

Chair for Information Architecture | HS2008

# **Elective Course Information Architecture**

**Information Aesthetics / Computational Aesthetics**

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**October 13, 2008**



Chair for Information Architecture

## Overview

- Hybrids
- Left-right brain integration
- Work by Hybrids
  - Processing and similar technologies
  - Beauty within Information
  - Create aesthetic Form with Information Technology
  - Art, Graphic Design, Advertising, Film, Design, Digital Fabrication

Information Aesthetics

## Todays topic: Hybrids

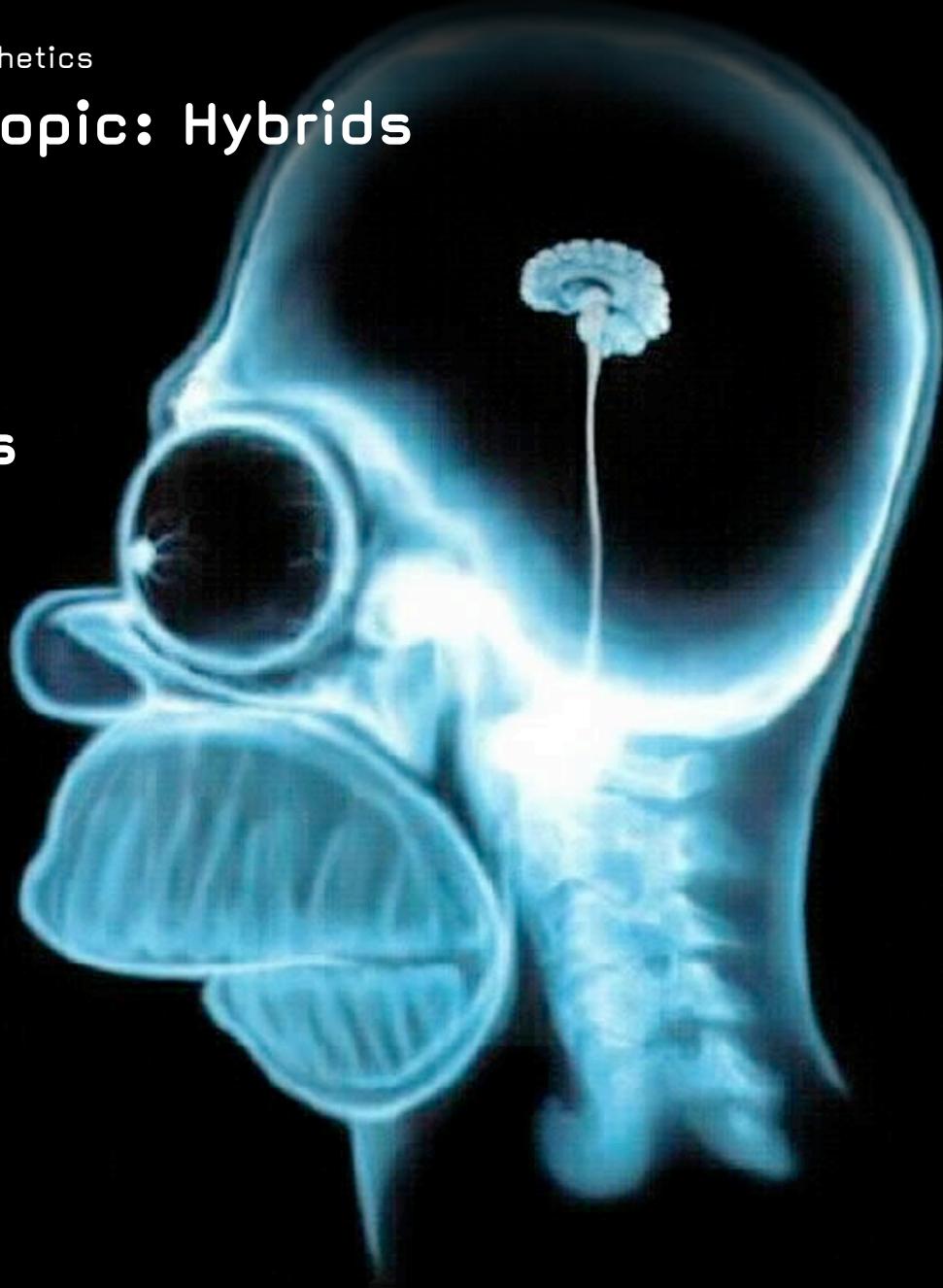
not Cars....



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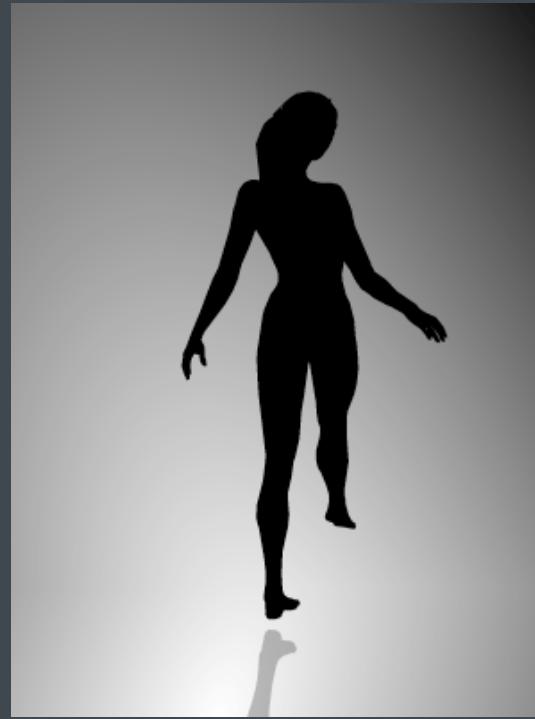
## Todays topic: Hybrids

...brains



Information Aesthetics

# Experiment



# Experiment

## Left Eye dominant

uses logic  
detail oriented  
facts rule  
words and language  
present and past  
math and science  
can comprehend  
knowing  
acknowledges  
order/pattern perception  
knows object name  
reality based  
forms strategies  
practical  
safe

## Anti-Clockwise

If you see the ‘Spinning Lady’ anti-clockwise, then you use more of the left side of the brain.

Most of us would see the dancer turning anti-clockwise

# Experiment

## Clockwise

If you see the ‚Spinning Lady‘ clockwise, then you use more of the right side of the brain.

## Right Eye dominant

uses feeling  
"big picture" oriented  
imagination rules  
symbols and images  
present and future  
philosophy & religion  
can "get it" (i.e. meaning)  
believes  
appreciates  
spatial perception  
knows object function  
fantasy based  
presents possibilities  
impetuous  
risk taking

Information Aesthetics

# Towards a left-right brain integration

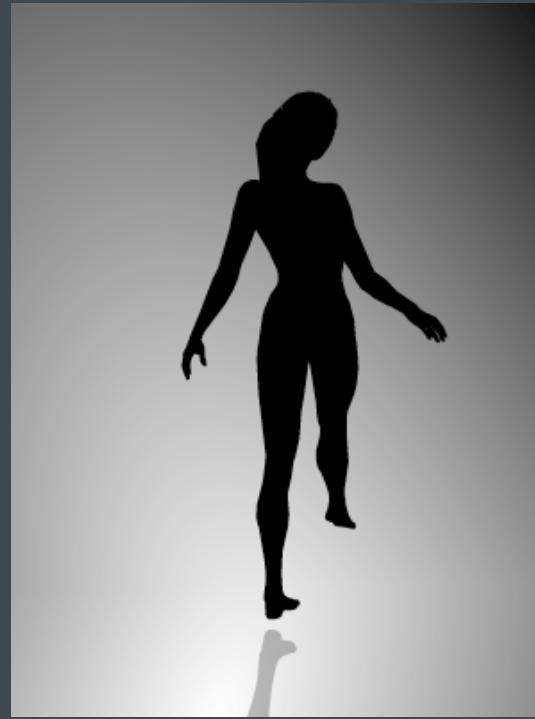
spatial perception, feeling + imagination

together with

abstract, logic, math, science

Information Aesthetics

# Experiment



```

for (int i=0; i<segments; i++){
    // Collision detection
    checkWallCollision();
    for (int i=0; i<segments; i++){
        checkGroundCollision(ground[i]);
    }
}

void checkWallCollision(){
    if (orb.x > width-orb.r){
        orb.x = width-orb.r;
        velocity.vx *= -1;
        velocity.vx *= damping;
    }
    else if (orb.x < orb.r){
        orb.x = orb.r;
        velocity.vx *= -1;
        velocity.vx *= damping;
    }
}

void checkGroundCollision(Ground groundSegment) {
    // Get difference between orb and ground
    float deltaX = orb.x - groundSegment.x;
    float deltaY = orb.y - groundSegment.y;

    // Precalculate trig values
    float cosine = cos(groundSegment.rot);
    float sine = sin(groundSegment.rot);

    /* Rotate ground and velocity to allow
    orthogonal collision calculations */
    float groundXTemp = cosine * deltaX + sine * deltaY;
    float groundYTemp = cosine * deltaY - sine * deltaX;
    float velocityXTemp = cosine * velocity.vx + sine * velocity.vy;
    float velocityYTemp = cosine * velocity.vy - sine * velocity.vx;

    /* Ground collision - check for surface
    collision and also that orb is within
    left/rights bounds of ground segment */
    if (groundYTemp > -orb.r &&
        orb.x > groundSegment.x1 &&
        orb.x < groundSegment.x2 ){
        // keep orb from going into ground
        groundYTemp = -orb.r;
        // bounce and slow down orb
        velocityYTemp *= -1.0;
        velocityYTemp *= damping;
    }

    // Reset ground, velocity and orb
    deltaX = cosine * groundXTemp - sine * groundYTemp;
    deltaY = cosine * groundYTemp + sine * groundXTemp;
    velocity.vx = cosine * velocityXTemp - sine * velocityYTemp;
    velocity.vy = cosine * velocityYTemp + sine * velocityXTemp;
    orb.x = groundSegment.x + deltaX;
    orb.y = groundSegment.y + deltaY;
}

class Ground {
    float x1, v1, x2, v2;
}

```

## Information Aesthetics

# Code: Abstract, logic, math, science

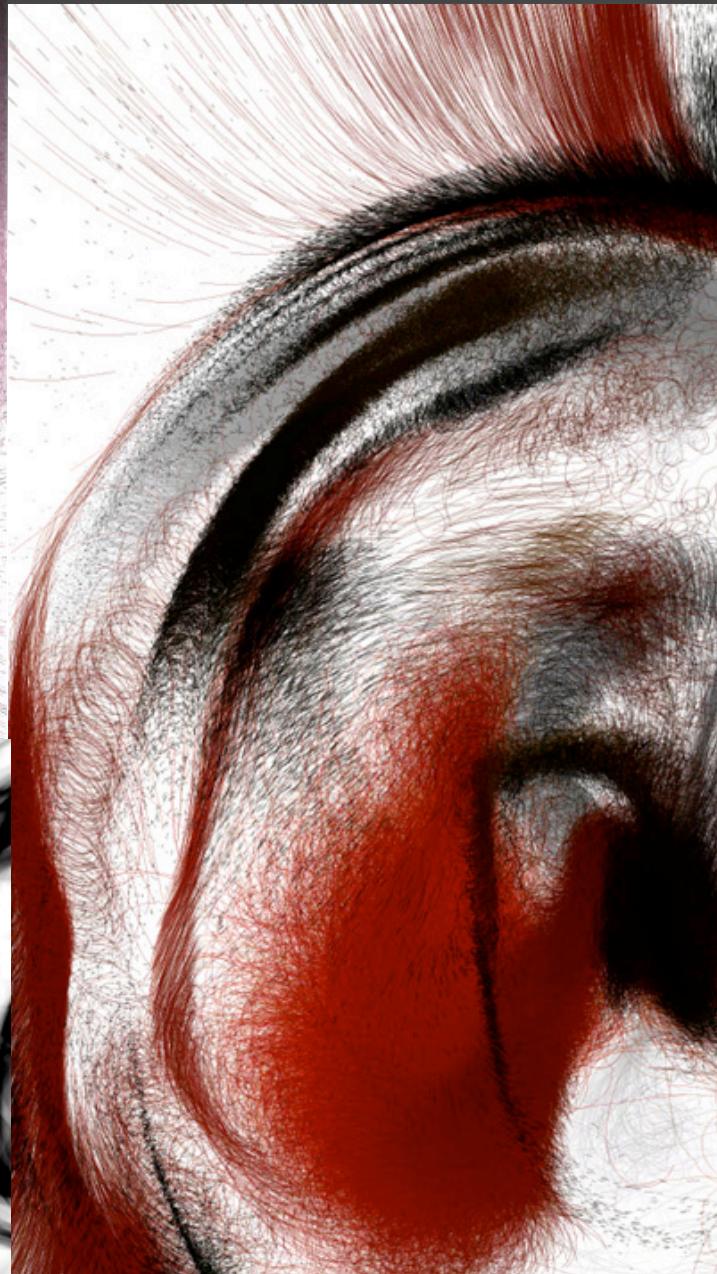
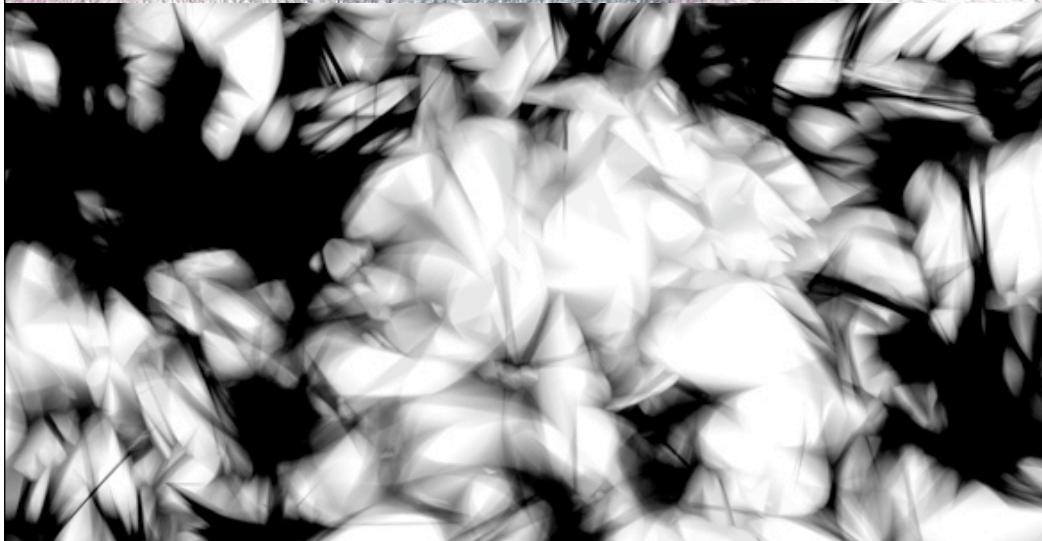
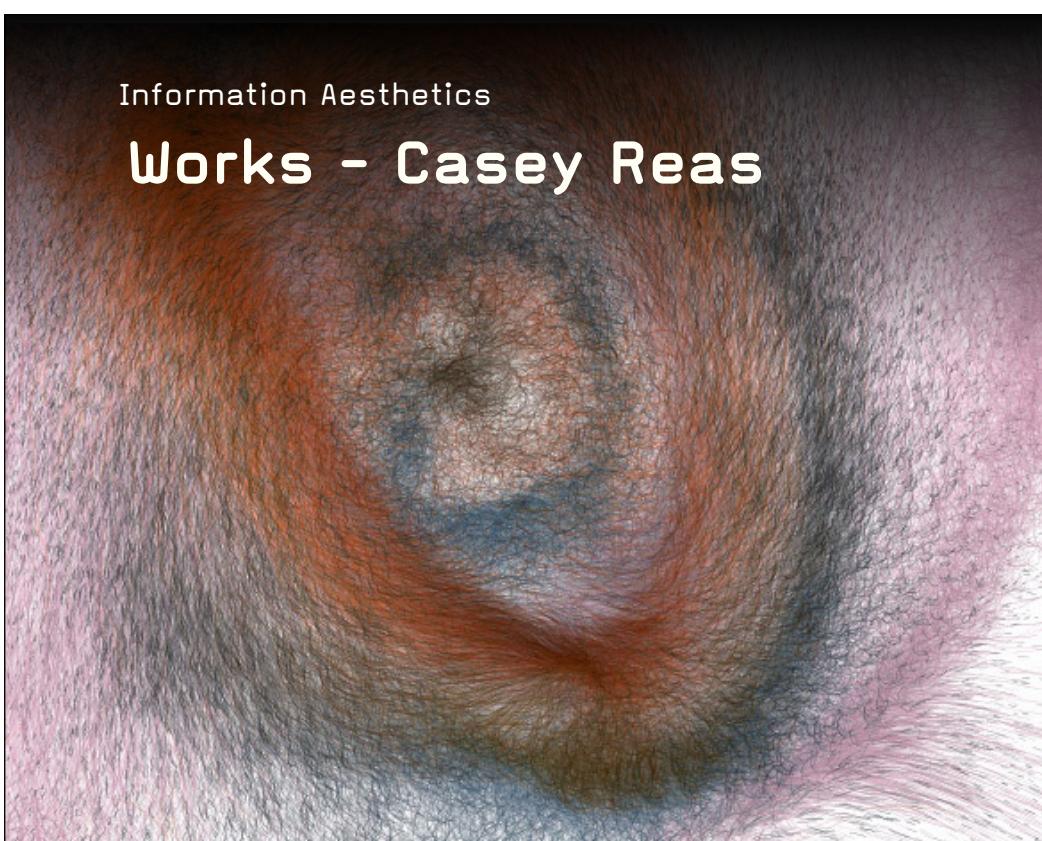
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# Spatial perception, feeling + imagination



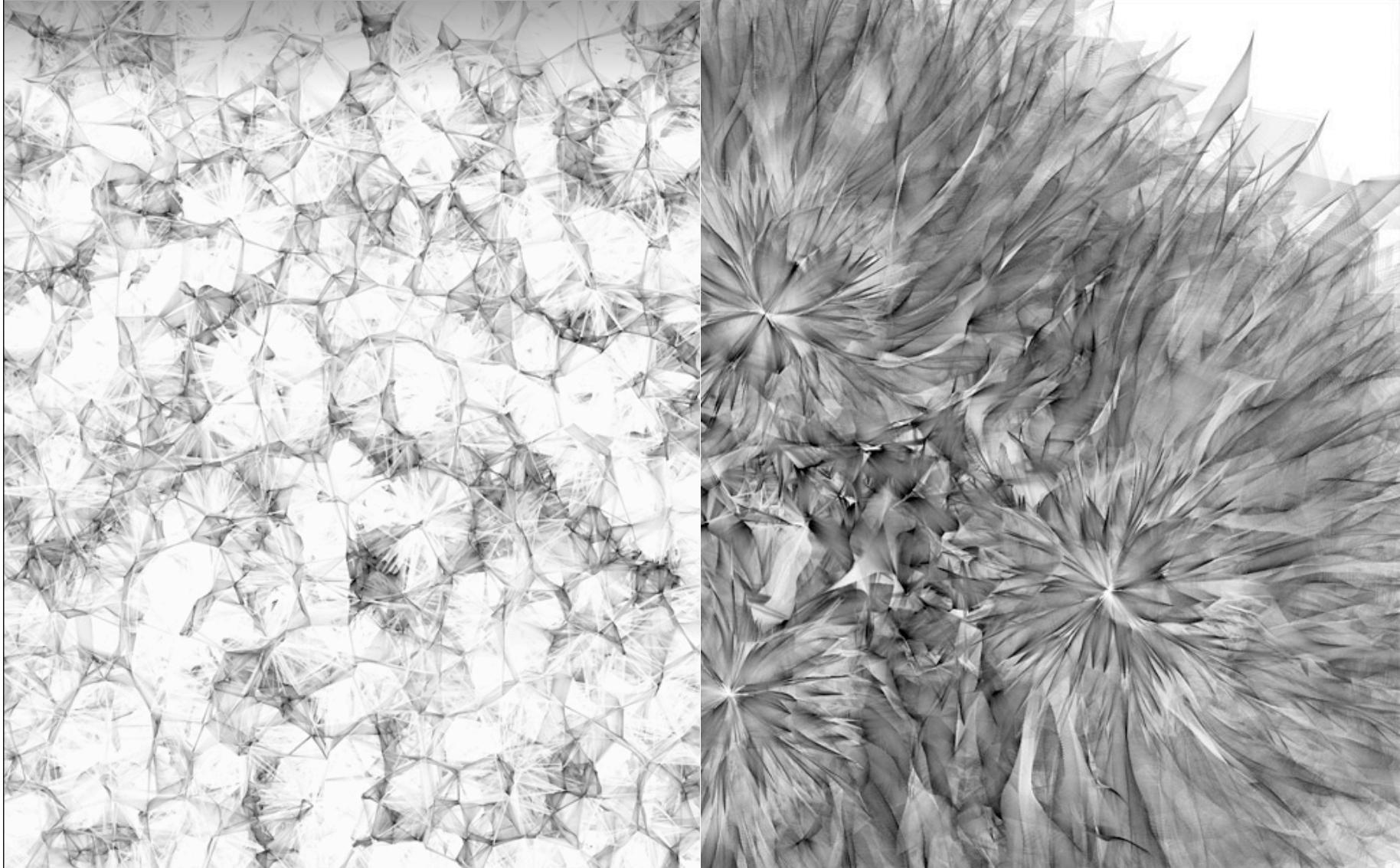
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## Works - Casey Reas



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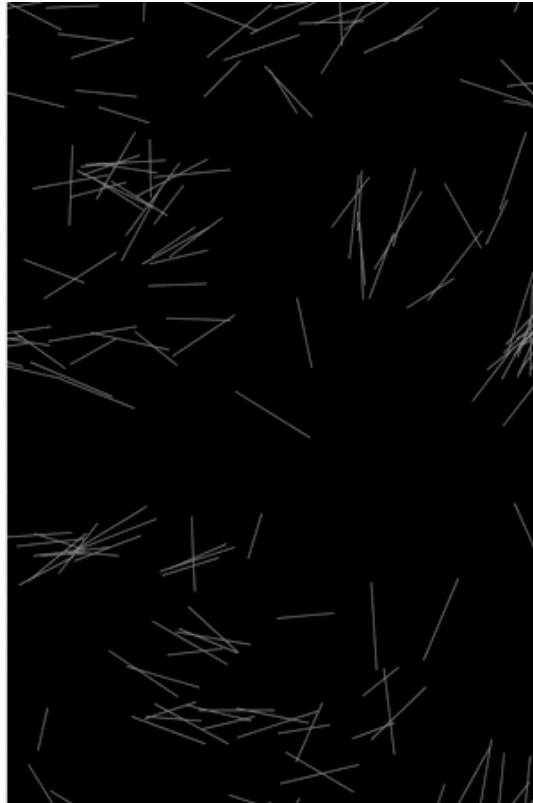
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## Works - Casey Reas



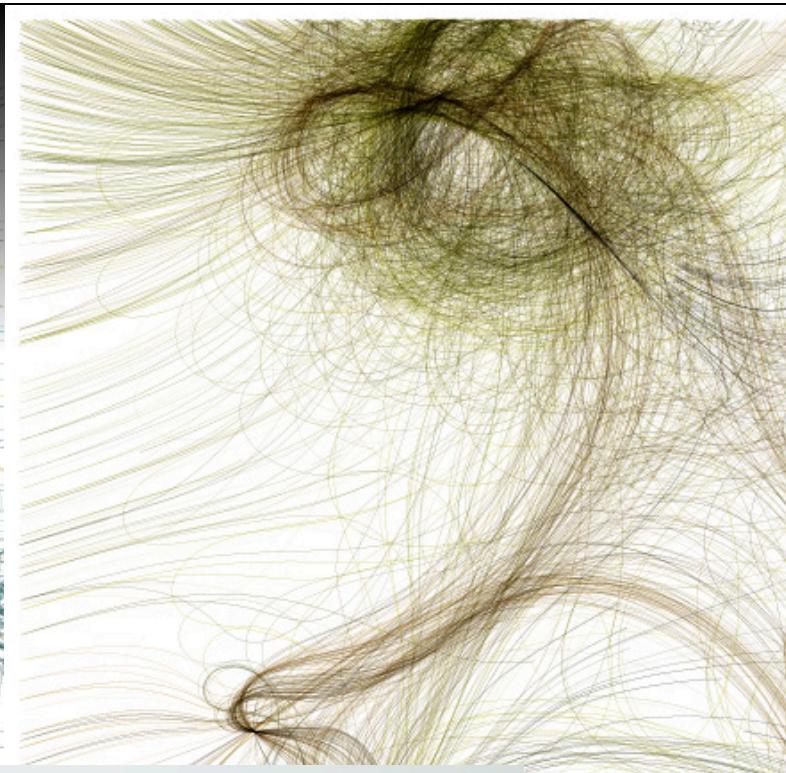
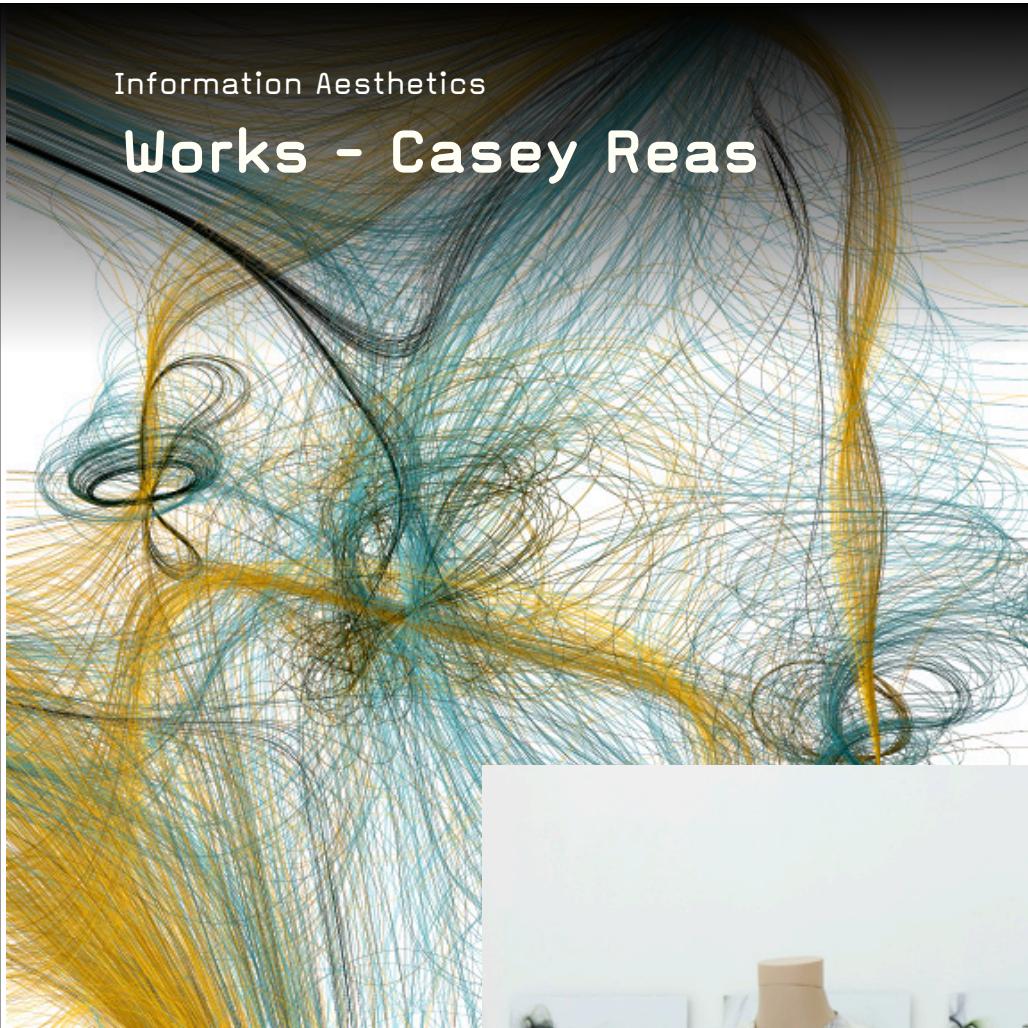
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## Works - Casey Reas



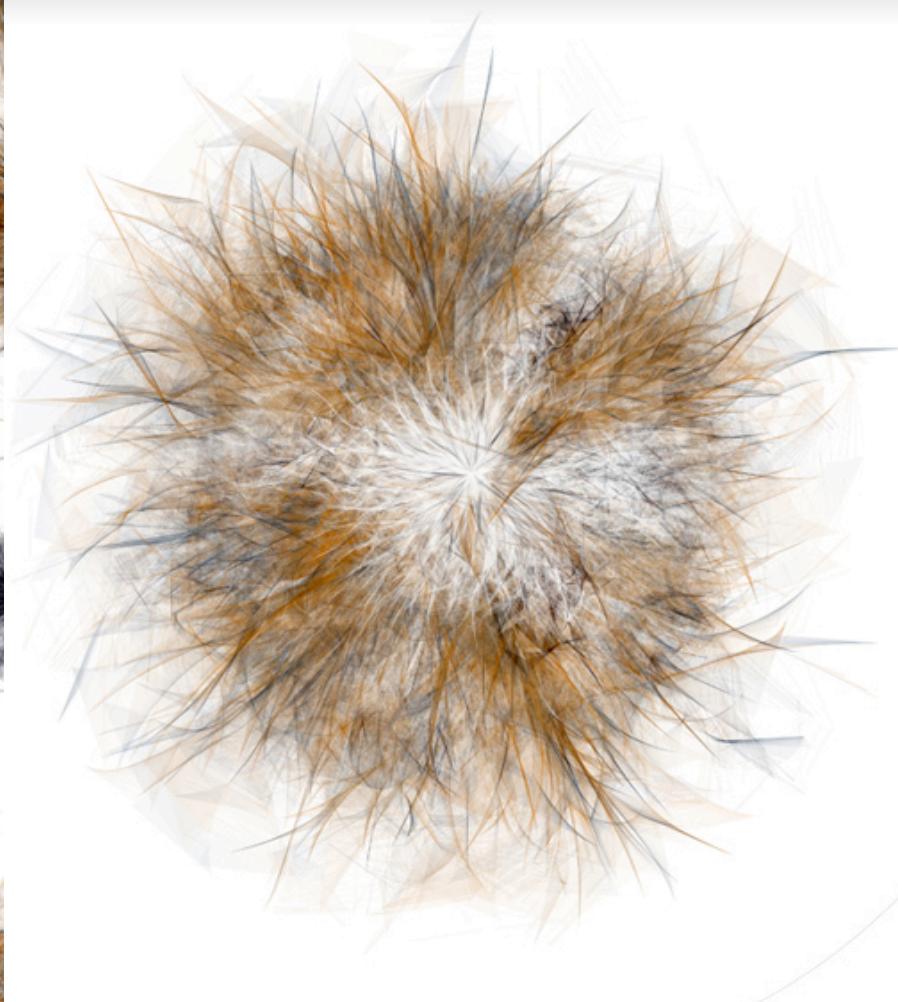
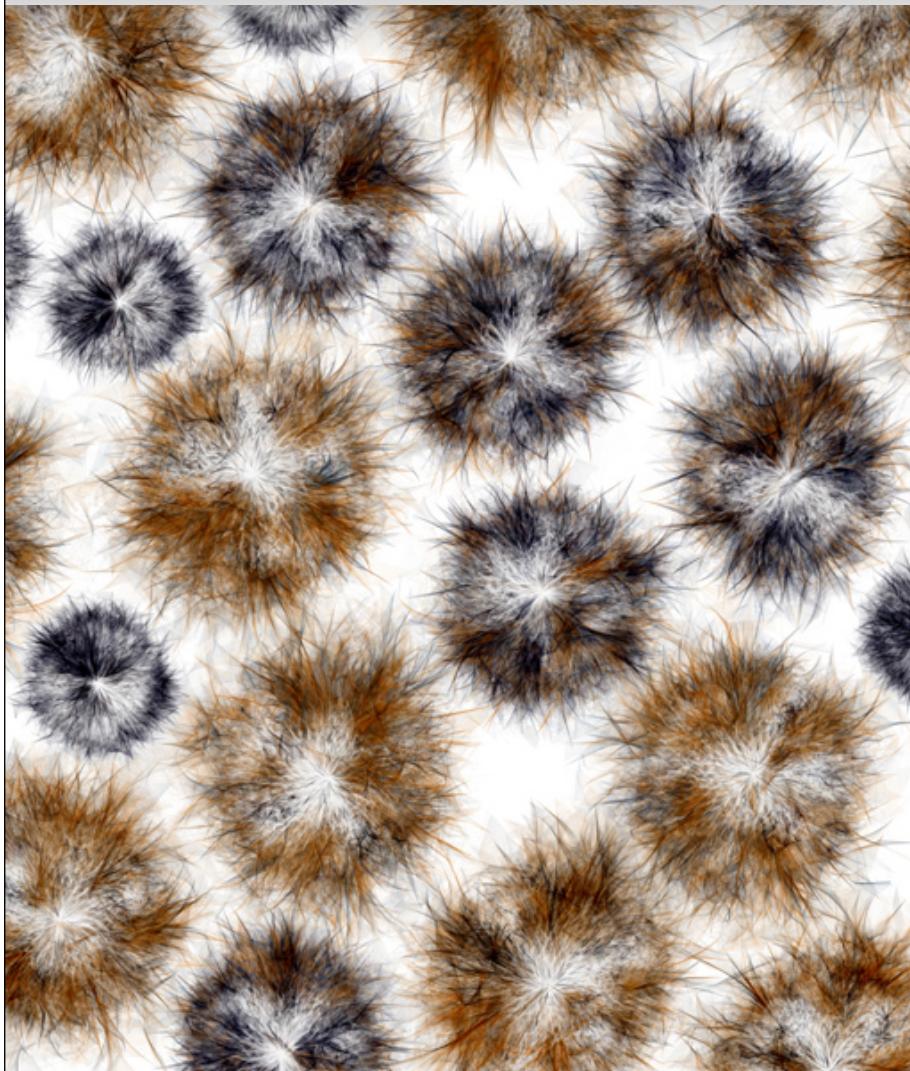
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## Works - Casey Reas



Information Aesthetics

## Works - Casey Reas



Information Aesthetics

# Aaron Koblin: Flight Patterns

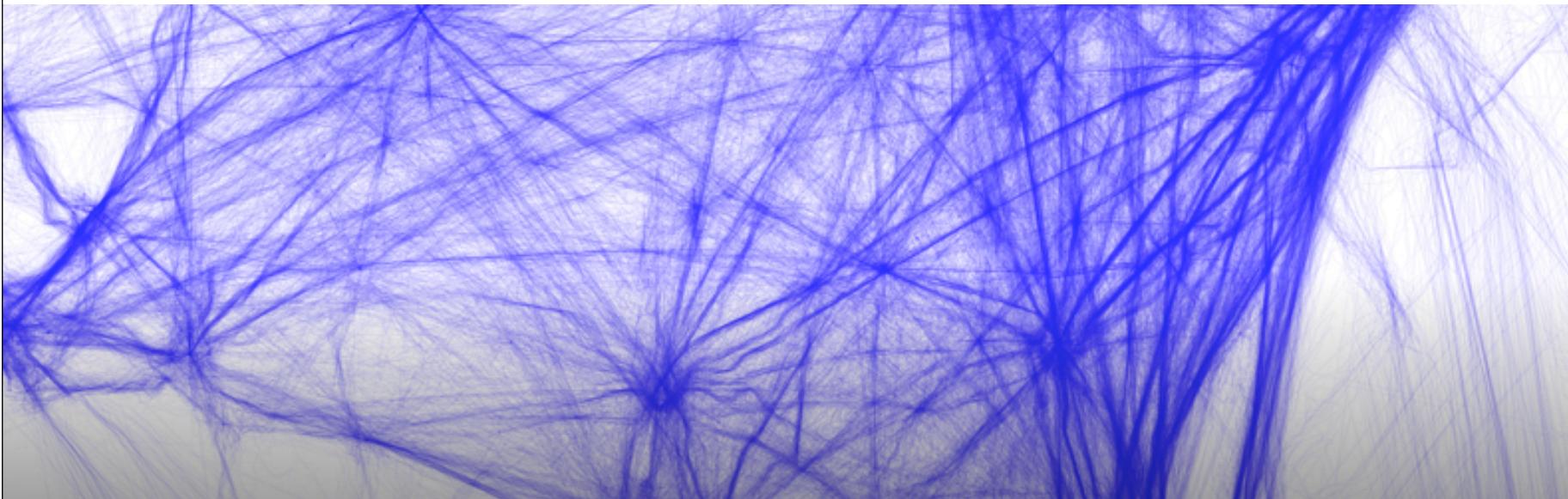
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# Flight Patterns - Aaron Koblin



Information Aesthetics

# Flight Patterns - Aaron Koblin



Information Aesthetics

# Flight Patterns - Aaron Koblin



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## Cabspotting - Stamen Design

<http://cabspotting.org/client.html>

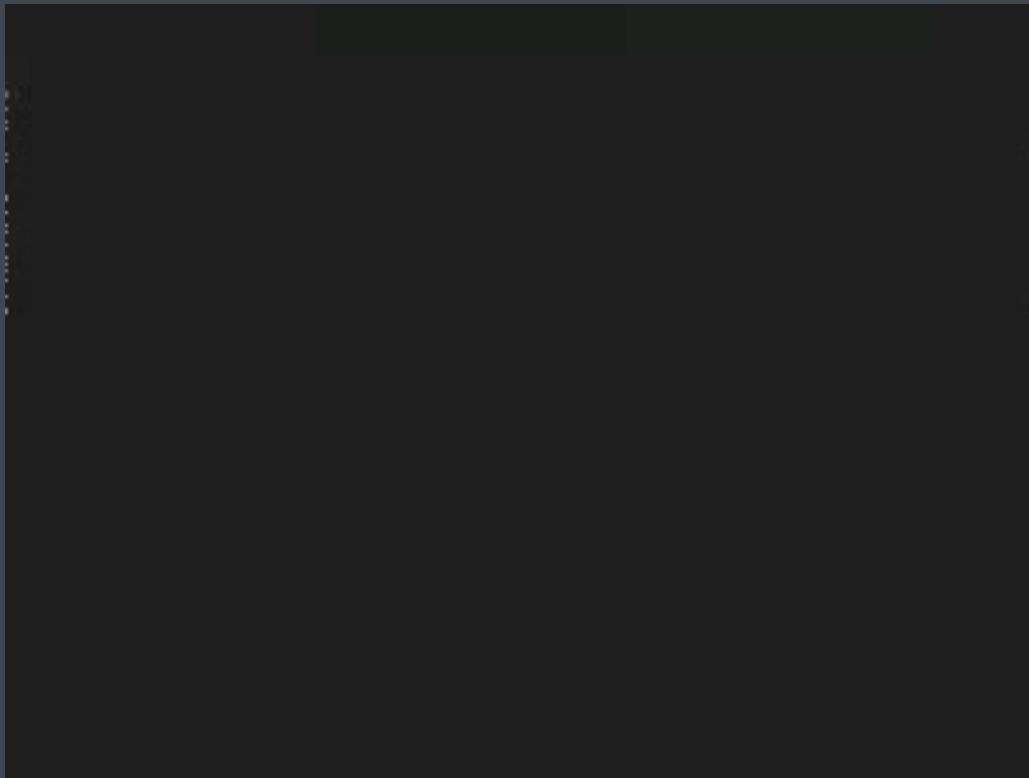
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# Nike One - Motion Theory, Josh Nimoy



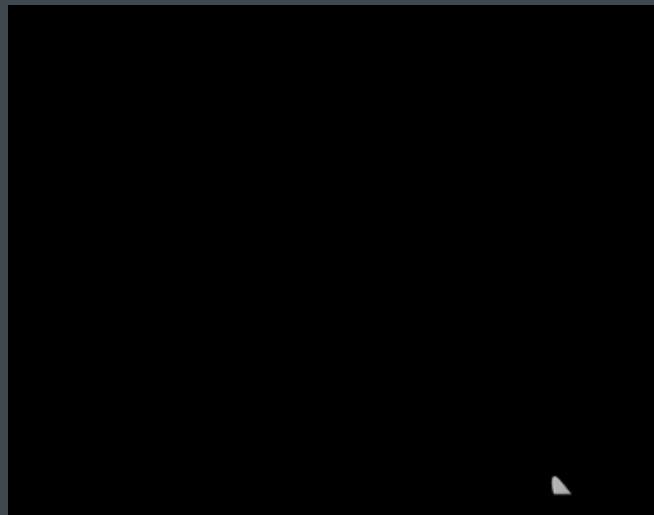
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# Visualize - Fidg't



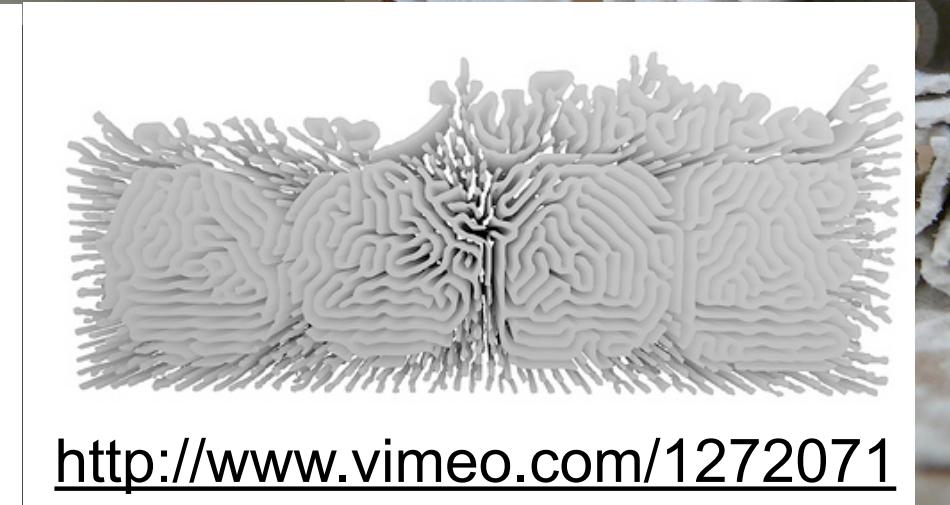
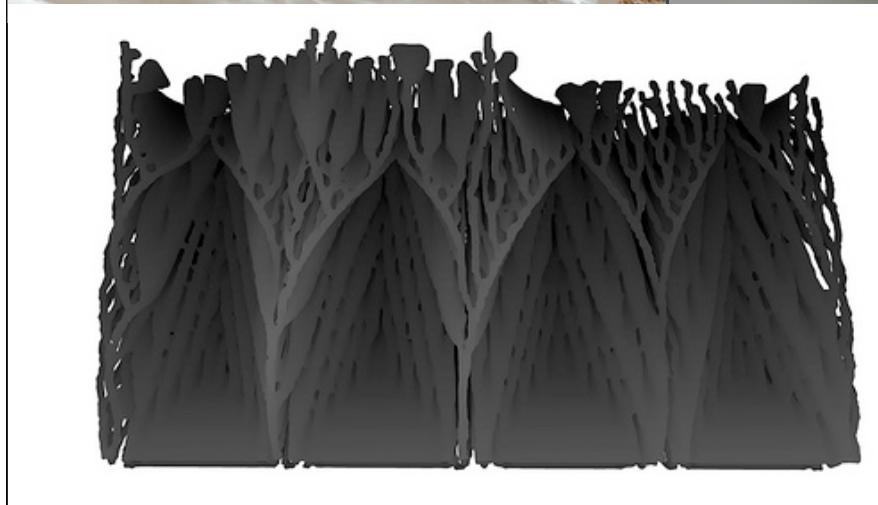
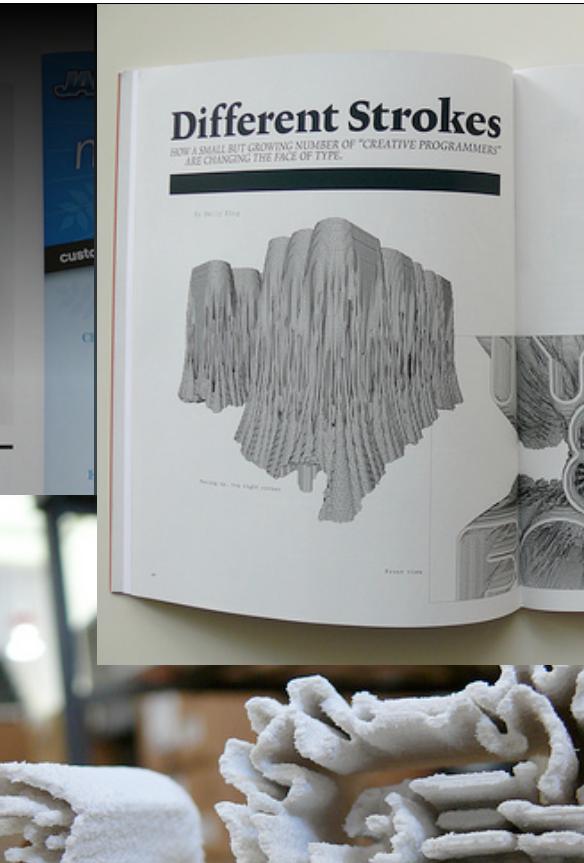
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# Audi TT -Karsten Schmidt



◀

▶



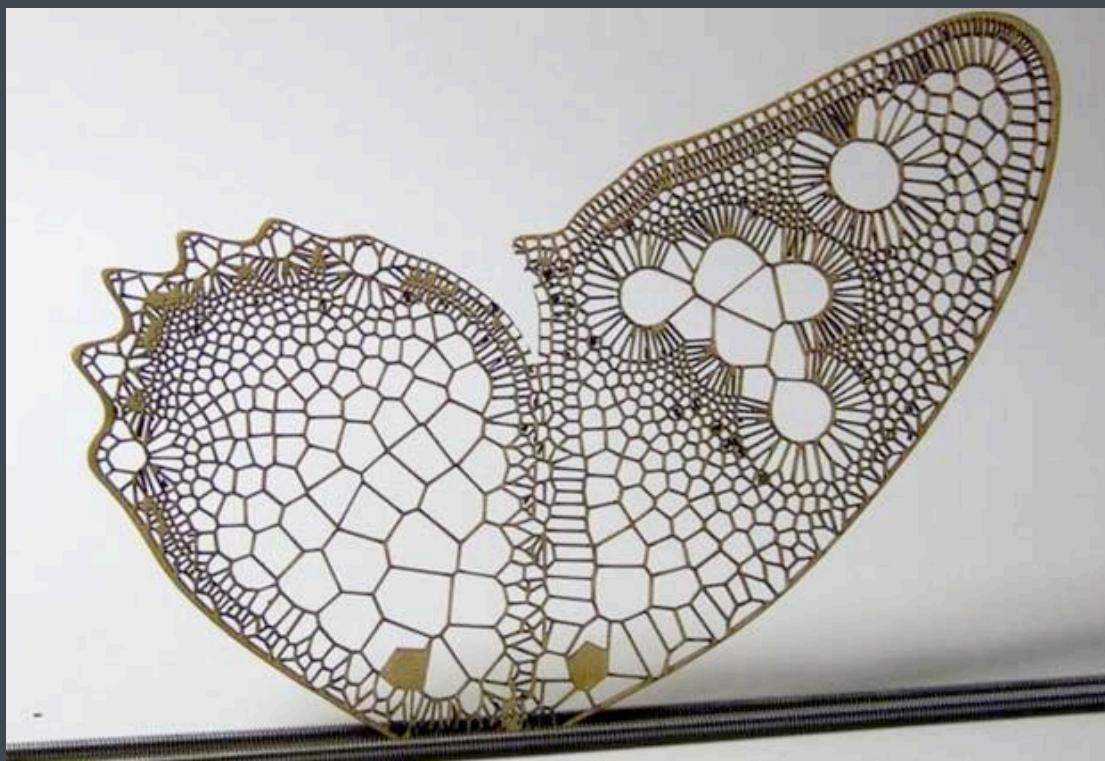
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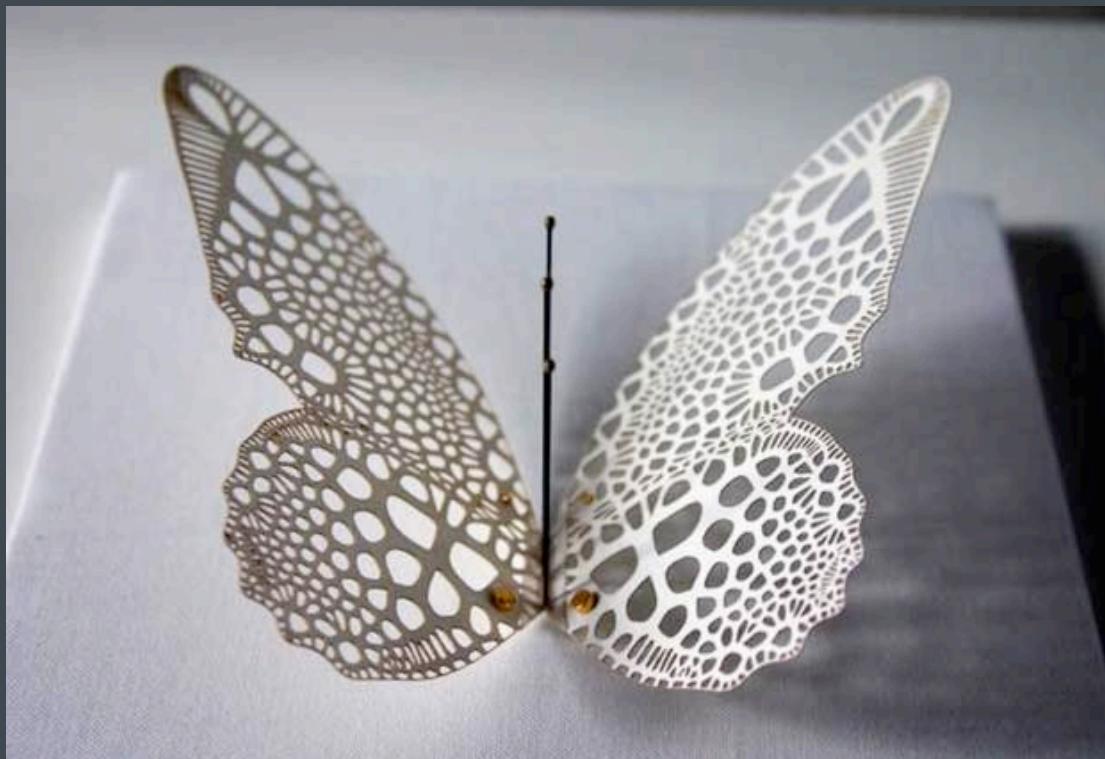
# Biomimetic Butterflies - The Barbarian Group

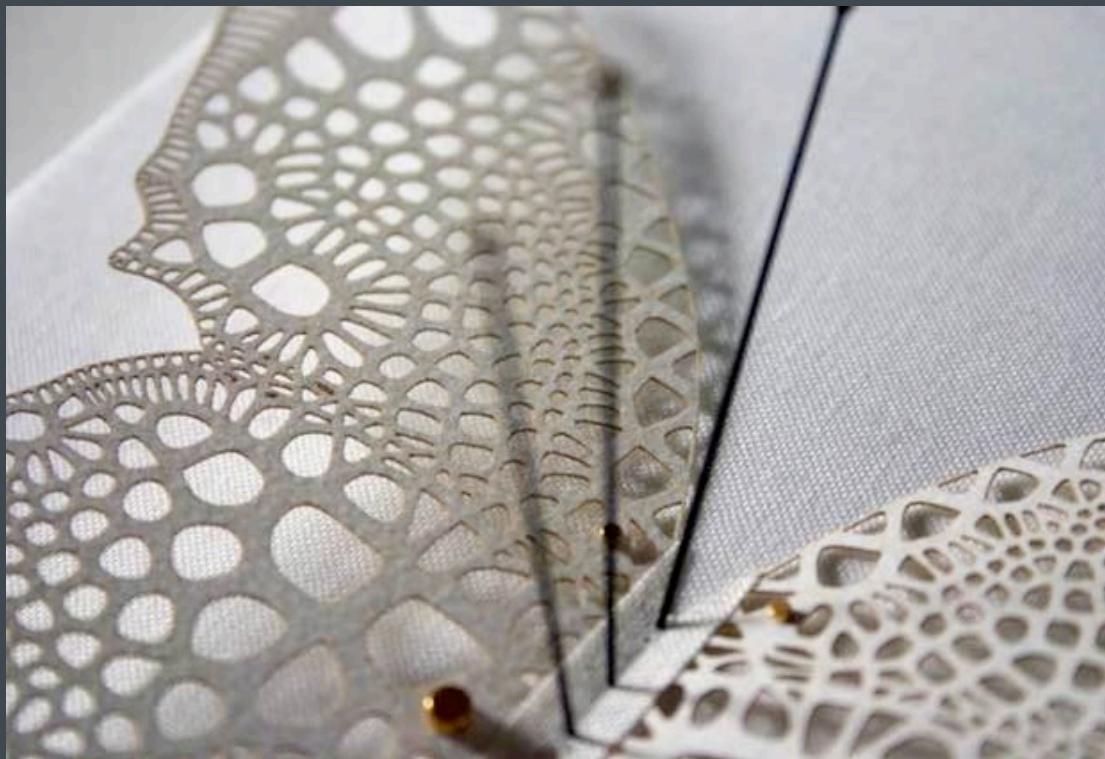






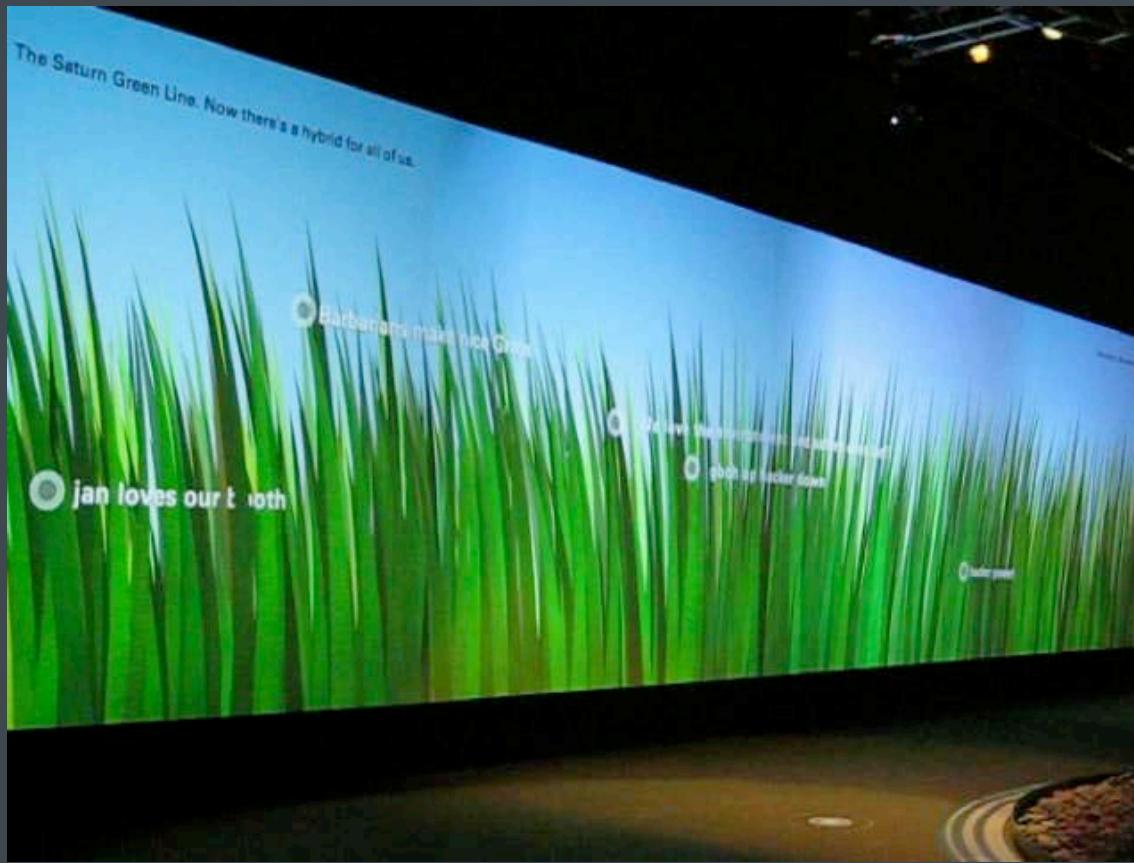






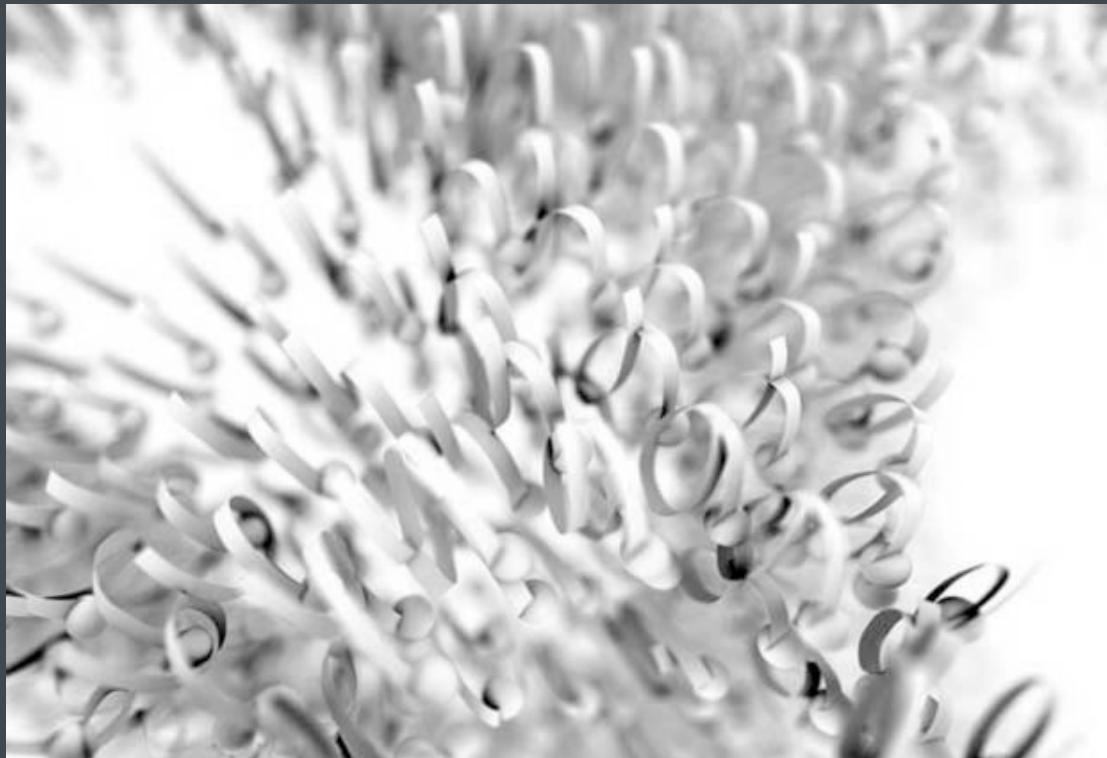
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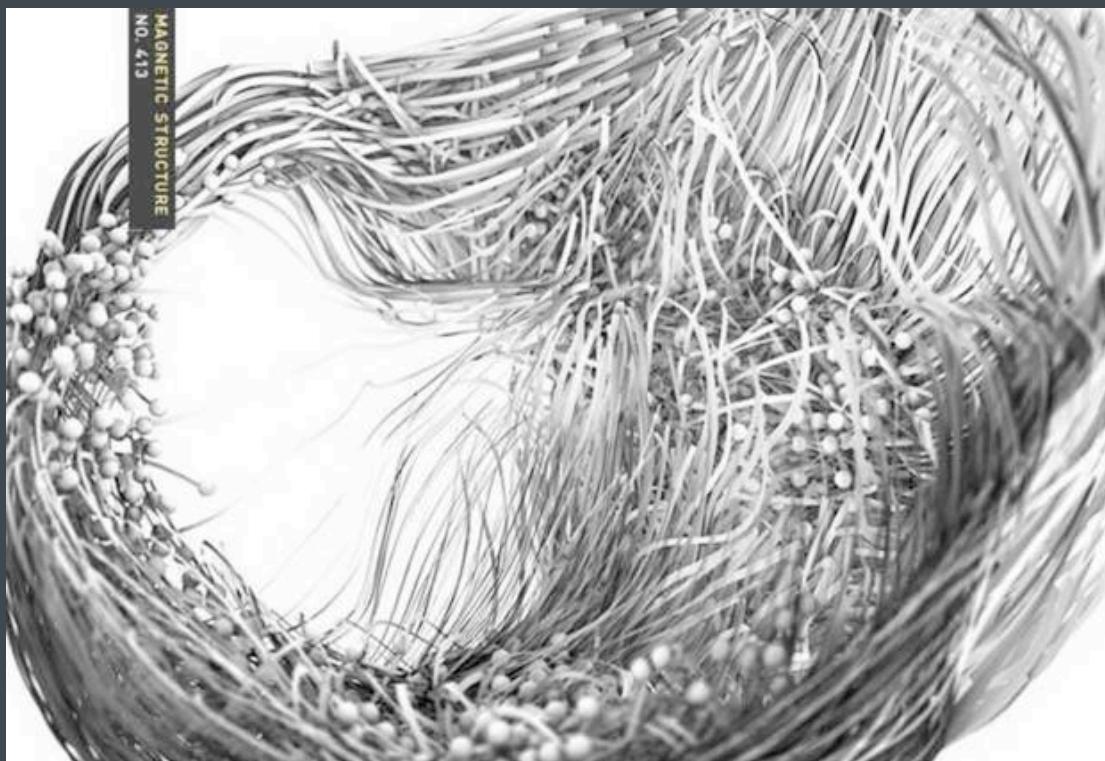
# Grass - The Barbarian Group



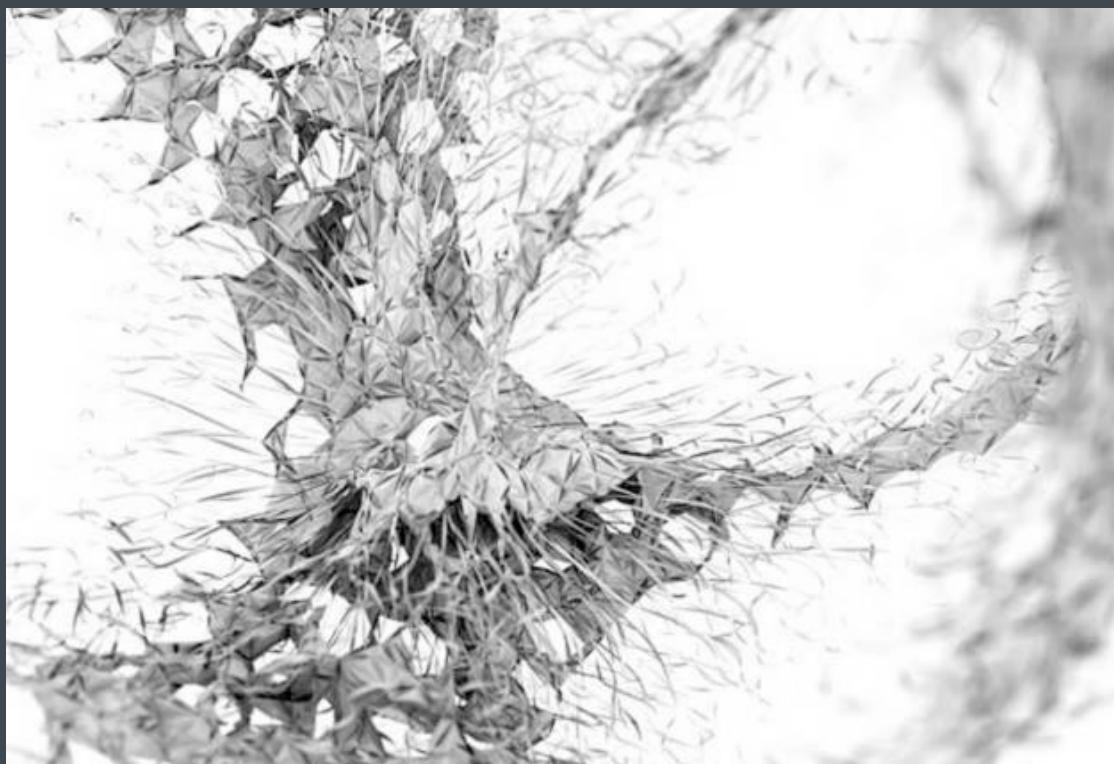
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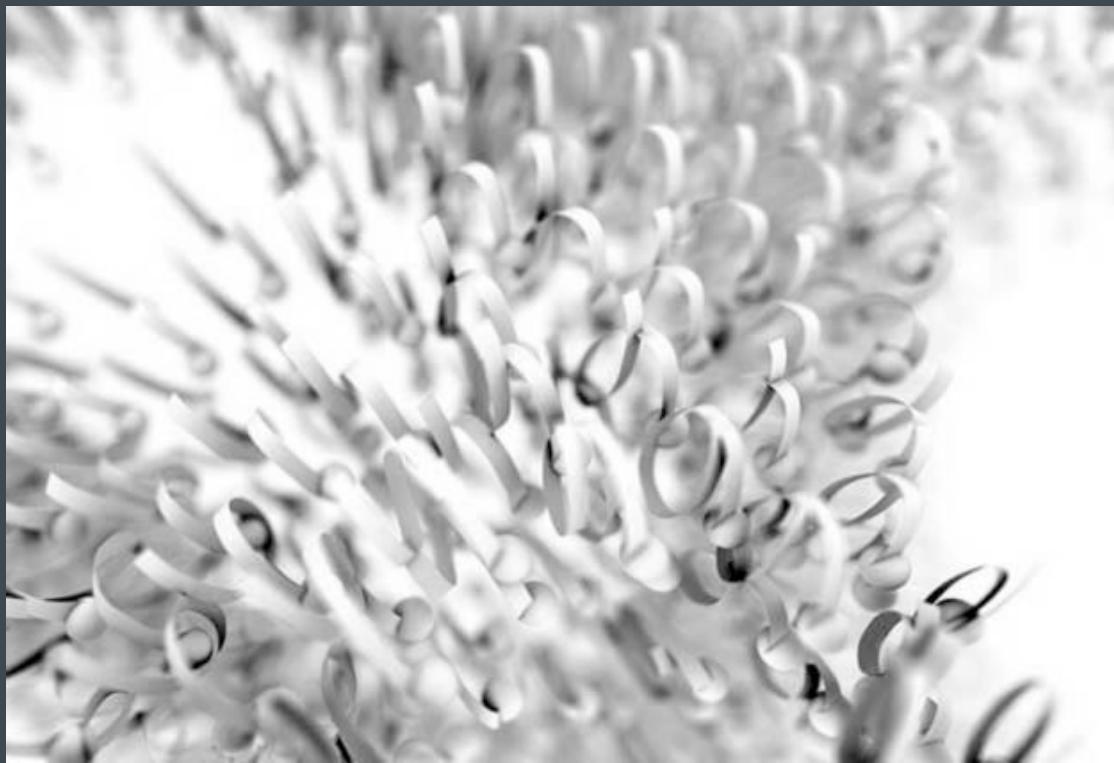
# Magnetic structure prints - The Barbarian Group











From Information to Knowledge

## Fox Movies Japan: Horror - The Barbarian Group



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## Fox Movies Japan: Horror - The Barbarian Group



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# Laser Tag - Graffiti Research Lab



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# Substrate - Jared Tarbell



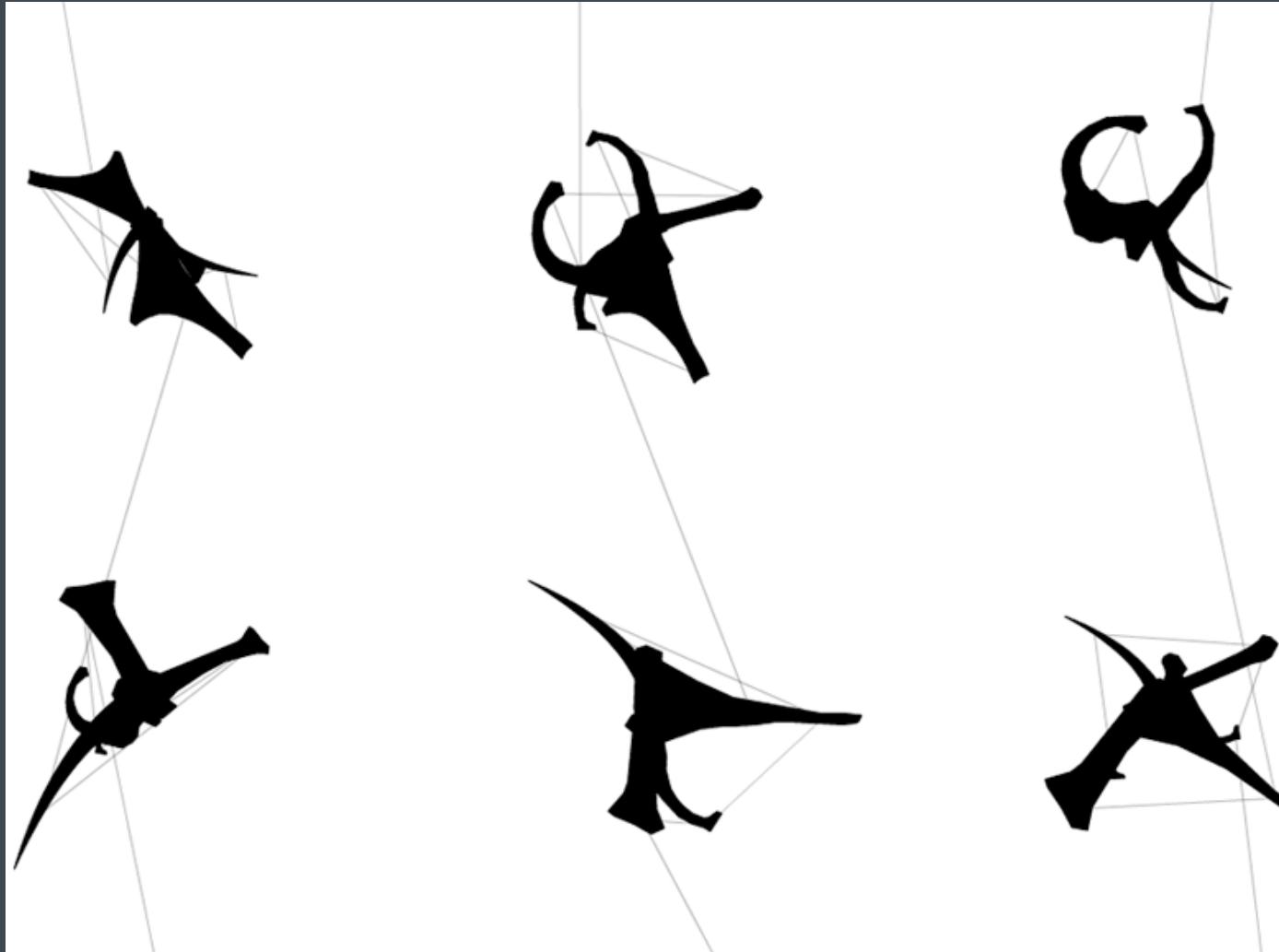
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## Substrate - Jared Tarbell

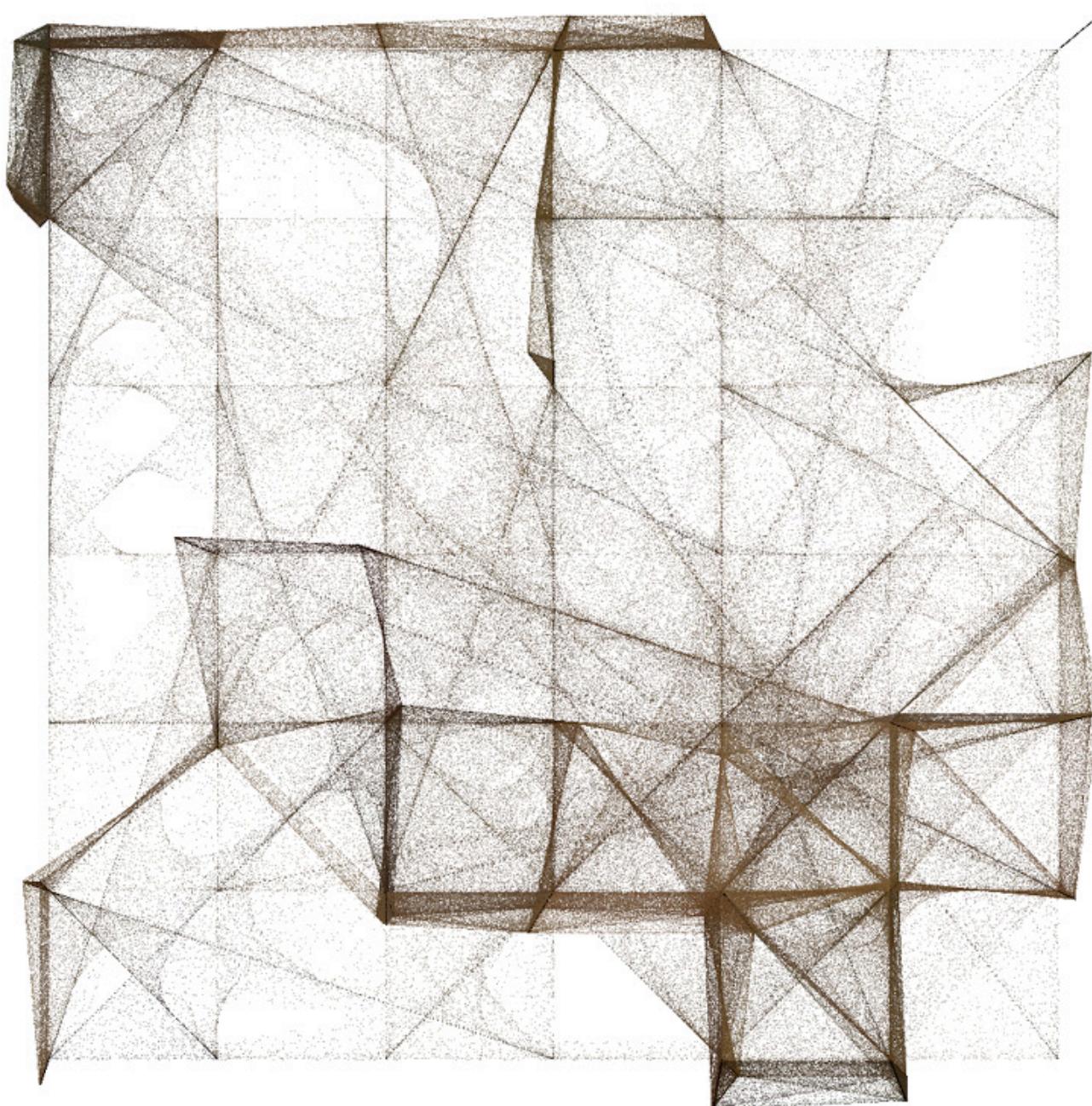


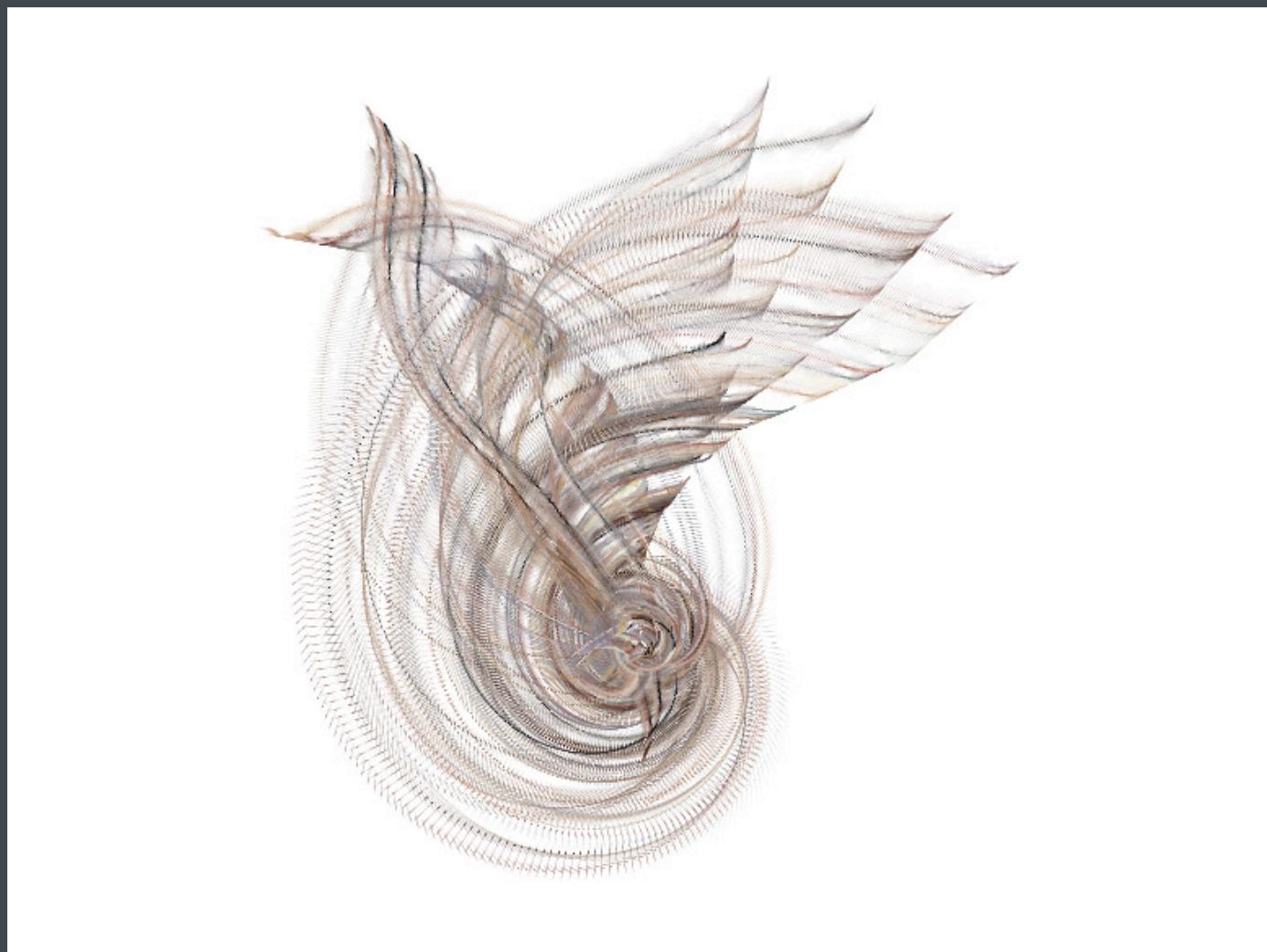
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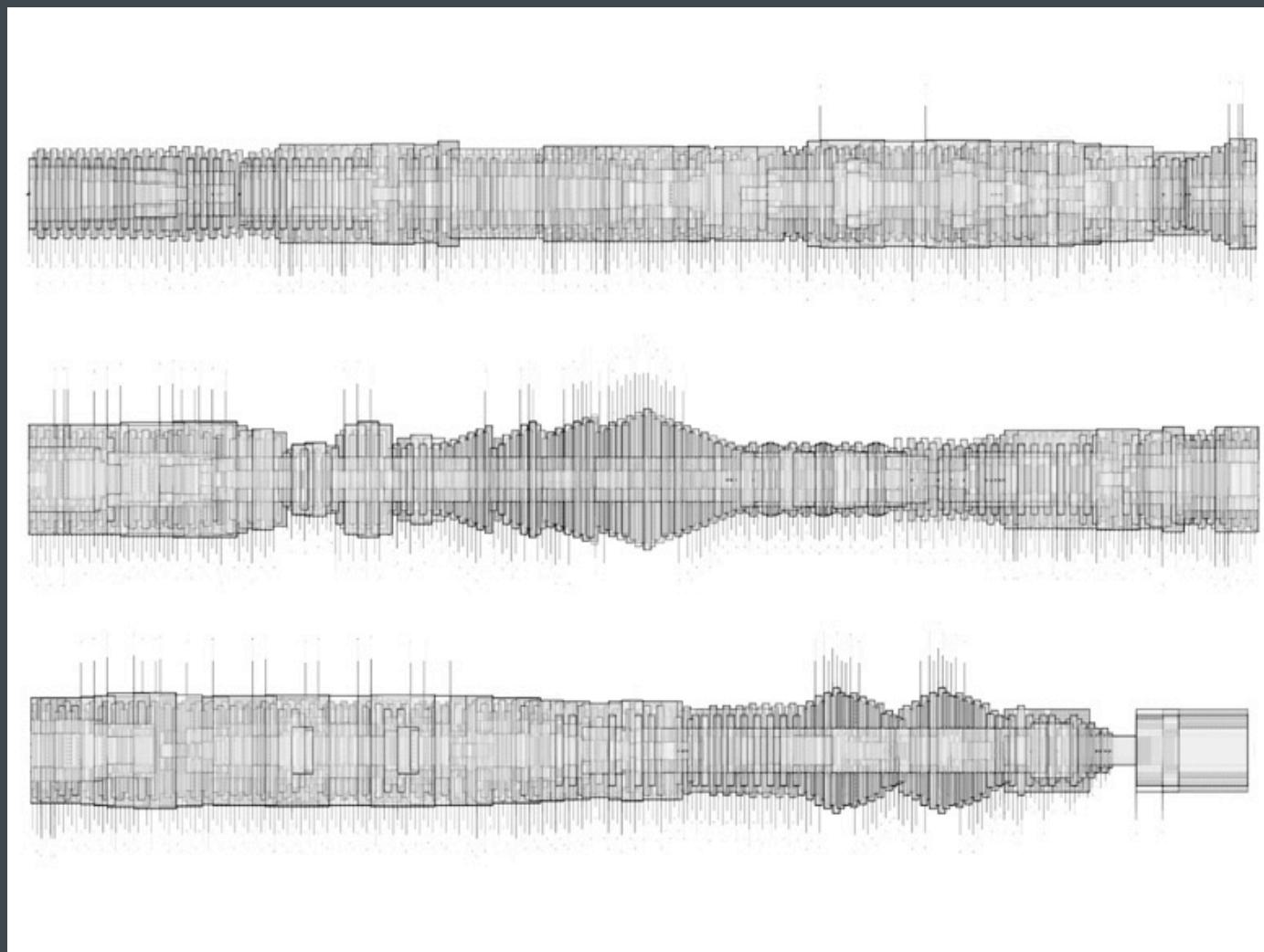
## Bone Piles - Jared Tarbell

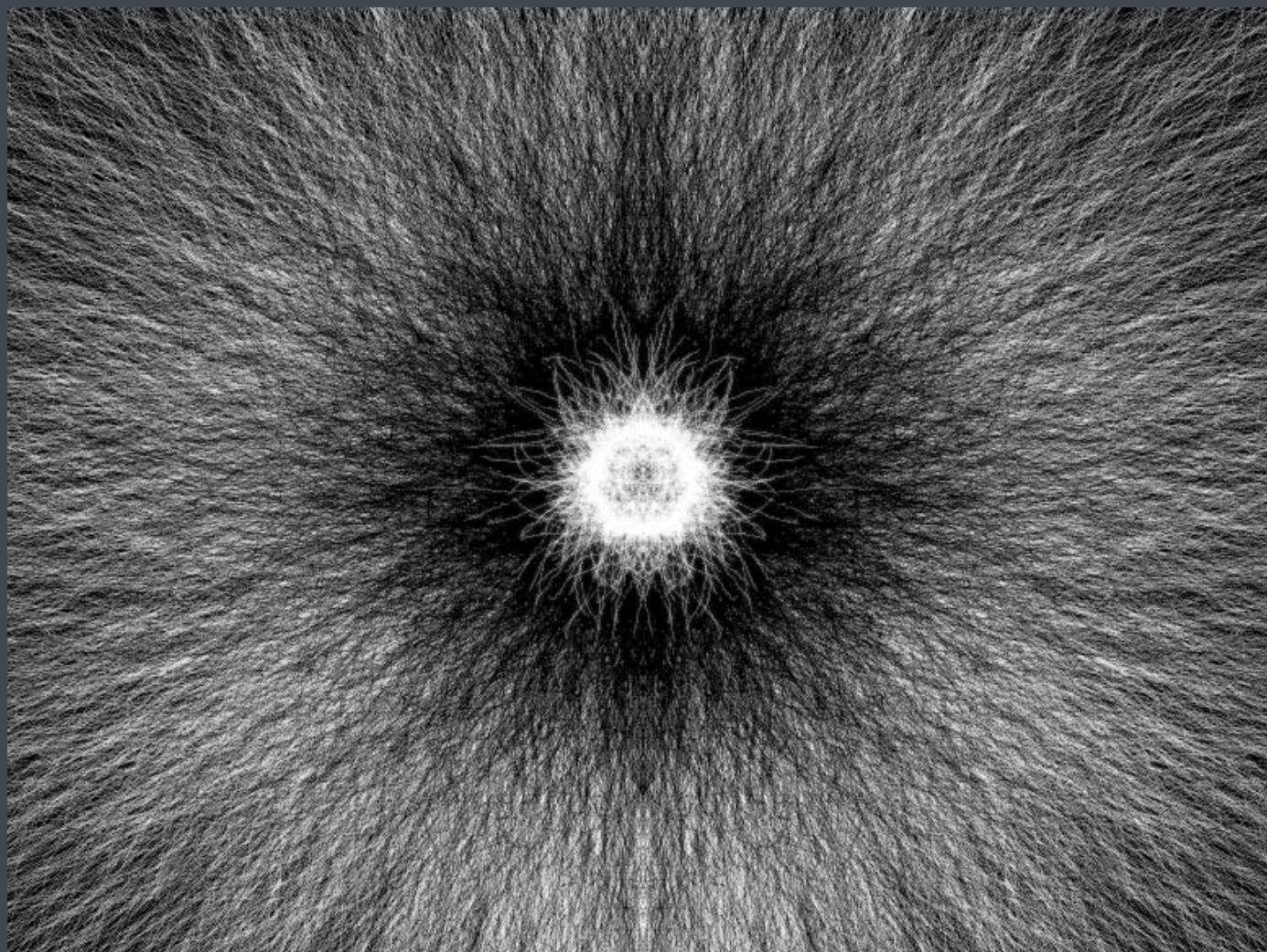


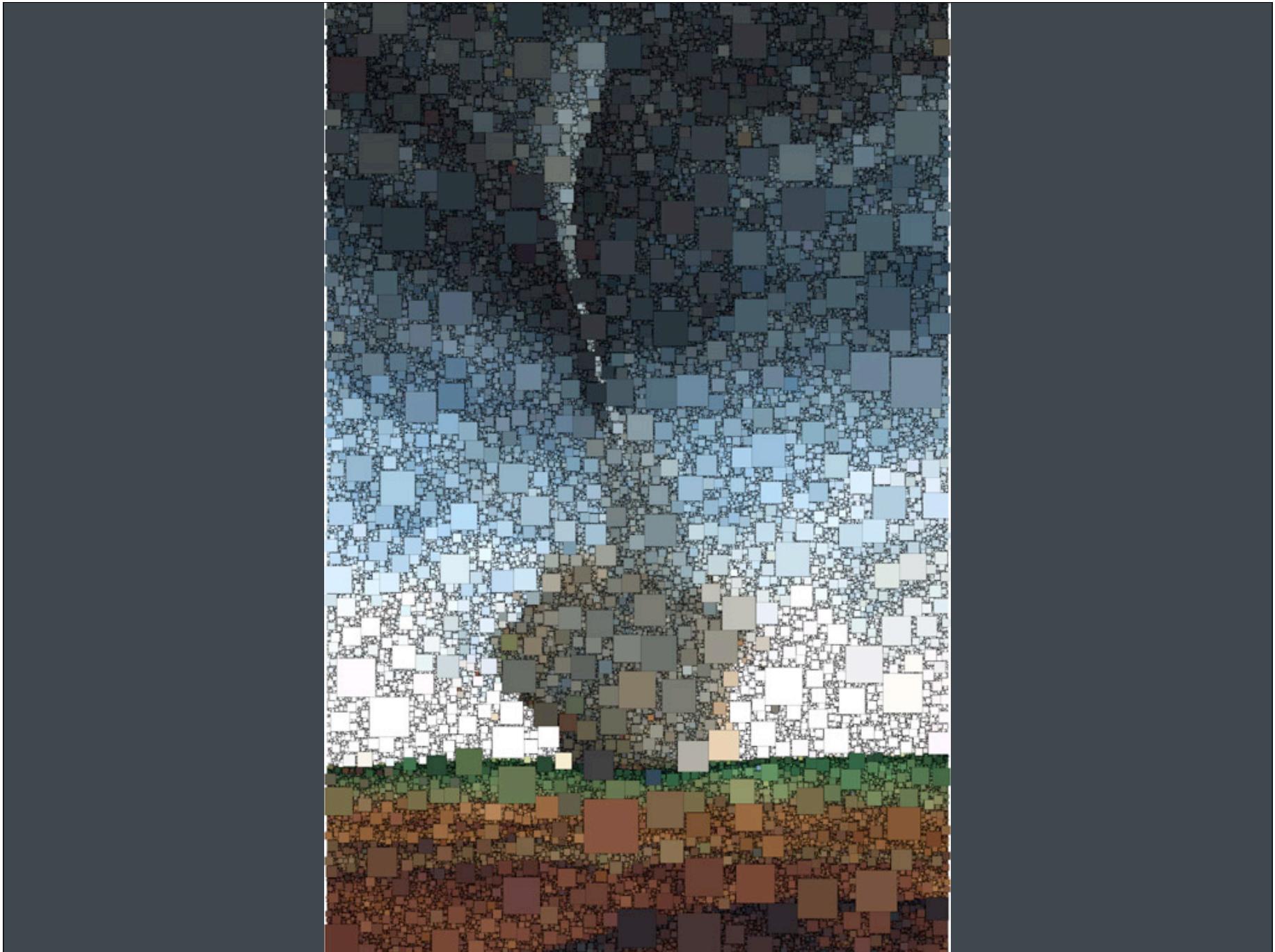
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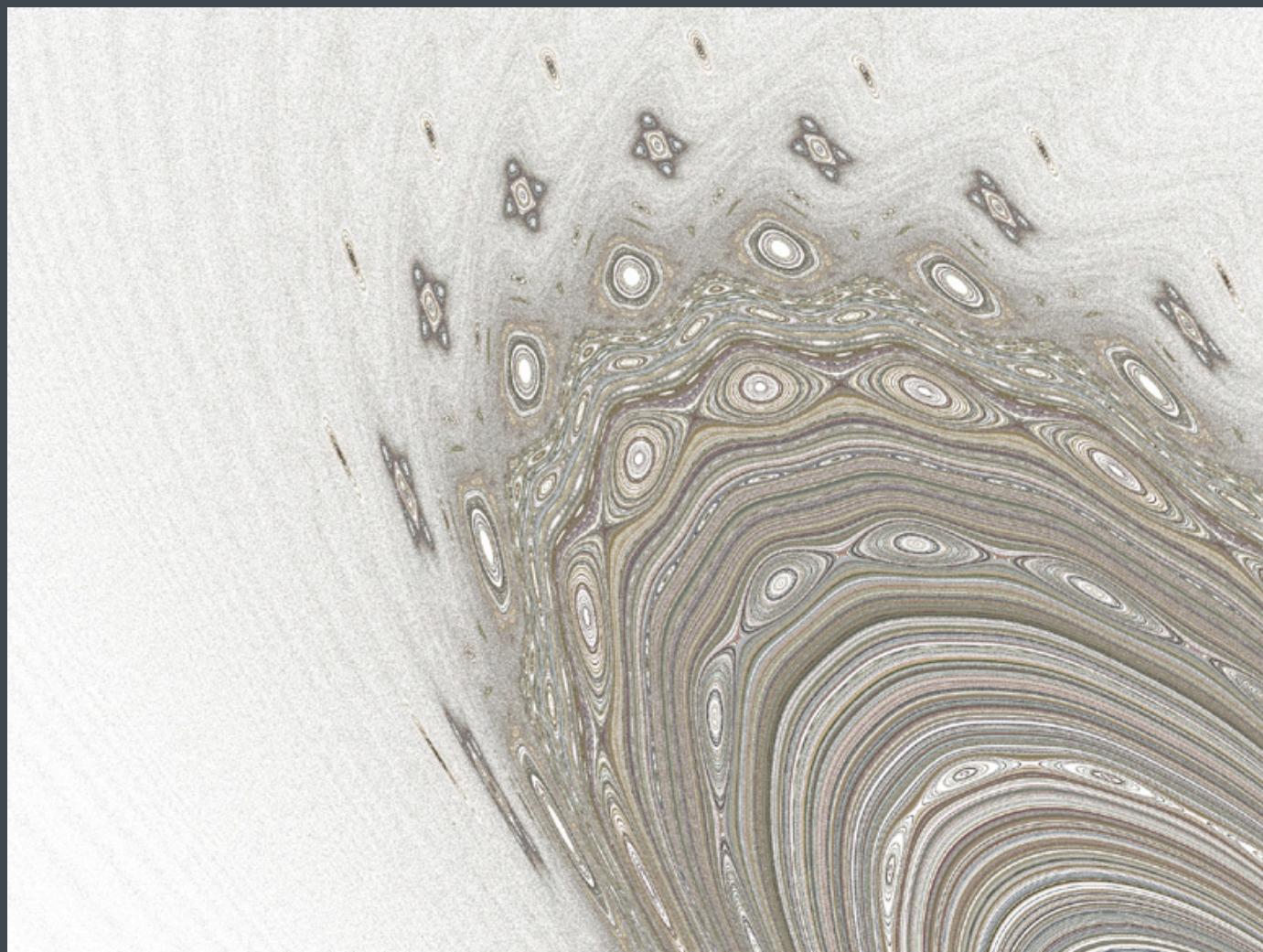














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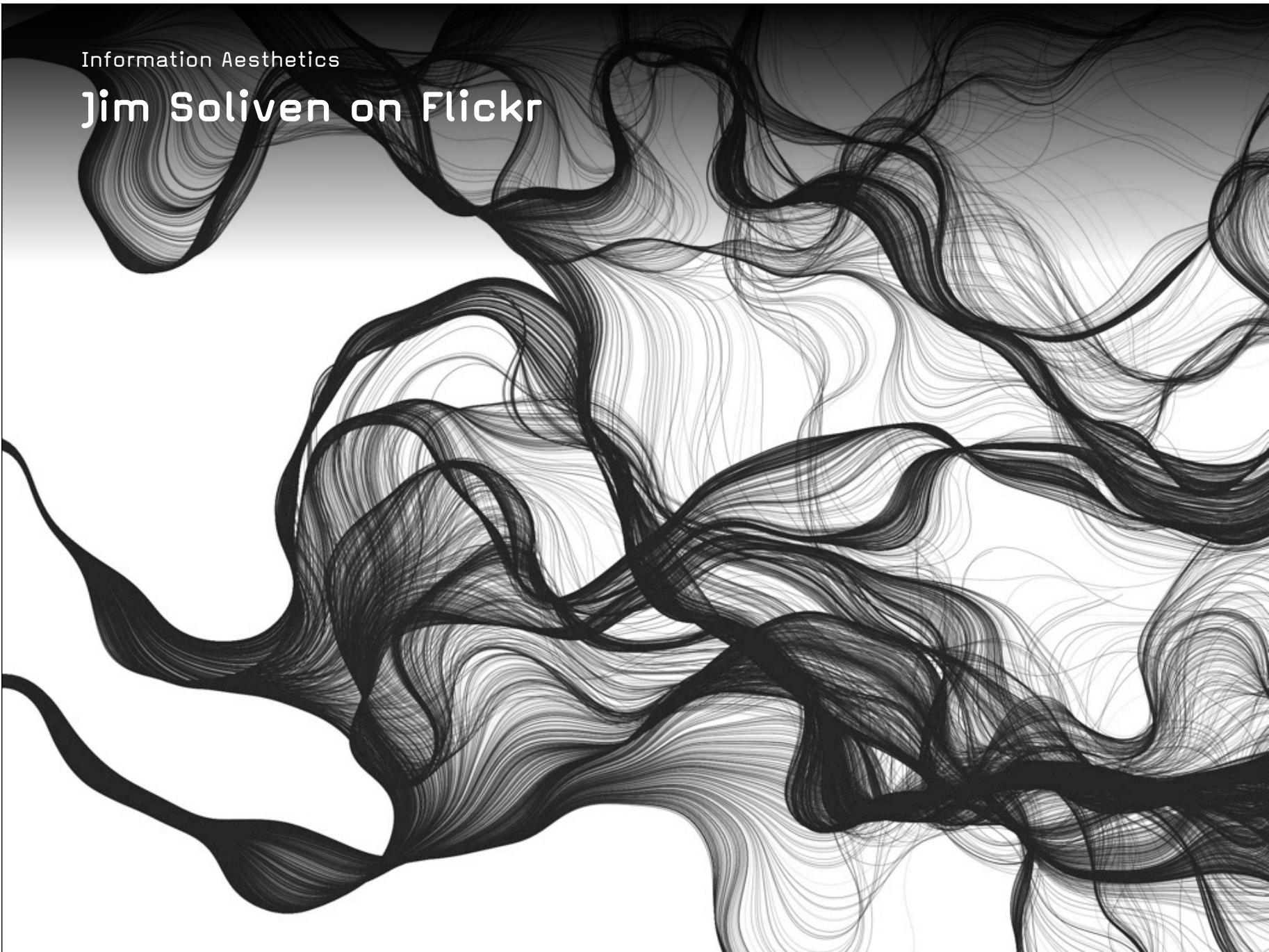
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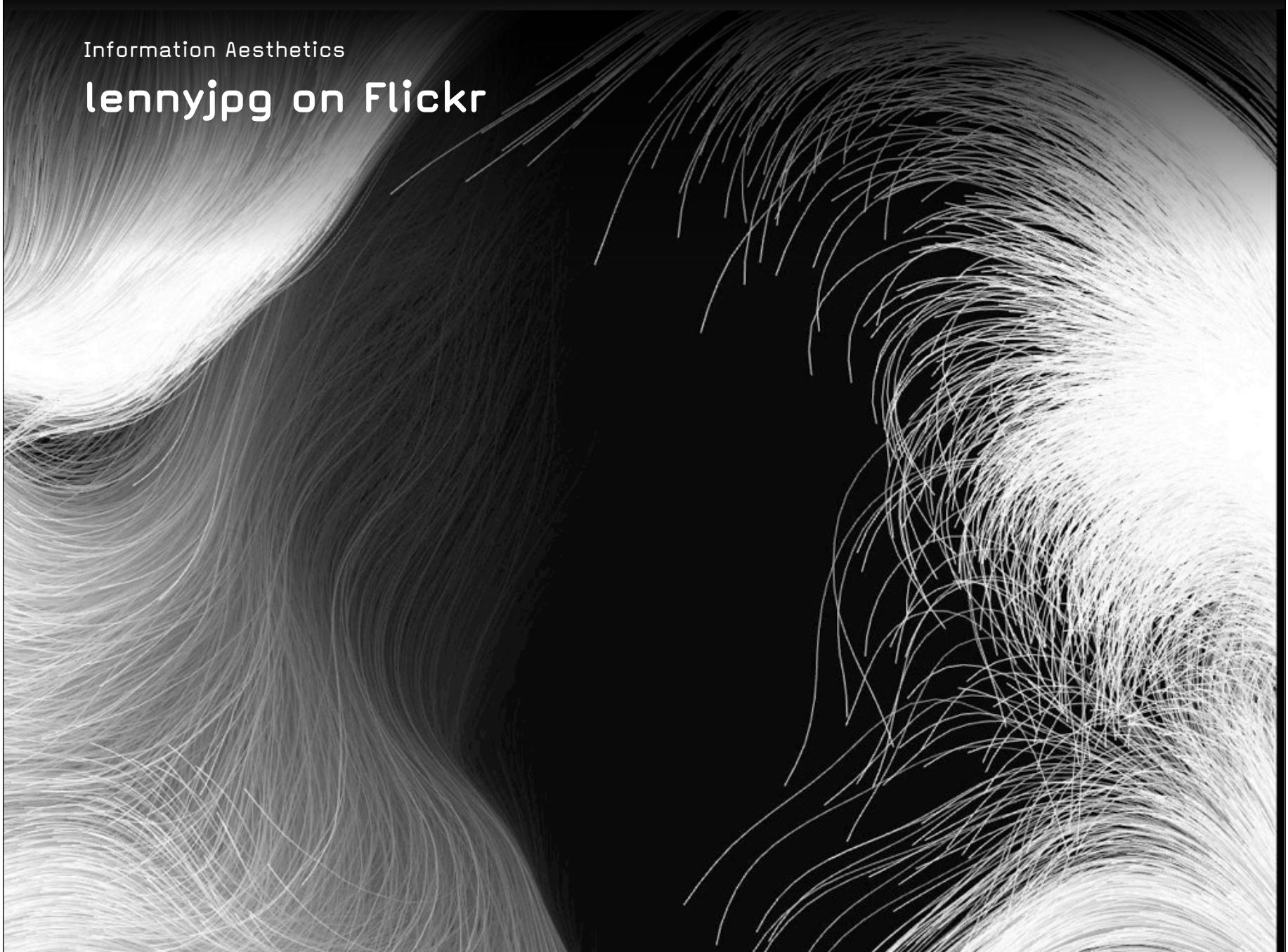
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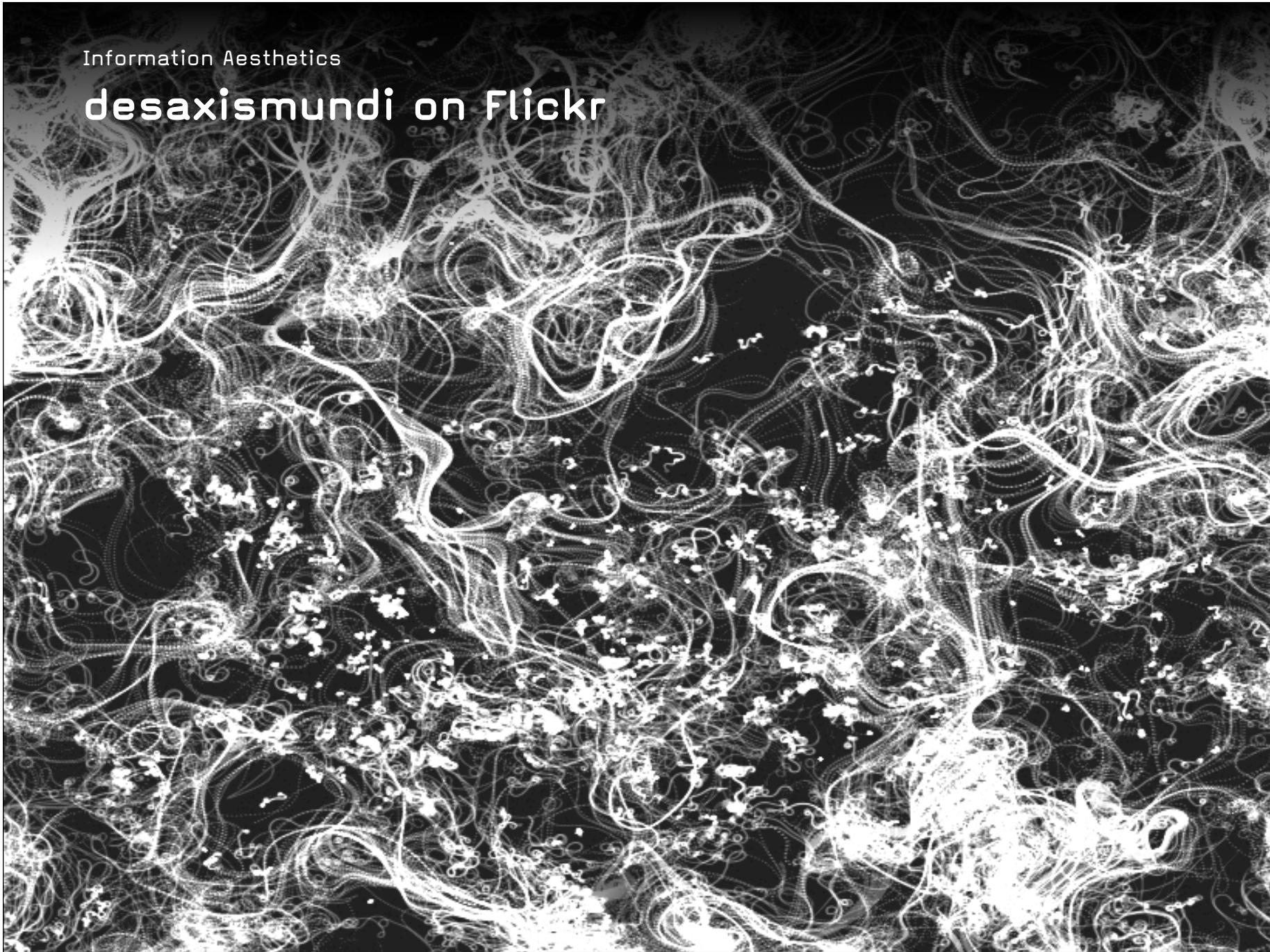
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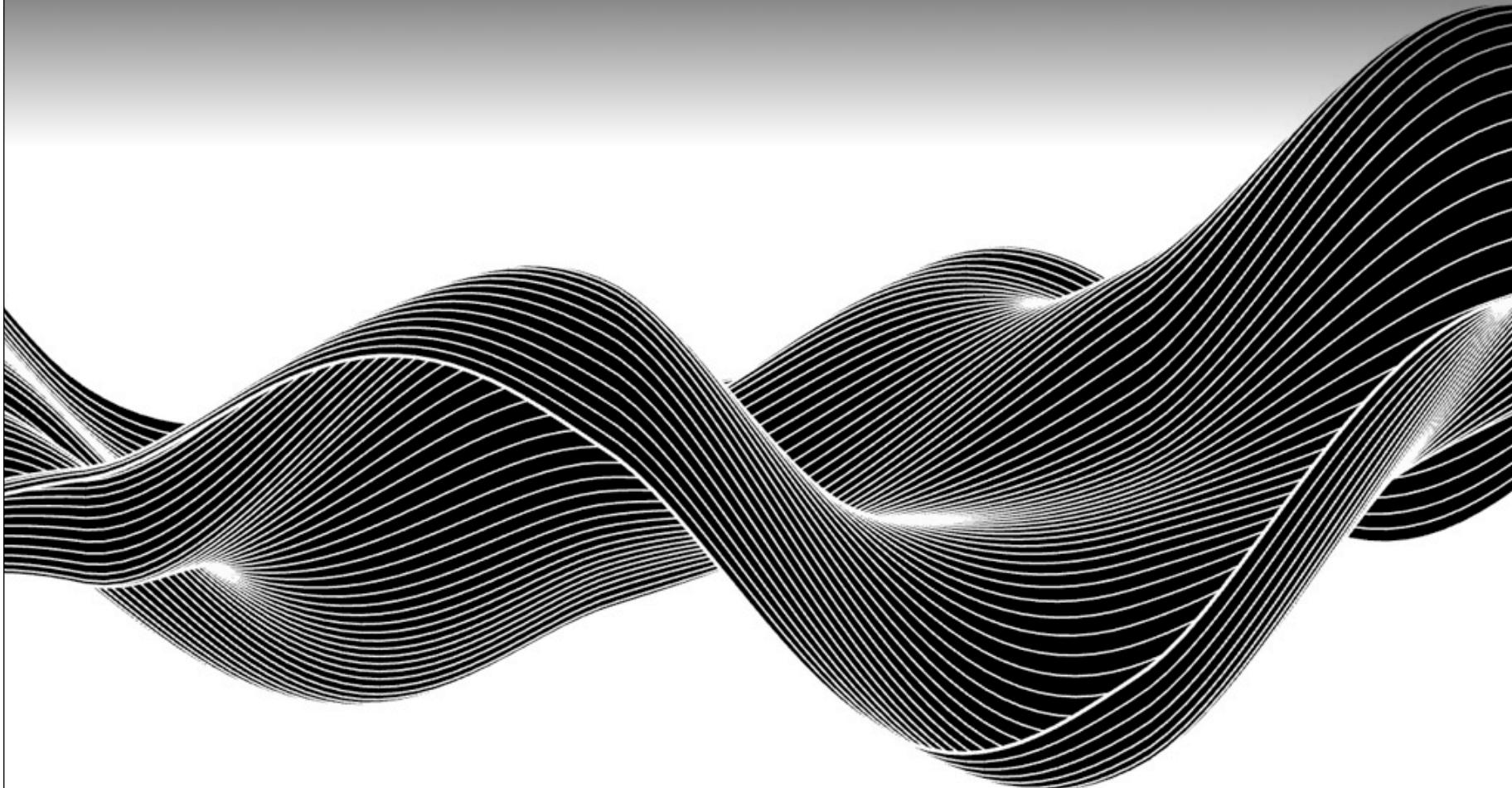
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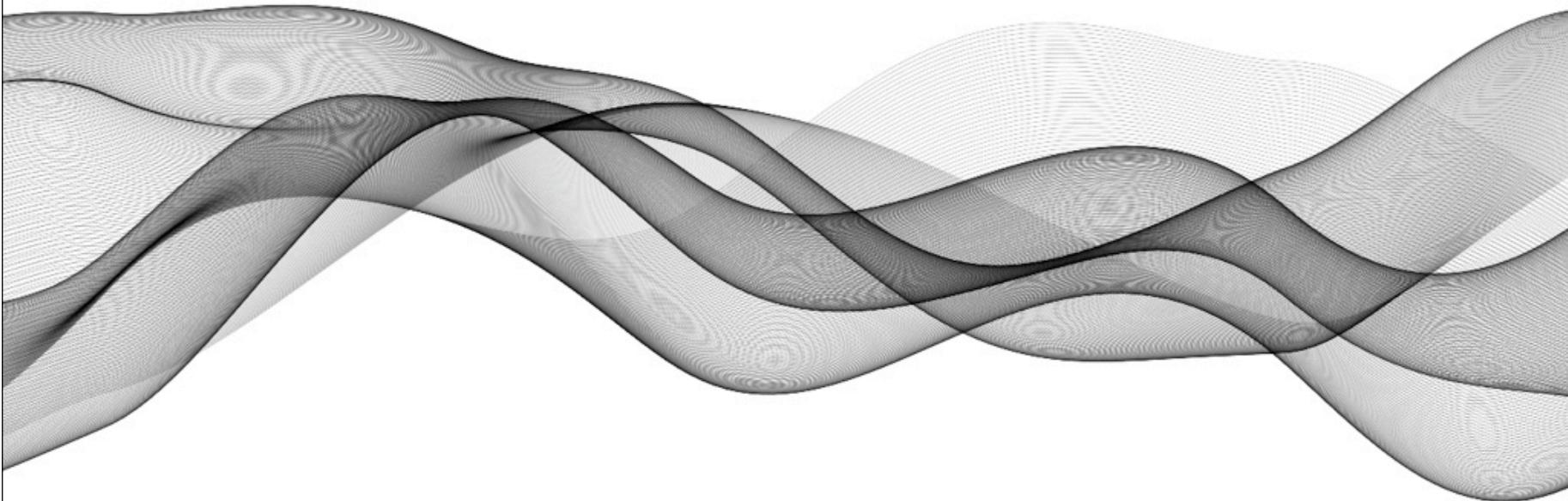
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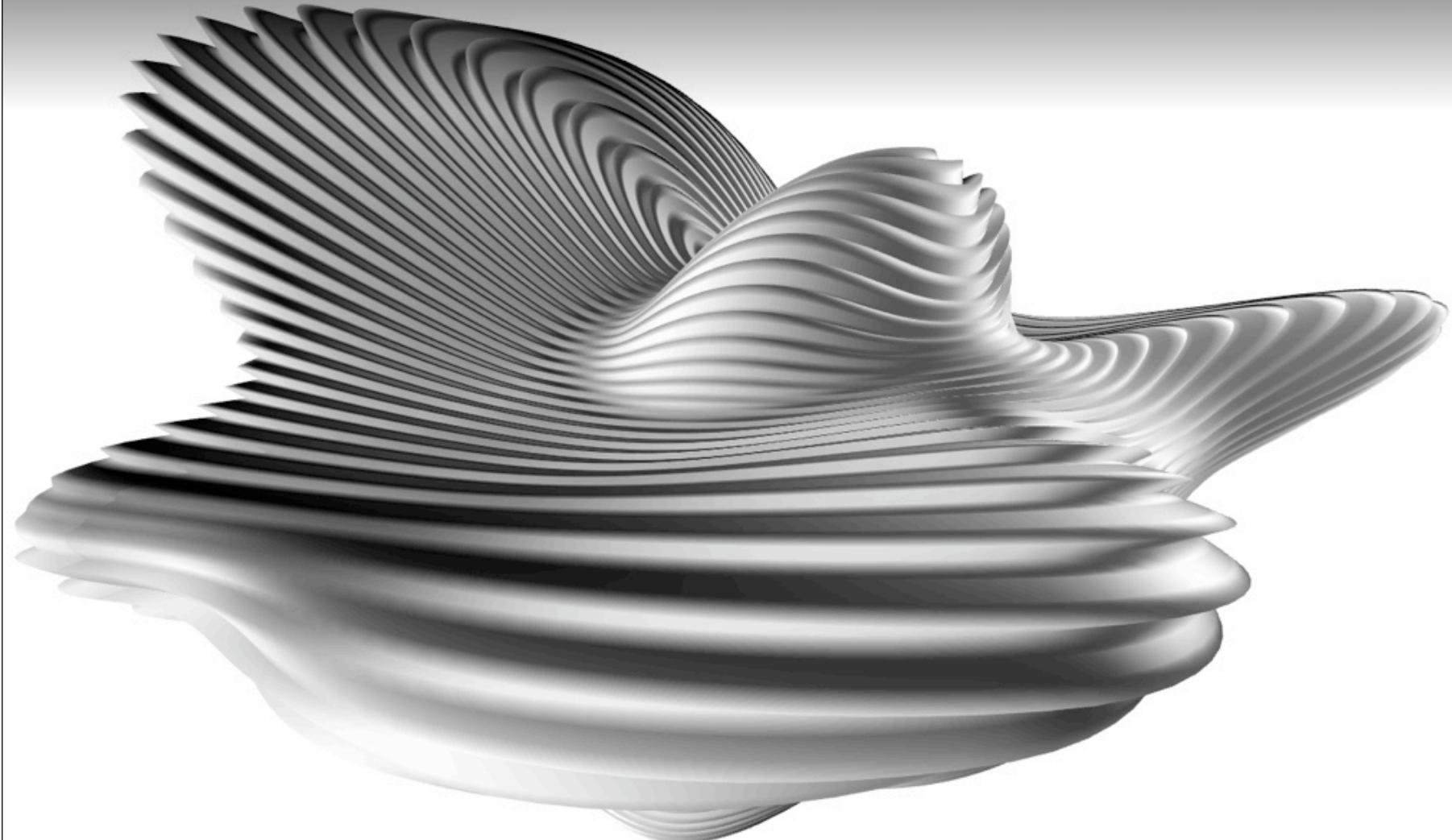
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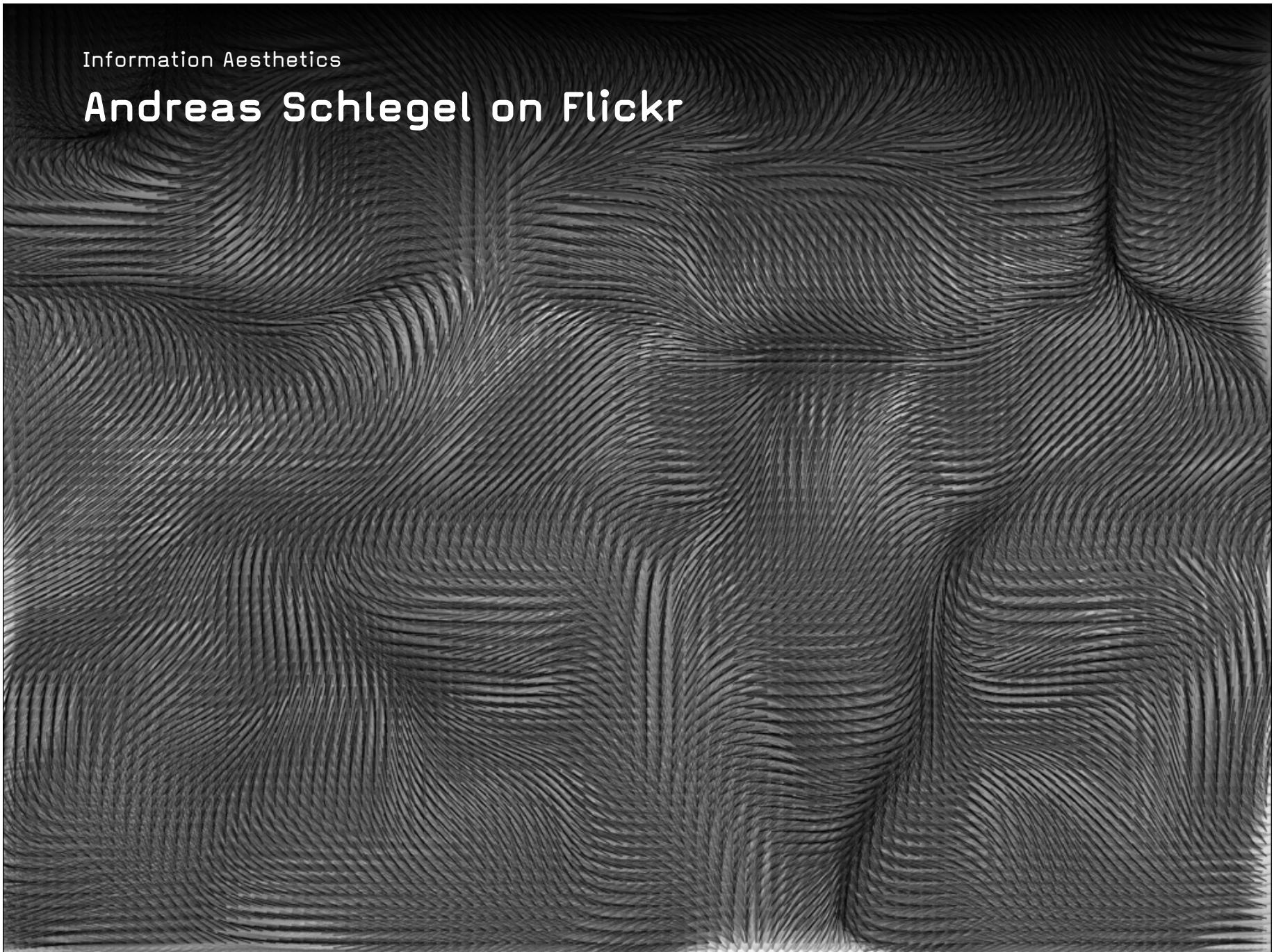
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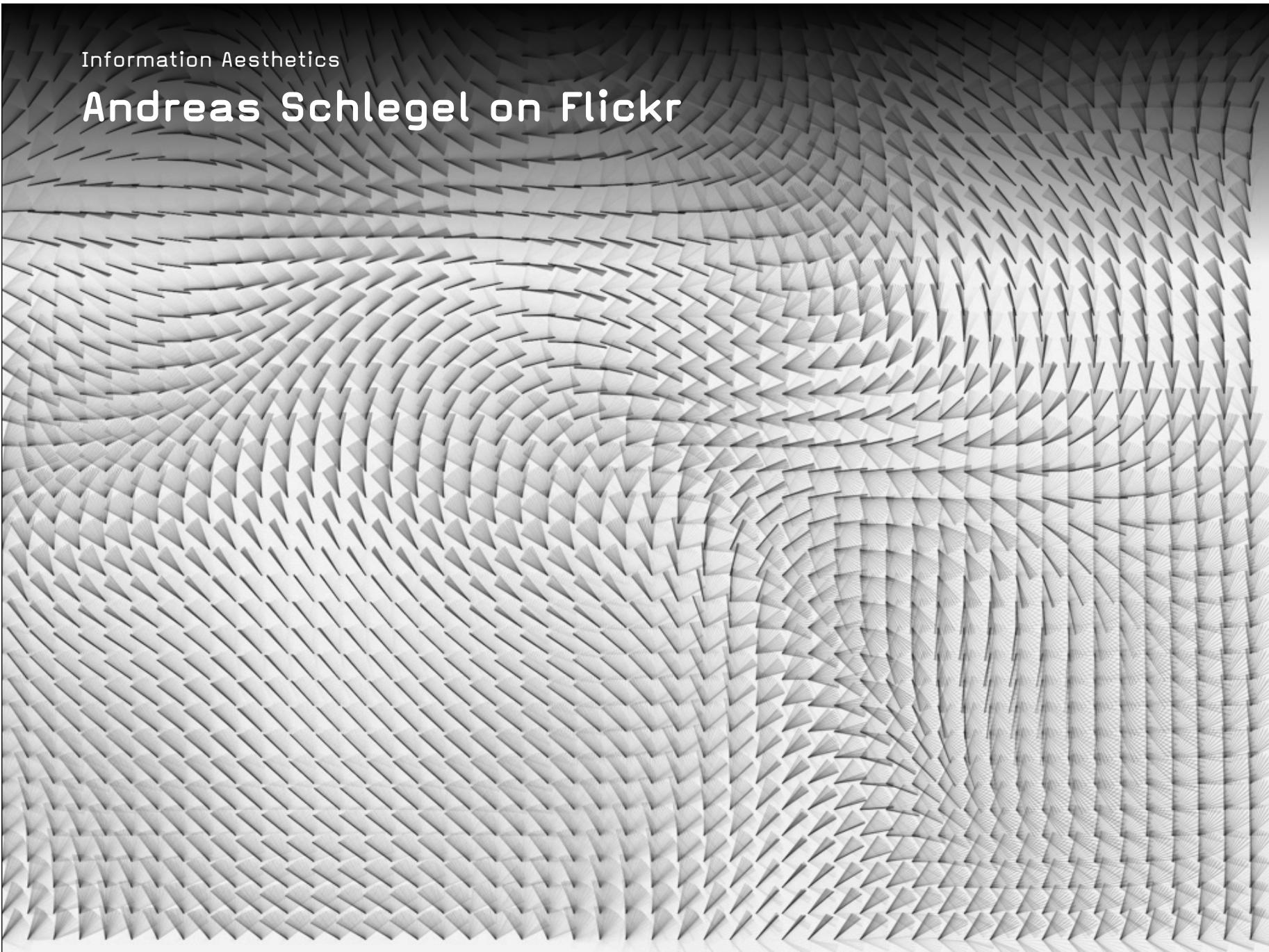
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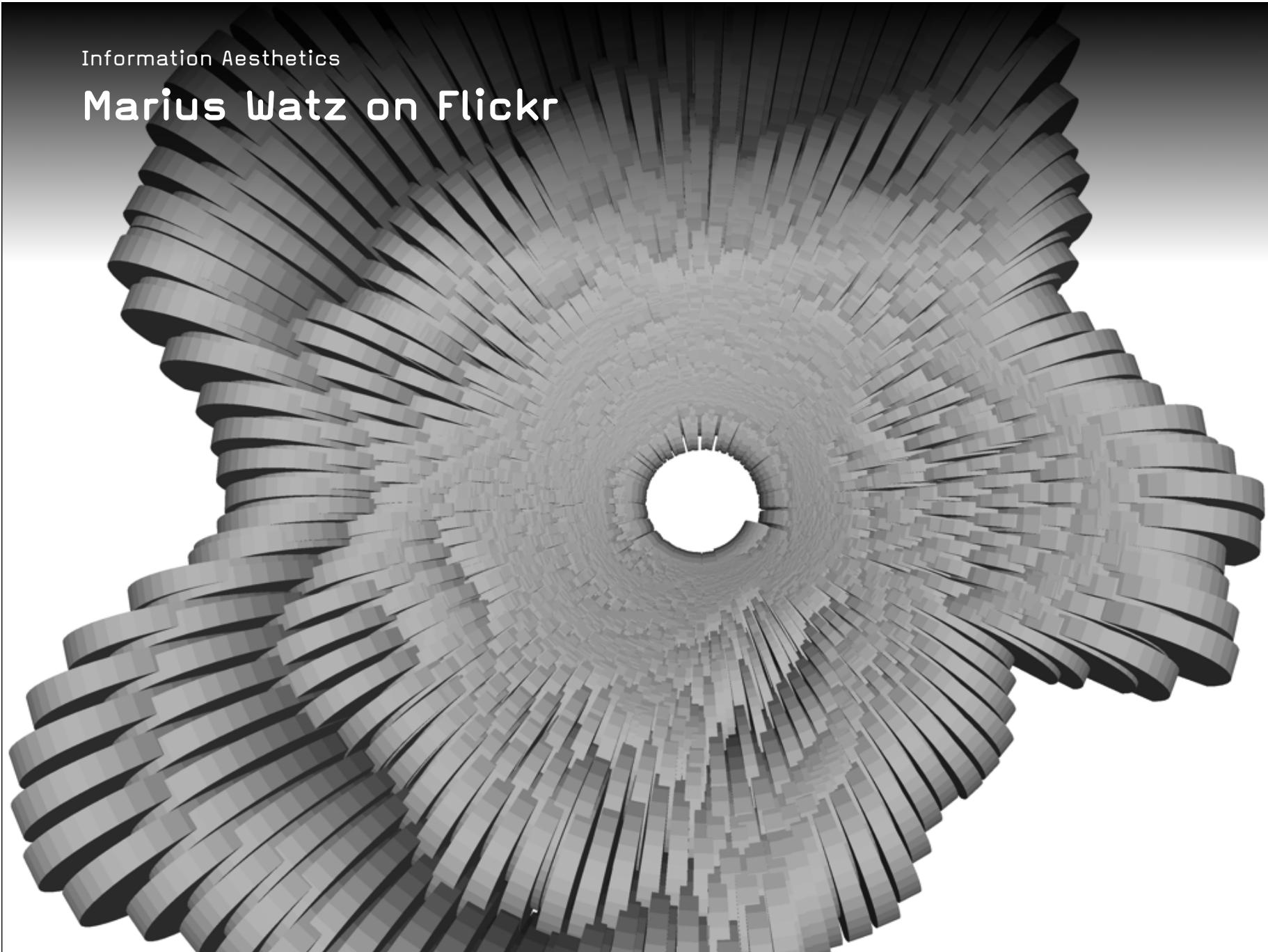
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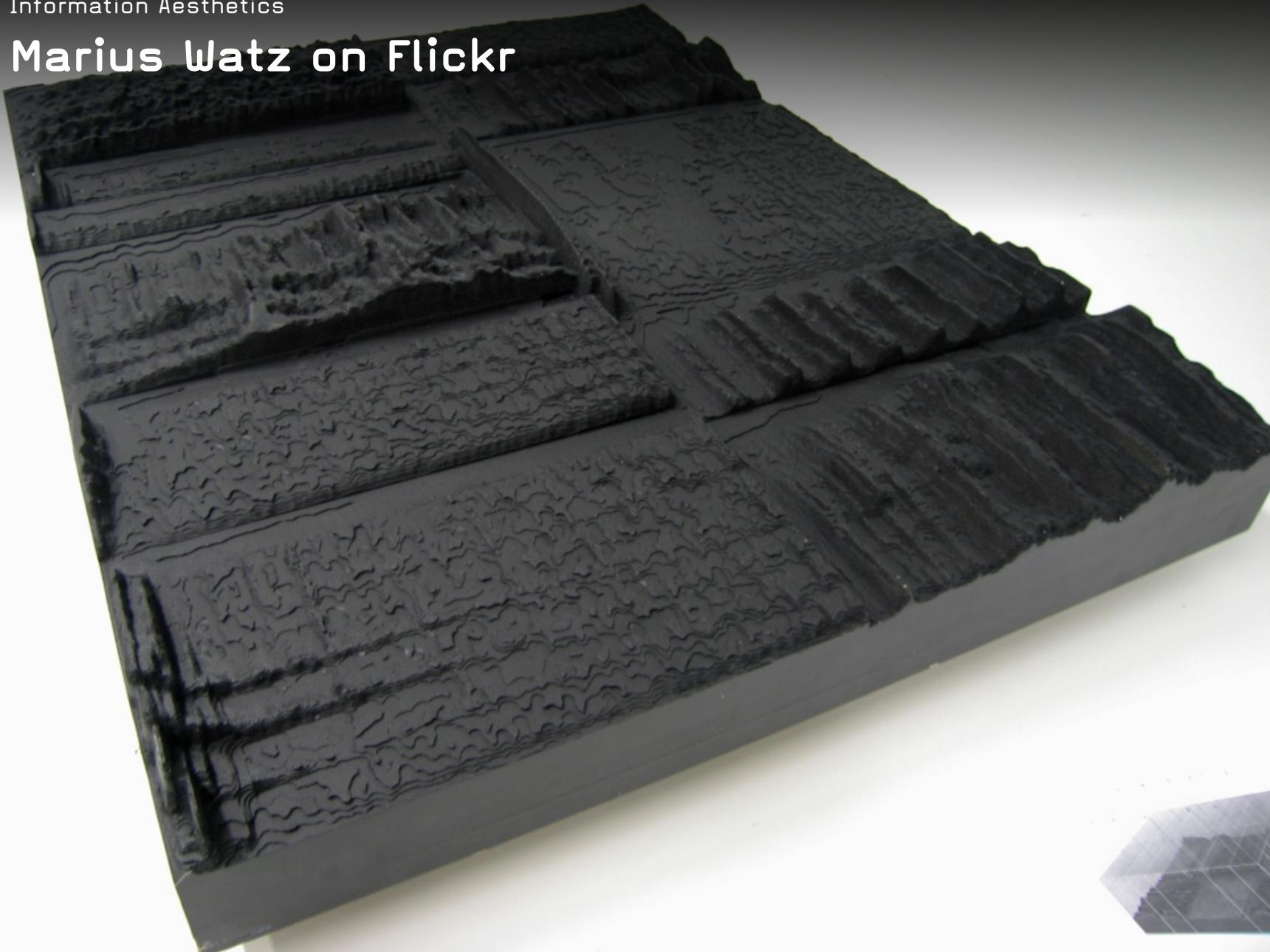
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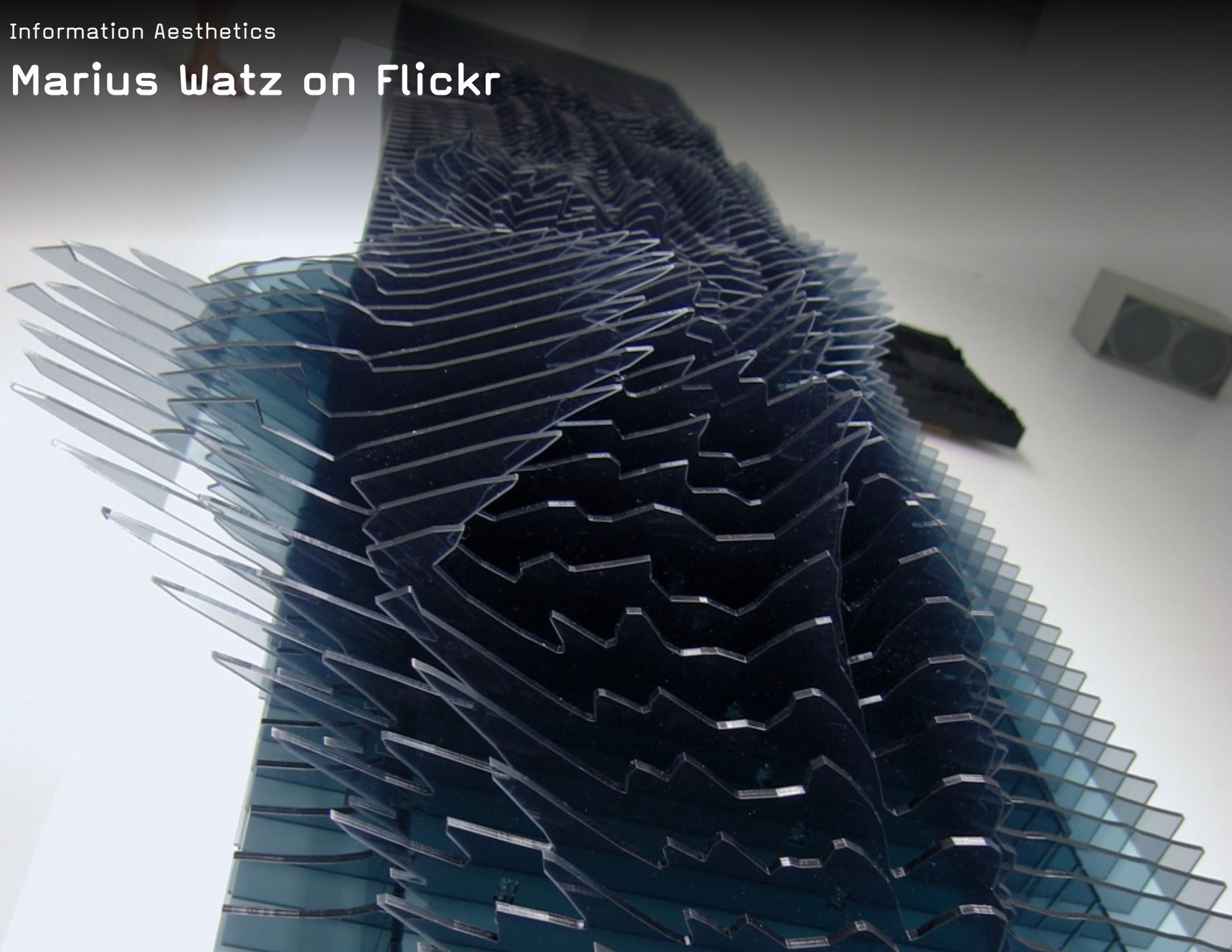
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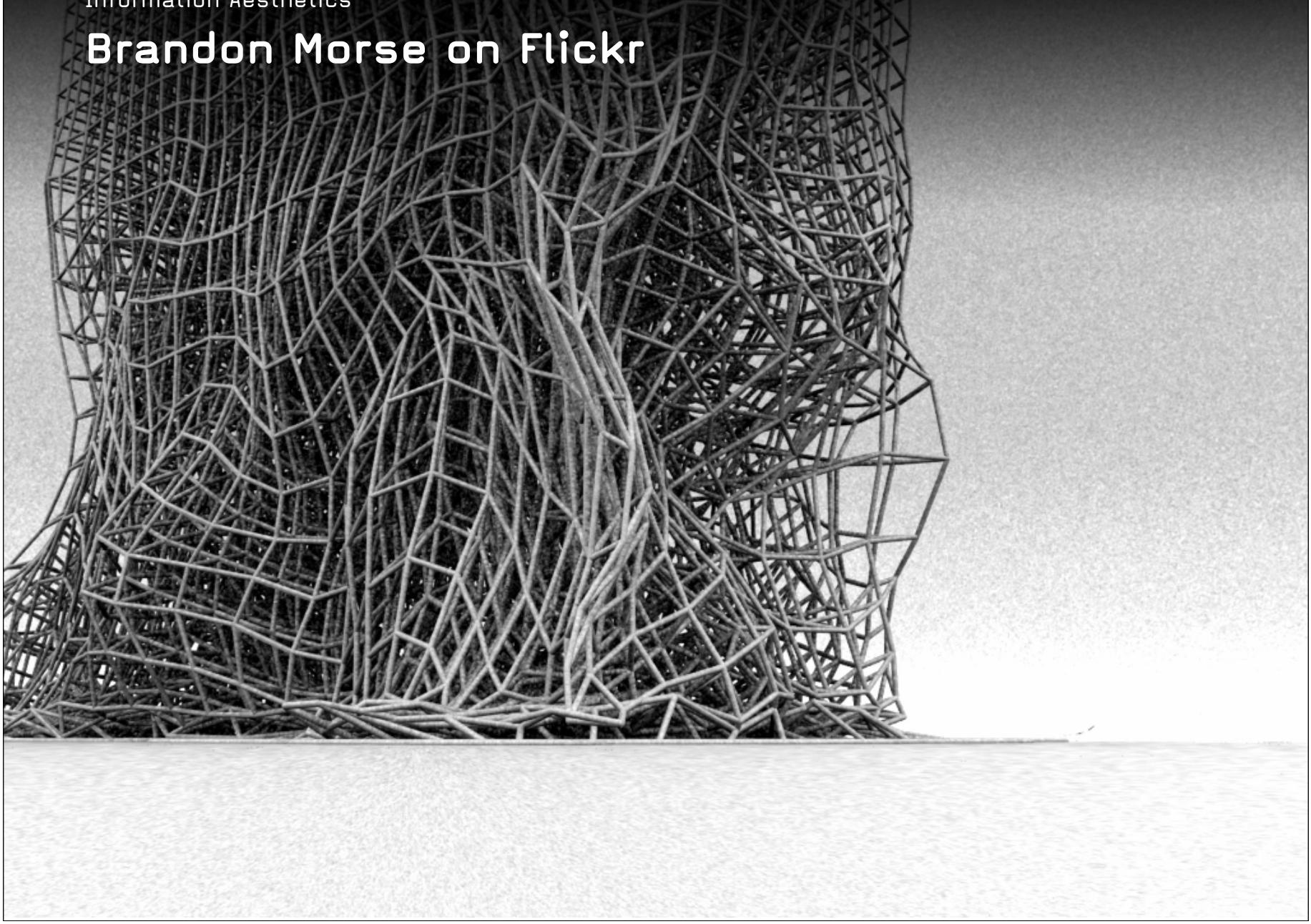
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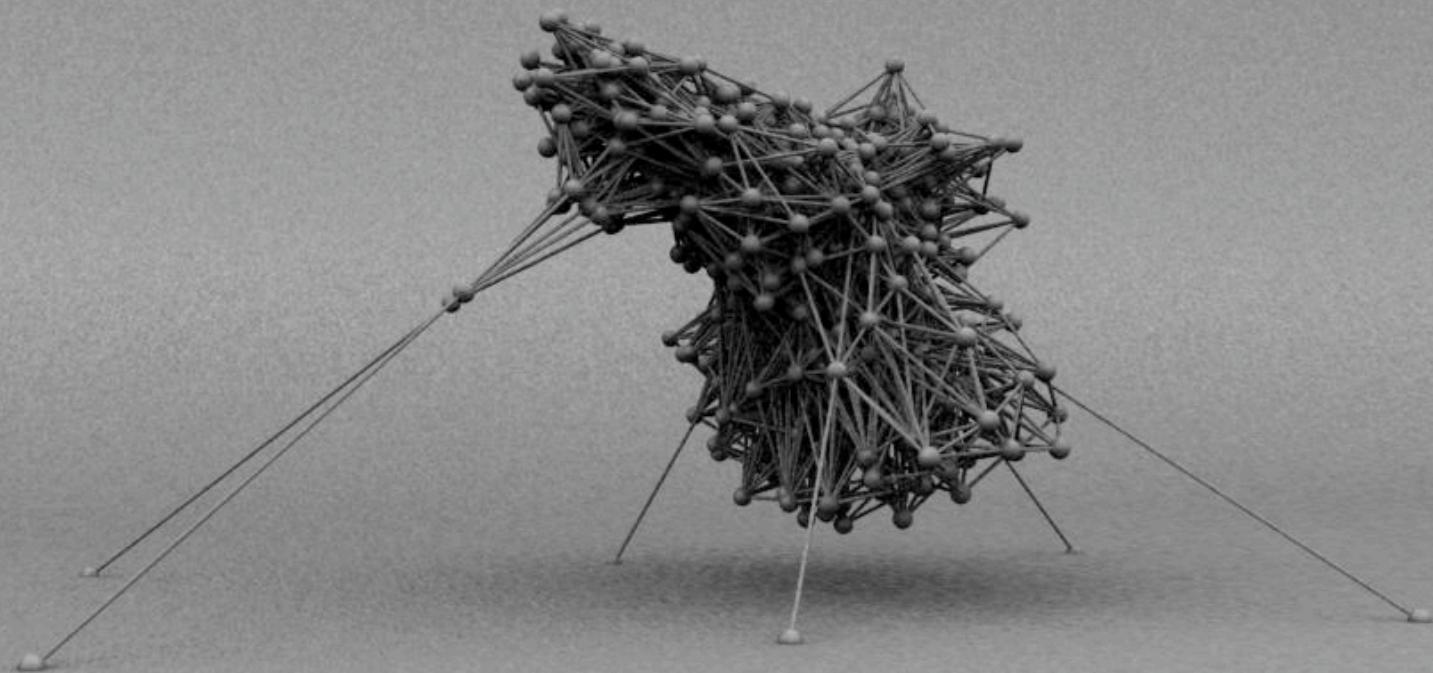
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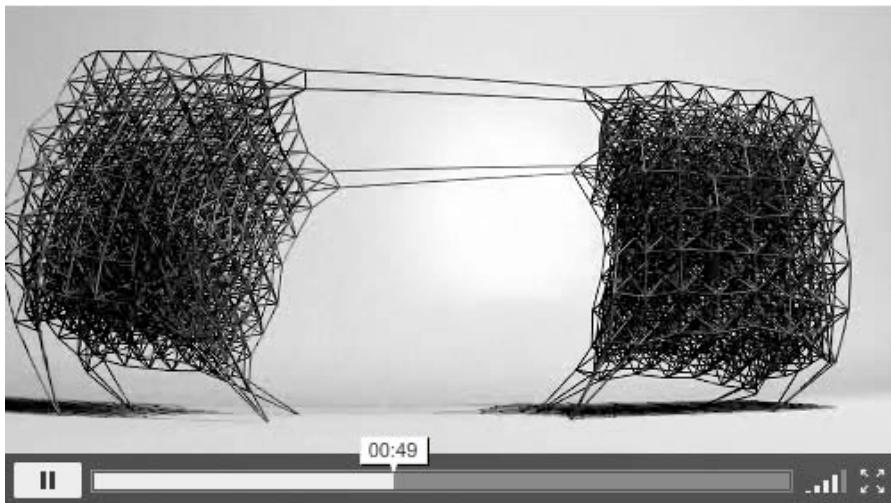
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Thinking with your Eyes

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