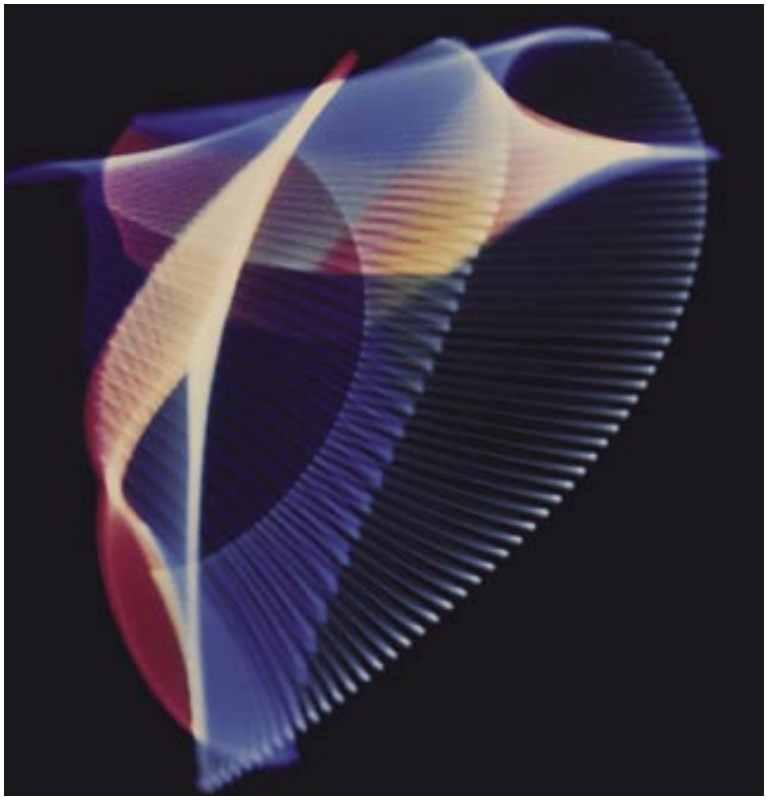
Laposky's Lights Make Visual Music



Ben Laposky, artist and long-time student of mathematical forms, poses in 1952 with his paintbrush: a boxy oscilloscope.

A boxy cathode-ray oscilloscope, covered with buttons and knobs and meters and lights, looks like something you know you shouldn't touch. The versatile electronic testing and analysis device—used as a prop in 1950s and '60s television and film to signal that science was being done—could double as a robot's midsection. It seems unlikely that someone could create wild gyrations of dancing light with such an unromantic instrument. But that's exactly what artist Ben Laposky did, creating some of the first graphic images generated by machine.

Laposky was a draftsman, a lettering artist, and a long-time student of mathematics who owned a sign shop in Iowa and dabbled in art in his spare time. Inspired by futuristic literature that envisioned "painting with light," he began turning undulating light from an oscilloscope into an electric trance dance. For 16 years beginning in 1950, he used the machine to manipulate basic waves into elegantly rhythmic designs he called "oscillons."

An oscilloscope turns electrical signals into lines on a screen; it can be used to measure everything from brain waves to engine vibrations. In a process he described as "analogous to the production of music by an orchestra," Laposky set as many as 70 controls on up to 60 oscilloscopes

at a time to create his fleeting designs. He shot photos of the resulting patterns with high-speed film and special lenses; later, he added tinted filters to imbue the photographs with striking colors.

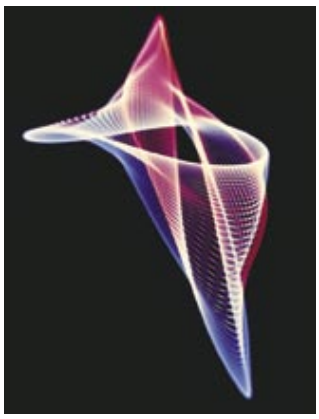
The artist said his "visual rhythms and harmonies of electronic abstract art" were "as pleasing to the eye as compositions of sound vibrations in music are pleasing to the ear." Oscillon photographs were often accompanied by electronic music from synthesizers made popular by Laposky's contemporary, Robert Moog, which were based on the same types of oscillators.

Laposky's musical art had been published more than 160 times and displayed at more than 200 exhibitions in the United States and abroad before the emergence of computer graphics upstaged him in the mid-1960s. "I believe my method is perhaps more in line with artistic effort than use of a computer," he said; but as interest in his art waned, so did his energy to create it. He stopped making oscillons altogether, but continued working at his sign shop until his death in 2000.

Much of his art has since disappeared. Laposky never tried to recreate any of his patterns, nor did he keep records of the control settings he used to make them. None of the 10,000 negatives he claimed to have taken have ever been found, and only 101 mounted images of the original set of 102 remain. What remains of his work, though, still impresses graphics gurus today.

"The images are just spectacular. A lot of people can't believe they're looking at 50-year-old graphics," says Robert Krawczyk, Illinois Institute of Technology associate professor and director of Art@IIT Gallery. Last year, Laposky's 101-piece collection returned to IIT, where it had been exhibited from 1958 until 1961. "It was really nice to have the prints again," Krawczyk says. "It was as though his work had come home. Laposky's oscillons are still great examples of the relationship between science and art."

Text by Alison Drain
Images courtesy of Sanford Museum, Cherokee, Iowa



Above: Laposky tuned oscilloscope dials to make images and then snapped photos of them before they disappeared.

Below: The artist began making black-and-white pieces in 1950 and using filters to color his oscillons in 1957.