

THE FRONTIERS OF INVESTIGATION

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The Arts Catalyst develops experimental art that practically and critically engages with science and technology, particularly science's cultural, social and political contexts – where possible through artists' direct engagement with its processes and technologies.

Provoked by subjects and places that we, as non-specialists, “cannot” do, access, understand or affect - particularly where they impact profoundly on our lives and futures, we work with artists to create contexts and opportunities for them to work at the frontiers of scientific investigation and application (including genetics, nuclear physics, space science, ecology, neuroscience and new materials) and in hard-to-access environments, such as biotech labs, experimental reactors, space agencies, zero gravity and remote environments. We are interested in the new forms and techniques of artistic expression that these engagements can activate and in the dialogue and cultural shifts that these interventions provoke within science, within art and in society.

Interlocked with our work with artists, our role as an arts organisation is to provide opportunities for people to create meaning for themselves out of the art we present, in the sense that Beuys meant when he said 'every human being is an artist' and that Brecht intended: that his works should provoke self-reflection and a critical view. Integrated with this is our commitment to bringing the ideas, processes and environments of science to people's attention. We believe that everyone should be able to have a role in the direction of scientific and technological research in terms of its impact (positive and negative) on society.

Our aim, as a publicly funded arts organisation, is to contribute to a participatory culture. Thus we strive to create events that encourage and enable the visitor, the viewer, to be an active participant in the creation of meaning in the art process, as well to be part of an ever-widening non-specialist constituency that is able to express its own thoughts – in a multitude of ways - about the transforming forces of science and technology in society and culture. As well as bringing science out the lab, we often take art outside the gallery - presenting it in public buildings and open spaces - to be encountered, to startle, to reach a wide audience, and to remove it from the preconditioned expectations of the white wall gallery setting.

Through our work, we seek – as the international curator Declan McGonagle has strongly advocated - a model of connectedness and negotiation and multiple viewpoints: “believing that art is made as much in the research and negotiation process and in the post-production, distribution process, as it is made in the studio, in the production process.”

So our task is to investigate intersections, meeting places between art, science and society – existing and on the edges of possibility - and to develop and test models of practice where those meeting points can be explored and extended. It is not possible to pre-define what forms of activity and artistic practice will best explore these places. In a way, that's the whole point of Arts Catalyst: that it is in investigating those intersections

that new forms of practice will emerge: new forms of artistic expression, new ways for people to engage with art and ideas, and new forms of institutional practice.

It is a driving interest to have recognised and to develop the impact of contemporary art and artists as important cultural influencers. Thus one of the goals that we set ourselves several years ago was, through a trajectory of artistic production and presentation, strategic projects, advocacy, international networks and education, to see public and political acceptance of artists' involvement in high profile and sensitive areas of scientific and technological investigation.

In this paper, we will track some of our processes and artists' projects in two of our main areas of investigation: biotechnology and space research.

Our interest in the developments in the new biosciences was in place from the start of the Arts Catalyst in 1993. It was clear at that time that fast-evolving fields such as genetics, molecular biology, neuroscience and pharmacology were going to have profound effects on our world and our sense of identity. From initial conversations with artists and scientists, we commissioned three projects in 1994 from the artists Helen Chadwick, Letizia Galli and Donald Rodney, with the intent of critiquing or commenting on developments in the biosciences; and it made sense that as far as possible this critique should be informed by hands-on experience in scientific working environments. So we set about enabling the artists to work in residencies in various laboratories – assisted conception, neuroscience and genetics - and directly to utilise the technologies of modern bioscience: an early exemplar of the current trend of “biological art” or “bioart”. The resulting exhibition *Body Visual* opened at the Barbican Centre in 1996.

In 1997, the launch of the heavily-endowed biomedical science charity the Wellcome Trust's “SciArt Awards Scheme” - which was based on The Arts Catalyst's model of collaborative practice but with an emphasis on promoting public understanding and awareness of biomedical science - prompted an enormous funding-led explosion of activity in the UK in the field of art and biomedical science. Sensing that we could not “compete” with the resources of the Wellcome Trust, The Arts Catalyst withdrew for some years from work in this area. However, after a few years we felt increasingly strongly that there was still a significant contribution we could make, particularly in terms of artists engaging directly with biotechnological procedures and the manipulation of living systems and in encouraging a broader critique of the assumptions, practices and impact of the new biological sciences and we actively resumed our work in this field.

Our *CleanRooms* exhibition, with its accompanying programme of artists' residencies, performances, workshops and discussion events during 2002 and 2003, included a new commissioned interactive installation *Silvers Alter* by Gina Czarnecki in which the audience was able to exert selective choice in the artificial evolution of a group of humans; performances of Critical Art Ensemble's *GenTerra*: a participatory performance work exploring the implications of transgenics; and the *Working with Wetware* forum, which brought together some of the leading practitioners of “biological art” in the world, including Oron Catts (Australia), Marta de Menezes (Portugal), Steve Kurtz (US) and Brandon Ballengee (US).

In 2005, we jointly organised a biotech art workshop led by the Australian group SymbioticA, an intensive week-long practical workshop for 20 professional artists to gain some of the techniques of biological art and explore the arising issues, ethics and aesthetics. From this seeding, new ways of working or ways of seeing are gradually

emerging in some of the participant artists' practices. Its success means that we are considering similar workshops to provide artists with bridges to other new scientific processes and ideas.

The story of Steve Kurtz of the US art group Critical Art Ensemble will not be new to many people reading this paper, however it is worth retelling, as it serves an interesting case of the hazards of working across specialisation boundaries, particularly when working outside established research institutions, and has implications for artists accessing scientific technologies, for amateur scientists, for those wishing to criticise the US government, and also for professional scientists wishing to share research and resources.

In April 2004, at a meeting with Steve Kurtz in Edinburgh, The Arts Catalyst agreed to commission a new project critiquing historical and contemporary biowarfare research. In May 2004, I received a short email from Steve telling me that his wife had died in the night, the FBI had come and taken her body, his computer, research biological agents and papers, and he was scared - would the Arts Catalyst be prepared to state publicly that it had commissioned the work? (Which we immediately did)

Steve's wife died from natural causes, but the police had called the FBI when they saw Steve's home biotech laboratory, who promptly sealed him off in a hotel and questioned him for hours. They have since then constantly sought to bring charges relating to bioterrorism against him. It is a long story and one that you can follow on-line, however the current situation is that we are still awaiting his trial on charges of mail and wire fraud, relating to how he acquired the bacteria he planned to use for the biowarfare project, the only charges that the Grand Jury was prepared to allow, apparently trivial but still carrying the potential for a 20 year jail term. It should be noted that Kurtz's scientific collaborator, Professor Bob Ferrell, who supplied him with the necessary (harmless) bacteria, is also facing the same charges.

Despite great initial difficulties in terms of being able to communicate openly with Steve and to source the necessary bacteria in a way that was completely contractually sound, legal, safe and ethical, we did manage eventually to commission and produce Critical Art Ensemble's project *Marching Plague* last year, which recreated sea trials conducted by the UK government in the 1950s, as part of a programme of bioweapons research, off the coast of the Isle of Lewis in the Outer Hebrides, the original site of the tests. We subsequently made a film with Critical Art Ensemble, also called *Marching Plague*, which centered on this recreation to enable Critical Art Ensemble's critique of the history and current state of bioweapons research.

The area of work for which The Arts Catalyst is probably best known is air and space exploration, which we have been investigating since 1997. We have organised a number of interdisciplinary 'zero gravity' laboratories with the Russian space agency (specifically the Gagarin Cosmonaut Training Centre in Star City), are a founding member of the MIR network, and have presented a string of exhibitions and public events between 1999 and 2007, including two International Artists' Airshows, which presented breakthrough projects including a real-life artist's flight in his own vehicle by Ben Blakebrough, an experimental solar dome by Tomas Saraceno and the following extremely risky and almost impossible project - *Escape Vehicle No.6*.

Simon Faithfull's *Escape Vehicle No.6* is a wonderful example of a simple, profound project that uses ingenuity and low-tech solutions to enter a restricted territory and provoke

new imaginaries of space. No.6 consists of a full-scale chair suspended beneath a weather balloon with a camera and transmitter positioned so that the lens frames the chair dangling in mid-shot. This apparatus was released from a launch pad - on an extremely windy day from Southern England on the occasion of our first artists' airshow - and rapidly rose above the earth ultimately into the blackness of the stratosphere on the edge of space. With the naked eye, the audience on earth at Farnborough watched the balloon and chair recede and disappear into the sky, but they were then immediately able to follow the rest of the journey on a giant screen via a live video downlink from the escape vehicle.

"The chair can be seen precariously swaying beneath the balloon on its desperate journey into the void - desperate because ultimately the journey will end in heroic failure. As it reached the edge of space, the pressure dropped, the balloon burst and the chair fell back to earth on a red parachute, landing in the vicinity of Wye in Kent (tracked by GPS). The faltering image of the empty chair, transmitted increasingly weakly back to earth, asks the viewer to imagine occupancy. But at the same time, rather than offering conceptual escape, the madcap vehicle ultimately presents a chilling vision of a kind of death. Even before the collapse of the balloon, with the temperature reaching minus 600c and oxygen long since thinned, to imagine occupying the chair is to imagine a realm beyond life."
(Simon Faithfull)

In 2005, the European Space Agency (ESA) awarded us a contract to carry out a study into possible future cultural utilisation of the International Space Station. The study set out to investigate and focus the interest of the cultural world in the International Space Station, to generate a policy for involving cultural users in the International Space Station programme in the longer term and to develop a representative set of ready-to-implement demonstrator projects in arts, culture and media. Under the lead of The Arts Catalyst, the study team also comprised Association Leonardo-Olats and Delta Utec, with the MIR network. We presented our report to ESA in February 2006 and The Arts Catalyst has recently been awarded a further contract to develop further proposed cultural utilisation projects within the human spaceflight directorate. We hope to convince and enable ESA to undertake art projects that involve artists as genuine participants within their programmes, and that draw attention to, revise and sometimes critique both the space community's and the public's beliefs and views about space exploration.

Finally, we are going to discuss one of three major commissions that were shown as part of *Space Soon*, a 5-day exhibition and event that took place at the Roundhouse in North London in September 2006. The three durational works were by Aleksandra Mir, Danish architects N55 and artist Neal White, and London Fieldworks.

London Fieldworks' piece *SpaceBaby* looked at inverted sleep patterns and the effect on human genes, referencing research interests of space agencies in human hibernation. Artists Jo Joelson and Bruce Gilchrist slept through each of the five days of the *Space Soon* show in specially constructed "space tubes", while a team of scientists from Leicester University's Department of Genetics monitored the effect the reverse sleep pattern had on their genes. The project had an international dimension and was developed during a series of workshops with students at Srishti School of Art, Design & Technology in Bangalore.

The metaphor of the journey has become a motif for our organisation. We have followed a journey of finding and opening up inspiring and critical meeting places between artists, scientists and society and exploring how we can work with our constituencies

(artists/collaborators/audiences/interest groups) to investigate and find meaning in those places. The artists that we work with embark on journeys of discovery with scientists, engineers and technologists, with other artists, and with the public. Physically, our roles as curator/producers have been much more involving than may usually be the case in the contemporary arts – we have been thrown around in zero gravity, given blood for DNA extraction to make transgenic organisms, hung out at the most radioactively polluted place on the planet (Hanford, Washington state, USA), lived in our projects (Marko Peljhan's *Makrolab*) and put our reputations on the line as our work and relationships “repeatedly stretch and redefine the nature of artistic practice” (*Greg Hilty, Parkett*), each time testing the risk factors for ourselves before or as we insert others into these domains. We like to feel that, living on the frontiers of investigation, we are developing a new form of creative and active curatorship that is not afraid to probe equally into both the enlightened and the shadowy places of science and society.

Nicola Triscott is the founding Director and **Rob La Frenais** the Curator of *The Arts Catalyst*, an independent non-profit arts commissioning organisation. *The Arts Catalyst* has an office base in London and international networks and activities.