



Corpus Extremus (LIFE+)
February 28 – April 18, 2009

On Corpus Extremus (Life+)
By Boryana Rossa

Corpus Extremus (Life+) unites artists and scientists to enhance public discussion on the application of technological and scientific advances. This show is intended to address cultural and philosophic notions of life and death in relation to scientific research and its media representation. The eternal dream of humanity to extend life and overcome death motivated many to create philosophic and religious constructs, systems of beliefs, and metaphorical embodiments, while others worked to extend youth and life, heal diseases, and perfect and enhance the human body. These aspirations drive progress, but they also involve ethical, cultural and political responsibilities. Engaged with recent advances in biotechnology, the artists and scientists in this show came together to not only present some of these innovations to the general public, but to also critique and expand the discussion about their use and the "prophetic" role traditionally granted the arts and sciences by society. Special focus is placed on media representation of scientific research, as essential for the formation of socially-driven mythologies.

This exhibition and its programming covers diverse topics, among which are the "extended" and the "obsolete" body; prolongation of life; life outside of the body; patenting life; genetically programmed life; hardwired spirituality; cyborgian and hybrid life and intelligence; male pregnancy and gender roles and stereotypes that are changing with developments in reproductive technologies; scientific and artistic ethics in relation to "the Other" that challenge anthropocentric hierarchies; and last but not the least – the ethics of the biotech aesthetics, employing techniques for mere visual effect.

One of the key themes of the show is the representation of the Other, in the sense of humanity's attempt to transgress the border between itself and other forms of life – existing or engineered. The controversy of "creating the Other" can be seen in scientific laboratory processes.

A foundational idea for this show is that we are permanently in a condition of creating, being excited or horrified by our inventions. "The lab" seemed to be the most obvious conceptual and visual metaphor of this struggle of finding and understanding otherness – our will to connect, our impulse to reject or to be horrified by the Other or by ourselves. We had initially intended to create a laboratory-like installation for *Corpus Extremus* that not only functioned as a lab, but also as a metaphor. Realizing this plan proved to be challenging, transforming an exhibition space into a lab, remains a goal for the future. Similarly, given the experimental approach of so many of the artists whose work is included in the show, the selections became a balance between concept and circumstances. It is obvious that *Corpus Extremus* will not be able to address all aspects and controversies related to this ambitious subject. I therefore hope that the show will generate on-going debates, conversations and analysis.

The works surveyed below are divided into several categories, but often the issues related

to these pieces are overlapping. These subheadings reflect the major themes that seem to be central to these specific projects, but these should not be considered as the only topic that each work deals with. Hopefully the viewer will be able to find these interconnections and to even extend the list of possible questions.

Questioning anthropocentricity

Several projects hosted by SymbioticA Research Lab (University of Western Australia)¹ feature a new phenomenon – life outside of the body (or the "extended body"), made possible by tissue culture technologies. This "extended body" refers to the living masses of cells, tissues and organs, sustained and preserved outside of the body through intensive technological intervention that keeps them from turning into a non-living state. Central to these projects is the fact that these new forms of life require new methods of assessment and ethics.

For *The Living Screen*, the art collective BioKino (Guy Ben-Ary and Tanya Visosevic, hosted by SymbioticA) creates a complex cinematic machine that projects nano-scale movies on microscopic screens made of living cells. Presenting *The Living Screen* as if a sideshow, these artists play on the film cliché of the "inventions of the mad scientist" in order to go beyond this stereotype. *The Living Screen* sideshow mixes popular entertainment with research technologies to offer the viewer the concept of life outside of the body as the livingness of the screen on which images are projected.

NoArk II, produced by The Tissue Culture and Art Project (Oron Catts and Ionat Zurr, hosted by SymbioticA) presents the "extended body" from a different perspective – the museum – the powerful institution that functions to legitimize knowledge. Similar to *The Living Screen*, *NoArk II* involves a critique of conventions. Catts and Zurr create and present a life form that cannot be categorized by traditional taxonomic methods. Consisting of a vessel sustaining cells and tissues from different organisms, *NoArk II* represents a new type of life without a body or a new type of "body." Displayed with an installation that includes stuffed animal specimens labeled with classical taxonomic categories, *NoArk II* contrasts "the old" and "the new" notions of life.

NoArk II is a link between the aesthetics of the somewhat "low-culture" of *The Living Screen* and the hyper-technological *Silent Barrage* by Guy Ben-Ary and Philip Gamblen with Peter Gee, Dr. Nathan Scott and Brett Murray, hosted by SymbioticA and in collaboration with Dr. Steve Potter's Lab at Georgia Institute of Technology. *Silent Barrage's* robotic body, composed of 36 networked kinetic objects controlled by a biological "brain" or neural network, can also be seen merely as a high-tech amusement, a miraculous cyborgian organism, or a fantastic symbiosis of electronics and biological matter, but the core of this piece is the ethics of our relationship with this bio-technological Other. This cyborg offers an example of an Artificial Intelligence, and is intended to raise questions about our notions of what we consider intelligence and to what extent we are ready to challenge our anthropocentric notions of consciousness.

Extending the boundaries of life – hyper bodies

Ear on Arm is a project related to Stelarc's concept of the "Obsolete Body," an idea he has been investigating for years. The artist's primary question is whether the human body, as we traditionally know it, is an adequate biological form. Similar to The Tissue Culture and Art Project, Stelarc uses tissue culture technologies, but he is using them to change his own body. The ear can be viewed not only a vital sense organ, but as a link between body

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Comment: I replaced "is" with "represents" because the vessel is not the new form of life, but it contains these new entities. The vessel is actually something like bioreactor, a tech device with feeding solution and a motor, that perpetuates the cell cultures in order for them to evolve in all directions rather than growing flat.

and mind. Stelarc has had a third ear attached to his arm, which he plans to augment with a microphone. This enhanced body conjures associations about the super human, immortality, and the prolongation of life.

The inclusion of the video *Kefir Grains Are Going Onto the Flight* provides an ironic, even humorous, take on the serious subjects of biotechnological enhancements, genetic programming, designer babies and selective breeding. The premise of the video is: How to produce "the best cosmonaut" from freshly grown kefir grains. Choosing a very dry clinical aesthetic for their film, artist Yuri Leiderman and director Andrei Silvestrov create a hilarious "experiment" that comments on eugenics and death. The story features kefir grains competing on board a Russian space program training-plane that is at zero gravity.

Strategies to engineer life (biological and social)

Commodification and ownership of organic life is addressed in *Latent Figure Protocol*. The artist Paul Vanouse takes DNA samples from different organisms and uses a common laboratory technique to create images related to these samples. Vanouse is attempting to dismantle the understanding of a "DNA fingerprint" as fixed and unchanging, in order to make visible that it is a cultural construct used to serve diverse interests. By producing these genetic icons, he also seeks to confront the notion of genetic destiny and to comment on the use of DNA information by governments and corporations

Transgenic Organisms of New York State and *Strategies in Genetic Copy Prevention* (by the Center for PostNatural History), also deals with issues of engineered life and its ownership by presenting a supplement to a natural history museum composed of the newest genetically engineered contributions. Unlike *NoArk II* this project displays entire organisms that have been developed. Alternatively, New York state transgenic organisms are elucidated in a traditional museological fashion by a textual label, whereas in *Latent Figure Protocol* the information is a direct representation derived from genetic material.

In her *Petition for Lab Rat Shelter*, Kathy High deals with the ethics of "becoming the Other." The artist presents lab rats as heroes and offers a model for lab ethics when dealing with animals that is similar to the care given to humans. High develops relationships with five transgenic lab rats microinjected with human genes that are linked to specific diseases and she constructs healthy living environments for them. This might seem to many like anthropomorphizing the "beloved pet." However these rats have already become more "human" by carrying "our" genes and this is what inspired the artist to extend this "becoming" from the genetic to the social.

Inside Out: Laboratory Ecologies is a project by Jennifer Willet that examines lab ecology as closed territory with specific ethics. In her installation, Willet attempts to reconnect this internal laboratory culture with external ecologies and raise questions about our relationship to life in these different situations.

Shelf Life by Suzanne Anker relates energy to life in a direct way – she works with plants that transform the energy of light into life and consequently into food. Creating constructions that emit light different from sunlight, Anker references alternative energy sources that might change the way we sometimes underestimate the importance of plant life for planet ecology.

In keeping with his previous work, Adam Zaretsky creates a provocative comic mesh of

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Comment: I think Paul's and Rich's project have to be described here in relation to invisibility of the genetic engineering. Both of them reveal the changes, but Paul makes more aggressive conceptual comment by his images, while Rich just gives more extended textual information about their purpose, which is a very traditional natural history museum technique and there is no innovation and not much artistry (unfortunately).

verbal gymnastics with multifold meanings to expose the "tension between various concepts of power and social propriety" in his similarly stylized experimental phantasmic documentary *pFARM :: Organic Fetish Biotech*. Zaretsky involves *pFARM* performers in an art and life experience that juxtaposes traditional and high tech farming. This juxtaposition is not in favor of either of these two, but questions the human-centric domination in these options. The artist uses the metaphor of S&M to challenge his own role of the artist/scientist demiurge that many perhaps would like to see themselves in.

Biological analogies for social constructs: Media, science and art

Historically biology has been inextricably linked to politics and culture and it is often used to justify social theories. Social Darwinism, "the struggle for life," has served as a defense of competitive capitalism. "The new human" of late nineteenth and early twentieth century Russian "Cosmism" was transformed to serve Soviet concepts of the new man and new woman. With its vision of immortality as the realization of perfection, Cosmism is now influencing contemporary Transhumanism, which involves the quest for a technologically enhanced everlasting body. Genetic predetermination versus environmentally acquired inheritance of the famous Vavilov-Lysenko controversy came to be seen as a battle between the conservative bourgeois science (the "geneticists") and the avant-garde socialist science (the "neo-Lamarckists"). Intelligent Design proponents have claimed scientific methods to justify their theologically-based theories. Konstantin Mereschkowsky's early-twentieth century, "heretic" theory of symbiogenesis (new species arising from symbiosis, and the merging of organisms to form a new organism) was fundamental for Lynn Margulis's now landmark version of symbiogenesis ("the fusion of genomes in symbioses, followed by natural selection").² Margulis posits collaboration as a stronger driving force than competitiveness and has influenced James E. Lovelock's Gaia concept.

"Nature" as the ideological foundation for the "nurture" is often promoted within the media and pop-culture, which shapes public conceptions of science. These issues are addressed by the *Mirror of Faith*, a project by ULTRAFUTURO (Oleg Mavromatti and Boryana Rossa) in collaboration with Chris Bjornsson and Kathy High, based on geneticist Dean Hamer's research. Hamer claims to have found the gene responsible for human spirituality. Central to the *Mirror of Faith*, however, is not so much Hamer's scientific research and genetic embodiment of spirituality, but rather the relationship between collective beliefs and the public representation of science. The artists combine reactions of representatives of religious institutions in the media and footage from the initial phase of their attempt to create the "Transcendental Bacteria of Faith" by genetically modifying E-coli. By creating a semi-documentary video and a semi-sacral object they ask: "Is there a relationship between the God Gene and the "belief" in science and, most importantly, the belief in "the media?"

Programmed Butterflies is a comment on analogical interpretation of images used as method to study butterfly anatomy. Based on her practice as laboratory histologist, imaging technician and artist, Soyo Lee examines the "liveness" of the researched organism (in this case, butterflies) as an underestimated consideration that might challenge the conventions used for interpretation of the scientific image. Using scientific and artistic images, she questions the visual as the basis for objective conclusions.

In *Senses Alert*, Dmitry Bulatov promotes biotechnology as a condition of what he calls "The Third Modernization." The ability to genetically engineer living organisms is a

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Comment: http://en.wikipedia.org/wiki/Russian_cosmism

Russian cosmism was a cosmocentric philosophical and cultural movement that emerged in Russia in the early 20th century. It entails a broad theory of natural philosophy combining elements of religion and ethics, a history and philosophy of the origin, evolution and future existence of the cosmos and humankind. It combines elements from both Eastern and Western philosophic traditions as well as from the Russian Orthodox Church. Many ideas of the Russian cosmists were later developed by those in the transhumanism movement.

Main representatives Nikolay Fedorov philosopher, Konstantin Tsiolkovsky - the pioneer of Russian cosmonautics and rocket science, Alexander Bogdanov, pioneer in blood transfusion and researcher of rejuvenating technologies.

All these created the philosophic and scientific foundation of the Soviet ideology of the new human. Bogdanov describes transgender state of the body, or gender-less bodies as more advanced comparing to the gender determined ones.

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Comment: <http://www.nickbostrom.com/ethics/values.html>

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Comment: Track in the following link: "Nomogenesis" and "Intelligent Design." In the Home page they state this is an ID web portal: <http://www.uncommondescent.com/evolution/a-prescribed-evolutionary-hypothesis/>

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Comment: It should be "new organism" not composit, because it is an evolution theory, not a description of a biological phenomena. This theory promotes different idea of formation of new species.

revolution in science, technology and the arts. It is leading to radical changes in nature and society. The ability to create beautifully colored fluorescent tadpoles is an aesthetic metaphor of these changes. But is the successful adoption of these scientific research techniques for aesthetic and commercial use a scale we should use to measure its success?

In the *Corpus Extremus* programs, topics like reproductive rights, gender, and war are given special focus. The film *Underexposed: The Temple of the Fetus* by Kathy High will be shown along with a discussion by Irina Aristarkhova on the media art project *Male Pregnancy* by Virgil Wong and Lee Mingwei. Critical Art Ensemble will present their project-in-progress *Immolation*, which creates new imagery of war, different from the mainstream media options that to a large extent have desensitized the public. *Immolation* is focused on images of skin damage by weapons that are now being used in the Middle East and is intended to connect the cellular to the social.

After visiting *Corpus Extremus (Life+)*, many might ask: "Was that art?" "Was that science?" But there are no traditional answers to these questions, for disciplines and borders are being transgressed. Although this terminological crisis is obvious, this exhibition is not intended to create a new term or to find new labels for the participants and their practice. The ambiguity created by this lack of definition might be avoided by pointing to two common features that unite the works presented and highlight their importance.

First, all participants might share the following statement about their hybrid undefinable activity, like the famous quote from Frankenstein, "It's alive!" And they may be curious what will happen next. The second feature that unites the works presented as examples of this "new discipline" (if there is such a thing) is also related to the controversial nature of Frankenstein's creature – someone who looks for love, but faces hatred and acts violently in its attempt to preserve itself. This is the need for communication between scientists and society before the actual application of scientific research. What artists and scientists can do to prevent the misuse of scientific research for commercial or political purposes or its autocratic application is to address controversial questions and to create more forums for discussion. In this way artists, scientists and the public at large can stop "the monster" if need be, or help it, or help humans find their loving way to the "monster" or to "the Other" and to themselves before it is too late.

¹ Oron Catts and Ionat Zurr, "Towards a New Class of Being: The Extended Body," originally presented in The Transvergence stream of the ISEA06/Zero 1 conference and published in *intelligent agent*, vol. 6, no. 2, <http://www.tca.uwa.edu.au/atGlance/pubMainFrames.html> and http://www.intelligentagent.com/archive/Vol6_No2.html

² Lynn Margulis, University of Massachusetts, <http://www.geo.umass.edu/faculty/margulis/>

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– Boryana Rossa