ART & SCIENCE – HYBRID ART AND INTERDISCIPLINARY RESEARCH

Kunst ja teadus – hübriidne kunst ja interdistsiplinaarne uurimus

Exhibition / Näitus 29.05 – 24.08.2014
Conference / Konverents 30.05 – 1.06.2014
Art and science collaboration and various hybrid research practices have become common vocabulary of the 21st century. The intertwining of different fields and paradigm change that involves scientific innovation, new technologies and historical/cultural traditions are reflected in many of the works of art that expand our imagination and provoke several questions that are important today.

The intertwining between music, art, natural and computer sciences can be seen in new media, biotechnology, telecommunication art and other art practices of experimental nature. How to understand and spur the collaboration and synergy between different fields of life, how do new values and unprecedented forms of collaboration arise that are not limited by the narrow boundaries of disciplines isolated from each other? The analysis of contemporary experiments may dishevel old categories but the main goal – improved understanding of the nature, surrounding environment and therefore oneself – is unchanged. Interdisciplinary workgroups create common ideas everywhere in the world, the blistering pace of scientific and technological development allows involvement in this on very different levels. Playful, risk-seeking and provocative forms of collaboration are very welcome from the perspective of the cultural whole, the practical models of new paradigms are created in the best way through the collaboration of various workgroups and artists.

The main goal of the “Rhizope” exhibition and conference is to find and exhibit creative projects that were conceived through the collaboration of art and science by involving very different artists and creative practices into this process. Both members of Estonian graduate schools, as well as internationally renowned artists and workgroups are invited to participate. Our goal is to involve in the process as broad a spectrum as possible from social sciences and humanities to technical sciences, to discuss the emergent phenomena of the 21st century, to see how different scientific fields affect cultural creativity and vice versa and which significant societal and ethical questions arise as a result.

The conference programme is assembled based on known trends and research directions, as well as by searching for new and exciting creative practices and by testing the boundaries of hybrid creativity. We will thus in the course of the three days give the floor to theoreticians and practitioners of various fields – international professionals in the fields of bioart, robotics and network culture, sound art and social sciences, also architecture, urban studies and other fields.

We wish to address the following questions:

1. How to understand science and art in the contemporary sense? How do we understand the interdisciplinary and cross-disciplinary phenomena?
2. How is new knowledge created through the collaboration forms of art and science? How to expand the dialogue between science and art and how could artists position themselves in this process?
3. How does scientific knowledge spread in the society? How to find a common scientific language that would also conform to the cultural expectations of our society?
4. What are the common practices? (Addressed by presentations from creative groups.)
29.05  OPENING OF RHIZOPE EXHIBITION @ 19.00  
Estonian Museum of Applied Art and Design, etdm.ee 
Lai 17, Tallinn (entrance through courtyard)

CONFERENCE
Estonian Academy of Arts, Rüütelkonna, Kiriku plats 1, Tallinn

30.05  Day 1  HYBRID VISIONS

10.00–10.30  Welcome coffee. Introduction. Opening remarks by Vice Rector of EAA Prof Mart Kalm and Prof Raivo Kelomees

10.30–11.15  Keynote: Simon Penny (US/AU)

11.15–11.30  Discussion

11.30–12.00  Coffee break

Session 1  Dialogues of Disciplines  Moderators: Piibe Piirma, Simon Penny

12.00–12.30  Questioning Art, Angelika Böck (DE)

12.30–13.00  Is dialogue between art, contemporary technologies and science still possible? Justina Klingaite (LT/EE–Tallinn University Institute of Humanities)

13.00–13.30  Flower Power vs Soviet Power. Terje Toomistu (EE–University of Tartu) and Kiwa (EE–independent artist)

13.30–14.00  New Music, art or science. Arash Yazdani (IR/EE–Estonian Academy of Music and Theatre)

14.00–15.00  Lunch–registered participants

Session 2  Hybrid practices  Moderators: Piibe Piirma, Simon Penny

15.00–15.30  Beyond Humans: Organ-Like Organism Made Of Human Cells. Reiner Maria Matysik (DE/Technische Universität Braunschweig)

15.30–16.00  Brain Current. Maria Tjader-Knight (FI/UK–Aalto University)

16.00–16.30  Fat between 2 worlds. Juan M. Castro (CO/JP)

16.30–17.00  Discussion, Q&A, conclusions

Pause

19.00–21.00  Video screening: Evolution Haute Couture. Art And Science In The Post-Biological Age curator Dmitry Bulatov, (RU, Kaliningrad) 110' 
EMTA  
VENUE: EMTA/Estonian Academy of Music and Theatre 
Tatari 13, Tallinn, ema.edu.ee
31.05 Day 2 THE RHIZOPIAN RESEARCH: architecture, design, new media art, social sciences

10.00–10.30 Welcome Coffee. Short introduction by organisers
Prof Toomas Tammis, Veronika Valk
(EE–Estonian Academy of Arts Faculty of Architecture)

Session 3 Hybrid Techniques 1 Moderators: Veronika Valk and Carl-Dag Lige

10.30–11.00 Responsive Robotic Materialization, an overview of the collaborative workshop between the Institute for Experimental Architecture at the University of Innsbruck (the Department of Architecture and Urban Design), the Estonian Academy of Arts Faculty of Architecture and the Department of Mechatronics at the Tallinn University of Technology. Presented by Hendrik Väli (EE–Estonian Academy of Arts) + 8’22’ video (Piibe Piirma)

11.00–11.30 NeuroKnitting. Varvara Guljajeva (EE–Estonian Academy of Arts) and Mar Canet Sola (ES)

11.30–12.00 What is natural? Sara C. Robinson (US–Oregon State University) (online)

12.00–12.30 Moderators: Discussion 30 min

12.30–13.30 Lunch – registered participants

Session 4 Hybrid Techniques 2 Moderators: Veronika Valk, Carl-Dag Lige

13.30–14.00 Irrational Orchestration – a site specific kinetic installation. Peter Flemming (CA–Concordia University)


14.30–15.00 Metamorphosis of the Art and Science Exchange. Natalie Tyler (US–Cornell University)

15.00–15.30 Wolf Within. Should artists conducting academic research wear sheep’ clothing? Rosanne van Klaveren, KU Leuven (BE)/ADAPT-r Fellow at the Estonian Academy of Arts (EE)

15.30–16.00 Moderators: Discussion 30 min

16.00–17.00 Keynote: Theodore Spyropoulos (EL/UK)

17.00–17.30 Discussion, Q&A, 2. day conclusions

Concluding remarks
Angelika Böck was born 1967 in Munich, Germany. She graduated 1992 in interior design and 1998 in sculpture at the Academy of Fine Arts in Munich. Human perception and representation are the focal point of her practice. Her artistic strategies are laid out along the lines of scientific experiments and feature similarities to scientific disciplines, such as anthropology, sociology or psychology. Between 1996 and 2000 she employed eye-tracking technology. ‘Portrait as Dialogue’ explores “portrayal” as an art form. Her ‘Dialogical Portraits’ are intended as a dual relation between both objectivities and subjectivities within the order of representation and represent both a crossover and reversal of the traditional roles of the artist on the one hand and model on the other.

Dmitry Bulatov is an artist, curator and art theorist. His research focuses on different aspects of interdisciplinary art media, as well as on submedial aesthetics. Bulatov is the author of many articles on contemporary art and new technologies published in Russia and abroad. Books and anthologies include BioMediale: Contemporary Society and Genomic Culture (Kaliningrad, 2004), Evolution Haute Couture: Art and Science in the Postbiological Age (I volume, Kaliningrad, 2009), Evolution Haute Couture: Art and Science in the Postbiological Age (II volume, Kaliningrad, 2013). His artworks have been presented internationally, including 49th and 50th Venice Biennale (2001, 2003), Ars Electronica Festival (ORF, 2002) and many others. Bulatov has taken part in international contemporary art conferences in Russia, USA, Canada, Germany, Mexico, Singapore and Hong Kong. In 2007 his artwork was selected by Wired magazine as one of the world’s 10 top innovations. He has curated about more than twenty major exhibitions in Russia and abroad, including “SOFT CONTROL: Art, Science and the Technological Unconscious” as part of the Maribor–European Capital of Culture 2012 programme. Since 1998 Bulatov is the curator at the Baltic Branch of the National Centre for Contemporary Arts and the leading expert at the Innovation Park of the Baltic Federal University (Kaliningrad, Russia).

Juan M. Castro is an artist and researcher involved in interdisciplinary work practices between the fields of media art, microbiology and biochemistry. He was born in Bogota (Colombia) and is currently based in Tokyo (Japan). In 2008, he founded Biodynamic geometries, a research unit for experimental creative projects and scientific exploration about life and organic intelligence. Since its inception, he has been presenting his projects internationally in museums and at art festivals and scientific meetings.

Christian M. Fischer taught at FH Schwäbisch Hall and was head of media design department at German University in Cairo, Egypt, after finishing his studies in media design and electroacoustic composition in Weimar in 2007. His works were performed and exhibited in Europe, Egypt and South Korea. He was a guest professor at the GUC campus in Berlin and taught at the Estonian Academy of Arts and the Estonian Academy of Music and Theatre, where he is currently working on his PhD in the composition department.
Peter Flemming is a Canadian artist active for over fifteen years and working with robotics, kinetics, electronics, mechanics, sound, video, performance and new media. His past work has included lazy machines, solar powered robotics, and hypnotically repetitive automata. His current ongoing projects make use of improvisational kinetics and intuitive electronics, exploring sound and resonance in installations and performances featuring electromagnetically activated materials, mechanical performers and makeshift amplification devices. He has exhibited extensively at galleries, festivals and museums both nationally and internationally, garnering numerous grants and awards to support both his research and creative practice. In 2012–2014, variations of his site-specific sound installation Instrumentation toured internationally, notably in the International Biennial of Digital Art (Montréal) and the Meta.morf, Biennale for Art & Technology (Trondheim). Additional versions appeared in Portugal, Chicoutimi, Bergen, Halifax, Slovenia, Italy, France and most recently in a solo exhibition for Le Mois Multi (Québec City). Upcoming exhibitions include Rhizope at the Estonian Museum of Applied Art and Design (Tallinn) and as the keynote artist for the Sounds Like festival of sound art at PAVED Arts Centre for Contemporary Media Art (Saskatoon). In 2014, Flemming will participate in the Transitory Research Initiative of the Balkans & Eastern Europe in Prague and Ljubljana with collaborator Christine Swintak. He was recently awarded a prestigious fellowship at Headlands Centre for the Arts (San Francisco, California), and residency at Treasure Hill Artist Village (Taipei, Taiwan). As well, Flemming was long-listed as Québec representative for the 2013 Sobey Art Award, Canada’s pre-eminent annual prize for Contemporary Art.

Ulrich Gehmann (Dipl Biol. et lic. oec. HSG et MA history) studied biology, business administration and history, and the humanities. He has worked in industry and international consulting, in the region of former Soviet Union, Central Asia and the Middle East. Lecturer at Wuppertal University and Karlshochschule International University (Germany). Founder of the journal New Frontiers in Spatial Concepts, University of Karlsruhe (KIT), Germany. Publications on occidental mythology and its impact on recent sociocultural reality, spatial issues, and virtual worlds, inter alia at Oxford University Press. Museum projects. Founding member of the Subformat Research Group.

Martin Reiche is an audiovisual artist living and working in Berlin. He is co-founder and former head member of the Laboratory for the Analysis of Social Networks (LASN) at Karlsruhe University of Arts and Design, co-founder of the Subformat Research Group with research on theory of space and spatial digitalization phenomena and regularly presents on professional computer science and digital art and gaming conferences.

Varvara Guljajeva & Mar Canet Sola have been working together as an artist duo since 2009. They have exhibited their art pieces in a number of international shows and festivals. The artists were selected for the residencies at IAMAS (Japan), EMARE (FACT, Liverpool), Crida (Palma de Mallorca, Spain), MU gallery (Eindhoven, the Netherlands), Verbeke Foundation (Belgium), Marginallia+Lab (Belo Horizonte, Brazil), Seoul Art Space Geumcheon (South Korea) and more. The artist duo uses and challenges technology in order to explore novel concepts in art. The artists use to embed research into their artistic practice. Varvara and Mar have presented their research at Amber Conference in Istanbul, Enter5 Symposium in Prague, ISEA 2011, Open Knowledge Festival in Helsinki and more.

Varvara is originally from Estonia, gained her master degree in digital media and art from ISNM (International School of New Media in the University of Lübeck) in Germany and currently is a PhD candidate at the Estonian Academy of Arts.

Mar (born in Barcelona) has two degrees: in art and design from ESDI (The School of Design ESDI Barcelona) in Barcelona and in computer game development from University Central Lancashire in UK. In addition to that, Mar is finalizing his master at Interface Cultures in Art and Design University of Linz in Austria. He used to work at Futurelab in Ars Electronica Museum and is a co-founder of Derivart and Lummo. http://varvarag.info, http://www.mcanet.info.

Martin Howse explores the rich links between substance or materials and execution or protocol, excavating issues of visibility and of hiding within the world. His interdisciplinary work is preoccupied with a broad questioning of the exact location of execution and of code within the world (psychogeophysics). Through the construction of experimental situations (within process-driven performance, laboratories, walks, and workshops), material art works and texts.
Rosanne van Klaveren, Master of Fine Arts, Master in Cultural Studies, PhD-student, Media, Arts and Design Faculty, KU Leuven, Belgium. As a media artist, Rosanne van Klaveren focuses on participatory practices and circumpolar cultures since she graduated in Autonomous Art (HKA, NL 1999) and Photography (Post-St.Joost, NL 2001). She started her doctoral research and became a Marie Curie Research Fellow within the ADAPT-r program at EAA (EE) after she graduated magna cum laude in Cultural Studies (KU Leuven, BE 2009). Since 2007 she lectures at the MADFaculty (BE) where she is a member of the Social Spaces Research Group. Rosanne’s focus is on the possibilities of artistry, creativity and new media to create a temporary feeling of togetherness during participatory practices. During many years of community art practice van Klaveren frequently experienced the burden of distance when working in communities as an outsider. Such distance is not beneficial to the collaboration, or to the end results. She therefore researches how shared media use can build a metaphorical bridge in between the “us” and “them”, as a creative space for expression. Because the us-and-them dichotomy is much clearer among indigenous communities, van Klaveren has conducted this research mainly through the realization of two projects which concern the Arctic people: an online platform with a focus on Arctic food, and an interactive roadmovie. http://www.foodrelated.org, http://www.nivatonenets.org, http://adapt-r.eu.

Justina Klingaite is a first-year PhD student in Tallinn University, Estonian Institute of Humanities (EHI). Her research focuses on the philosophy of technology, philosophy of art, Martin Heidegger. She graduated from Vytautas Magnus University (Lithuania), Practical philosophy in 2012. She has also studied in Poland, Finland and Iceland. Her master’s thesis was on the late philosophy of Heidegger, specifically researching Heidegger’s Question Concerning Technology.

Lennart Lennuk is a marine biologist by profession. In his work as a scientist, he studies the ecology of zooplankton. In addition to work as a scientist, Lennuk has been active in the visual arts and has played in several bands. He is currently in the progressive music ensemble TNVVNÜM. Lennuk works in the Estonian Museum of Natural History as a zoologist and is a doctoral candidate at University of Tartu.

Reiner Maria Matysik lives in Berlin, studied fine arts at the Hochschule für Bildende Künste Braunschweig and at the Ateliers Arnhem. 2004 he directed the artistic development project “Institute of biological sculpture” at the Hochschule für Bildende Künste Braunschweig. He is a lecturer at the Institute of Visual Arts at the Faculty of Architecture of the Technical University Braunschweig; and from 2008–2009 visiting professor of sculpture at the Fachhochschule Kunst Arnstadt. He has exhibited his artworks in institutions such as the Centre Pasquart, Biel, Switzerland; Neue Gesellschaft für Bildende Kunst, Berlin; Projektraum Deutscher Künstlerbund, Laboratoria Moskau; Museum Koenig, Bonn; Georg Kolbe Museum and Künstlerhaus Bethanien, Berlin; Staatliche Kunsthalle Baden-Baden; Fondación Cesar Manrique, Lanzarote; Kunstverein Hannover; Martin-Gropius-Bau, Berlin; Kunsthalle Bern, Switzerland. At Documenta (13) he presented a video and books at “The Worldly House,” a Donna Haraway Archive d13.documenta/the-worldlyhouse.

Simon Penny’s work addresses critical issues arising at the intersection of culture and technology, informed by traditions of practice in the arts including sculpture, video-art, installation and performance; and by theoretical research in enactive and embodied cognition, neurology, phenomenology, human-computer interaction, ubiquitous computing, robotics, critical theory, cultural and science and technology studies. Informed by these sources, he designs and builds artworks utilising custom sensor and effector technologies, including the autonomous robotic artwork Petit Mal (1995), the machine vision based interactive Fugitive (ZKM 1997); Traces, a 3D machine vision driven CAVE immersive interactive, (Ars Electronica 1999); Fugitive Two (Australian Center for the Moving Image, 2004) and his current project Phatus.

His practice includes artistic practice, technical research, theoretical writing, pedagogy and institution building. He was director of Digital Arts and Culture conference 2009 (DAC09). He curated Machine Culture (arguably the first international survey of interactive art) at SIGGRAPH 93 and edited the associated catalog and anthology. He edited the anthology Critical Issues in Electronic Media (SUNY Press 1995). He is professor of Art at UCI and was architect and founding director of the interdisciplinary graduate program in Arts, Computation and Engineering (ACE). He was Associate Professor of Art and Robotics at Carnegie Mellon University (a joint appointment between the College of Fine Arts and the
Robotics Institute) 1993-2001. He was a guest professor in the Interdisciplinary Master in Cognitive Systems and Interactive Media at Universitat Pompeu Fabra, Barcelona 2007-2013 and ran the Synergies workshop on interdisciplinary research at Hangar.org 2013. He was Labex International Professor at Paris8 and ENSAD in spring 2014. He has served on juries, boards and review committees for the National Research Council of the National Academies, the Rockefeller Foundation, Daniel Langlois Foundation for Science and Art, the VIDA Art and Artificial Life Award (Telefonica Foundation), the Banff New Media Institute, the international board of ISEA and other bodies. Simonpenny.net.

**Diana Rivera** is a leading creativity coach, facilitator and specialist who uses creative practices, coaching models and contemporary research in psychology to create profound purpose and direction for her students and clients. Diana develops innovative multi-week, arts integration programs for children, adolescents and professional development for teachers. She also develops programs for nonprofit and for-profit organizations on creative process, collaboration and enhanced communication. Diana has a MA in Psychology, specialization creativity research, and is currently pursuing her PhD.

**Sara C. Robinson** focuses on the intersection of art and science specifically within the field of woodcraft, utilizing naturally occurring fungal pigments to promote a return to natural ornamentation techniques on functional wood. She is currently an assistant professor at Oregon State University in the anatomy of renewable materials.

**Theodore Spyropoulos** is an architect and educator. He is the Director of the Architectural Association’s innovative team-based M.Arch program the Design Research Lab (DRL) in London. He has been a visiting Research Fellow at M.I.T.'s Center for Advanced Visual Studies working with the Interrogative Design Group and co-founded the New Media Research Initiative at the Architectural Association. He has taught in the graduate school of the University of Pennsylvania and the Royal College of Art, Innovation Design Engineering Department. Spyropoulos directs the experimental architecture and design practice Minimaforms. The work of Minimaforms has been acquired by the FRAC Centre (France), the Signum Foundation (Poland) and the Archigram Archive (UK), and has exhibited at the Museum of Modern Art in New York, Detroit Institute of Arts, ICA (London), Futura Gallery (Prague), Slovak National Gallery (Bratislava), Architecture Foundation (UK), amongst others. Spyropoulos has previously worked as a project architect for the offices of Peter Eisenman and Zaha Hadid Architects. He studied at the AA, Bartlett School of Architecture and the New Jersey Institute of Technology. http://drl.aaschool.ac.uk, http://minimaforms.com.

**Maria Tjader-Knight** is an artist and designer, MA University of Art and Design, Helsinki, 2000. With an international artist career since 1996, since 2000 within Tjader-Knight Inc., exhibitions: Pinacoteca di Brera, Musée d’Orsay, Paço das Artes, São Paulo and Kiasma, Helsinki. She is currently working as curator within Vantaa Art Museum and carrying out doctoral research at Aalto University, School of Art and Design. Her spare time is mainly occupied by green values, keeping chicken, organic vegetables and composting.

**Terje Toomistu & Kiwa** are collaborating in running the multimedia project focusing on the youth counterculture and the hippie movement in Soviet Union. Their co-curated exhibition “Soviet hippies: The Psychedelic Underground of the 1970s Soviet Estonia” has so far been exhibited in Estonian National Museum, Moderna Museet in Malmö and Uppsala Konstmuseum in Sweden.

Kiwa (Kiwanoid as sound artist, born 1975 in Soviet Union) – multidisciplinary artist, lives and works in Tartu and Tallinn. He actively explores and blends different media, from conceptual objects to total audiovisual environments. His artistic practices include painting, objects and installation, video, performance, sound art, scenography, text, books etc., which all together function as a hypertextual research of meaningmaking and cultural codes on different levels. While participating in exhibitions since 1995, his work has been featured over 40 solo exhibitions and in over 300 group exhibitions and festivals in Europe, America and Asia. He has also lectured in the Estonian Academy of Arts (since 2006) and worked as a curator (since 1999). www.kiwanoid.com.

Terje Toomistu (born 1985 in Paide, Estonia) is an author, documentary filmmaker and anthropologist, whose works are often related to various cross-cultural processes, queer realities and subjectivities, and
cultural memory. She is currently a PhD student in University of Tartu in the Department of Ethnology, and in 2013-2014 she is also a Fulbright scholar in University of California, Berkeley, US. She holds double MA degrees cum laude in Ethnology and in Media and Communication from University of Tartu. Among her creative works, she has co-written a novel entitled “Seven Worlds” (2009) about spiritualities in South America and she is one of the authors of the independent documentary Wariazone (2011, www.wariazone.com).

Polina Tšerkassova is an anthropologist, musician and a PhD candidate in the department of Social and Cultural Anthropology in Tallinn University. In 2013-2014 she did fieldwork in Turkey. Her research concentrates on collaborative intimacy of sonic and kinetic spaces of Sufi whirling and music practices. Eldar Jakubov is a sculptor and MA student at the Estonian Academy of Arts. He has also studied in Finland and Germany and organized international workshops. He uses recycled and natural materials in his works and he likes to question the conditions of modern society. His works have been shown in city spaces, galleries and festivals in Estonia, Finland, Germany and Norway.

Natalie Tyler received her MFA from California College of the Arts. She is a sculptor and international curator. As the Artist-in-Residence at Cornell University, 2011-2012, she was awarded the Cornell Council of the Arts grant to curate LUX-Art and Science Exhibition. Her work has exhibited in New York, California, Germany and London.

Hendrik Väli studies architecture at the Estonian Academy of Arts, he is also an interface designer, an editor and the initiator of the Centre for Flying Culture. He is interested in the symbiosis of the virtual and real, and believes that the flying objects and vehicles of the future will bring about a whole new culture for mankind. http://flyingculture.com, genresis.com.


Arash Yazdani is an Iranian composer and conductor who has studied at Tehran superior conservatory (University of Applied Science and Technology), Royal College of Music in Stockholm, Hochschule für Musik Basel and the Estonian Academy of Music and Theatre, earning degrees in piano, double bass, orchestral conducting and composition specialties. From 2012 he started a PhD research of composition at the Estonian Academy of Music and Theatre on “Multiphonics on strings of piano.” Some of his previous research papers are awaiting publication. Among them are “Music study of the future,” a futuristic guideline to improve the current system of music education; “Acoustics and Psychoacoustics on works of Horatiu Radulescu” and “An acoustical approach toward composition.” Yazdani’s music is recognized for its emphasis on acoustical phenomena and creating unique auditory experience through the use of instruments.

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