
Creative Coding
How do computers work?, P5JS Setup, Hello World
COD 207 - Week 02 Class →

Table of Contents

Wrap-up (Summary)

Things we learn about P5JS programming language.

- Variables
- Styling shape properties `stroke()`, `noStroke()`, `fill()`, `noFill()`
- Computational Thinking

Computational Thinking Framework

1️⃣ Decomposition

2️⃣ Pattern Recognition

3️⃣ Abstraction

4️⃣ Algorithm

Generative Art Paradigms: Randomness


Generative Art Exploration Chapter I Tracing the Roots: The History of Generative Art
Paylaş
İzlemek için: YouTube

Randomness

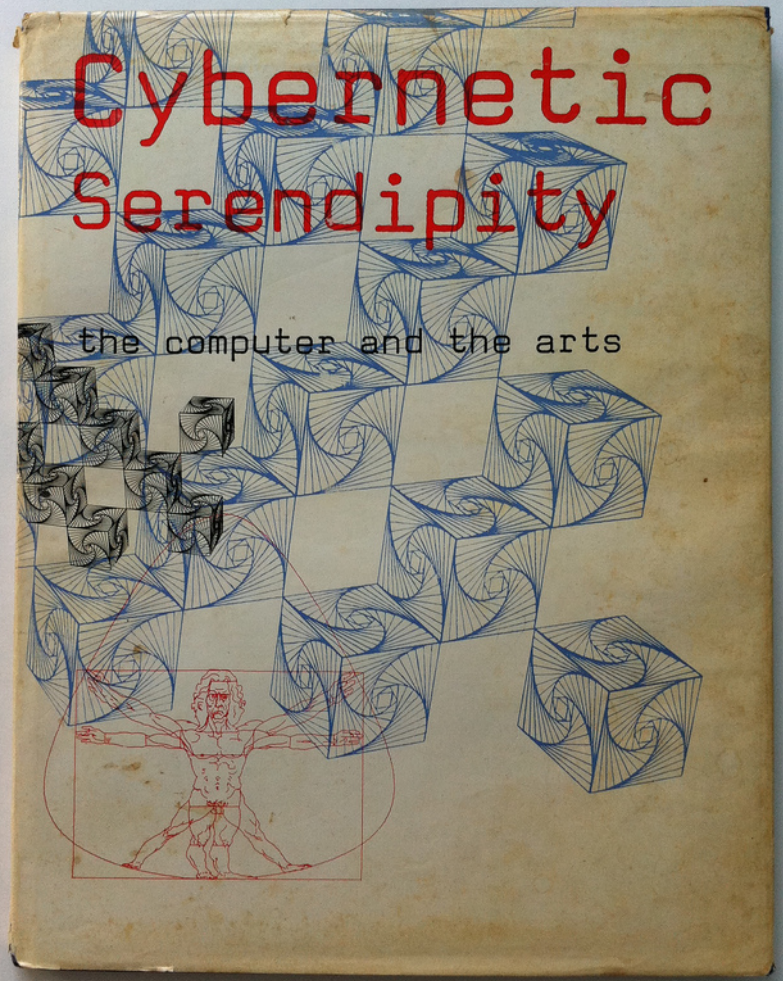
Randomness can manifest in various ways and is a fundamental concept in fields such as mathematics, statistics, science, and philosophy.

🌦️ Deterministic

Deterministic in principle, random in practice (E.g Weather)

🎲 Stockhastic

True randomness (E.g Rolling dice, toss a coin…)

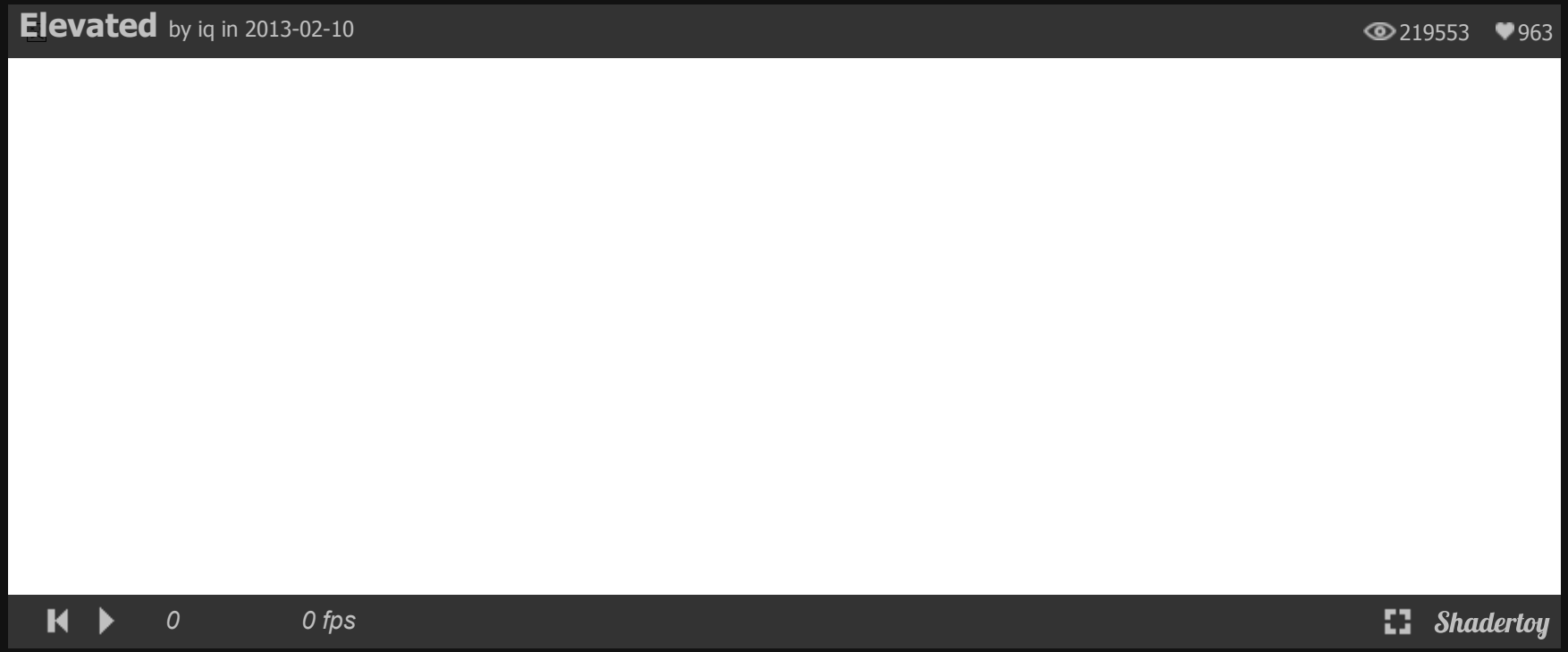


Randomness in Generative Art

Randomness plays a significant role in generative art, where it can be used as a creative tool to introduce variability, unpredictability, and serendipity into the artistic process.

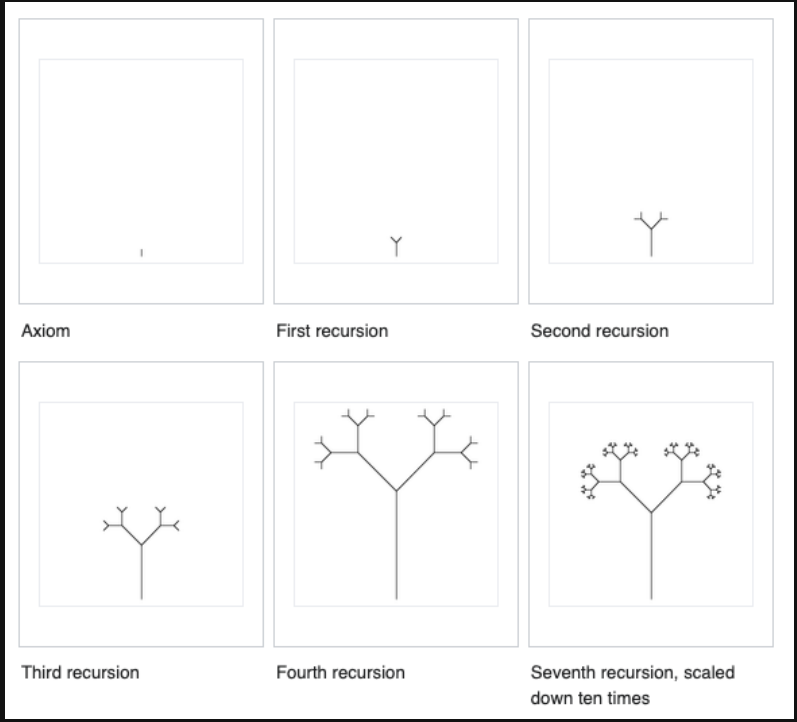
- 🌿 Organic patterns and textures.
- 🎨 Unique compositions; Altering position, shape, color, or texture instantly.
- 🔀 Alternative variations
- ♻️ Combining with iterative actions
- 🎥 Dynamic Content Creation

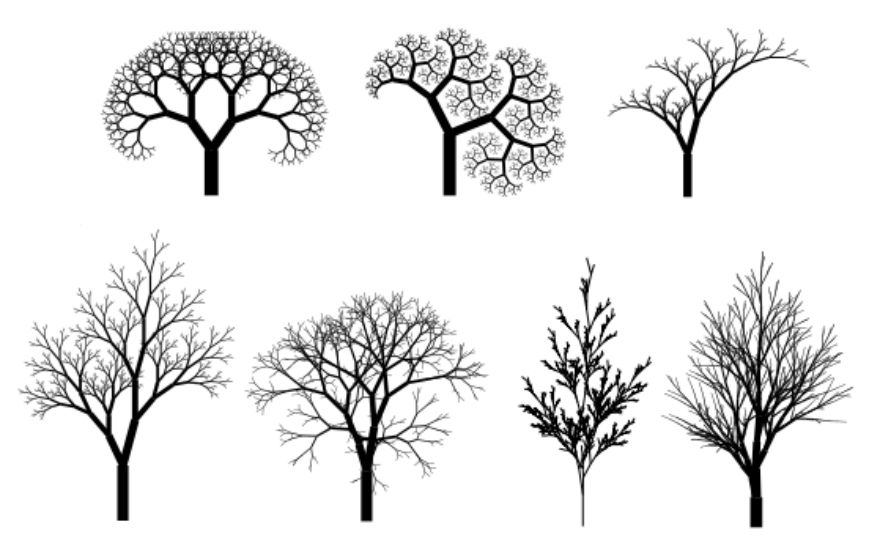
Perlin Noise



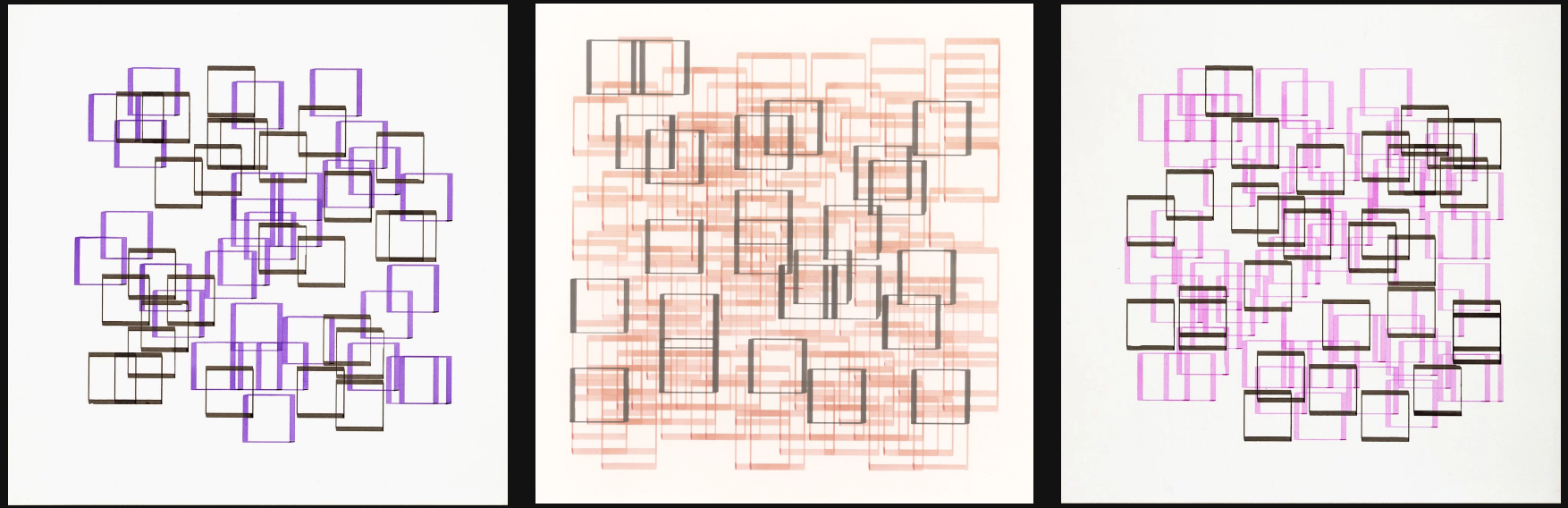
L-Systems, Iterative Actions

An L-system or Lindenmayer system is a parallel rewriting system and a type of formal grammar. Ordered distrubution of instructions. (ref: 🔗 Wikipedia)



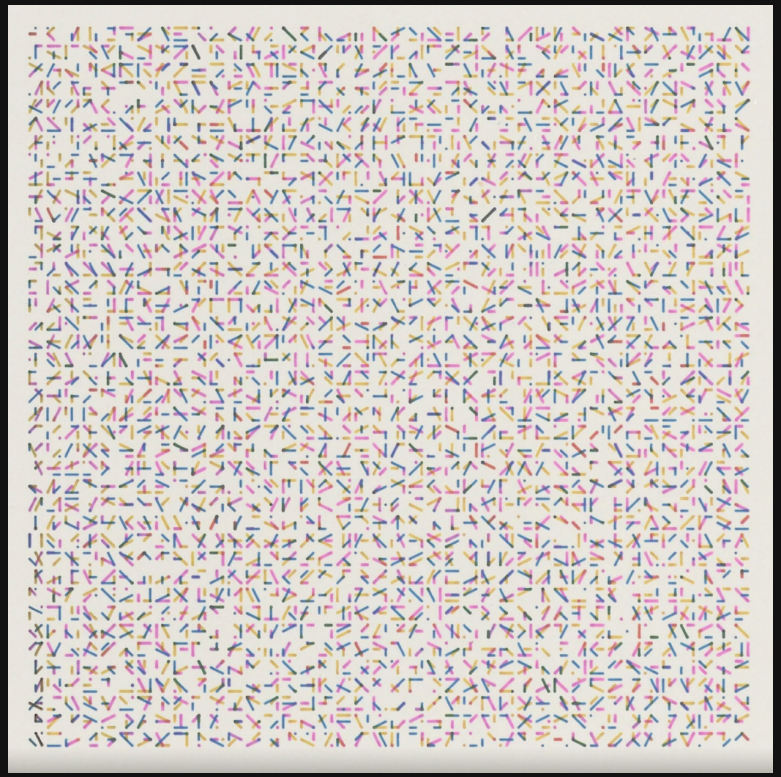


Alternative Variations



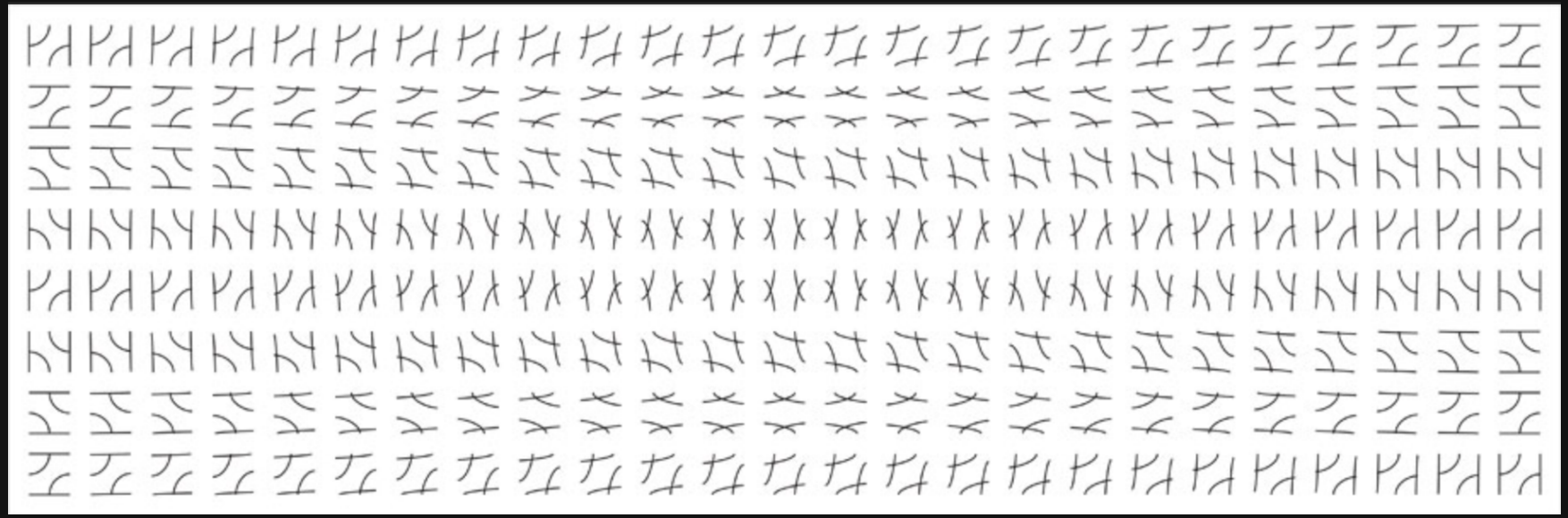
Frieder Nake, Walk Through Raster, 1966

Alternative Variations



Peter Beyls, Untitled, 1981

Iterative Actions



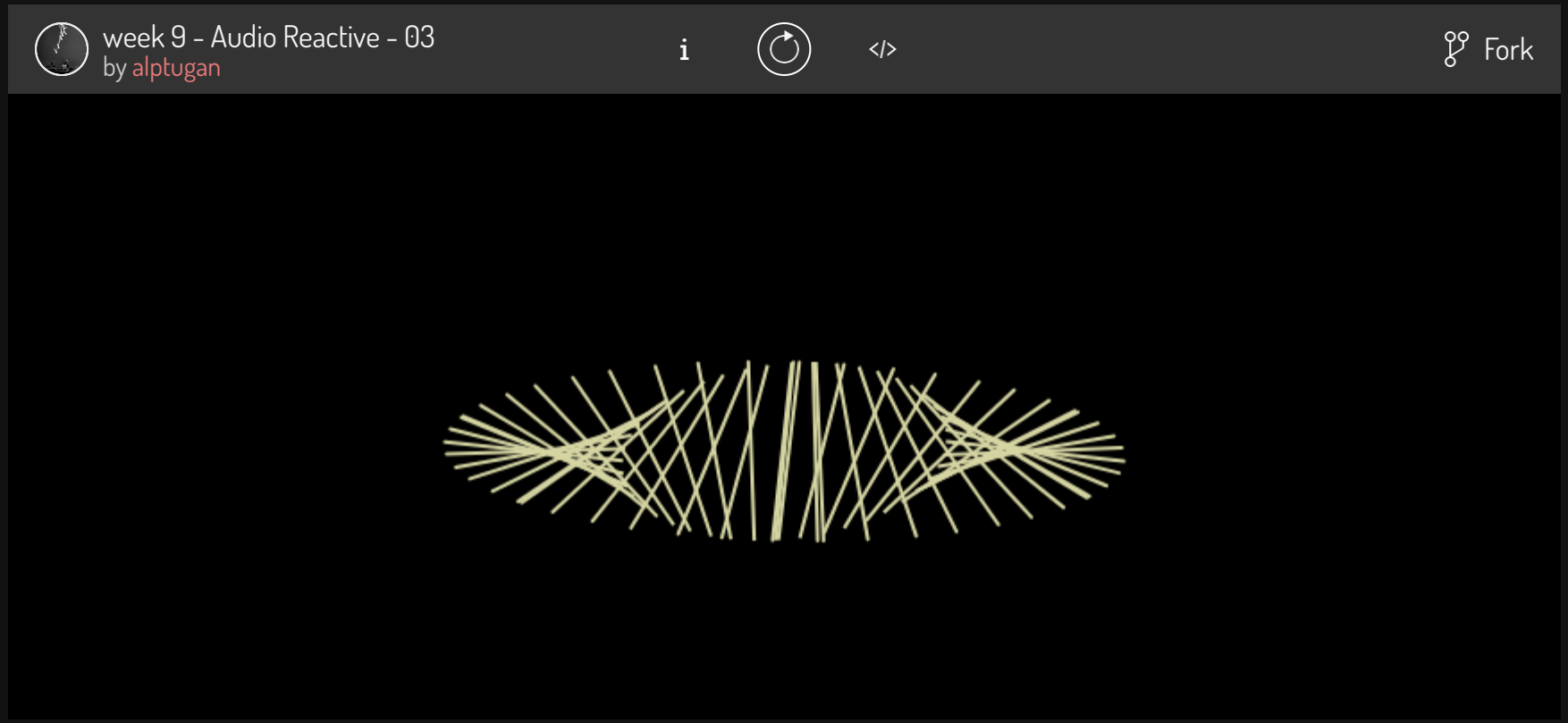
Paul Brown, Long Loop, 2000

Iterative Actions

Masao Komura and Kunio Yamanaka, Return to a Square, 1968

Familiar?

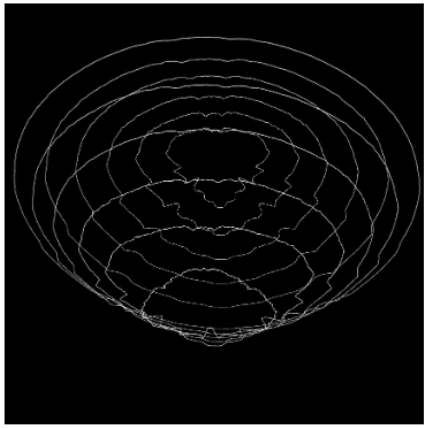
Dynamic Content Generation




The Root
Paylaş
İzlemek için: YouTube

COD 207 Selected Projects

Generative Topography



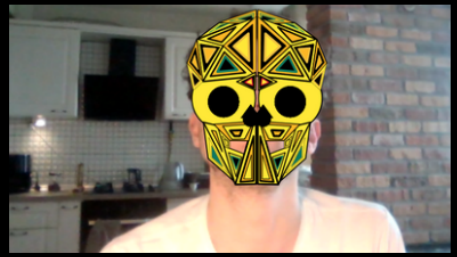
Nerve: Audiovisual art

Toy Shop

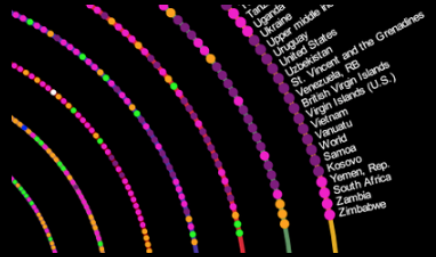
randomSeed() _DS “GOOD DESIGN IS A LANGUAGE, NOT A STYL Info

Algorithmic art showcase
of Özyeğin University, Classes of COD 207/208

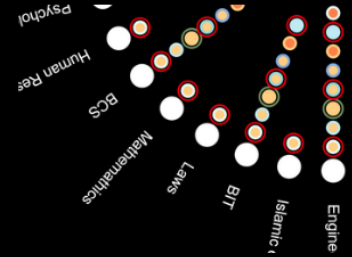
new semestre: 2023 Spring



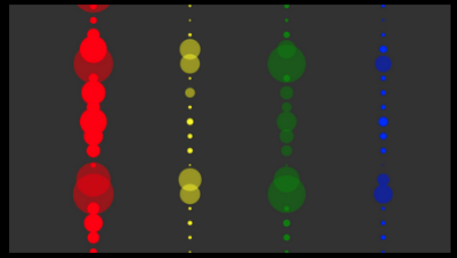
W08_İzel_Ergül
COD207, 2023_SPRING



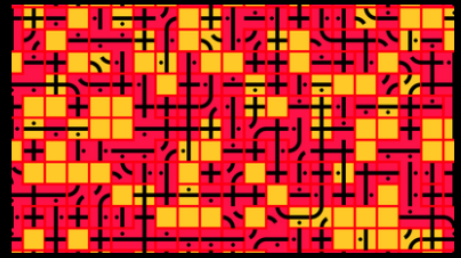
W05_Tutku_Çalış
COD207, 2023_SPRING



W05_İzel_Ergül
COD207, 2023_SPRING



W05_Darya_Mahçup
COD207, 2023_SPRING



W10_Melis_Gür
COD207, 2022_FALL

W07_Burcu_Kekeç
COD207, 2021_FALL

BREAK

10 mins.

Random Function In P5JS

Challenge

1. Goto p5js documentation web site → random()
2. Create a new sketch on your openProcessing account.
3. Set the canvas size to 600 x 400 px
4. Write a program that draws a circle in the center of the page.
5. Set the circle's parameters using variables. Do not type numbers inside the paranthesis.
6. Set circle's radius using `random()` function. The minimum value is 10 and maximum value is 300.

Assignments

1. 👀 Create a generative art sketch. The rules can be anything. First decide at least 5 rules for your composition and then write the code.
2. 🛄 Upload the sketch to your openProcessing account.
3. ❗ Submit the openprocessing link.
4. ❗ Submit the sketch source code as zip file as well.
5. 📖 Read the document.
6. 📺 Watch the videos.