

Good-for-nothing (no. 2) and Good-for-nothing (pours)

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Abstract

Digital technology has fundamentally altered our perception of the world we traverse. And the smartphone, through its immanent accessibility has, paradoxically, made our experience of daily life more tenuous. The camera's re-framing of the world through re-presentation is obscured by convenience and speed: there is no distance between the taking and viewing of a picture. Our memories become drained as we futilely 'document' reality in a hysterical attempt

to preserve it. Digital accessibility has undone our ability to appreciate what is in the moment.

In that abstract space, the cleavage between reality and representation, our project attempts to dissolve this misperception. When we look at a digital photograph, we are not viewing nor participating in reality. By design, our project emphasizes the construct of digital images by offering observers large 'pixel-like' constructs that appear, disappear, alter, and reappear over extended periods of time. Though the pixel is the structural basis for the digital photographic depiction, when isolated, it is in fact riven from the photographic image.

Slowing down our perception of screen images, each 'good-for-nothing' artwork progresses algorithmically to offer an experience that is the antithesis of conventional photographic representation. Borrowing from the language of painting we utilize the screen as a substrate or contemporary

<canvas> onto/within which an artwork plays out as an event rather than the depiction of an event.

Rather than leveraging machine learning to create more opaque, inhuman programs that generate the most meager re-presentation of the billions of images we've already seen, Good-for-nothings [[Good-for-nothing \(no. 2\)](#) and [Good-for-nothing \(pours\)](#)] use simple, stupid, transparent algorithms to explore the nature of the screen-based substrate. Good-for-nothings seek to reclaim the (pseudo-)physicality of the screen, by embracing the contradictions between the materiality of the hardware pixel and the immateriality of the digital image.

Existing as the antithesis of the digital photo—which functions as an endless duplication of the same useless information throughout time and space—a Good-for-nothing is ever-changing. Through their dumbness, slowness, and stubborn rejection of closure they beg the viewer to engage slowly and contemplatively as they mark time while perception unfolds. Rather than concern themselves with the future, they exist only in the here and now, in a specific place and time, cleaved to a moment, and never to be seen again.

Good-for-nothing (no. 2)

Good-for-nothing (no. 2) (Fig. 1) is an arbitrary drawing that splits the picture plane along an ersatz horizon line. It generates a random image each time it is refreshed. During each of its lifetimes, *Good-for-nothing (no. 2)* runs in perpetuity, at each step choosing a random selection of its pixels and altering their color while attempting to maintain the equilibrium of its two halves—its figure and its ground.

The algorithm is bootstrapped from a photograph of the horizon taken by Matteson and his partner Barbara Raidl (Fig. 2), downsampled to a very low resolution, and its color indexed to sixteen possible hues.

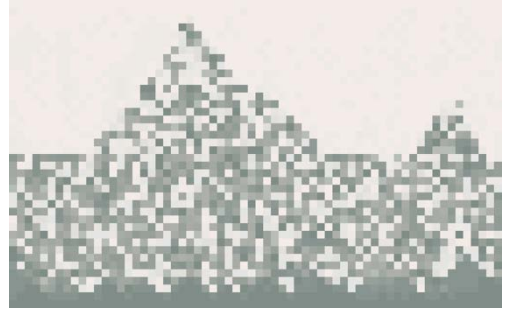


Fig. 1. A random initial state of Good-for-nothing (no.2).

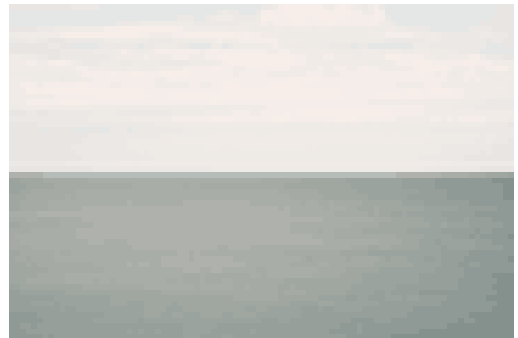


Fig. 2. The source photograph that determines the probabilities of Good-for-nothing (no. 2).

Good-for-nothing (no. 2) comprises a $m \times n$ grid of square blocks, each s pixels on a side, where $m \times s$ corresponds to the height of the viewer's browser and $n \times s$ its width in pixels.

The color of each block $p_{i,j}$ is determined by probable occurrence of the colors of pixels in the source image (Fig. 2) based on the colors of their neighboring pixels.

The top row, $p_{0,j}, 0 \leq j < n$, is filled with the lightest of the sixteen colors. The

bottom row, $p_{m,j}, 0 \leq j < n$, is filled with the darkest.

For the creation of the initial state of the image, the color of each pixel in the bottom half of the image is determined by its three adjacent neighbors in the row below

$$Pr(p_{i,j} | p_{i+1,j-1} \& p_{i+1,j} \& p_{i+1,j+1}),$$

where $\frac{m}{2} < i < m$;

and the probability of colors in the top half is conditioned by colors of the three adjacent pixels in the row above

$$Pr(p_{i,j} | p_{i-1,j-1} \& p_{i-1,j} \& p_{i-1,j+1}),$$

where $0 < i \leq \frac{m}{2}$.

As the image plays out in time, the colors of randomly selected pixels are determined by the color of the 4-neighbors of pixel p :

$$Pr(p_{i,j} | p_{i,j-1} \& p_{i,j+1} \& p_{i-1,j} \& p_{i+1,j}),$$

where $0 < i < m$.

Good-for-nothing (pours)

Good-for-nothing (pours), like *Good-for-nothing (no. 2)*, also refers to the anisotropic nature of the picture plane. Beginning with a row of randomly placed and randomly colored blocks, these blocks ‘pour’ down the screen, growing wider as they fall, and their colors mixing as the blocks meet. When the screen has been filled, the process begins again starting with the top row and coloring over the previous state of the drawing (Fig. 4).

As each pour moves row by row down the screen, it has equal odds of moving one block to the left, one block to the right, or moving straight downwards—performing a sort of drunkard’s walk as it descends. During the descent, there is a

probability $Pr = \left(\frac{1}{2}\right)^{\frac{i}{m}}$, where i is the index of the current row and m is the total number of rows, that uncolored blocks in the row will be colored. This causes each pour to spread as it descends.

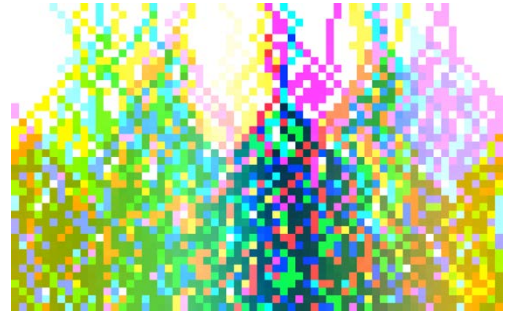


Fig.3. An initial iteration of Good-for-nothing (pours).

Blocks that were colored in a previous state of an ongoing drawing will always be colored in future states—causing the screen-based substrate to become ‘primed’ and interact with the pours differently over time.

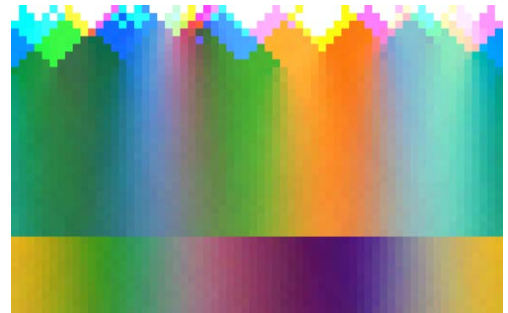


Fig. 4. Good-for-nothing (pours) after hundreds of iterations.

Technology stack

Both images are created client-side using JavaScript. Numeric operations depend on the math.js library. Drawing is handled with d3.js. Color indexing *Good-for-nothing (no. 2)* is the result of k-means clustering using the scikit-image library

for python. The pages are served over nginx using the flask library for python and uWSGI. Caching is handled through redis.