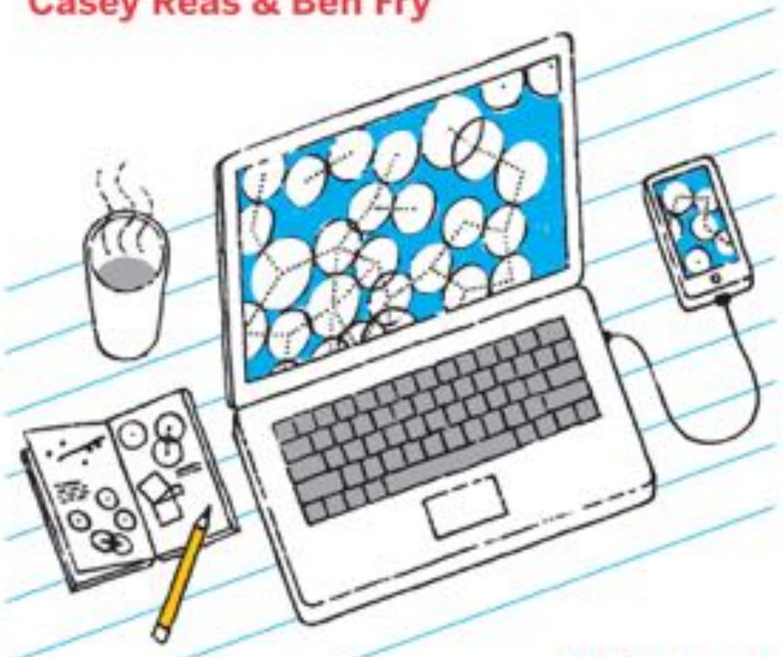
all code illustrations taken from the processing.org website +

Make: PROJECTS

A HANDS-ON INTRODUCTION TO MAKING INTERACTIVE GRAPHICS

Getting Started with Processing

Casey Reas & Ben Fry



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Open Source/Graphics Programming

Make: PROJECTS

Getting Started with Processing

Learn computer programming the easy way with Processing, a simple language that lets you use code to create drawings, animation, and interactive graphics. Programming courses usually start with theory, but this book lets you jump right into creative and fun projects. It's ideal for anyone who wants to learn programming, and serves as a simple introduction to graphics for people who already have some programming skills.

Written by the founders of Processing, this book takes you through the learning process one step at a time to help you grasp core programming concepts. Join the thousands of hobbyists, students, and professionals who have discovered this free and educational community platform.

- Quickly learn programming basics, from variables to objects
- Understand the fundamentals of computer graphics
- Get acquainted with the Processing software environment
- Create interactive graphics with easy-to-follow projects
- Use the Arduino open source prototyping platform to control your Processing graphics

Casey Reas is a professor in the Department of Design Media Arts at UCLA and a graduate of the MIT Media Laboratory. Reas's software has been featured in numerous solo and group exhibitions in the U.S., Europe, and Asia.

Ben Fry, a designer, programmer, and author based in Cambridge, Massachusetts, received his doctoral degree from the MIT Media Laboratory. He worked with Casey Reas to develop Processing, which won a Golden Nica from the Prix Ars Electronica in 2005.

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9/Objects

Object-oriented programming (OOP) is a different way to think about your programs. Although the term "object-oriented programming" may sound intimidating, there's good news: you've been working with objects since Chapter 6, when you started using *PImage*, *PFont*, *String*, and *PShape*. Unlike the primitive data types *boolean*, *int*, and *float*, which can store only one value, an object can store many. But that's only a part of the story. Objects are also a way to group variables with related functions. Because you already know how to work with variables and functions, objects simply combine what you've already learned into a more understandable package.

A Look at Architecture **(Dancing C's) by Paul Rand (1972-1984)**
https://www.wright20.com/auctions/2018/09/paul-rand-the-art-of-design/222

Build a class that allows you to generate a variation on Paul Rand's *Dancing C's*

Put them in motion, bouncing and rotating around the screen.

Typical Class Structure:

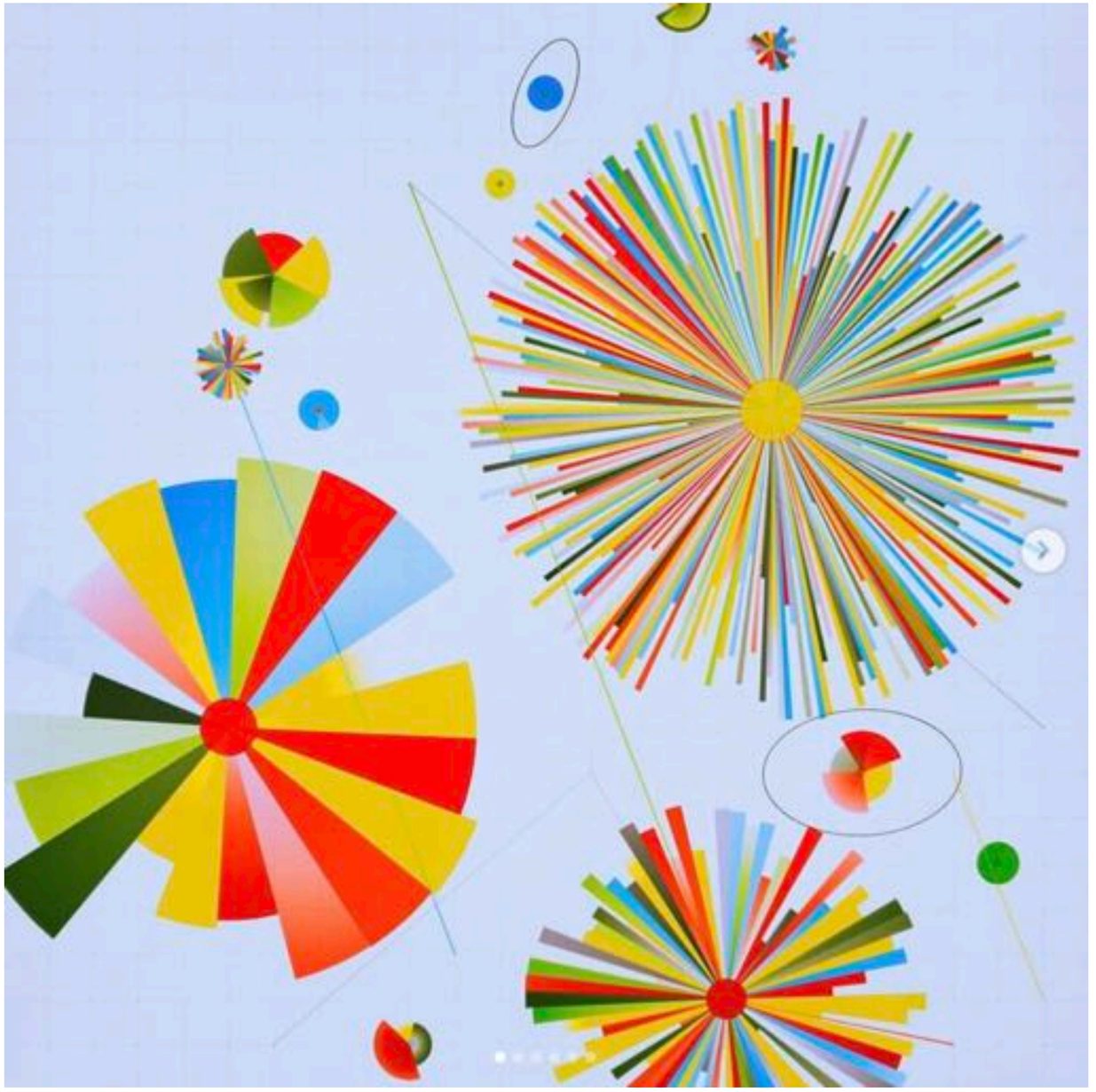
```
class JitterBug {

  float x;
  float y;
  int diameter;
  float speed = 2.5;

  JitterBug(float tempX, float tempY, int tempDiameter) {
    x = tempX;
    y = tempY;
    diameter = tempDiameter;
  }

  void move() {
    x += random(-speed, speed);
    y += random(-speed, speed);
  }

  void display() {
    ellipse(x, y, diameter, diameter);
  }

}
```

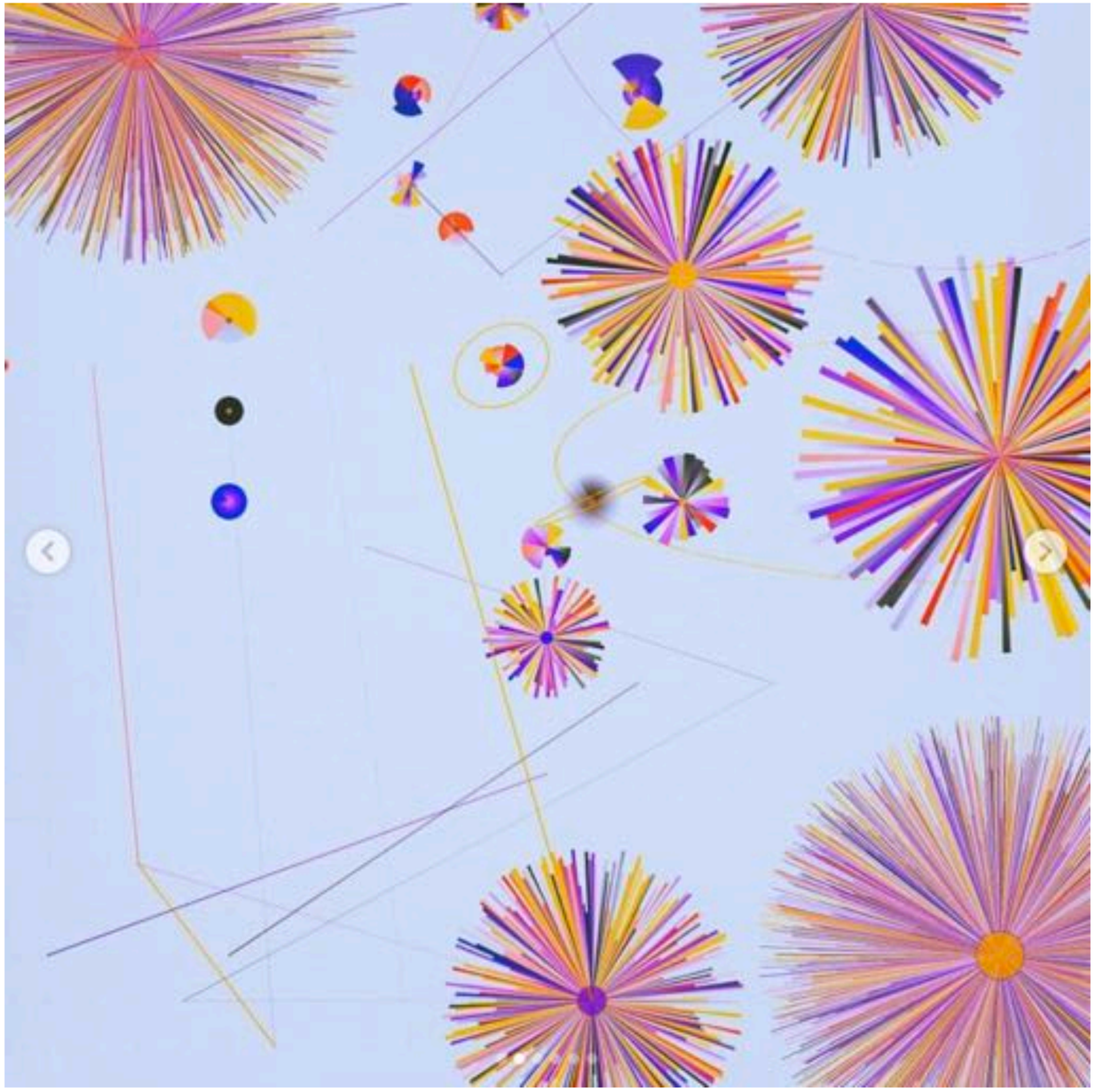
Block

Fields

Constructor

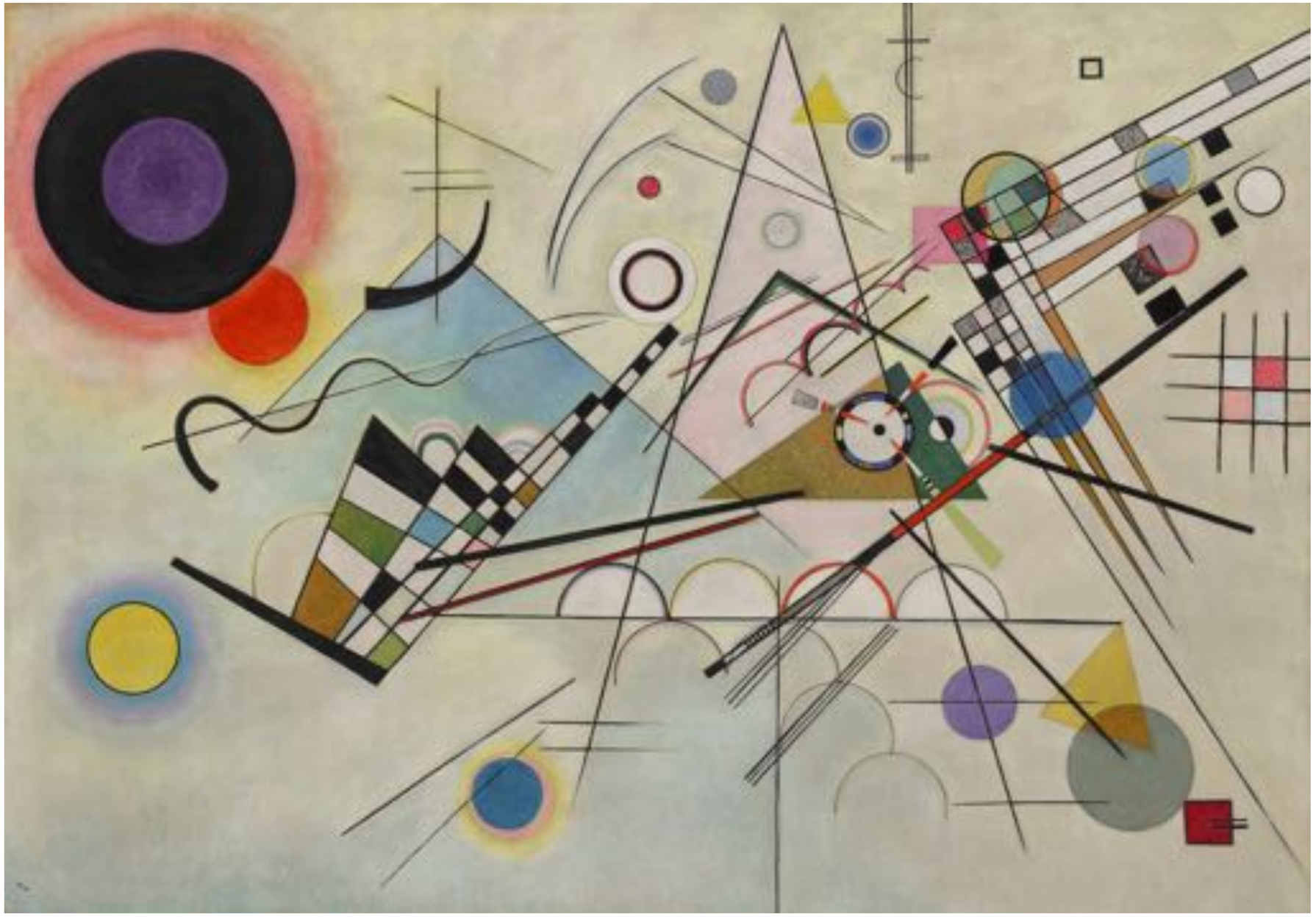
Methods





Instagram Posts by Manoloide (2018)
https://www.instagram.com/Manoloide/

Build a class that is based on a circle (visually), and changes radius and rotates through time



***Composition 8* by Vasily Kandinsky (1923)**
https://www.guggenheim.org/arts-curriculum/topic/vasily-kandinsky-composition-8

Homework 08 // Due 2018.10.29

Create a class that has graphics that animate through time, and create several instances of your class (aka objects) to generate a scene

Size: 1280x720 pixels or 720x720 pixels