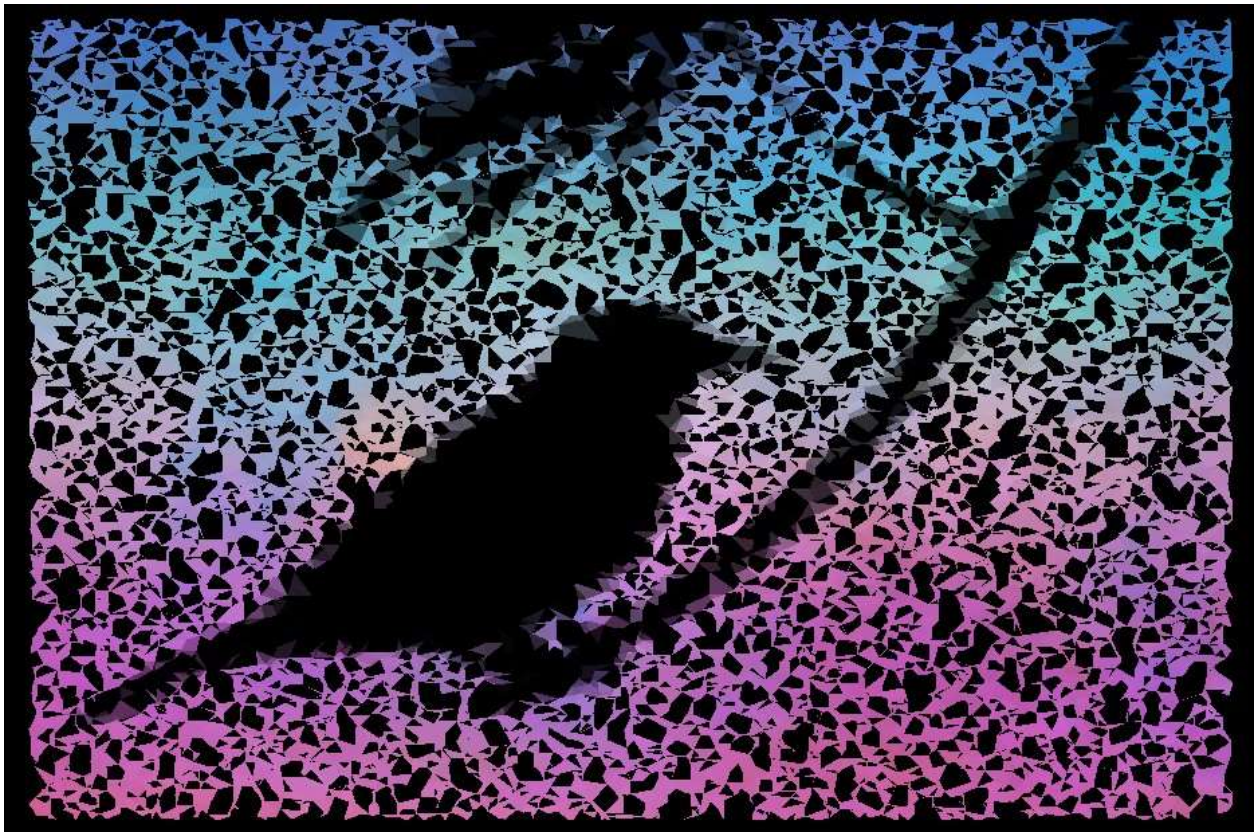
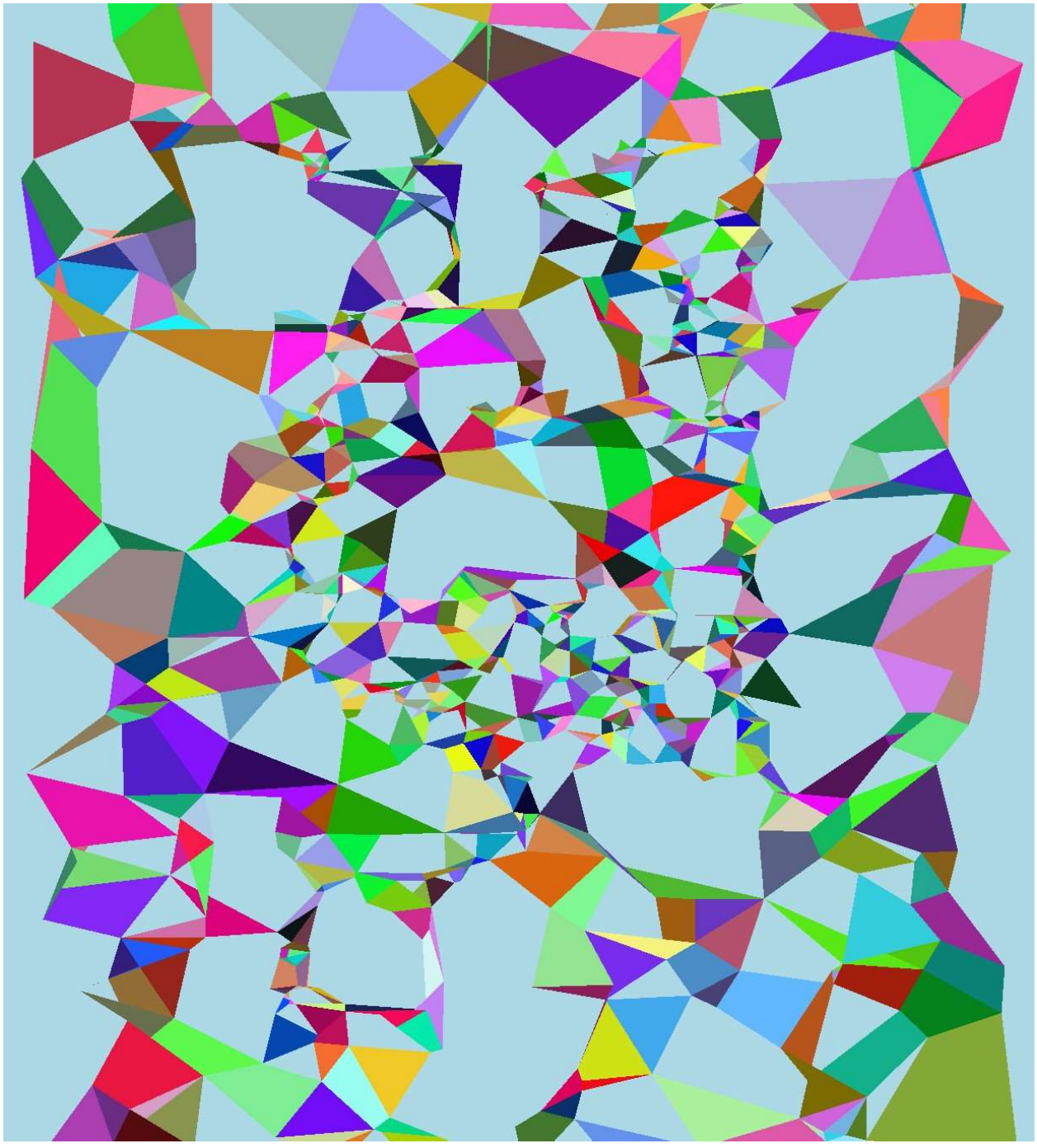
Main Image Showcase:



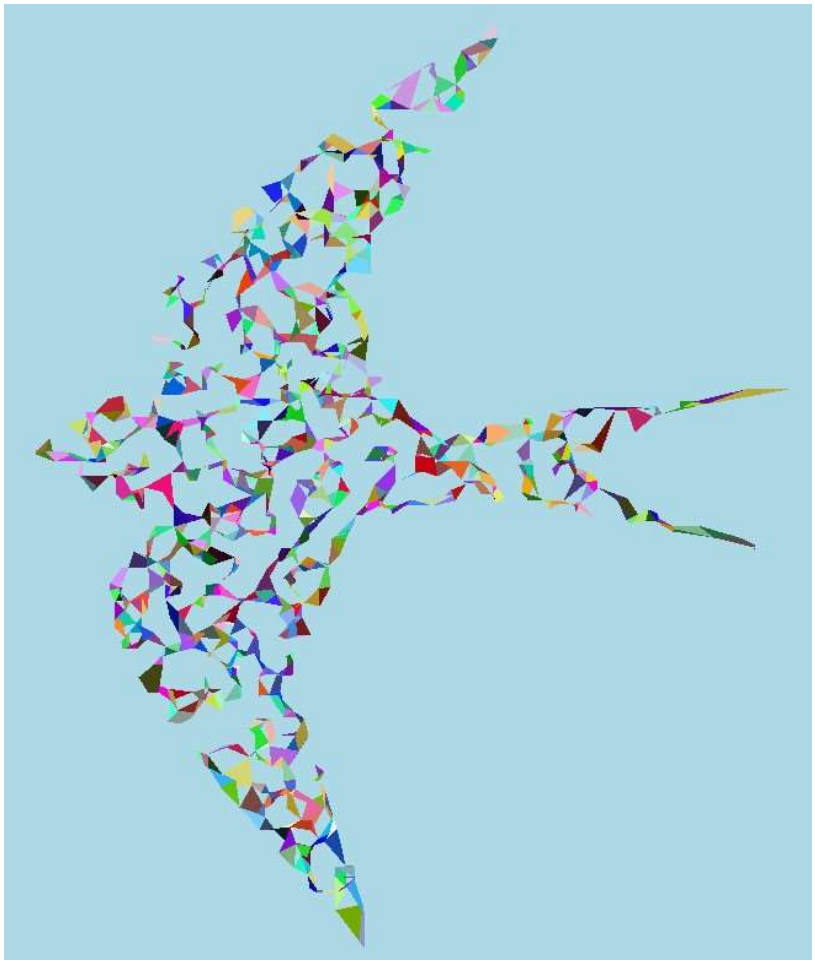
This is an image generated by a computer. The program that created it uses randomness to uniquely and abstractly represent an input. The main principle that drives this program is the ability to draw shapes on the coordinate plane using a distribution of points. The program randomly distributes points onto the coordinate plane and draws a shape by using points that are close together as vertices. However, the above image was not created entirely by random chance. The program can also take an image as input and use it to create a sort of 'normal map' that governs where the program is allowed to put the points that it uses to make the shapes. Areas that were dark on the input image are accented because no shapes are created inside of them. It is also possible for the program to use the color palette from the input image to control the color that it assigns to each shape drawn. The fact that computers are able to be programmed to abstractly create images and art that can be interpreted and appreciated by the human brain is fascinating. Art is considered to be one of the factors that differentiates us from other animals; it's astounding that we were able to give computers, devices of our own creation, something so human as the ability to make art.

Other Images Generated by the Program:

These images occur in an order that also reflects the way the program evolved as it was created.

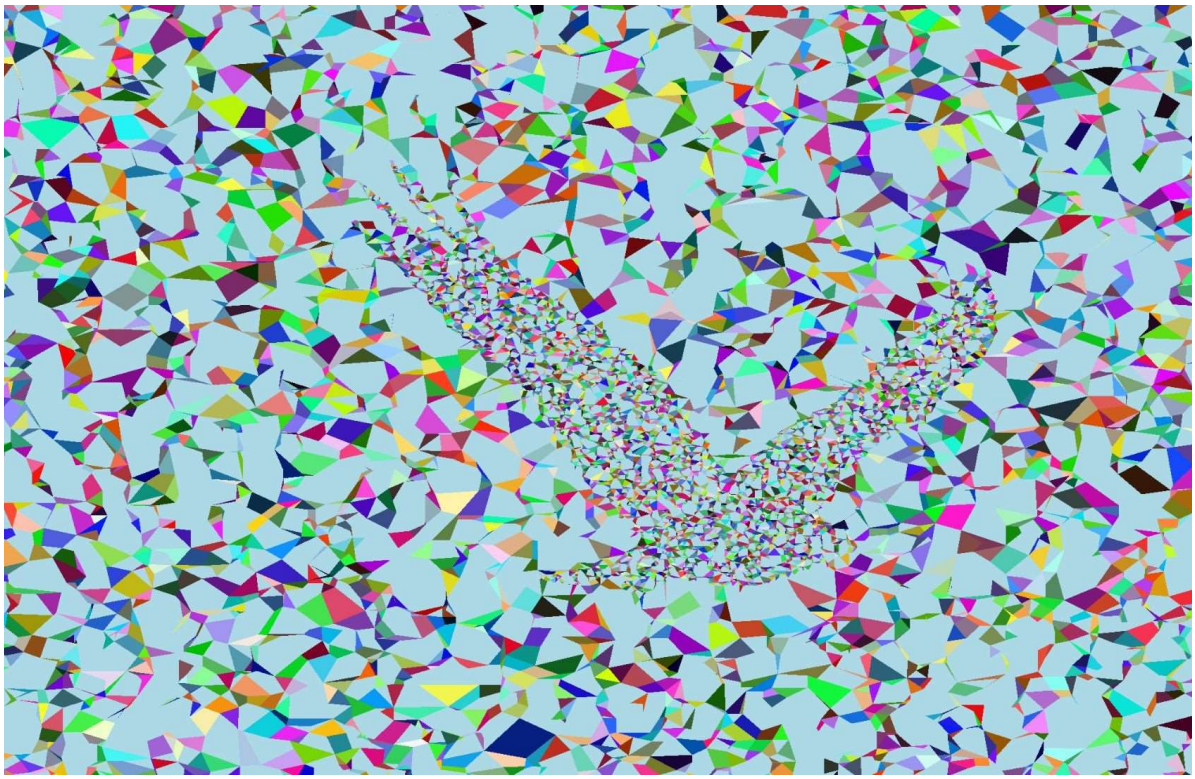


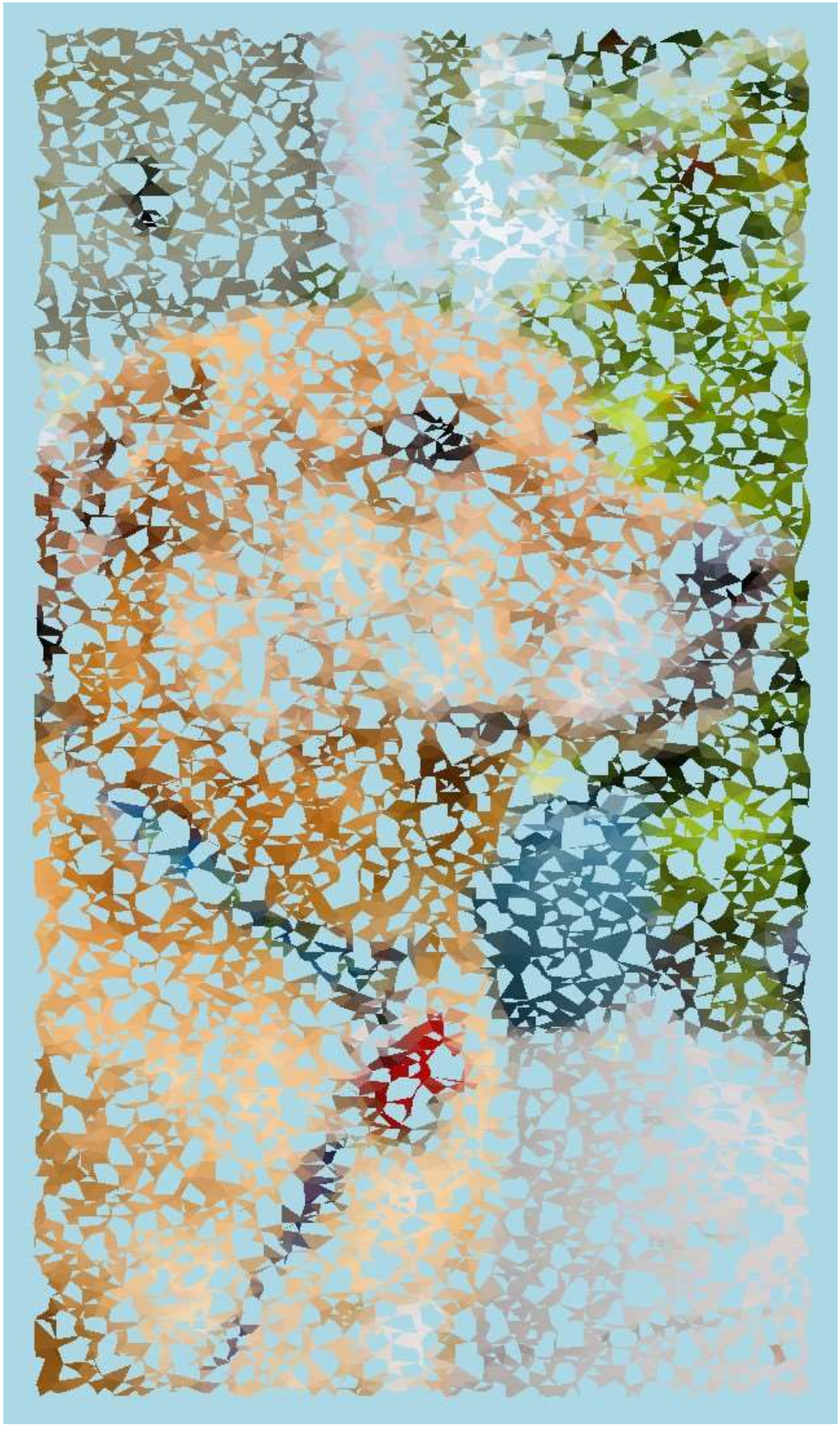
This image was created when the program draws shapes randomly and is a good showcase of where the project began.



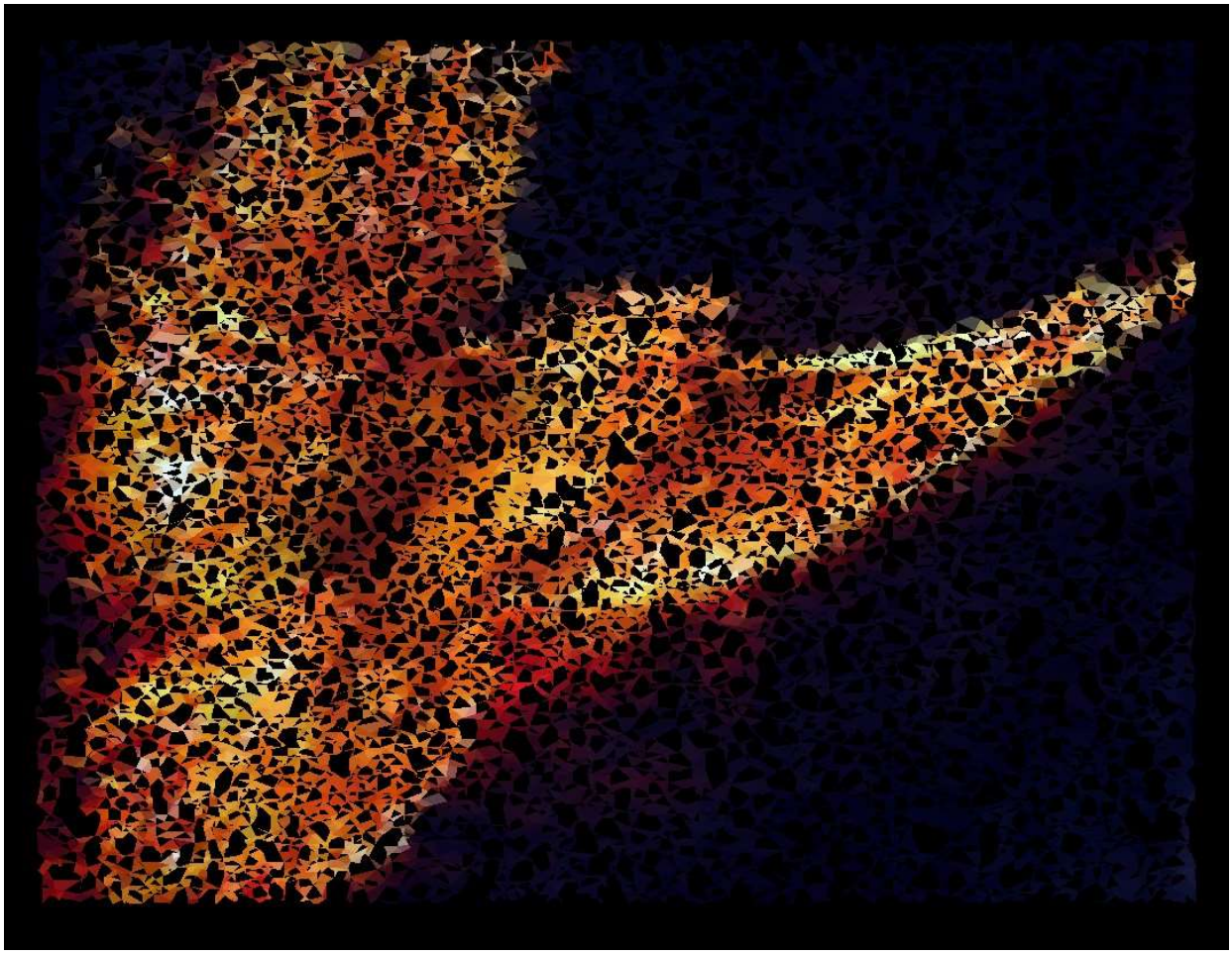
These images of birds showcase how the program is able to draw its shapes inside of a ‘normal map’ given to it. For these images, shapes were drawn randomly inside of the ‘normal map’ and assigned a random color.

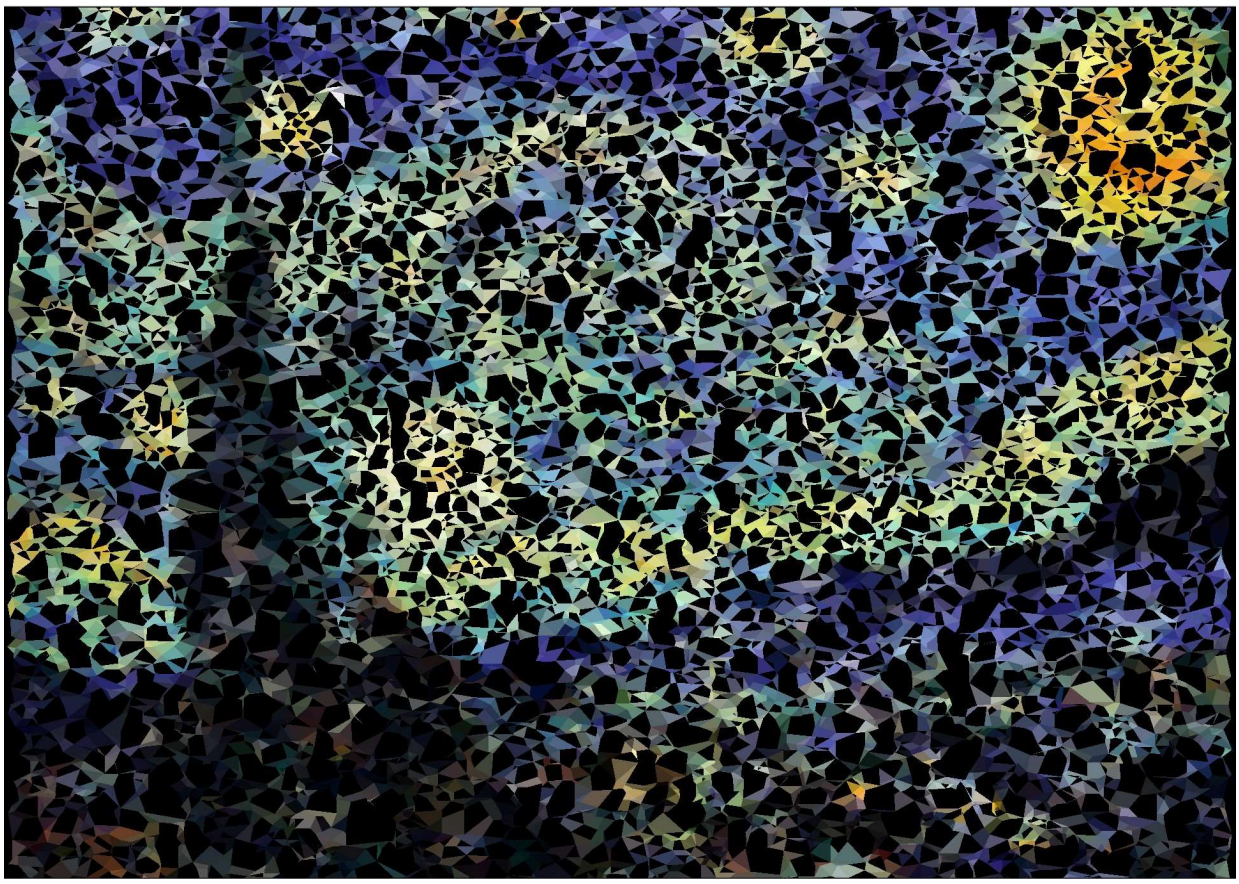
(The second image has shapes distributed outside of the normal map as well, but because shapes outside of the ‘normal map’ are larger, a distinction can be made as to what the image being represented is.)

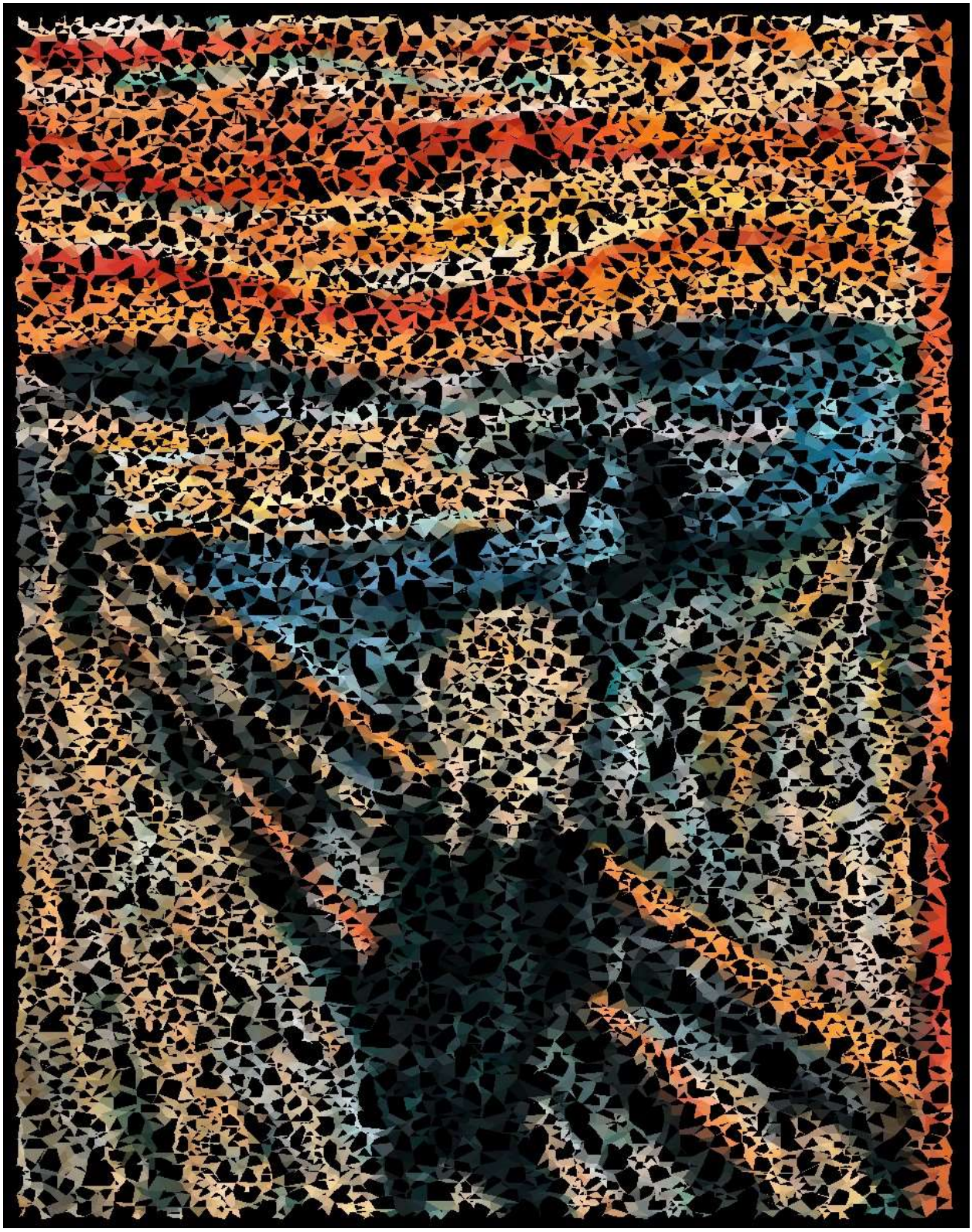




This image showcases the program’s ability to represent an image. The points were distributed across the canvas space randomly, but their color was assigned according to the input image.







The three images above are additional demonstrations of the program's ability to abstractly represent an input image using randomness and polygons.