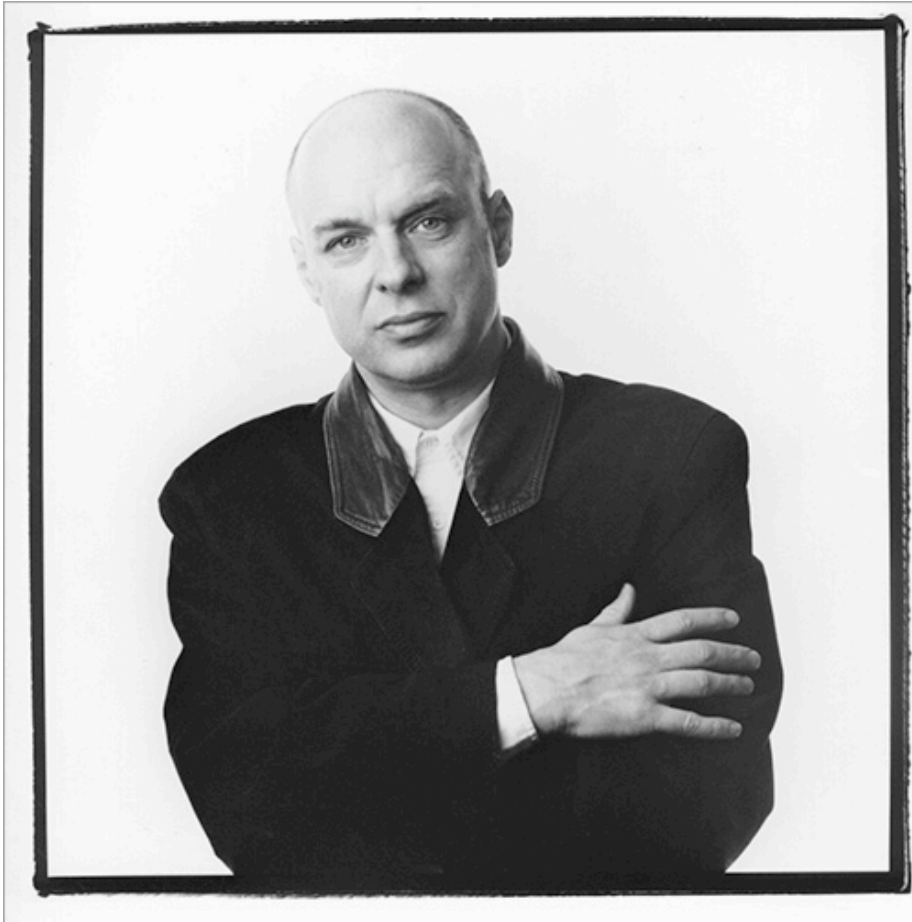


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Brian Eno Q&A: The Infinite Art of *77 Million Paintings*

Michael Calore 07.02.07



Brian Eno

Photo Courtesy The Long Now Foundation

Brian Eno may be best known as a musician and composer -- from his groundbreaking experimental music recordings of the last three decades to his production work for mainstream acts like U2 and Talking Heads. But Eno also inhabits the art world's cutting edge, creating immersive installations mixing sight and sound for galleries and museums in the United States, Russia and Britain.

Eno's latest foray into digital artwork, *77 Million Paintings*, recently completed a three-night run at San Francisco's Yerba Buena Center for the Arts. Both the music and the visuals are "generative" -- a technique where the artist establishes specific parameters for the artwork to exist within, then lets a computer arrange the pieces. Eno developed special software to display his hand-drawn images as randomly overlapping, constantly moving patterns of color and light.

The installation's North American premiere was hosted by [The Long Now Foundation](#), a San Francisco-based futurist collective. (Eno serves on the group's board of directors). The foundation arranged a special showing that displayed the artist's abstract, dreamlike images on a massive, 45-foot-wide digital screen.

Wired News spoke with Eno on the telephone from his home in London, talking about *77 Million Paintings* (which is also [available as a DVD](#) that runs on your home computer) as well as his ongoing work composing the soundtrack for *Spore*, the new video game from *The Sims* creator Will Wright. You can read the full, unedited transcript [here](#).

Wired News: What drew you toward working with generative art and generative music?

Brian Eno: Well, part of it is that it was an extremely good value (laughter) because it was possible to make a lot of work

from a very small amount of original material.

Once I started working with generative music in the 1970s, I was flirting with ideas of making a kind of endless music -- not like a record that you'd put on, which would play for a while and finish. I like the idea of a kind of eternal music, but I didn't want it to be eternally repetitive, either. I wanted it to be eternally changing. I developed two ideas in that way, *Discreet Music* and *Music for Airports*. What you hear on the recordings is a little part of one of those processes working itself out. Theoretically, the processes were infinite but unfortunately, recordings aren't of infinite length. So you sort of had a diagram, or really you got a "still" from the piece.

As I started doing installation work in the late 1970s and '80s, I realized I could make effectively endless pieces of music and pieces of visual material by exploring the possibility of combinations and permutations. They're not actually infinite, but as far as any human observer is concerned they are, in that none of us will ever live long enough to see all of their possibilities exhausted.

I felt it was a way of solving the goals I had set for myself of making endless music. But the other thing that interested me about it was that it put me, as the artist, in a different position. It put me more in the position of the audience because I couldn't possibly predict all the states that one of these pieces would take. And indeed, one of the really big payoffs of the whole thing has been suddenly hearing or seeing things that I wouldn't have imagined -- and I probably would never have thought of doing.

The pieces surprise me. I have *77 Million Paintings* running in my studio a lot of the time. Occasionally I'll look up from what I'm doing and I think, "God, I've never seen anything like that before!" And that's a real thrill.

WN: When you look at it, do you feel like it's something that you had a hand in creating?

Eno: Well, I know I did, but it's a little bit like if you are dealing hands of cards and suddenly you deal four aces. You know it's only another combination that's no more or less likely than any of the other combinations of four cards you could deal. Nonetheless, some of the combinations are really striking. You think, "Wow -- look at that one."

Sometimes some combination comes up and I know it's some result of this system that I invented, but nonetheless I didn't imagine such a thing could be produced by it.

WN: It's interesting you say that, because even though the work is structured to have very specific rules to go by, it still has the feeling of the unexpected. I can see some really strong parallels with something like an improvisational music performance.

Eno: Yes, and in fact the inspiration for this work really came from music, and in particular it came from a small group of composers who were at the time called the New Tonalists. Terry Riley was one of them. Steve Reich, Philip Glass -- these were all people who were exploiting some kind of minimalist aesthetic where they were working with a very limited amount of input material. Then the process of the piece was really that material being reconfigured in various ways to make new combinations.

WN: Was the music something you began composing long before the project?

Eno: Variations of (the audio for *77 Million Paintings*) have always been the music for this multiple-image-permutation work I've been doing. The music has varied over time, and I've introduced different elements and left out some -- some have been there for a long time. So gradually the music has mutated, though not so much as the slides, actually. The music has been a more constant factor than the images.

WN: How does the audio element of *77 Million Paintings* relate to the audio work you're doing for *Spore*?

Eno: The *Spore* work is also generative, which is to say that you won't have the same musical experience in a particular part of the game at any moment. Some of the parts of the game are more fixed than others. For example, when you first open the game -- and this is the way we're thinking about it at the moment, anyway -- there will be a sort of signature that you'll recognize and it will happen pretty much identically each time. But as you go into the game and start to explore different parts of it, your choices will make a difference to what plays in quite a lot of ways. The landscape of the places that you're in will affect what's playing. So you will not hear exactly the same thing over and over. Most game music is based on loops effectively. Well, this isn't, really.

WN: I was wondering if you could talk about how you see your artwork in particular evolving from your use of TV, videotape and stationary slides into what you're doing now with software, giant LCD screens and projections. How has the work itself evolved?

Eno: I'm always interested in what you can do with technology that people haven't thought of doing yet. I think that's sort of a characteristic of the way I've worked ever since I started. So, you know, initially when I discovered the recording

studio, I realized -- as indeed, lots of other people did -- that there are all sorts of things you can do in a recording studio that weren't possible previously in music. Phil Spector knew that, and a lot of other people knew as well.

But the breakthrough for me -- I happened to start working in studios just at the time that multitracking became available, and I realized it made music-making a lot like painting in that you could add and take away colors, you could stretch things and turn them upside down and do all sorts of different things. So I thought of myself as a sonic painter rather than as a composer. Then, I started to get into using video, and I found that there were things you could do with that that people hadn't been doing. Then, I discovered slide projectors, which were wonderful because you could work at such a scale with a slide projector. You could work in a very large scale and you could program projectors to work in interesting ways, to shuffle slides up and so on. So, it was always really trying to pick technologies that were around and seeing what else you could do with them.

WN: One of the things I like about technology is the limitation it places on you. I think the limitations influence the art, too -- most of the time for the better.

Eno: Yes. I remember this campaign Microsoft had.... They tried to present the computer, as people often do, as a machine that can do anything. In fact, if you work with computers for a while, you learn that some things are far easier to do than others (laughter). And there's no doubt that there's a level playing field -- you will tend to do certain things with computers and tend to not do other things.

So, as long as you acknowledge that that's in the nature of the beast, that it has its own character and you can work with that character, it's fine. That's something that painters have known for some time. They knew that oil paint will do things that watercolors won't do and vice versa. The same is true for computers.

Read the [full transcript](#) of Wired News' interview with Brian Eno.