.

When we look at our entire hand, our brain immediately labels it as 'hand' and tries to draw what we think a hand should look like. We have a mental symbol for 'hand' that often includes five fingers of equal length, a symmetrical palm, and simplified knuckles. But look at your actual hand—the fingers are different lengths, the thumb connects at an angle, and the perspective makes some parts appear larger or smaller than others.

The grid window helps us in several important ways:

1. Breaking complexity into manageable pieces: Instead of drawing 'a hand,' you're drawing 'whatever appears in square B3,' which might just be a curved line or an angled shape. This is much less intimidating.

2. Seeing proportions accurately: Notice how much space your thumb actually takes up compared to your pinky, or how the shapes of your fingers change when viewed from different angles. The grid gives us reference points to measure these relationships.

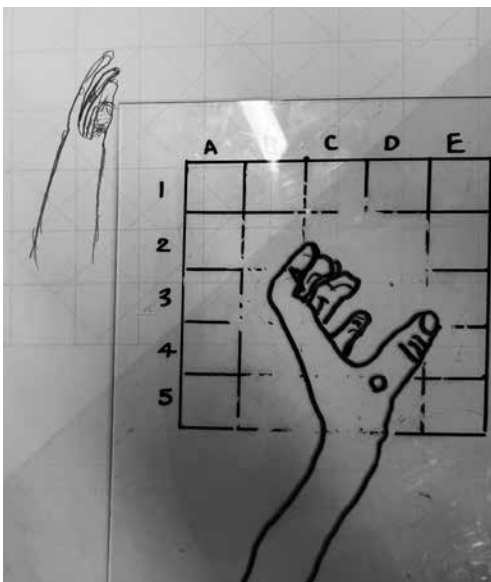
3. Switching from 'knowing mind' to 'seeing mind': When you focus only on what appears in a single grid square, you're temporarily suspending your conceptual knowledge about hands and paying attention to pure visual information—shapes, lines, angles, and proportions as they actually appear to your eyes.

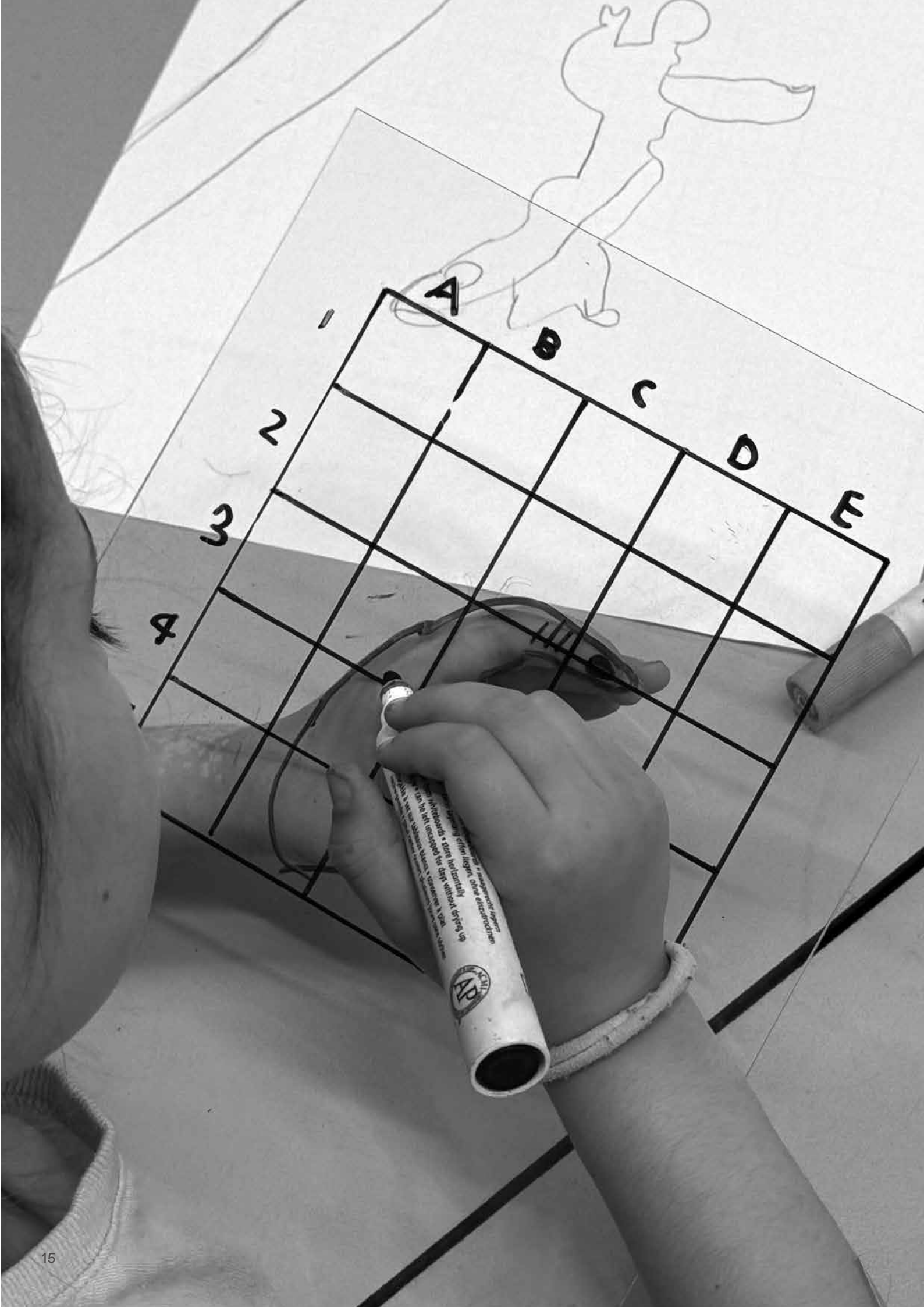
This is what artists call 'pure observational drawing'—drawing exactly what our eyes see, not what our mind tells us should be there. It's a fundamental shift in how we process visual information, and it's the same technique artists throughout history have used to create accurate representations.

Think of the grid as training wheels for your eyes and mind. After some practice using tools like this perspectograph, you won't need them anymore—you'll naturally develop the ability to flatten three-dimensional space with your mind's eye. Your brain will learn to automatically break down complex subjects into manageable sections and see proportional relationships accurately.

Professional artists often begin with grid methods when learning, then gradually internalise these skills until they can observe and draw with remarkable accuracy without any tools at all. The grid doesn't make you dependent—it teaches your visual system new ways of processing information that eventually become second nature.

But remember this key insight: accurate drawing begins with accurate seeing, and the grid helps us see what's actually there rather than what we think should be there.





ACTIVITY 2:

CUBIST PROJECTION BOX



Discover the Cubist approach, where objects unfold and fracture across multiple viewpoints simultaneously. This presents perhaps the most radical challenge to conventional thinking: rejecting the notion that any single viewpoint can provide a complete picture of reality.

Materials: "Unfolded cube" drawing sheet, pencil

Drawing Process:

- Take the "unfolded cube" drawing sheet from the materials station
- Start at location labeled 'Front' and draw what you see of the sculpture in the square C3
- Move to Position 2 and draw what you see in the second square
- Continue until you've drawn the sculpture from all marked positions
- In the final square (labeled "Cubist View"), create one drawing that combines elements from different viewpoints—you might include the head as seen from the front, but the torso as seen from the side

Reminders:

- An object transforms completely when seen from different positions
- No single perspective captures the entire truth
- Seemingly contradictory views can coexist in a more complex representation

Reflection Questions:

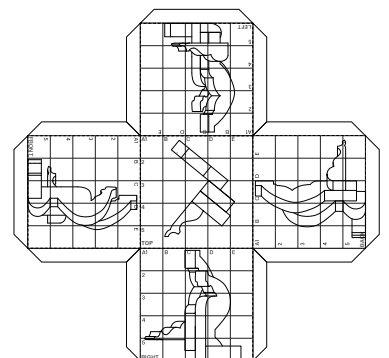
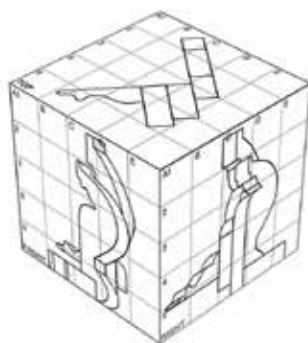
- How does seeing the sculpture from multiple angles give you a more complete understanding of its form?
- Which viewpoint revealed the most surprising details?
- What parts of the sculpture were hidden from certain angles but visible from others?
- How does your combined "Cubist View" drawing differ from any single perspective?
- If you could only show this sculpture to someone using one drawing, would you choose a single viewpoint or your combined perspective? Why?

Extension Challenge:

Try creating a drawing that shows both the front and back of the sculpture at the same time! This insight drove Picasso and Braque to develop Cubism—a revolutionary approach that presents multiple perspectives simultaneously, creating a more comprehensive representation than any single viewpoint could achieve.

Final Reflection:

Compare your Renaissance grid drawing with your Cubist multi-perspective drawing. How do these different approaches to seeing and representing reality reflect different ways of understanding the world around us?



ACTIVITY 2 PRINTABLE
Cubist Projection Box
"Unfolded cube" drawing sheet

| | | | | | | | | | | | | | | |
|--|--|--|--|--|------|--|--|--|--|--|--|--|--|--|
| | | | | | LEFT | | | | | | | | | |
| | | | | | 5 | | | | | | | | | |
| | | | | | 4 | | | | | | | | | |
| | | | | | 3 | | | | | | | | | |
| | | | | | 2 | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | D | | | | | | | | | |
| | | | | | C | | | | | | | | | |
| | | | | | B | | | | | | | | | |
| | | | | | A1 | | | | | | | | | |
| | | | | | E | | | | | | | | | |
| | | | | | | | | | | | | | | |

FURTHER ACTIVITIES AND DISCUSSION POINTS

THE FRACTURED GAZE:

ORTHOGRAPHIC CUBIST PROJECTION BOX

Collaborative Cubist Challenge:

Let's create one large cubist representation of the sculpture together, mirroring how cubist artists combined multiple perspectives to create a more complete representation.

Materials: Large master drawing sheet with grid, individual square cards, glue sticks, pencils

Drawing Process:

- Each participant draws specific grid squares from different viewpoints on individual cards
- Label each card with grid reference and viewpoint (e.g., "C3 - Front View")
- When everyone has finished, gather as a group around the master drawing
- Decide collectively which viewpoint to use for each square in the master drawing
- Glue selected cards onto the master grid to create the final collaborative artwork

Reminders:

- Multiple people observing the same grid square from different angles will create different drawings
- All viewpoints are valid—the challenge is choosing which best serves the final composition
- This collaborative process mirrors how cubist artists synthesised multiple perspectives

Reflection Questions:

- How did group decision-making change your understanding of each viewpoint's value?
- Which grid squares generated the most different interpretations between viewpoints?
- How does the final collaborative drawing compare to any individual perspective?
- What compromises or negotiations were needed to create the unified artwork?

Extension Challenge:

Create a second collaborative artwork where you deliberately choose contrasting viewpoints for adjacent squares, emphasising the fragmented, multi-perspective nature of cubist representation.

Inside/Outside Challenge:

Cubist artists often showed both the inside and outside of objects simultaneously, rejecting the limitation that we can only see one side of reality at a time.

Materials: Drawing paper, pencils, gridded viewfinder

Drawing Process:

- Imagine you possess x-ray vision and can see both through and around the sculpture simultaneously
- Create a drawing that shows both the sculpture's exterior form and its internal structure
- Use the grid reference to help position elements accurately in your "impossible" view
- Include background elements visible around the sculpture as if the sculpture were transparent
- Combine solid and transparent areas to create depth and complexity

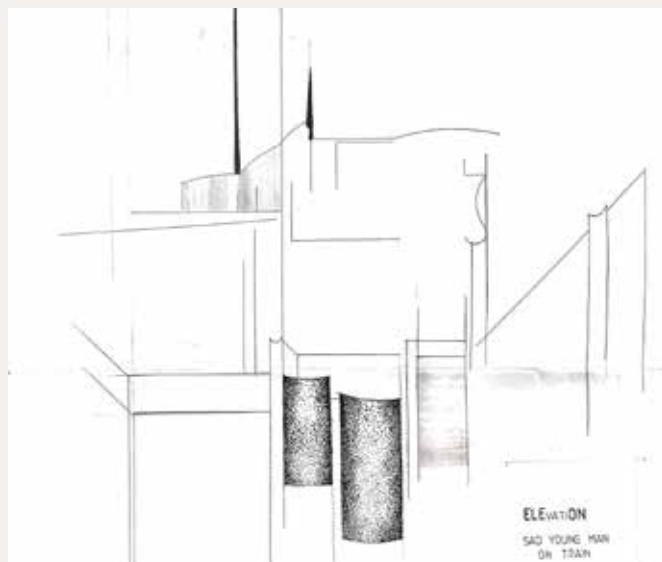
Reminders:

- There are no "correct" ways to show impossible perspectives—trust your visual imagination
- Cubist artists frequently represented things that couldn't be seen from a single viewpoint
- Your drawing should reveal hidden aspects while maintaining recognisable elements

Reflection Questions:

- What aspects of the sculpture became visible in your inside-outside drawing that were hidden in single-viewpoint drawings?
- How did imagining transparency change your understanding of the sculpture's form?
- What challenges did you face representing impossible viewpoints?
- How might this approach apply to understanding complex ideas or situations in real life?

Extension Challenge: Create a drawing that shows the sculpture as it exists now and as it might look if it could move or transform, combining different moments in time within one image.



Architectural Orthographic Challenge

Discover how architects use orthographic projections—the same technique cubists employed—to represent three-dimensional buildings in technical drawings.

Materials "Unfolded cube" sheet, pencils, architectural drawing examples for reference

Drawing Process

- Observe the sculpture as if you were an architect documenting a building
- Draw precise front, side, top, and back elevations on your unfolded cube template
- Focus on accurate proportions and structural relationships rather than artistic interpretation
- Include measurements and technical details where possible
- Create clean, precise lines that could serve as construction documents

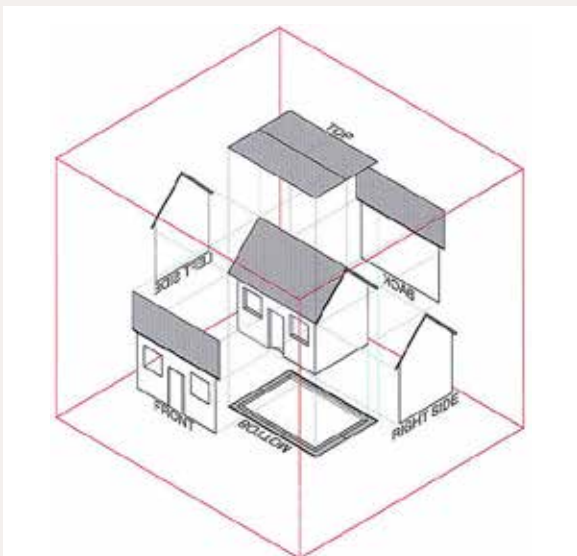
Reminders

- Architects must show all sides of a building for construction purposes
- Orthographic projection eliminates perspective distortion for accurate measurement
- Each view provides essential information not available from other angles

Reflection Questions

- How does technical drawing differ from artistic interpretation of the same object?
- What aspects of the sculpture are most important for documentation versus artistic expression?
- How might architects and artists use the same visual techniques for different purposes?
- Where else do we encounter orthographic projections in daily life?

Extension Challenge Design an addition or modification to the sculpture using orthographic projection, showing how your changes would appear from all sides.



Where Else Do We Encounter Orthographic Projections in Everyday Life?

Here are some prompts to help participants recognise orthographic projections in their everyday experiences:

Building and Construction

- IKEA furniture instructions - Those step-by-step diagrams showing pieces from front, side, and top views
- House plans - Architects' blueprints showing floor plans (top view) and elevations (front/side views)
- Lego instruction manuals - Each step shows the building from multiple angles to help you understand 3D construction

Technology and Gaming

- Video game interfaces - Many games switch between front view, side view, and top-down perspectives
- Minecraft - Players naturally think in orthographic views when building structures
- CAD software - Engineers and designers use these projections to design everything from cars to smartphones

Maps and Navigation

- City maps - Show streets from directly above (top orthographic view)
- Building floor plans in malls - "You are here" maps show the layout from above
- Subway/metro maps - Often simplified orthographic representations of train networks

Everyday Problem-Solving

- Packing a suitcase - You mentally visualise from above to fit everything efficiently
- Rearranging furniture - You might sketch room layouts from above
- Gift wrapping - You unfold the box mentally to figure out how much paper you need

Discussion Prompts

- When you're trying to fit books on a shelf, what viewpoint helps you plan best?
- How do you figure out if a new piece of furniture will fit through your bedroom door?
- When you're lost in a building, what kind of map or sign helps you most?
- How do you explain to someone over the phone where you've hidden something in a room?

These examples help participants realise that orthographic thinking is a natural problem-solving tool they already use, making the artistic technique feel more familiar and relevant to their daily lives.



FURTHER ACTIVITIES AND DISCUSSION POINTS

THE FRACTURED GAZE

Durer's Drawing Grid

The device shown in Dürer's 1525 woodcut consists of:

1. A fixed eyepiece that the artist looks through - this ensures the viewing position remains constant
2. A vertical frame with a grid (like a window with squares)
3. A flat drawing surface mounted at right angles to the grid frame
4. The subject being drawn (in the woodcut, a reclining woman) is positioned on the other side of the grid

The artist looks through the eyepiece at the subject through the grid. The grid divides the view into squares, which correspond to squares drawn on the paper. This allows the artist to accurately transfer what they see in each grid square of their view to the corresponding square on their paper, ensuring accurate perspective.

Contemporary Context

How can Dürers 'Grid Window' be understood in today's context of today's Smart Phones?

There is a fascinating connection that bridges Renaissance perspective devices with contemporary digital imaging. Here's how we can understand the parallel:

Dürer's Grid Window and the iPhone share several key structural and functional similarities, as shown in the table below.

Critical Implications

- Both devices shape how we see and represent reality
- Both embed specific power relationships in their basic structure
- Both make complex visual processes appear "natural" or neutral.

This comparison highlights how contemporary digital devices continue historical traditions of controlling and standardising visual representation, while appearing to simply "capture" reality.

| | Dürer's grid | Smart Phone | Both |
|---------------------------|--|---|---|
| Framing Device | A physical frame that segments reality into measurable units | A digital screen that pixelates reality into a grid of discrete units | Both devices frame and segment reality through a rectangular window |
| Fixed Viewpoint | Artist must look through a fixed eyepiece | Camera lens provides a fixed focal point | Both enforce a single, 'optimal' viewing position |
| Reality to Representation | Translates 3D space onto 2D paper through grid coordinates | Converts 3D reality into 2D digital information through pixel coordinates | Both <u>transform</u> lived experience into measurable, reproducible data |
| Standardisation | Created standardised method for accurate perspective drawing | Creates standardised digital images through consistent algorithms | Both democratise image-making through systematic approaches. This helps us draw what we <u>actually see</u> with our eyes (flat abstract shapes), rather than what we know to be true (<u>ie</u> a complex multi-dimensional object) |
| Power Dynamics | Positioned artist as 'master' of visual space | Positions user as curator/controller of visual information | Both create hierarchical relationship between viewer and viewed |

Isometric Drawing Activity

From 2D to 3D: Drawing Loose Parts in Isometric Space

This activity helps you understand how 3D objects can be represented on 2D paper using orthographic projections and isometric drawing techniques—the same methods architects and engineers use to design buildings and products.

Step 1: Choose Your Objects

- Choose a loose part shape you like from the mat in the gallery
- Find the corresponding drawing on the worksheet
- Pick one object to start with (cube, cylinder, or curved piece)
- Study its shape carefully—notice its height, width, and depth

Step 2: Find Your Grid

- Use the dotted isometric grid on the right side of your worksheet
- Notice how the grid creates a 3D-looking diamond pattern
- This special grid helps you draw 3D objects that look three-dimensional on flat paper

You'll draw your entire object within this one cube

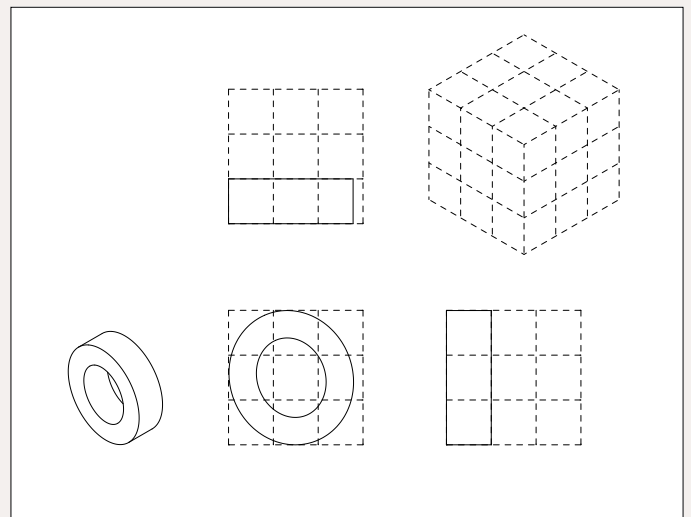
Each face of the cube shows a different view of your object

Step 3: Map Each Face

- Front face: Draw what you'd see looking straight at the front
- Side face: Draw what you'd see from the side
- Top face: Draw what you'd see looking down from above
- Show how your object fills the space inside the cube

Step 4: Think 3D

- Imagine your object sitting inside a glass cube
- Draw what appears on each visible wall of the cube
- All three views should show the same object from different angles
- Imagine you're looking down at the objects from slightly above
- Consider which surfaces you can see and which are hidden
- Think about how architects draw buildings before they're constructed



While Drawing:

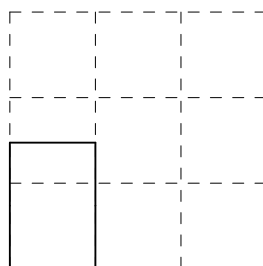
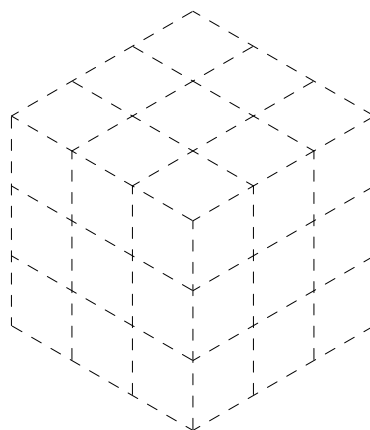
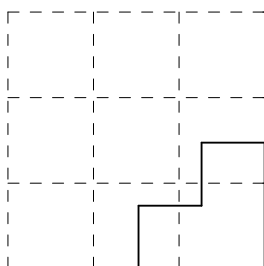
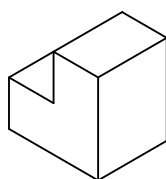
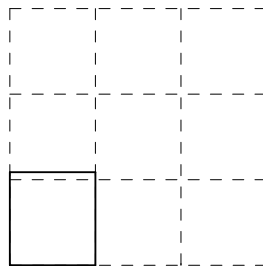
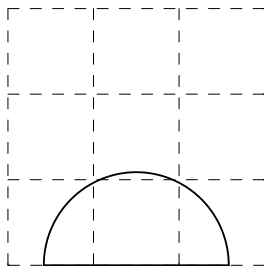
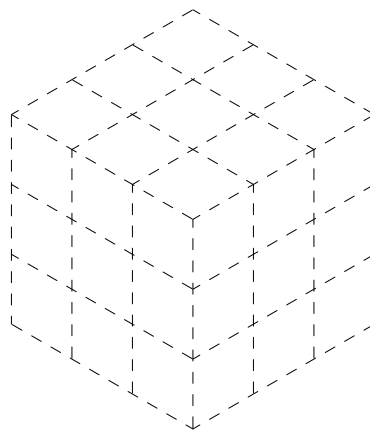
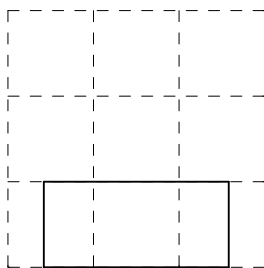
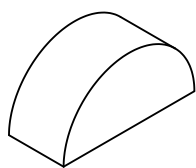
- How does drawing on the isometric grid change how you see the 3D objects?
- Which is easier—drawing what you see in real life, or drawing from the flat diagrams?
- How might architects use this type of drawing when designing buildings?

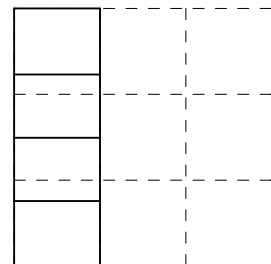
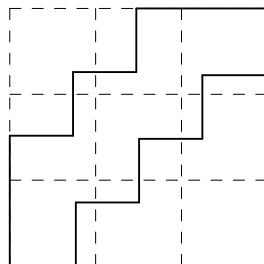
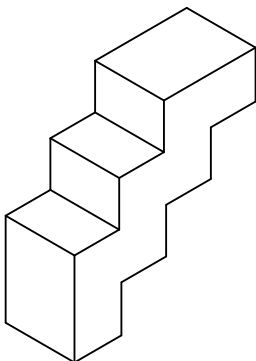
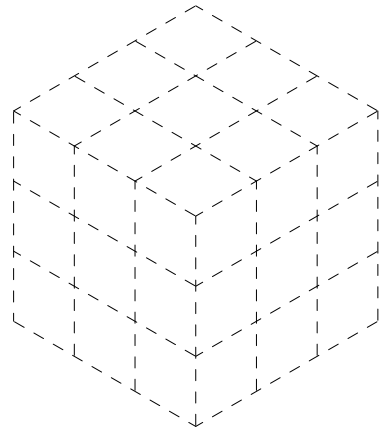
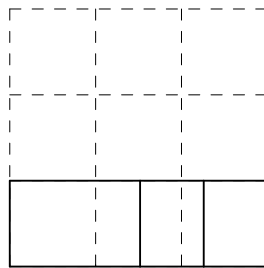
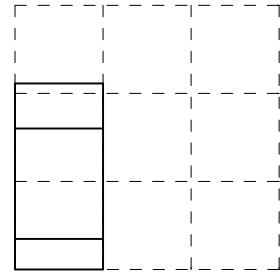
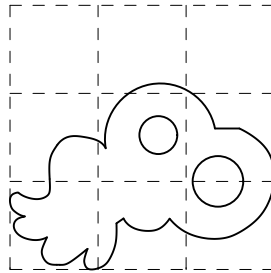
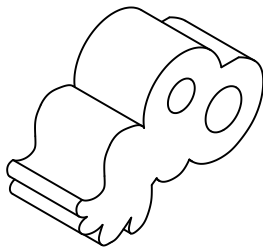
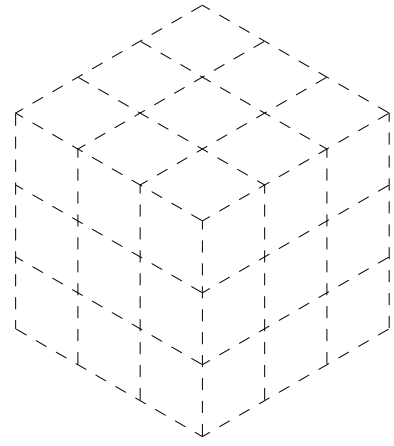
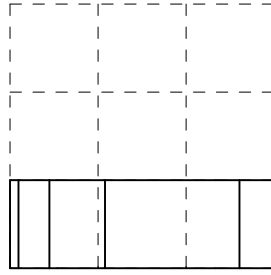
After Completing:

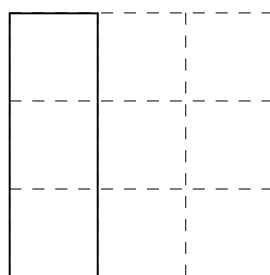
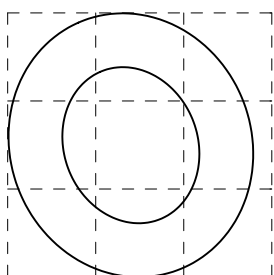
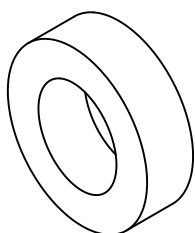
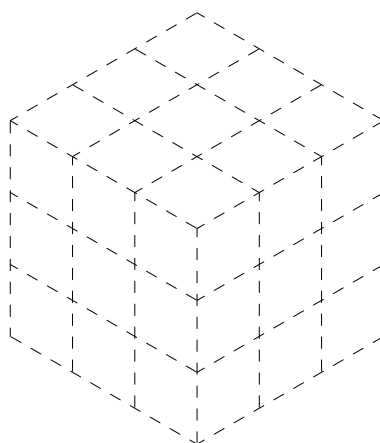
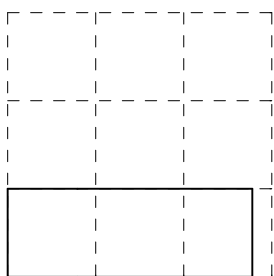
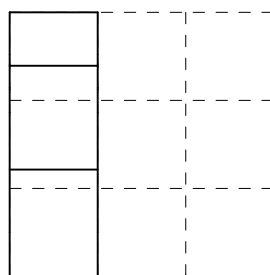
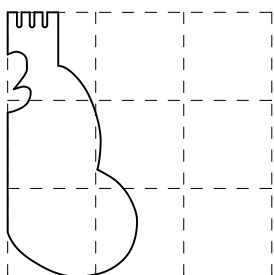
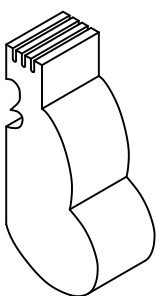
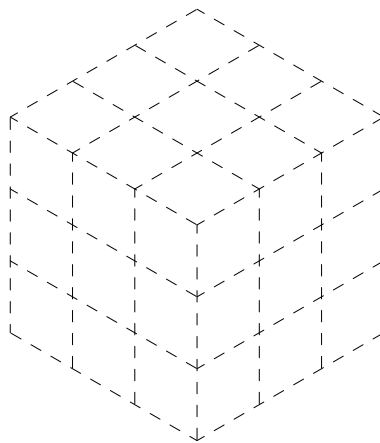
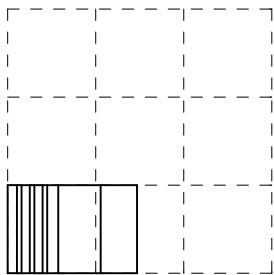
- How does your isometric drawing compare to what the actual loose parts look like?
- What information does this type of drawing show that a photograph might not?
- How could this skill help you plan or design your own creations?

Extension Activity

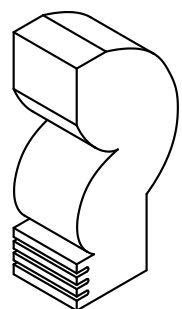
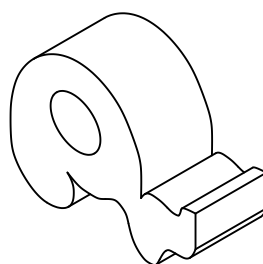
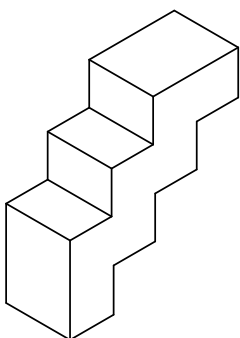
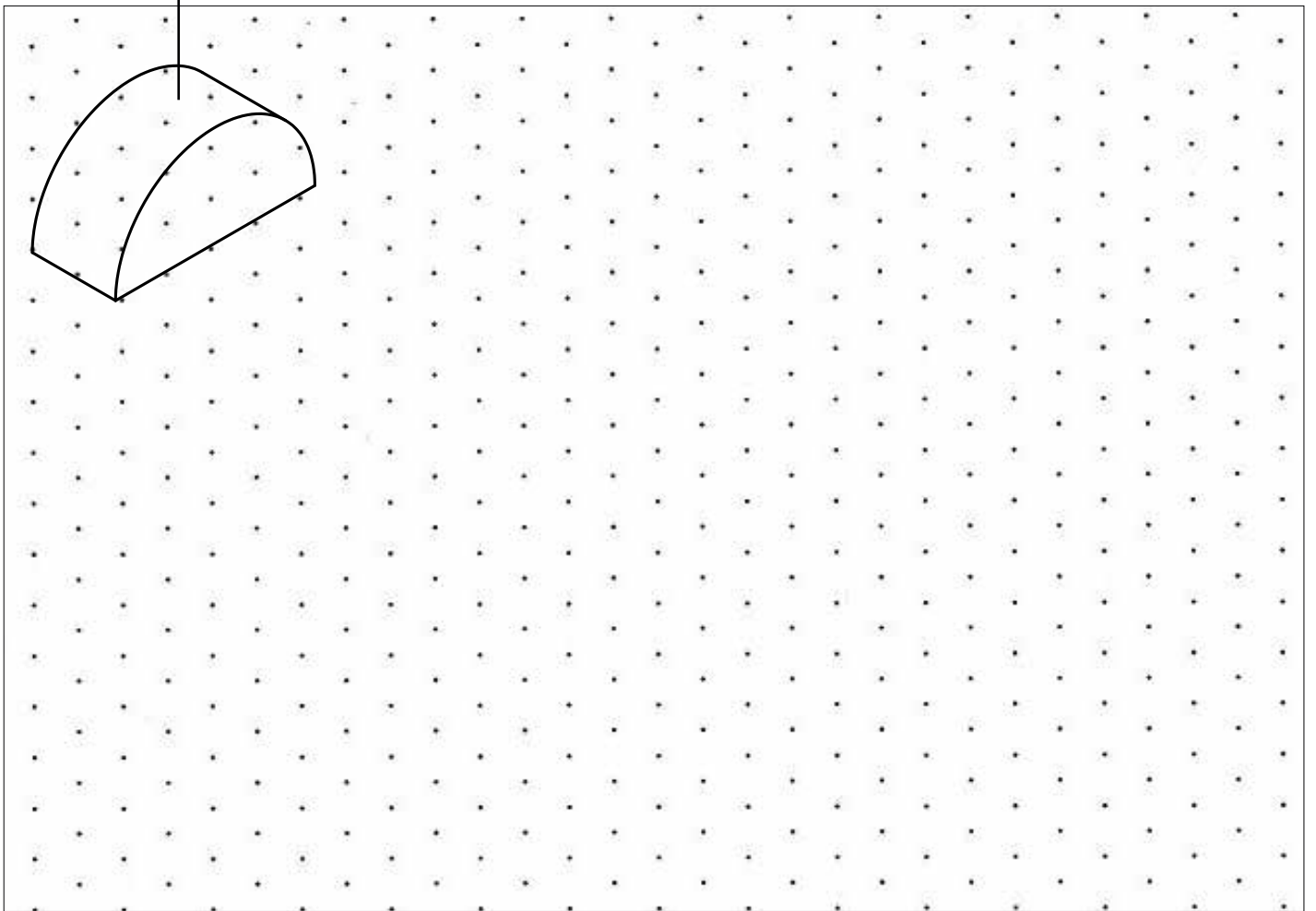
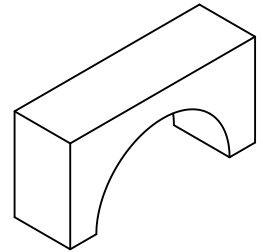
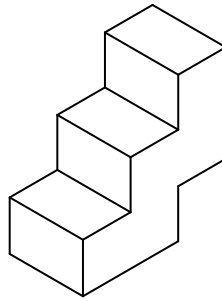
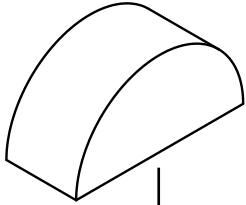
Try creating your own loose parts combination. Draw several pieces arranged together as if you were building a sculpture or structure.



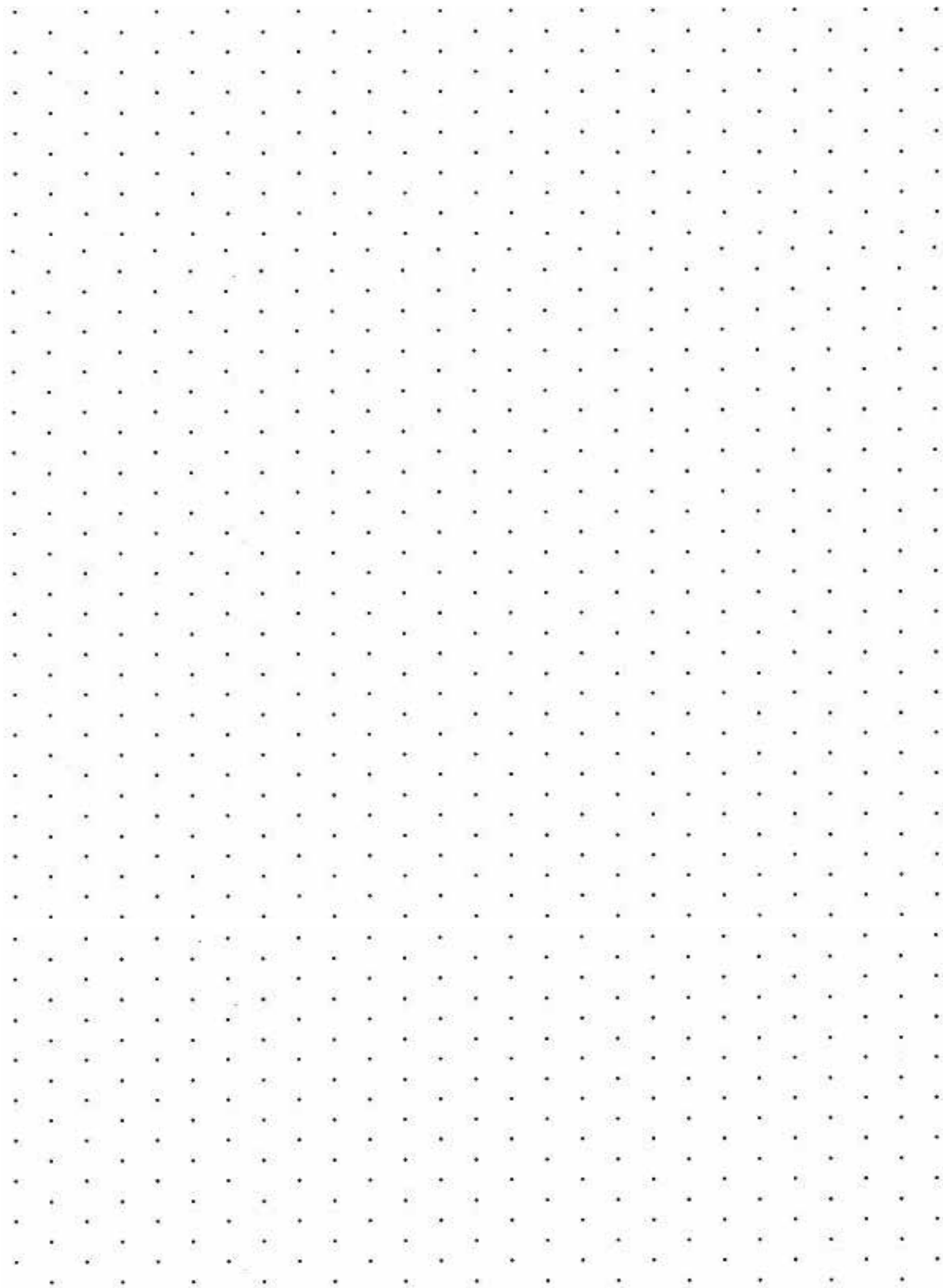


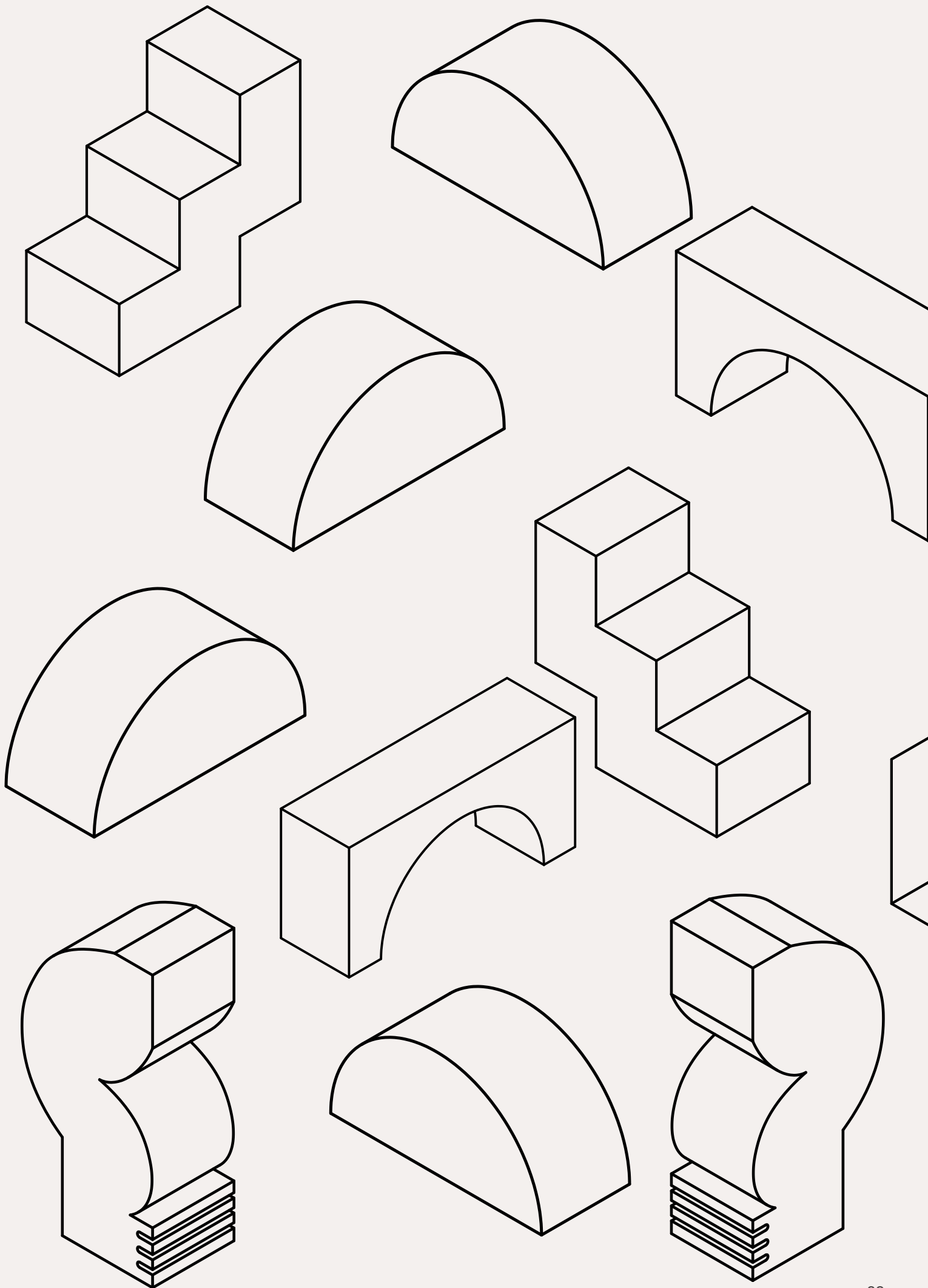


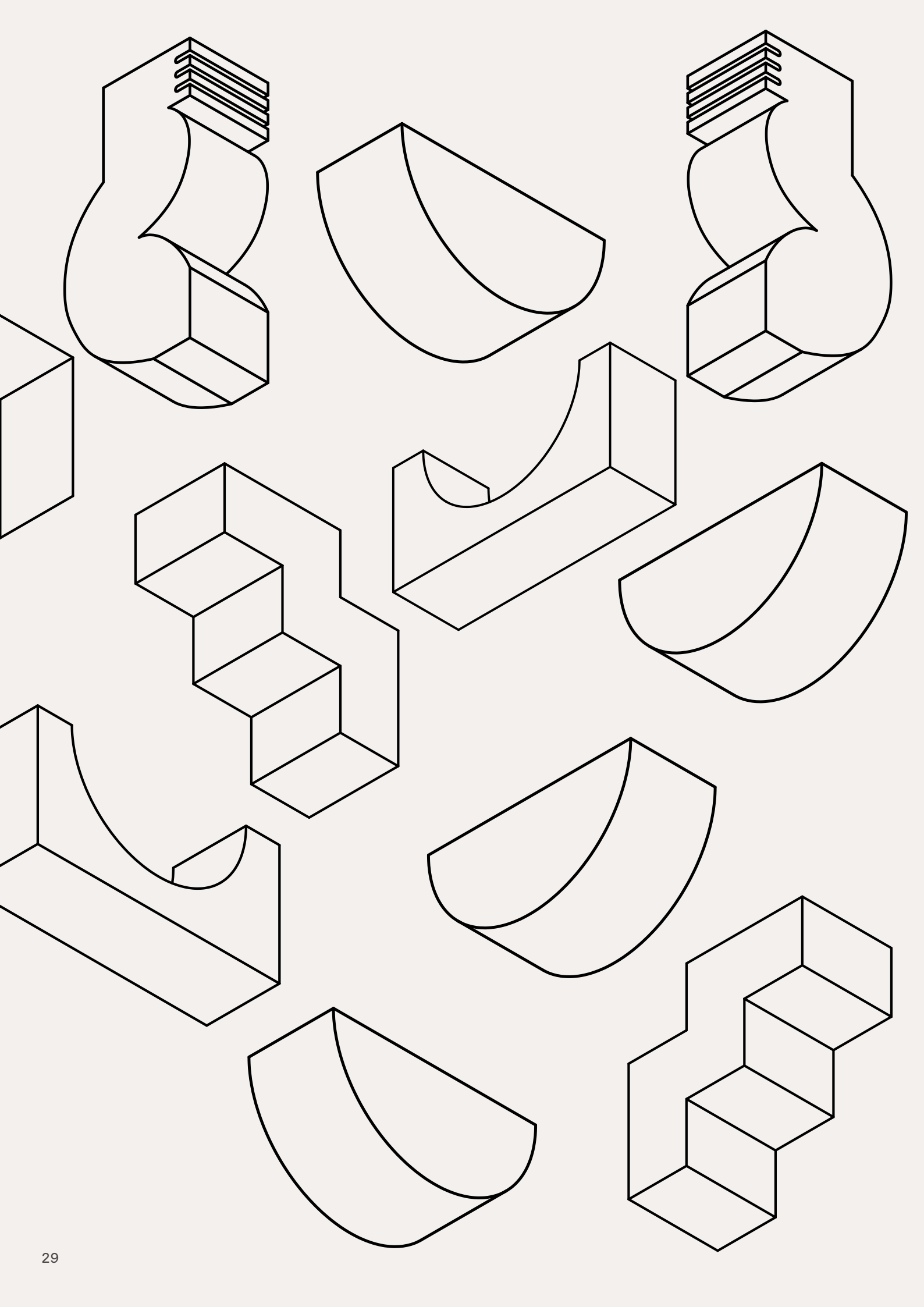
Sketch these loose part shapes into the isometric grid below.



Try designing your own sculptures in the isometric grid on this page.







THE FRACTURED GAZE:

KEY IDEAS

The activities in this framework take students on a deliberate journey through three stages of visual representation, each challenging progressively deeper assumptions about how we see and understand the world. This progression connects participants to centuries of artistic innovation while developing critical thinking skills essential for navigating contemporary complexity.

The Three-Stage Learning Journey

Stage 1: Symbolic Drawing (Our Starting Point)

When asked to draw an object, most of us—especially children—begin by drawing what we know rather than what we actually see. This is symbolic drawing, representing our natural tendency to rely on mental shortcuts and categorical thinking.

Consider what happens when a child draws a house. They typically draw a square with a triangle roof, windows as small squares, and a rectangular door, regardless of their viewing angle. They're drawing the symbol or idea of a house, not the actual visual appearance of any specific house they're observing.

This symbolism extends to everything: people become stick figures with circle heads, trees become lollipop shapes, and faces follow standardised patterns with almond eyes and curved-line mouths. These symbols serve as mental shortcuts that help us categorize and navigate the world efficiently, but they severely limit our ability to truly see and represent what's actually in front of us.

When students attempt their first observational drawing of the geometric figurative sculpture, they typically rely on these symbolic representations—drawing what they "know" a human figure should look like rather than the specific geometric forms they're actually seeing. This reveals how deeply embedded our conceptual frameworks are in shaping perception.

Stage 2: Observational Drawing (Seeing What's Actually There)

The grid window activities, introduced through the Renaissance perspectograph, directly challenge symbolic drawing by making it difficult for the mind to impose its simplified constructs. When the sculpture is fragmented into grid squares, students can no longer rely on their symbolic shorthand for "head" or "torso" or "leg." Instead, they must focus on the specific shapes, lines, and values that appear in each individual square.

This shift from symbolic to observational drawing teaches several important lessons:

1. Our perceptions are filtered through preconceptions. Students discover that what they "know" often conflicts with what they actually see.
2. Direct observation reveals unexpected complexity. A simple "circle" viewed from an angle appears as an oval; a "straight" line may have subtle curves.

3. Focused attention reveals what generalisations miss. By examining each grid square in isolation, students notice details they would otherwise overlook.

The Renaissance perspectograph connects students to an 800-year tradition of systematic visual analysis. Renaissance artists developed these techniques to create convincing illusions of three-dimensional space, reflecting their era's confidence in rational, ordered approaches to understanding reality. The same orthographic principles appear throughout contemporary life—from IKEA furniture instructions to architectural blueprints to video game interfaces—revealing the enduring relevance of these systematic approaches to visual representation.

This stage teaches intellectual humility—the recognition that our mental models of reality are simplifications, not accurate representations. It encourages students to question their assumptions and trust direct experience over preconceived ideas. The discovery that careful observation often contradicts initial assumptions builds openness to evidence that challenges preconceptions.

Stage 3: Multi-Perspective Representation (Seeing Beyond Single Viewpoints)

The final stage, introduced through the cubist exercises, makes perhaps the most radical challenge to conventional thinking: the idea that any single perspective can provide a complete understanding of reality.

When students draw the sculpture from multiple angles and then combine these viewpoints into a single representation, they're experiencing the same revolutionary insight that drove Picasso and Braque to develop Cubism. This movement represented far more than aesthetic innovation—it embodied a fundamental reconceptualisation of how reality could be apprehended and represented.

Students learn that:

1. Truth depends on perspective. The same object appears entirely different when viewed from different positions.
2. No single viewpoint is complete. Each perspective reveals certain aspects while concealing others.
3. Apparent contradictions can coexist. Elements that seem incompatible from a single viewpoint (like seeing both the front and back simultaneously) can be integrated into a more complex representation.

This approach paralleled developments in other fields during the early 20th century: Einstein's relativity theory challenged assumptions about fixed perspectives in physics; anthropologists began recognising the cultural specificity of their own observations; and philosophers questioned the possibility of objective, universal knowledge. Cubism thus participated in a broader cultural shift toward recognising the situated nature of all knowledge.

Social Dimensions and Collaborative Learning

The collaborative aspects of these exercises illuminate how knowledge emerges through social interaction rather than individual discovery alone. When multiple participants observe identical subjects from different positions, their varied results demonstrate that all observation is situated, embodied, and inevitably partial.

The negotiation required to create unified collaborative artworks mirrors broader challenges societies face when integrating diverse perspectives to construct more complete understanding of complex issues. Just as cubist artists worked in dialogue with each other's innovations, participants discover that their most comprehensive understanding emerges through sharing and comparing different viewpoints.

Rather than promoting relativism (the idea that all perspectives are equally valid), these exercises build sophisticated critical thinking skills that help participants evaluate the strengths and limitations of different viewpoints. Students learn to ask productive questions: What does this perspective reveal that others miss? What are its inherent limitations? How might it be enhanced by integration with other approaches?

Contemporary Relevance and Application

These historically grounded artistic techniques address urgently contemporary challenges in our information-rich era. The ability to hold multiple viewpoints simultaneously—while recognising both the value and limitations of each—represents crucial cognitive flexibility for navigating competing narratives, conflicting evidence, and complex social issues.

The activities demonstrate that understanding emerges not from identifying the single "correct" perspective but from developing the capacity to integrate multiple valid but partial viewpoints. This insight proves equally valuable whether evaluating scientific studies with different methodologies, understanding historical events through various participants' accounts, or navigating interpersonal relationships where different people legitimately perceive the same situations differently.

The orthographic thinking developed through these exercises appears throughout contemporary life: medical imaging reveals internal structures invisible to surface observation; data visualisation makes abstract relationships visible; virtual reality allows experience of impossible perspectives. The cubist insight that representation can reveal more than reproduction continues to drive innovation across multiple domains.

The Deeper Transformation

These activities guide students through an important philosophical progression:

- From accepting simplified symbols to embracing complex reality
- From relying on what we "know" to trusting what we actually observe
- From seeking single authoritative perspectives to valuing multiple viewpoints

Most significantly, these activities provide hands-on experience of Maurice Merleau-Ponty's philosophical insight about embodied perception—that we always see from somewhere specific, that there is no "view from nowhere." Rather than learning this as an abstract concept, participants experience it directly through the physical process of moving around objects and discovering how their position fundamentally shapes what they can perceive.

When students understand that every representation is inherently partial and perspective-dependent, they develop intellectual flexibility that serves them in all areas of life. They become more willing to question assumptions, more receptive to different viewpoints, and more comfortable with complexity.

Students develop comfort with uncertainty and complexity rather than seeking premature closure or oversimplified answers. The recognition that multiple perspectives can coexist and enrich understanding—rather than canceling each other out—provides a foundation for more sophisticated approaches to learning and problem-solving.

The progression from symbolic to observational to multi-perspective drawing serves as a powerful tool for developing not just artistic skills, but a more thoughtful, perceptive, and intellectually agile approach to understanding the world. This journey from individual observation through collaborative creation ultimately demonstrates that the most complete understanding emerges through the integration of multiple situated perspectives—a lesson as relevant for citizenship in democratic societies as it is for artistic practice.

Participants learn that neither isolated individual insight nor uncritical acceptance of group consensus leads to optimal understanding; instead, the most robust knowledge emerges through the thoughtful integration of diverse viewpoints that have been carefully evaluated for their specific contributions and limitations. This represents essential preparation for democratic citizenship, scientific thinking, and ethical reasoning—all areas where the ability to consider multiple viewpoints while making informed judgments proves crucial.





2. THE WEIGHT OF CONNECTION

Mestrom invites you to explore the boundary between two and three-dimensional art by engaging both your visual and tactile senses. This unique experience challenges our traditional understanding of how we perceive art.

Activity 1: Touch & Discover

Have you ever touched a bronze work of art? Feel the bronze reliefs with your hands inside the table.

Exploration Prompts:

What temperatures, textures, and contours do you discover?
Do the cold metal surfaces warm to your touch?
How do the edges guide your fingers—sharp or gentle?
Where do you find unexpected texture changes?
Can you feel where the artist's tools left marks in the bronze?
What happens when you press firmly versus lightly?
Do different areas of the relief feel like they were made differently?

Reflection Questions:

How does touching art feel different from touching everyday objects?
What surprises you most about the bronze's texture?
If you had to describe this artwork to someone using only touch words, what would you say?

Activity 2: Connect & Reflect

Look at the paintings as you touch the reliefs. Keep your hands moving on the bronze while your eyes explore the painted surfaces.

Exploration Prompts:

How does what you feel relate to what you see?
Do the painted textures match what your fingers discover?
Where do the painting and relief seem to "speak" to each other?
Can you find areas where sight and touch tell different stories?
What hidden aspects reveal themselves through touch that sight alone misses?

Reflection Questions:

How do these works blur the boundaries between sculpture and painting?
Which sense—sight or touch—gives you more information about the artwork?
Do you trust what you see or what you feel more? Why?

How might the artist have used both visual and tactile elements intentionally?

Extension Challenge:

Close your eyes while touching, then open them while looking. How does switching between senses change your understanding of the artwork?



Activity 3: Draw What You Feel

After exploring the bronze reliefs with your hands, pick up a pencil and try something unusual—draw what your fingers discovered.

Drawing Process:

Close your eyes and place your hands on one bronze relief

Move your fingers slowly across the surface for 30 seconds

Without looking, draw the journey your fingers just took
Focus on the textures, ridges, valleys, and temperature changes your hands felt

Don't worry about making it "look right"—draw the feeling, not the appearance

Try using different line weights for different textures (heavy lines for rough areas, light lines for smooth)

Reflection Questions:

How is your "touch drawing" different from what you see with your eyes?

What did your fingers discover that your eyes missed?

If you could only use touch to understand this artwork, what would you know about it?

How does drawing what you feel compare to drawing what you see?

Does your drawing capture something true about the artwork that a photograph couldn't?

Extension Challenge:

Create a second drawing while looking at the painting, then compare both drawings. Which reveals different truths about the artwork? How might an artist use both visual and tactile information to create more complete representations? Try creating a third drawing that combines what you saw AND what you felt.







S. Mestrom, 2025. Oil, acrylic, bronze pigment and gouache on linen, bronze relief sculptures, stainless steel touch table. Dimensions vary.

FURTHER ACTIVITIES AND DISCUSSION POINTS

THE WEIGHT OF CONNECTION

Tactile Engagement with Bronze Reliefs and Corresponding Paintings

The Weight of Connection challenges the Western hierarchy that privileges sight over touch by inviting participants to explore bronze reliefs through tactile engagement while simultaneously viewing corresponding paintings. This multi-sensory experience demonstrates that complete artistic understanding requires integration of both visual and tactile knowledge.

1. What Touch Reveals About the Bronze Reliefs:

- Surface textures and tool marks invisible to visual inspection that reveal the artistic process
- Temperature and material density that create different emotional responses than painted surfaces
- Dimensional depth and spatial relationships that photographs cannot convey

Key Questions:

- How do the painted textures compare to what your fingers discover on the bronze?
- What artistic techniques (carving marks, surface treatments) can you feel but not see?
- How does the coolness and weight of bronze affect your emotional response to the work?
- What aspects of your artistic vision can only be fully realised through direct tactile encounter?

2. Understanding Multi-Sensory Artistic Knowledge

The Artist's Material Intelligence: These bronze reliefs embody knowledge that exists only through physical creation—understanding how bronze responds to tools, how different pressures create various surface effects, how the material's properties influenced Mestrom's artistic decisions. This embodied knowledge cannot be fully conveyed through visual reproduction alone.

Key Questions

- How is experiencing the bronze relief different from viewing the corresponding painting?
- What would be lost if people could only see photographs of the tactile artwork?
- How does drawing what you feel compare to drawing what you see?
- What aspects of reality can your bronze reliefs convey that the paintings cannot?

3. Challenging Cultural Assumptions About Art Experience

Beyond "Look But Don't Touch": These interactive bronze reliefs challenge museum culture's typical restrictions on tactile engagement, demonstrating what artistic knowledge is sacrificed when we can only observe visually.

Key Questions

- How does touching art feel different from touching everyday objects?
- What information about your artistic techniques is lost when people can only look?
- How might your work change people's expectations about how art should be experienced?
- What would museums lose or gain by allowing more tactile engagement?

Learning Through Tactile Drawing

When participants draw what they feel rather than what they see, they engage in a unique form of translation—converting tactile information into visual representation.

This process reveals:

- How touch discovers information invisible to sight
- The challenge of representing non-visual sensations
- The difference between drawing knowledge versus drawing observation
- How different senses provide different but equally valid ways of knowing

Key Questions

- How is your "touch drawing" different from what you see with your eyes?
- What did your fingers discover that your eyes missed?
- Does your drawing capture something true about the artwork that a photograph couldn't?
- How might combining what you saw AND felt create the most complete artistic understanding?

Texture words: rough, smooth, bumpy, ridged, pitted, polished

Temperature words: warm, cool, heat-conducting, insulating

Pressure words: firm, yielding, resistant, malleable

Temporal words: gradual warming, immediate coolness, sustained pressure







3. LUDIC FOLLY

This interactive sculpture transforms abstract cubist forms into a playable adventure. Sanné Mestrom invites visitors of all ages to climb, rest, and play upon this reimagined reclining female figure—a sculpture that becomes both sanctuary and creative playground.



Activity 1: Embodied Exploration

Experience art through your entire body as you discover how physical interaction reveals new perspectives impossible to see from a distance.

Materials: The interactive sculpture, your body as exploration tool

Exploration Process:

- Climb carefully onto different levels of the sculpture
- Sit, lie, and rest in various positions on the curved surfaces
- Move around the geometric forms, experiencing them from inside and outside
- Notice how your viewpoint changes as your body position changes
- Feel the textures and temperatures of different materials with your hands and body

Discovery Prompts:

- What do you see from on top of the sculpture that you couldn't see from the ground?
- How does the sculpture feel different under your feet versus under your hands?
- Which geometric forms support your body weight, and which are purely visual?
- Can you find hiding spots or secret viewpoints within the sculpture?

Reflection Questions:

- How does physically interacting with art change your understanding of it?
- What's the difference between looking at a sculpture and being part of it?
- How might the original reclining figure have experienced the world from these positions?
- Does moving through the artwork give you insights that standing and observing couldn't?

Activity 2: Cubist Composition Building

Use the moveable foam shapes to create your own cubist compositions, exploring how artists arrange forms in space to create meaning and visual impact.

Materials: Foam geometric shapes, the sculpture base as your canvas

Building Process:

- Select foam shapes that interest you
- Arrange them on and around the sculpture to create new compositions
- Try building upward, outward, and in unexpected configurations
- Experiment with balance, stacking, and interlocking forms
- Rearrange elements to create different stories or feelings

Creative Challenges:

- Can you make the reclining figure appear to be sitting up?
- How tall can you build while maintaining balance?
- Can you create compositions that look different from various viewing angles?
- Try building something that can only be fully understood by walking around it

Reflection Questions:

- How do your foam additions change the meaning of the original sculpture?
- Which arrangements feel most stable? Most dynamic? Most surprising?
- What stories emerge from the shapes you create?
- How might cubist artists have thought about breaking down and rebuilding the human form?



Activity 3: Perspective Play & Documentation

Objective: Apply the observational drawing skills from 'The Fractured Gaze' to document your own three-dimensional creations, connecting physical play with artistic representation.

Materials: Your foam sculpture creation from Activity 2, portable perspectograph, gridded paper, pencil

Drawing Process:

- Choose your favorite foam composition from Activity 2
- Use the gridded viewfinder to observe your creation from three different positions
- Create quick sketches of your composition from each viewpoint
- Notice how your three-dimensional creation appears completely different from each angle

Connection to Earlier Learning:

- Apply the Renaissance grid technique (Activity 1) to draw your own sculpture
- Use the Cubist approach (Activity 2) to combine multiple views of your creation into one drawing

Reflection Questions:

- How does drawing your own three-dimensional creation differ from drawing someone else's artwork?
- What details did you notice while drawing that you missed while building?
- How might the original artist have felt observing her sculpture from different angles?
- Does making your own sculpture help you understand the challenges artists face?

Final Reflection:

This activity connects physical creation (building with foam) to visual observation (drawing), showing how artists move between three-dimensional thinking and two-dimensional representation.

Just like the viewfinder activities that showed how the same object looks different from different positions, these activities reveal how the same artwork can be "known" differently through different senses. What does this teach us about the nature of truth and understanding?



A Theory of Loose Parts

The concept of "loose parts" play, introduced by architect Simon Nicholson in his 1971 essay "The Theory of Loose Parts: How Not to Cheat Children," offers a powerful critique of conventional playgrounds and educational environments. Nicholson argued that most designed spaces leave children as passive occupants rather than active creators, because "all the fun has been had" by architects and designers who create fixed, unchangeable elements.

Traditional playgrounds with their predetermined functions—slides for sliding, swings for swinging—limit children's creative potential and reinforce the notion that creativity belongs only to the "gifted few."

Ludic Folly transforms this dynamic by providing both a large-scale sculptural playground and accompanying loose parts that children can manipulate, combine, and reconfigure. These moveable elements—ranging from geometric foam shapes to smaller building components—extend the sculpture's creative possibilities infinitely. Rather than dictating how the space should be used, loose parts invite children to become co-creators of their play environment.

The educational value of loose parts play aligns perfectly with the multi-perspective learning explored in the drawing activities. Just as children discover that objects look different from various viewpoints, loose parts reveal that the same materials can serve countless functions depending on how they're arranged, combined, or reimagined. A foam cylinder might become a seat, a building block, a balance beam, or a telescope—its meaning emerges through the child's creative engagement rather than predetermined design.

This approach validates children's natural intelligence and problem-solving abilities. When children manipulate loose parts in relation to the fixed sculpture, they engage in complex spatial reasoning, engineering challenges, and collaborative negotiation. They test hypotheses about balance, stability, and construction while developing social skills through shared creation and modification of structures.

Loose parts play also democratizes creativity by providing multiple entry points for engagement. Children with different physical abilities, learning styles, and interests can all find meaningful ways to interact with the

materials. Some might focus on architectural challenges, others on storytelling possibilities, and still others on collaborative social construction.

Most importantly, loose parts restore agency to children in their play environments. Rather than consuming predetermined experiences, they become architects of their own learning, discovering that creativity and inventiveness are not rare gifts but fundamental human capacities. Ludic Folly's loose parts transform the sculpture from a single artwork into an infinite number of collaborative creations, limited only by imagination and the endless possibilities of recombination.

unique perceptual habits transform these abstract systems into personal expressions.

This interplay between structure and fluidity reflects the paradoxical nature of perception itself. Our brains constantly impose patterns and systems on raw sensory data, yet our lived experience exceeds these systems, flowing between and beyond the categories we create. The exhibition creates a space where visitors can become conscious of this dynamic, recognising both the necessity of perceptual frameworks and their inherent limitations.

"The Weight of Connection" challenges the primacy of vision by integrating tactile experience into aesthetic perception. Traditional art appreciation privileges sight, relegating touch to a lower status.

This installation disrupts this hierarchy by inviting visitors to touch bronze reliefs while viewing corresponding paintings, creating a perceptual experience that exists between visual and haptic understanding. This approach draws on philosophical traditions that question visual dominance. When visitors simultaneously see one form while feeling another, they experience a sensory integration that bridges the gap between abstract visual representation and embodied knowledge.



Tim Gill - Childhood and Risk Expert
"Children have a deep need to engage with uncertainty and challenge. Loose parts provide controlled ways to explore risk and develop competence."
Gill, T. (2007). No Fear: Growing Up in a Risk Averse Society. London: Calouste Gulbenkian Foundation.

PlayScotland Research
"Loose parts play develops problem-solving skills, creativity, and resilience. Children become more capable and confident when they have opportunities to test their own limits."
Play Scotland. (2013). Loose Parts Play: A Toolkit. Roslin: Play Scotland.

Penny Wilson - Play Worker and Author
"Play is the mechanism by which children learn to take risks, solve problems, and develop resilience. Loose parts give children the freedom to fail safely and try again."
Wilson, P. (2009). The Playwork Primer. College Park, MD: Alliance for Childhood.



Embodied Perception

ESSAY 1. DR SANNÉ MESTROM

“The Whole is Greater than the Sum of Her Parts” investigates perception as an embodied, active process rather than a detached, passive experience. By creating interactive installations that engage multiple senses and viewpoints, I’ve tried to develop a project that challenges conventional understandings of how we perceive art and the world around us, drawing on philosophical traditions that question the foundations of visual knowledge.

EXPANDING VISUAL LANGUAGES

Traditional Western art established linear perspective as the dominant visual language, suggesting a single, ideal position from which to view reality. This system, as Erwin Panofsky noted in “Perspective as Symbolic Form,”¹ was not merely a technical innovation but a symbolic form that encoded specific cultural values—positioning the viewing subject as a conscious, universal being at the centre of understanding. In “The Fractured Gaze” visitors experience first-hand the contrast between this Renaissance system and the Cubist approach that fractures space across multiple perspectives.

The distinction between these visual paradigms reflects deeper philosophical divisions. The modernist Cartesian model underlying perspective creates what Robert Hughes called “an ideal view, imagined as being seen by a one-eyed motionless person who is clearly detached from what he sees. It makes a god of the spectator, who becomes the person on whom the whole world converges, the Unmoved Onlooker.”² This detachment between viewer and viewed reinforces dualistic thinking that separates mind from body, subject from object.

Through guided drawing exercises, participants can discover how these visual systems are not neutral technical methods but paradigms that shape our understanding of reality itself.

The exhibition navigates the tension between structured systems of perception and the fluid, ever-changing nature of embodied experience. In “The Fractured Gaze,” visitors encounter geometric drawing systems—the static artist/spectator viewpoints of perspective and the delineated fracturing of Cubism. As you engage with these systems through drawing, you may discover how your

own physical position, the subtle movements of your hand, and your unique perceptual habits transform these abstract systems into personal expressions.

This interplay between structure and fluidity reflects the paradoxical nature of perception itself. Our brains constantly impose patterns and systems on raw sensory data, yet our lived experience exceeds these systems, flowing between and beyond the categories we create. The exhibition creates a space where visitors can become conscious of this dynamic, recognising both the necessity of perceptual frameworks and their inherent limitations.

“The Weight of Connection” challenges the primacy of vision by integrating tactile experience into aesthetic perception. Traditional art appreciation privileges sight, relegating touch to a lower status.

This installation disrupts this hierarchy by inviting visitors to touch bronze reliefs while viewing corresponding paintings, creating a perceptual experience that exists between visual and haptic understanding. This approach draws on philosophical traditions that question visual dominance. When visitors simultaneously see one form while feeling another, they experience a sensory integration that bridges the gap between abstract visual representation and embodied knowledge.



Ludic Folly (Iteration 2), installation detail of playable sculpture, S. Mestrom 2023



Danté pictured creating a drawing using the Renaissance drawing system in The Fractured Gaze, 2025

CHILDREN DEVELOP PERCEPTUAL UNDERSTANDING NOT THROUGH ABSTRACT INSTRUCTION BUT THROUGH ACTIVE EXPLORATION AND PLAY. BY REACTIVATING THIS EXPLORATORY MODE, THE EXHIBITION INVITES VISITORS TO UNLEARN FIXED PERCEPTUAL HABITS AND REDISCOVER THE ADAPTABILITY OF THEIR SENSORY SYSTEMS.

The bronze reliefs, experienced through fingertips, create an immediacy that visual representation alone cannot achieve. This tactile dimension recalls the phenomenological insight that touch cannot observe without participating, cannot perceive without simultaneously being perceived. The cold metal surfaces warming to touch create a tangible connection between viewer and artwork that transforms the conventional distance of aesthetic appreciation.

“Ludic Folly” transforms perception into a full-body experience. This interactive sculpture requires physical movement to be fully understood—as visitors climb, rest, and play upon this reimagined female figure, they discover spatial relationships and formal qualities that would remain invisible to the static observer.

This kinaesthetic approach to perception recalls phenomenological insights that understanding emerges through our bodily engagement with the world. Rather than perceiving as disembodied observers, we come to know reality through our physical interaction with it. The foam shapes that can be rearranged and reconfigured emphasise that our environment is not static but responsive to our engagement with it.

With the three projects brought together, this installation demonstrates that comprehensive perception requires movement—both physical movement through space and conceptual movement between different modes of understanding. The static, singular viewpoint is revealed as a limited abstraction rather than the foundation of visual knowledge.

PERCEPTUAL PLAY

Play emerges as a central method for expanding perceptual consciousness throughout the exhibition. While perception is traditionally understood as an individual process occurring within a single consciousness, this exhibition reveals its inherently collective dimension. The interactive installations create shared perceptual experiences that transform individual viewpoints into collective understanding. Play creates a space where rigid categories dissolve, allowing for new connections and understandings to emerge. When visitors approach perception as a creative, experimental process rather than a mechanical recording of external reality, they discover perceptual possibilities that lie beyond conventional seeing.

By approaching perception as a form of play rather than a fixed process, visitors might explore the flexibility and responsiveness of their own perceptual systems.

The foam shapes in “Ludic Folly” can be endlessly reconfigured, creating new spatial relationships and formal arrangements. The drawing exercises in “The Fractured Gaze” turn abstract

concepts into creative, pictorial explorations.

By making perception a public, shared activity rather than a private, internal process, the exhibition reveals how our understanding of reality is always already embedded in collective ways of seeing. The individual viewpoint is not abandoned but recognized as participating in larger perceptual communities.

Ultimately, “The Whole is Greater than the Sum of Her Parts” transforms perception from passive reception to active creation. Rather than positioning visitors as consumers of pre-established visual meaning, the interactive installations invite them to become producers of perceptual understanding.

This shift challenges the traditional distinction between artist and audience, creator and spectator. When visitors arrange forms in “Ludic Folly” or engage in drawing exercises, they become co-creators of the perceptual experience. The exhibition thus demonstrates that perception is not simply the neutral recording of an external world but a creative process through which we actively construct our understanding of reality.

¹ Panofsky, E. (1991). *Perspective as Symbolic Form* (1st ed.). Zone Books.

² Hughes, R. (1981). *The Shock of the New*. Alfred A. Knopf, p. 17.

This essay also references Mestrom, S. (2008), *The Power of Place and the Politics of Perception*, PhD thesis. RMIT University, Melbourne.



“The Whole is Greater than the Sum of Her Parts” confronts the problematic history of female representation in Western art, particularly within modernism. This project responds to the Heinz Berggruen collection featuring Picasso, Matisse, Cézanne, Klee, and Giacometti — masters whose innovative formal approaches often coexisted with traditional gender politics that positioned women as objects rather than subjects of artistic vision.

Modernist innovation, despite its formal radicality, often maintained traditional power structures regarding who gets to look and who is looked at. The myth of the individual male genius—exemplified by the cult of personality surrounding Picasso—positioned the male artist as the authoritative interpreter of visual reality. Women appeared primarily as muses, models, and objects of desire rather than as active seers.

RECLAIMING THE FRAGMENTED FEMALE FORM

The title directly addresses modernism’s fragmentation of women’s bodies—acknowledging this problematic history while suggesting the possibility of wholeness that transcends reduction. Throughout modernist art, women’s bodies were dismantled, geometricised, and reconstructed according to male desire. Picasso’s cubist nudes, for instance, shatter the female form into angular planes that serve formal innovation while reinforcing the objectification of women.

“Ludic Folly” reclaims this fragmentation by transforming the passive, reclining female nude—a staple of Western art history—into an active site of engagement. By inviting visitors to climb upon and rearrange elements of this sculptural female form, the installation challenges the art historical convention of female passivity. The reclining figure, traditionally positioned for visual consumption, becomes a sanctuary and playground that refuses to remain still for the appraising gaze. This transformation addresses what art historian Linda Nochlin identified as the problematic status of women in art history: “The woman’s body, passive, available, possessable, powerless, becomes in patriarchal ideology,

the site of meaning-production as well as of delight for the dominant male subject.”¹ By making the female form manipulable by visitors of all ages and genders, *“Ludic Folly”* distributes agency beyond the traditional male artist-female subject dynamic.

Equally, *“The Fractured Gaze”* reveals how traditional perspective systems, despite their claims to mathematical objectivity, encode particular – often invisible – power relationships. Renaissance linear perspective positions an ideal viewer at a fixed distance, suggesting mastery over what is viewed. By contrasting this with the multi-faceted approach of Cubism, the installation exposes the politics embedded in seemingly neutral visual systems.

MATERNAL EMBODIMENT AS COUNTER-DISCOURSE

In developing works for this project, my process has been largely informed by my personal, embodied experience of motherhood, where the body becomes a space of shared utility, beauty, and discovery. I believe this maternal perspective offers a powerful counter-discourse to modernism’s objectification of female bodies.

The maternal body destabilises fundamental Western philosophical binaries: it is simultaneously self and other, subject and object, container and contained.

This fluid boundary-crossing directly challenges the rigid subject-object distinctions that underlie traditional artistic vision. Philosopher Iris Marion Young describes this unique embodiment:

“PREGNANCY CHALLENGES THE INTEGRATION OF MY BODY EXPERIENCE BY RENDERING FLUID THE BOUNDARY BETWEEN WHAT IS WITHIN, MYSELF, AND WHAT IS OUTSIDE, SEPARATE. I EXPERIENCE MY INSIDES AS THE SPACE OF ANOTHER, YET MY OWN BODY.”



Image above: Dürer, A. (ca. 1600). Draughtsman Making a Perspective Drawing of a Reclining Woman [Woodcut]. The Metropolitan Museum of Art, New York, NY. Gift of Henry Walters, 1917 (17.37.314).

A Feminist View

ESSAY 2. DR SANNÉ MESTROM

“The Weight of Connection” materialises this maternal perspective by creating an experience where boundaries between senses dissolve. By inviting visitors to touch bronze reliefs while viewing corresponding paintings, the installation creates a sensual integration that recalls the maternal experience of simultaneously feeling and being felt. This multi-sensory approach challenges the primacy of vision—historically associated with masculine modes of knowing—by integrating touch as an equally valid pathway to understanding. While grounded in critique, *“The Whole is Greater than the Sum of Her Parts”* moves beyond critical deconstruction to propose alternative models of artistic engagement. This creative dimension is crucial, as feminist theorist Audre Lorde reminds us: “The master’s tools will never dismantle the master’s house.”³ Rather than simply inverting existing power dynamics, the exhibition aims to create new vocabularies for visual understanding.

The collaborative, playful environment of *“Ludic Folly”* suggests that artistic meaning emerges not from individual genius but from collective engagement. The multi-sensory integration of *“The Weight of Connection”* proposes that comprehensive understanding requires approaches that transcend the privileging of sight. The participatory drawing exercises of *“The Fractured Gaze”* demonstrate how democratising artistic creation enriches rather than diminishes visual knowledge. These alternatives align with feminist theorist bell hooks’ concept of the “oppositional gaze”—a way of looking that resists dominant visual paradigms while creating new possibilities for seeing and being seen. The exhibition creates spaces where visitors can practice this oppositional looking, developing visual autonomy beyond prescribed patterns of viewing.

TOWARD INCLUSIVE VISUAL FUTURES

“The Whole is Greater than the Sum of Her Parts” suggests a feminist future for visual art that transcends the limitations of both traditional representation and modernist fragmentation. This future embraces multiplicity without sacrificing coherence,

acknowledges difference without hierarchising it, and values embodied knowing without reducing bodies to objects.

The exhibition’s title suggests that wholeness emerges not from erasing difference but from recognising the generative potential of diverse perspectives. Just as feminist consciousness has evolved from early equality frameworks to intersectional approaches that value multiple dimensions of identity, this visual approach suggests that comprehensive understanding emerges from the integration of diverse viewpoints.

By transforming traditional spaces of display into sites of active engagement, the exhibition challenges the conventional museum experience where visitors passively consume artistic genius.

Instead, it creates an environment where meaning emerges through participation, where visitors become aware of their own role in constructing visual understanding.

Through this feminist reimagining of artistic engagement, *“The Whole is Greater than the Sum of Her Parts”* suggests that the most powerful response to problematic visual traditions is not merely to critique them but to create viable alternatives—new ways of seeing that honour multiplicity, embody diversity, and transform our understanding of what it means to truly see.

¹Nochlin, L. (1988). Women, art, and power. In *Women, art, and power and other essays* (p. 33). Harper & Row.

²Young, I. M. (1990). Pregnant embodiment: Subjectivity and alienation. In *Throwing like a girl and other essays in feminist philosophy and social theory* (p. 46). Indiana University Press.

³Lorde, A. (1984). The master’s tools will never dismantle the master’s house. In *Sister outsider: Essays and speeches* (p. 112). Crossing Press.

The Edge of Growth: How Childhood Risk Shapes Artistic Innovation

ESSAY 3. PUBLISHED IN CREATIVE MATTERS 2025

[HTTPS://CREATIVEMATTERS.EDU.AU/THE-EDGE-OF-GROWTH-HOW-CHILDHOOD-RISK-SHAPES-ARTISTIC-INNOVATION/](https://creativematters.edu.au/the-edge-of-growth-how-childhood-risk-shapes-artistic-innovation/)

BY SANNÉ MESTROM — From Skinned Knees to Creative Courage: The Essential Link Between Childhood Risk and Adult Resilience

The scene has repeated itself in my classrooms across various art schools over the last decade: I pose a provocative question, and silence follows. When someone finally speaks, their answer is carefully qualified: 'I'm not saying this is definitely right, but maybe...'

As a lecturer teaching visual arts, I've observed a striking reluctance among today's 18-35 year-old students to take creative risks.

Despite choosing one of the most inherently risky career paths – that of the artist – my Generation Z students (born 1997-2012) demonstrate remarkable discomfort with experimentation, extraordinary anxiety about 'being wrong,' and reflexive avoidance of controversial viewpoints.

The contrast with my own art school experience is stark. For my generation (born 1979), pursuing art meant embracing risk in every aspect of life – working multiple jobs, squatting in abandoned buildings, living precariously. This very precarity primed us for creative risk-taking in our work. Today's students, by contrast, often remain in their parents' homes and seek stability in a field defined by its embrace of uncertainty.

Childhood Risk Exposure Builds Adult Resilience

This generational shift in risk tolerance isn't coincidental. Today's university students grew up during a transformative period in childhood experience (approximately 1997-2017). Their playgrounds featured rubberised surfaces, minimal heights, and constant adult supervision. Many never experienced the autonomous play that previous generations took for granted.

The developmental pathway from physical to intellectual risk-taking operates across the lifespan: physical risks in early childhood build basic resilience capacities; social risks in middle childhood develop interpersonal resilience; identity risks in adolescence build psychological resilience; culminating in intellectual and creative risks in young adulthood.

When this developmental sequence is interrupted – when children don't experience appropriate physical risks – the foundation for later intellectual risk-taking becomes unstable.

Without having developed resilience through earlier forms of risk-taking, the creative challenges essential to artistic development feel overwhelming rather than exhilarating.

This relationship between risk and resilience operates bidirectionally. Risk-taking builds resilience through calibrated exposure (training ground), stress inoculation (psychological vaccination), self-efficacy development (concrete evidence of capability), and failure experiences (cognitive flexibility). Conversely, resilience enables more sophisticated risk-taking through improved risk calibration, decreased catastrophic thinking, and recovery confidence – knowing one can bounce back from setbacks.

'Safetyism' and Concept Creep Undermine Resilience

In *The Coddling of the American Mind*, social psychologist Jonathan Haidt and co-author Greg Lukianoff identify cultural shifts that have intensified risk aversion. Most significant is what they call 'concept creep in harm' – the expansion of concepts like 'safety' and 'harm' beyond physical wellbeing to include emotional discomfort.

Originally, terms like 'harm,' 'trauma,' 'safety,' and 'violence' referred to concrete physical threats. The gradual expansion now includes emotional discomfort as 'harm,' challenging ideas as potentially 'traumatic,' emotional comfort as necessary for 'safety,' and offensive speech as forms of 'violence.'

This expansion has significant consequences for intellectual development because it recategorises normal emotional discomfort—which is necessary for growth—as harmful. When intellectual challenge is framed as 'harmful,' it becomes something to avoid rather than engage with, undermining education's fundamental purpose.

I've witnessed this firsthand when students resist critiquing each other's work for fear of causing emotional harm, even though constructive criticism is essential to artistic development.

What makes the current situation unique isn't that educational environments have orthodoxies—they always have—but that today's students arrive with significantly less practice in navigating intellectual and social conflict.



The Studio as Risk Laboratory

In my teaching at Sydney College of the Arts, we've begun deliberately structuring the studio environment as a laboratory for calibrated risk-taking. Drawing on what we've learned from observing our students' hesitations, we implemented several approaches into our Foundation program for first year students:

First, we create 'low-stakes failure opportunities' – exercises where the explicit goal is experimentation rather than polished production. Students know in advance that these exercises won't be formally assessed, removing the grade-based barrier to risk-taking.

Second, we share our own creative failures – discussing works that didn't succeed and analysing what we learned from the process. This modelling helps students understand that creative failure isn't catastrophic but informational.

Third, we implemented what we call 'creative edge practice' – exercises specifically designed to push students just beyond their current capabilities, similar to how athletic training functions in Barney's conceptual framework.

Fourth, we encourage physical engagement with materials in unpredictable ways, reconnecting students with the kind of tactile experimentation many missed in childhood. This embodied approach to art-making helps bypass the intellectual censors that often prevent creative risk-taking. From guiding my undergraduate to post graduate students, as well as with art assistants in my own professional studio, I always say the same thing when it comes to artmaking: we learn through doing. You can only speculate about an artwork for so long, at some stage you've just got to jump in whole-heartedly and 'do it', then lean back, analyse, learn and grow.

These approaches directly counter what Haidt identifies as cognitive distortions that undermine risk-taking: catastrophising, black-and-white thinking, and emotional reasoning. By creating structured opportunities for survivable failure, we help students develop more accurate appraisals of creative risk.

The results have been promising, though not uniform. Students with some foundation of resilience from other life domains adapt quickly, while others require substantial scaffolding to develop baseline confidence.

Embracing Risk's Dual Nature

The dual etymology of risk – as both cliff (danger) and gift (opportunity) – offers a framework for reconsidering our approach to development. Perhaps the cliff and gift aren't opposing meanings but complementary aspects of the same phenomenon.

If we accept that creative breakthroughs happen at the edges – in that vulnerable space between known and unknown – then we must consider how we prepare individuals to venture into that territory with confidence rather than terror. This preparation begins not with creativity workshops in adulthood but with skinned knees in childhood.

For art educators, parents, and society at large, the challenge becomes recalibrating our understanding of what constitutes genuine safety in development—recognising that growth happens precisely at those edges where stability begins to give way to possibility.

Your Drawing

YOU ARE NOW THE ARTIST! COMPLETE THESE UNFINISHED DRAWINGS USING YOUR OWN CREATIVE VISION WHILE APPLYING WHAT YOU'VE LEARNED ABOUT OBSERVATION AND PERSPECTIVE.

Instructions

Step 1: Observe Carefully

Look at the shapes and forms that are already drawn
Notice the curves, angles, and proportions that have been started
Consider what these abstract forms might become

Step 2: Apply Your Learning

Think about the multiple perspectives you explored in the drawing activities
Remember that there's no single "correct" way to complete these forms
Consider how the same shape might look different from various viewpoints

Step 3: Complete the Drawing

You can choose to:

Complete the figure: Add missing parts to create a complete human form

Transform it entirely: Turn these shapes into something completely different (an animal, a landscape, an abstract design)

Add environment: Draw a setting or background that gives context to the forms

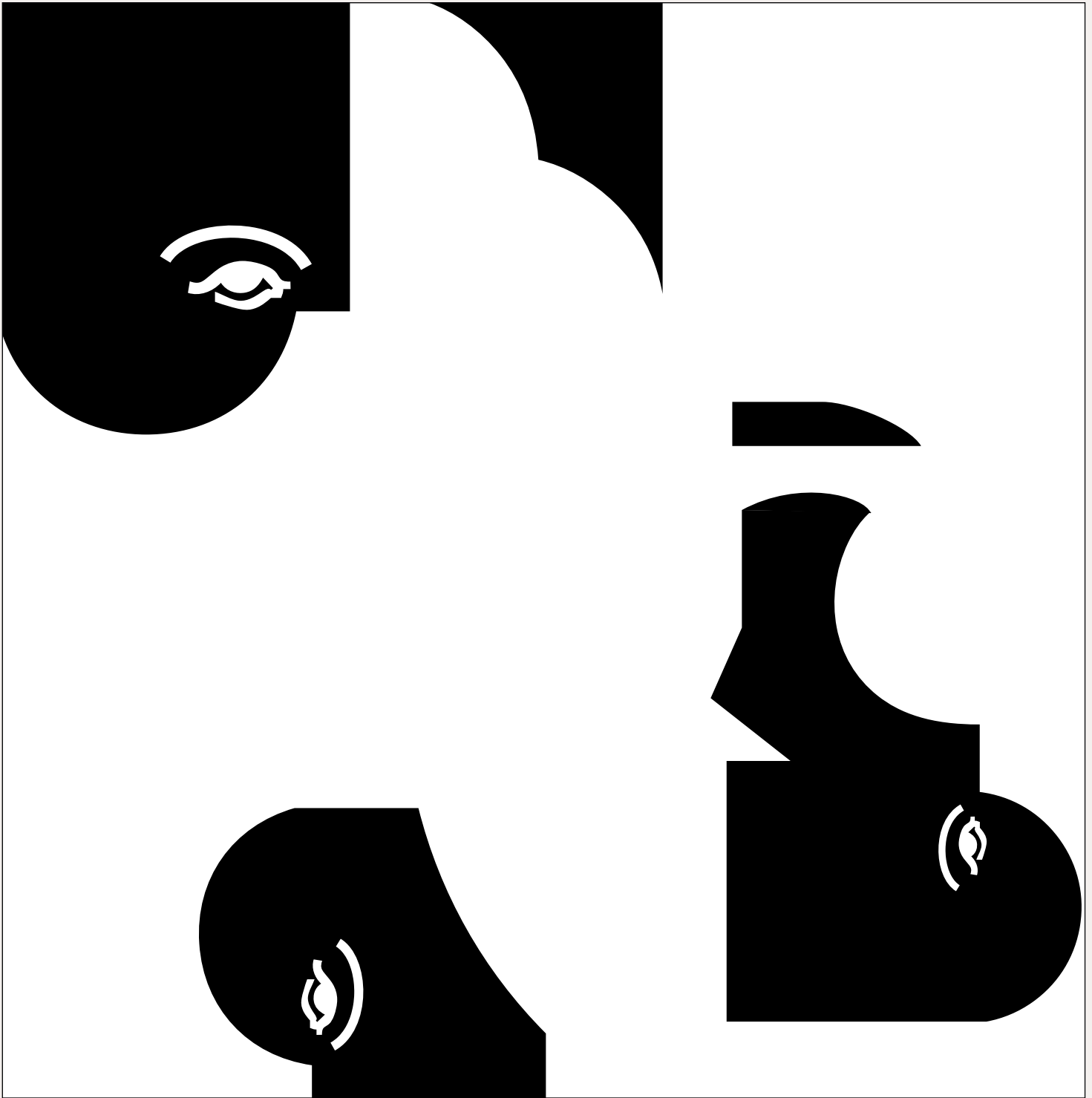
Create patterns: Fill the shapes with textures, patterns, or colors that interest you

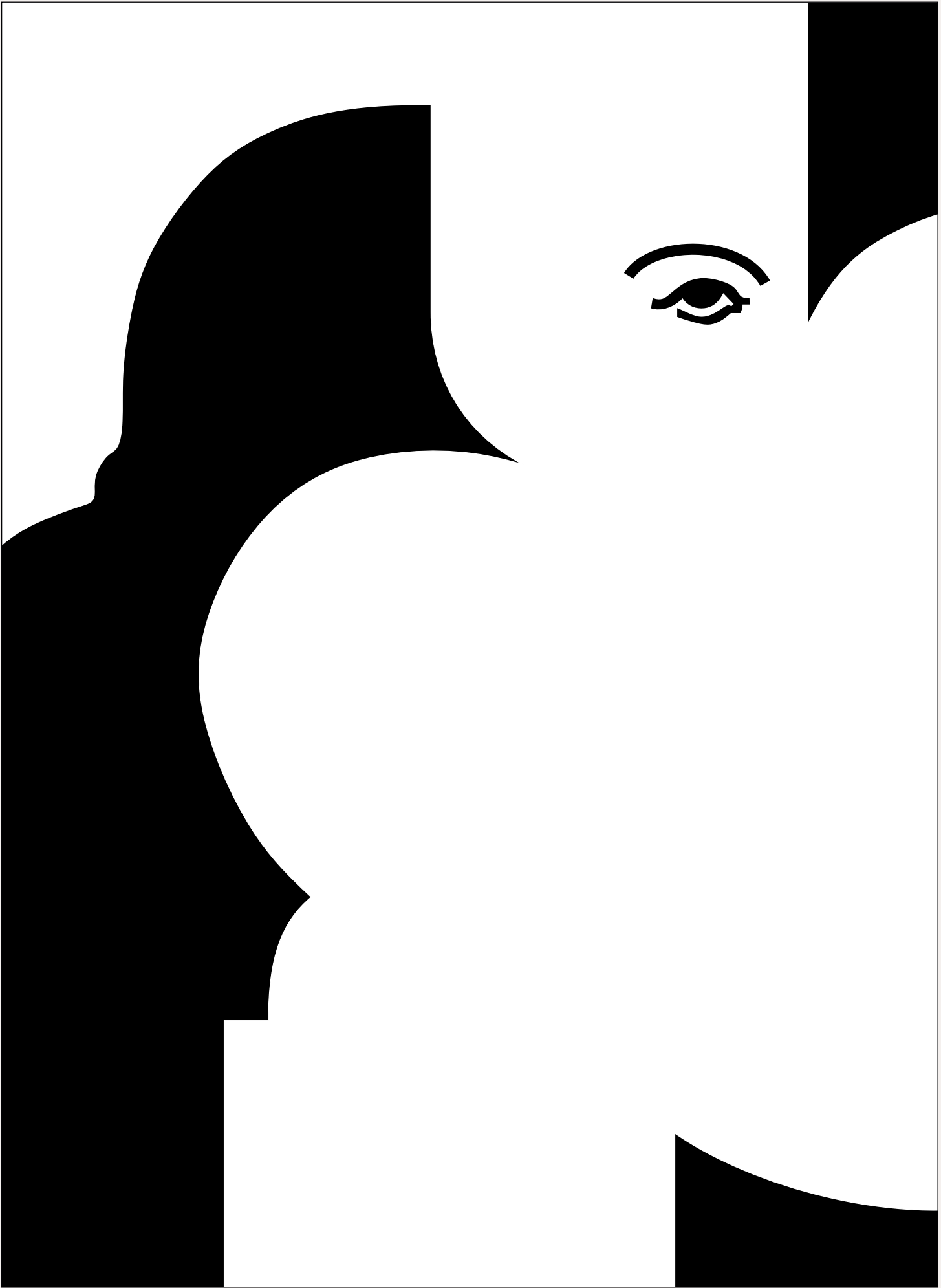
Step 4: Make It Your Own

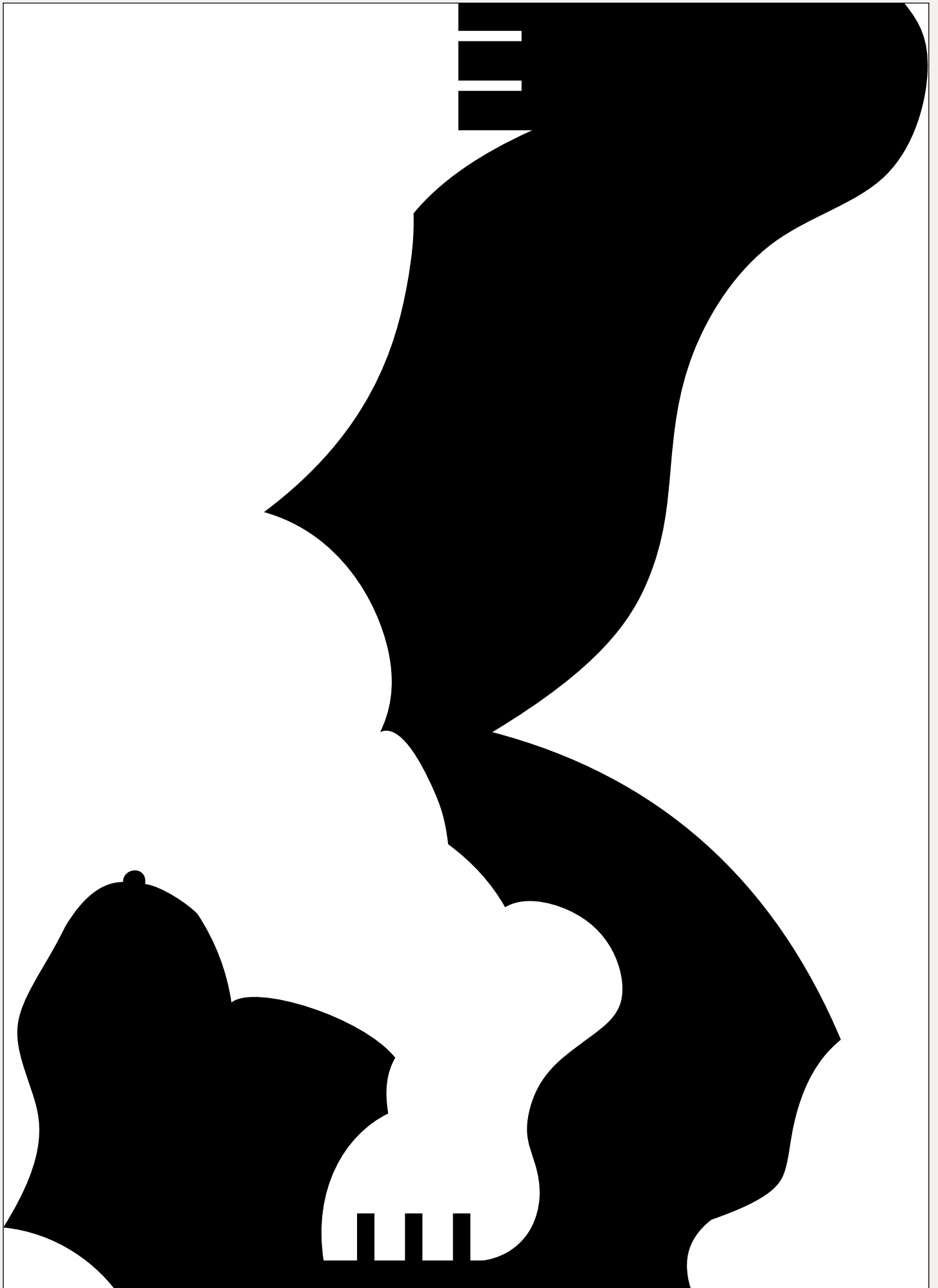
Use any drawing tools available (pencils, colored pencils, markers, crayons)

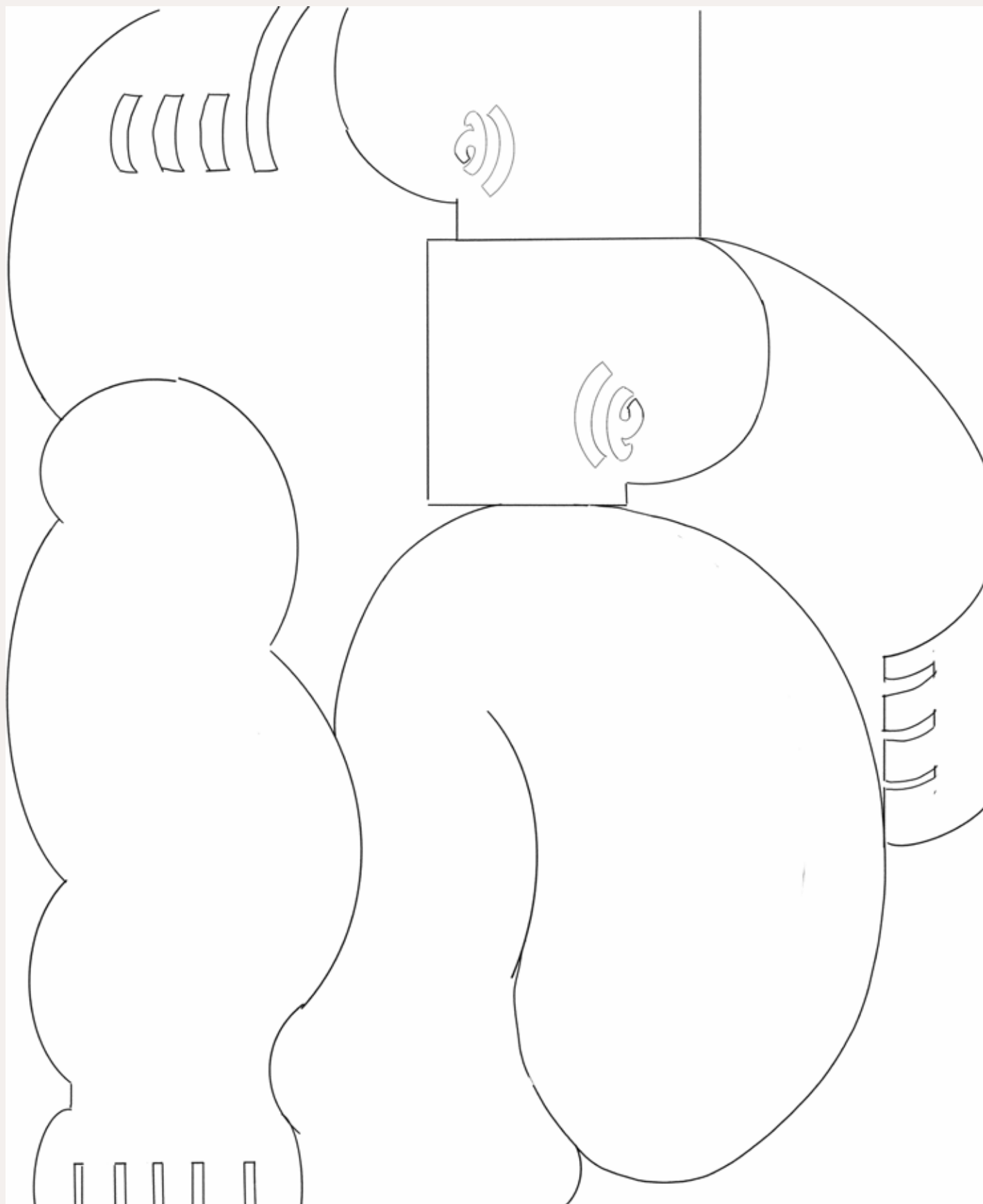
Add details that reflect your personal style and interests

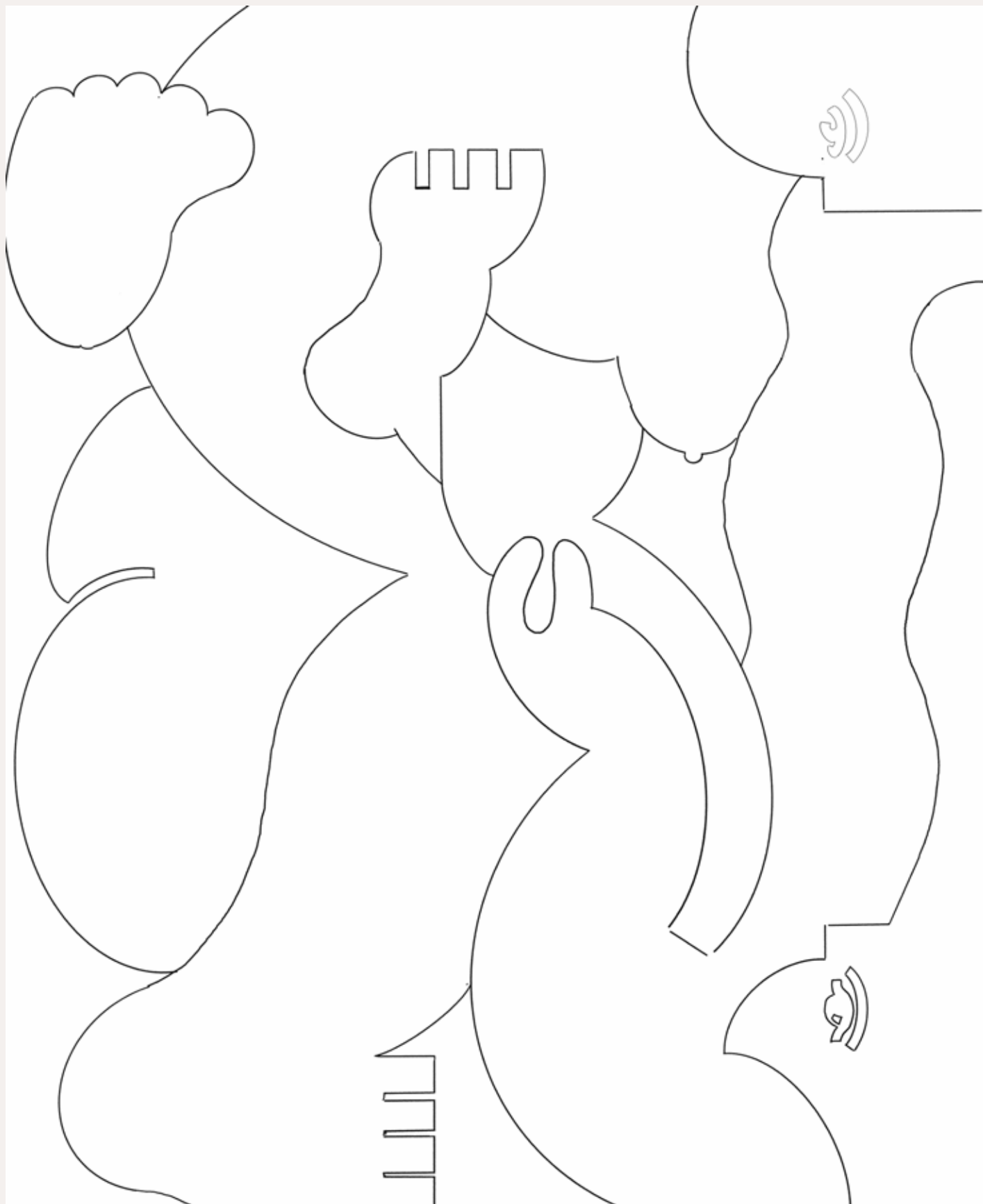
Don't worry about making it "look right"—focus on making it meaningful to you

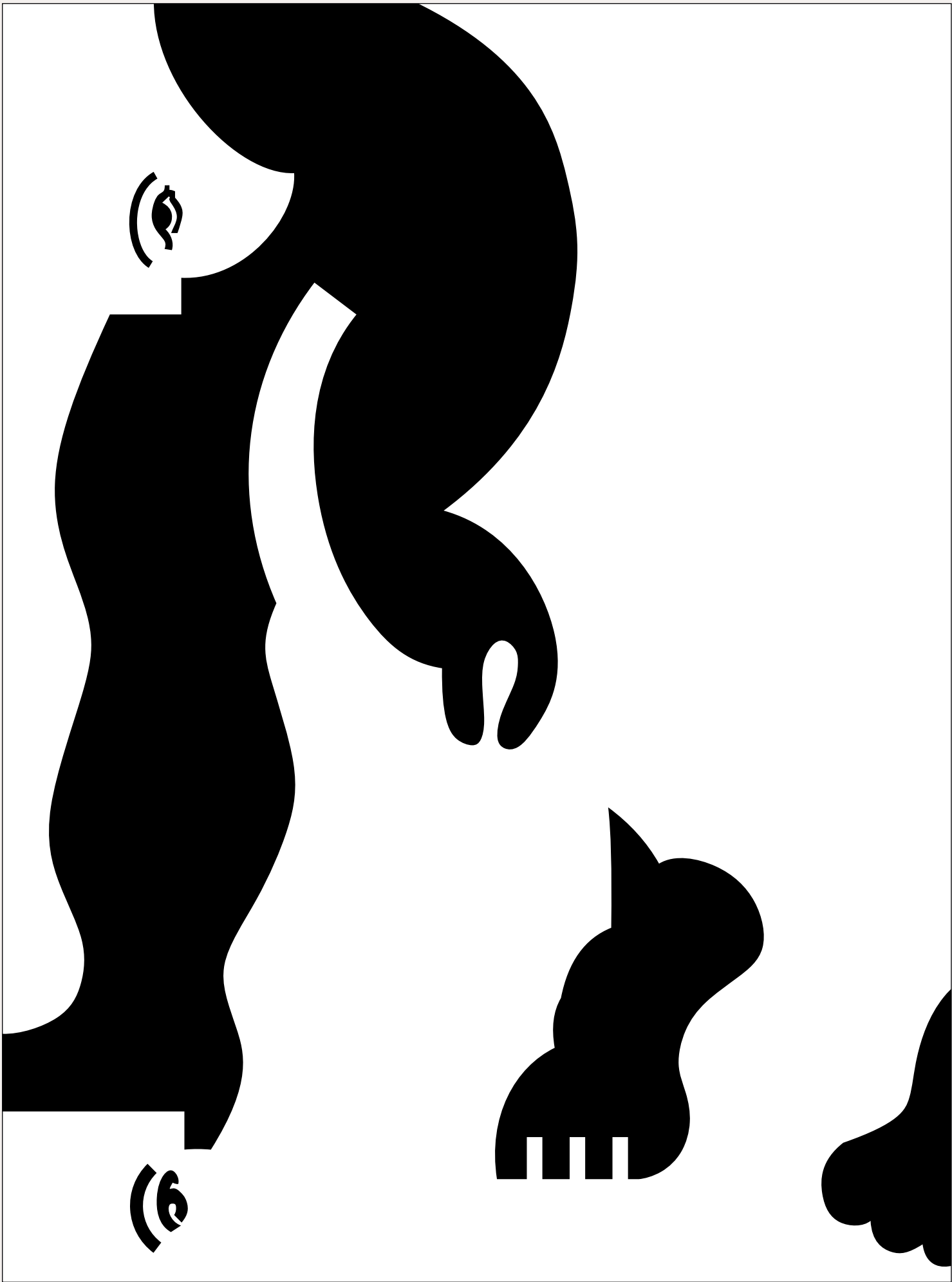


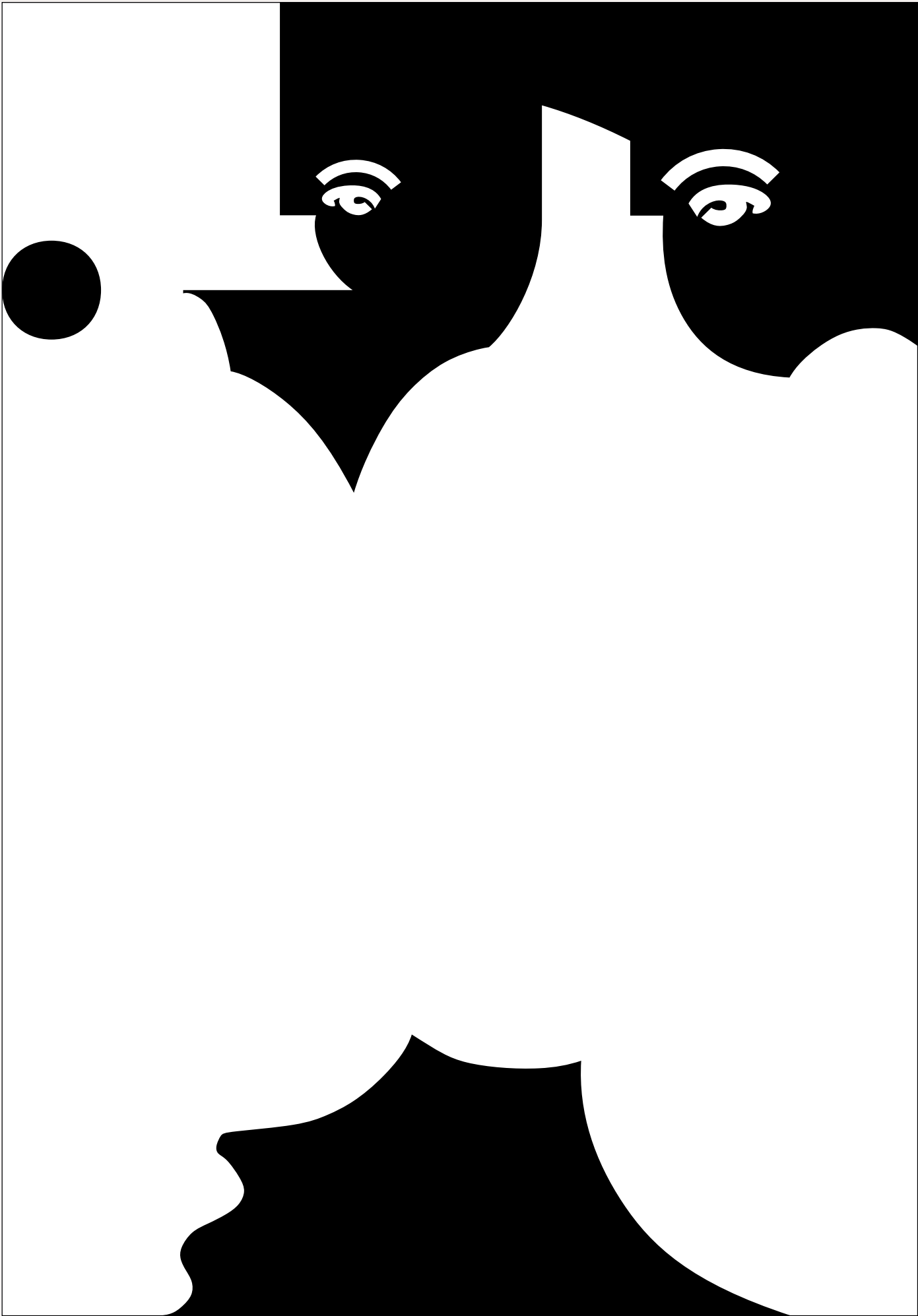


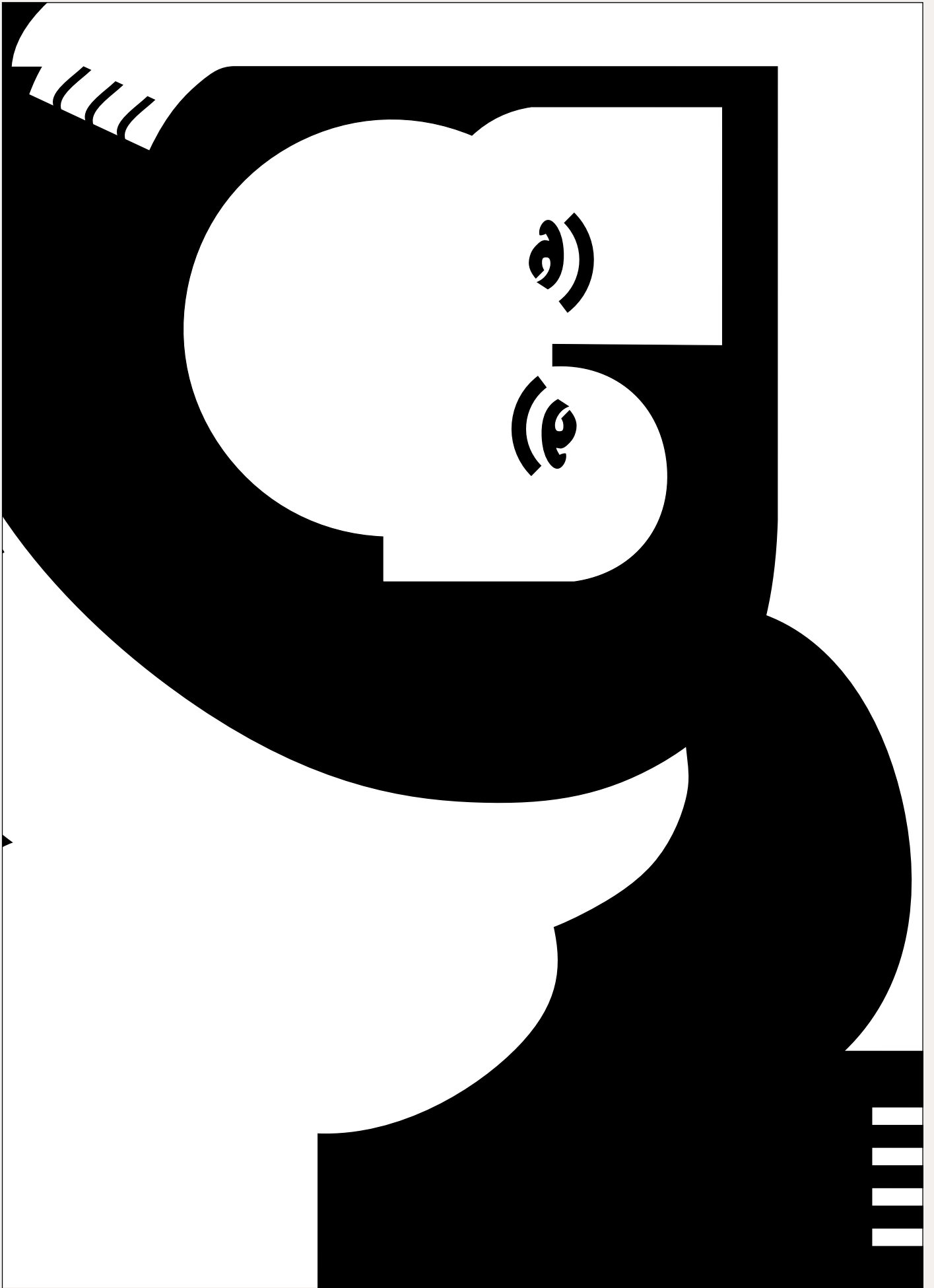


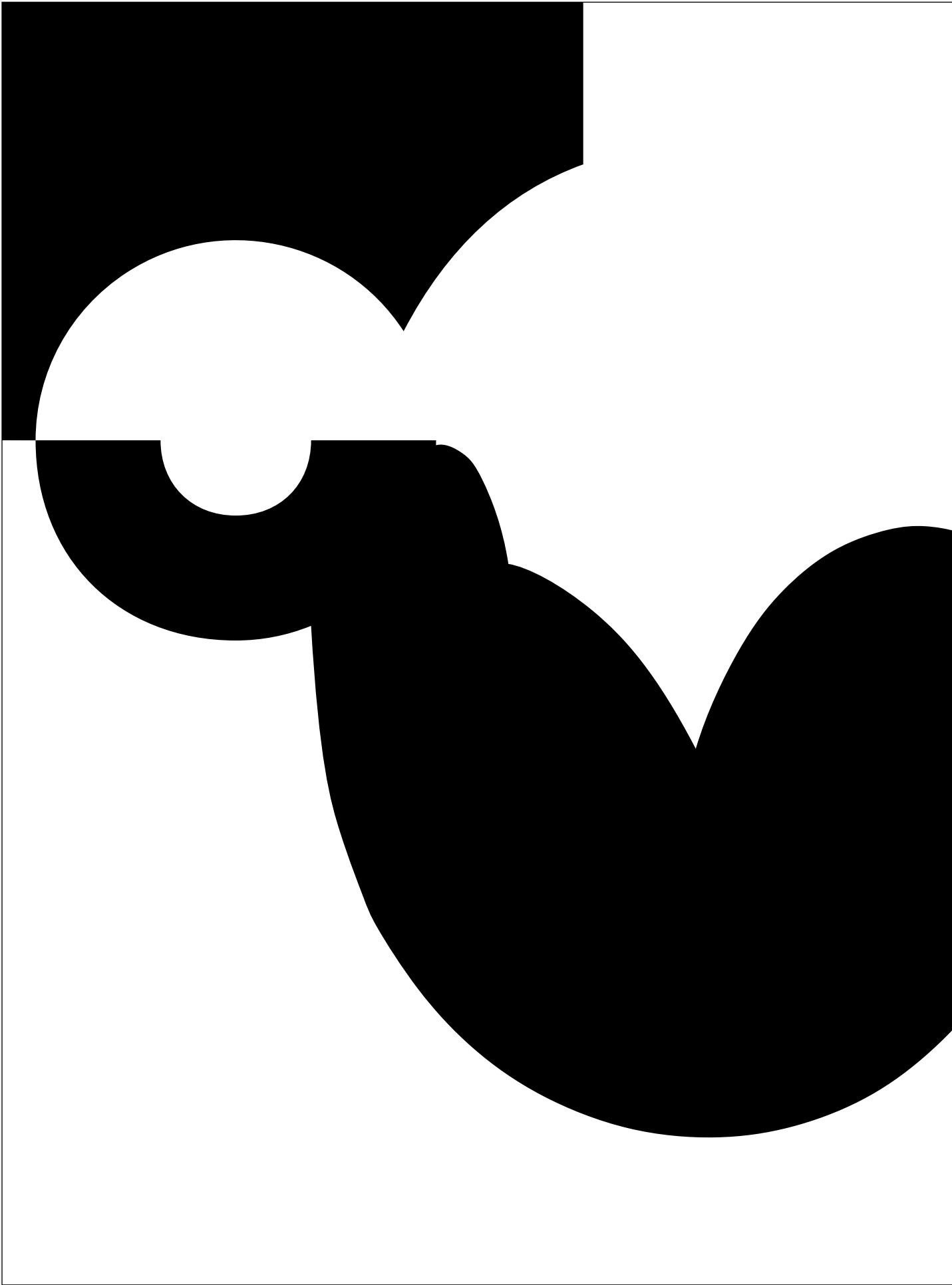












Keep sketching!

The Whole is Greater Than the Sum of Her Parts

Education Resource

31 MAY – 21 SEP 2025

NATIONAL GALLERY OF AUSTRALIA

Organised by ART/PLAY/RISK project,
led by Dr. Sanné Mestrom

Supported by the Australian Research Council

Resource author: Dr. Sanné Mestrom

Publication date of this resource: 26th May 2025

ISBN: 978-0-9922875-4-2

Copyright information: © 2025 [Dr. Sanné Mestrom
(University of Sydney)]

THANK YOU!

All photography by Maja Baska (unless stated otherwise)

Adam Cameron, Senior Associate, Cantilever Engineering

Megan Carrigy, Public Programs Manager, National Gallery of Australia

Arthur Frelingos, Director Water Jet Sydney

Christine Ghali, Senior Project Officer, National Gallery of Australia

Andrew Gilding, Director, Blue Mountain Steel

Alan Ginsbery, Director, Just Foam

Bronte Cormican Jones - studio assistance

Frank Mestrom - studio assistance

Paul Moses, Director, 2Barrows Concrete

Stuart Patterson, PCC Surf Boards - for developing and building Ludic Folly together

Ashley, Mid Mountains Smash Repairs - automotive paint finishing of the stools

Caitlin Roseby, Ciliberto Architects - undertaking all detailed design with me

Aaron Schuiling, Production Manager at Plastix - working with me on all acrylic elements

Mal Wood and team, Mal Wood Foundry - bronze casting

