Forbes

NOV 28, 2017 @ 07:01 AM 526 The Little Black Book of Billionaire Secrets

A Computer Art Exhibit At MoMA Shows How Artists Grappled With Artificial Intelligence Before Google

Jonathon Keats , CONTRIBUTOR

Critic-at-Large   Opinions expressed by Forbes Contributors are their own.

Early in her career, Vera Molnár made paintings that might be mistaken at first glance for artworks by Kasimir Malevich or Piet Mondrian. Working in midcentury Paris, Molnár was inspired by both iconic modernists, and by many others, but the works she created were neither copies nor tributes. Molnár sought nothing less than to take over for the dead masters, continuing their oeuvres posthumously.
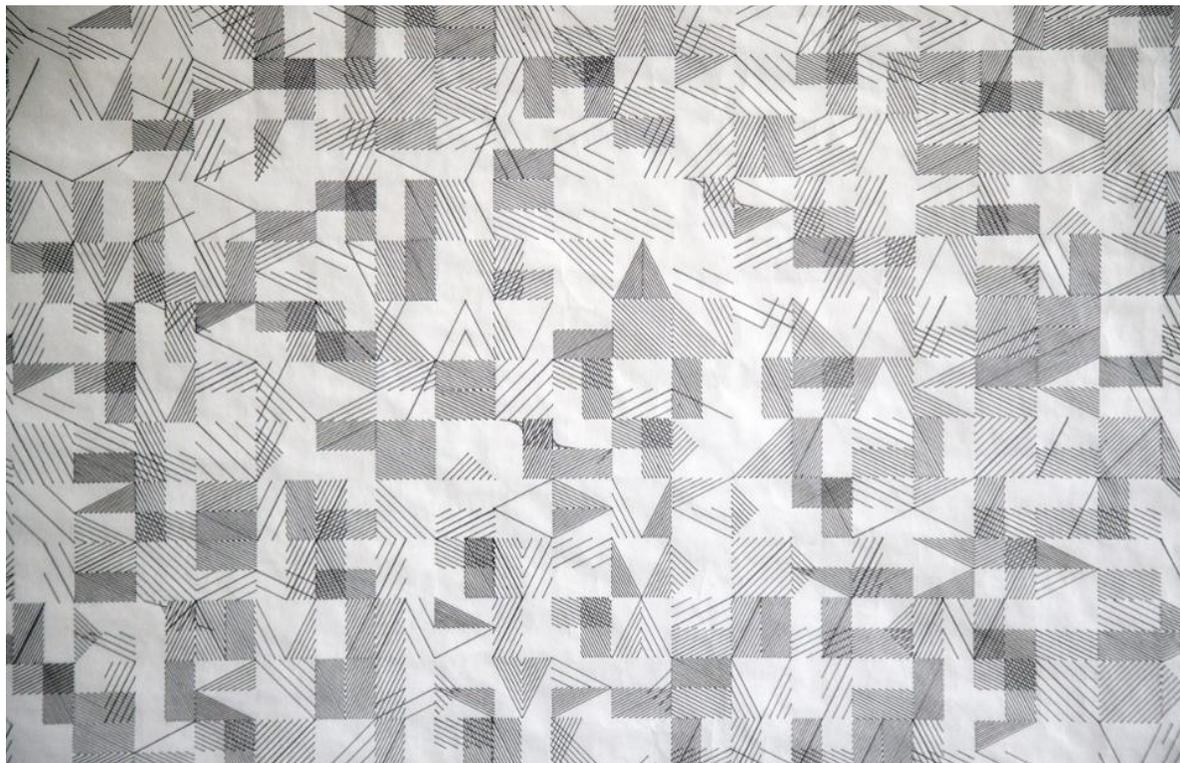
Vera Molnár. A la Recherche de Paul Klee (Searching for Paul Klee) (detail). 1970. Ink on paper, plotter drawing. The Anne and Michael Spalter Digital Art Collection. © 2017 Vera Molnár

Her programmatic approach – in which she iterated on other artists' systems of abstraction in search of undiscovered variations – resembled the operation of a computer. Gradually Molnár began to think about making art on a machine. She learned BASIC and FORTRAN. In 1968, she gained access to a mainframe. Some of the early output, a series of plotter drawings from the early '70s, are part of a new MoMA exhibition titled *Thinking Machines*.

The gamut of *Thinking Machines* is confoundingly broad, encompassing everything from vintage IBM and Apple computers to pioneering digital animations by Stan VanDerBeek and Charles Csuri to visionary architecture by Cedric Price and Archizoom. But what the show lacks in coherence, it makes up for in the opportunity to explore themes of one's own choosing. One of the most interesting – supported by work seldom seen – is the subject of art-by-algorithm.

Csuri's 1967 animation, derived from a single drawing of a hummingbird that he mathematically stretched, spun and multiplied, is one of the first examples of a computer serving as a tool for artistic expression. Instead of manipulating a pen, the artist altered parameters in an equation.

Just one year later, Alison Knowles gave a computer artistic autonomy, at least at the level of composing poetry from a database of phrases. Although the arrangement of language was random, the imagery is strikingly vivid. Her work provocatively suggests a similarly mechanistic basis for human creativity.

Vera Molnár's work has qualities in common with both Knowles' poem and Csuri's animation. Enlisting the mainframe as a tool, she showed how the computer could automate the mechanistic aspect of creativity in order to extensively explore the possibilities. She did this with the work of past masters including Mondrian and Paul Klee, and also systems of her own invention. The mainframe computed the implications of her intentions. It became her surrogate, a sort of individualized artificial intelligence.

Now in her 90s, Molnár is still working. Her work is still generated by machine. There's no reason why it should stop even after she's gone.