



Paint by Algorithm

AN ARTFUL ROBOT TURNS INSTAGRAM POSTS INTO BRUSHSTROKES.

BY LAUREN MURROW

ANDREW KUDLESS MAY BE A PROFESSOR of architecture by profession, but he finds the title a little limiting. “Architecture has a history of being pretty promiscuous in terms of what we consider part of our discipline,” he says. “Art, science, math, design, finance, and engineering are all embedded in what we do.” As founder of the Oakland design studio Matsys and an instructor at the California College of the Arts, Kudless has long been interested in the slow seep of technology into fine art. This fall, while an artist at Autodesk’s Pier 9 Workshop, he set to work building a carefully calibrated painting machine. “We’ve had robots in factories for years,” says Kudless. “I thought, ‘What if I apply that concept to art?’”

Unlike easily distractible humans, Kudless’s robotic painter toils 24 hours a day, seven days a week, taking inspiration from an unlikely source: Instagram. “I started thinking about how the average person documents the world,” Kudless says. “I wanted to turn social media images into a real-time diary of a particular place.” The robot selects Instagram photos geotagged within its designated radius, turns the images into vectorized digital files, then uses an ink brush to paint the scenes onto a roll of paper. The ever-growing scroll eventually becomes a 500-foot-long inked filmstrip conveying life in the surrounding city. (In October, Kudless will be unveiling the robot at an exhibit in Tokyo.)

Staying true to social media mores, the designer’s algorithm allows the most-liked Instagram photos to jump to the front of the painting queue. Of course—as any Instagrammer knows—public enthusiasm can be unpredictable. Though Kudless has been beta-testing the robot with images of city streets and landscapes, he says, “If it ends up painting a lot of selfies and cats, that’s fine with me too.” *View the completed paintings in real time at day2day.io.* ■



1. Original Instagram photos from Japan beside the robot’s painted ink-on-paper interpretations. **2. The robotic arm twirls a modern brush in which the ink flows from the handle into the bristles. It takes between half an hour and two hours to paint each image onto a 500-foot-long paper scroll.** **3. Andrew Kudless uses a tablet to teach the robot the table’s location. Then the script takes over, producing paintings without any further manual control. Programming isn’t that far removed from Kudless’s day job. “Architects don’t really build buildings,” he says. “We create sets of instructions for other people to interpret.”**

INSTAGRAM PHOTOGRAPHS BY BLDOSYTOI (LEFT) AND DMITRY812

PHOTOGRAPHS BY DANE POLLOK