

Artistsinlabs: Reality Jamming between Lucid Fields of Practice

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This presentation will begin with an outline of technical progress and our information society in so-called “developing” countries and construct a set of relevant questions on the future of art and science collaborations. These questions focus on the role of the artist in relation to the business of scientific knowledge. Is empirical knowledge only situated in a specific time or place or can it co-exist simultaneously in two parallel lucid fields of practice: media art and the visual sciences? In this light, “*Lucid Fields*” are comprehensible and factual fields of reality and paradox that exist today rather than the fictional illusions of tomorrow. The authors claim that the potentials of cogent and coherent communication are increased when media art is mixed with scientific research, particularly if the aim is to make critical scientific issues more articulate and transparent to the general public. The authors will arrive in Singapore early and cull information from interviews with Asian media artists (some who are working in science departments at the National University of Singapore) and prior interviews with Swiss media artists who are working in science labs. The results will compare the role of an artist as *a critical enquirer within the scientific field* to that of an artist as *a valuable outsider from the field of new media*. The interviews with Swiss artists are related to an accompanying exhibition held at the same time as ISEA, about Artificial Intelligence, physics and relativity, environmental science and biotechnology. A set of critical issues are addressed in the questionnaire on the relation between utopic and dystopic interpretations of humans and their machines; the visual/acoustic augmentation of real space as factual information, genetic engineering and the paradox between energy and progress. Through this methodology the authors hope to shed light on the different roles of media artists in relation to situated knowledge and cultural difference, and whether this information-reality is evenly shared across artistic and scientific fields of practice.

Notes about the accompanying exhibition

All the main artworks in *Lucid Fields* are directly related to one of the main themes of the International Symposium on Electronic Art entitled “Reality Jam”. The artists are operating in a grey zone inspired by an immersion experience in a scientific research laboratory and they utilize the mediums of performance, installation or sound contexts as interpretative mirrors to myth and scientific fact. In some instances, seamless media transitions are used to blur the relation between science and art, while in other works, the differences are more evident.

In the movements of *Kubic's Cube*, a robot by Pablo Ventura, the viewer can witness a particular “bottom up” approach to Artificial Intelligence research that attempts to rebuild our behavioral attributes and movements in order to understand how the body shapes the way we think. Here, a robot celebrates machine/human cohesion by attempting to move like a dancer, as if in pure bio form, confronting the viewer with the question: do you wish to condone this level of machine human integration or resist it? Ventura is still working with scientific researchers from the Artificial Intelligence Lab at the University of Zurich, who are currently building an accompanying humanoid or dancing robot, which he can choreograph and add to his company for future dance performances. Photos of new robots in progress also appear in the exhibition, and together, the robot installation and the photographs explore the potential of machines becoming more expressive extensions of the organic human body, and playing a wider role in our virtual and real urban spaces of the future.

Similarly, in the performances and installations of Pe Lang and Zimoun's work cannily entitled: "Untitled Sound Objects", physical materials generate sound through vibrations, which are directly generated by computer-controlled machines and robots. Here the lucid grey field is shrouded in the desire to create an acoustic architecture with an organic feel. In 2007, Pe Lang was an artist-in-residence at CSEM (The Swiss Centre for Microelectronics) where he continued to investigate the properties of sound, materials including their resonance and their generative system potentials. The duo believe that technology is only a tool for converting the idea of complex systems into simple and immediate experiences for the viewer, and the software (Max MSP) helps to make this translation possible. In another case, this software takes in acoustic data in real time and "sonifies" it, then replays it as an altered acoustic reality by controlling the movements of a lone speaker on a stand. When this speaker shows human-like response to the sound it is being fed, the viewer is unsure about the source of its stimuli and wonder about the effects on it.

Another metaphor for control and public movement comes from the combined fields of engineering and architecture. Media architect Monika Codourey is interested in the transitional reality of airports and the surveillance technologies used to control the public flow through them. She calls these "manufactured thresholds" in our so-called "free market economy". Her project ("Airport Transit Condition") is currently being extended by a residency at the Institute for Psychology (University of Basel), where she will construct a reality game based on how constant travellers are psychologically affected by their own flow of migration through transportation hubs. She highlights surveillance as the controlling mechanism for a clear division of society, as well as a place where new isolated urban cities are being created. Airports are grey zones or abstract spaces of landsides, airside and extraterritorial divisions where compressors of time and space can occur. She currently studies created by a bureaucratic system of inclusion and exclusion within trans-nation states rather than transitional spaces. Transit zones at airports emerge because of a complex set of factors: the problems of border crossing as well as increasing levels of security and safety regulations. The innumerable thresholds to the transit zones are points of congestion that are governed by an imperfect system of identification, however, a lucid collapse of time and space are often evident.

As an illustrative counterpoint to this work, another interactive installation by Dominik Bastianello ("Where in the world am I") shows the first and most accurate real-time video interpretation of Einstein's theory of relativity. Many physicists from the Paul Scherrer Institute, where Bastianello had an artists-in-residence award, were astounded that this theory could be represented through the medium of real-time media. In this instance the viewer can manipulate a cultural icon on an inner-circle and simultaneously a live camera on the outer circle to create an actual "reality jam" of time and motion. As the viewer manipulates and combines the speeds of two spinning circles, the lucid zone is actually visualized and time and space stand still! A pioneering moment in physics is re-interpreted.

Another related artwork to the wonder-world of pioneering physics can be seen in a project that Roman Keller (an energy-activist) has developed at the very same physics lab (PSI) for his residency project entitled "The Rocket for the rest of us". Keller's wish was to highlight the slippery pioneering spirit of the sciences by actually digging around in the archives of PSI and fishing out historical facts about rocket fuel. The results of this endeavor are displayed in a book in the exhibition, whose last pages include an actual physical documentation of his own construction entitled "The Reinstallation of a Solar Power Rocket Laboratory". In doing so he wished to win the hearts of both the physicists and the public based upon the yearnings and dreams many share about space exploration although they acknowledge that it consumes huge amounts of energy. Finally, Keller actually managed to excite the scientists by taping into these emotional reactions and entice them to collaborate with their engineering methods and skills. The resultant rocket is on display in the exhibition: a product of how the grey zone between art and science can capture the public's imagination and also make a comment on alternative energy for the future.

This type of lucid reality can also be found in the eco-activist works of performance artists Hina Strüver and Matthias Wüthrich. These artists have been engaged in risk assessment research on the applications of Genetically Modified Organisms in the Institute for Integrative Biology at the Swiss ETH Federal University. By performing, climbing and building various sets of metaphorical GM trees in site-specific environments like Brazil, Zurich and Vietnam, they wish to deliberately bring local attention to the issue of GM



A rocket for the rest of us — solar rocket at the Paul Scherrer Institute, PSI, Villigen by Roman Keller

agriculture. These performances which evolve in “real” environments are enhanced by an active interactive website, which directly confronts the issue of public reaction and debate. This website (www.regrowingeden.ch) not only allows participants to virtually simulate genetically modified plant growth, but also to answer questionnaires and discover where the artists have been performing and where their next performance will take place. The mythological connotations of the title “Regrowing Eden” also offer a specific authority for the viewer-interaction as he or she is able to modify new plants online as well as compare the polarity of public opinion on the direct effect of biotechnology on the future of agriculture.

The raising of public awareness about genetics and mutation is addressed in a different way in the work of Jill Scott. Based on her residency in Neurobiology at the Institute of Zoology, University of Zurich, Scott gained a deeper insight into the genetic control of visual system development and function by analyzing zebra fish mutants, which are used as the main phenotypes for all human eye disease research. The documentation in the *Lucid Fields* exhibition physically combines the controversial implications of behavior and genetics with interpretative results from her direct collaboration with the scientific researchers. Here the “reality jam” is between artistic interpretation and the direct display of the factual evidence from the researchers themselves such as histology, behavioral tests, molecular staining,



Regrowing Eden — Performative Sculpture at the Institute for Integrative Biology, ETH Zurich
by Hina Strüver and Matthias Wüthrich

cellular images and related keywords. The result was an interactive neuro-media sculpture, which combines examples from actual genetic research with more abstract interpretations. A grey zone is produced where projected films (interpreted affect) are directly related to the content of the ocular films (scientific evidence) but the aim is still to allow the general public to gain a better understanding of how vision is affected by genetic deficiency.

By showcasing various other examples from our artist-in-lab program history in the exhibition, specifically in the form of DVD documentaries, the viewers may also gain more insight into the *lucid fields* that other resident artists have also crossed. These films, which document another 11 other artists resident in 9 labs from 2004, were made with sociologists and they focus on the collapse of scientific context and cultural exposure in the grey zone we also call *Lucid Fields*.

On another realm, the potential of showing *Lucid Fields* in Singapore may also bring to light some similarities between Switzerland and Singapore. This likeness is not only about the fact that both countries exist as islands within clean, hygienic and strictly organized zones, where a mix of a few cultural nationalities co-exist, but that these countries also share similar agendas for a future where trans-disciplinary grey zones could be encouraged to develop between scientific research and cultural education in the future.