# Geology: A Generative Artwork

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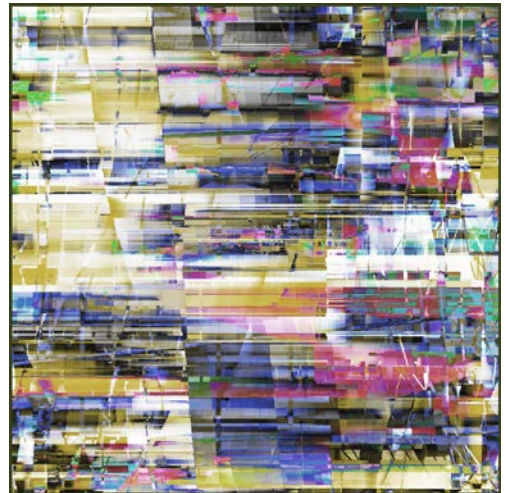*https://www.instagram.com/_angela_ferraiolo/*
*http://littleumbrellas.net/*
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saturation, and brightness according to linear expressions of sine and cosine to result in a series of narrow gradients that write and overwrite to the screen.



Angela Ferraiolo, *Geology No. 5* (2021)

## Abstract

Geology is series of images that explore the patterns of geological strata. These artworks draw on several generative techniques to create a system of lines and fractures  that echo the layers of sediment and flow found in many land masses,.

In '*Geology'*, several shaping algorithms work to print a simple vector object to the screen at noisy locations. The appearance of each object's location is further influenced by a set of procedural color algorithms that organize hue,

This project continues my work with systems as a way to represent natural processes. Much of what we know about the Earth, about the deep time of history, the evolution of life, and the history of climate, comes from the scientific explorations of the rock stratum. Important changes to the Earth, the

formation of oceans, continents, and mountains, the erosion and movement of flows and sediment, are understood through the geological record. While many view the planet as inert substance, '*Geology'* represents the materials and processes that make up the Earth as generative, dynamic processes.

## *Main References:*

[1] Albers, Josef. *Interaction of Color.* Revised ed. New Haven, CT: Yale University Press, 1975.

[2] Emanuele Feronato. Emanuele Feronato. August 28, 2009. Accessed September 26, 2021. https://www.emanueleferonato.com/2009 /08/28/color-differences-algorithm/.

[3] Grotzinger, John and Thomas H. Jordan. *Understanding Earth*. W. H. Freeman and Company, 2019.

[4] Shirley, Peter, Michael Ashikhmin, Steve Marschner. *Fundamentals of Computer Graphics*. 3rd ed. A K Peters/CRC Press, 2009.