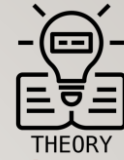


# COSC 105

# INTRODUCTION TO COMPUTING AND THE **ARTS**



THEORY



SYSTEMS



PROGRAMMING

*Meeting times:*

**Fall 2021:** Mon, Wed, Fri @ 1:30 AM - 2:20 PM

*Instructor:*

**Mihaela Malita**

<https://mmalita.people.amherst.edu>

Computer Science Department, Amherst College

Email: [mmalita@amherst.edu](mailto:mmalita@amherst.edu) Cell: 603-361.2190



*Prerequisite:* **None...**

# COSC 105 INTRODUCTION TO COMPUTING AND THE ARTS

*..introductory course explores **computation as an artistic medium**, with creative approaches to computer programming as the central theme. Through readings, viewing, group discussion, labs, projects, critiques and guest artist/ researcher presentations, we examine a range of **computational art** practices, while developing a solid foundation in basic **computer programming** approaches and techniques.*

**We will use *Modern & Contemporary Art* examples that we will reproduce and code using basic **computer graphics** techniques.**

**Creation of new **digital art** will be based on our class examples.**



# COSC 105 INTRODUCTION TO COMPUTING AND THE ARTS

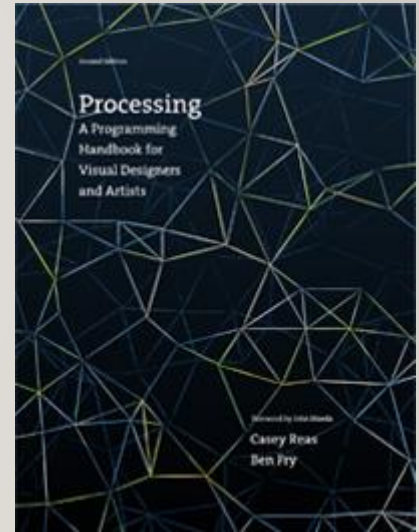
## Our Textbook:

Casey Reas, Ben Fry, Processing, *A Programming Handbook for Visual Designers and Artists*, Second edition, 2014, MIT Press. <https://processing.org/books/>

Our software: <https://processing.org/>

**Processing** is an **open-source** graphical library and **integrated development environment** (IDE)

built for the electronic arts, **new media art**, and **visual design** communities with the purpose of teaching non-programmers the fundamentals of **computer programming** in a visual context.

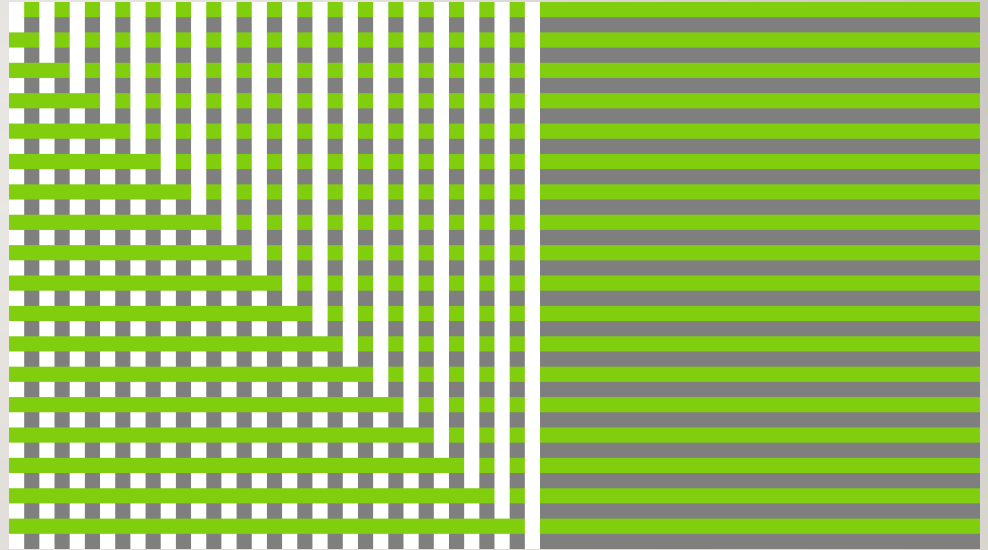


# COSC I05 EXAMPLE: [HTTPS://PROCESSING.ORG/EXAMPLES/WIDTHHEIGHT.HTML](https://processing.org/examples/widthheight.html)

*The image produced:*

*Your code in processing:*


```
void setup() {  
  size(640, 360);  
}  
void draw() {  
  background(127);  
  noStroke();  
  for (int i = 0; i < height; i += 20) {  
    fill(129, 206, 15);  
    rect(0, i, width, 10);  
    fill(255);  
    rect(i, 0, 10, height);  
  }  
}}
```

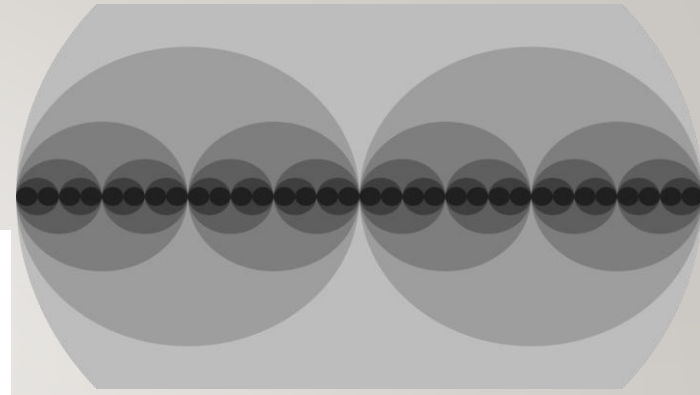




# COSCI05: LEARNING OUTCOMES

learn a programming language (Processing)  
while gaining an appreciation for **digital art**.

- Learn basic Geometry 2D and 3D (needed for drawing)
- how to code in Processing
- understand, recognize and  **Modern ART** styles
- Be able to create your own piece of **digital art**
- Present your **artistic** portfolio



<https://processing.org/examples/widthheight.html>

# COSCI05: CODE!

If you know how to **code** in  
Processing...

then

You know how to

**CODE!**



```
for (int i = 0; i < 40 ; i++ ) {  
  x = random(width);  
  y = random(height);  
  fill(color(random(255),random(255),random(255)));  
  textSize(random(60));  
  text( "Art", x, y );  
}
```

*Jack **never** took a computing class!*

*Jack, for his final project selected the best **digital art** that he produces over the semester and made a power point.*

*After one semester of **Computing and Art** this was his final project... see next 12 slides*

# Jack XXX

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**FINAL PORTFOLIO CS255 SPRING 2019**

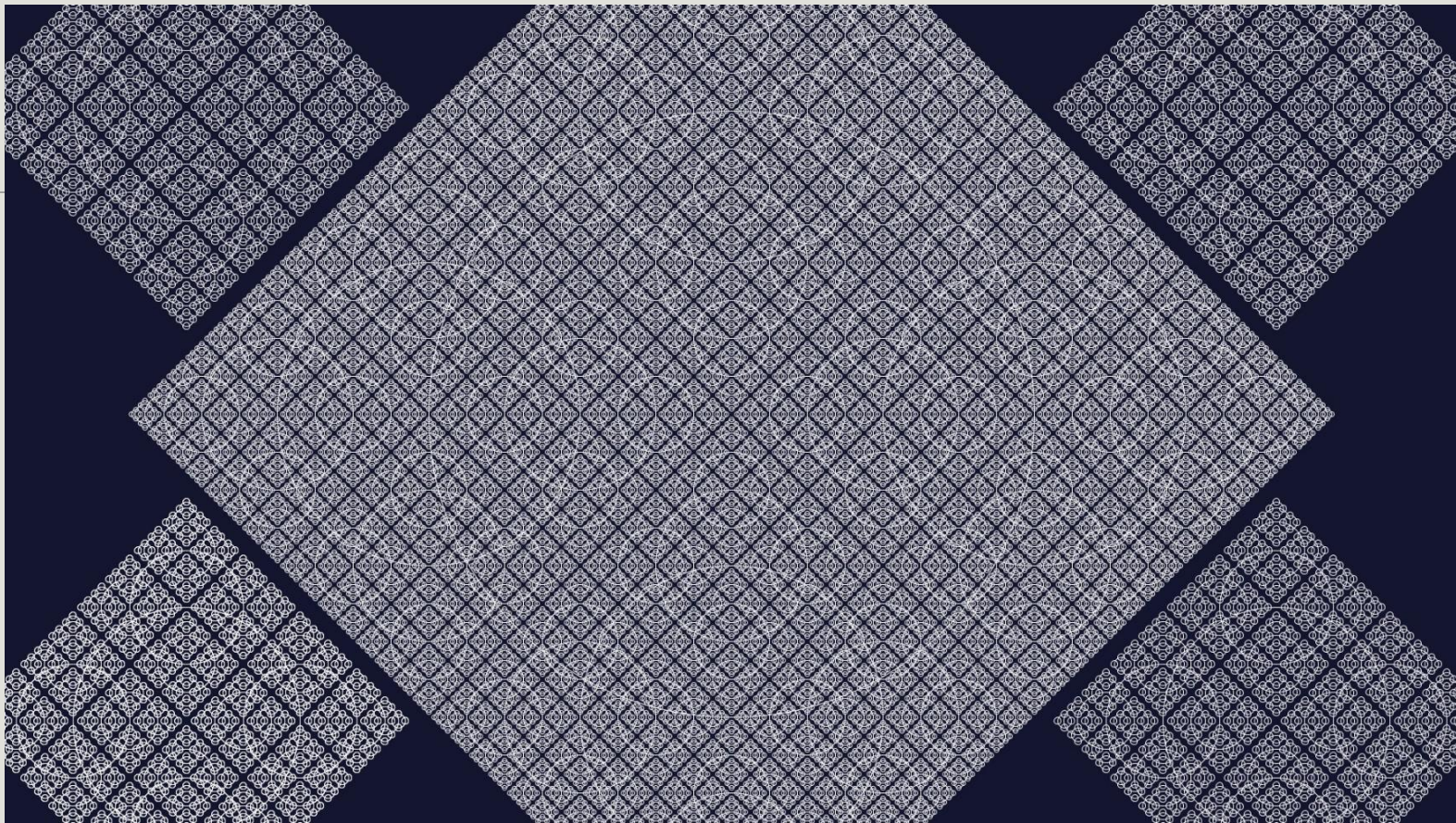
NO MISTAKES, JUST HAPPY ACCIDENTS – B.R.

Jack

The image is a word cloud where the word "Jack" is the sole element. It is rendered in a wide variety of colors including shades of green, blue, red, purple, yellow, and brown. The sizes of the text vary significantly, with some instances being large and bold, while others are small and faint. The words are scattered across the white background, with some overlapping. The overall effect is a dense, colorful pattern of the name "Jack".



Feelin'  
Mazey-  
Jack  
XXX



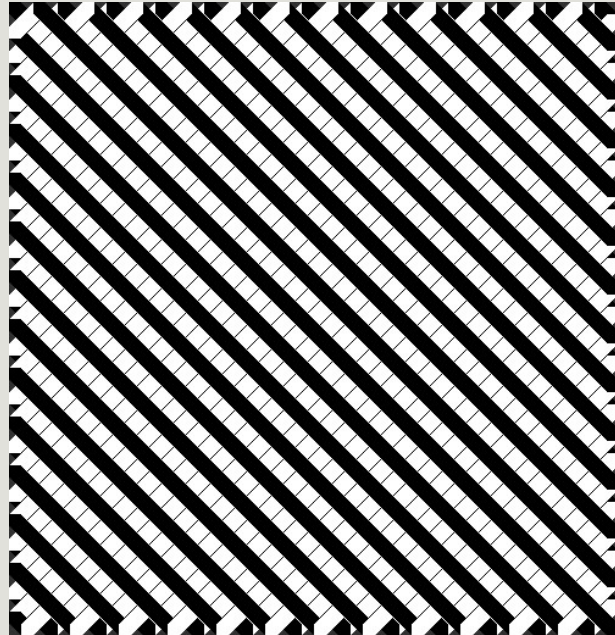
Mountains Specks At Dawn  
- Jack XXX

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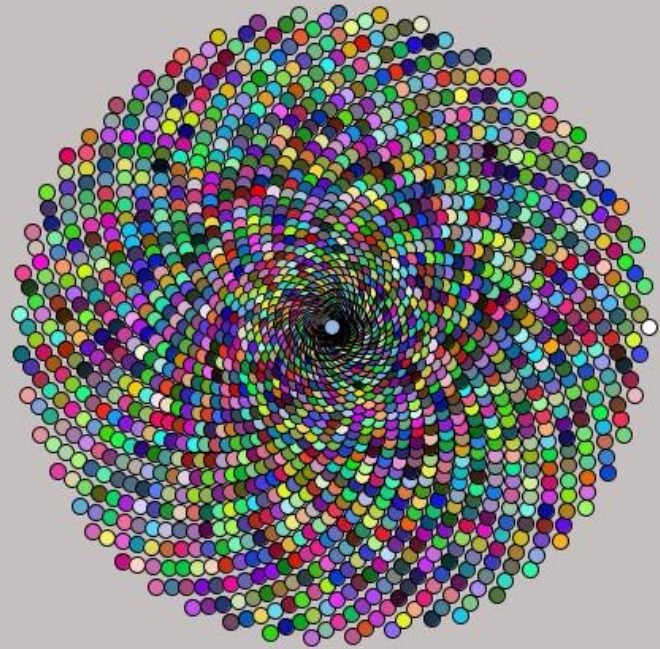
## The Zebra Patch- Jack XXX

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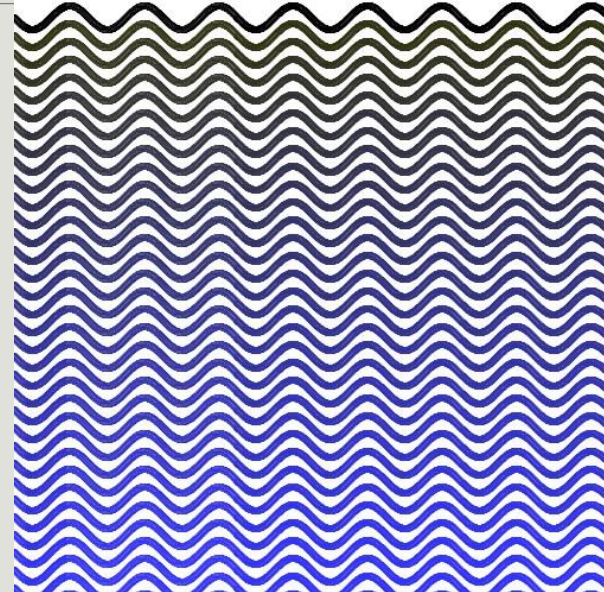
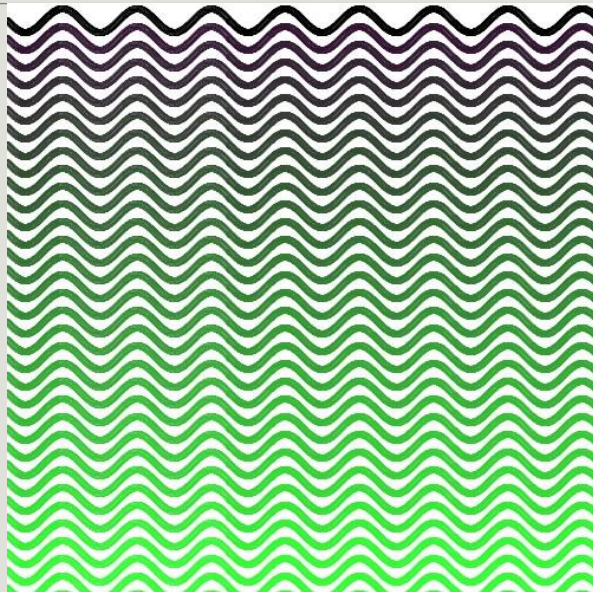
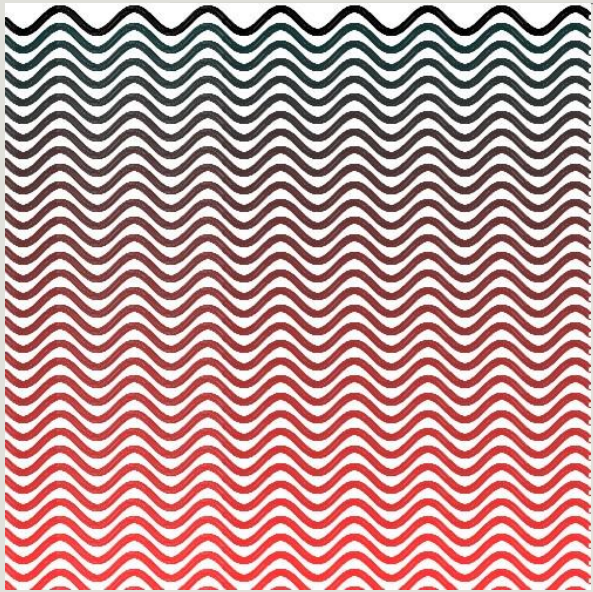




Lizard Eye  
– Jack  
XXX

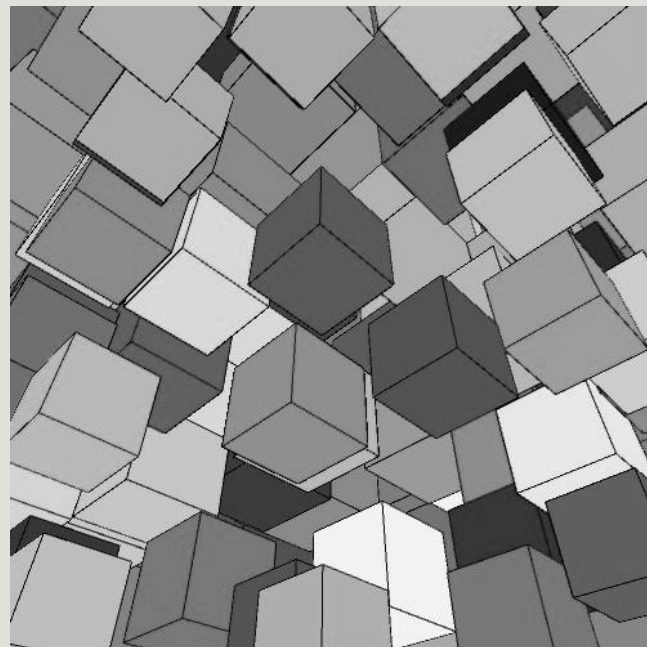
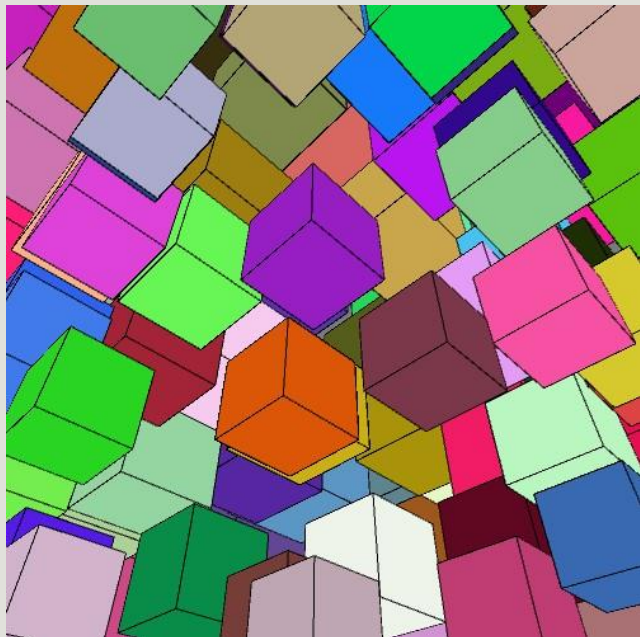


RGB – Jack XXX





Cube Land – Jack XXX



I HOPE TO MEET WITH YOU  
IN THE FALL 2021

AND

PRODUCE ART

THROUGH

PROGRAMMING IN COSCI05 !!!

