

ARSCOPE
Art – Science – Co – OPeration – Environment

The project is conceived as part of the ARSCOPE project (Art-Science Co-OPERation Environment), which is co-funded by the EU Programme for Culture and which is carried out in partnership between TAKOMAT (Germany), CIANT (the Czech Republic) and AKSIOMA (Slovenia)

December 18th - 20th 2012
Academy of Media Arts Cologne, Germany

INTRODUCTION

This brochure accompanies the 2nd meeting of ARSCOPE partners Aksioma, Takomat and Ciant – a three day event that is taking place at the Academy of Media Arts in Cologne, Germany.

Selected works of the following participating artists – Dr. Polona Tratnik, Dr. Špela Petrič, Maja Smrekar, Robertina Šebjanič, Janez Janša and Darij Kreuh – are being presented as a brief introduction to the Slovenian bioart and BCI-based art practice.

These fields intersect the humanistic and natural sciences by exploring new dimensions of the discourse of biopolitics, society, philosophy, nature, science, economy and social and biological evolution – and hence, life itself.

Connections between artists and scientists bring forth new ideas, concepts, visions and solutions that help and inspire each other.

The results of such cooperation are new perspectives in ways of thinking, which objectively inform the broader public and at the same time open up new possibilities for society in general.

In Slovenia, bioart and BCI practices at the intersection of art and science have been flourishing for the last 15 years since the contemporary art centres there continue to stimulate artists to work in laboratories and collaborate with scientists in transdisciplinary projects.

The Aksioma – Institute for Contemporary Arts part of the programme is going to be held as a workshop entitled

Introduction to microbiological protocols: *The (in)visible world of microbes in our everyday environment* by Maja Smrekar and Dr. Špela Petrič, video-documentation presentations of selected artists and their works, presented also in the brochure, and a lecture given by Dr. Polona Tratnik (University of Primorska, Slovenia) entitled *Human and Art in the Convergence with Biotechnology – Case Study: Slovenia*.

During the workshop and after the lecture presentation, we will have the opportunity to discuss these issues with all of the guest participants.

PRESENTED ARTISTS

videodocumentations presentation
December 18th - 20th

POLONA TRATNIK

Polona Tratnik, Ph.D., is research associate at Science and Research Centre (www.zrs.upr.si) and docent for philosophy of culture at Faculty of Humanities (www.fhs.upr.si), University of Primorska, Slovenia, where she is instructor of courses in cultural studies, media philosophy, film studies, experimental art, culture in Slovenia, contemporary visual art in Europe, and body and contemporary culture. She is the Head of the Department for Cultural Studies.

In 2012 she was a Fulbright Visiting Scholar and a guest professor at University of California Santa Cruz, where she was instructor of the course Media History and Theory.

She has gained Ph.D. in philosophy and theory of visual culture at Faculty of Humanities University of Primorska (2007), M.A. (2001) and B.A. (1999) at Academy of Fine Arts and Design University of Ljubljana. She is the president of the Slovenian Society for Aesthetics. She has been program and organization committee member of more than 17 international symposia, including Mediterranean Congress for aesthetics (2006), *Surplus Art: Art – Science – Philosophy*, Ljubljana (president) and *Philosophy of Media: Art and Media*, Opatija. Advisory Board member of the Society for Phenomenology and Media.

The founder and manager of Horizonti Institute for Art, Culture, Science and Education. Art director of the Break 2.3 festival *New Species* (2005). She is co-curator of *Sculpture Today* (2010–13), 2012 edition is subtitled *New Renaissance and Transhumanism*. Bibliography: single author of *In Vitro. Live Beyond Body and Art* (2010), *Transart. Culture and Art in Global Conditions* (2010), *The End of Art. Genealogy of Modern Discourse: from Hegel to Danto* (2009) and *Hacer-vivir más allá del cuerpo y del medio* (forthcoming by Herder, 2012).

She is the editor/author of *Art: Resistance, Subversion, Madness* (2009), *Surplus Life* (2011) and co-editor of *Spaces/Places of Art* (2002). Guest professor at: Universidad Nacional Autónoma de México, Facultad de Filosofía y Letras, México City, Capital Normal University, College of Literature, Beijing, University for Art and Design Helsinki Taik, School of Visual Culture.

She lectured also at: Media Arts and Technology Program (MAT) of University of California, Santa Barbara, Marquette University, Milwaukee, University of Greenwich, Institute for Converging Arts & Sciences, London, University of Science and Technology of China, School of Humanities and Social Sciences, Hefei, China Youth University for Political Sciences, Normal University Beijing, Centro Multimedia Nacional de las Artes, Mexico City and elsewhere.

Editorial boards: *Maska*, magazine for performance and new media art (2010–11), field editor for anthropology of culture and contemporary art of *Monitor ZSA* (Annales, Science and Research Centre University of Primorska), magazine for anthropology (2008–), *Anagoga* series (Goga, 2009–), *Transars* series (Horizonti, 2010–), co-editor of *Likovne besede* (= Art Worlds) (2003–04) and founder of *Horizonti* magazine (2005).

She is a pioneer biotechnological artist and has established long-term collaborations with biotechnological institutions, such as Blood Transfusion Institute Slovenia, Educell, Biobanka, National Institute of Biology RS, and was an artist in residence at Symbiotica (Perth).

She has shown at *Soft Control*, European Capital of Culture, Maribor (2012), *Managing Life*, Beograd (2012), *Sin origen / Sin semilla*, Mexico City (2012), *Asymmetric Europe*, Novi Sad (2012), *Szenarien Über Europa*, Leipzig (2011), *BIO+FICTION*, Dunaj (2011), *SEAFair*, Skopje (2010), *Ars Electronica*, Linz (2008), *Accidentes Controlados*, Mexico City (2008), *Vit<a>rti* (2007), *BIOS 4*, Sevilla (2007), *Biennial for Electronic Arts Perth*, *Bio Difference* (2004), *L'Art Biotech*, Nantes (2003), and others. She has received several awards and recognitions for her work.

URL: www.polona-tratnik.si

HAIR IN VITRO (2010)



PHOTO: DAMJAN ŠVARC

Hair In Vitro is a trans-disciplinary project designed to connect biotechnology with various arts and humanities; it is focused on researching living human hair *in vitro* and on conducting related experiments in tissue engineering.

It has developed from the project *Hair* (Polona Tratnik, 2005).

Under the highly controlled conditions of a laboratory, this project seeks to assess the optimal life period of hairs separated from the human body.

The project demonstrates that the hairs are alive by monitoring them with sequence photographing, which has never been done before.

This also shows how the sampled hair and skin cells divide and form hairs in real time, how they behave and react to the artificial environment of a laboratory and how they die.

The project points to the growing importance of biotechnology for power over life and the body and thus posits it as a strong and promising political technology, encouraging medicine and aesthetic surgery to invest in the body and improve its qualities.

CREDITS

Polona Tratnik with collaborators: Biotechnological research: Mimir Knežević, Primož Rožman, Ajda Marič, Živa Marinko, Plastic surgery: Aleš Leskovšek, Photography: Damjan Švarc, Film: Robi Černelč, Jože Baša & ArtLAB, Design: Miha Turšič, The humanities: Miško Šuvaković et al., Producer: Horizonti – Institute for Art, Culture, Science and Education, Co-producers: Blood Transfusion Centre of Slovenia & the Science and, Research Centre at the University of Primorska in Koper, Project support: Ministry of Culture of the Republic of Slovenia, Slovenian Research Agency & SIMED Zdravstvo d. o. o. Special thanks to: Matija Veber, Mojca Jež, Nevenka Kregar Velikonja & Educell d. o. o., Božo Jernejčič & Tehnooptika Smolnikar d. o. o., Kapelica Gallery, Museum of Modern Art Ljubljana, and the Medical Faculty of the University of Ljubljana.

INITIATION (2012)



Photo: Damjan Švarc

Initiation conducts regeneration of functional human heart muscle developing the capacity of autonomous pulsation. Cardiac tissue engineering comprises stem cells research in order to reconstitute a heart-form engineered human heart tissue in vitro. Regeneration involves the implantation of a resorbable organic matrix, i.e. decellularized heart organ, with cardio-myocytes differentiated from human adipose derived stem cells. The pulsative flow enhances the seeded cell attachment and alignment of the cells within the matrix.

The technology of implantation and dynamic conditioning enable the engineering of the proliferated cells into a strong fibrin-based tissue stimulated to develop the functional ability of the heart muscle cells, i.e. to perform the muscle contraction. Initiation accelerates the maturation of the tissue and aims to gain its muscle response – it performs the initiation of the cells into functional i.e. contractive tissue and initiates the pulsation of in vitro engineered organ.

The degree of tissue formation and cardiac myocyte differentiation in vitro, contractile function, and electrophysiological properties are the factors upon which the suitability of such tissue for both in vitro and in vivo application will depend on.

CREDITS

Production: Horizonti, co-production: Biobanka d.o.o., Educell d. o. o. Concept: Polona Tratnik (project leader), tissue engineering: Biobanka d.o.o. (Miomir Knežević, Marko Strbad, Ajda Marič, Petra Konenčnik, Janja Dobravc et al.), electrical engineering: University of Ljubljana, Faculty of Electrical Engineering (Damijan Miklavčič et al.), video: Marko Cafnik (Snaut), design: Miha Turšič. Project support: Slovenian Ministry of Culture, European Capital of Culture Maribor 2012. Special thanks to: Primož Rožman, Mojca Jež, Blood Transfusion Center Slovenia, Tehnooptika Smolnikar d. o. o., Iskra Pio d. o. o., Labena d. o. o. (Vida Žgajnar), Nada Udovč Knežević.

ŠPELA PETRIČ

Dr. Špela Petrič (1980), bsc. Biol., is a researcher/artist/performer currently studying Transmedia at Sint Lukas School of Art and Design. Until recently she was employed as an assistant at the Institute for Biochemistry, Faculty of Medicine, University of Ljubljana.

Her creative practice takes shape at the interface of science and art. She collaborates with Kapelica Gallery and several Slovenian and international artists and is an active member of Hackteria (hackteria.org).

Selected projects and collaborations:

Towards the Human Spore: Reminiscing Algae (co-author with Robertina Šebjanič, 2012), Hu.M.C.C. (collaborator, author Maja Smrekar, 2012) Circadian drift (co-author with Maja Smrekar, 2012), MaSm Metatransformation (collaborator, author Maja Smrekar, 2011), CTCAG recognition (performance, 2011), Futuro autopoeisis (collaborator, author Robertina Šebjanič, 2010), Cladocera (installation, 2010), Autobiography – discography (collaborator, gallery performance, author Samo Gosarič, 2008), I am, as if I'm not (collaborator, theatre performers, director Daša Lakner, 2007).

ROBERTINA ŠEBJANIČ

Šebjanič studied at Famul Stuart School of Applied Arts and sculpture at the Academy of Fine Arts and Design in Ljubljana (SI), as well as at the Valand School of Fine Arts in Gothenburg (SE).

The context for her ideas and concepts is often realised in collaboration with other authors, and thus through interdisciplinary and informal integration embodies in her work.

In her projects she explores various media such as video and ambiental installations and more broadly conceived cross media / technology within the context of contemporary art practice.

Her work is currently focused on constructing new imaginary worlds and searching for the relationship between the true and irrational and toying with the border of the viewer's sensual perception.

She has exhibited individual and group exhibitions as well as international festivals in Slovenia and abroad (e.g. Device_Art 3.009, Zagreb (HR); Paraflovs, Vienna (A); Alkatraz Gallery, Ljubljana; HAIP, Ljubljana; Amber, Istanbul (TR); Muzej savremene umjetnosti Vojvodina, Novi Sad (SR); KiBela Gallery, Maribor; SCCA, Ljubljana).

Her video works are part of several video collections, among them of HEP (Human Emotion Project from 2009 onwards), Station DIVA presents (15 works of Slovenian video art – historical overview), Videospotting.

She was a member of an informal group TEMP and of the board of editors of Pojmovnika slovenske umetnosti po letu 1945 / The Glossary of Slovene Art from 1945.

In 2007 she received the Ljubljana Academy of Fine Arts and Design award. Since 2011 is she part of theremidi Orchestra.

In 2012 she organised Interactivos? '12 Ljubljana:

Obsolete Technologies of the Future LJUDMILA digital media lab in Ljubljana where she was between 2008 and 2012 head co-ordinator of artistic and educational activities.

URL: <http://vimeo.com/robertina>

CTCAG – recognition (2011)

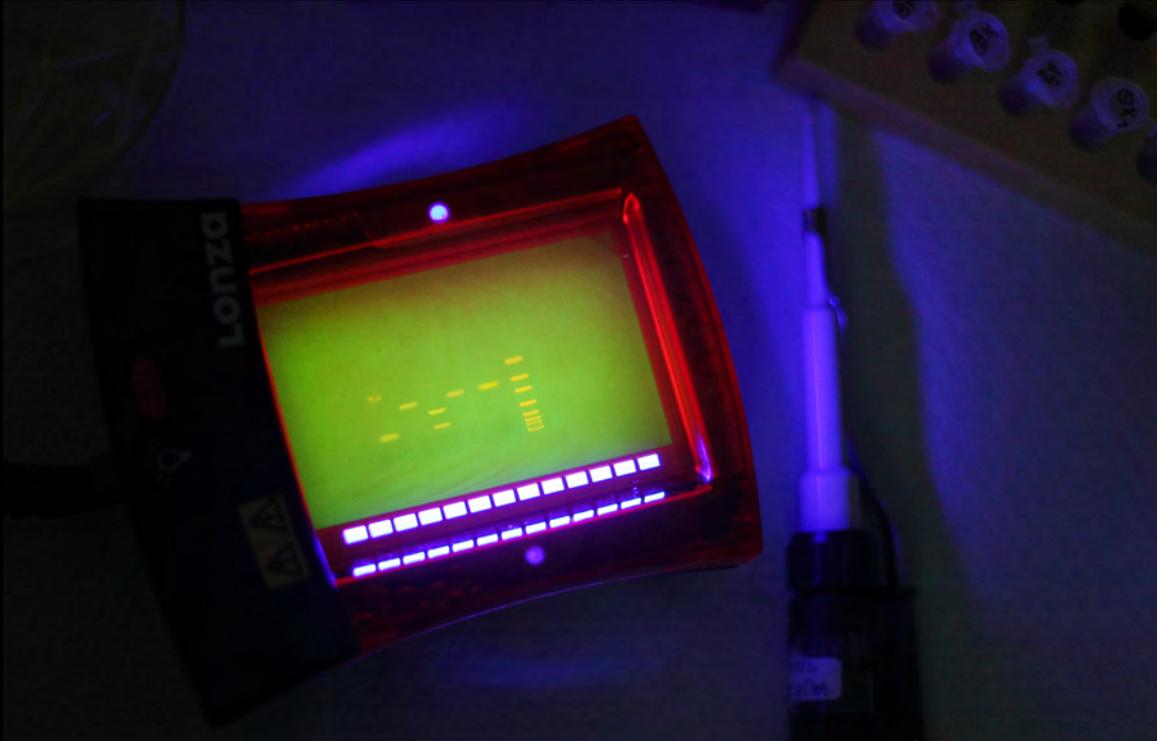


Photo: Miha Fras

Medical science and technology are expected to provide solutions for all kinds of daily problems in human existence. The utopian context and optimistic atmosphere are deeply influencing the bio-ethical debate concerning bio-molecular technologies and, in particular, genetic testing. They *a priori* direct this debate towards individual perspectives, emphasizing the benefits among which an autonomous person can make his or her choice, and towards practical applications of the potential beneficial effects. CTCAG – recognition is a meticulously structured lecture-performance aiming to shed light on the many aspects of genetic testing. Its title comes from the restriction recognition sequence of the enzyme *DdeI*, which is used in the process of distinguishing between the wild type BRCA2 gene and the allele harboring a mutation, which ultimately exposes the carrier of such a mutation to a high risk (60 %) of developing breast or ovarian cancer. This particular mutation is characteristic of the Slovene population. An introduction to the discourse is made in the gallery by a representative of GenePlanet, a Slovene based company that offers genetic testing of several genetically linked diseases, traits, and talents. The introduction ends by offering to test a few members of the audience at the gallery's expense; however they must decide upon it and provide their DNA samples (by filling a cup with their saliva) on the spot. Two days later, the lecture-performance is held in a laboratory at the Institute of Biochemistry, Faculty of Medicine, University of Ljubljana. The audience enters the laboratory and a technical assistant gives a short introduction on the molecular methods involved in testing the subject's DNA for BRCA2 mutations. Afterwards, a member of the audience is asked to perform the final step of the procedure, which would allow the results to be visualized. The gel electrophoresis with the DNA samples is projected in real time on the walls of the lab. Simultaneously, a screening of a two-part video made by the author takes place. The first part, filmed in the lab, is a lecture that focuses on conceptual issues of genetics in society. Besides giving a short historical overview of the changing attitude towards biotechnology, it explores the transformation of individual and social attitudes under the influence of genetic knowledge and technology, as well as the changing views of human identity, interpersonal relationships, and individual responsibility. In the second part of the video, the lecture is juxtaposed by an intimate view of the author cleaning her apartment. During the process she talks about of the life circumstances which lead to her decision to test her DNA for the BRCA2 mutation. She speaks of her mother's two year battle with ovarian cancer and the implications a genetic defect in the BRCA2 would have on her future health. The performance ends with the technician's interpretation of the test results.

CREDITS

Dramaturgy: Andreja Kopač, Video: Dejan Koban, Technicians: Savica Soldat and dr. Petra Hudler, Produced by: Kapelica Gallery <http://www.kapelica.org> Supported by: the Slovene Ministry of Education, Science, Culture and Sport and MOL – Department of Culture, and Institute of Biochemistry, Faculty of Medicine, University of Ljubljana, Special thanks to: GenePlanet

ŠPELA PETRIČ and ROBERTINA ŠEBJANIČ (2012)

HUMALGA: INJECTION

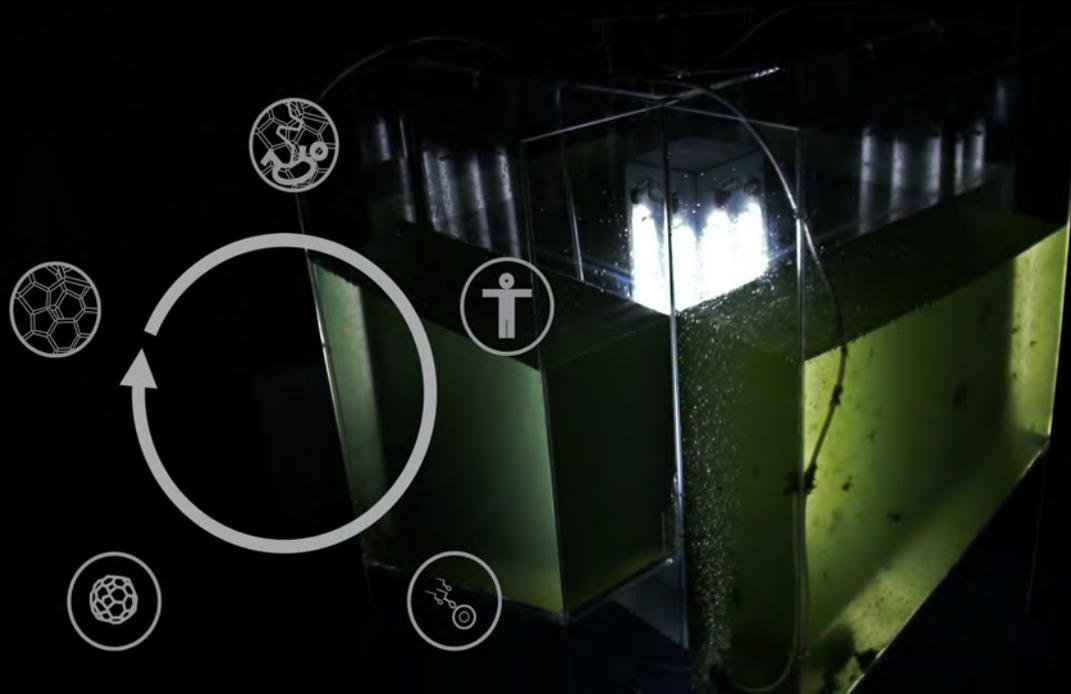


Photo: Robertina Šebjanič

In light of the environmental, social, and economic instabilities affecting the modern human, the project proposes a biotechnologically engineered post-technological vehicle, which could facilitate the long-term survival of a species of human and its evolving culture. The humalga trans-species is a genetic hybrid of the human and the alga. The fusion of the two entities, however, does not result in a mutant morphology. Rather, the partners remain as distinct organisms, connected through a complex life cycle (xenogenesis). The alga, evolutionally one of the oldest and self-sufficient eukaryotes, lends its inherent resilience, autotrophy and asexual reproduction to the trans-species, whereas the human contributes his technological and cultural legacy as well as the intricate mechanisms of sexual selection and reproduction. As an art project, Humalga loosely mimics the scientific research process including gathering information on the topic of interest, discussion among peers (symposium), connecting to institutions and funding bodies, proposing a thesis, obtaining ethical consent and conducting proof-of-concept experiments whilst engaging the public in every step. Humalga: Injection is the second in a series of installations representing the art-research project titled Humalga: Towards the Human Spore. The present phase of the project focuses on the mechanisms of biological adaptation and evolution, be it with (breeding, molecular engineering) or without human intervention (natural selection). Mediated by the engagement of experts/researchers in the formation of an artwork, it nucleates a transient cross-disciplinary field *ter^rabiology* (terra – Earth, tera (Greek) – monster), which examines the psychology, physiology and biology of the trans-species humalga. Specifically, *Ter^rabiology* aims to address issues of: macro-, microevolution and the modern synthesis of genetics and evolution (neodarwinism), natural and engineered lateral gene transfer in comparison to similar information processes in human culture, and anthropomorphism, anthropocentrism and the philosophy of species.

CREDITS

Concept and realization of the microinjector: Urs Gaudenz, Aquarium design: Špela Petrič in Robertina Šebjanič, Aquarium construction: Scenart, David Pilipovič s.p., Co-produced by: Kapelica Gallery and LJUDMILA; The LJUDMILA's program and Gallery Kapelica are both supported by the Slovene Ministry of, Education, Science, Culture and Sport and MOL – Department of Culture., <http://www.kapelica.org>, <http://wiki.ljudmila.org>, Special thanks to: Boštjan Bugarič, AlgEn - algae technology center d.o.o.

JANEZ JANŠA

Janez Janša is a conceptual artist, performer and producer living in Ljubljana, Slovenia.

He is the author of numerous videos, performances, installations, and new media works which have been presented in several exhibitions, festivals and lectures around the world.

He is co-founder and director of Aksioma – Institute for Contemporary Art, Ljubljana and artistic director of the Aksioma Project Space.

He is the director of the film My Name Is Janez Janša.

More: www.aksioma.org

DARIJ KREUH

Kreuh graduated from the Academy of Fine Arts Ljubljana in 1994 and then obtained his master's degree in 1996 at the same institution.

He is a researcher and new media artist engaged in manipulation systems within the field of digital technology.

His work encompasses workshops, performances, interactive installations, net installations, sound installations and virtual reality.

Communication interfaces in the relation between a human being and a machine are fundamental standpoints for the development of critical views of altered social paradigms as consequences of information processes.

For the past few years he has been deeply involved in virtual reality systems based on publicly accessible technology.

In the past he has, among other similar projects, developed an interactive educational programme for virtual liver operations, a model and navigational interface for interaction with virtual figures for a live TV show, a programme for virtual interactive planning of the operational procedure for treating a damaged pelvis, a back-projection system for stereoscopy, a mechanical interface for system simulations of rocket firing (army), a medical device for long bone surgery GUIDING STAR with module LIDIS – Less Invasive Distal Interlocking System (patent), a medical device for long bone surgery with module BATTIATO (long screw placement).

BRAINLOOP (2006)



Photo: Miha Fras

Brainloop is an interactive performance platform that utilizes a Brain-Computer Interface (BCI) system which allows a subject to operate devices merely by imagining specific motor commands.

These mentally visualized commands may be understood as the rehearsal of the motor act without the overt motor output; a neural synapse occurs but the actual movement is blocked at the corticospinal level.

Motor imagery such as "move left hand", "move right hand" or "move feet" become non-muscular communication and control signals that convey messages and commands to the external world.

In Brainloop, the performer is able – without any physical movement – to investigate urban areas and rural landscapes as he globe-trots around virtual Google Earth.

Through motor imagery, he selects locations, camera angles and positions, and records these image sequences in a virtual world.

In the second half of the performance, he plays back the sequence and uses Brainloop to compose a custom soundtrack by selecting, manipulating and relocating audio recordings in real time into the physical space.

CREDITS

BCI performer: Markus Rapp, BCI supervisor: Reinhold Scherer, Programmer: Suncica Hermansson, PD programmer: Seppo Gründler, Sound designers: Brane Zorman and Seppo Gründler, Executive producer: Marcela Okretič, Production: Aksioma – Institute for Contemporary Art, Ljubljana, Co-production: VisionSpace, Department of Information Design, FH Joanneum – University of Applied Sciences, Graz, Austria; Institute for Knowledge Discovery, Laboratory of Brain-Computer Interfaces, Graz University of Technology, Graz, Austria, Supported by: the Ministry of Culture of the Republic of Slovenia, the Municipality of Ljubljana, Partners: g.tec.-Guger Technologies medical and electrical engineering, Sinfonika, Special thanks: Prof. Gert Pfurtscheller, Gerhard Eckel (IEM – Institute of Electronic Music and Acoustics, Reni Hofmüller (ESC Im Labor), AndrejKregar (VPK), Jochen Martin, Rupert Lehofer, Jana Wilcoxen

JANEZ JANŠA & DARIJ KREUH

BRAINSCORE (2002)



Photo: Miha Fras

A performance for two operators who perform in a virtual reality environment through their avatars.

The task is achieved by triggering commands on a console through a system based on operators' brainwave signals (neurofeedback technology) and an eye movement tracking system.

The aim of the performance is to create a controlled flow of information in terms of audio-visual messages in order to establish communication with the audience.

The information flows from the physical space into the virtual (performers > avatars) and then back (avatars > audience).

In this sense, avatars assume the role of intermediaries (or couriers) of information, acting as a "virtual filter" between the performers and the audience.

The virtual reality environment is projected in stereo, allowing viewers to watch the performance wearing polarized glasses and thus enabling them to perceive the events in 3-D, as if they were appearing between the two performers.

CREDITS

Computer programming: Tadej Fius, Eye-movement tracking system: Iztok Lapanja, Sound design: Rainer Linz,
Costumes: Marcela Okretič, Graphic design: Janez Janša, Producer: Eva Rohrman

MAJA SMREKAR

Maja Smrekar was born 1978 in Slovenia, 2005 graduated at the Sculpture Department of Fine Art Academy in Ljubljana, currently finishing MA at the New Media Department.

Her main interest is based at the phenomenology of perception which she first started researching through space phenomena by composing live video among various collaborations in interactive sound/visual projects with other artists.

Her main artistic focus remains at the intermedia art field.

Among others, she has been collaborating with Kapelica Gallery in Ljubljana for the last five years and with Aksioma Institute for the last three years.

Under their production she has executed projects within which she was researching frequency phenomena through biofeedback and telematic presence in relations to body, privacy and (inter)subjective perception of space.

During the last two years she has been developing projects within the field of bioart with focus on living organisms.

In 2010 she organised International Festival HAIP10/New Nature which has been focussed to interdisciplinary dialogue and collaboration ethics between scientists and artists.

The festival took place at Multimedia Centre Cyberpipe in Ljubljana where she has been active as an artistic director for two years.

She was awarded at the CYNETART festival 2012 by the European Centre for Arts Hellerau in Dresden (Germany) with the 1st prize for the project Hu.M.C.C. Maja Smrekar currently lives and works in Ljubljana, Slovenia.

URL: www.majasmrekar.org

Crustacea deleatur (2012)



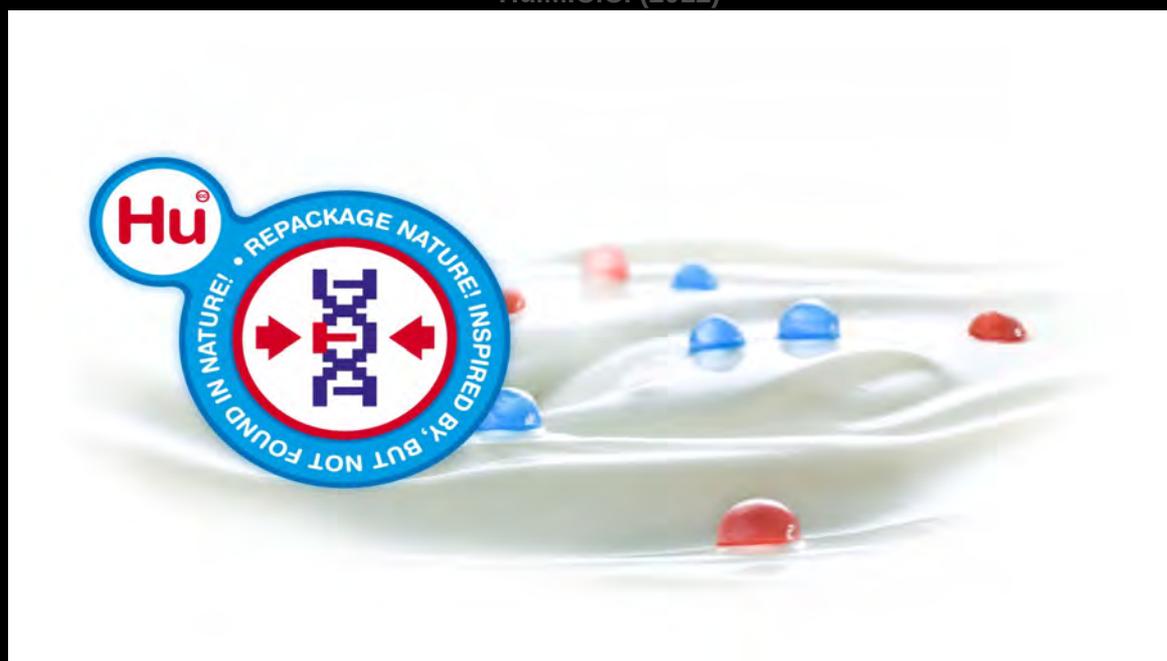
Photo: Janez Janša

The research into the phenomenon of foreign species within the project based on an example of degradation of biodiversity in the area of the thermal oxbow lake Topla near Čatež in the Dolenjska region, where several tropical species of flora and fauna have settled, paraphrases the juxtaposition of ecology as a scientific discipline and Ecology as one of the ideologies of contemporary zeitgeist. Due to the changed mechanisms of natural selection, which are caused by globalisation and which establish new relations within ecosystems, behavioural and genetic transformations in foreign as well as domestic species have become quite common. These transformations result in the changed potential of their ecological niches; as a consequence, from a long-term perspective, these species represent the greatest threat to the humankind of all species. The installation presents research into the possibilities of genetic or ecological »switch«, on the basis of which the foreign species from the thermal oxbow lake Topla could migrate into the near-by environment. The "barrier" in the artificially established ecosystem separates the living environment of the European crayfish (*Astacus astacus*) as a representative of the autochthonous species and that of the allochthonous (foreign) species – the Australian red claw crayfish (*Cherax quadricarinatus*). The environment offers both species the opportunity to confront one another, which has not happened yet in nature. The so-called "genetic reservoir" is designed as a prototype for a mobile live-in research unit, which metaphorically presents the human as the most invasive species of all.

CREDITS

The project has been carried out in collaboration with the Department for freshwater and land ecosystems at the National Institute of Biology in Ljubljana, Architectural concept: Maja Smrekar and Andrej Strehovec, B. Arch. Author of architecture: Andrej Strehovec, B. Arch., Concept, design and execution of infrastructure: Marko Žavbi, B. Eng. (Laboratory Biomedicine), Anthropological research: Neža Mrevlje, Consultancy on foreign species and collaboration on the infrastructure of live systems: Dr Al Vrezec, Tina Jaklič, Creating mobile unit: Dorval d.o.o., Production Aksioma – Institute for Contemporary Art, Artistic Director: Janez Janša, Executive Producer: Marcela Okretič. The programme of Aksioma Institute is supported by the Ministry of Education, Science, Culture and Sport of the Republic of Slovenia and the Municipality of Ljubljana. The project was conceived as part of the ARSCOPE project (Art-Science Co-OPERation Environment), which is co-funded by the EU Programme for Culture and which is carried out in partnership between TAKOMAT (Germany), CIANT (the Czech Republic) and AKSIOMA (Slovenia).

Hu.M.C.C. (2012)



Brand Identity: Atelje Balant

In Hu.M.C.C. we focus on biotechnological food production which results in a brand new product line, Maya YogHurt. As a hybrid art readymade object and public consumable yogurt product, Maya YogHurt is a gel-enriched yogurt which takes the artist's own enzyme in generating new codes for food processing microorganism. The project stands as a social Darwinism experience set within the realm of the industrial food chain process. The consumption of the product invites public to participation and dialogue exchange.

Hence the project paraphrases the concept of wasted productive forces explored by Marx, who established a connection between the ever accumulating capital and the tendential rate of profit. Observing the new waves of technological innovation related to the exploitation of time spent at labour, the Hu.M.C.C. project explores the transformed microorganism that produces lactic acid, which is one of the most used additives in the contemporary food industry. The code of the artist's gene combined with the code of the yeast gene is synthetically produced and transformed into the DNA of the same microorganism. The Hu.M.C.C. project addresses the so-called 'Soylent Green' paradigm, where the fear of ecological cataclysm turns into a subtle critique of corporate cannibalism. What was understood by T.R. Malthus as the pressure of population on the means of production (which is why there is not enough food/money for all), Marx understood as a means of producing pressure on the population. This paradigm shows the potential of a future, where we could start using our own bodies' molecular capacity as a means of (food) production.

CREDITS

Brand identity: Atelje Balant, The project has been executed in cooperation with Institute of Biochemistry, Medical Faculty, University of Ljubljana, Slovenia, Co-worker at the field of molecular biology: dr. Metka Lenassi, Co-worker at the field of molecular gastronomy: Tilen Konte, Co-worker at the field of biotechnology: dr. Špela Petrič, Web programming: Luka Marčetič and Oliver Marčetič, Special thanks: dr. Ana Plemenitaš, Shu Lea Cheang, Department of Biotechnology / Ministry of the Environment and Spatial Planning / Republic of Slovenia - dr. Martin Batič, dr. Ruth Ruprecht, Production: Kapelica Gallery - Zavod K6/4 / Kersnikova 6 / Ljubljana / Slovenia, Supported by Ministry of Culture/Republic of Slovenia and Municipality of Ljubljana / Slovenia

LECTURE

December 20th at 7 p.m.

DR. POLONA TRATNIK, UNIVERSITY OF PRIMORSKA, SLOVENIA

HUMAN AND ART IN THE CONVERGENCE WITH BIOTECHNOLOGY – CASE STUDY: SLOVENIA

In the biotech century we have been facing a tremendous development of the field since the middle of the twentieth century.

Biotechnology as the knowledge-power has been perceived as revolutionary, promising that the man is soon to become the “master of the evolution”.

Since the computer paradigm signifying the swing of genomics art has found its mission in reflecting and discussing this segment of reality.

Today, in Slovenia one can find perhaps the most vivid scene of practices in the convergence of art and biotechnology in the world, transferring the technologies, knowledge, methodologies and living matter into the world of art.

Yet they are not meant to be naïve, non-reflexive playing with life.

The artists, Maja Smrekar, Špela Petrič, Robertina Šebjanič, Polona Tratnik, and others, have developed rich conceptual challenges and technological platforms in order to discuss complex but very relevant actual issues, such as those of biopower, anthropocentrism, survival of the species, biological adaptation to extreme environmental conditions, genetically modified food products and possible cannibalism as means of survival tactics, etc.

These aspects present extreme confrontation of public with the levels of the need to foster the development of biotechnology.

WORKSHOP

December 19th at 10 a.m. - 2 p.m. and 3 p.m. - 7 p.m.
December 20th at 10 a.m. - 2 p.m.

MAJA SMREKAR & ŠPELA PETRIČ

INTRODUCTION TO MICROBIOLOGICAL PROTOCOLS: THE (IN)VISIBLE WORLD OF MICROBES IN OUR EVERYDAY ENVIRONMENT



Photo: Matej Kristovič

Bacteria are the most numerous organisms on Earth, but their world is ruled by phenomena existing on a scale much smaller than our own.

The tiny islands of specific physical conditions within the environment we are familiar with harbour communities of microorganisms, which are well adapted to each particular microenvironment; as such, even seemingly inhospitable places as the dishwasher or fridge can be sources of microorganisms that are also found in polar ice and salt pans.

In fact, it is the combination of physical and chemical factors of the environment needed to facilitate the growth of particular microbes - their so-called ecological niche - that define their distribution. Hence, in contrast to the distribution of plants and animals, certain species of microbes appear only according to physical and chemical factors present in the environment rather than the geographical ones. Within the workshop and lecture we will introduce organisms, adapted to living under extreme conditions and draw attention to their presence in our modern landscape.

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