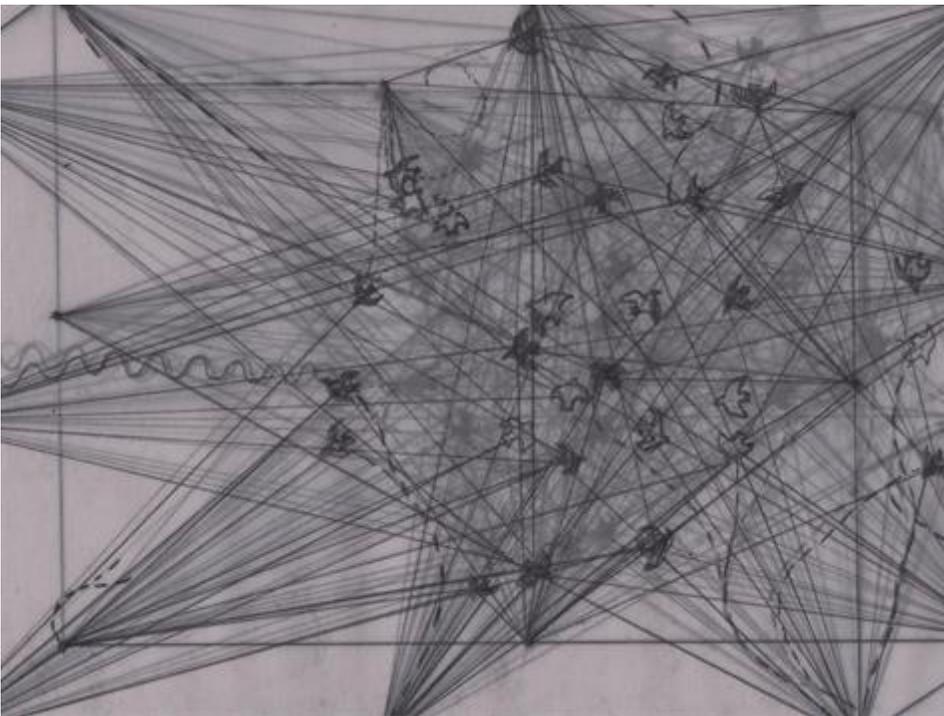


Playing in the art-science petri dish

ANNE PHILLIPS

The end of the art-science divide is spurring a new renaissance of creative endeavour.



Steve Durbach, Shrodinger's Bird, UNSW

There was a time when art and science appeared to function as two mutually exclusive zones, with people being forced to choose at an early age between what appeared to be vastly disparate disciplines. In fact, it wasn't so much that people were forced to choose, but that they simply appeared to divide naturally into two groups: Those who did and those who didn't. Science, that is. Or art. Depending on your point of view.

The art/science divide has been thoroughly debunked and it looks as if individuals who are capable of doing both art and science are rather more common than we first suspected.

Read: [What Science and the Arts can teach each other](http://www.artshub.com.au/festival/news-article/features/festivals/richard-watts/what-science-and-the-arts-can-teach-each-other-248987) (<http://www.artshub.com.au/festival/news-article/features/festivals/richard-watts/what-science-and-the-arts-can-teach-each-other-248987>)

Read: [Scientists now curating MONA](http://www.artshub.com.au/news-article/news/visual-arts/gina-fairley/scientists-now-curating-mona-250657) (<http://www.artshub.com.au/news-article/news/visual-arts/gina-fairley/scientists-now-curating-mona-250657>)

One major initiative capitalising on this new world view is Science Gallery Melbourne, which is being established by the University of Melbourne and is set to open in 2018. It is part of an international network pioneered by Trinity College Dublin, promises to provide 'a new kind of space where art and science collide'.

Rose Hiscock, former Director of Sydney's Powerhouse Museum, says the gallery is not so much a museum as a space for experimentation, targeted particularly at young people.

'I prefer to think of it of as a petri dish more than institution: a place where accidents might spill into each other and turn into something else. Our job is to create a space where that can happen without being too dictatorial.'



Steve Durbach at work, Photo Ian Ginzberg Photography

A QUANTUM LEAP INTO THE FUTURE

The idea of the art-science intersection as an intellectual playground also appeals to Sydney-based molecular biologist-turned-artist, Steve Durbach. In fact, play is what drew him to science in the first place.

'I think the adrenalin rush a scientist and an artist gets is the same feeling. It's 'Wow, what just happened there? I want to understand why that happened.' And what happened might tell us something about how the world works. When you're playing, unpredictable things happen.'

Durbach has spent the last year fathoming the mysteries of quantum physics, although he uses relatively unsophisticated materials, such as record players, umbrella parts and photocopiers to convey the complex ideas which he encounters.

The artist is more concerned with expressing the beauty, frailty and sheer unpredictability of the quantum world, saying 'I don't want people to go wow at the technology, I want them to go wow at the underlying ideas. To me, the ideas are the beautiful thing.'

Durbach's art works include paintings, drawings, animations and simple machines which have been inspired by regular visits to UNSW's ARC Centre of Excellence for Quantum Computation and Communications Technology (CQC2T). Establishing an ongoing dialogue with the CQC2T team has not only enabled Durbach to engage with people at the cutting edge of quantum computing, it has also allowed CQC2T scientists to gain an insight into Durbach's work as an artist. In one instance, each scientist added a drawing in response to a simple design rule specified by Durbach, which he then made into a stop animation video.

When asked whether he's an artist or a scientist, Durbach points to the title for his forthcoming exhibition, Schrodinger's Bird, which opens at Bondi Pavilion on 25 May. It's a play on a central paradox of quantum mechanics, called Schrodinger's cat, an animal that can be said to be simultaneously dead and alive until observed.

Durbach uses the analogy of a bird, because he says 'I can be flying in the world of science and flying in the world of art simultaneously and the absolute best outcome for me is when I don't actually know which one I am. Then I've achieved what I want to.'

HARD SCIENCE AT PLAY

The concept of scientific play takes a more literal form with the work of Perth-based biotechnological artist, Guy Ben-Ary, who has used his own bio-engineered cells to create the world's first neural synthesiser. The aptly named cellF, which Ben-Ary refers to as 'my external brain', operates without the aid of programming or computers and is capable of holding jam sessions with human musicians.

Ben-Ary's 'rock star in a petri dish', which satisfies both his intellectual curiosity and his adolescent aspirations towards rock stardom, made its debut in Perth late last year in conjunction with Tokyo-based experimental drummer, Darren Moore. Sydney-siders will be pleased to hear that cellF is taking its post-human performance skills on the road and will be holding three performances at the National Art School's Cell Block Theatre in early June.

CellF has developed out of Ben-Ary's collaboration with an impressive team of scientists, including an electrical engineer, a stem cell scientist, a neuro-engineer and a neuro-scientist resulting in what the artist refers to as 'cross-contamination' between art and science.

However, Ben-Ary is very clear about the nature of his profession, noting that 'I've been working as an artist, not a scientist for years now. And it's really interesting because some of the scientists I work with refer to me as a scientist,

and then we have this argument, because I'm not a scientist and I don't follow a scientific methodology.

'This whole idea of working with neural networks...opens a window to what really interests me, which is the cultural and social engagement with those technologies. This is where I think art and bio-art have a strong place: to use those technologies and to comment about where they're taking us, the ethics and philosophical considerations that we need to take into account when we're using them. The cultural discussion is very important there.'

For someone who is not a scientist, Ben-Ary's ability to engage with the complex concepts and technology underpinning CellF is impressive. However, he attributes this to recent effort rather than childhood inclination.

The starting point for Ben-Ary was a trip to Perth in the late 1990s to visit his friend Oron Catts, now Director of SymbioticA, the Centre for Excellence in Biological Arts at the University of Western Australia, where the artist is now based.

'For the past 17 or 18 years I have been working with neural networks in so many configurations and in so many particular ways, that I know the field inside out.'

Ben Ary adds, 'I didn't study science. When I was a teenager it was not something that I dealt with...'

Perhaps there's hope for the rest of us yet.

[Schrodinger's Bird \(https://www.science.unsw.edu.au/news/exhibition-schr%C3%B6dinger%E2%80%99s-bird-art-inspired-unsw-quantum-research\)](https://www.science.unsw.edu.au/news/exhibition-schr%C3%B6dinger%E2%80%99s-bird-art-inspired-unsw-quantum-research)

Steve Durbach

Bondi Pavilion, Sydney

24 May to 12 June, 10am to 5pm.

Free public science talks will be held on Wednesday 1 June and Saturday 11 June.

CellF

National Cell Block Theatre, Sydney

10, 11 & 12 June

The performances are free, but [bookings \(https://www.eventbrite.com/e/cellf-three-post-human-performances-tickets-25502385321\)](https://www.eventbrite.com/e/cellf-three-post-human-performances-tickets-25502385321) are essential.

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