## Writing Numbers from Memory

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## Abstract

Writing the number  $\pi$  from memory on paintings and other objects.

For me, memorizing and reciting  $\pi$  is much like naturalistic painting and drawing. Both are attentive, quiet, slow, and — above all — meditative tasks. What matters in both is that you appreciate what you're trying to replicate as you're working. If you see the beauty in a sequence of digits of  $\pi$ , you're much more likely to remember it. If you see the beauty in something you're drawing, you're much more likely to draw it well.

Conceptually, both tasks are also fundamentally about copying, whether from perception (drawing) or memory (reciting  $\pi$ ).

I began memorizing  $\pi$  in November 2008, and within several months I had memorized several thousand digits. My first experiment writing  $\pi$  from memory on a painting I had completed of a tabloid image. Despite the subject matter, the experience was deeply meaningful and I continued.

 $\pi$  written from memory to 4,000 digits — Henri Poincare — pencil and acrylic paint marker on clayboard, varnished with acrylic medium —  $4" \times 8"$ 

I shifted my subject matter to figures in science and mathematics. This was only in small part due to the vague conceptual thread linking  $\pi$  and the sciences; it had much more to do with the fact that I was studying the history and philosophy of science.

I also wrote  $\pi$  over other objects. In high school I was a drummer in several bands, and stylistically was very heavy on the cymbals (I frequently practiced to songs by The Who). One of the several that I broke broke in an usual way (the bell caved in). I appropriated this in what turned out to be an unintended pun.

Simply to gain experience carving marble, I had sculpted a sock. With no pretense to a conceptual connection, I wrote  $\pi$  from memory on the sleeve.

My works in this genre took on the task of embedding  $\pi$  into the representation. This looks forward to using  $\pi$  as representation in Pi-xels as well as Encoding Numbers from Memory.

In one work I did make explicit reference to the epistemological nature of  $\pi$ , representing Ken Ham and Bill Nye debating, having replaced Nye with digits of  $\pi$ .

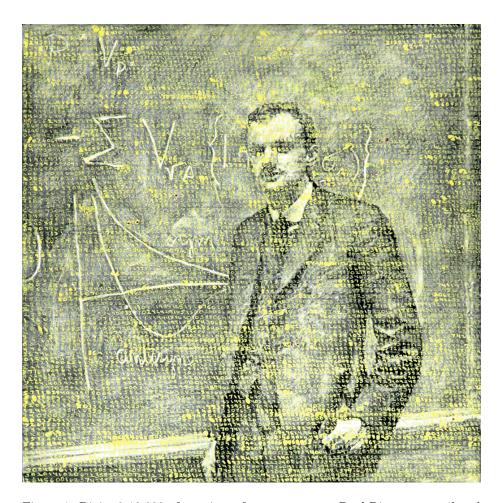


Figure 1: Digits 0-10,000 of  $\pi$  written from memory — Paul Dirac — pencil and acrylic marker on clayboard, varnished with acrylic medium — 12"  $\times$  12" — 2013



Figure 2: The  $\pi$  Cymbal — Digits 0-5,000 of  $\pi$  written from memory (2,500 per side) — 1960's Zildjian cymbal — 20" diameter — 2014



Figure 3: Digits 0-600 of  $\pi$  written from memory — roller pen on marble — life-size — 2014

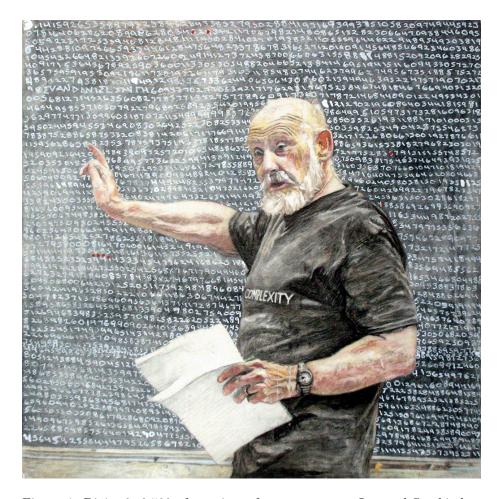


Figure 4: Digits 0- 3,500 of  $\pi$  written from memory — Leonard Susskind — colored pencil and acrylic marker on clayboard, varnished with acrylic medium — 2014