

Exhibitions A cult collection

SciCult: bridging science & culture through contemporary art

An online gallery at <http://www.scicult.com>; self-ish, SciCult's inaugural exhibition was shown in London, UK, earlier this year. self-ish marked the start of a 2-year project to create portraits of prominent figures in science and art, starting with an MRI portrait of Sir Richard Sykes, rector of Imperial College, London, UK. Details of the gallery's permanent location are available from the curator, Wynn Abbott; contact details are on the website.

After a few minutes of staring at two conjoined fetuses, their heads bowed inward, seemingly sucking their thumbs, you have the jarring realisation that what you are seeing is in fact rashers of bacon cleverly arranged on a light box. *Twins* forms part of *self-ish*, the inaugural exhibition of SciCult, the UK's first independent science-inspired art gallery. Until now, SciCult existed only on the web, and occasionally as part of other exhibitions.

Exploring portraiture in a modern age, *self-ish* uses cutting-edge technology to analyse perceptions of the self. The portraits range from a digital Barbie-like creation to a painting of a set of chromosomes. In SciCult's online gallery, some pieces delve into issues such as identity; others concern notions of change and metamorphosis, both cultural and scientific. For example, Daniel Lee digitally alters human portraits to enhance simian characteristics (<http://www.scicult.com/artists/daniellee>). An obvious interpretation is that they are representations of animalistic urges that lurk within us.



The Dude, 2002

John Summers courtesy of SciCult

But, irrespective of the distortion of the original image, Lee manages to retain a strong sense of humanity. In *Origin*, a series of 12 images that can also be viewed as animation, he takes the viewer through the Darwinian evolution of sea creatures to human beings in an unsettling but seamless transformation.

Galleries such as SciCult seem to be the ultimate expression of the marriage of science and art ("sci-art"). Installations and exhibitions that combine the two have proliferated over the past few years, but the definition of this burgeoning genre is broad. Some projects are fairly passive; competitions for breathtaking scientific photography, for example, encourage a sense of awe about science, but do little to challenge its representation. The most interesting sci-art derives from a dynamic interaction between artists and scientists, leading to unique creative expressionism bridging the disciplines. That such collaborations, and their outcomes, are popular is evident from public and media interest; but the reason for the exponential rise in the number of these collaborations is less obvious. Are scientists indulging hidden artistic tendencies, or are artists suddenly seeing past the white coat stereotype and glimpsing creative potential? And, more cynically, could some of this burst of creativity be driven by the fact that grants now exist purely to fund sci-art?

In the UK, NESTA (National Endowment for Science, Technology and the Arts) and the Wellcome Trust are well known for their support of sci-art. Head of the Trust's exhibitions, Ken Arnold, explains that these collaborations encourage public interest in science; although many might be intimidated by science, few would find it hard to have an opinion about art. Taken out of the laboratory and into a gallery, science is transformed into something accessible that people can engage with and comment on.

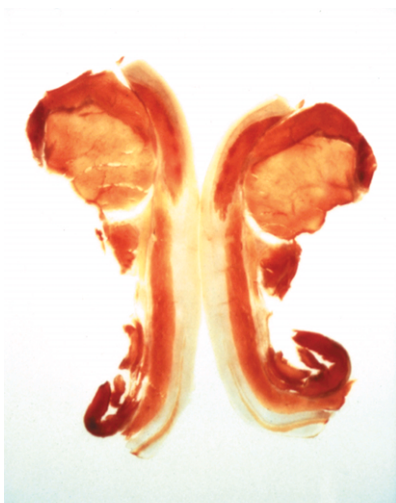
But why should science-inspired art be any different from that influenced by, say, politics? Does a radiograph that is framed and displayed in a museum really transcend a clinician's mundane observation of the skeletal system and become a cultural analysis? Wynn Abbott, SciCult's director, maintains

that sci-art should stand on its own artistic merit, a stance that is strongly endorsed by Mark Lythgoe, a neurophysiologist at the Institute of Child Health, London, UK, and an enthusiastic partner in sci-art collaborations (see page 1170). Of the glut of sci-art projects that have emerged over the past decade, many stemmed from the rather simplistic perspective that any incorporation of science into art created unique work.

NESTA's chief executive, Jeremy Newton, believes that the interaction between artists and scientists lies at the heart of sci-art. In *Grass Art*, Heather Ackroyd and Dan Harvey in collaboration with the Institute of Grassland and Environmental Research, Wales, UK, used chlorophyll as a photographic medium to create a series of organic images, in which the equivalent of the tonal range in a black and white photograph is produced in the yellow and green shades of living grass. The artists achieved their effect with "stay-green grass" containing chlorophyll that never disintegrates. For Newton, this work is sci-art at its best because the scientists who developed the mutant grass were equally influenced by the artists, to the extent that their next scientific project was a direct spin-off from their sci-art venture.

Both Arnold and Newton believe that there is no great mystery behind the proliferation of sci-art. Artists have always pursued new sources of inspiration and novel materials to work with: Chris Ofili splattered elephant dung on his canvasses in lieu of paint; Rachel Whiteread exploited innovations in materials science to construct *Monument*—a transparent resin plinth that was displayed in Trafalgar Square, London. Furthermore, science is very much in the forefront of society's mind. Cloning and stem cell research, for example, raise thorny moral issues that are heavily embedded in the cultural consciousness. Arnold sees it as unsurprising that artists seek to explore scientific themes that question individuality or naturalness.

So, if artists get involved in these collaborations to explore the cultural zeitgeist, of which science is part, what motivates scientists? Arnold points out that interdisciplinary work is common in science—few major research projects are undertaken without collaborations from at least two laboratories. Sci-art, therefore, is just another product from the scientific melting pot. The academic environment can leave little room for free thinking, and according to Lythgoe,



Andrew Carnie courtesy of SciCult

Twins, 1994

the scientist's drive is not so much artistic as philosophical. In an artistic setting, a scientist can escape the academic straightjacket and contemplate the workings of the world speculatively rather than empirically. But is there a price to pay for attempting to break free of the confines of academia? Arnold agrees that the "protestant work ethic" to which many

scientists adhere could lead to a loss of scientific standing for those who dare to popularise their work.

One of sci-art's most vociferous detractors is academic and writer, Lewis Wolpert. His argument that collaboration trivialises both disciplines is persuasive. Writing in UK newspaper *The Observer* in 2002, he stated that art, unlike science, cannot be right or wrong. Science is a "collective endeavour in which the individual is ultimately irrelevant—geniuses merely speed up discovery. If Watson and Crick had not got the structure of DNA we know that Franklin and Klug would soon have had it. How different are all the arts. No Shakespeare—no Hamlet; no Picasso—no Guernica." But Shakespeare and Picasso can be thought of as literary equivalents of Einstein or Watson and Crick; their genius lay in unearthing essential truths about the nature of human beings. It seems disingenuous to suggest that had Shakespeare never lived no literary mind would have captured the pathos of Hamlet.

Science and art both seek to explain the world. That they pursue the explanation in different ways causes

friction when the disciplines meet. But, as NESTA's Newton suggests, it is this tension that sparks a creative energy that can lead to meaningful outcomes. Many sci-art projects are an extension of contemporary art in that they challenge perceptions. Yet, art is a commentary on society that comes from the artist alone, a monologue of sorts; sci-art turns this conversation into a dialogue. The project becomes a cultural discussion between the scientist and artist that is articulated for the rest of us to experience. For a scientist, this sort of project may be reflexive, reflecting on the moral and cultural issues that emerge from science.

One thing is certain; the marriage between science and art is long past the honeymoon stage. To have any sort of cultural longevity, these projects should be able to stand on their own artistic and scientific merits and not be cocooned in a sci-art bubble. Only then will we see thoughtful, innovative explorations of issues that would not be possible either in a non-scientific art work or a traditional research project.

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Keywords in the history of medicine Neurosis

The importance of understanding the history of medical words is exemplified by "neurosis". In a nutshell, the growth of medical specialisation and a general growth in medical ambition and authority meant that in just over a century, this word came to mean almost the opposite of its original coinage. Neurosis started out in the 1780s, changed shape in the following decades, and by the late 20th century had been unpacked, divided up, and as a diagnostic category (in *DSM-IV*, for example) had disappeared altogether.

In the influential Enlightenment works of the Edinburgh physician William Cullen (1710–90), neurosis meant any disease or disorder characterised by abnormal nervous or mental function, firmly located within the nervous system. The neuroses included functional disorders such as cardiac neurosis as well as those with a less specific physical site, such as hypochondria. Along with other 18th-century medical authors, Cullen built the claim that diseases of the mind could be seen as having a physical location in the nervous system, resolving the age-old, mind-body dualism. The origins of psychological

medicine, later psychiatry, are found here and not in some mythological Hippocratic past where such ideas were simply absent.

Medical and social forces helped change the meaning of neurosis in the 19th century. Franz Anton Mesmer's work on animal magnetism and the hypnotic techniques of Jean-Martin Charcot and Hippolyte Bernheim in France in the 1870s and 1880s opened ways of observing and manipulating human behaviour that had many implications, one of which was to restrict the organic element at work in behaviour and its causes. Neurosis began to mean a fairly mild mental state in which there was no loss of contact with reality but rather various forms of defensive exaggeration present. Acute anxiety, obsession, compulsion, phobias—these were now neuroses, with all connections to the Cullenite organic causes jettisoned. By the time of Sigmund Freud, neuroses were to be examined as the outward garments of repressed desires, but all psychiatrists agreed on their psychological origin.

These internal changes were themselves influenced by the growth of the psychiatric profession, the growth of the asylum, and the increase

in the population of psychiatric patients. These changes in turn led to the division of acute from less-acute cases, with patients in the burgeoning acute category being deemed "psychotic" and requiring specialised care and study. And most importantly of all, psychoses were investigated with a view to establishing their organic cause. Neurotic patients might now include almost anyone in daily life (this was of course Freud's view) to be treated by all manner of medical practitioners. For mainstream psychiatrists working in asylums, much of this work was unscientific quackery. They had—as it were—elbowed the neuroses aside, to concentrate on the organic causes of mental illness that had once been their very definition. With neurosis psychologised, one can look at the history of the two keywords—neurosis and psychosis—and see that through time and as a result of social forces and rival professional claims, they have had their meanings exchanged.

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