

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.

**Make:**  
makezine.com

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## 8/Functions

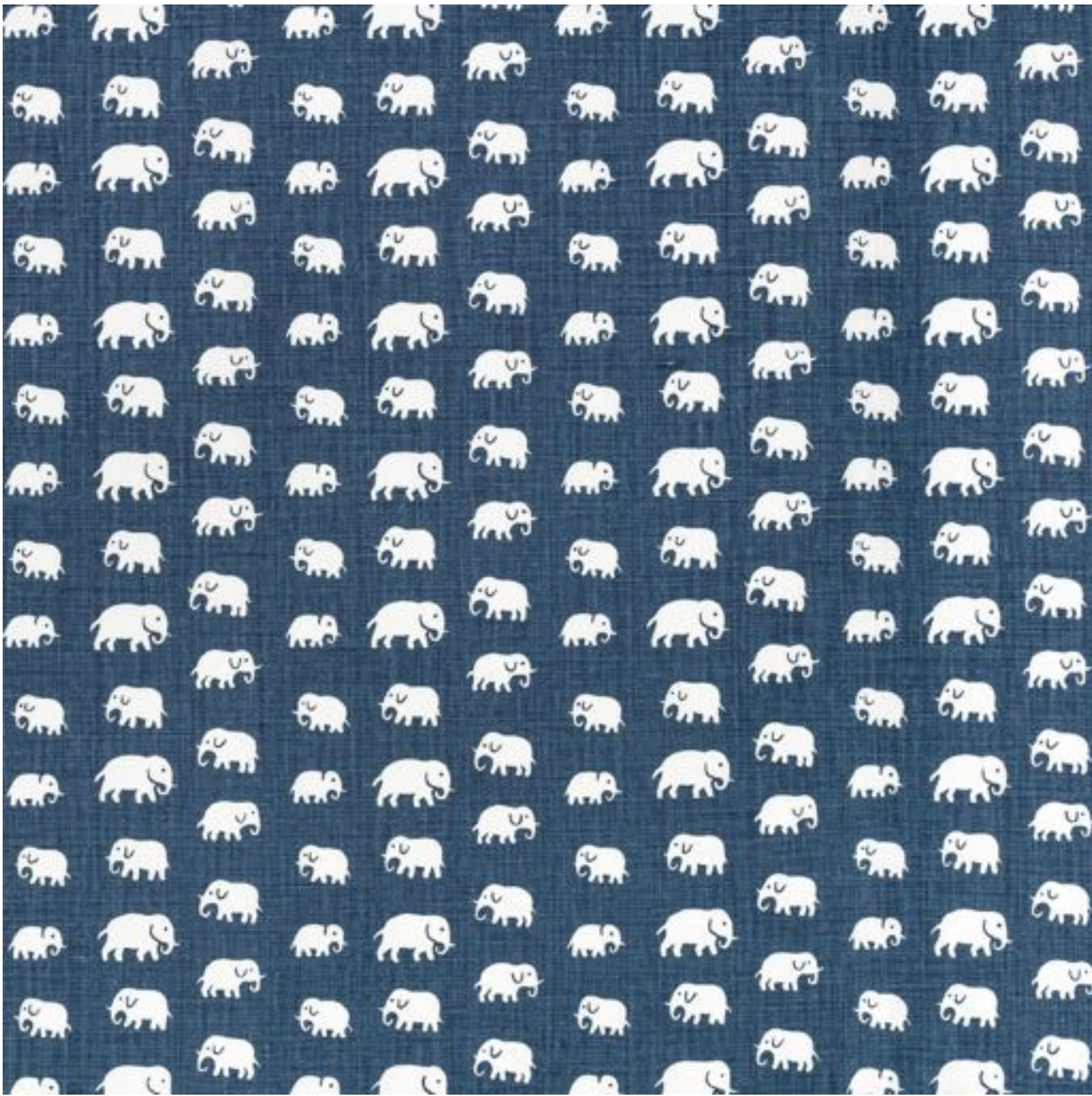
Functions are the basic building blocks for Processing programs. They have appeared in every example we've presented. For instance, we've frequently used the *size()* function, the *line()* function, and the *fill()* function. This chapter shows how to write new functions to extend the capabilities of Processing beyond its built-in features.

The power of functions is modularity.

Write a function that prints a random integer to the console from the “roll of a dice”

Rewrite the function so that it *returns a value* to the Draw loop





***Elefant* by Estrid Ericson (1930s)**  
<https://www.svenskttenn.se/en/range/textile/fabric/>



***Tulpaner* by Josef Frank (1940s)**

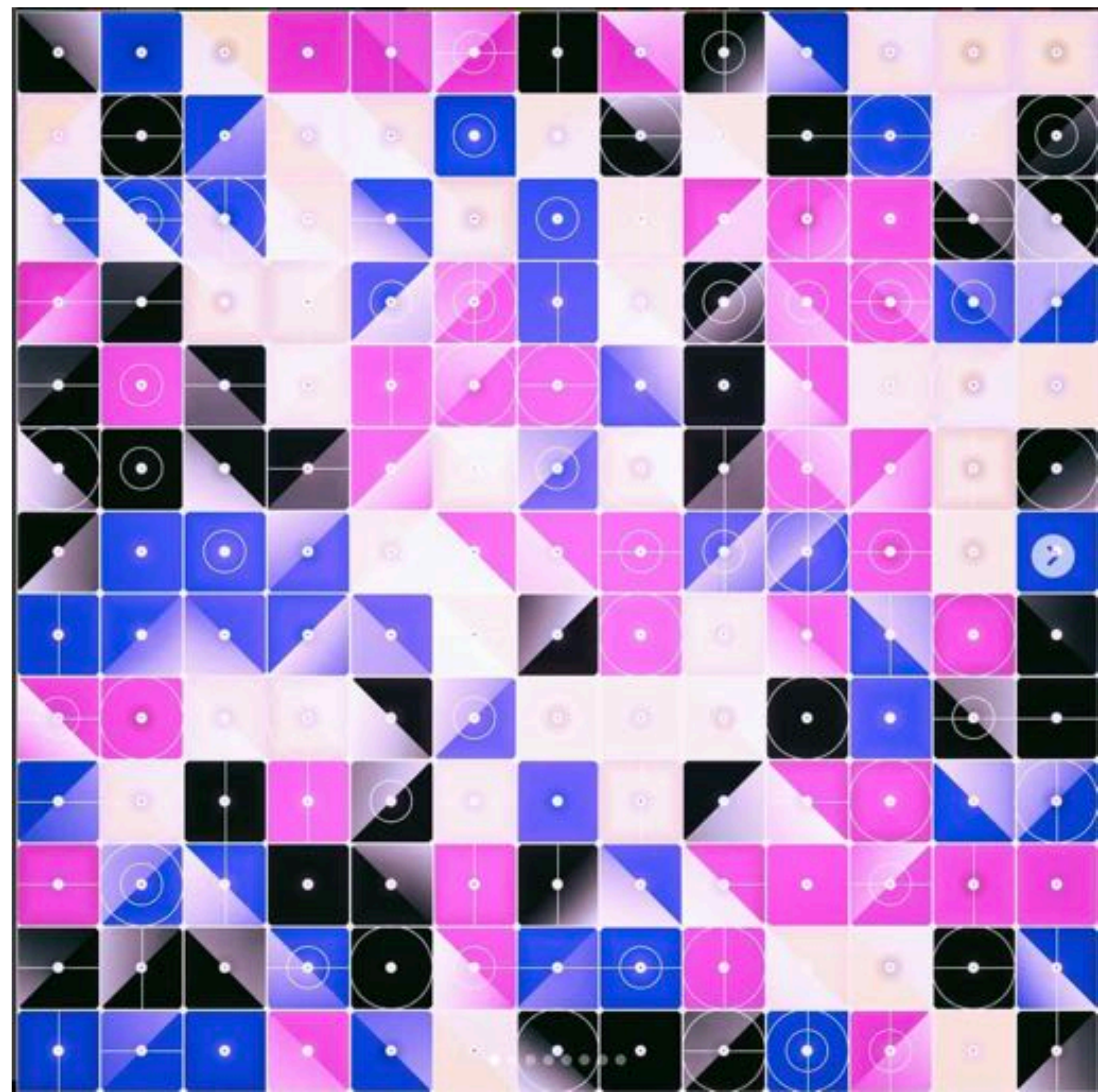
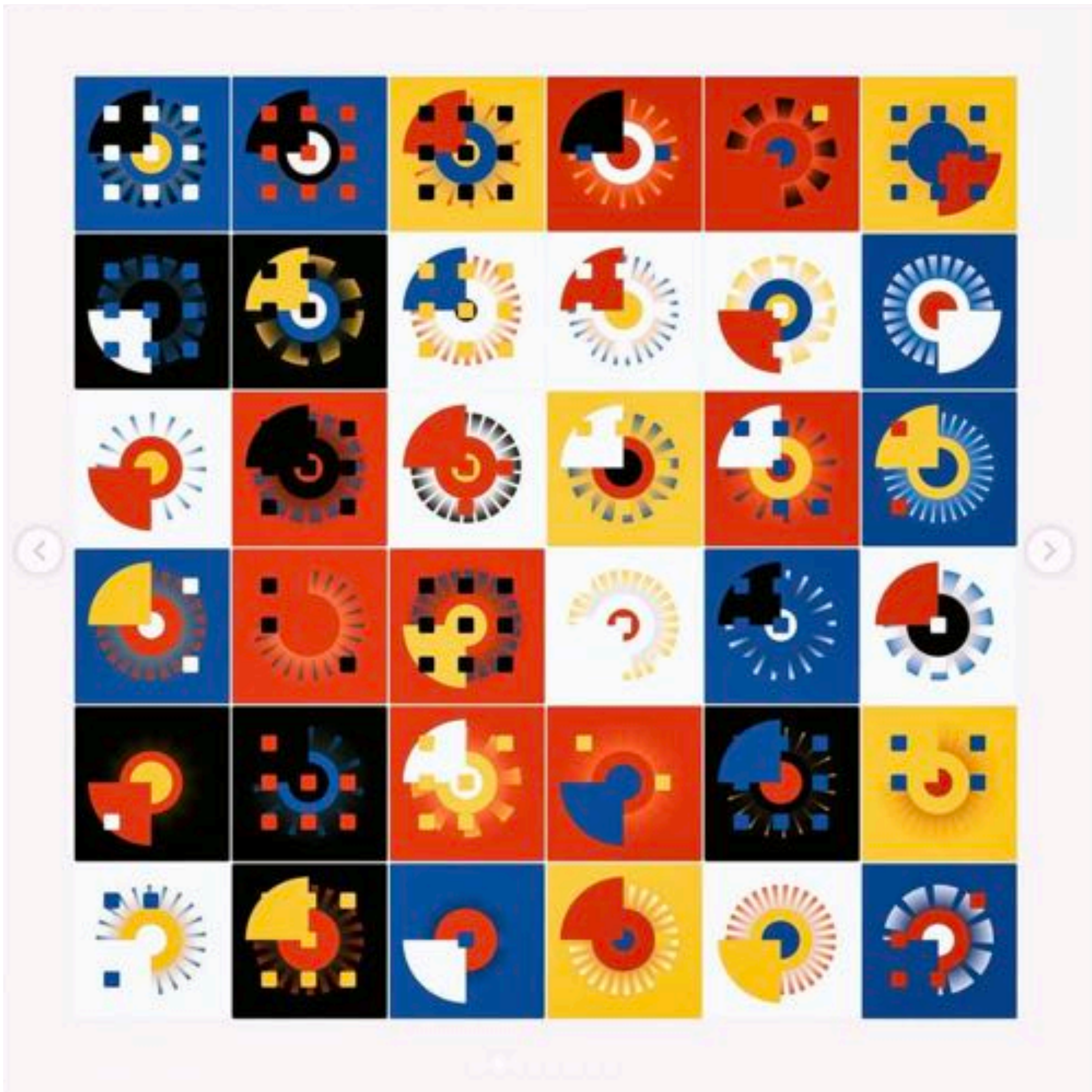




***La Gerbe* by Henri Matisse (1953)**

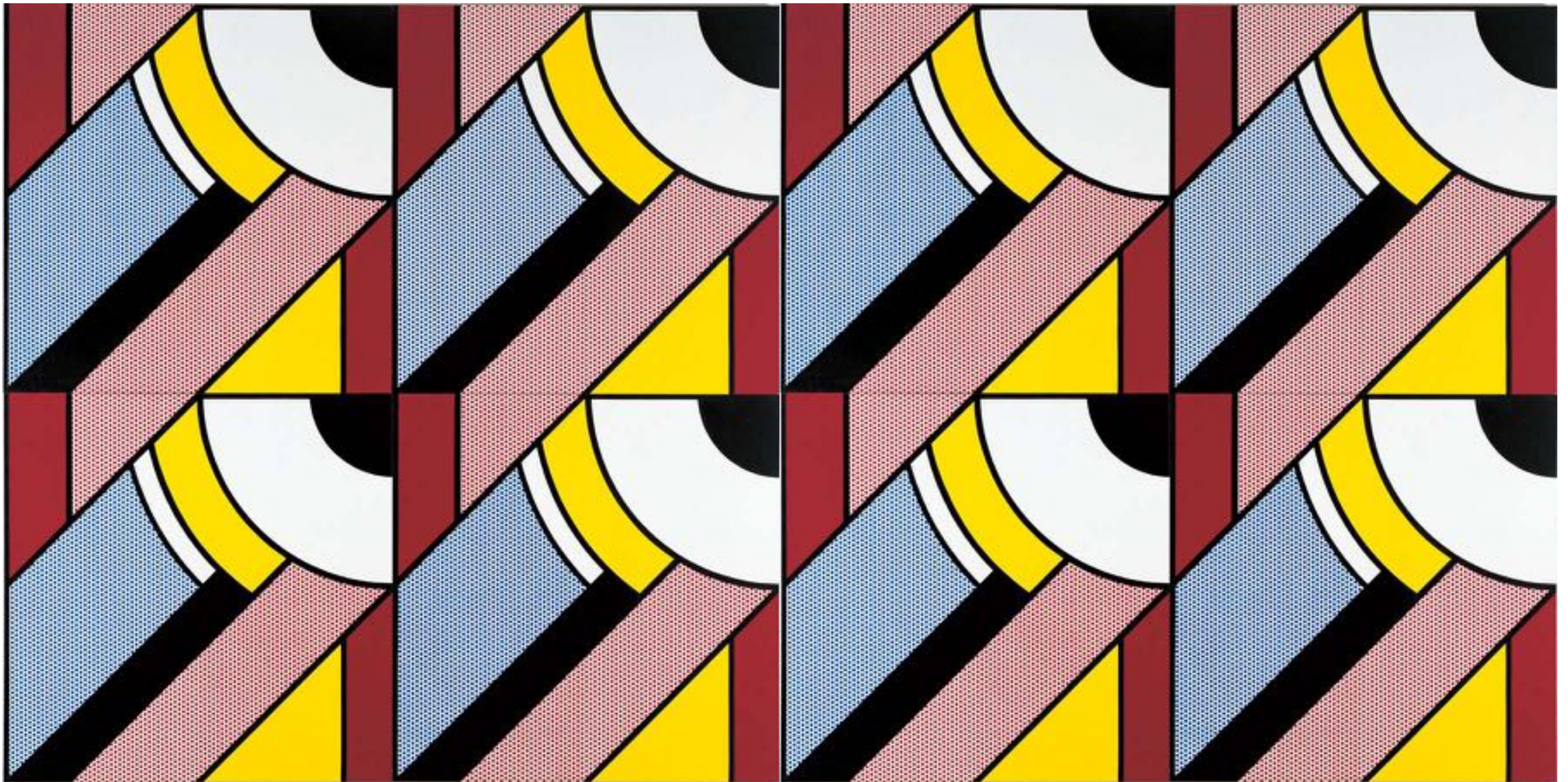
**<https://collections.lacma.org/node/207557>**





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





***Modular Painting with Four Panels, No. 7* by Roy Lichtenstein (1970) ... or Eight**  
**<https://cranbrookartmuseum.org/artwork/roy-lichtenstein-modular-painting-with-four-panels-no-7/>**



Write a function that generates a  
complex graphic

Tile the graphic in your sketch using  
an *embedded for loop*



# Homework 07 // Due 2018.10.22

**Write a function that generates a graphic and use it to generate a pattern or scene**

Think about using different colors, shapes, forms, and images in your function,  
and for loops, random, and embedded for loops in your layout/scene

Size: 1280x720 pixels or 720x720 pixels