

Algorithmic Art

by James Faure Walker

Editors note: A previous version of this article was seen in the Summer 1997 issue of CGI Magazine, but in James' offering of this text for our perusal, we came to believe that it was still compelling, and that it had not been seen by most of the IA audience. Enjoy - PL

In the Pozzio coffee bar next to the Barbican tube there's an animated discussion going on about algorithmic art. Apart from the two cappuccinos on the table, there's a lap-top, and scrolling across the screen is a Persian carpet. As it scrolls it seethes, oscillates, and re-arranges its symmetries like gauze over scurries of luminous ants. Jamy Sheridan is showing me his real-time magic carpet. It's character-based and fast -- the letter D is assigned a little onion form and so on -- and wonderfully low-tech. At this scale, it's a de luxe screen-saver, but it actually is the compressed data for an installation where the image is projected down onto sand, with music by Sheridan's colleague John Dunn generated through the same program. Effectively, the viewer gets inside the piece. As Sheridan elaborates on the symbolism of the carpets -- the sacred gardens, the pools, fountains, trees, flowers, hedges -- outside in Aldersgate the buses clatter by and the temps get their take-away baps.

I remember a wonderful exhibition of Persian carpets at the Hayward some years back, which included the giant Medici carpets. In the dim light, you could look at the rambling octagonal geometry from a viewing platform. I listened in on a whispered conversation behind me. Could this be the greatest work of art, in any category, ever made? The voices were familiar from the radio -- the pianist Alfred Brendel and the art critic David Sylvester. I'd been lost in a parallel day-dream, overawed by the dignity of the vibrantly threaded color. It is a lost tradition, as remote to us as Greek sculpture was to the Italian Renaissance. Sheridan's rapid conversation is full of the meditative worlds, the stained glass harmonies of cyberspace, the idea that these images, resonant with subterranean code, have a direct line into the psyche. Visual music. He points out that art forms have always involved systems, mechanisms. Even watercolor can be understood as a feed-back loop where a moving point delivers pigment suspended in liquid onto an absorbent surface. There's no break between the computer-generated and the human-generated, it's just that we're so used to the technology we don't notice it.

As I listen and sip my coffee -- the cup is technology -- I'm putting several thoughts together. There is something elemental in the symmetry of these crimson and indigo diamonds. I think of the forms evolving centuries ago, with the women weaving row by row from memory, the glare and hassle of the desert outside. Maybe these quiet harmonies were therapeutic back then, too. I jump to a conversation of a week before with a friend who is a senior nurse. She was speaking of an intensive-care course she had done where she had to learn the cycles of checks -- pulse, airway -- so that she could run on auto-pilot in a real emergency. On the bus home, people must have thought I was mad, she said, as I recited the algorithms. I pounced on the phrase, the analogies with the routines, rhythms behind the patterns of

art, be it painting, bowl or rug.

Sheridan's involvement with computers goes back 25 years, and since the mid-80s he has been collaborating with fellow artist/programmer John Dunn. Dunn takes care of the underlying system software as well as the music. He wrote some of the first professional paint programs (including Lumena for the PC) and founded Time Arts Inc. of Santa Rosa, California. I first ran across their work in a dark cave of a room a couple of years ago, on a visit to the University of Michigan, Ann Arbor, where Sheridan teaches computer-based art -- you were as likely to meet an astronomer working on the Hubble. It was one of the few art faculties to be getting into gear on these questions -- Frank Stella, the supremo of abstract painter, is an artist-in-residence. Like the CV of other artists whose work has something quite distinctive about it, Sheridan's has its surprises, such as studying Chinese at Columbia University. Jasia Reichardt, who put on the pioneering Cybernetic Serendipity exhibition at the ICA in 1968, tells the story of meeting a group of electronic artists in Japan. They each recounted their background, and to her relief none of them had studied art.

Major art being produced by people outside the art system? Sounds interesting. Electronic art as the new folk art, or art as a by-product of the labs. Maybe we can only glimpse the real potential of these machines through artists messing about with them. Art as the demo with a dash of culture. Art without the art materials. Hold on. How do we rate this new stuff? Does it co-habit with the pre-electronic stuff, or is it a new species? The more I think about it, the less I am convinced. I have seen plenty of work that really sends me -- animations by Beriou, Landreth, Innocent, Kawaguchi; performances by Stelarc; bio installations by Sommerer and Mignonneau, and these carpets. If it's science, it's funky science. But I don't think, ah, the wonderful world of new media, this changes everything; art has been dematerialized, interactivity has been mechanized, yes, it's a quantum leap for the avant-garde.

On the face of it, computer graphics has added a long list of wonderful capabilities that artists never had before -- speed, control, warps and morphs, out-of-body experience, interaction with the viewer, instant Internet distribution. But effects are just effects. Art and computer graphics can be meshed together in quite contrary ways, and sometimes you take away more than you add. I got news on the Web of a new digital gallery in London, part of the Backspace set-up, and checked its webpage. Impressive space, interesting installations. I ring up to find out opening hours, and find out it is, err, virtual. I'm told, quite politely, that digital art only exists virtually anyway, on the monitor, on the Web. From that point of view -- could be the digital underground -- it's ridiculous to start building institutes of dematerialized art.

The interactive and the virtual are becoming the official cutting-edge, the theme show concept with performance indicators. We don't ask how good it is as art, but what it does. It's great, people spend ages playing, immersing, taking the rides, the fun psychology tests. Well that's the idea. Serious Games was the title of the show recently at the Barbican. Seventy years back at the Dada exhibitions, you entered the show via the toilets and you would be invited to interact with an axe. These days, the exhibits are on show courtesy of the sponsors and you have to conform with regulations. It's not an open-ended hippy experience. There can even be a sub-

text, that you're getting a privileged glimpse of the future, when all art will follow the interactive model. Maybe this appeals to the control freak, but inter-active artists speaking on their work don't always practice the inter-active mode with a live audience. The advocate of the telematic waves his hand towards an ancient portrait that happens to be on the wall of the lecture theatre. We look at the picture, he says, we smile, we wave our hand. Nothing happens. There you are: painting, the obsolescent art platform. Note it down.

Were art forms really dreamt up like the Windows 95 interface, something provisional till the Sensurround version came along? I suppose you can't argue with the hi-tech zeitgeist, but here it goes. Some aspects of paintings -- or carpets -- involve amazing technological efficiency. Painting has actually survived the arrival of photography and film quite well, and can deliver its impact in microseconds. The 2D image may stand still, but your thoughts spin around it. The brain's processing power has its thresholds, and you don't need to flood the system to get results. Understatement, simplicity, stillness can work wonders. Ditto for poetry. Faster clock speeds, software upgrades don't in and of themselves improve poetry. I recall a demo of a flipping electronic haiku -- the nouns were vague and the random connections uninteresting -- and a librarian suggested it wasn't up to much as poetry. She was slapped down with the "you're thinking traditionally" line. The trouble is that the 'advance' version on offer, where artificial intelligence gets in on the creative process, is intellectually mesmerizing, but for the present it's best suited for an audience of goldfish.

If you hear of a Web project that connects with a remote culture you know it will be one of those sites that lets you water someone else's garden. "High tech, low art," say the critics, nice idea, pity about the Fisher-Price interface. Smart opinion in the art world has been guarded, but that's because it's got its own agenda, and expects any kind of 'computer art' to be third-rate unless a documenta-accredited artist has a hand in it. I dread having to explain to a Martian the workings of art world etiquette. In the graphics and animation worlds there's professionalism, there's a hierarchy. In the galleries there's this throw-away amateurism and it's uncool to be expert. Next Step ideology announces that new tech is going to upgrade the art experience, much as Mondrian thought figurative art was finished and right angles would improve our lives. The smart set smiles, and says you can't invent, you can only recycle and reflect, and anyway, Mondrian didn't know about child abuse. So I sit here and wonder. Well, the idea of art as therapy, connecting with the spirit, would get a laugh from the Britpop crowd. Rothko was OK, but that was pre-post-modern. Being into the spiritual these days is just sad, like being seen in the New Age section of the record store.

Meanwhile the first 'real' digital gallery has opened in London (the Colville Place Gallery) and it's been set up by a graphics outfit, so life could get interesting. There has been a steady trickle of prominent computer artists passing through London this past year or two, which is a little surprising because the major festivals have been elsewhere. London is the cool city, yes, but they have had other reasons for their visit. Roman Verostko, who is showing at this year's Siggraph in LA, was here last year. The remote culture he was connecting with was in the British Museum, the Lindisfarne Gospels. If you look at the 40-foot work he is

showing at Siggraph, with its Byzantine stillness, iconic poise, delicate filigree, you would see the connection. Verostko is the most genial and articulate algorithmic artist I know, and like Sheridan, believes in creativity at the level of code. His computer graphics record goes back to 1968, and if you are thinking this is cultural tourism on a par with all those scanned and filtered Botticellis, think again. Before spells in Paris with Stanley Hayter (who taught Pollock) and at MIT, he was a monk for sixteen years. He also edited the 1968 New Catholic Encyclopaedia of Art and Architecture, and later on lectured in China. He writes his own software, and has trained his 'scribes' -- his plotters -- to draw with Japanese brushes. Each work is a series of improvisations, permutations on the gestural mark the program comes up with. One analogy he likes to use about the power that an artist can get at in the computer is that of being at the controls of a crane. I recall this discussion of the spiritual in the appropriate setting of a Charing Cross Road milk bar.

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The cost of producing a cibachrome print here happens to be one third of Tokyo prices. So Yoshiyuki Abe, en route to the WRO festival in Wroclaw, Poland, got his images printed at Superchrome in London. This time, we dissected the aesthetics of the computer-generated image over fish and chips in Upper Street, Islington -- the only plausibly authentic English food I could think of amidst all the Trattorias. I have known Abe a few years, and get much pleasure from the extraordinary refinement of his graded images. They have the chilly perfection of jewels, deep pools with infinite echoes, dreams. He speaks of them as essentially mathematical spaces, with no right way up, no up and down, very distant cousins of Kandinsky and Malevich. He writes his own programs, and speaks of periods of quietness, getting in the right frame of mind. He sets the parameters for his 2D ray-tracing, and tries out a few variations. He works them in real time; he says because he thinks of the computer as his collaborator, and wants to imbue the images with his own sensibility, his own sense of the metaphorical.

He trained as a photographic engineer, and sometimes does translation for a computer graphics journal. So most of his work time is spent with his two PCs that run non-stop -- mailing, editing documents, programming, translating, administering the mailserver -- everything, he says, except dining, sleeping, or taking a bath. His art inhabits the same dimension. For the record, he has never even tried PhotoShop -- any version. In fact he dislikes being perceived as Japanese, and dismisses my theory that the idealized spaces in his images compensate for his confined work-space.

Walking back from my meal, I try and piece together the themes that bring these artists together -- algorithmic art, yes, but that makes it sound like its programming as an end in itself. These artists are driven by something else. An exhibition called The Transcendental: visual rapture in techno art? It would need something to keep it from being too serious. My copy of Richter's classic Dada drops open on the page where Huelsenbeck, one of the founders, in 1918 says: "I've hated nothing so much as romantic silence and the search for a soul." Back to the drawing board.