Encoding Numbers from Memory

Evan Daniel
@ evandaniel.com

2013-2022

Abstract

π written from memory in any number of forms (many painted). Video link: **https://vimeo.com/178276399**.

Numbers can be encoded in anything; you can count anything from water bottles to tall clouds to the number of seconds since you've woken up. But different encodings resonate with us in different ways. That difference tells us about our perception of the world and the human experience.

Numbers have a natural association with monochromatic paintings: numbers are often thought of as neutral, and colors are frequently associated with emotion. Color perception is also ternary in structure — we see in red, green, and blue — while our number system is decimal.

While these have little in common with Arthur Danto's conception of monochromes as defined by context, there is a key similarity here. Danto described situations in which identical content could take on distinct meaning. This could be said not only of my monochromes but also the digits of π throughout my work.

An important work for me was Two Approximations of π. The painting is a grid. The first of the two approximations was my own recitation of π from memory, which was encoded in the shape of each cell according to the layout of a numberpad. The second approximation is the ratio 355/113, which is accurate to six decimal places, which was encoded in the color of each cell (arbitrarily). Since the latter encoding has the natural properties that it "flips" (1 becomes an 8, 2 becomes a 7, 3 becomes a 6...), the colors form vertical stripes that contrast with the varying shapes of the first approximation.

This painting marked a departure in my practice from treating the performative act of writing π as an end goal. Prior to this work, most of my work in which I recited π was indifferent to how π was written. In this work, finding a meaningful way of reciting π was the point.

I followed this work with Three Approximations of π, which substitutes 22/7 for 355/113, and encodes my recitation in the depth of the digit. It also adds a third approximation — encoded in flashing lights — and which was based on numerous recitations.

What to do about the errors that occur when reciting π? While I have the digits memorized, my memory isn't perfect. Neither is my ability to say what

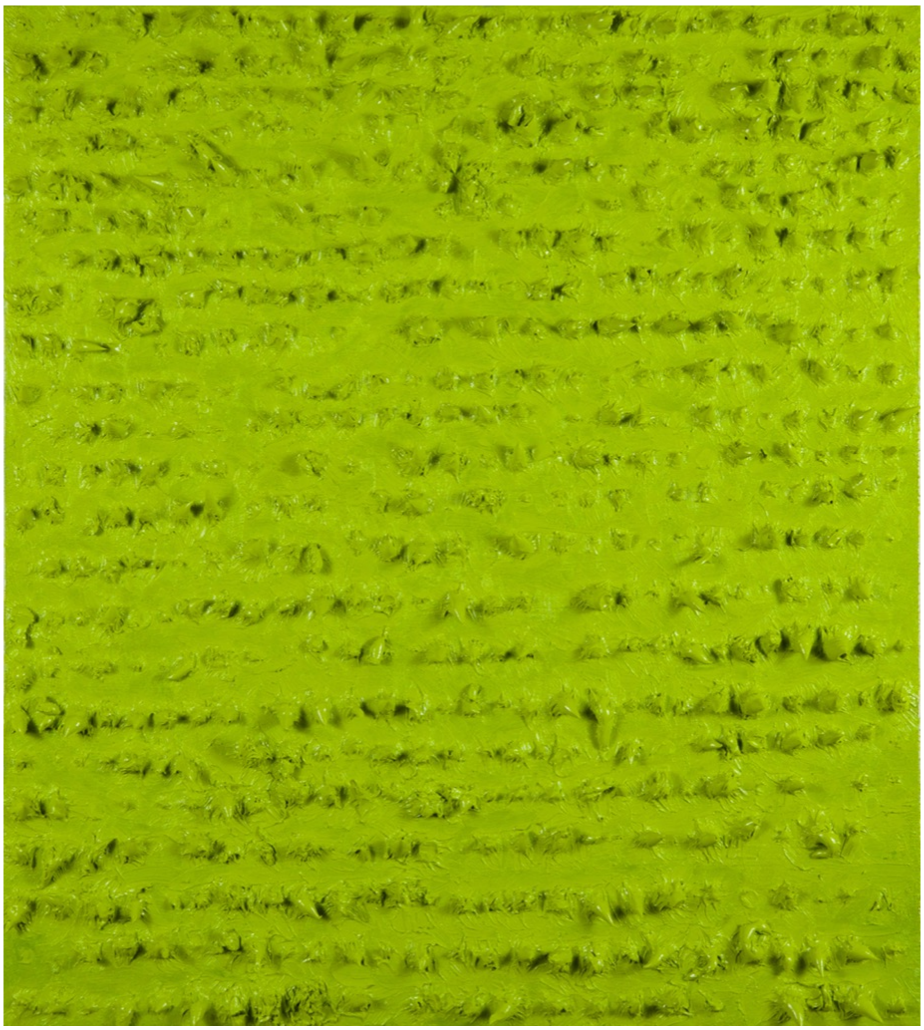

Figure 1: π encoded from memory; oil on canvas, 18"$\times$24".

Figure 2: *Two Approximations of* π; π encoded from memory and 355/113 calculated mentally; oil on canvas, 56"×64".

Figure 3: π encoded from memory; oil on canvas, 18”$\times$24”.

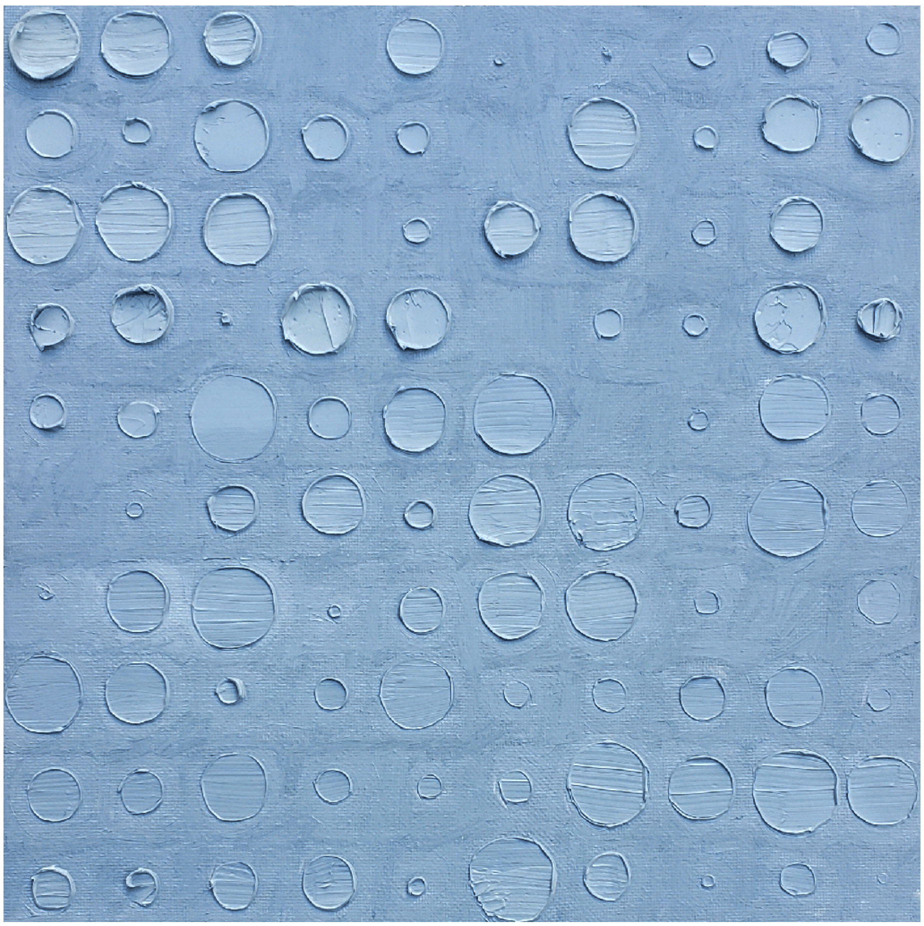

Figure 4: π encoded from memory; oil on canvas, 12"×12".

I'm thinking; on occasion, I've recited π as 3.15 (including just now, when I typed the last digit incorrectly).

Bringing many of these concepts together, I began reciting π as — often monochromatic — circles. Circles in this context have several layers of meaning, from the definition of π to Giotto's circle. But the significance here is perhaps more accurately the game of creating accurate circles. Here, the term game is not meant diminutively; it might be seen in light of traditions such as the Zen Ensō, in which the experience is a reason for the practice. Here, the experience of creating these circles is the reason for the painting.