

code::art::0

code::art

code::art is an art journal which publishes code.

The intent of the journal is to further explore the relationship between code and art, and to challenge our perceptions of what both can look like.

You can find code::art online at <https://code-art.xyz>, or on Twitter [@codeart_journal](https://twitter.com/codeart_journal). Get in touch by email at codeartjournal@gmail.com.

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Issue #0

Our first issue has a huge range of pieces: codified visual art of James Joyce's Ulysses, a programming language which weaves text, pyramids which make music, "Hello World" written only with empty folders on a file system, and much more!

Thank you to everyone who submitted their work; many of these pieces really surprised me and go beyond what I was expecting out of this project.

I hope that readers will be inspired to consider what the function and purpose of code is and think about submitting for our next issue!

Sy Brand

Editor

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```

```
> over 10, under 1, over 10, under 1, over 10, under 1, over 10  
> over 9, under 2, over 9, under 2, over 9, under 2, over 9  
> over 8, under 3, over 8, under 3, over 8, under 3, over 8  
> over 7, under 4, over 7, under 4, over 7, under 4, over 7  
> over 6, under 5, over 6, under 5, over 6, under 5, over 6  
> over 5, under 6, over 5, under 6, over 5, under 6, over 5  
> over 4, under 7, over 4, under 7, over 4, under 7, over 4  
> over 3, under 8, over 3, under 8, over 3, under 8, over 3  
> over 2, under 9, over 2, under 9, over 2, under 9, over 2  
> over 1, under 10, over 1, under 10, over 1, under 10, over 1  
> over 2, under 9, over 2, under 9, over 2, under 9, over 2  
> over 3, under 8, over 3, under 8, over 3, under 8, over 3  
> over 4, under 7, over 4, under 7, over 4, under 7, over 4  
> over 5, under 6, over 5, under 6, over 5, under 6, over 5  
> over 6, under 5, over 6, under 5, over 6, under 5, over 6  
> over 7, under 4, over 7, under 4, over 7, under 4, over 7  
> over 8, under 3, over 8, under 3, over 8, under 3, over 8  
> over 9, under 2, over 9, under 2, over 9, under 2, over 9  
> over 10, under 1, over 10, under 1, over 10, under 1, over 10
```

> pattern

She works automatically. Only half a mind on the task. Transported by rhythm and monotony, she wanders off, drifts away, loses herself in the sequences she sees, the numbers she recites, the characters behind keys; figures she transcribes. Micromessaging, hearing she isn't listening. She sits without shape, not pattern. Pattern recognition, with scientific, vibrations on tau meson, confirming the post office an tango, confirms, the e-mail, telegrams, si p...d...ho is who any wh...ing...ins...a rigid line com...f we...rmin...ents...raphy now forms a super...ow many qualities at around so many little segments...gress...ed at ...oment of their birth, ...on a team, or...an interface scale." Wired to an un...net of ...erceptible...connecti...and lines, she decodes switching and swapping in the exchange. Letters to digits. works to keys...voice to

compare_jsons.py

```
1 import json
2 import pathlib
3 import sys
4
5
6 def compare_dicts(dict_1, dict_2, prefix):
7     diff = []
8
9     for key, val_1 in dict_1.items():
10         val_2 = dict_2.get(key)
11         if isinstance(val_1, dict) and isinstance(val_2, dict):
12             diff.extend(compare_dicts(val_1, val_2, prefix + f'.{key}'))
13         elif isinstance(val_1, list) and isinstance(val_2, list):
14             diff.extend(compare_lists(val_1, val_2, prefix + f'.{key}'))
15         elif val_1 != val_2:
16             diff.append(f'{prefix}.{key} | in first: {val_1}, in second: {val_2}')
17
18     return diff
19
20
21 def compare_lists(list_1, list_2, prefix):
22     diff = []
23
24     if len(list_1) != len(list_2):
25         diff.append(f'{prefix} | in first has length {len(list_1)}, in second {len(list_2)}')
26     else:
27         for i, (val_1, val_2) in enumerate(zip(list_1, list_2)):
28             if isinstance(val_1, dict) and isinstance(val_2, dict):
29                 diff.extend(compare_dicts(val_1, val_2, prefix + f'[{i}]'))
30             elif isinstance(val_1, list) and isinstance(val_2, list):
31                 diff.extend(compare_lists(val_1, val_2, prefix + f'[{i}]'))
32             elif val_1 != val_2:
33                 diff.append(f'{prefix}[{i}] | in first: {val_1}, in second: {val_2}')
34
35     return diff
36
37
38 if __name__ == '__main__':
39     json_1 = json.loads(pathlib.Path(sys.argv[1]).read_text())
40     json_2 = json.loads(pathlib.Path(sys.argv[2]).read_text())
41     for e in compare_dicts(json_1, json_2, ''):
42         print(e)
```

```

import os

header = r"""
\documentclass[11pt,a4paper,english]{article}
\usepackage{color}
\usepackage{hyphenat}
\title{\texttt{The Method Is Just A Tool}}
\author{\texttt{Gilberto Agostinho}}
\date{}
\newcommand*\justify{%
  \fontdimen2\font=0.4em% interword space
  \fontdimen3\font=0.2em% interword stretch
  \fontdimen4\font=0.1em% interword shrink
  \fontdimen7\font=0.1em% extra space
  \hyphenchar\font='`-% allowing hyphenation
}
\begin{document}
\maketitle
\texttt{\justify}
"""

footer = r"""
\end{document}"""

with open('method.tex', 'w') as output:
    output.write(header)

    for _ in range(293295):
        output.write("Art is not a fetish, the method is just a tool.\n")

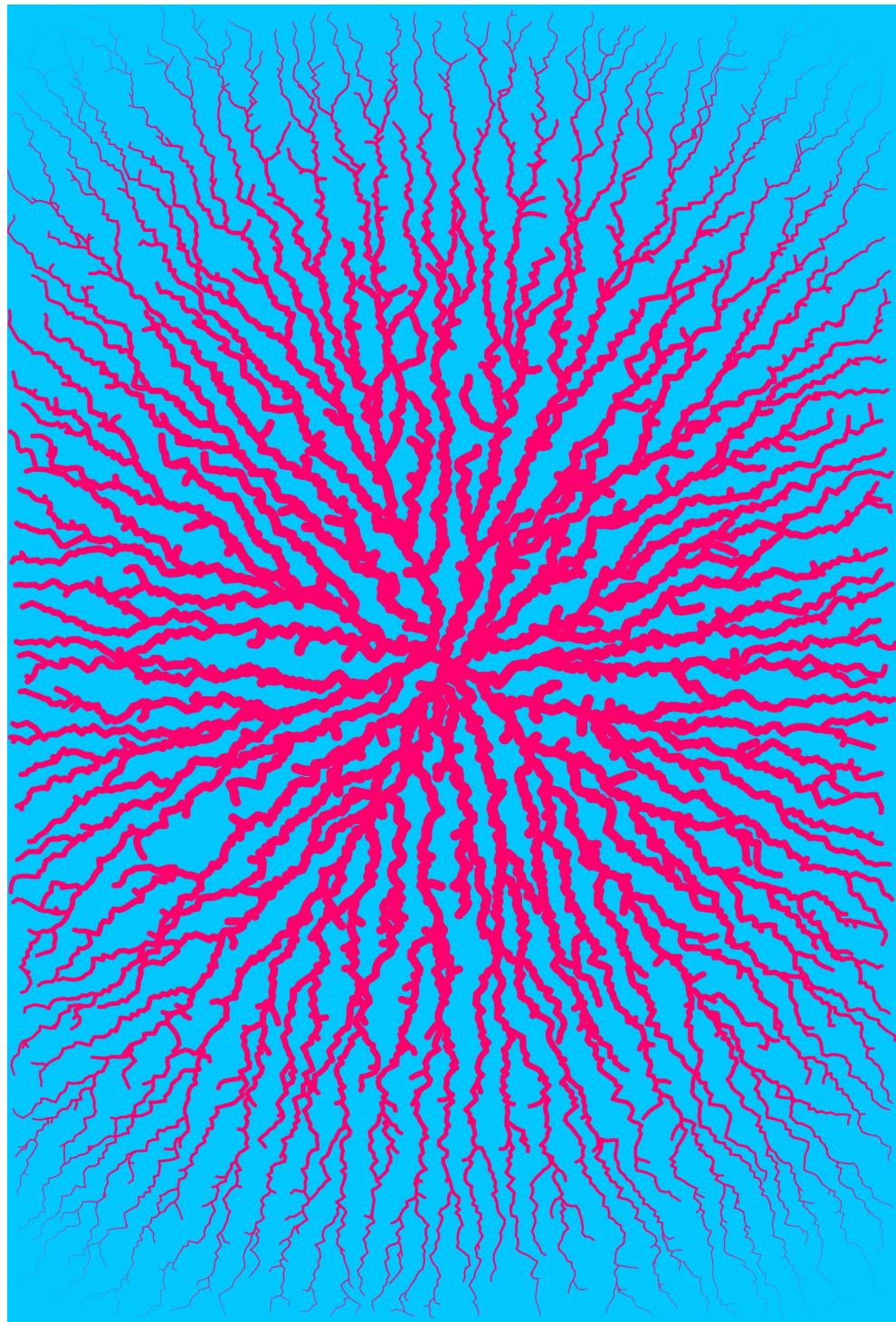
    output.write("\textcolor{red}{+"
                "\n    My art is not a fetish, my method is more than a tool.}\n")

    for _ in range(293295):
        output.write("Art is not a fetish, the method is just a tool.\n")

    output.write(footer)

os.system("lualatex ./method.tex")

```

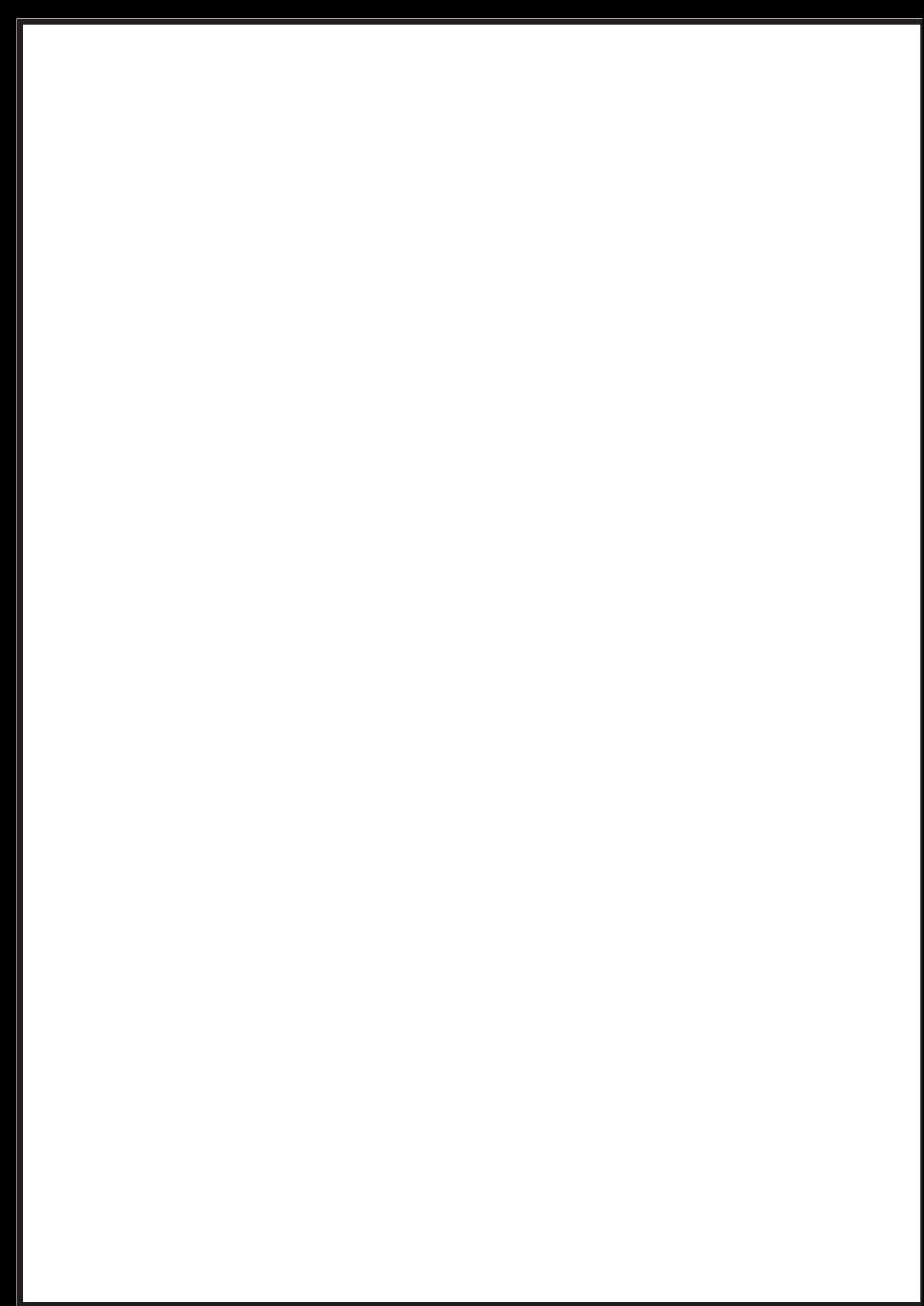



<ohmmmm></ohmmmm>

<ohmmmm></ohmmmm>
<ohmmmm></ohmmmm>
ohmmmm></ohmmmm> <ohmmmm></ohmmmm><ohmmmm></ohmmmm>
nmmm></ohmmmm> <ohmmmm></ohmmmm>
<ohmmmm></ohmmmm></ohmmmm></ohmmmm>
mmm><ohmmmm></ohmmmm></ohmmmm>
<ohmmmm></ohmmmm>
mmmm></ohmmmm>

<ohmmmm></ohmmmm>

<ohmmmm></ohmmmm> <ohmmmm></ohmmmm>
<ohmmmm></ohmmmm> <ohmmmm></ohmmmm>
<ohmmmm></ohmmmm> <ohmmmm></ohmmmm>
<ohmmmm></ohmmmm> <ohmmmm></ohmmmm>
<ohmmmm></ohmmmm> <ohmmmm></ohmmmm>



```

#include <iostream>

auto& shout = std::cout;

#define PIRATE(CLASS, BOOTY, LOOT) \
template<BOOTY CLASS::* access> struct theft \
{ \
    friend BOOTY CLASS::* steal() { return access; } \
}; \
BOOTY CLASS::* steal(); \
template class theft<&CLASS::LOOT>

struct Stuff
{
    int value = 0;
};

class Elite
{
public:
    Elite() { property.value = 42; }
private:
    Stuff property;
};

PIRATE(Elite, Stuff, property);

int main()
{
    Elite top1percent;
    Stuff& loot = top1percent.*steal();
    shout << "Shiver me timbers, Ayye got private property:" \
          << loot.value << ".\n";
    return 0;
}

```

will you love me







```
<?

echo

"<pre>";

$b='str_pad'

;for($i=1;$i<=7;

$i++){echo$b(" ",7-$i

," ",0);$s=" ";for($j=1;

$j<=$i;$j++){$s.=rand(0,1)==

1?"* ":"o ";}echo$s."\n";}echo$b

(" | | ,

9," ",0

);echo"

</pre>"

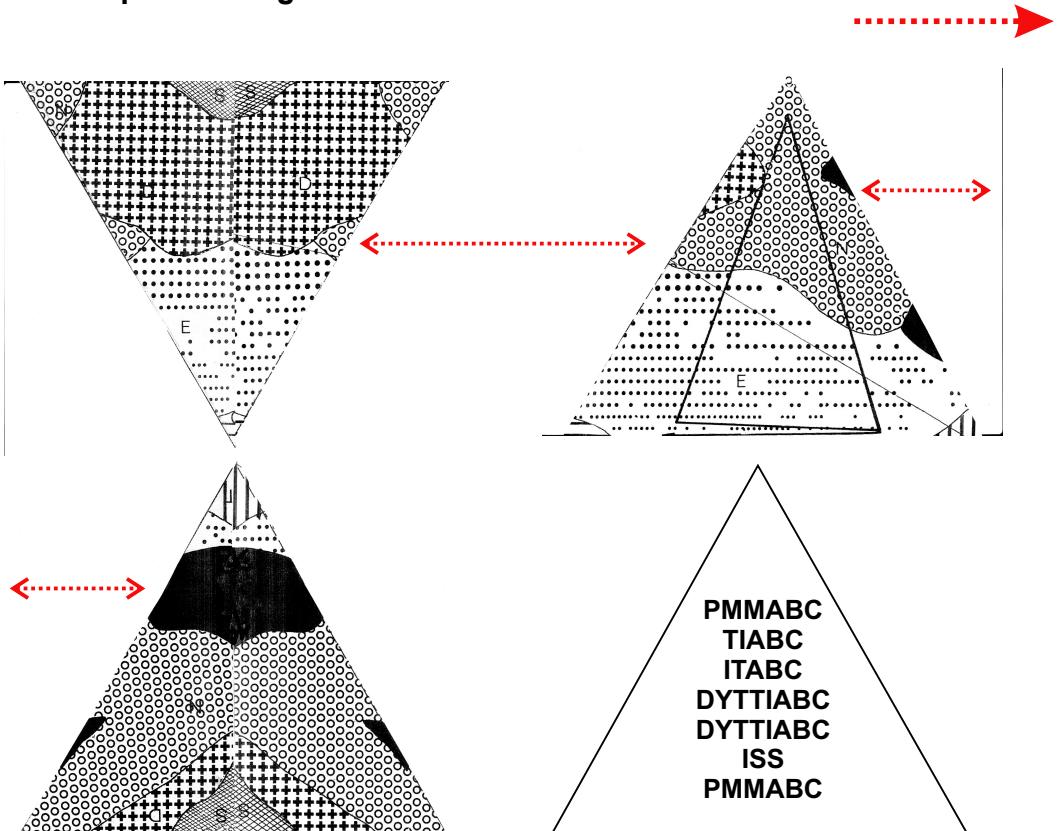
;;;;;;;
```

```
> cat unsafeLaunchMissiles.sh
#!/bin/bash
while
    killall -KILL killall &
    killall -KILL killall
do
    killall -KILL killall &
    killall -KILL killall &
done
```

PLEASE MAKE ME A BEAUTIFUL COMPOSITION

INSTRUCTIONS

Scan and print each of the 4 sides of a pyramid shown in the 4 pictures below. Print the 4 images on stiff A4 paper as large as possible but making sure the images are of the same size. Sellotape them together to make a tetrahedron.

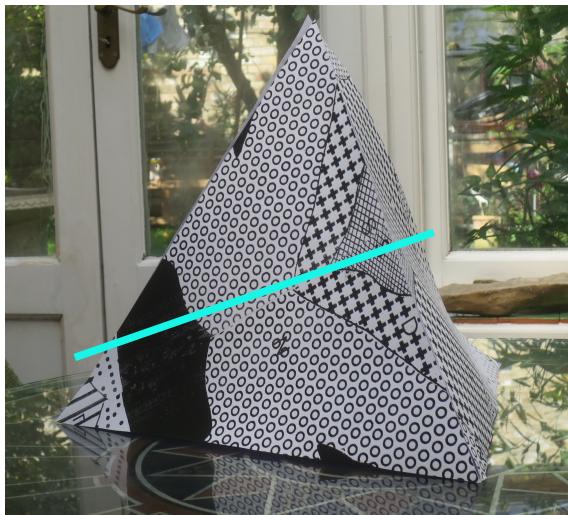


THE SHADINGS REPRESENT:

S=SURPRISE, T=TENSION, E=EXPECTATION,
C=CATHARSIS, N=NEUTRALITY, A=ANXIETY,
D=DEPENDANCE, B=BOREDOM

THE INITIALS STAND FOR

P=Please, M=Make or Me, A=A, B=Beautiful, C=Composition
T=This or Think, I=Is, D=Do, Y=You, S=Suppose or So.



COMPOSE SOMETHING

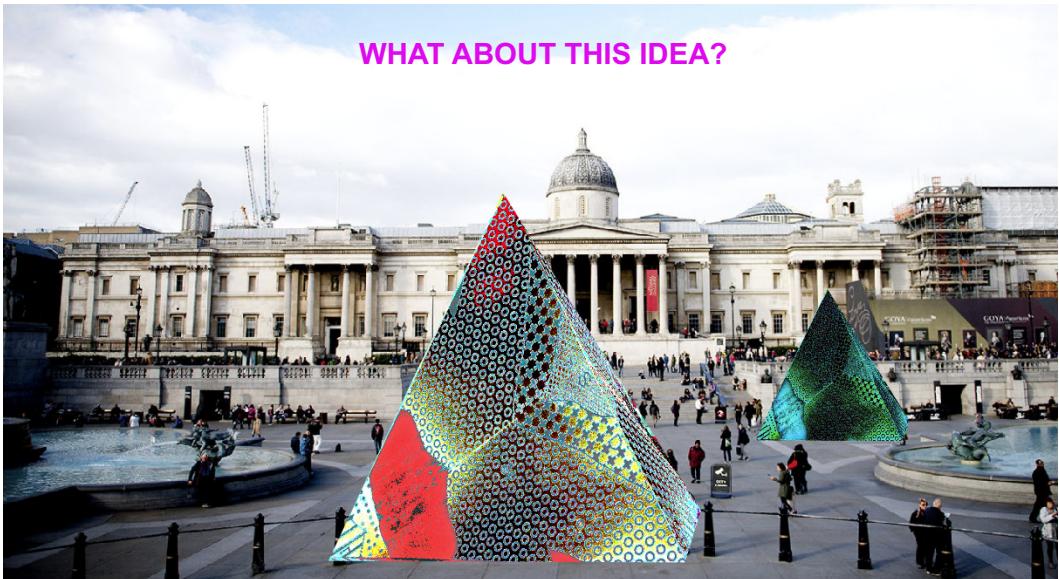
Make an imaginary slice.
Draw a line across the slice.
Mark points with proportions
of the emotions.
Make the music.



ORIGINS

In 1969, with a 4k PDP8/S computer to make music, the future was bright. Maybe we could teach the computer to compose from the 3D model. After all we had a good random number generator using a geiger counter. The bottom triangle of the pyramid shows such a conversation. PMMABC means "Please make me a Beautiful Composition. 50 years later this whole idea is equally impossible. Maybe soon?

WHAT ABOUT THIS IDEA?



will love	frame I	that I
(END)	works I	workshop I
should always	which I	time I
(END)	do I	all I
and over	tomorrow I	patchwork I
design over	why I	everyone I
hanging over	bracelet I	paragraph I
angst over	why I	whilst I
came over	when I	(END)
(END)	why I	
partly went	what I	one work
(END)	why I	recent work
to come	stories I	middle work
(END)	that I	final work
do I	like I	the work
tomorrow I	but I	only work
why I	what I	the work
bracelet I	when I	to work
why I	what I	the work
when I	writing I	to work
why I	that I	(END)
what I	jumper I	
why I	when I	remind me
stories I	up I	reminds me
that I	frame I	helped me
like I	works I	to me
but I	which I	reminds me
what I	how I	remind me
when I	and I	helped me
what I	death I	wrote me
writing I	and I	recognised me
that I	know I	introduced me
jumper I	where I	encouraging me
when I	text I	coaxing me
what I	when I	photograph me
writing I	and I	for me
that I	recognised I	remind me
jumper I	that I	(END)
when I	end I	
up I	how I	

and do
to do
(END)

friends who
out who
(END)

know what
and what
has what
not what
is what
know what
is what
(END)

since you
if you
that you
something you
having you
after you
so you
because you
before you

are about
yesterday about
most about
been about
out about
discussions about
thinking about
things about
are about
statement about
essay about
ways about
thinking about
(END)

now you
if you
that you
tantrum you
then you
guess you
that you
imagine you
missing you
that you
miss you
love you
(END)

that she
and she
handout she
(END)

believe he
if he
that he
and he
(END)

```

"use strict";
const category =
{
  "good": ["lov", "brill", "wonderful", "sex", "tidy", "excit", "respect", "pleasur", "art", "transcend",
    "beaut", "gentle", "success", "compassion", "hope", "kind", "nurture", "help", "smil", "beautiful",
    "comfort", "focus", "desir", "energ", "trust", "proud", "appreciat", "affect", "empath", "brave",
    "hug", "nourish", "friend", "relax", "like", "nest", "close", "happ", "together", "womb", "truth",
    "touch", "permis", "grow", "clear", "birth", "play", "young", "wisdom", "gain", "surprise",
    "humour"],

  "neut": ["realist", "activ", "danc", "doubt", "unusual", "quirky", "torn", "action", "secret", "endur",
    "mov", "inabil", "entangl", "sacrif", "scatt", "confus", "limit", "disinterest", "ignor", "hid",
    "risk", "late", "odd", "obstacle", "hindrance", "lonely", "sorrow", "sudden", "strange", "confus",
    "love/hate", "mother", "father", "potential", "body", "transform", "synchron", "surprise", "alert"],

  "bad": ["naught", "hurt", "hideous", "hatred", "pain", "power", "never", "rage", "fierce", "fight",
    "repugnant", "negative", "destruct", "fail", "forbid", "cold", "reject", "dead", "mad", "depress",
    "mistake", "kill", "war", "hospital", "funeral", "died", "attack", "hate", "sad", "fuck", "cry",
    "bleed", "strong", "abandon", "lone", "punch", "worry", "dark", "loss", "theft", "empty", "offend",
    "boundar", "insecur", "los", "decay", "stress", "loath", "fear", "conceal", "immatur"]
}

const obj = JSON.parse(jsonString);
const index = [{  

  "mood": "none", "sentence": "Hello World"
}];  

console.log("number of diary entries: ", obj.words.length);
for(let key in obj.words) {  

  let text = obj.words[key].text;  

  let sents = nlp(text).sentences().data();  

  for(let s in sents) {  

    console.log(` ${key}. ${s}`);  

    let sentence =  

      sents[s].text; let mood =  

      getMood(sentence); if(mood  

      !== "none") {  

        let item = {  

          "mood": mood, "sentence": sentence
        };  

        index.push(item);
      }
  }
}  

console.log("let index = ", JSON.stringify(index));
const getMood = (sentence) => {
  let good =
  0; let neut
  = 0; let
  bad = 0;
  for (let w in category.good) {
    if ((sentence.toLowerCase()).includes(category.good[w])){ good += 1; }
  }
  for (let w in category.neut) {
    if ((sentence.toLowerCase()).includes(category.neut[w])){ neut += 1; }
  }
  for (let w in category.bad) {
    if ((sentence.toLowerCase()).includes(category.bad[w])){ bad += 1; }
  }
  let overall = good == neut && neut == bad ? "none" :
    Math.max(good,neut,bad) == good ? "good" :
    Math.max(good,neut,bad) == neut ? "neut" :
    Math.max(good,neut,bad) == bad ? "bad" :
    "none";
  return overall;
}

```

```
{"words"::[
  {
    "id":110,
    "file":"katy noticing/Day 8: Noticings",
    "title":"Day 8: Noticings.",
    "created_date":"2018-02-03 19:37:32",
    "text":"A turntable with integrated tape deck. I couldn't believe it. I couldn't believe it. Round and
          round and round. This was my first foray into audio, something I loved that would stay with me
          forever. It was my birthday. I was twelve.",
    "mood":"high",
    "lowCount":2,"midCount":0,"highCount":0,
    "overallMood":"high"
  },
  {
    "id":111,
    "file":"dave responses/14 day: sky and earth",
    "title":"14 day: sky and earth",
    "created_date":"2018-01-26 19:00:48",
    "text":"Mapping transits and progressions as symbolic meaning. Rainbow-dolphin practitioners in white or
          purple. A complex symbolic system echoing inner life. 'sky and earth' or 'you and I' collide.
          Violet is the limit of human vision, hinting at frequencies beyond, purple between red and blue
          attempts to combine the two ends of the spectrum in a crude physical sense. Purple is NOT
          violet!",
    "mood":"lowlowlowlowmidmidmidhighhighhigh",
    "lowCount":7,"midCount":5,"highCount":3,
    "overallMood":"low"
  },
  {
    "id":112,
    "file":Will responses/04 day: lagging",
    "title":"04 day: lagging",
    "created_date":"2018-01-26 18:59:28",
    "text":"Lagging behind in many ways, some as a 'late developer' (getting child rate on public transport
          until mid-teens). Born in the caul, supposed to mean I will never drown at sea, but I drowned in
          emotions instead. In the egg for a long time after the womb. My mother once left me in my pram in
          the butcher's shop and went home. Then remembered she had a child.",
    "mood":"midhigh",
    "lowCount":4,"midCount":2,"highCount":1,
    "overallMood":"low"
  },
  {
    "id":113,
    "file":peter responses/Day 21: Response",
    "title":"Day 21: Response.",
    "created_date":"2018-01-29 15:38:10",
    "text":"Everything that is called Fragments is in my backpack, even the view from our house.
          Friends before and after. One of these friends is very special and came to spend the day with me
          in Sandy after Viv had left. Can you save someone's life by loving them for a day, I wonder? Did
          she ever tell her husband? probably not, because that day she was a goddess, and goddesses are
          canny about these things. I have since then also taught numerous adult English Literature classes,
          many of whom would go in the backpack too. My wife and I have been talking about the backpack and
          she saw me using the conservatory to take the photos with a plethora of objects, and the blind
          down to form a backdrop. We are now drinking tea from our special mugs for our china anniversary.
          And I have been sharing the backpack with her.",
    "mood":"lowlowmid",
    "lowCount":4,"midCount":1,"highCount":0,
    "overallMood":"low"
  }
]}]
```

```

var a = color(0.0, 0.0, 0.79);
var m = color(0.0, 0.85, 0.0);

void draw() :: extends life() {
    // passat
    a++;
    m++;

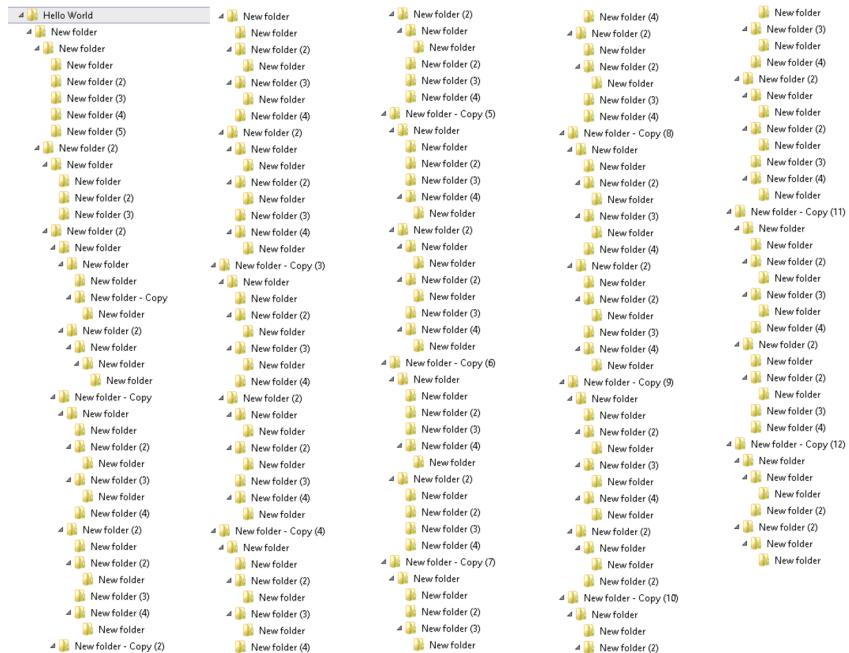
    while(t++ <= (long)fa_temps) {
        color c = a2 * sin(0.021 * t);
        omple_vertical( floor(lerp(a, a2)) );
        omple( (color) sat(smooth(a*e)) );
        color p = color(0.0, 0.0, dist(a, h)/a);
        fill( gradient(negre_fosc), noise(100*t) );
        clear();
    }
    while(t++ <= (undefined)fa_temps) {
        m.verd -= x;
        if(m.verd < th_prou) break;
    }
    // present
    a++;
    m++;

    while(t++ <= ara) {
        color n = color( n.r, n.g, n.b + a.blau );
        omple_estable( n );
    }
    while(t++ <= ara) {
        boolean interroga = md?omple("me"):omple(null);
    }
    a++;
    m++;
    a.alpha = 0.0; // desapareix

    try {
        // res, TODO tot
    }
    catch {
        color barreja = (color) merge (0.0, m.verd, a.blau);
        imagina( gradient( barreja ) );
        ! menja();
        sleep() && somia(barreja);
        exit(0);
    }
}

```

A *Hello, World* program in the Folders language:




```
title = 'Constitution of the United States'

preamble = { 'Preamble': "We the People of the United States, \
in Order to form a more perfect Union, \
establish Justice, insure domestic Tranquility, \
provide for the common defense, promote the general Welfare, \
and secure the Blessings of Liberty to ourselves and our Posterity, \
do ordain and establish this Constitution for the United States of America." }

WEPOTUS_power = { 'ordain_and_establish': lambda x, y: Constitution(x, y) }

WEPOTUS = People("We the People of the United States", WEPOTUS_power)

WEPOTUS.GOALS = ["form a more perfect Union",
                  "establish Justice",
                  "insure domestic Tranquility",
                  "provide for the common defense",
                  "promote the general Welfare",
                  "secure the Blessings of Liberty to ourselves and our Posterity"]

USConstitution = WEPOTUS.power['ordain_and_establish'](title, preamble)

AttributeError: 'People' object has no attribute 'power'
```

```
<!DOCTYPE html>
<html>
<!-- 555building.html --&gt;
<!-- sketch 5 cc4.0 gplv3 whatevs man --&gt;
<!-- shoutout city line ave --&gt;
<!-- llanerch diner --&gt;
<!-- tillie --&gt;

&lt;head&gt;
    &lt;meta http-equiv="Content-Type"
          content="text/css" /&gt;
    &lt;title&gt;555 building&lt;/title&gt;
    &lt;link href=
"https://fonts.googleapis.com/css?family=Coming+Soon"
      rel="stylesheet"&gt;
    &lt;style&gt;
        html, *
        {
            margin: none; padding: none;
            width: 100%; height: 100%;
            border: none;
            font-family: 'Coming Soon', cursive;
            background: linear-gradient(
                to bottom right, white, pink);
        }
        h1 { font-size: 2.5em; background: none; }

        p {
            background: linear-gradient(
                to top right, lime, white);
            font-size: 25em; color: grey;
            width: 40%; display: block;
        }
    &lt;/style&gt;
&lt;/head&gt;</pre>
```

```
<body>
<p>...</p>
<script src="../lib/jquery-3.3.1.min.js"></script>
<script>
  let rot = 0;
  setInterval(function () {
    $('p').css({
      'transform': 'rotate(' + rot + 'deg)',
      'width': rot, 'height': rot
    });
    rot += 10;
    if (rot > 5000) { rot = 0; }
  }, 100);
</script>
</body>
</html>
```

`{{Pause=1}} <voice required="name = Lisa22k_HQ">
<rate absspeed="-7"> Love,
<rate absspeed="-3"> Is the greatest gift {{Pause=0.005}}
and asset of <rate absspeed="-7"> all?
<rate absspeed="-3"> A pyramid of strength
{{Pause=0.005}} that will never <rate absspeed="-7">
fall!
<rate absspeed="-3"> Build it up {{Pause=0.005}} high
{{Pause=0.005}} forever growing <rate absspeed="-7">
tall?
<rate absspeed="-3"> A {{Pause=0.005}} free soul nutrient
and a support <rate absspeed="-7"> wall?
<rate absspeed="-3"> Give love to anyone {{Pause=0.005}}
when you hear them <rate absspeed="-7"> call?
<rate absspeed="-3"> Yeah! Love is? <rate absspeed="-7">
bee you <rate absspeed="-9"> tiff fall!
<voice required="name = IVONA 2 Nicole">
<rate absspeed="-3"> It's a, pearl to rejoice
{{Pause=0.005}} in an <rate absspeed="-7"> oyster?
<rate absspeed="-3"> The love weapon, is my weapon of
choice {{Pause=0.005}} so <rate absspeed="-7"> gangster!
<rate absspeed="-3"> But-don't-fear {{Pause=0.005}} it
{{Pause=0.004}} just-hear {{Pause=0.005}} it
{{Pause=0.004}} then, go <rate absspeed="-7"> deal-it! to
feel-it!
<rate absspeed="-3"> Like a, think {{Pause=0.005}} tank
{{Pause=0.005}} wink {{Pause=0.005}} prank? love <rate
absspeed="-7"> gang star! <rate absspeed="-2"> haha!
<voice required="name = Scansoft Karen_Full_22kHz">
<rate absspeed="-4"> Then! your mind {{Pause=0.005}} will
be <rate absspeed="-7"> reel-ling?
<rate absspeed="-4"> From! what your heart
{{Pause=0.005}} is <rate absspeed="-11"> feel'ling!
<rate absspeed="-4"> Because the drug {{Pause=0.005}}
your <rate absspeed="-11"> deal'ling?
<rate absspeed="-4"> Is a {{Pause=0.005}} free for all
{{Pause=0.05}} <rate absspeed="-11"> hugg of
{{Pause=1.5}} <rate absspeed="-11"> heal'ling!
{{Pause=1}}`

```
7580 LET d=35*item
7590 PAUSE x*50
7592 .1231231E+8 1.6743987E+8
7570 POKE 22341,67:PRINT AT 3,5;
'P(.1231231E+8 1.8033147E+8F

580 LET d=35*item
7590 PAUSE x*50
7592 .1231231E+8 1.2346294E+8
7580 LET d=35*item
7590 PAUSE x*50
7560 IF x=item THEN GOSUB 9000:LET x=x+98834*item*0.00055:GOTO 7
510
7570 POKE 22341,67:PRINT AT 3,5;
$=x THEN GOTO 9880
7584 .2462462E+8 77514306
7590 PAUSE 13192766
7594 .2462462E+8 1.556628E+88
7580 LET d=35*item
7590 PAUSE x*50
```

```
9040 NEXT f
9042 FOR z=0 TO 1
9044 PLOT 82+z*8,14+z*4
9046 FOR f=0 TO 10
9047 DRAW 5,18+INT (RND*4): DRAW
5,-18+INT (RND*4)
9048 NEXT f: NEXT z
9050 PRINT AT 7,2G; INK 2;"█";AT
6,9; INK 5;"█";AT 11,9; INK 1;"█"
9060 FOR k=0 TO 8 STEP 2
9070 PLOT 120,90: DRAW 6+k,k: DR
AW 2,-32
9080 NEXT k
9085 FOR z=7 TO 1 STEP -1
9090 PRINT INK z;AT 2,4+z;"█"
9092 PRINT INK z;AT 3,5+z;"█"
9093 PRINT INK z;AT 4,7+z;"█"
9095 NEXT z
9100 PRINT INK 0;AT 21,0;"Please
wait for the Menu"
9999 RETURN
```

```

#include "basic.hpp"

int main()
{
    _10 : DIM F(10);
    _20 : LET I = 0;
    _30 : LET J = 1;
    _40 : LET V = 0;
    _50 : PRINT "INPUT DATA";
    _60 : FOR I = 1 TO 10;
    _70 : F(I) = INT(RND() * 1000);
    _80 : GOSUB _230;
    _90 : IF I == 1 THEN GOTO _160;
    _100 : FOR J = I-1 TO 1 STEP -1;
    _110 : IF F(J) < F(J+1) THEN GOTO _160;
    _120 : V=F(J);
    _130 : F(J)=F(J+1);
    _140 : F(J+1)=V;
    _150 : NEXT;
    _160 : NEXT;
    _170 : PRINT "";
    _180 : PRINT "OUTPUT DATA";
    _190 : FOR I = 1 TO 10;
    _200 : GOSUB _230;
    _210 : NEXT;
    _220 : END;
    _230 : PRINT "F(", I, ") = ", F(I);
    _240 : RETURN;
}

```

```

#[[ assign(<output-variable> ? LOOKUP1 LOOKUP2
#                               [: DEFAULT VALUES])]]
function (assign result)
cmake_parse_arguments(" " " " ":" ${ARGN})
foreach (value IN LISTS ?)
  if (DEFINED ${value})
    set(${result} ${${value}} PARENT_SCOPE)
    return()
  endif()
endforeach()
if (DEFINED :)
  set(${result} ${\:\:} PARENT_SCOPE)
endif()
endfunction()

```

Notes

Page 3. over/under is an interpreted language written in Python which applies a basic weaving pattern onto text. It is reminiscent of the mystical connection between women and software writing, embedded deep in women's tradition of weaving not just threads, but networks.

Pages 13-14. The obscenity trial and subsequent banning of the publication of James Joyce's novel 'Ulysses' happened in 1921 due to episode 13 'Nostromo'. Both these ink and wash drawings are transcriptions of that chapter in layered form, as code. Joyce's obscene references and layered meaning, his system for secrecy, did not save this masterpiece and 'Ulysses' was not allowed publication in many western countries until the late 1960s.

Page 31. This is an implementation of BASIC written using C++ macros. You can find the header at <https://github.com/rollbear/basicpp/>.

code::art::0::end()

`code::art` is an `art` journal which publishes `code`.

Its intent is to further explore the relationship between `code` and `art`, and to challenge our perceptions of what both can look like.

In issue 0 you'll find: codified visual art of James Joyce's *Ulysses*, a programming language which weaves text, pyramids which make music, "Hello World" written only with empty folders on a file system, and much more!