

A GOOD NUMBER of people—some 2,800—visited our exhibition on “merging art and science to make a revolutionary new art movement.” The reviews were generally positive. Sally Carter wrote in the *British Medical Journal*, “This exhibit is an adventure.” Matthew Reisz commented in the *Times Higher Education*, “Wherever science is leading us, these artists are following and finding powerful ways to address important issues of progress, identity, and what it means to be human.” Katia Sowels of the *Independent* described the exhibition as “intriguing, because at first glance art and science are generally considered opposites.” Helen Lewis, in the *New Statesman*, identified a problem that the new movement of science-influenced art has yet to deal with: “Scientists are leading the way—several of these pieces have already been sold to museums or professional bodies—but getting art critics interested is proving harder.” This is apposite. When curators at major museums and galleries agree that science-influenced art is important and meaningful, it will have arrived.

During the exhibition I chaired three debates. The intense give-and-take paints a telling picture of the complex issues underlying this newly emerging art movement: how it should proceed, the role that science plays in the work of artists, how and whether the coming together of art and science should or should not proceed, and what it actually means for artists and scientists to work together. Tiffany O’Callaghan wrote in the *New Scientist*, “Miller spoke about an emerging third avenue of art in the 21st century, a true convergence of art and science, but the artists were at pains to dissemble his vision,” and indeed on several occasions I found myself the minority voice. She went on, “Perhaps as artists increasingly collaborate with scientists, and head into labs for their technology, the distinction between tools and inspiration will blur.”

The first debate took place on June 8, 2011. It was a warm evening and over a hundred people were crammed into a small room, overflowing into the garden. This debate had a sharp critical edge and spirited discussion, not surprising as the panel consisted of

Oron Catts, Nina Sellars, and Stelarc. To start the discussion, I asked whether science-influenced art might prove to be at the forefront of a whole new culture in the twenty-first century. To my surprise, the panelists attacked me for using the words "science-influenced," which they interpreted as suggesting a hierarchy of disciplines—that science was above art. I replied that artists have always taken their inspiration from outside themselves. In this day and age, science pervades our culture, so it makes sense that artists should use it as a source of inspiration. The panelists were disturbed by what they saw as a lack of symmetry in my remarks, the suggestion that science affects art but not vice versa. I replied that while science-influenced art certainly exists, there are very few examples of art-influenced science, although I am sure this will evolve.

The artists also claimed that they were not so much influenced by science but simply used it like paint in a can. They finally conceded that they were challenged by science. But technology was different.

Oron Catts spoke of the evils of technology and the importance of separating it from science. This is an old refrain dating from the post-atomic bomb days into the 1960s and 1970s—that technology, not science, is responsible for nuclear weapons and the evils of society. Today this stance seems archaic, in light of the blurring of the line between science and technology.

To the audience's surprise, the panel also insisted on a "dignity of disciplines," arguing that erasing the line between art and science could lead to scientists producing bad art and artists producing bad science. In other words, art is art and science is science—a position that seems increasingly parochial. The panel went on to argue that scientists think less creatively than artists because of the restrictions on their work imposed by the need to apply for grants. This may apply in the case of scientists who are experimentalists, whose research grants are for a very specific project, but not to scientists who specialize in theory, whose research can range wider than their grant specifies. The panelists seemed to know little of what went on in the world of science outside biology. This held for most of the audience too, the vast majority of whom were artists.

The panelists complained that while they visit scientists in their laboratories and offices, the scientists never visit them. Scientists tend to get lost in their own work and not have time to look outside it. The educational process too often does not give scientists the urge to expand their horizons. The importance of looking into the arts is critical for wide-ranging research.

Art and music can certainly inspire great science. A Bach sonata can help recharge one's energy to return to what seems an intractable problem. But this is different from being *influenced* by an artist as a result of the collaboration to such an extent that the scientist changes his view or looks again at his day-to-day research. There is a difference between science-inspired art and science-influenced art, as there is between art-inspired science and art-influenced science. I'm interested in artists influenced by science, not artists inspired by science, "influenced" being stronger than "inspired."

The body as canvas: ORLAN

Like Stelarc, ORLAN's canvas is her body. In fact, if anything, the experiments she carries out on it are even more extreme.

Before I even meet ORLAN, her assistant reminds me by email that her name is spelled in capitals. She is a brand. The underlying theme of ORLAN's work has always been an attack on traditional concepts of female beauty—invented, she says, by men for their own pleasure—and on Christianity, which treats the female body as unclean.

Always controversial, ORLAN had her great epiphany in 1978, when she was thirty-one. She was about to address a symposium on video and performance art when she collapsed and had to be taken to the hospital for emergency surgery for what turned out to be an ectopic pregnancy. She took a video crew to film the operation and insisted on remaining conscious throughout. Looking up from the operating table, she saw light beaming down as if from heaven, and the surgeon standing over her like a priest officiating at a Mass with his assistants around him like fellow celebrants. There and then