PV259 Generative Design Programing

Week 6

Kinetic typography

MUNI FI

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FROM PAPER TO SCREEN

https://vimeo.com/69375692

Text: the basics

Draw text on screen at position x, y. Optional are x2, y2, boundaries of imaginary text box, enables wrapping). Uses rectMode settings.

```
text(str, x, y, [x2], [y2])

textSize(number)
textLeading(number) // line height
textAlign(horizontal, [vertical])
LEFT, CENTER, RIGHT
TOP, BOTTOM, CENTER, BASELINE
```

```
let myFont;
function preload() {
  myFont =
loadFont("knewave.otf");
}

function setup() {
… textFont(font, [size]);
}
```

Strings in JS

MDN: Useful string methods

```
let name = “Louisa”, surname = “Trump”
name.length // 6
name.substring(0, 2) // ‘LO’
name[0] // ‘L’
name[name.length-1] // ‘a’

name.includes(‘uis’) // true
startsWith(str)
endsWith(str)
indexOf("Lo") // 0
toLowerCase()
toUpperCase()
replace("ouis", "ujz") // only first occurrence
replaceAll("u", "ů")
name.concat(“ ” + surname)
```

```
print(`Full name: ${name} ${surname}`) //
template literals

let fullname = name + surname
fullname.split(‘ ’) // [“Louisa”, “Mean”]

// Escaping: use either “” or ‘’ for the
outer quotes.

p5: loadStrings()
let sejkspirVole;
function preload() {
  sejkspirVole = loadStrings('sejkspir.txt');
}
```

Text basics

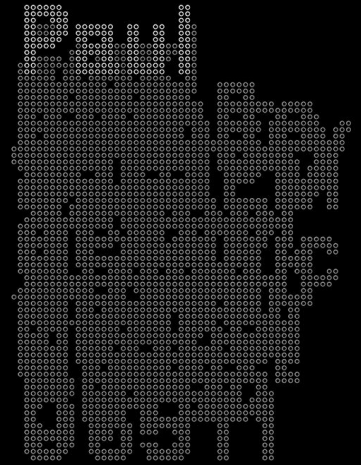
1. choose favorite word
2. draw the word character by character
3. choose a font from Google fonts, download and apply it

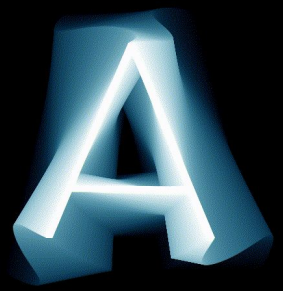
- ❏ draw word (string) character by character
- ❏ create 20 vertical copies of the same word
- ❏ animate the spacing between characters (kerning) using sinus
- ❏ change to monospaced font and compare the result

Bonus:

- ❏ draw on curves
- ❏ fill shapes with text
- ❏ make some noise (use grid, select letters by noise values, …)

EXAMPLES

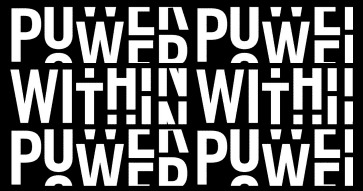


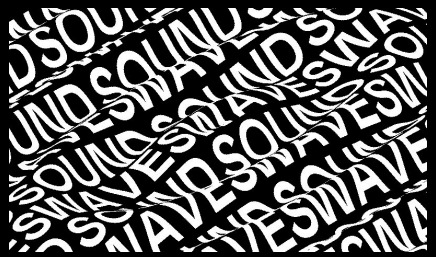


PANDEMIC

A pandemic is an epidemic occurring on a scale that crosses international boundaries, usually affecting a large number of people. Pandemics can also occur in important agricultural organisms (livestock, crop plants, fish, tree species) or in other organisms. A disease or condition is not a pandemic merely because it is widespread or kills many people; it must also be infectious. For instance, cancer is responsible for many deaths but is not considered a pandemic because the disease is not infectious or contagious.

The World Health Organization (WHO) previously applied a six-stage classification that describes the process by which a novel influenza virus moves from the first few infections in humans through to a pandemic.





OPTICAL ANARCHY

OPTICAL

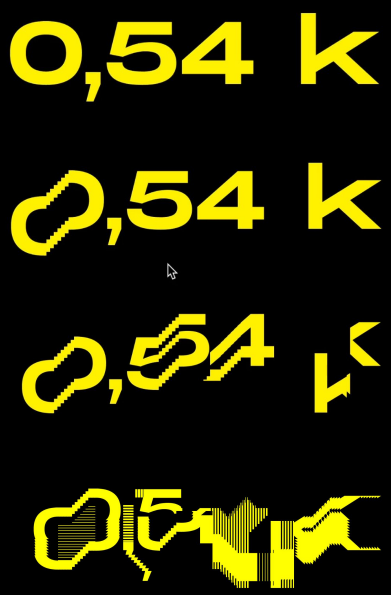
1749 N.Henry, *Philadelphia*
① restaurant ② bookstore

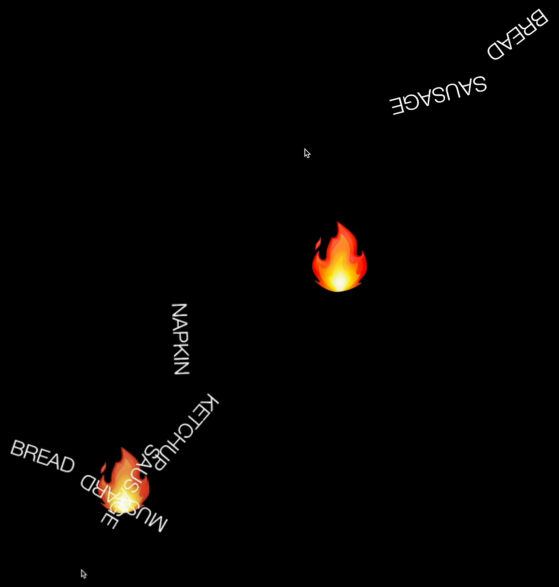
LMNO

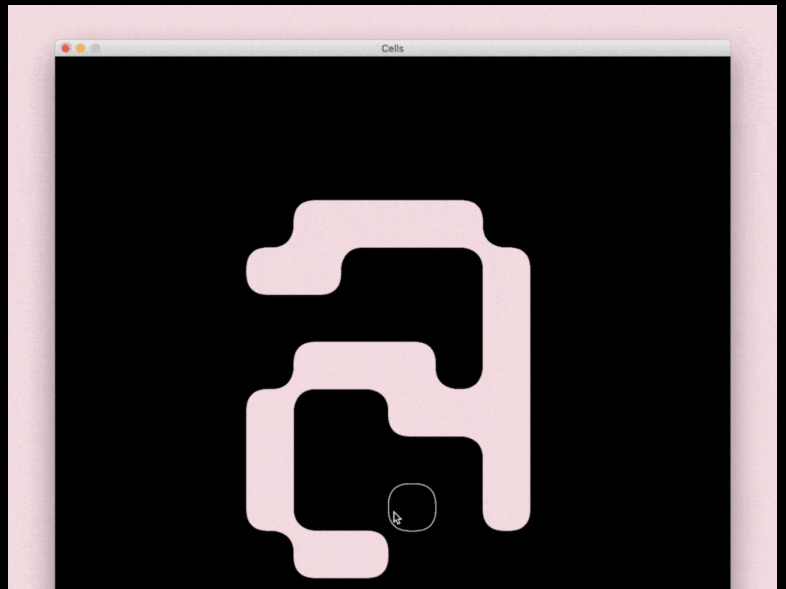
1749 N.Henry, *Philadelphia*
① restaurant ② bookstore

→ INTERACTIVE

Bronislav Musil





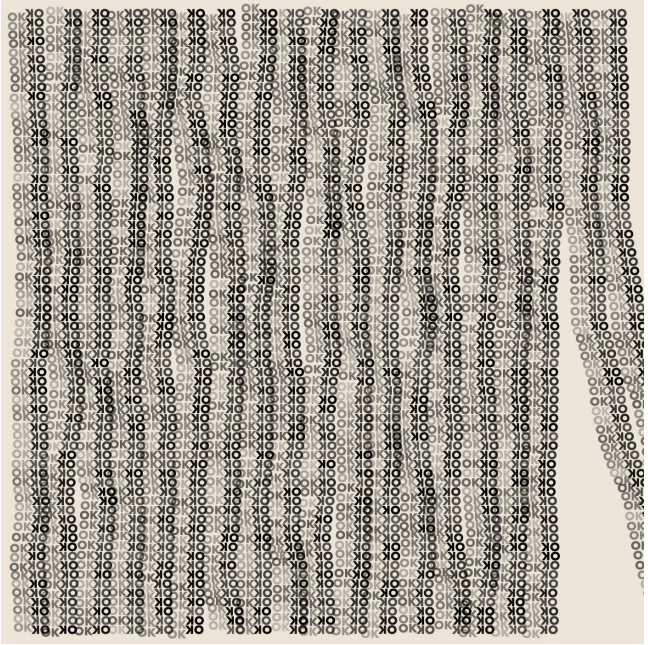


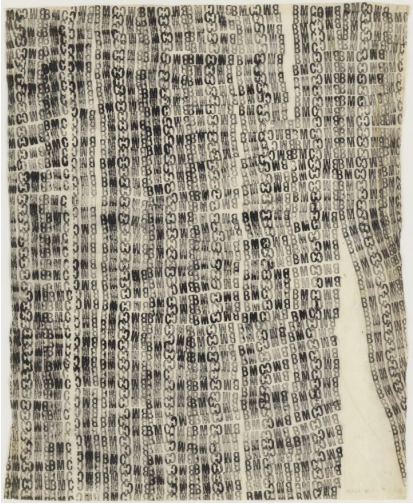
https://bronislavmusil.com/en/projects/processing

→ IMAGE

Day 52 - It's Still OK

Chelsea Watson, 2020





https://www.chelseawatson.com/100-computational-designs/day-52-its-still-ok
https://www.chelseawatson.com/100-computational-designs/day-54-its-ok-in-small-doses

typEm — a generative typeface that represents the emotion of the text

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Figure 1: Different 'a' glyphs to represent different emotions.

ABSTRACT

The introduction of programmatic concepts brought to typography new experiments, concepts, and the possibility to create generative typefaces, capable of adapting to different contexts. This work aims to explore these new creative possibilities in the field of type design. Through the implementation of a generative system, we created a typeface that adapts its shape to the sentiments expressed in a text. In this project, we used the emotional values retrieved from each sentence of a given text to deform the typographic glyphs to represent those emotional values. Additionally, and to enable the user to interact with the system, we implemented an application which receives a text as input and, as output, exports the input text composed with our generative typeface.

CCS CONCEPTS

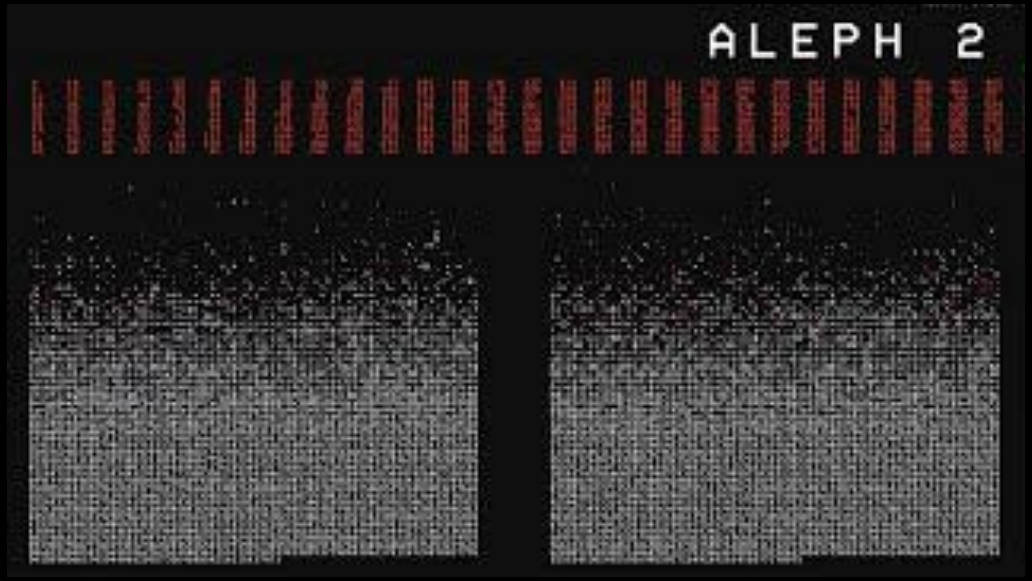
• **Human-centered computing** → Visualization; • **Applied computing** → Arts and humanities;

→ VIDEOCLIP

Aleph 2

Max Cooper + Martin Krzywinski, 2019

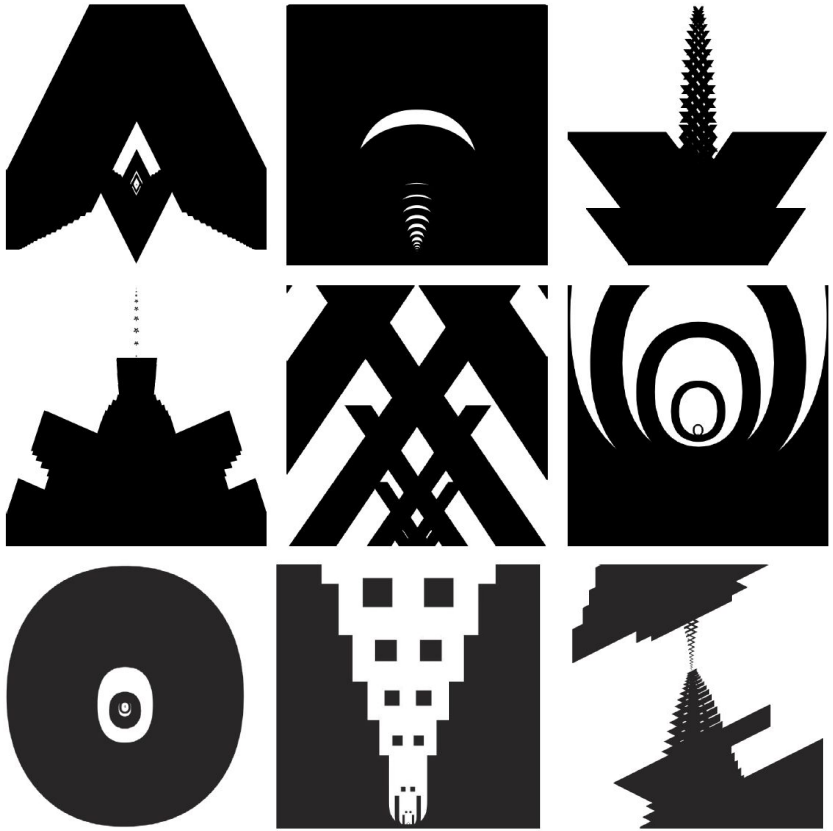
What you see is an authentic numerical rendering of Cantor’s work. It demonstrates countability, Cantor's diagonal argument, power set, the formal undecidability of the Continuum Hypothesis, and the concept of Aleph 2.

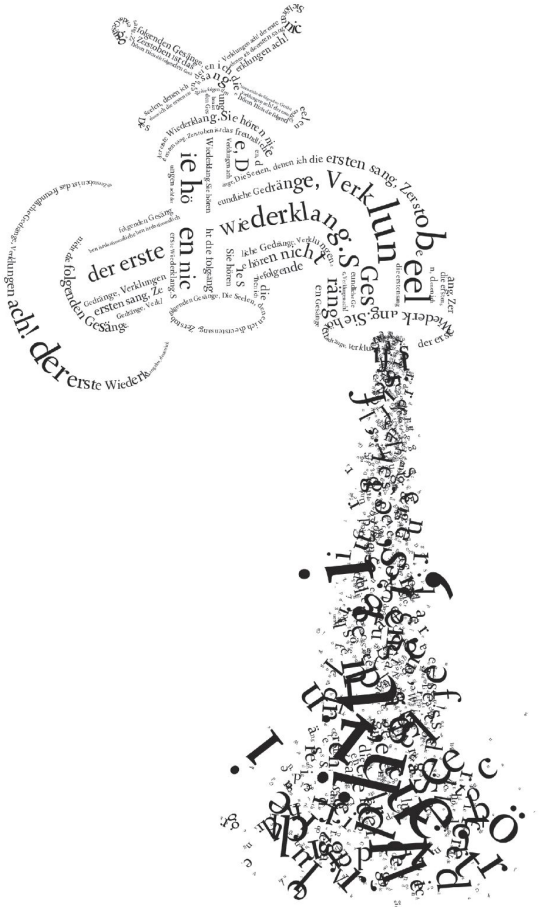


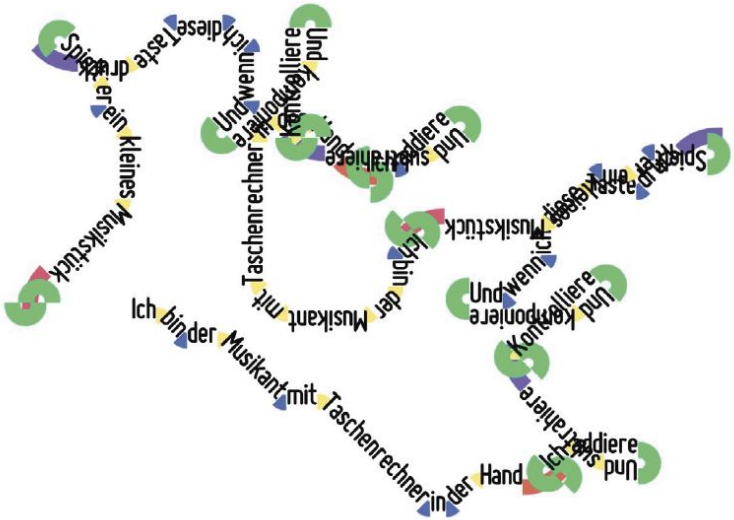
Aleph 2.1

- select a part of the previous videoclip, Aleph 2, as a reference, and make similar effect
- choose any data you want:
  - random numbers
  - poem in .txt
  - interesting number sequence or algorithm

Inspiration, methods

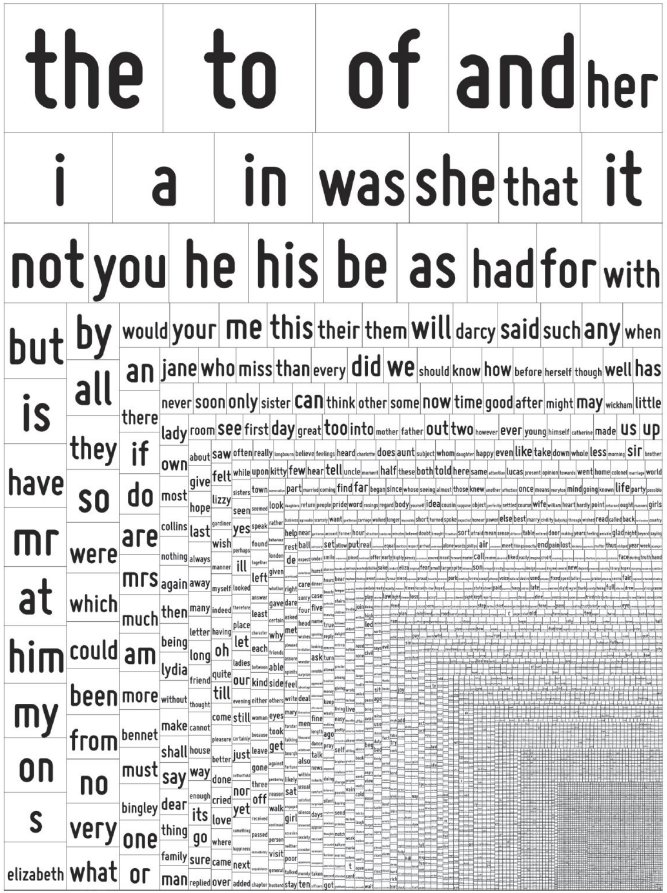




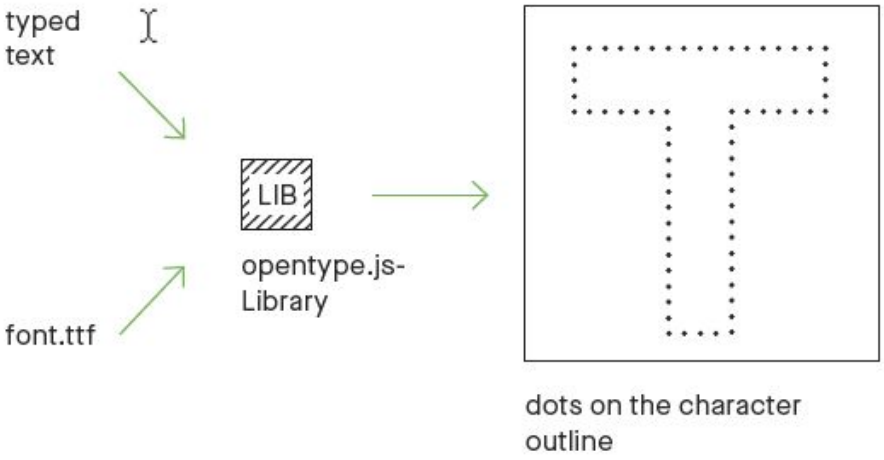


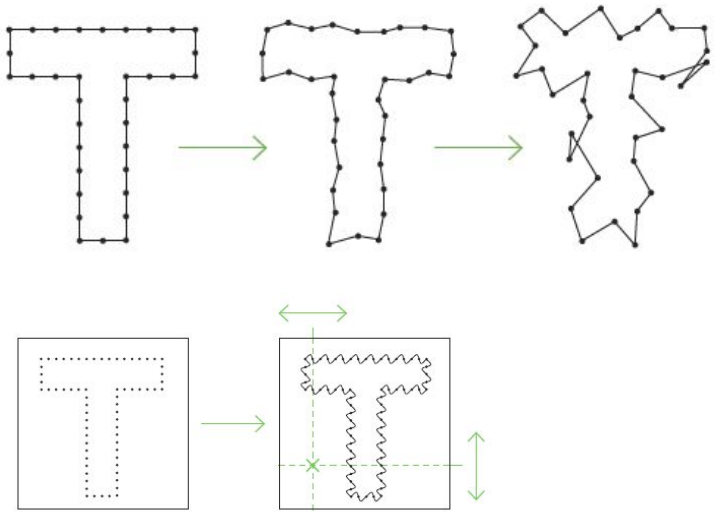
Key	Translation
A	→ Enter A → Shift writing position
B	→ Enter B → Shift writing position
Space	→ Draw graphic image → Turn 45° → Shift writing position
C	→ Enter C → Shift writing position
Comma	→ Draw graphic image → Turn 45° → Shift writing position

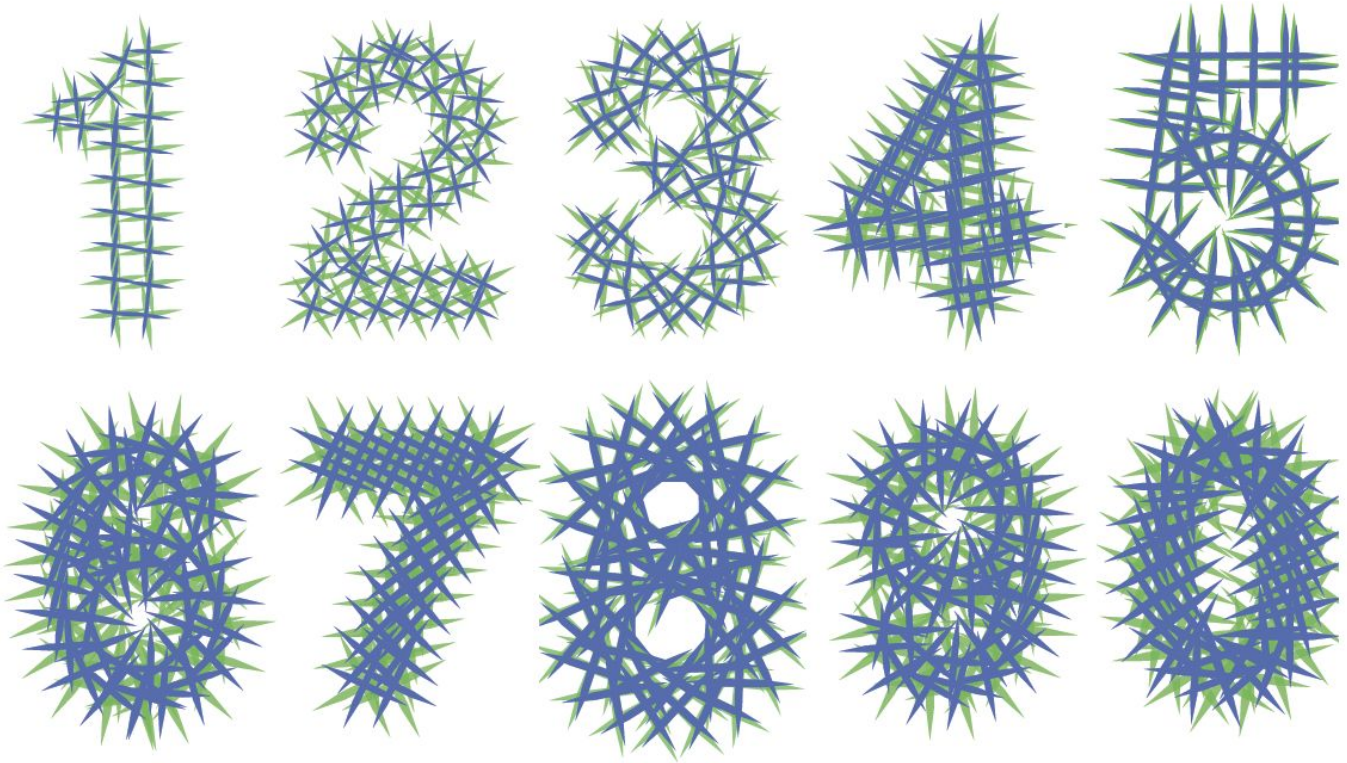
When you'
your own
even the
the limit


the to of and her
i a in was she that it
not you he his be as had for with
but by would your me this their them will darcy said such any when
is all an jane who miss than every did we should know how before herself though well has
have they there never soon only sister can think other some now time good after might may wickham little
mr so if lady room see first day great too into mother father out two however ever young himself catherine made us up
at were do most hope lizzy seen yes wish ill left
him which mrs again away manner
my could much then many
on been am being lydia friend long oh let
s from more without
elizabeth no bennet make cannot
very must shall house
what one bingley say way
or dear thing its go
man sure

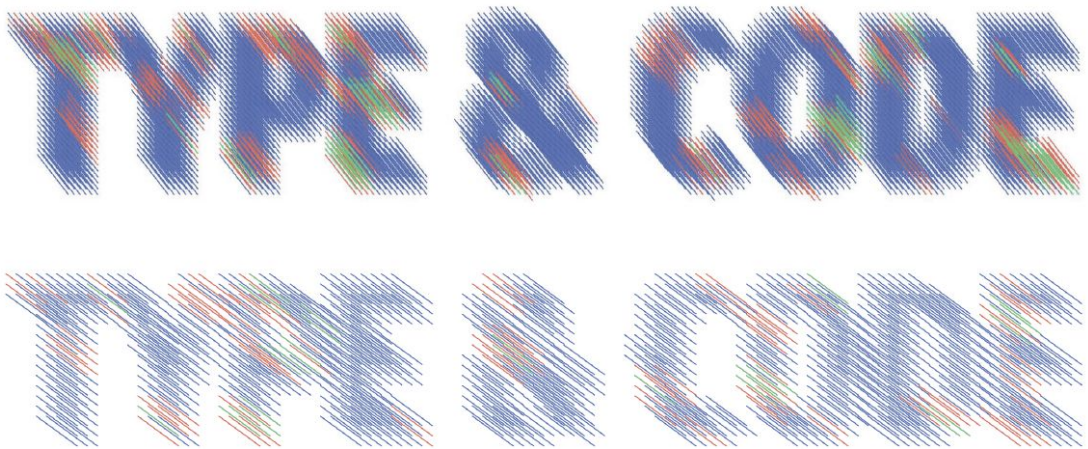
Dissolving font outline: rasterization

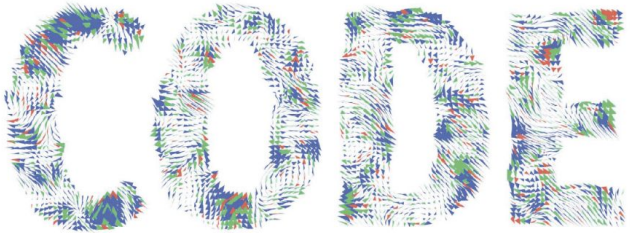


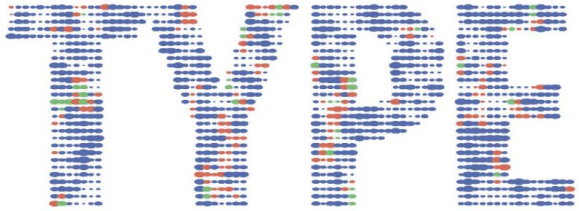


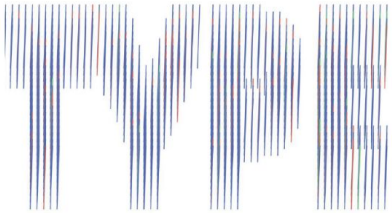


May the font outline do as it wishes. Ignoring legibility, it transforms into patterns and leaves no formal gimmick untried. In constant motion, these metamorphoses remain alive and make us wonder: When does writing become a form of its own?




CODE


TYPE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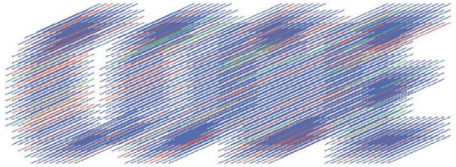
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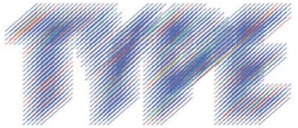
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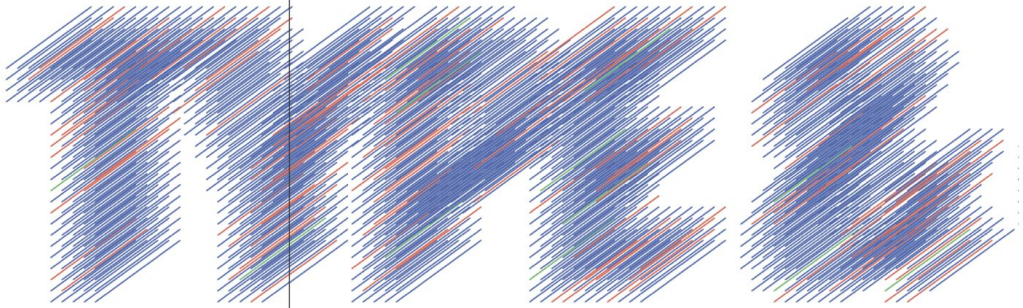
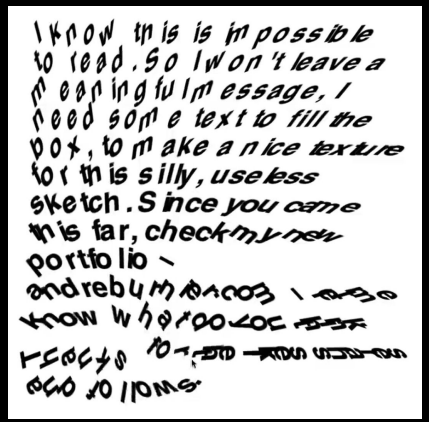

TYPE

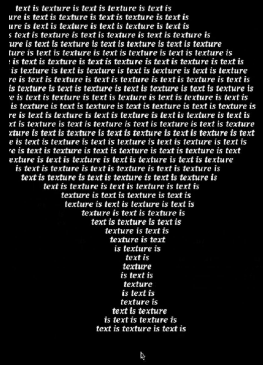
Kinetyped, Marko Řeháček, 2022
demo sketch, app, lib

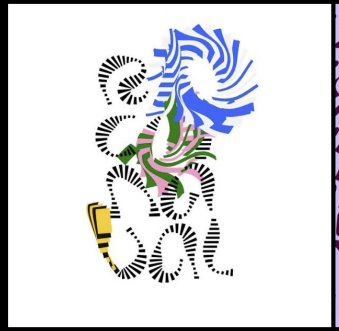
Artists

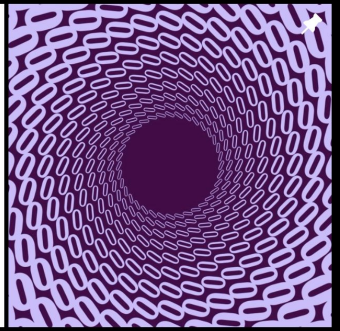
André Burnier

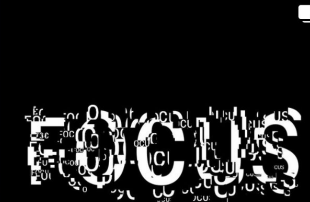
@burnier

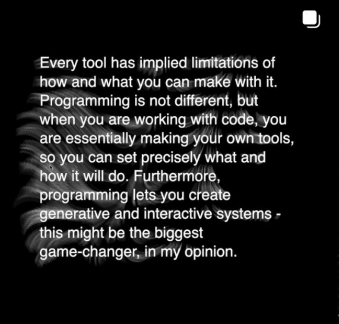


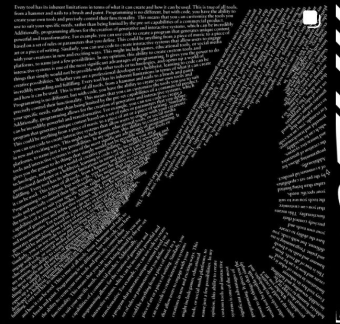


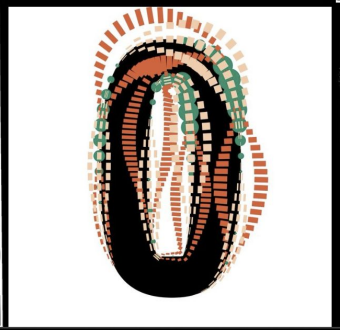


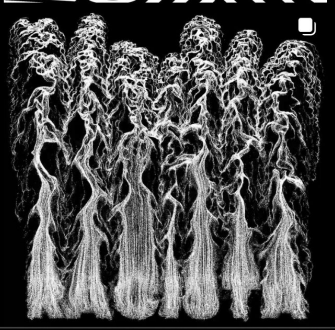








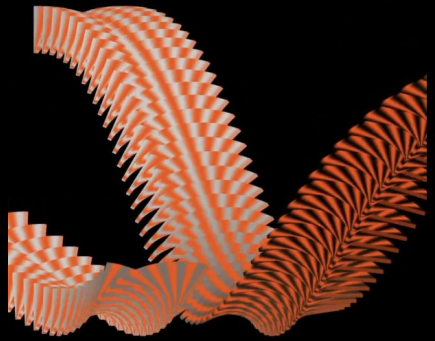


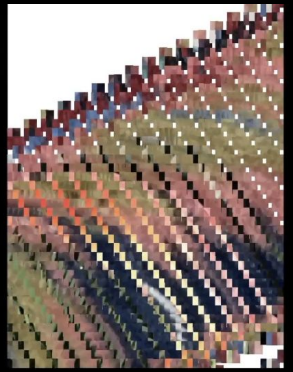


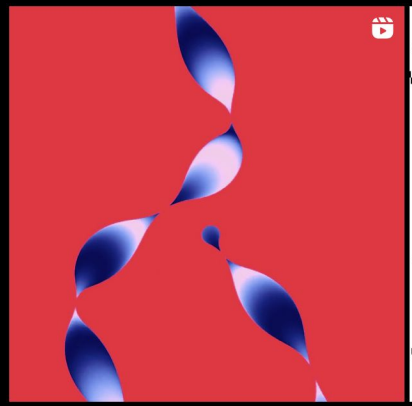
Tim Rodenbröker

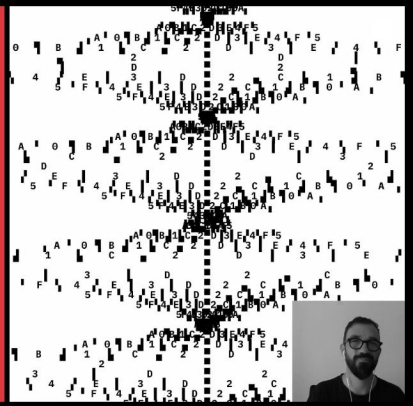
@tim_rodenbroeker

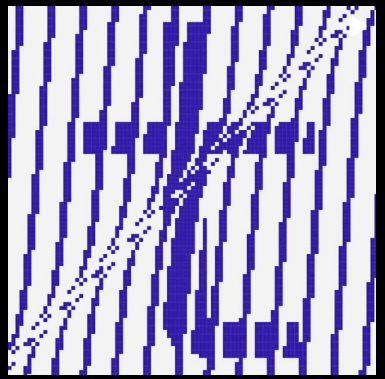
Youtube channel

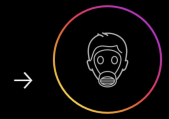






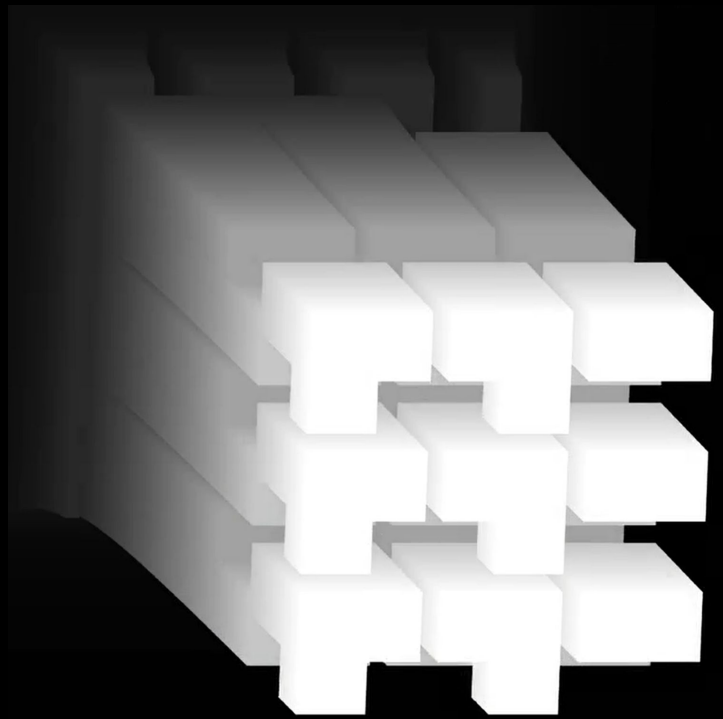


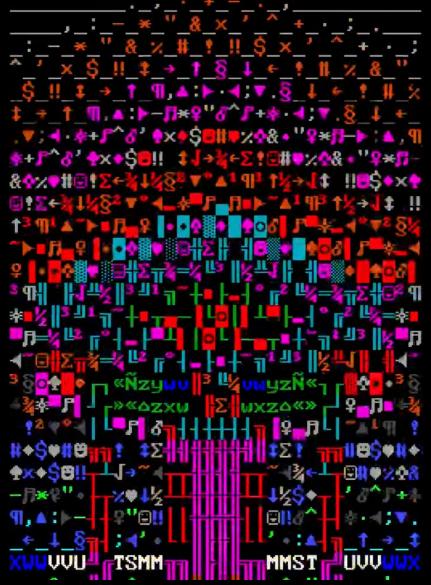


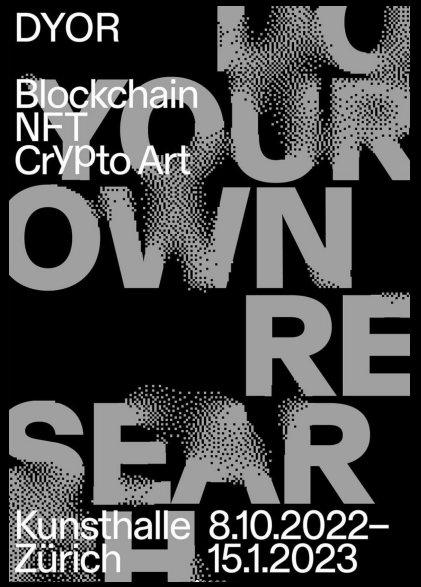


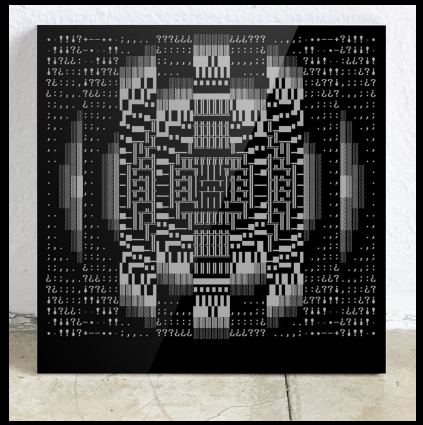
Andreas Gysin

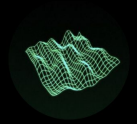
@andreasgysin











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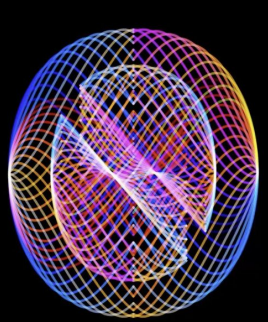
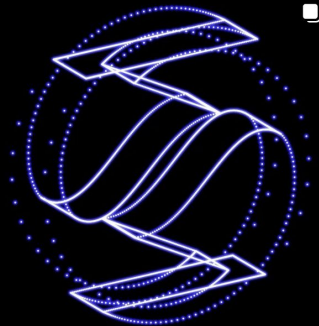
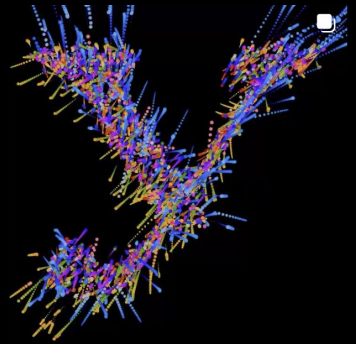
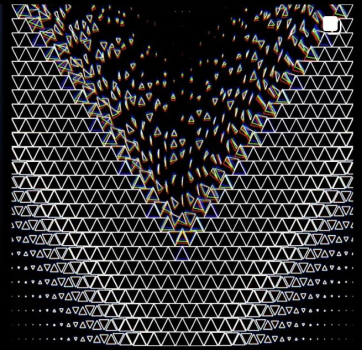
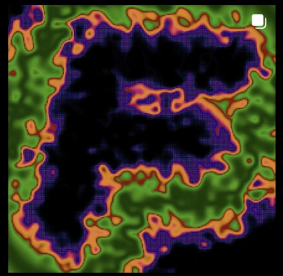
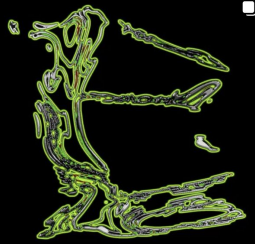


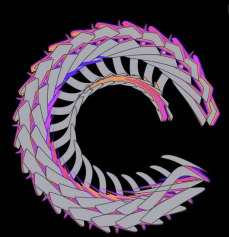


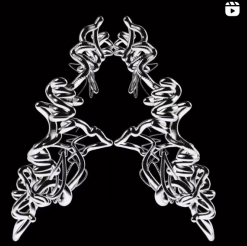






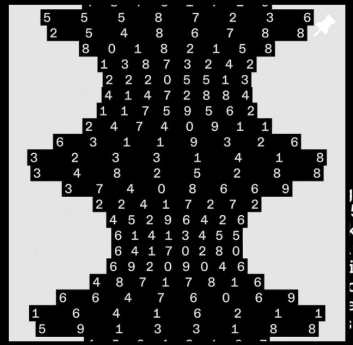


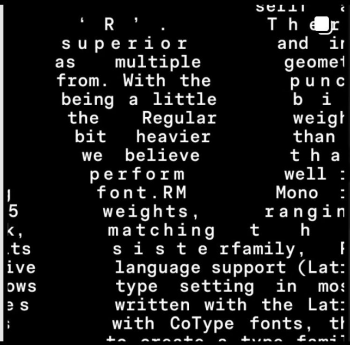


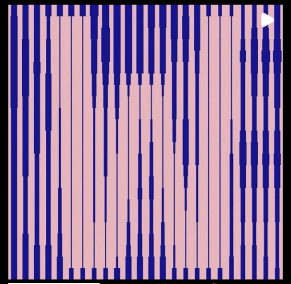


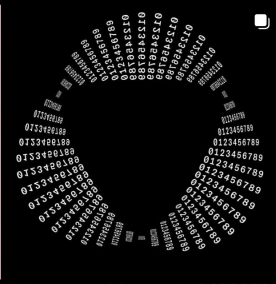
John Burgess

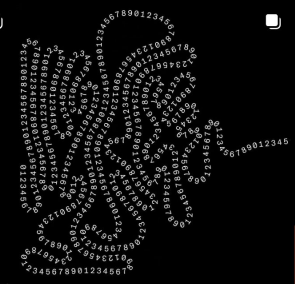
@burgess_john

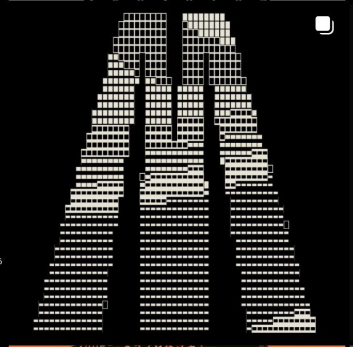


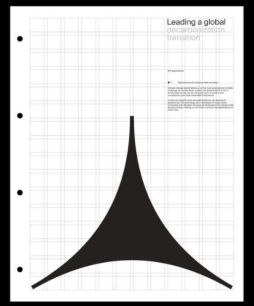


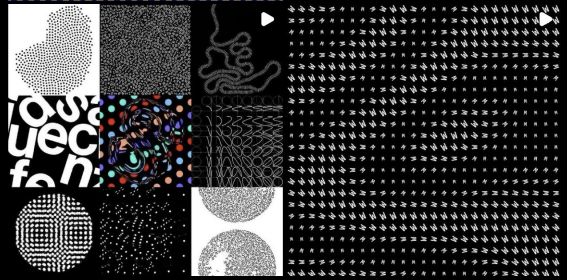


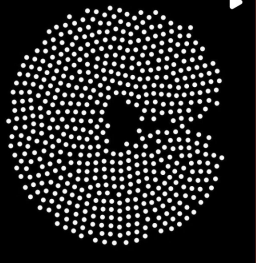


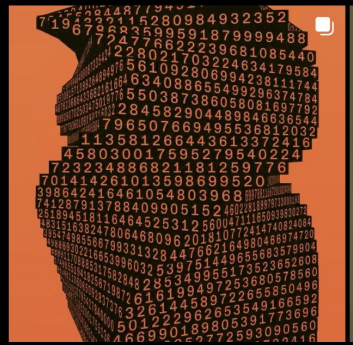












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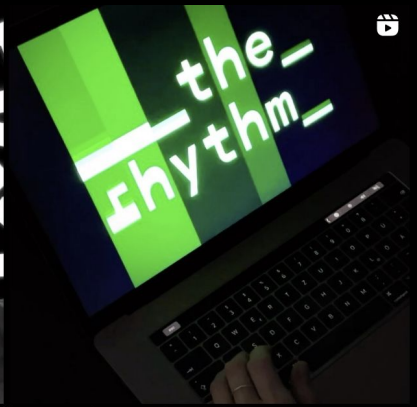
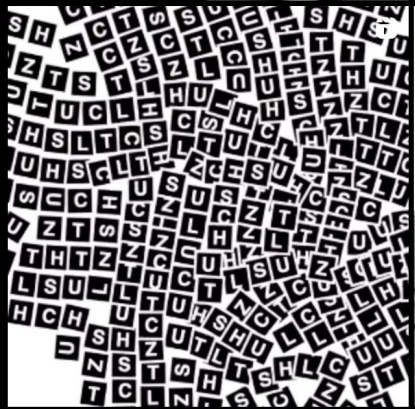
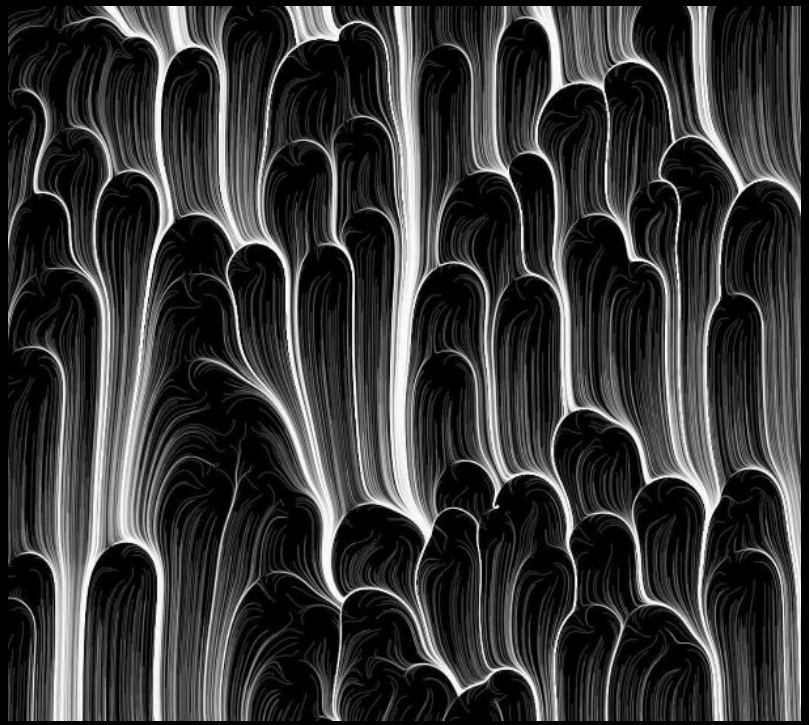
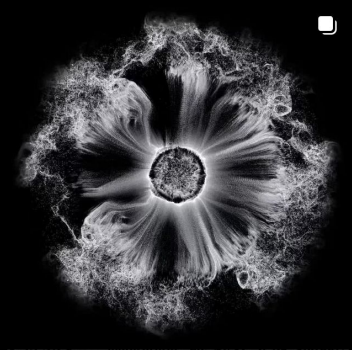


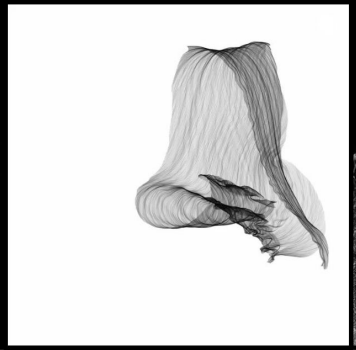


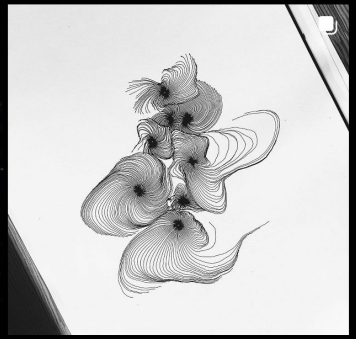
Generative Hut

@generative.hut









Library of projects
Are.na https://www.are.na/

Artists, links
https://www.instagram.com/burnier/
https://www.instagram.com/tim_rodenbroeker/
https://www.instagram.com/schultzschultzgrafik/
https://www.instagram.com/burgess_john/
https://www.instagram.com/italiano.jpg/

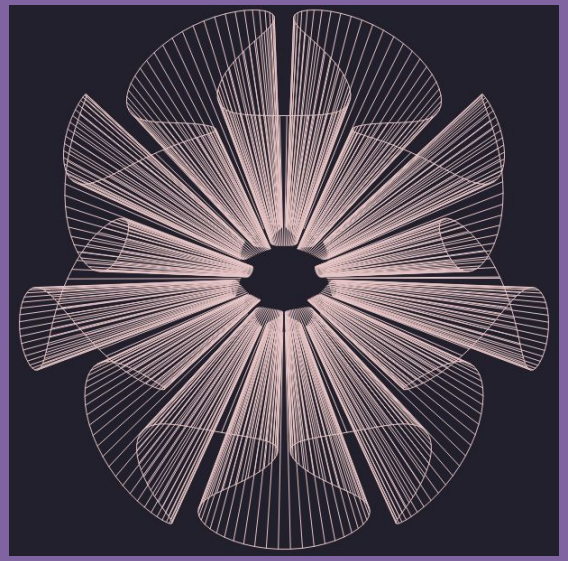
Homework 2: Curved creations / type in motion

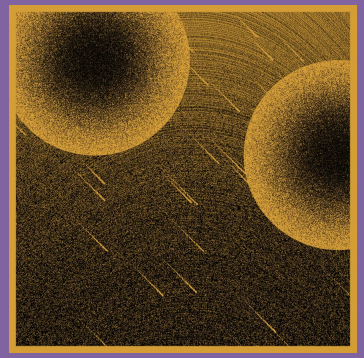
Create one of:

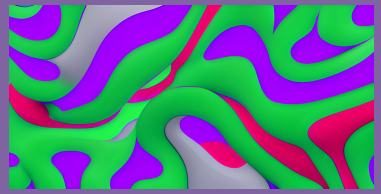
1) abstract painting using curves
2) typographic composition
3) kinetic font

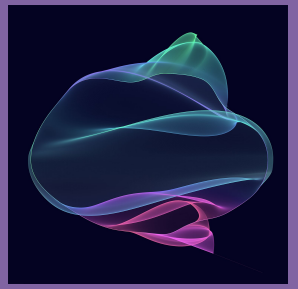
Look in the slides for inspiration: landscapes from perlin noise, some blob artistry, explore interesting mathematical concepts like Max Cooper. Look for some projects on instagram or the libraries we've shown you. Sky's the limit.

The work needs to show skills learnt from last two weeks of classes and be more than was made during live-coding.
Technical information regarding the submission and deadline will be in interactive syllabus in IS.









HAPPY
CODING