

A short history

Colette Bangert and Charles Bangert

721 Tennessee, Lawrence, KS 66044, USA

It is difficult to pinpoint the precise moment when the history of our computer art collaboration should begin.

For example, in 1956 Colette was in the fourth year of a five-year studio art program in Indianapolis. Jeff was an undergraduate at Harvard. He and his roommates constructed a drawing machine in their dormitory stairwell.

The machine produced the kind of smooth, 'mathematical' forms that most people associate with machine or computer drawing. We call them 'spirals.'

Two important elements were present in 1956: fine art and machine art, but this is not the start of the collaboration since we were unaware of our mutual existence. In 1957 Colette graduated with honors and was accepted in the MFA program at Boston University. We met in Boston in 1958. At this point, the third element, the collaboration started, but in 1958 we did not imagine that we would subsequently spend 19 years working together using a computer to produce drawings. Neither Colette, studying painting, or Jeff, studying pure mathematics, were quite sure what a computer was.

Colette finished the MFA and Jeff dropped out of Harvard. We married in 1959. In 1960 we were living in Grand Forks, North Dakota. Our first joint collabora-

tive effort was another drawing machine, built in our basement. But we have never called its output 'art.'

All three elements, fine art, machine art, and collaboration, came together in 1967. Jeff was working at the University of Kansas Computer Center, which had just been given a pen plotter. Jeff volunteered to test this new device. The first drawings were spirals, but Colette had the idea that the computer could do something more than spirals. As a result, Jeff added random numbers to the sines and cosines. Then came the thought that, if a drawing were simulated in the memory of the computer, the lines drawn could interact with each other. This idea led to the MELLY series. For most people who are familiar with our history, this is the apparent beginning.

MELLY was a series of programs. The drawings were called 'LANDLINES.' Each program generated two 'random' curves, then transformed from one curve to the other, placing each instance of a transformed curve on a grid.

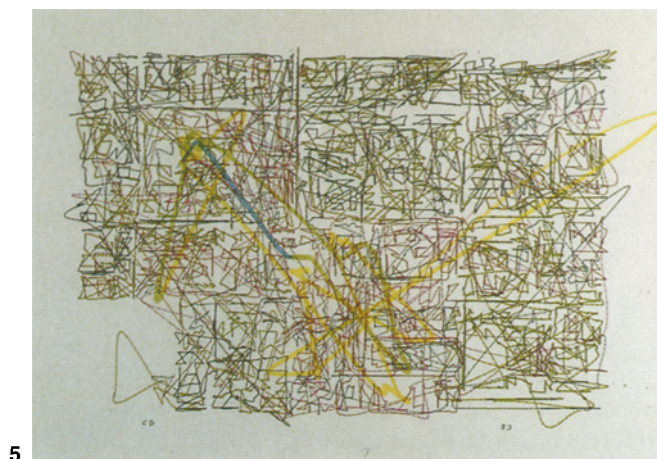
Fig. 1. Landscape coils, $13\frac{5}{8} \times 10\frac{1}{2}$ " (1967)

Fig. 2. Red contained contours I, 10×10 " (1972)

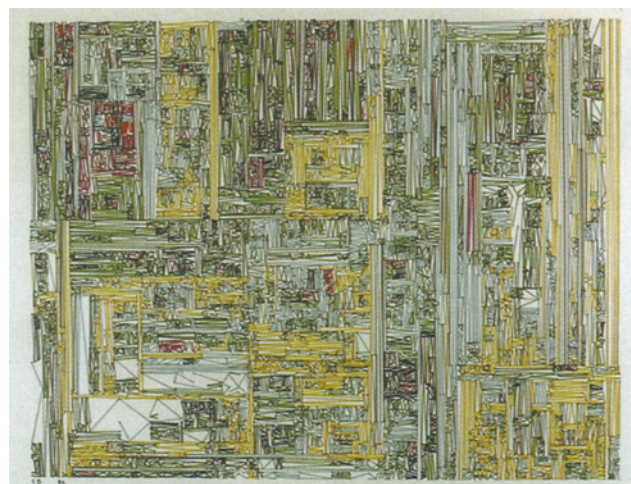
Fig. 3. Structure study III: black, brown, red, yellow, 10×10 " (1977)

Fig. 4. Circe: colored line study, $8\frac{1}{2} \times 11$ " (1984)

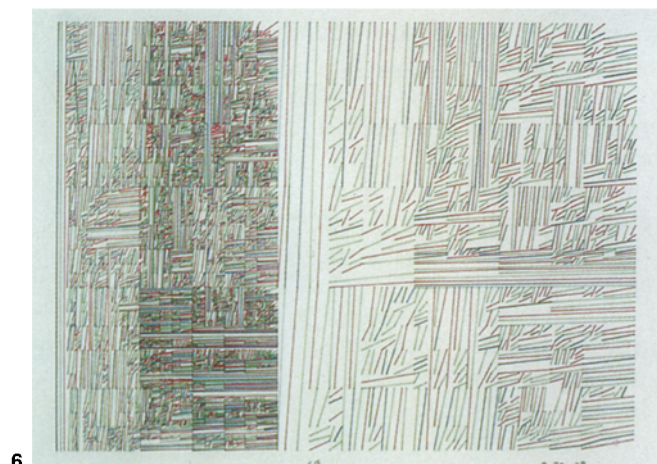




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Fig. 5. Grass: series VI, 11 × 14" (1983)

Fig. 6. Grass: series I, 11 × 14" (1979)

Fig. 7. Grass: series V, 11 × 14" (1982)

Fig. 8. Circe's view: greening the brown, 8½ × 11" (1986)

The whole drawing was simulated in the memory of the computer. As each curve was drawn, it might be truncated if it bumped into a previously drawn curve.

When we start a new program, we have three questions. How to draw a line? Where to put a line in a drawing? What happens to the line as it is drawn? Each series of drawings and programs, MELLY, LANDLINES, FIELD, RECHOL, PASTE, GRASS, and CIRCE, implements answers to these questions.

Over the years, access to computing hardware has changed. Our

first computer drawing was done on a General Electric GE-625 computer, which was physically larger than three VAX 8600's and had less raw computing power than our current system – an IBM PC which sits on a desk at home. We are not sure of the name of the first plotter we used. We think it was made by Benson-Lehner. It was located in a very public area in the Computer Center. It was always hard to concentrate on setting up the plotter, with other users breathing down our necks, waiting for us to finish. Now we have a Hewlett-Packard 7475A

plotter at home, next to the PC.

After 19 years, we still ask the same questions. How to draw a line? Where to put a line in the drawing space? What happens to the line as it is drawn? Each drawing is an answer. At times it is frustrating doing all that work and not feeling confident that we know the answers to our basic questions. More often, we realize that there is no end to the process. There will always be new lines to draw, new compositional algorithms to try, and new forms of line interaction.