Collaboration or complicity?

Anna Munster

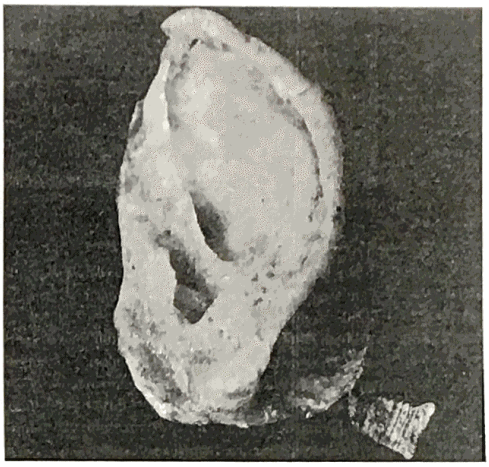
In the contemporary art world the relationship between art and science is a hot topic of conversation, arousing the passion and innuendo of something resembling a sex scandal. If an artist has managed to notch up some time in a molecular biologist's laboratory or found a technician willing to share the secrets of electron scanning microscopy, they will be jealously eyed off by others unable to make the right contacts.

Hot too because with their separate cultures, approaches and practices, the capacity of art and science to really intersect and talk to each other is vehemently contested by scientists, artists and cultural critics alike. On the one hand, some molecular biologists and geneticists use the rhetoric of aesthetics, declaring DNA to be a kind of 'clay' and the artificial creation of in-vitro organisms 'creative practice.' On the other hand, anecdotes from artists working in actual collaborations often suggest a more tenuous connection. In a public talk at the Art Gallery of NSW in 2001, Irish artist Dorothy Cross, who was collaborating with marine biologists on a piece about Great Barrier Reef jellyfish, recalled the bemused looks on the scientists' faces when she asked them a question of interest to her as an artist. Why had they discarded imperfect jellyfish specimens when collecting material for their study? It seemed to her that getting the questions right required enormous intellectual labour before collaboration even got off the ground.

In a lecture originally given in 1959, CP Snow famously commented on the gulf between the cultures of art and science and the "mutual incomprehension…sometimes… hostility and dislike, but most of all lack of understanding" (CP Snow, *The Two Cultures*, Cambridge University Press, Cambridge, 1993). According to Snow, the arts and humanities were steeped in tradition while the sciences were turned towards the future. If he were to cast his gaze around artistic ventures today his eyes would probably pop out of their sockets! Art is increasingly turned towards the technological futures presented and imagined by medicine and the life and physical sciences. The scales have tipped and now scientists such as renowned physicist David Bohm claim that science and art might converge by sharing common paradigms for understanding and approaching the world.

But a lot of grandiose statements are made about the commonalities between art and science: that they are symmetrical currents of human thought; that they spurt forth from the same wellspring of creativity; that they are equally concerned with innovation. What is overlooked is that neither art nor science is an homogenous field. Each has areas of specialisation with their own conceptual underpinnings, methodologies and—of particular relevance now—financial support and constraint. All these parameters affect the ability and willingness of artists and scientists to collaborate. We don't hear a huge amount about artistic collaborations in palaeontology, for example, but we do see a lot of artists courting and being courted by the life sciences. Art and science are no longer disciplines existing within the rarefied atmosphere of the academy, but are increasingly engaged with and situated in relation to corporate capital. Sometimes it is these corporate interests that pull the 2 cultures into converging streams, as artist Natalie Jeremijenko notes in reference to the willingness of biotech corporations to support art celebrating advances in genetics: "What is it that the artists have that these corporate interests are interested in? It is not the art, it is the access to the public imagination" (N Jeremijenko, "Invest Now!", 2000, *http//:cat.nyu.edu/investnow/ response.html*).

Recently there have been a number of art-science initiatives displaying a more constrained and respectful attitude towards the limits of collaboration. At a symposium held in conjunction with the exhibition *Art of The Biotech Era* at the Experimental Art Foundation in Adelaide, the scientific director of SymbioticA, Stuart Bunt, addressed the differences between the fields. Bunt is well versed in the topic, having established SymbioticA within the School of Anatomy and Human Biology at the University of Western Australia. Both Bunt and SymbioticA's artistic director Oron Catts are clear about the collaborative nature of this laboratory. Science is there to be critically appraised and explored but the work carried out under SymbioticA's aegis is artistic, not scientific. Although this may seem like policing disciplinary boundaries, it is more just a realistic appraisal of what collaboration between art and science is likely to achieve. By working from a position of mutual respect for their differences and armed with scepticism balanced by thorough background research into each other's respective fields, art and science can come together in modest ways on specific projects.



Stelarc and the Tissue Culture and Art Project, *Extra Ear Quarter Scale*, 2004

The most exciting contemporary art-science collaborations are fuelled by artists who take a critical stance on the instrumentalist ethos of technophilic culture. Sometimes this means criticising the very technologies used in making the artwork. Artists find themselves in an ambiguous position, steeped in the techniques of a scientific practice in order to comment upon the cultural scenarios which that very practice may be leading us towards. This is particularly the case with much bioart, foregrounded by work such as *Extra Ear* and other tissue-engineering pieces by The Tissue Culture and Art Project (TCA). This "semi-living" object—a tissue-sculptured quarter-scale ear modelled on Stelarc's actual ear—exists due to the artists' perfection of tissue culturing and engineering techniques. Although these are now standard procedures in biotech laboratories and industries, their arrival in the gallery space conjures fears of a society's science gone mad. The important point is that *Extra Ear* retains rather than resolves the ambiguities involved in its own production. So rather than adopting an oppositional attitude towards biotechnology or using the gallery space to aestheticise science, *Extra Ear* operates on the border of instrumentalisation and care. Recently on display in the *Art of the Biotech Era*, the tiny, fragile ear nestles in a sea of nutrient solution enclosed by a large incubator behind a glass wall. The audience can look but not touch. The scene is familiar and distant, linking us to the experiences of birth and death obsessively technologised by our culture.

These kinds of collaborations derive from an artistic base in spite of the deep understanding required of the techniques involved in their production. Other modes of engagement with science are also surfacing, some involving the use of artefacts produced by medicine and science. Justine Cooper's works deploy medical and scientific imaging techniques like MRI, electron microscopy and ultrasound to focus on embodied and experiential responses to disease, medicalisation and death, are one example (RT55, p4; RT45, p13, and RT26, p27)

There are also more speculative engagements and here the science can be stranger than the art. In the various projects of Belgian new media collective FOAM, also exhibiting in *Art of The Biotech Era*, the art is itself an interface and demonstration of what might be possible between the 2 cultures. In many of its projects, FOAM engages with dynamic evolutionary theories to create unstable and creative ecologies involving humans, machines and plants. These theories are themselves disputed among scientists, many of whom adopt more conservative and deterministic Neo-Darwinian approaches. To take them up in an artistic context injects them with new possibilities. In one project, *groWorld*, the artists will create localised, site specific 'gardens' implanted with bio-sensors from which they will gather data to map correlative and changing virtual spaces. This data will merge with cultural and sociological material gathered at the site from local inhabitants and ethnobotanical research. A *groWorld* is currently in the making in Adelaide. Here the hard and soft sciences cross-pollinate and co-evolve to produce a new kind of aesthetic object that is really concerned with the creative and speculative possibilities of the more maverick sciences.

As many scientists will readily agree, the contemporary practice of science is bound to industry and its demands for problem-solving and profit-making. Perhaps then 'making art' is one of the few opportunities science now has to become speculative again. Science is increasingly engaged in various forms of life management, from what we put into our bodies to how they appear and behave. If art in a sense has always been concerned with life, from the everyday to the unimaginable, then it cannot afford to ignore the permeation of science through the minutiae of everyday living. Science becomes the arena in which art can best comment on what it means and feels like to be alive at this moment in time.

Art of the Biotech Era , *Experimental Art Foundation, Lion Arts Centre, Adelaide, Feb 27-April 3*

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Image left: Artists participating in the Biotech Art Workshop, *Extracting DNA Molecules from a Pea*, produced by EAF Adelaide, 2004

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