



1



2



3



4



5



6



7

A black and white portrait of Leonardo Fibonacci, a man with a headband and a dark tunic.

Leonardo Fibonacci (1175-1250)

$$f_0 = 0,$$

$$f_1 = 1,$$

$$f_{n+2} = f_n + f_{n+1}.$$

n	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
	0	1	1	2	3	5	8	13	21	34	55	89	144	233	377	610

8



9

podaj ile liczb wypisać:

10

podaj ile liczb wypisać: 4

11

podaj ile liczb wypisać: 4

1
1
2
3

12

```
int sx, sy;
float density = 0.5;
int[][] world;

void setup()
{
  size(640, 360);
  frameRate(12);
  sx = width;
  sy = height;
  world = new int[sx][sy][2];

  // Set random cells to 'on'
  for (int i = 0; i < sx * sy * density; i++) {
    world[(int)random(sx)][(int)random(sy)][1] = 1;
  }
}

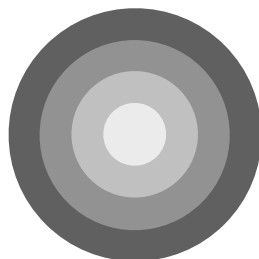
void draw()
{
  background(0);
}
```



RZEŹBIENIE W KODZIE

13

14



15



16

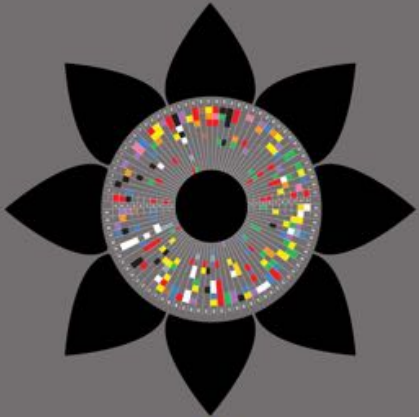
DATA VISUALIZATION

[illegible]

	A	B	C	D	E	F	G
1	Issue	Label	Description	Source Name	Source URL		
2	Amount	Text	Long Description	Source Name	Source URL		
9	950	Global pharma market	Global drugs market	Forbes	http://www.forbes.com/sites/mattmeyer/2012/05/12/the-global-drug-market-sell-off/		
41	901	US budget deficit	2013	BBC News	http://www.bbc.co.uk/news/world-us-canada-17214784		
49	89.8	China	China defence, 2011	ISS	http://www.iss.org/aboutus/military-balance/the-military-balance-2012.aspx		
6	740	Tobacco	Global tobacco industry revenue, 2011	Euromonitor	http://www.euromonitor.com/2012/05/new-tobacco-research-what-is-betting-us.html		
7	739.3	US defence, 2011	ISS	http://www.iss.org/aboutus/military-balance/the-military-balance-2012.aspx			
8	73	Carlos Slim Helu, richest man in the world, net worth, 2013	Forbes	http://www.forbes.com/sites/mattmeyer/2013/05/20/Carlos-Slim-Helu-2/			
49	672	Illegal drugs market	Morris, Global Finance PhD (2006)	http://www.morrisglobalfinance.com/the-economics-of-the-global-entertainment-industry			
10	67	Bit Games	Bit Games net worth, 2013	Forbes	http://www.forbes.com/profile/bit_games/		
11	67	Video games	Global revenue, 2012	Forbes	http://www.forbes.com/sites/robertpoole/2012/01/18/new-reports-forecast-global-video/		
12	650	European rescue fund	BBC News	http://www.bbc.co.uk/news/business-19998988			
13	64	Movies	Global consumer spending on movies, 2012	IP & TV News	http://www.ip-tvnews.com/2013/05/worldwide-consumer-spending-on-movies-up-in-2012/		
14	60	AI Medicine	Alternative Medicine Global market, 2011	The Economist	http://www.economist.com/node/16712296		
15	5700	Global healthcare budget	Tackle Tax Havens	http://www.tackletaxhavens.com/Conf. of Tax Abuse T_u_N_Research_23rd_Nov_2011/			
16	557.1	Afghanistan cost for US	Quantum cloning	http://www.quantumcloning.ca/news/2013/05/20/worldwide-cloning-research-visualised			
17	55	Predicted cost 2003	Iraq War, predicted cost 2003	NY Times	http://www.nytimes.com/2009/03/04/washington/04cost.html		
18	523.5	Beer	Global, by 2019	Financial Times	http://www.ft.com/cms/2012/05/15/beer.html		
19	5152	UN budget	UN Budget, 2012-13	UN	http://www.un.org/en/press/docs/2012/pressreg/20120515.unbudget.pdf		
20	500	Apple	Apple market capitalisation, 2012	Financial Times Global 500 Dec 2012	http://media.ft.com/assets/2013/05/06-500-500-1762-a775-00147646b6d6.pdf		
21	499.5	Fast food restaurants	Global fast food restaurant revenues, 2012	IBIS World	http://www.ibisworld.com/industry/globalestimates/global-fast-food-restaurant.html		
22	4900	Developing countries foreign debt	2011	World Bank	http://www.worldbank.org/news/press-release/2012/02/20/2012-02-20-world-bank-releases-foreign-debt		
23	486	US space programme (1959-2013)	US space programmes, 1959-2013 (infation-adjusted)	The Space Review	http://thespacereview.com/article/15790/		
24	484	Medicine	US federal medicine budget, 2012	Washington Post	http://www.washingtonpost.com/local/healthcare/2012/05/17/the-state-of-medicine-in-2012/		
25	419	Gambling	Global gambling revenues, 2011	Global Betting & Gaming Consultancy	http://www.gbgs.com/2012/05/2011-global-gambling-revenue-up-450-billion/		
26	410	Carnival	Global revenue	Morris, Global Finance PhD (2006)	http://www.morrisglobalfinance.com/the-economics-of-the-global-entertainment-industry		
27	417.3	Apple profit, 2012	Apple profit, 2012	Market Watch	http://www.marketwatch.com/story/apple-profit-2012		
28	400	Prostitution	Global revenue, 2009	Morris, Global Finance PhD (2006)	http://www.morrisglobalfinance.com/the-economics-of-the-global-entertainment-industry		
29	364.66	Worldwide TV industry	Global revenue, 2009	Statista	http://www.statista.com/statistics/10671/television-Market_564.html		
30	3500	To end extreme poverty within 20 years	Year goal to end extreme poverty within 20 years	The End of Poverty, Jeffrey Sachs	http://www.endofpoverty.org/assets/ending-poverty-by-2025-what-it-would-cost-to-end-a		

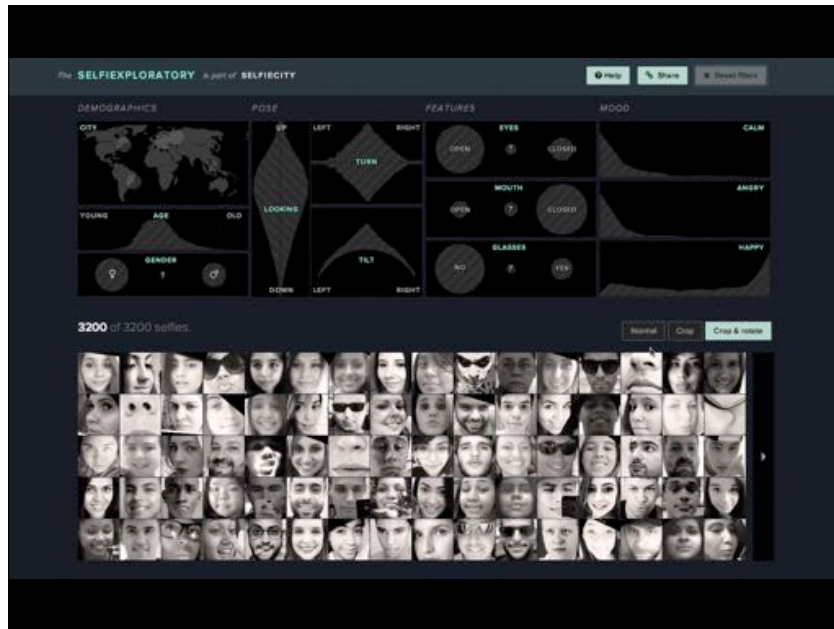
David McCandless

Information is Beautiful

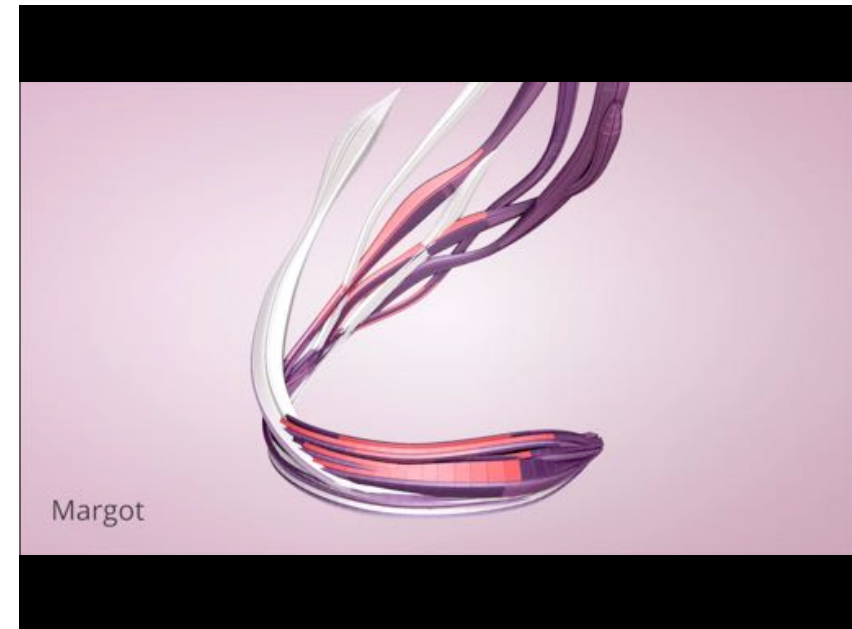


New Edition

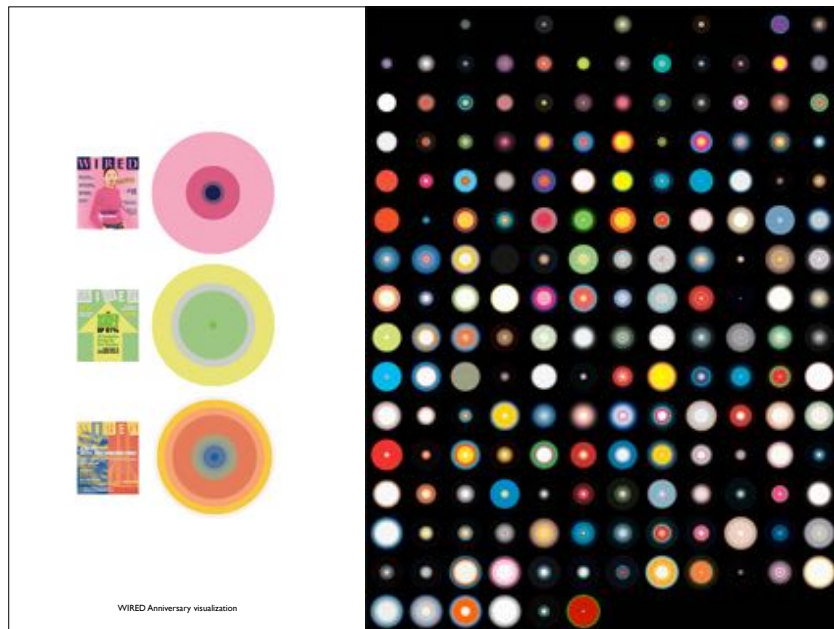
revised, recalculated and reimagined



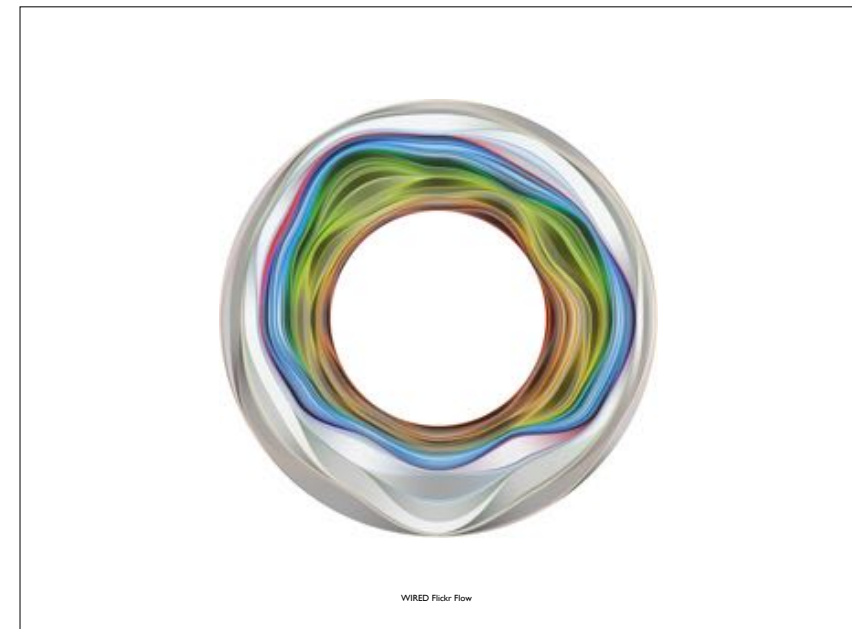
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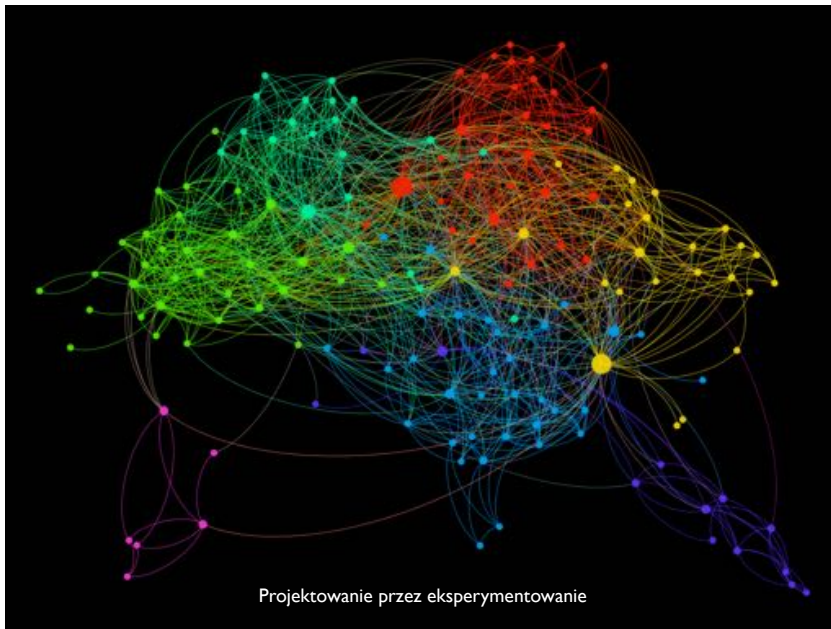
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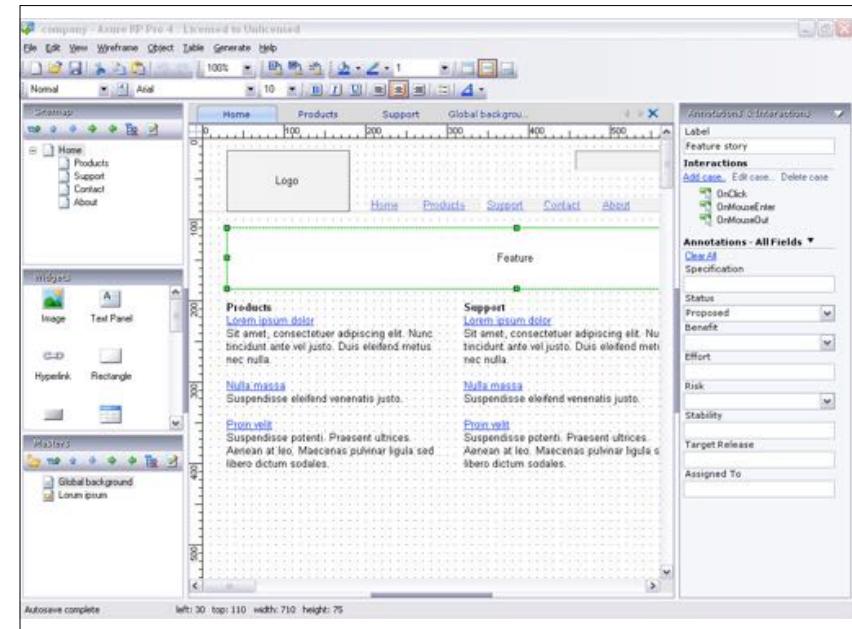
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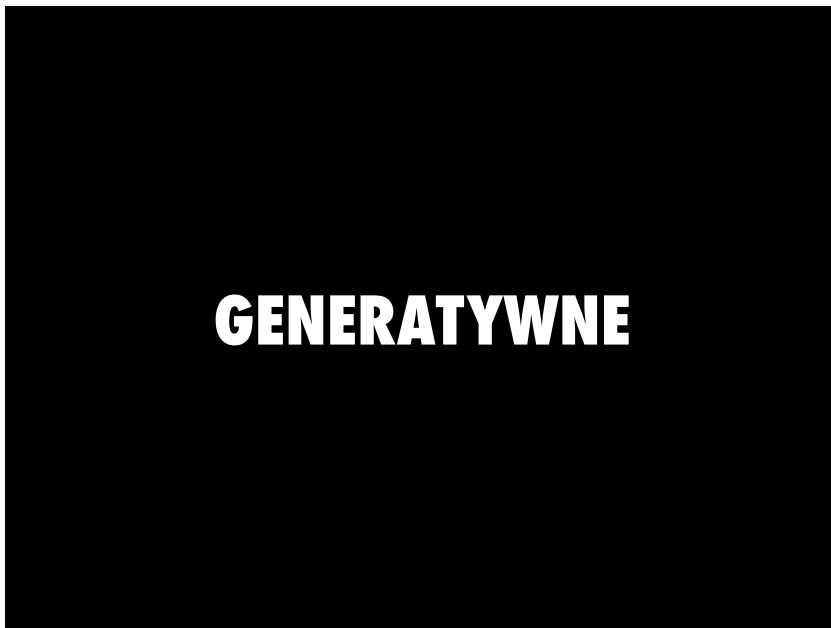
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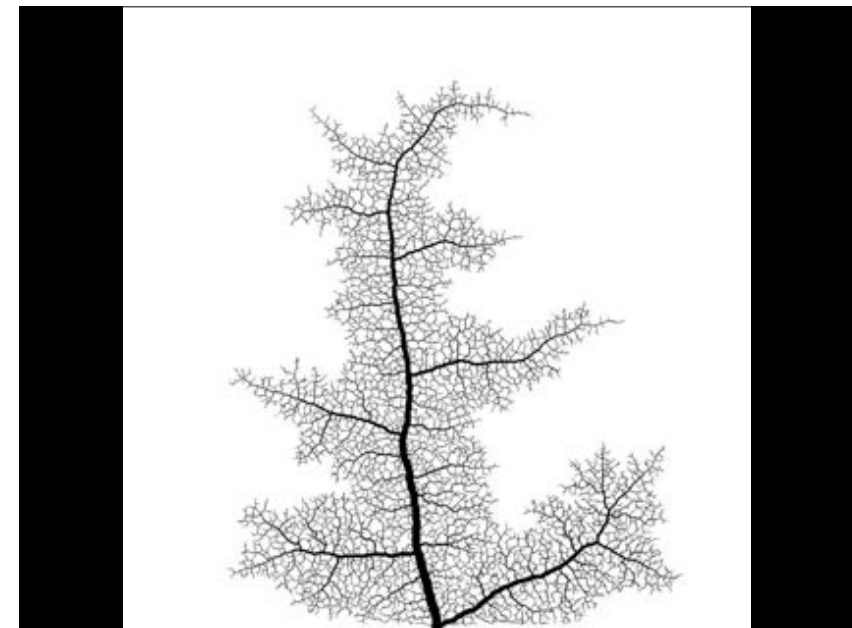
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26

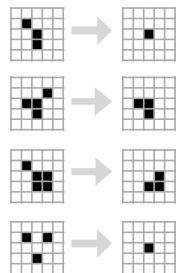


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28

Conway's Game of Life



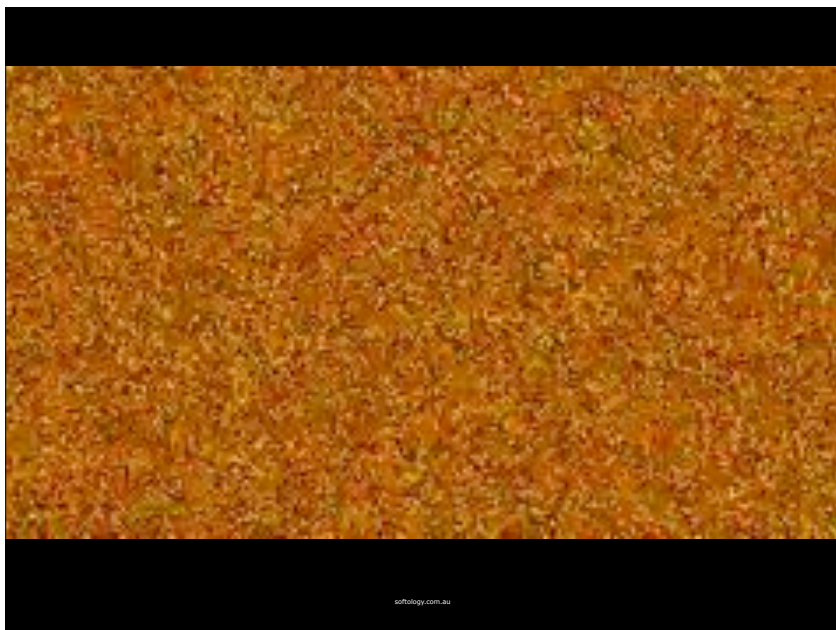
1. Any live cell with fewer than two live neighbours dies, as if caused by under-population.
2. Any live cell with two or three live neighbours lives on to the next generation.
3. Any live cell with more than three live neighbours dies, as if by overcrowding.
4. Any dead cell with exactly three live neighbours becomes a live cell, as if by reproduction.

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nieprzewidywalność

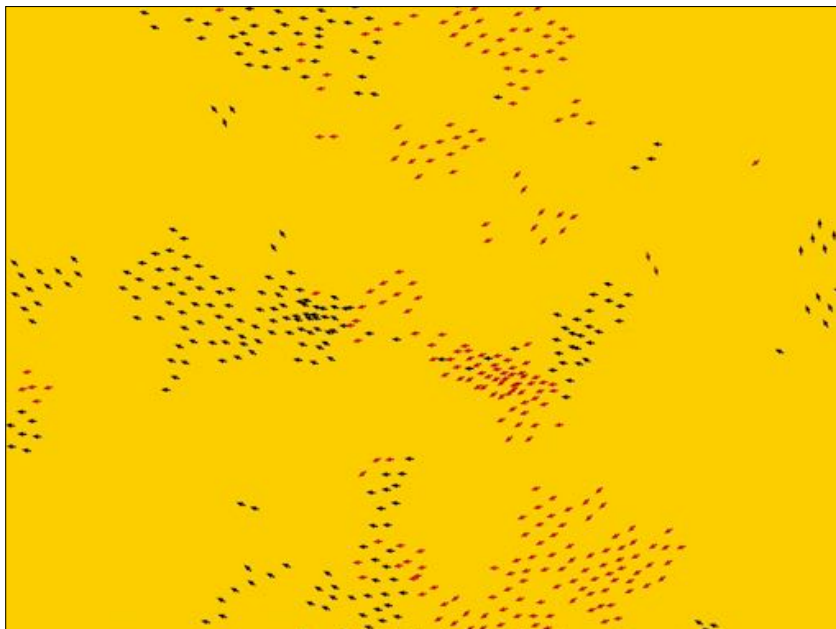
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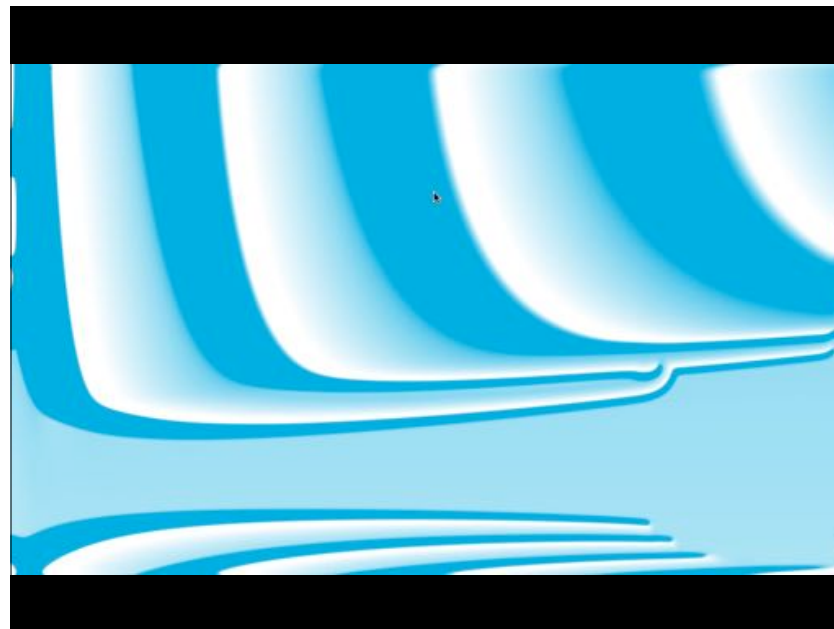
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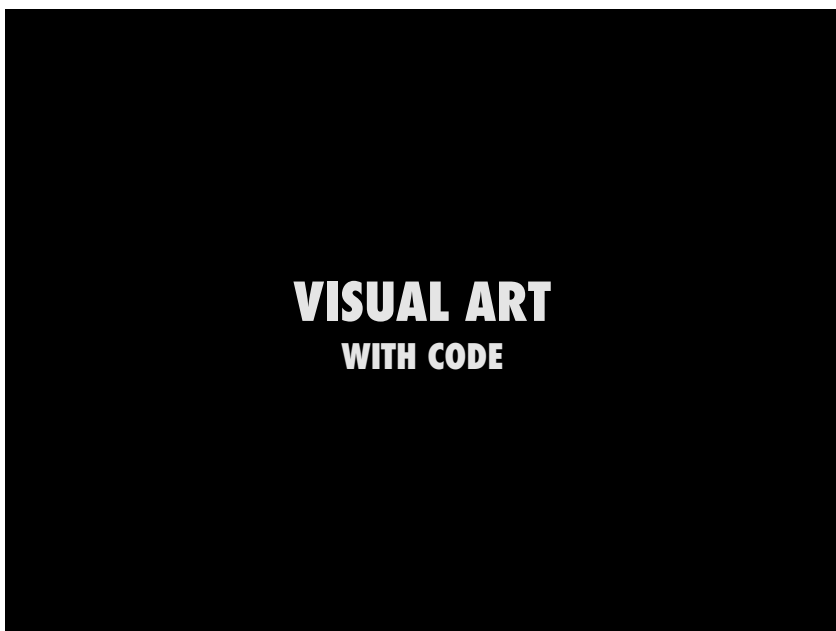
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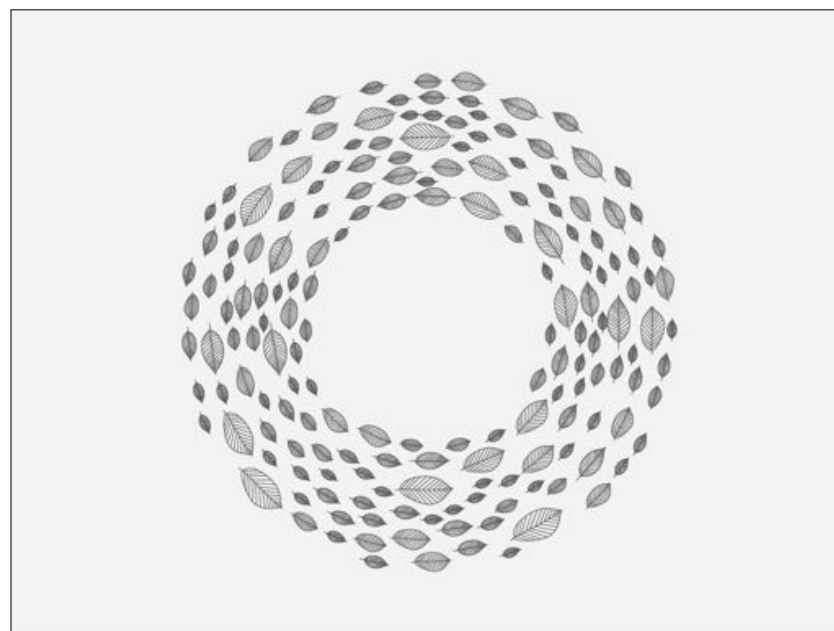
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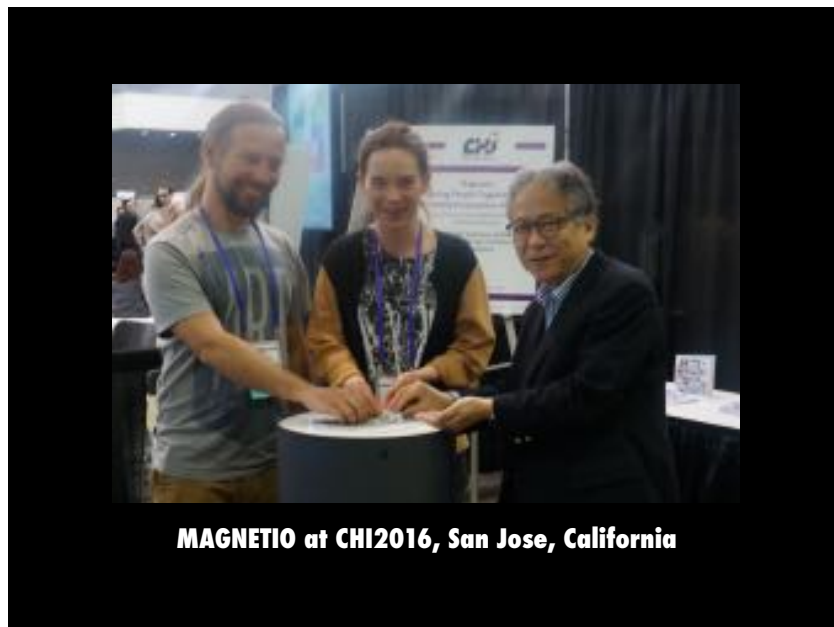
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41



42



43



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EMBODIED INTERACTION DESIGN

EMOTIONS
SENSES
SOCIAL CONTEXT

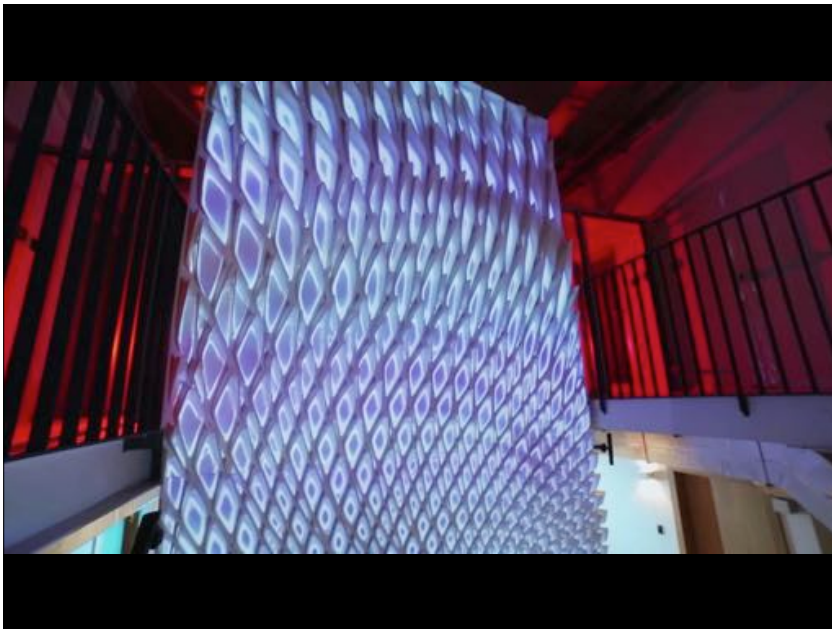
VS

LOGIC
LANGUAGE
SYMBOLIC OPERATIONS

45



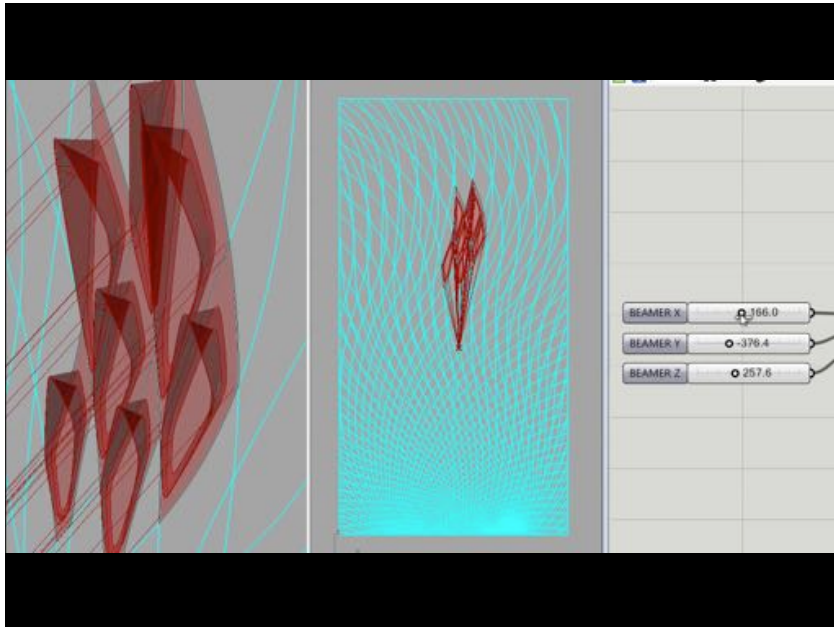
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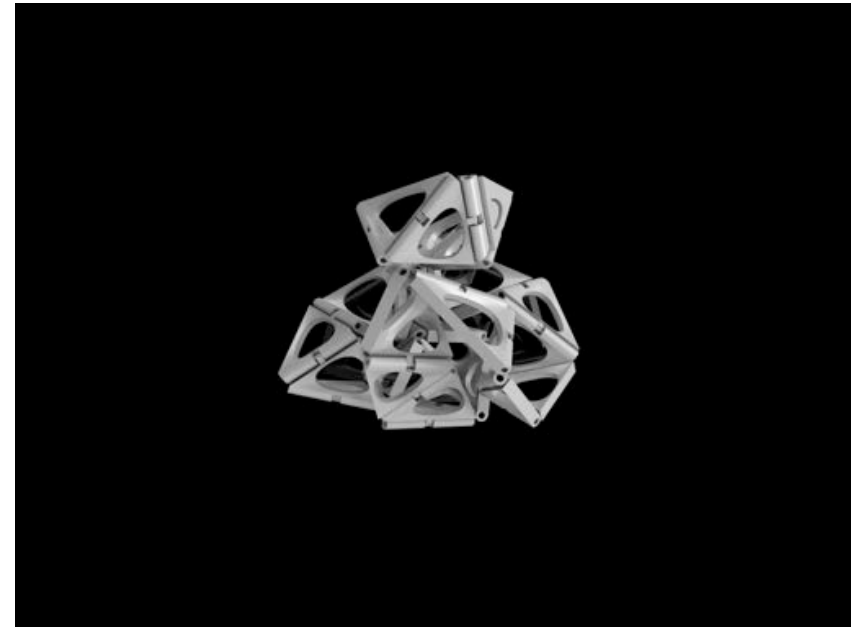
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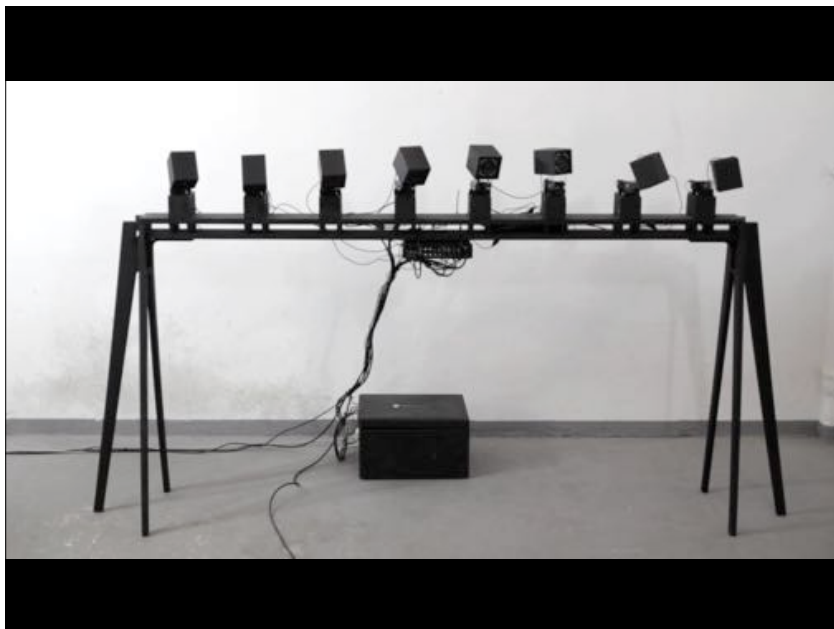
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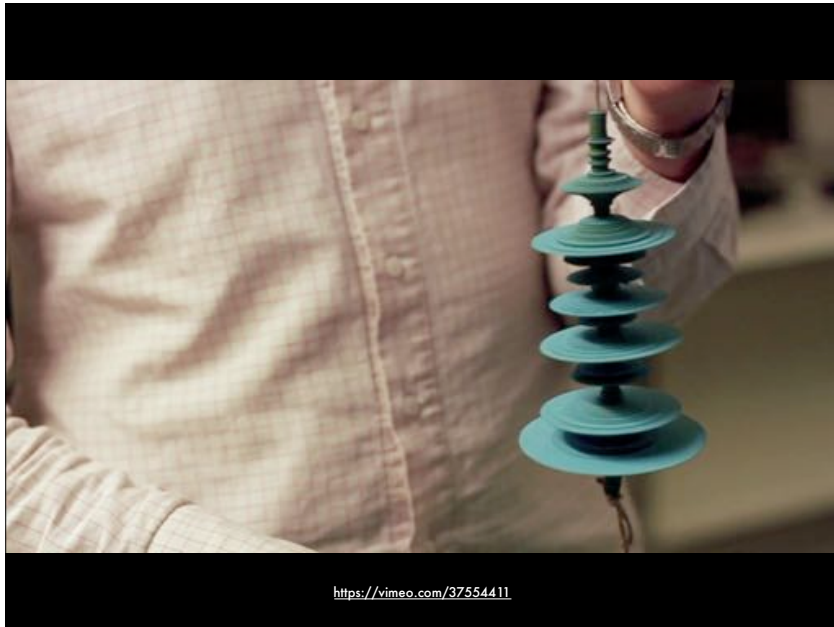
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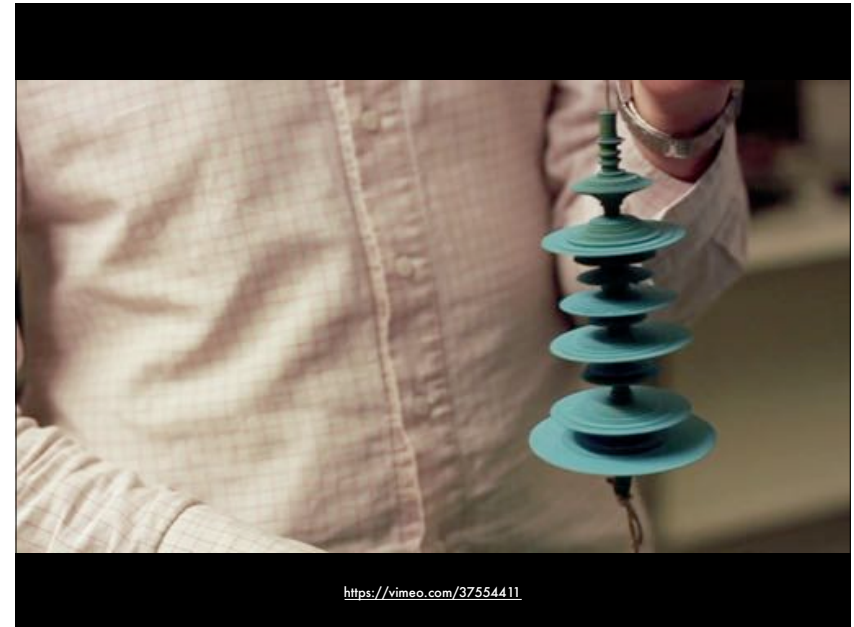
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52



53



54



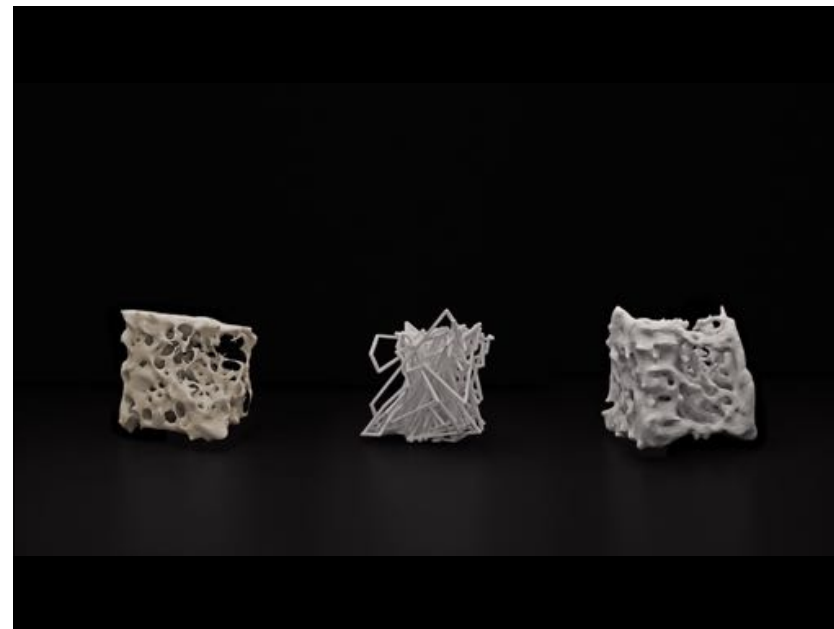
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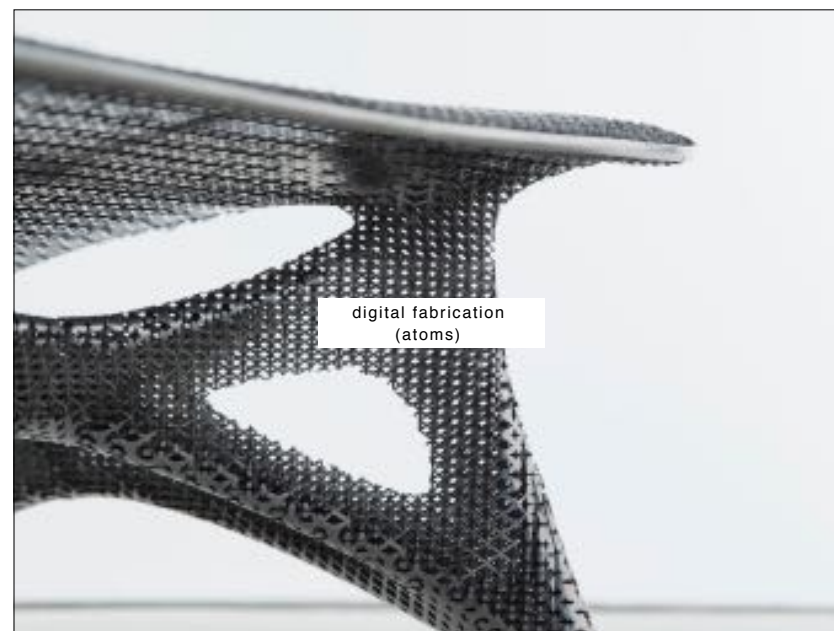
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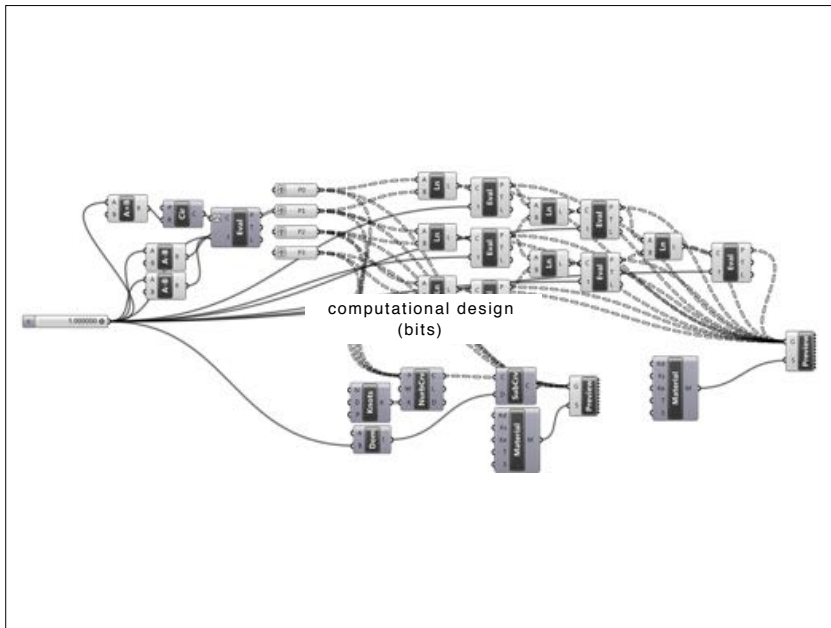
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60

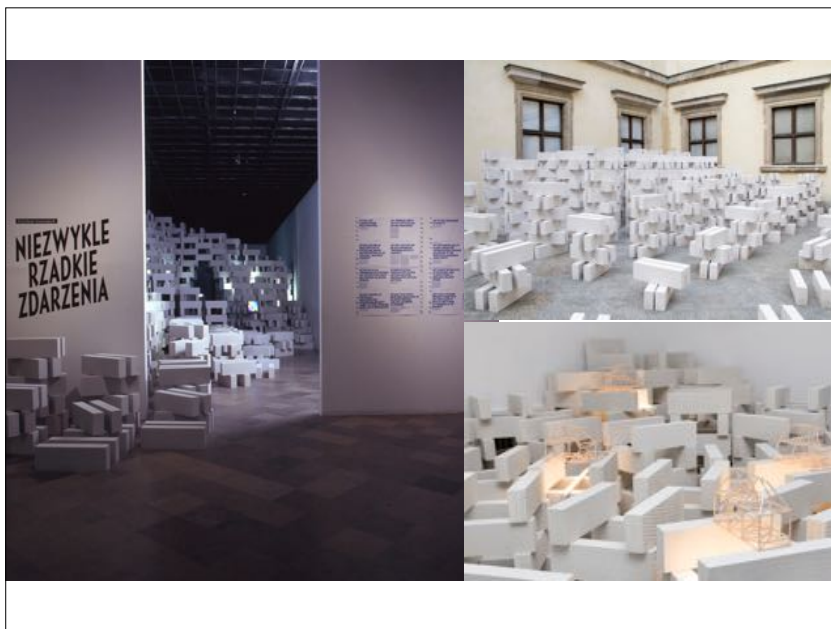


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Y-Table Krystian
Kwiecinski

62

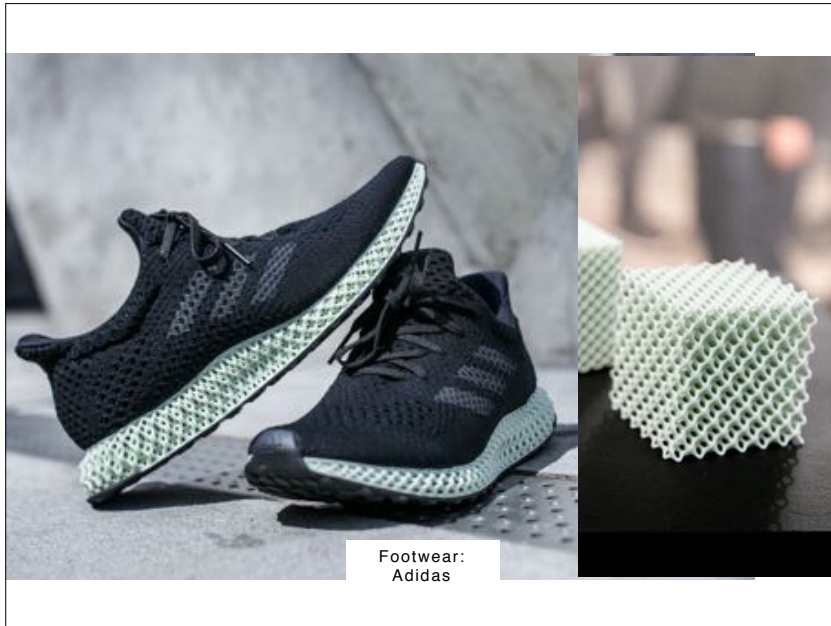


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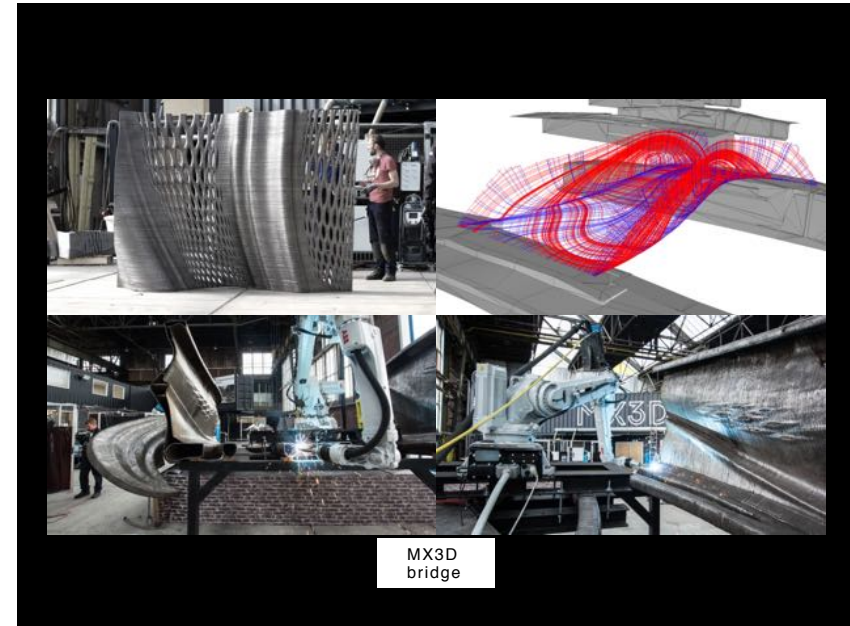


Fashion: Iris Van
Herpen

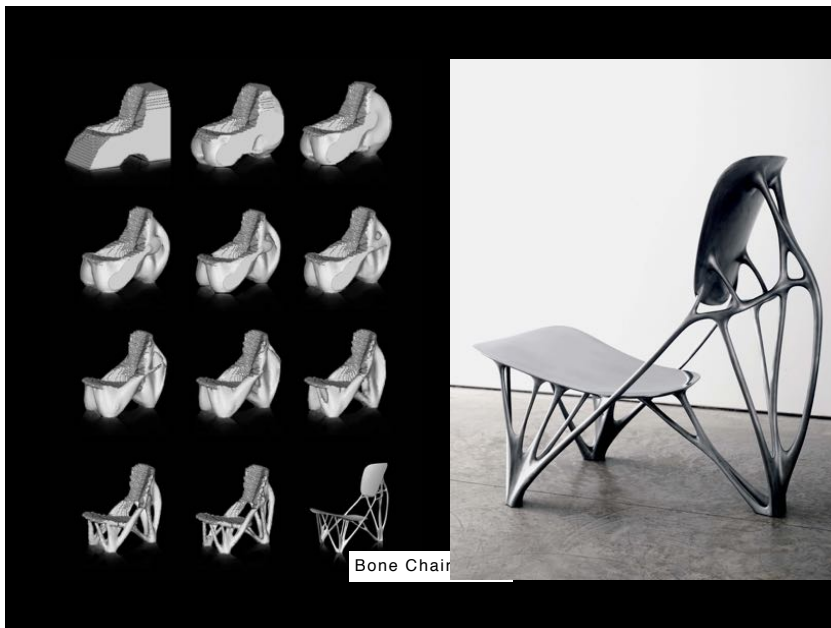
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65



66



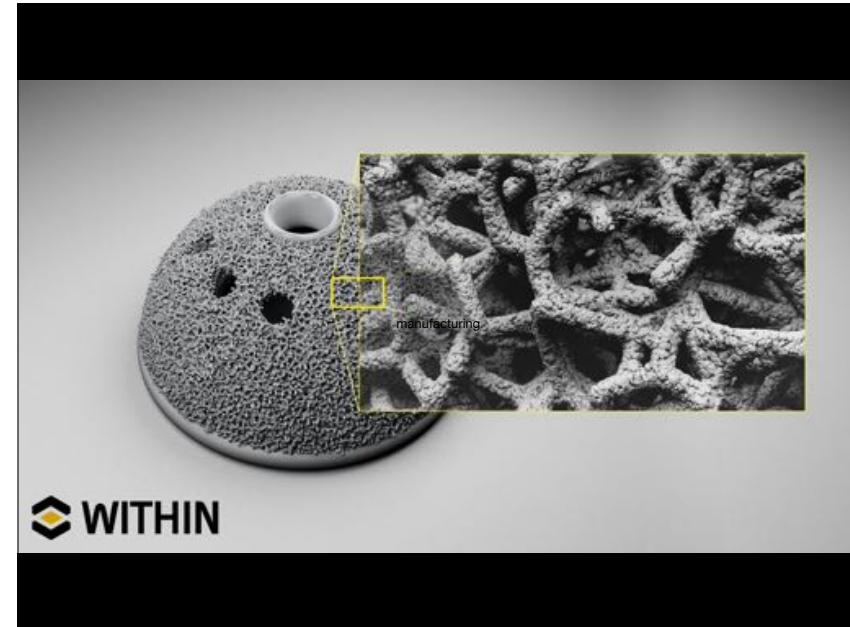
67



68



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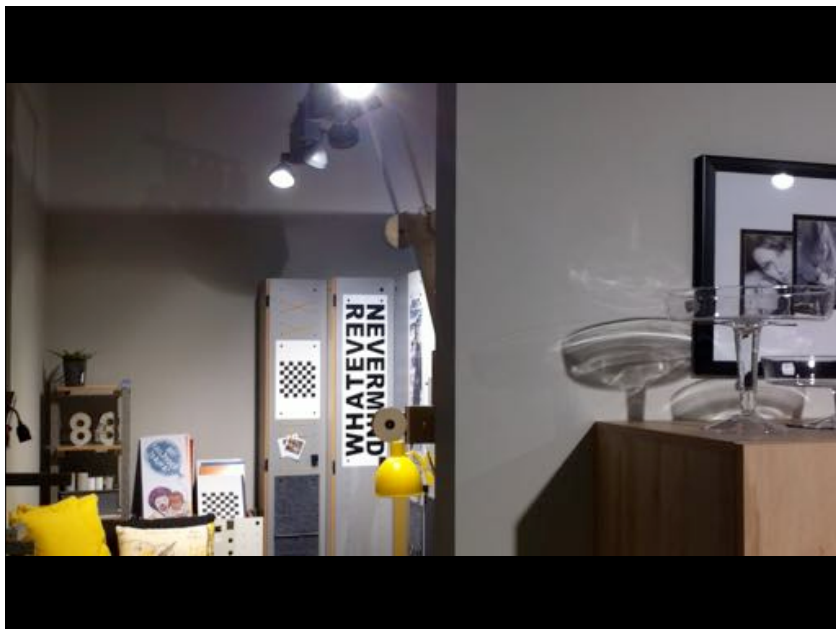
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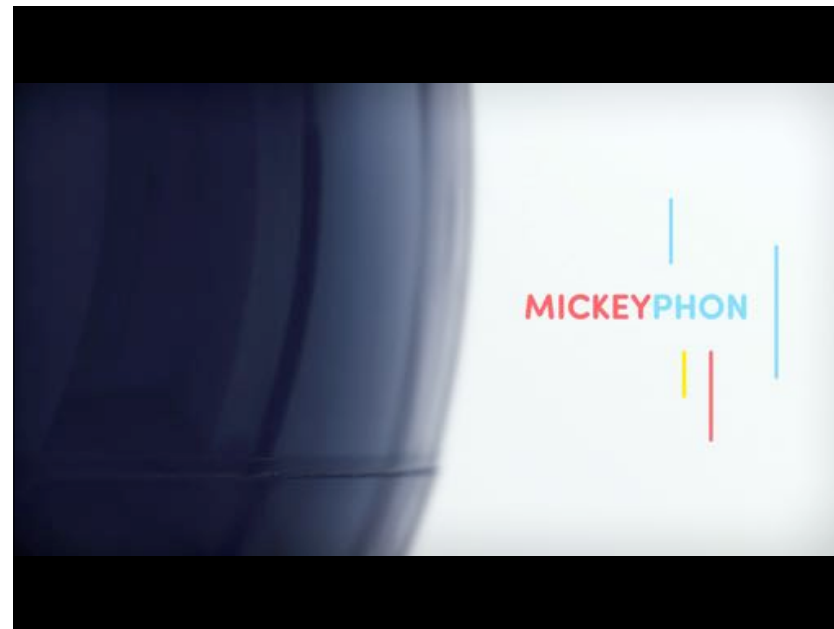
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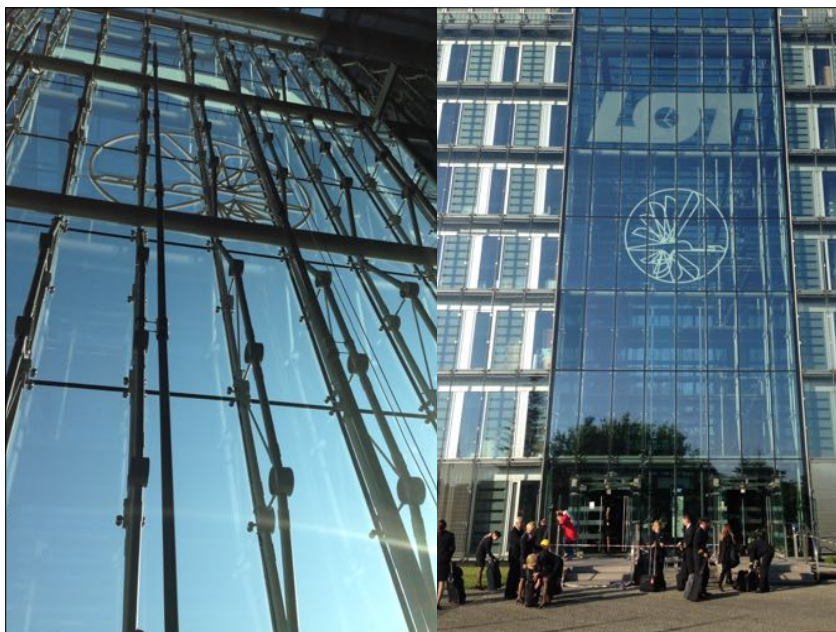
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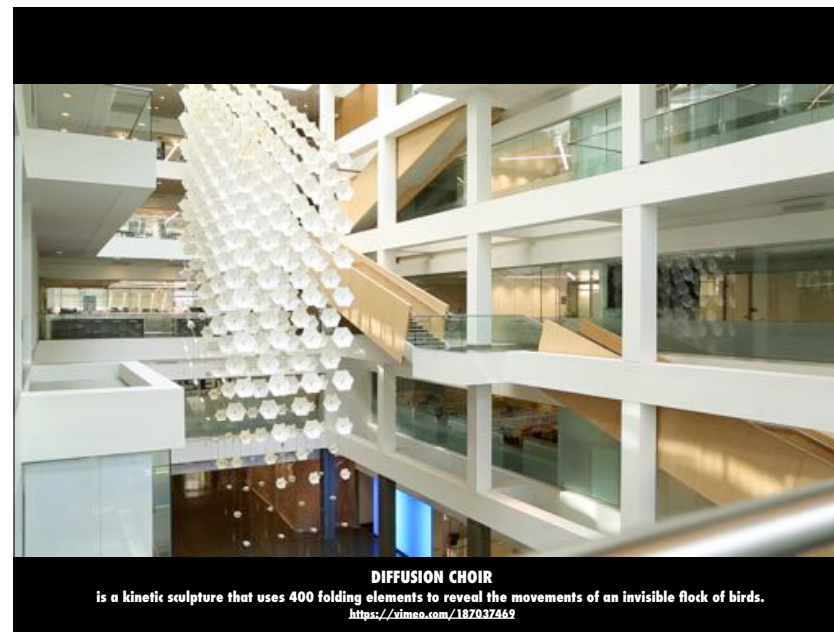
73



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75



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JUST HAVING FUN

77



78



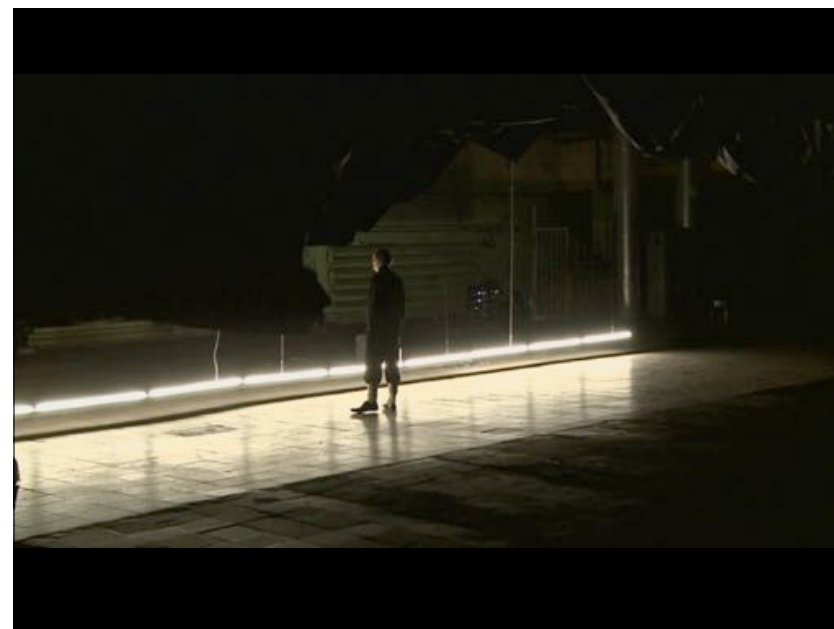
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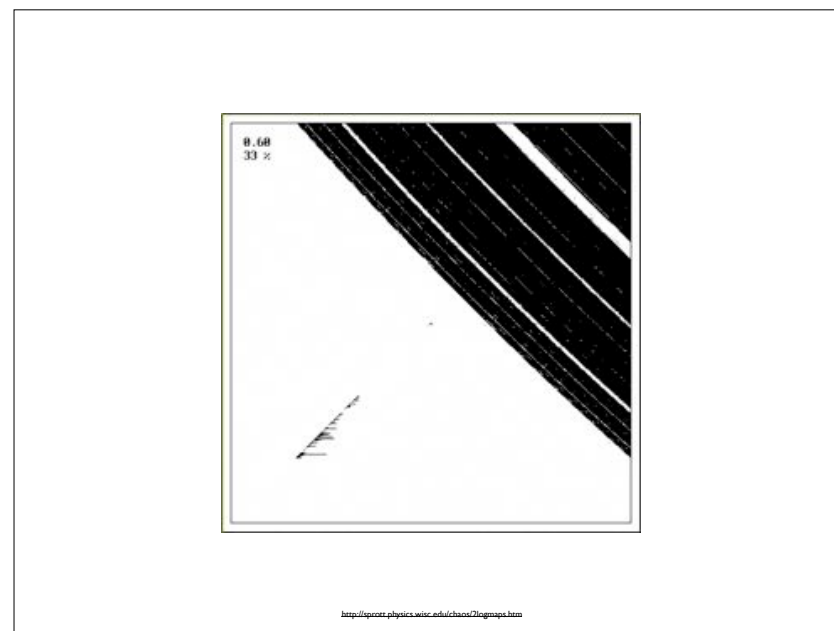
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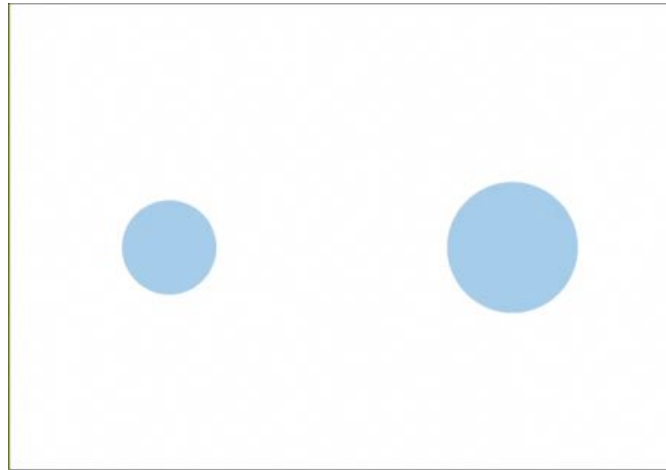
82



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84



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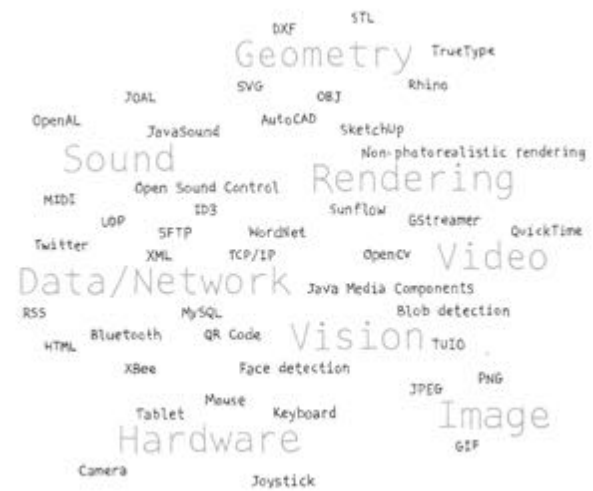
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THE CODE

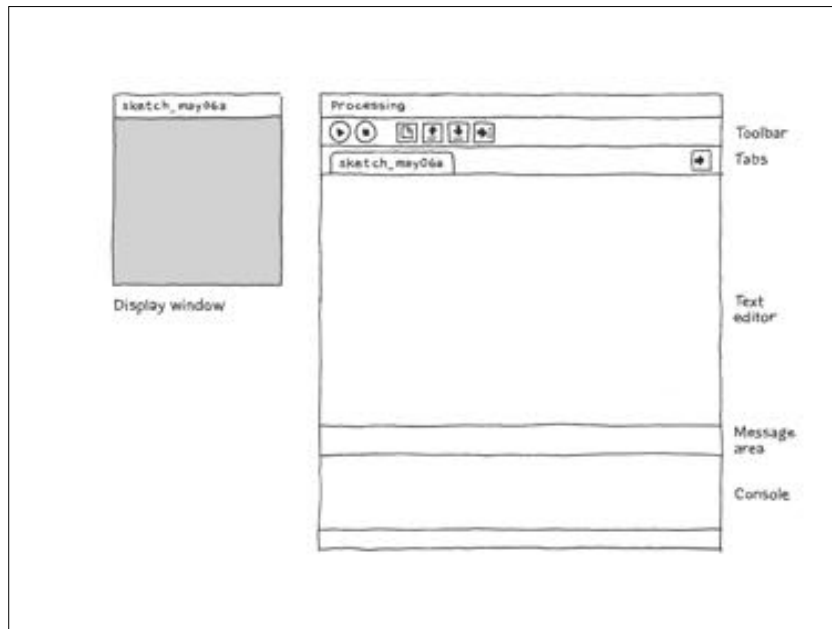
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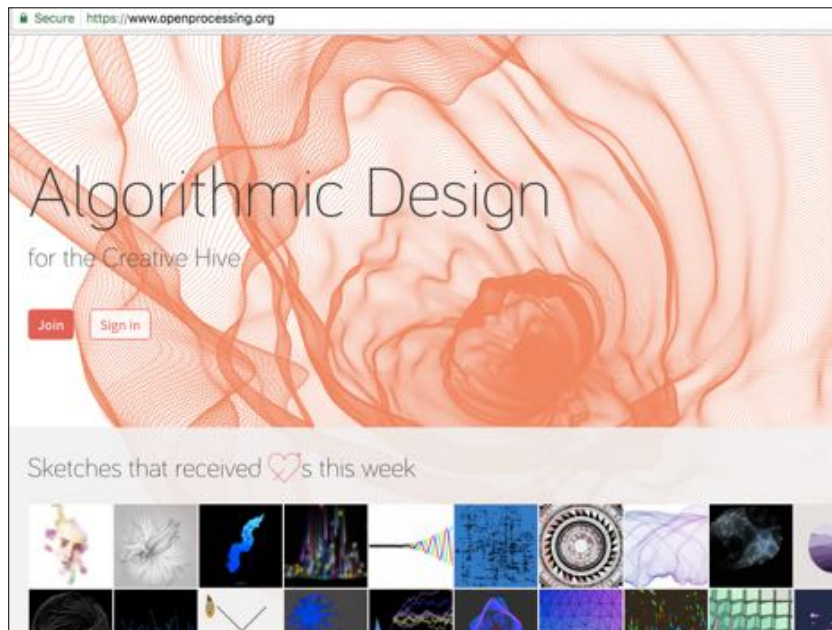
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