COMPILED BIOS AND ABSTRACTS:
CONFERENCE: MODELS OF DIVERSITY
February 19th and 20th 2016

INFORMATION AND MODERATON:
8:30 am, 19th of February

ANGELIKA HILBECK, Senior Scientist, Institute of Integrative Biology, ETH Zurich, Switzerland and **JILL SCOTT**, Professor in the Institute of Cultural Studies in the Arts, at the Zurich University of the Arts, Founder of the Artists-in-Labs Program and Vice Director of the Z-Node PHD program on art and science at the University of Plymouth, UK.

WELCOME ADDRESSES
8:40 am, 19th of February

TOM PETERS, Head of the Department of Environmental Systems and Professor for Atmospheric Chemistry at the Institute for Atmospheric and Climate Science, ETH Zurich and **SIGRID SCHADE** Head of the Institute for Cultural Studies. Zürcher Hochschule der Künste (ZHdK)

KEYNOTE
8:50 am, 19th of February

IGNACIO CHAPELA, Microbial Ecologist, University of California, Berkeley, CA, USA; currently: Visiting Professor, Institute of Integrative Biology, ETH Zurich, Switzerland (sabbatical)

KEYNOTE: Professor IGNACIO CHAPELA

ABSTRACT: IGNACIO CHAPELA
This One World Today—and the Models we Make of Ourselves
When re-presentation fails, imagination re-creates. The laboratorium, the workshop, the space of exhibition, the field, reconstitute realities not only as microcosms, but as perceptual intelligence that cannot but sustain itself, desperately, on the evanescent understanding of the moment. The Situation: here, now, among us and our beloved. In comprehensible scales of Space,Time, Phylogeny. What can be said, what ought to be said, by the expert—the Artist, the Scientist, the Technician? What ought she do? And when this is said and done, then among whom? For whom? And wherefore?
Beyond the normative and moral understanding of our role as modellers and meaning-makers, an aesthetics—and with it an ontology—binds us together, and so does it bind our models. The practice of art and science (opposed indeed to Art and Science), I argue, tests the limits of this aesthetics: it simultaneously shows its precariousness and potential for mass-delusion, as well as its powerful liberating power.
BIO
Ignacio Chapela is a Microbial Ecologist, from the University of California, Berkeley, CA, USA; currently: Visiting Professor, Institute of Integrative Biology, ETH Zurich, Switzerland (sabbatical). Ignacio Chapela is a microbial ecologist dedicated to the understanding of the ways of life of invisible life forms and their interaction with the world of humans. He teaches and does research as a Professor at the University of California, Berkeley, but is currently based at the ETH in Zürich. He has worked in academia, industry, inter-governmental and non-governmental organizations, but he has also participated with indigenous communities in Latin America on projects based on the visualization and re-valuation of invisible (microbial) life forms in forest ecosystems. His work perforce has required multiple cross-interactions with the work of artists, from several film productions (most recently The Symphony of the Soil), to gallery- and performance- art projects (most recently with Future Farmers in Oslo, Extra City Kunsthal in Antwerp, the Kaai Theater Brussels and the San Francisco Museum of Modern Art). As a Biologist, he pursues new methods and techniques for the distributive identification, monitoring and mapping of microbial life forms by common-folk such as farmers, city-dwellers and those interested in wilderness areas.

DAY ONE 19th of February 2016
ART/ ENVIRONMENTAL SCIENCE AND BIOLOGY RESEARCH

Resources 1 - Healthy Water Quality
9:30 am, 19th of February

MODERATOR:
ANGELIKA HILBECK , Senior Scientist, Institute of Integrative Biology, ETH Zurich, Switzerland.
SPEAKERS:
TIFFANY HOLMES, Media Artist, Professor in the Art &Technology Studies Departement Chicago Art Institute, USA & **CRISTOPHER ROBINSON**, Senior Scientist, Biologist, Vice chair, Department of Aquatic Ecology, EAWAG, Zurich-Dübendorf, Switzerland

TIFFANY HOLMES
ABSTRACT

Artists and designers are crucial to navigating the deluge of information accumulating in the cyber-sphere. Creative practitioners are exploiting data sets to create novel experiences for viewers—these experiences provide new educational strategies to transmit key messages about environmental issues. Many artists and designers are permanently in search of the technological sublime to tell a new story with data. The sublime is something that exceeds the ordinary and overwhelms our capacity to fully comprehend a natural phenomenon such as the water quality of a lake or river. In the case of the technological sublime, a data set can be reformed materially to temporarily overcome our perception of the numbers—thus an algorithmic transformation may prove capable of drawing us closer to the universe of numbers or possibly provide deeper meaning and/or emotional impact to the infinitely expanding sets of data in our world, especially significant environmental information. The overall aim of this presentation is to define the technological sublime, develop a listing of associated criteria to identify it, and provide examples of creative data visualizations that focus on environmental issues as a resource for teaching and learning.

BIO

Tiffany Holmes is a media artist and educator whose work demonstrates the potential of art and technology to promote environmental stewardship. Studio projects include commissions for the National Centre for Supercomputing Applications and the Museum of Contemporary Art Chicago where sequences of experimental animations visualize real time energy loads. Her paper detailing this work, "Eco-visualization: Combining art and technology to reduce energy consumption," won a Best Paper award at Creativity and Cognition 2007 and a doctoral degree in 2010. Holmes currently works as the Dean of Undergraduate Studies and is Professor of Art and Technology Studies at the School of the Art Institute of Chicago.

CHRISTOPHER ROBINSON
ABSTRACT

Visions of Water Quality The quality of our surface waters is often transparent. Water can look pure yet be toxic to life. The quality of water transcends a simple observation that the water looks and smells clean or dirty. An objective scientific view of water transcends multiple spatial (point-source verses non-point source) and temporal dimensions (pulse versus press disturbances). A typical stream network flows through a landscape that integrates multiple anthropogenic inputs that inherently degrades the quality of surface waters downstream that often leads to biological impairment. Monitoring the quality of freshwaters occurs under standard operating procedures recording dissolved solutes, temperatures, sediment loads, and flows. Biological monitoring involves collections of organisms from bacteria to fish, often transforming records into indices of health that are correlated with water quality. These indices are viewed as simple numbers registering good or bad or something in-between. Art can add a dimension of communication that transcends scientific jargon and enhances public cognizance. Art can visualize the scientific gradients found in water quality and can be explanatory on water quality effects to the non-scientist. A better understanding of water quality can be found in the integration of Art with Science.

BIO

Christopher Robertson is a senior research scientist at EAWAG/ ETHZ and serves on the board of the Scientific Research Commission, Swiss National Park, Zernez, His research focus is the Ecology of alpine and temporary streams, the population genetics of alpine insects and disturbance ecology,

His is also interested in colonization dynamics, nutrient dynamics, fire ecology, organic matter processing, patch dynamics and algal ecology. He runs a research program in the Swiss National Park on 1) the effects of experimental flooding on streams downstream of reservoirs and 2) long-term biomonitoring of the Macun Lake Biosphere.

Resources 2: Healthy Air Quality
10:30 am, 19th of February

MODERATOR:
CHRISTOPH KUEFFER: Ecologist, Professor for Urban Ecology, Department of Landscape, Architecture, University of Applied Sciences Rapperswil & senior scientist, ETH Zurich, Switzerland.
SPEAKERS:
ANDREA POLLI, Sound Artist, Professor at Mesa Del Sol Endowed, Chair of Digital Media and Director of the Social Media Workgroup (SMW) at the University of New Mexico, USA **& ANDREAS FISCHLIN**, Prof. em Scientist, Head of the Terrestrial Systems Ecology Group Institute of Biogeochemistry and Pollutant Dynamics (IBP) of ETH Zurich, Switzerland

ANDREA POLLI AND ANDREAS FISCHLIN COMBINED ABSTRACT:
Are You Becoming Radicalized? The presenters, **ANDREA POLLI and ANDRES FISCHLIN** will give a three part contribution, approaching the topic of Public Art and Activism between Climate, Culture and Information Space first from two different angles, a scientific and artistic one, ending in an amalgation effort. As has been seen in recent tsunami and hurricane disasters, many lives depend on the interpretation of global information. Part of that interpretation must include the work of artists. The artistic process of transforming data comes with the advantage of representations that can be entered, explored and transformed. Various points of views under different conditions can be replayed. A simulation may precede or even cause events. Art has typically a strong impact through touching the audience's emotions, which can affect environmental understanding and behaviour. Given the urgency to mitigate global climate change, this has become critically important. Artist and scholar Polli discusses her journey towards activist art related to environment and climate change, including the creation of The Social Media Workgroup (SMW) and her research lab at the Centre for Advanced Research Computing at the University of New Mexico. Ecosystems provide services for the well-being of humans for free to a degree that at least doubles global earnings from civilization. It is scientifically well acknowledged that biodiversity, despite remaining a somewhat elusive concept, is of pivotal relevance in this context. Anthropogenic air pollutions have begun to reduce the health of environments leading to climate change, ocean acidification, and eutrophication. These threaten biodiversity. A range of diversity models is presented and it is shown that biodiversity exhibits particular patterns across the globe, which call for a thorough understanding. The latter becomes increasingly critical, notably in face of the future of biodiversity, which many authors nickname the 6th mass extinction. This part ends in scientist Andreas Fischlin discussing perspectives for future biodiversity with respect to chemical changes of the atmosphere and the concomittant climate change. In a third part commonly presented by both presenters, ideas from the first two parts are demonstrated in various forms such as sonifications from scientific simulation data or otherwise artistically transmogrified forms including audience participation.

BIO
Andreas Fischlin is Professor Emeritus for Biology and Systems Theory. He has researched ecosystems in a changing climate and has published numerous scientific works. He taught at ETH Zurich systems ecology and computer science and played a leading role in the design and formation of the novel Department of Environmental Systems Science at ETH Zurich. He worked for the IPCC in various roles, which made him a co-recipient of the Nobel Peace Prize as awarded to IPCC in 2007. Representing the science community he has participated for 17 years in all UNFCCC negotiations and served recently as Co-Facilitator of the Structured Expert Dialogue, hereby contributing to a new science-policy interface. As IPCC Vice-chair WGII he is currently busy in preparing the next IPCC Assessment Report. Andreas Fischlin is also an active musician. He has pioneered the use of cello in rock and is playing e-bass and e-cello in a band regularly touring Scotland
BIO
Andrea Polli <www.andreapolli.com> is an artist and scholar working at the intersection of art, science and technology whose practice includes media performance and installation, public interventions, curating and editorial, directing and writing. She currently is an Associate Professor in Art and Ecology with a joint appointment between Fine Arts and Engineering, the Mesa Del Sol Endowed Chair of Digital Media, and the Director of the Social Media Workgroup at the Centre for

Advanced Research Computing at The University of New Mexico. She holds a doctorate in practice-led research from the University of Plymouth in the UK and a Master of Fine Arts in Time Arts from the School of the Art Institute of Chicago. Polli has been creating media and technology artworks related to climate since 1999, when she first began collaborating with atmospheric scientists on sound and data sonification projects. Among other organizations, she has worked with the NASA/Goddard Institute Climate Research Group and The National Endowment has funded the National Centre for Atmospheric Research and her artwork and research for the Arts (NEA), The National Science Foundation (NSF) and Fulbright.

Knowledge Part 1: Resilience
11:45 am, 19th of February

MODERATOR:
IGNACIO CHAPELA , Microbial Ecologist, University of California, Berkeley, CA, USA. (See Biography below)
SPEAKERS:
AVIVA RAHMANI an Affiliate at INSTAAR Gulf to Gulf project. Boulder, Colorado USA &
CHRISTPÒPH KUEFFER Ecologist, Professor for Urban Ecology, Department of Landscape, Architecture, University of Applied Sciences Rapperswil & senior scientist, ETH Zurich, Switzerland

AVIVA RAHMANI
ABSTRACT
The 2007 work shown in *Models of Diversity* exemplifies how I used a freehand visual analysis to contribute towards modelling resilient biogeographic relationships. The completed *Ghost Nets* restoration work was being monitored for change between 1997 and 2007, and compared to other sites. The visuals conceptually explored how effecting one small "nuclear," site might become a marine "trigger point," in the Gulf of Maine and points south. Since 2008, I have called this practice, "performing ecology," work at a confluence of science, art and life. The goal is to identify small points in large systems, where attention might effect changes to bioregional complexity. In over twenty one-hour *Gulf to Gulf* (2009- present) webcast sessions, viewed from eighty-five countries, my conversations with scientists explore where ecological restoration in concert with art, might mitigate climate change. The *Blued Trees symphony*, is a 16-month long five-part multi-site international project that is both acoustic and spatial and has emerged from these researches. *Blued Trees* is a synesthetic compositions, on land under threat of condemnation and appropriation to effect new fossil fuel infrastructure. It is in various stages of installation and copyright registration at twenty sites, encompassing several kilometres of habitat in the path of natural gas pipelines. This work realizes *Gulf to Gulf*'s mission to explore how art might change climate change policy.
BIO
*Ecological artist **Aviva Rahmani** is an Affiliate at the Institute for Arctic and Alpine research (INSTAAR), UCB, and has her PhD dissertation, "Trigger Point Theory as Aesthetic Activism," from Plymouth University, UK. Her current project, Blued Trees, addresses earth rights. Previous ecological art projects resulted in the restoration of a former dump site to a flourishing wetlands system Ghost Nets 1990- 2000 (www.ghostnets.com) and helped catalyze a USDA expenditure of $500,000. to restore 26 acres of critical wetlands habitat (the Blue Rocks project 2002-5) in the Gulf of Maine. She was awarded a National Endowment for the Arts (NEA) Ecology Residency with the International Studio & Curatorial Program (ISCP) to work on the Newtown Creek superfund site in 2015. Rahmani received an Arts and Healing Network 2009 award for her work on water. In 1999 and 2000 Rahmani received the Nancy H. Gray Foundation for Art in the Environment grant.*

CHRISTOPH KUEFFER
ABSTRACT
Redesigning nature: Climate change, urbanization, invasive species, or ecosystems eutrophication are causing fundamental anthropogenic changes. Increasingly ecologists are assuming that ecosystems need to be adjusted through targeted new design concepts to deal with these changes. Concepts such as ecological design, intervention ecology, re-wilding, resurrection ecology or assisted migration, reconciliation ecology are new terms that propagate interests in various forms of re-designing nature. I will discuss the ongoing paradigm shifts in the science of ecology and practice of nature conservation, and asks question such as: How are the changing relationships between humans

and "nature" represented today? What is the definition of "nature" in the future and how do concepts of design influence how scientists think about nature and the design of nature?

BIO

Christoph Kueffer received a PhD in plant ecology and a habilitation in plant and global change ecology from ETH Zurich (Switzerland). He holds a professorship in urban ecology at the Department of Landscape Architecture of the University of Applied Sciences Eastern Switzerland and is a lecturer (Privatdozent) at the Department of Environmental Systems Science at ETH Zurich. His work focuses from both a disciplinary and transdisciplinary perspective on the ecology of ecosystems that are strongly shaped by humans such as urban ecosystems or heavily disturbed ecosystems on oceanic islands. More information: http://www.geobot.umnw.ethz.ch/staff/kueffer/

Knowledge Part 2: Agriculture
1:45 pm, 19th of February

MODERATOR:
PAT BADANI, Artist, NMC Board of Directors' Officer, Editor-in-Chief *Media*-N, Journal of the New Media Caucus, Canada (see biography below).
SPEAKERS:
EUGENIO TISSELLI, Artist, Writer and Programmer, Founder of the interdisciplinary project ojoVoz, Mexico **& ANGELIKA HILBECK**, Senior Scientist, Institute of Integrative Biology, ETH Zurich, Switzerland

EUGENIO TISSELLI
ABSTRACT

Participatory research methodologies not only require the integration of theories and practices coming from different disciplines and systems of knowledge, but also a strong and contextualized awareness of ethics. It is not uncommon to find that participatory initiatives implement forms of participation that are purely nominal. Furthermore, such frameworks for participation often bypass the complexities of the social, cultural and environmental contexts that exist in the communities where they are implemented. I will illustrate these problematic aspects of participatory research and development initiatives by analysing a number of case studies in the field known as e-Agriculture. To circumvent merely rhetorical participation and the lack of awareness of local contexts, I will argue that it may be necessary to introduce ethical consideration in the design of participatory methodologies. Moreover, I will propose that artistic intervention may constitute a particularly fruitful framework from which to develop and implement such methodologies. To illustrate these claims, I will present two different case studies that were developed as artistic interventions in small-scale farming communities. These case studies followed the ERV (Enabling Reciprocal Voice) Methodology, which I specifically designed for the purpose of redefining the modes of usage of mobile phones and the Internet in order to help communities establish a shared communicational praxis and strengthen their reciprocal relations. I will present the outcomes and lessons learned after implementing the ERV Methodology in communities in Bagamoyo, Tanzania and Oaxaca, Mexico, and will suggest a number of recommendations for further research.

BIO

Eugenio Tisselli is an artist and programmer with a specific interest in developing sociotechnical methodologies for communal practice. He is a PhD candidate at Z-Node, the Zurich Node of the Planetary Collegium. Previously, he worked as an associate researcher at the Sony Computer Science Lab in Paris, and was also a teacher and co-director of the Masters in Digital Arts program at the Pompeu Fabra University in Barcelona. In his role as director of the ojoVoz project, he has carried out extended workshops with small-scale farming communities in different parts of the world. The ojoVoz project may be accessed at http://ojovoz.net

ANGELIKA HILBECK
ABSTRACT

Transformation of research and science agendas to include farmer-participation in developing sustainable agri-food systems As the global agri-food systems are under increasing anthropogenic pressures due to the destructive industrialization and dwindling resources reinforced through divisive economic policies, agroecological production methods are increasingly seen as a key approach for addressing a wide range of daunting challenges simultaneously, including the increase of productivity

while improving resilience and adaptation to environmental challenges and protecting biodiversity. However, agroecological practices are knowledge-intensive, based on techniques that are not delivered top-down but developed bottom-up on the basis of farmers local knowledge. This means other forms of knowledge need to be integrated into formal research projects and scientific knowledge generation. But differences between scientific and farmer's knowledge and the underpinning world views continue to create barriers to meaningful collaboration, and the research community has not yet engaged sufficiently in linking science to other knowledge systems. In a development context, farmers are typically smallholders producing the majority of foods consumed in their regions. These farm systems are based on low-tech practices and self-provisioned inputs catering mostly to informal markets. The diverse production systems practiced by culturally diverse peoples have generated the countries' rich agro biodiversity, which bolsters against the vagaries of the environment. However, the forms of agriculture practiced by smallholder farmers have hardly been examined in formal scientific ways nor has their potential to improve productivity. Therefore, there is an urgent need to develop and test methodologies that are specifically designed to link farmer's informal knowledge to formal sciences and research and we argue that mobile phone-based information and communication technologies offer platforms and solution options that can do much more than the current utilitarian, business-focused models.

BIO

Angelika Hilbeck is a senior scientist at the Institute of Integrative Biology at ETH Zurich. Since 20 years, her research centres on biosafety issues and agroecology. Her research and conceptual work included the development environmental risk assessment, post-release monitoring and fundamental ecological research with genetically modified organisms. Through numerous research and capacity building projects she is engaged in several developing countries. She is engaged in the implementation of the (UNEP CBD) Cartagena Protocol on Biosafety and in various civil society capacity building projects. Through her international work, she became increasingly involved in broader issues of technology development towards a democratically legitimated, sustainable global future and actively contributes to the debate on biosafety, international agriculture, hunger and poverty alleviation. She has written over 80 scholarly publications. She is co-founder and acting chairperson of the European Network of Scientists for Social and Environmental Responsibility (ENSSER) and a member of the board of directors of the Swiss development organisation 'Bread for All'. She is involved in art science research and working with artists since 2002 in various roles. Since 2009, she was a first and second supervisor within Z-Node.

BIO MODERATOR

Pat Badani is a media artist who participates in culture as researcher, educator, editor, and curator. Badani's praxis involves research and creation around such topics as inhabitation, transculturality, human migration, and sustainable living. Her projects have received over 20 grants, awards and fellowships and her works have been shown extensively in international venues in the Americas, Europe and Asia. Essays examining her practice have been published in several languages in solo and group exhibition catalogues, art-magazines, academic journals, and in thematic anthologies. Her scholarly essays have been published in English and Spanish in symposium proceedings, journals, and in book chapters. Badani has held full-time academic positions and acts as reviewer and art juror in several organizations (ISEA, iDMAa, Siggraph, NMC, Balance-Unbalance). Since 2010 she is Executive Board Officer of the New Media Caucus and Editor in Chief of "Media-N, Journal of the New Media Caucus," an international scholarly online and print journal

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Environment 1: Evolution and Cellular Metaphors
3:00 pm, 19th of February

MODERATOR:
Joanna Hoffmann, Media Artist, Professor, University of Art in Poznan, Poland (see biography below)
SPEAKERS:
JILL SCOTT, Media Artist, Professor for Art and Science Research, Founder of the Artistinlabs Program, Institute for Cultural Studies in the Arts, Zurich University of the Arts ZHdK, Switzerland **& ANDRÉ LEHNHERR,** PhD student at The Institute of Molecular Life Sciences in the Neuhauss group: Vision Systems. University of Zurich, Switzerland

JILL SCOTT
ABSTRACT
Cellular life and mediated metaphors. One challenge of the media artist in the "third industrial revolution" is to bring communication, science and evolution together. Perhaps some metaphors can be found by scaling up the forms and behaviours found in cellular science to raise peoples' awareness about the environment we live in. In this presentation I will talk about the values of this communication strategy by using two examples from my own art and science works**:** AURALROOTS and JELLYEYES.AURALROOTS combines inspiration from tactile and aural sensory perception based on the stereocilia in the inner ear in the cochlea. Here, scale and the impossibility of regeneration of these cells are used as methaphorical learning experiences for the viewers. The poetic content of AURALROOTS is extended by focusing on how we learn through acoustics a) as an embryo in the womb, b) as a daughter listening to her mother about the wild pants for survival in the Australian dessert and finally c) as a female artist communicating with scientists. JELLYEYES looks at the evolution of cilia in retinal vision in humans, jellyfish and squid**.** Warmer temperatures are already affecting the evolution of these three species and their cells. Here my research is about which metaphors can be found in the evolution of cells based on completion, co-evolution or symbiosis?
BIO
Jill Scott is Professor in the Institute of Cultural Studies in the Arts, at the Zurich University of the Arts, Founder of the Artists-in-Labs Program and Vice Director of the Z-Node PHD program on art and science at the University of Plymouth, UK. She focuses on Art and Science Research for man years. Her artwork spans 38 years of media art production about the human body, behaviour and body politics and recently on neuroscience, ecology and sensory perception. Her publications with Springer include Neuromedia: Art and Science Research with Esther Stoeckli (2012),Transdiscourse 1: Mediated Environments (2011) and Artists-in-labs: Networking in the Margins (2011). Her most recent publication is entitled Transdiscourse 2: Turbulence and Reconstruction. (2015) Birkhauser-De Guyter (Austria –Vienna) http://www.jillscott.org ,www.artistsinlabs.ch, www.z-node.net

ANDRE LEHNHERR
ABSTRACT
Tracing the Evolutionary History of a Gene Family in the Retina Humans are highly visual animals. Like all other vertebrates, we sense light using the retina, but the evolution of light sensing started even before the first vertebrates appeared on the planet. Even some cnidarians already use a camera style eye to sense light and distinguish colors. Clearly, different species have different demands to their visual system. Distinguishing ripe fruit from unripe ones, recognition of predators or prey or nocturnal versus diurnal animals require highly specialized eyes according to the species' need. In order to meet those needs, variations on few general eye designs have evolved. During vertebrate evolution, two rounds of whole genome duplications occurred. Each duplication event gives one copy of a gene the chance to evolve new functions while the other copy retains the ancestral state. Our research focuses on the evolution of the Excitatory Amino Acid Transporter (EAAT) gene family in vertebrates. Those genes are essential for the removal of the excitatory neurotransmitter glutamate out of synapses in vertebrate retina. To trace the evolutionary history, we combine different approaches to gain a deeper insight into this truly amazing gene family.
BIO
André Lehnherr is currently a Phd Student in the Stephan Neuhauss Lab at the Institute of Molecular Life Sciences at the University of Zurich researching and tracing the evolution of the SLC1 Gene Family. This lab mostly works with Zebrafish, members of the teleosts (ray-finned fishes) that constitute more than half of all existing vertebrate species. This remarkable development may have been helped by a whole genome duplication event that occurred at the base of the genetic line. The

redundancy of duplicated genes can pave the way for interesting diversions, leading to experimental conditions where genetic manipulations occur in specific cell types. He is also a member of ZNZ International PhD Program in Neuroscience and has a Bachelor of Science in Biology UZH and a Master of Science in Neuroscience. He has supervised thesis and taught Neuobiology as well as conducted seminars on Comparative RNA Expression Patterns.

BIO MODERATOR
Joanna Hoffmann-Dietrich is Professor of the University of Arts in Poznan, leader of the Studio for Transdisciplinary Projects & Research AE/UAP. She is also co-founder and Chair of the Art & Science Node in Berlin and Club for Science & Art in Poznan. Her artistic works have been widely presented i.a. at the Center for Contemporary Arts Warsaw; Science Museum/DANA Centre London; MOCA London; Transmediale Festival Berlin; EPO European Patent Office, Berlin; WRO Media Art Biennale Wroclaw; MUSE Centre of Photography and Moving Image New York. Her art residences include i.a. Eilslabs/DKFZ /Heidelberg University; Academy of Film and Television Potsdam-Babelsberg; CEMA/Srishti College & NCBS National Centre of Biological Science, Bangalore; KHOJ & ICGEB International Centre for Genetic Engineering and Biotechnology New Delhi. She closely collaborates with KNOW Polish Leading Centre for RNA Research. Reiterated Fellow of the Polish Minister of Culture.

Environment 2: Transdisciplinary Frameworks
4:00 pm, 19ᵗʰ of February

MODERATOR:
SUSANNA WITZGALL, Theorist, Lecturer, Centre of interdisciplinary studies of the Academy of Fine Arts in Munich, Germany (see biography below).
SPEAKERS:
JUANITA SCHLAEPFER-MILLER, Art and Science Communicator, Zurich-Basel Plant Science Center, ETH Zurich, Switzerland **& CHRISTIAN POHL,** Theorist, Co-director of the Network for Transdisciplinary Research (td-net) and Chair of the Sustainable Development at Universities Programme, Swiss Academies of Arts and Sciences, Switzerland

JUANITA SCHLAEPFER-MILLER AND CHRISTIAN POHL COMBINED ABSTRACT
How does the application of Pohl and Hadorn's *Principles for designing transdisciplinary research* enable a discussion of the knowledge produced by art-science? Transdisciplinary research has become a key reference point in funding proposals both in the arts and natural sciences. Despite many references in the literature, and calls for research involving both the natural sciences and humanities to solve complex world problems such as adaptation to climate change, there seems to be little consensus and few definitions, about exactly what kind of knowledge might be produced from such projects, especially those at the interface of art and the natural sciences. The research of Juanita Schläpfer applies the transdisciplinary research framework proposed by Christian Pohl and Gertrude Hirsch Hadorn (2007) to real-world, transdisciplinary art-science projects in order to examine the balance between the collective, locally embodied experience and the nomothetic knowledge that arises from it. Pohl's framework is widely used in in the field but has not previously been applied to science-art research. Schläpfer's research found that transdisciplinarity is a different question from that of types of knowledge on the nomothetic-idiographic scale. Transdisciplinarity is a pragmatic question of definitions and inherited boundaries of disciplines. The framework categories do not differentiate between nomothetic and idiographic, just to which part of the problem-solving puzzle they fit. This is perfectly valid for goal oriented, problem solving research and can be applied to art-science research, but there are other ways of describing this work such as using a philosophical description of the knowing process which come closer to encompassing the richness of the knowledge produced. (Pohl, C., & Hadorn, G. H. (2007). *Principles for designing transdisciplinary research.* Munich: oekom)
BIO
Juanita Schlaepfer-Miller is an artist and science communicator, currently a Program Coordinator for the Zurich-Basel Plant Science Center. She has a Masters in Science Communication and has over fifteen years experience designing inquiry-based learning exhibits in the natural sciences. Recently she has developed transdisciplinary art and science workshops to engage children and teens with plant science. She teaches science communication courses at the ETH Zürich and in 2015 submitted her PhD thesis: "Defining new knowledge produced by collaborative art-science research".
BIO

Christian Pohl with a PhD in environmental sciences, is co-director of the transdisciplinarity-net (www.transdisciplinarity.ch) of the Swiss Academies of Arts and Sciences and co-director of the Transdisciplinarity Lab of the Department of Environmental Systems Science at ETH Zurich (www.tdlab.usys.ethz.ch). He studied environmental sciences, followed by a doctoral thesis on uncertainty in environmental assessments. As a post-doc he moved to the field of science studies and analysed inter- and transdisciplinary research. Over the last decade Christian Pohl has substantially contributed to the advancement of theory and practice of transdisciplinary research, specifically in the field of sustainable development (cf. Principles for Designing Transdisciplinary Research, Handbook of Transdisciplinary Research, Methods for Transdisciplinary Research). Currently he is engaged in developing a compilation of methods for coproducing knowledge and in chairing the Sustainable Development at Universities Programme (2013-2016).

BIO MODERATOR

Susanne Witzgall holds a PhD in art history and since 2011 is head of the cx centre of interdisciplinary studies at the Academy of Fine Arts Munich funded by the BMBF. From 2003 to 2011 she was an assistant professor at the Department for Art History at the same institution and in summer term 2013 a guest lecturer at Newcastle University. From 1995 to 2002 Witzgall worked as a curator for the Deutsches Museum Bonn and the Deutsches Museum, Munich. She has curated and co-curated several exhibitions among them Art & Brain II (1997/98), The Other Face (2002), Say It Isn't So (2007) and (Re)Designing Nature (2010/1) and is the editor and author of numerous books and articles on contemporary art and art and science, including Kunst nach der Wissenschaft (2003), New Mobility Regimes in Art and Social Sciences (with Gerlinde Vogl and Sven Kesselring, 2013), Power of Materials/Politics of Materiality and Fragile Identities (both with Kerstin Stakemeier, 2014 and 2015).

DAY TWO 20th of February 2016
ART/ SOCIOLOGY, ARTIFICIAL INTELLIGENCE, PHYSICS AND COGNITION RESEARCH

INFORMATION and MODERATION
8:30 am, 20th of February

JILL SCOTT- Professor in the Institute of Cultural Studies in the Arts, at the Zurich University of the Arts, Founder of the Artists-in-Labs Program and Vice Director of the Z-Node PHD program on art and science at the University of Plymouth, UK.

WELCOME ADDRESS
8:40 am, 20th of February

SIGRID SCHADE Schade, Sigrid, is since 2002 a Professor and Head of the Institute for Cultural Studies in the Arts ICS, Zurich University of the Arts. She was professor for Art Science and Aesthetical Theory at the University of Bremen from 1994-2004. The topic of her dissertation was "Representations of Witches in the 16th Century", that of her habilitation "Body Languages in the Arts and Photography". She also has worked as guest professor at several institutions. Her research includes studies in visual culture, hierarchies in the arts, gender studies, interrelations between the arts and new media. Selected publications: ed. Vera Frenkel, Ostfildern: Hatje Cantz 2013 German and English); Studien zur visuellen Kultur, together with Silke Wenk, Bielefeld: transcript 2011; (German and Englisch); SchnittStellen, ed. w. T. Sieber u. G.C. Tholen, Basel 2005; Co-editor of the series Studies in Visual Culture, transcript Verlag. http://sigrid.schade.zhdk.ch.

KEYNOTE
9:00 am, 20th of February

ROY ASCOTT
ABSTRACT:
"Laying the planetary table": Central to my work, whether analogue, digital, or hybrid, is "the tabletop": the place of exchange and interaction, where ideas and experiences are laid out, addressed, reordered, contested, or consumed. Those coming to the table may appear in real time, in virtual presence, or as part of a non-linear, distributed authorship. I lay out organisms of learning and research, in which process and system are prioritized, where cybernetics is central, addressing issues of behaviour, identity, environment and connectivity. Just as I see technology as the product of desire, rather than the opportunistic offspring of scientific research, so I see art as an instrument for change, both psychic and material, rather than a passive window on a world circumscribed by habitual assumptions about consciousness and reality. *Cybernetics, telematics, moistmedia, cyberception*, and *technoetics* are syncretic neologisms that describe the pathways of thought artists navigate to realise social, cultural, and spiritual aspirations. The moral integrity of art lies in its ability to pursue futures of unexpected value and beauty, in which we constantly re-invent the world, and shift and shape our evolving identity. New technologically assisted forms of perception and of cognition (cyberception) permit us to think new worlds into being., and to propose new perspectives on what it is to be human. Thus, our engagement with the Tao can be actively constructive rather passively receptive. Similarly, at the nano level, new potentialities as well as new ethical responsibilities, arise. We build our selves and our reality, with art playing a special role in that process. The consequences of applied technologies (both ancient and modern) properly understood, are that we inhabit many selves, and traverse many realities, constructing many worlds. We are, in short, at a critical turning point in our cultural and spiritual destiny. Art can serve at the table of desire.
BIO
Roy Ascott, visionary pioneer of Media Art (Ars Electronica Golden Nica 2014), currently in Electronic Superhighways at Whitechapel, London, has featured in the Biennales of Venice and Shanghai, and major exhibitions in Asia, Europe and South America. His work is in the permanent collection of the Tate Gallery. London. In 1994, he founded the first PhD programme in art and technology internationally (CAiiA) , which has nodes in Switzerland, Italy, and China, and the hub in Plymouth University, with over 80 doctoral graduates. He is the De Tao Master of Technoetic Arts at DTMA, Shanghai, where his studio offers advanced degree programmes and projects. He is an honorary

editor of Leonardo (MIT) , and founding editor of the Technoetic Arts Research Journal (Intellect). He has held senior academic appointments in Toronto, San Francisco, London, and Vienna, and advised universities and media centres internationally, including UNESCO and the EU.

Materiality and Behaviour
9:45 am, 20th of February

MODERATOR:
DARCY ALEXANDRA, Visual Anthropologist, writer, ethnographer, Centre for Transcultural Research and Media Practice, Dublin Institute of Technology, Dublin, Ireland (see biography below).
SPEAKERS:
KARMEN FRANINOVIĆ, Designer and Architect, Head of Interaction Design, Zurich University of the Arts ZHdK, Switzerland **& DANIEL BISIG**, Media Artist and Biochemist, Senior Researcher, Department of Computer Music, Zurich University of the Arts ZHdK, Switzerland

KARMEN FRANINOVIC
ABSTRACT
The misbehaviour of Active Materials. How can we enable flows of matter and thought that escape the solidification into stable concepts and objects? How can we think materials actively and how can we engage with them in an active and open manner? In this lecture, I re-reconsider the idea of agency and affordance by engaging with current discourses on materiality and my practice-based research on active materials. These materials, often labelled as "smart", have been developed with the purpose of efficiency and functionality. In Enactive Environments group, we have been developing new processes of working with such materials, in order to take them outside of scientific laboratories and into the hands of artists and designers. We embrace the disobedience and misbehaviour of active matter, and work with "errors" and qualities, which are undesired in engineering contexts. Through hands-on experiments, we follow what materials afford instead of trying to impose our ideas on matter by controlling its physical properties. By opening up alternative paths for those materials, we aim to let them flow and leak into the world, and let them affect our imagination and thought, not knowing what they, and us, will become.
BIO
Karmen Franinovic is an architect, artist, and interaction designer focused on the creative and active use of technology in architecture, urban space and everyday life. In her projects, she seeks to stimulate social and bodily movements, and to raise awareness of interaction with/in the urban surroundings and its diverse ecologies. Her theoretical research on action, play, hospitality, participation and "enaction" manifests in responsive sculptures, digital architecture and interactive installations. Karmen is Professor for Interaction Design at Zurich University of the Arts, where she leads research projects on sonic interaction, movement rehabilitation, active materials and responsive urban environments.

DANIEL BISIG
ABSTRACT
Hybrid performance - behavioural correlation between human performers and simulated-based complex systems: The following presentation discusses the author's currently ongoing research on and development of interactive generative systems for dance performance. The work explores the establishment of hybrid environments within which the behaviours of simulated and natural entities interrelate and mutually influence each other. The chosen approach is heavily inspired by concepts from embodied artificial intelligence and behavioural robotics. Accordingly, it places a strong focus on the interplay of environmental, morphological and cognitive properties and processes in the generation of behaviour. The talk presents as case studies two dance performances entitled *Stocos* and *Phantom Limb*. *Stocos* employs interactive swarm simulations whose behaviours are linked to the dancers' activities via their collective influence on and sensitivity to the dynamics of a shared physical space. Phantom Limb experiments with the abstraction and simulation of neural and morphological structures and processes that are tightly integrated with and extend the dancers' physical bodies and behaviours.
BIO
Daniel Bisig, Media Artist and Biochemist, Senior Researcher, Department of Computer Music, Zurich University of the Arts ZHdK, SwitzerlandZurich University of the Arts. Institute for Computer Music and Sound Technology.

BIO Moderator

Darcy Alexander specializes in visual anthropology, digital storytelling, and international migration. Since 2007, Dr. Alexandra has designed and directed participatory research projects that center audiovisual production as a means of inquiry and public engagement. She names this approach to engaged ethnography, 'co-creative documentary.' Her commissions include the Dublin City Council, the Forum on Migration and Communications, and the Swiss Agency for Development and Cooperation. She has taught digital storytelling in Europe and the United States and conducted research in the US-Mexico borderlands, El Salvador, Uruguay, Cuba, and Ireland. This spring, she introduces a new course on digital storytelling to the Department of Social Anthropology, University of Bern.

Behaviour and Space
10:45 am, 20th of February

MODERATOR:
IRÈNE HEDIGER, Curator and Head of Projects Artistsinlabs, Institute for Cultural Studies, Zurich University of the Arts ZHdK, Switzerland (see biography below).
SPEAKERS:
MONIKA CODOUREY, Architect, Head of Research Office LAB /Senior Project Leader, ZING, Zurich, Switzerland **& MIKE PHILLIPS**, Artist, Professor of Interdisciplinary Arts, School of Art and Media, University of Plymouth, UK

MONIKA CODOUREY
ABSTRACT
What do airports and hospitals have in common? Users` Participation in the Design of the Hybrid Workplace: Global mobility, wireless technology and knowledge society are transforming our build environment. We live more mobile lifestyles, we work in hybrid spaces (Suoza 2006; Duffy 2010 et al), and we consequently need to share information and collaborate differently. But design strategies focusing on the user experience (soft factors) have not yet been thoroughly assimilated by architecture and design. Airport, as well as hospital design is a complex issue that has to function within a broad set of independent domains: the logistics of flow, services, architectural structure and aesthetics. Both are also strongly influenced by socio-economic and political considerations. The research about airports and hospital case studies show that the design of the hybrid workplace requires a holistic approach that focuses on understanding users' needs, and involving them in design. Doctors are mobile/knowledge workers that use advanced ICT technology (for e.g. sensors,large display monitors, expert systems) in their highly diversified work activities. In effect, hospitals are transforming into highly technological work environments. Doctors' everyday activities include close contact with patients, administration of patient data, reporting, meetings and collaboration with colleagues, as well as knowledge transfer between partner hospitals and academics over distance. These developments indicate the need to re-think strategies for hospital workplace planning and to create hybrid work environments that support team collaboration and work flexibility. Therefore, doctors' involvement from the early design stage is necessary to better understand their needs and work processes and to inform design. In this case study, I investigate ways to generate empirical data about users and to explore the potential of the activity-based workplace in the hospital context. Case Study: Winterthur Cantonal Hospital (KSW)
BIO
Monika Codourey is registered Architect & Workplace Consultant teaching and research experience in Field of Architecture, Media and Design. She takes holistic approach to design focusing on solutions that support users needs and behavioural change. Currently she works at Workplace Design and Consultancy firm in Zurich and helps organizations from healthcare, education and financial industry to innovate their work environments and successfully manage change process during all project phases. Recently, she has completed PhD dissertation titled "Airport Territory as Interface: Mobile Work and Travel in Hybrid Space". She worked as architect in the USA, Canada and Germany before settling down in Switzerland in 1998. Monika has a degree in Architecture (University of British Columbia (CAN), a post graduate degree in Information Architecture at Department of Architecture (ETH Zurich (CH) and participated in Bauhaus Kolleg „Transnational Spaces" in Dessau (D). Monika has lectured in field of Urban Media and Information Spaces at the New Media Faculty of Zurich University of Arts (CH) and at University of Applied Sciences Northwestern Switzerland, School of Arts and Design in Basel (CH).

MIKE PHILLIPS
ABSTRACT

Model Instruments and Instrumental Models "Science and technology multiply around us. To an increasing extent they dictate the languages in which we speak and think. Either we use those languages, or we remain mute." (Ballard, 1993) When speaking in tongues is important to have a focus for discussions. Across the arts and sciences the 'model' plays a negotiable role, the model animal, the model building, the *maquette*, all virtual/negotiable/conceptual/perfect things around which conversations can take place. These models are more often than not generated by instruments that are used to manifest the things that lie outside of the normal frames of reference - the invisible and the obscured, the infinitely big or nanoscopically small, things so small or so big that they require a leap of faith to believe that they are actually there. In this post-ocular transdisciplinary culture we need to constantly (re)-negotiate the fragility of meaning and notions of reality disciplines. The model and the instrument become the recursive *lingua franca* for the generation of new knowledge. The recursive relationship between the instrument that generates the model and the model that generates the knowledge to build the next instrument generates the evidence upon which falsifiability rests. And evidence is… "a very tricky thing," answered Holmes thoughtfully. "It may seem to point very straight to one thing, but if you shift your own point of view a little, you may find it pointing in an equally uncompromising manner to something entirely different." (Doyle, 1892)

BIO

Mike Phillips, is Professor of Interdisciplinary Arts at Plymouth University, the Director of Research at i-DAT.org and a Principal Supervisor for the Planetary Collegium. My R&D orbits a portfolio of projects that explore the ubiquity of data 'harvested' from an instrumentalised world and its potential as a material for revealing things that lie outside our normal frames of reference - things so far away, so close, so massive, so small and so ad infinitum (www.op-sy.com). He manages the Fulldome Immersive Vision Theatre (www.i-dat.org/ivt/), a transdisciplinary instrument for manifesting (im)material and imaginary worlds and is co-editor of Ubiquity, The Journal of Pervasive Media http://www.ubiquityjournal.net/ Phillips is an active member of an international transdisciplinary community that engages with immersive, interactive and performative technologies. He sits on the ISEA International Advisory Committee, the AHRC Internet of Things Advisory Board, Arts Council England SW Digital Reference Group, the TSB IoT SIG and is a founding partner of FullDome UK (www.fulldome.org.uk/). http://i-dat.org/ http://i-dat.org/mike-phillips/

BIO

Irène Hediger

 is the head of projects at the artists-in-labs program at the Institute for Cultural Studies in the Arts (ICS), Zurich University of the Arts (ZHdK). She studied Business Administration specializing in group dynamics and organizational development (DAGG) and a MAS in Cultural Management from the University of Basel. She has curated numerous exhibitions, performances and accompanying programmes about issues related to contemporary art, science and technology, such as „Think Art – Act Science" Barcelona, San Francisco and other destinations (2010-2011), "experimenta13 – Natur Stadt Kunst", Basel (2013), "Quantum of Disorder" (2015) and "(in)visible transitions" (2015). She specializes on long-term inter- and transdisciplinary creative practices and takes artistic and scientific processes out of the lab or studio into the public realm. Other activities include her role as Deputy Equal Opportunities Officer at the ZHdK.

Materiality and Physics
12:00 am, 20th of February

MODERATOR
MARILLE HAHNE, Filmmaker and Precision Tool Engineer, Professor for Filmmaking, Department Performing Arts and Film, Zurich University of the Arts ZHdK, Switzerland (see biography below).
SPEAKERS:
ANDREAS SCHIFFLER, Media Artist and Physicist, Senior Software Engineer, Microsoft, Seattle, USA **& ALEXANDER PENN**, Physicist and Researcher, Lab for Energy Science and Engineering, D-ITET, ETH Zurich, Switzerland

ANDREAS SCHIFFLER
ABSTRACT

***Electron Defence* – a game development project to expand a popular casual game genre through the use of non-standard game physics** My research found that scientific and artistic perspectives should be considered when designing game physics, because the primarily entertainment driven design goals of game developers interfere with the needs of educators or scientists, as they create undesired effects on game players by projecting a form of "pseudo physics" that is common in mass media. Electron Defence is a computer game implementation project that aims to overcome observed limitation in the traditional definition, use and reach of physics in interactive mass media by applying the authors' principles for the design of effective game physics elements. The subgenre of real-time strategy video games called tower defence is combined with an uncommon type of game physics, electrostatics simulations, to create a novel game experience. My game design principles will be used throughout the game, in order to enhance the game mechanics, game story, game aesthetics and game technology. A game prototype will be presented publically, so a wide variety of audiences, including scientists and artists, can play that game and provide feedback on a trans-disciplinary level.

BIO

Andreas Schiffler is a German native and has a technical diploma as Chem-Tech at Odenwaldschule, Heppenheim in 1987. He then moved to Canada in 1989 to study Space Physics at the Institute for Space and Atmospheric Sciences, where he received his B.Sc. in 1994, followed by a M.Sc.in 1996 from the University of Saskatchewan, Saskatoon. In a career shift, he supported technical projects of media artists Prof. Jill Scott and Dr. Jeffrey Shaw for 4 years at the ZKM, Karlsruhe. Following his deep interest in software, he returned to Canada and worked in key roles at various IT startups including Tek21, Appwares, and IC-Agency until 2007. He then moved to the USA where to work in a senior software development position at Microsoft Corp, Redmond while completing a transdisciplinary dissertation at Z-Node, Zurich with a PhD awarded in 2013 by the University of Plymouth.

ALEXANDER PENN
ABSTRACT

Looking Behind the curtains: The Magnetic resonance imaging of Granular Material While migrating birds have magnetic sensors in their brains that act as a compass on their flights across thousands of kilometers, humans cannot sense magnetic fields even if they are a hundred thousand times stronger than the earth's magnetic field. Such enormous magnetic field strengths are used in magnetic resonance imaging (MRI), however besides being a very helpful instrument for tissue analysis in medical diagnostics, MRI is able to measure spatially resolved brain activity, offering a unique tool for neuroscientists to study the complex functionality of the human brain. In our project at ETH Zurich we use the powerful concept of MRI to study the behaviour of granular materials. Granular materials can be sand on the beach, the soil on which we build our houses or our daily breakfast cereals, but the results from our imaging could also be applied as new research materials in other disciplines. While still only poorly understood, these materials exhibit thrilling phenomena. For example, sand could be a living sculpture and flow like a liquid in an hourglass or it can behave like a gas in a storm, or it can form a solid platform on which we can interact. This talk features unique methods and measuring devices, developed in our labs, to understanding this fascinating "granular state of matter", including tailored multichannel receiver hardware for high speed, parallel MR data acquisition, advanced image reconstruction algorithms and magnetically optimized, artificial granular materials with high MR signal densities.

BIO

Alexander Penn is physicist and researcher at the Lab for Energy Science and Engineering and at the Institute for Biomedical Engineering at ETH Zurich. He received his master's degree in physics from Vienna University of Technology in 2013, focusing on novel concepts for renewable energy technologies (fuel cells and solar cells). In his current research at ETH Zurich he applies magnetic resonance imaging to study granular materials, which exhibit fascinating physical properties.

BIO MODARATOR

Marille Hahne is a filmmaker and professor of film at the Zurich University of the Arts, where she started the first Swiss Master of Arts in Film Degree program. She has a degree in precision tool engineering from the Munich University and a Master of Fine Art in Filmmaking from the Chicago Art Institute. She teaches and conducts research on the theory and practice of filmmaking and digital cinema. In the last 15 years she specializes in documentary film about art and science. She is also engaged in international exchange initiatives for the Departement of Performing Arts and Film and she is a jury member of the Alexis Thalberg documentary award and editorial board member of Z-DOK. Her edited publications include: Coded Characters (2002) Springer Verlag, Digital Cinema

(2006) Schürenverlag and a featured chapter in Dokumentarfilm (2013) ed. Edmund Ballhaus.

Representation and "The Self"
2:00 pm, 20th of February

MODERATOR:
JILL SCOTT Professor in the Institute of Cultural Studies in the Arts, ZHdK Vice Director of the Z-Node PHD program on art and science at the University of Plymouth, UK.
SPEAKERS:
NICOLE OTTIGER, Artist, Art Therapist at Cantonal Psychiatric Clinic Wil, Switzerland **& DIETER MERSCH**, Philosopher, Director Institute for Theory, ith, Zurich University of the Arts ZHdK, Switzerland

NICOLE OTTIGER.
ABSTRACT
Eyes at the Back of the Head: An Artist's Research of Immersion into the Body of the Avatar.
We can't see ourselves from behind. But what if we could? This paper addresses and analyses the artist's exploration of 'seeing' her bodily self whilst immersed into the body of her avatar. In a self-portrait the artist normally renders the intimate representation of the own personal self. Self-portraiture is a method of investigation on oneself, both physically and emotionally. While making a self-perception the artist 'expands' the represented self beyond the perceived self. In some painted and photographic self-portraits the painter is represented twice – a reduplicative phenomenon, as the painting painter, by choice of technique and mode of expression, and, as the depicted subject the painted painter. So, a virtual self exists. In virtual surroundings of today's digital world we are generating a lot of virtual selves. In art representation a virtual self was always observed and recently it seems to have re-gained a figurative (bodily) element. By example of an artwork series (Video Ergo Sum - Third Person Series) made during the 2010 artist-in-lab residency within the Laboratory of Cognitive Neuroscience at EPFL, it will be discussed that self-depiction is possibly based on the constant re-attempt to localize the self. The focus here is to reflect on artistic practice and the nature of contemporary art representation of bodily reality and self.
BIO
Nicole Ottiger is an artist and a researcher, practicing art psychotherapist and since 2014 deputy head of art therapy (Ateliers-Living Museum) at the Cantonal Psychiatric Clinic Wil/SG. Her main interests are: visual art practice and art theory, self-representation, illusory and disturbed own body recognition. She is currently a PhD candidate in Visual Arts at Zurich University of the Arts and Plymouth University. She studied Geography & Geology (BSc 1991) Fine Arts (BA 1998) and Art Psychotherapy (MA 2004). Art Grants include: 2012 Agora SNF Grant for Art and Science in Practice, 2010 Artists-in-Labs Residency at the Laboratory of Cognitive Neuroscience, 2009 Studio Art Grant Cité des Arts Paris, 2008 Studio Art Grant Fundaziun Nairs. In 2002, her first artist book Squint/Silberblick was published with ars pro toto Verlag, Luzern.

DIETER MERSCH
ABSTRACT
Aesthetic Criticism. On the Wisdom of Art. The concept of "art as research" has risen over the last two decades as an important critical view on the relationship between art and science. Of particular interest is how the methodologies of art and science might be merged to create a proper understanding of art-based research. On the other hand the notion of artistic research seem to undermine the leading role of science today. Instead, the presentation deconstructs and displaces the terminology that typically accompanies the question of the relationship between artistic and scientific truth. It shifts the question from comparison to the uniqueness of artistic thought that differs from any propositional or discursive way of thinking. Identifying artistic practices as a specific mode of thought that do not make use of language in a way that can easily be translated into a scientific argumentation or philosophical concepts, the presentation advocates for an aesthetic mode of thinking beyond the so called 'linguistic turn'. Art, hence, becomes thought that cannot be substituted by any other system or discourse.
BIO
Dieter Mersch, Professor for Aesthetics and since 2013 director of the Institute for Critical Theory at the Zurich University of the Arts. He studied mathematics and philosophy. His experience includes, Chair for Media-theory and Media Studies at the University of Potsdam, and Director of the DFG Research Training Centre Visibility and Visualisation. Hybrid Forms of Pictorial Knowledge. His main

interests are Aesthetics and Art Theory, Picture-theory, Media-Philosophy, Semiotics, and Language-Theory and Communication. His books include Introduction to Umberto Eco (Hamburg 1993); What shows itself. On Materiality, Presence, and Event (Munich 2002) Event and Aura. Investigations on Aesthetics of Performativity (Frankfurt/M 2002, Introduction to Media-Theory (Hamburg 2006) , Post-Hermeneutics (Berlin 2010,), Ordo ab chao / Order from Noise (Berlin/Zurich 2013), and Epistemologies of Aestehtics (Berlin/Zurich 2015).

Representation "Other" Subjects
3:00 pm, 20th of February

MODERATOR:
SIGRID SCHADE, Theorist, Director of the Institute of Cultural Studies in the Arts, Zurich University of the Arts ZHdK, Switzerland (see biography below).
SPEAKERS:
TERESA CHEN, Artists and photographer, represented by Bob Gysin Gallery, Zurich & **THERESE STEFFEN**, Theorist, Professor in Cultural Analysis, University of Basel, Switzerland

TERESA CHEN
ABSTRACT

Between Selves and Others: How do visual artists express ideas or meanings about Otherness and issues of belonging in their art? In this lecture, I outline some of the main arguments and themes from my research about how contemporary visual artists – especially women with (East) Asian diasporic backgrounds – interrogate beliefs about difference or Otherness and emphasize the complex dynamic processes involved in questions concerning identities and identifications. In order to examine various themes of Otherness, selected pairs of artists – where at least one was a woman artist of (East) Asian diasporic background – were compared and analysed. The four categories proposed as a comparative framework were: literary devices (such as irony, parody, connotation or juxtaposition), reappropriation (cultural references which are reclaimed and transformed), anamorphic situations (distortion of conventional ways of viewing in order to become aware of other bodily senses and experiences), and theoretical correlations (connections between artistic practice and relevant theoretical concepts). The specific artists and artworks compared were: Yoko Ono's Cut Piece (1965) with Patty Chang's Melons (at a Loss) (1998), Lorna Simpson's work in the 1980s and 1990s with Nikki S. Lee's Projects (1997-2001), Guillermo Gómez-Peña with Fiona Tan, and Yong Soon Min with Mona Hatoum. The results of my research confirmed the significance of cultural, historical, and geographic experiences on both the conception and reception of visual art and indicated that various artistic strategies have the potential to expose and undermine culturally constructed meanings of difference.
BIO
Teresa Chen (www.teresachen.ch) is a Zurich-based independent visual artist. Her artistic practice uses photography in order to see differently and to present the familiar as foreign or alien. She has been a recipient of several awards and public commissions including City of Zurich, the Canton of Zurich, Landis & Gyr Foundation, the University of Zurich Hospital and Credit Suisse. In addition to her individual art practice, she has been actively involved in various independent as well as large scale curatorial activities. Chen has degrees in Computer Science (Brown University) and Photography (Zurich University of Arts) and completed her PhD in 2014 with a dissertation entitled "Between Selves and Others: Exploring Strategic Approaches within Visual Art".

THERESE STEFFEN
ABSTRACT

Beyond "Other" Subjects: Forms and Functions of "Passing" in Southasian/Indian, US (African)-American, and South African Texts and Contexts: "Passing" is a deliberate act to move beyond the status of an "Other" Subject. In line with my research interests in Southasian/Indian, African American, and South African literature and culture I will examine forms and functions of "passing" at the intersection of gender, race, and class: 1: Forms and Functions of "Passing" in Southasian/Indian Texts and Contexts Mulk Raj Anand, *Untouchable* (1935); Bharati Mukherjee, *Jasmine* (1989) 2:Forms and Functions of "Passing" in African American Texts and Contexts Henry Louis Gates, Jr. "The Passing of Anatole Broyard" (1997); Philip Roth, *The Human Stain* (2000),3: Forms and Functions of "Passing" in Southafrican Texts and Contexts: Zoë Wicomb, *Playing in the*

Light (2006) According to Edward Said "Passing is a form of exile, an unhealable rift forced between a human being and a native place, between the self and its true home: its essential sadness can never be surmounted. And while it is true that literature and history contain heroic, romantic, glorious, even triumphant episodes in an exile's life, these are no more than efforts meant to overcome the crippling sorrow of estrangement. The achievements of exile are permanently undermined by the loss of something left behind forever." (Said 2002; first edition) "Passing" indeed mirrors a case of "exile" as the passer leaves behind a family he/she will never see or associate with and a hidden subjectivity he/she has to repress at all costs.

BIO

Therese Frey Steffen is Professor em. of English and American Literature and Culture, and Gender Studies, at the University of Basel, Switzerland. As the recipient of a Schlettwein Foundation Lectureship she also teaches literature in English from South(ern) Africa and has established in 2009 the Swiss South African Joint Research Programme "City in Flux: Urbanization and Societal Change in South African Literary and Cultural Text" together with Professor Lindy Stiebel of UKZN, Durban. Steffen was a Fellow (1995-96) of the W.E.B. Du Bois Institute for African and African American Research at Harvard University, and is now a Permanent Associate of the W.E.B. Du Bois Institute at the Hutchins Center, Harvard.Among her publications are Crossing Color. Transcultural Space and Place in Rita Dove's Poetry, Drama, and Fiction (OUP, 2001), and Gender (Reclam 2006, 2014). She is the editor of Crossover, Cultural Hybridity in Gender, Ethnicity, Ethics (Stauffenburg 2001), and the co-editor, with Lindy Stiebel, of Letters to my Native Soil. Lewis Nkosi writes home (2001-2009) (LIT, 2014).

Sociology and Sociable Technologies
4:15 pm, 20th of February

MODERATOR:
MIKE PHILLIPS, Professor University of Plymouth. UK
SPEAKERS:
JUERGEN MORITZ, Media Artist, Lecturer, Assumption University of Thailand, Bangkok, Thailand **& MATTHIAS VOGEL**, Theorist and Researcher, Institute for Theory ith, Zurich University of the Arts ZHdK, Switzerland

JUERGEN MORITZ
ABSTRACT

Empathetic Things. In recent years we are facing a new model of computation: smart technologies that help people to take care of themselves through the collection and quantification of data. These new social and attentive machines, whether 'wearables' such as Google's AR Device Glass, Vitality's GlowCaps, or other forms of 'enchanted things,' are the logical next steps in an evolutionary development towards computers that are better able to show empathy in relation to people: even more human-oriented, anticipative and ubiquitous. These devices and systems are capable of understanding a wider range of human needs and behaviors to provide relevant assistance and support at key moments, and play an important role in a broader trend towards self-improvement and self-cultivation - often framed as 'quantified self', 'the good life', and 'work productivity'. At its root, empathetic computing is the desire to have technology that responds to the user with a minimum of direct input. Google CEO, Eric Schmidt, has called this 'augmented humanity' where networked devices "just work and understand autonomously". Anders Albrechtslund (2008) named such practices 'participatory surveillance'. Building on the deep human desire for self-mastering and self-optimization, these new upgrades of the human practical space urge individuals to engage willingly in self-tracking as new ways to reflect upon themselves - thereby translating their bodies, moods and behavior into traceable data, ready to be mastered and reshaped. As such, these tools and techniques function as prototypical technologies of the self (Foucault), and participate in the creation of novel forms and formats of subjectivity.

BIO

Juergen Moritz is a designer, researcher and lecturer, investigating the social, ethical and design implications of pervasive computing. In recent years, Moritz has developed a particular interest in the ubiquity of 'play' and its formative role in today's society. His current work explores new narrative models (Narrative Transportation Theory, Flow) emerging from the intersections of games, social data and augmented reality. Moritz obtained his Masters in Fine Arts & Visual Communication from the University of Applied Arts Vienna. He completed his Postgraduate Studies of Audiovisual Media and

Media Science at the Academy of Media Arts Cologne, and received his PhD in Media Studies from the University of Plymouth. Currently, Juergen Moritz is teaching in the Department of Computer Generated Imagery, at the Albert Laurence School of Communication Arts, Assumption University Bangkok, where he also serves as a member of the Academic Research Committee. Weblog: http://www.playstudies.me

MATTHIAS VOGEL

Self-Image as Self-Caretaking-Image: Identity in the Daily Flood of Pictures. This paper explores the relation between images of the individual and the collective, between self-image and the way we perceive others, by means of pictures compiled in Swiss photo archives. Images are – similarly to technology – mediating factors between people and the world. In this interaction the self-image is a key element, which integrates or disintegrates the subject in society. The paper describes the complex relationship between people and images in the contemporary world of new medias and technologies. It will show the blurring boundaries between the subject and the collective, the subject and its images. In the second half of my presentation I intend to outline some ways out of the flurry of images, which undermines the self-determination of the subject. Michel Foucault's concept of „the care of the self" in relation to dietics, economics, and erotics as found in his lectures „The Hermeneutics of the Subject" can serve as a good starting point. Foucault suggested ascetic rules of apprehension, which sharpen the awareness of visual silence, precise non-verbal communication and general demeanor of a good observer. These aesthetic practices of selfhood intend to support and ensure the constitution of oneself as a moral and social subject. In this context self-caretaking can be understood as the longing for and the perception of beauty. The search for an aesthetic existence is driven by the need for a specific relation between the care of selfhood and the knowledge of selfhood, by a modifiable connection between the subject and truth. My paper intends to elucidate Foucault's philosophical concepts with the help of works by Gerhard Richter.

BIO

Matthias Vogel Hillman, Prof. Dr., born 1955 in Zurich, lives and works as art historian and art theoretician in Zurich and Berlin. He studied art history, anthropology, philosophy and literary criticism in Zurich, Munich and Berlin, and graduated in Zurich in 1986. From1990 to 1995 he resided as fellow and researcher in Paris (Ecole des hautes études), London (Warburg Institute), New Haven (British Art Center, Yale University) and New York; in 1997 he got his post doctoral degree (Habilitation) at the University of Basle. Since then he is active as an art critic, curator, and lecturer -mostly at the University of Basle and at the University of the Arts Zurich (ZHdK). At the ZHdK he is responsible for research projects on the subject of image theory and practice.Main fields of interest and work: Art from the 18th to 20th century (Henry Fuseli), contemporary art, art theory and aesthetics, reception theory (with a focus on photography), visual literacy, visual identity, and visual memory. Latest Publications: Hermann Obrist im Netzwerk der Künste und Medien um 1900, Berlin 2013; Bilder Verstehen: Studie zur Visual Literacy in der Schweiz, Zurich 2015

Artificial Theatre
5:00 pm, 20th of February

MODERATOR:
BORIS MAGRINI, Art Historian and Curator, Italian Editor of Kunstbulletin, Switzerland (see biography below).
SPEAKERS:
LOUIS-PHILIPPE DEMERS, Robotic Artist, Associate Professor at Nanyang Technological University, Singapore **& STEFFEN SCHMIDT**, Musicologist, Lecturer, Institute for Cultural Studies in the Arts, Zurich University of the Arts ZHdK, Switzerland

LOUIS-PHILIPPE DEMERS
ABSTRACT

Artificial Theatre We share and identify to biological, social and cultural experiences with performers on the stage. Phenomenologists and theatre theorists claim that these experiences are vastly grounded in the experiential body. What happens when we inject artificial construction on the stage? Artificial constructions such as machine performers or hybrids made of man and machine? By exploring alternate body morphologies and behaviours in the machine performers, I seek to

understand the mechanism of perception and reception of robotics in a staged context. In turn, this gives me insights on the artistic and entertaining potential of robotics in cultural productions. In the course of these investigations, I started developing artworks entailing singular bodily experiences such as being touched by a robot (*The Blind Robot*), being controlled by an exoskeleton (*Inferno*) and merging proprioception between machine and human (*We were never different*). Theatre has always been the test bed of illusions. The illusion of the actor replaced by a machine signifies the fantasies found in the scientific and the science-fiction communities. However, what I am targeting here is not the artifice but the uncomfortable communalities between the flesh and the mechanical bodies. Having these radical encounters at the liminal space bordering man and machine, it forces audiences to (re)consider their human bodies and the latest transforms in the history of their own embodied experiences.

BIO

Louis-Philippe Demers makes large-scale installations and performances. His projects can be found in theatre, opera, subway stations, art museums, science museums, music events and trade shows. Over the past two decades, he participated in more than seventy artistic and stage productions and has built more than 350 machines. Demers' works have been featured at major venues such as Theatre de la Ville, Lille 2004, Expo 1992 and 2000, Sonambiente, ISEA, Siggraph and Sonar. He received five mentions and one distinction at Ars Electronica, the first prize of Vida 2.0, mentions at Vida 12.0 and 15.0, two jury recommendations at the Japan Media Arts Festival, the Interactive prize for Lightforms 98 and six prizes for Devolution including two Helpmann Awards.Demers was Professor of Digital Media and Exhibit Design/Scenography at the Hochschule fuer Gestaltung Karlsruhe, affiliated to the world renowned Zentrum fuer Kunst und Medientechnologie (ZKM, Germany). Since he joined the School of Art, Design and Media at the Nanyang Technological University.

STEFFEN SCHMIDT
ABSTRACT

Performing the Uncanny: Along the history of staging the uncanny, E.T.A. Hoffmanns Novel „The Sandman" takes a central role of different theatrical interpretations, such as "Coppelia" (Leo Delibes) in ballet, „Les contes de Hoffmann" (Offenbach) in opera, or „Metropolis" (Fritz Lang) in film. Representing the „uncanny" through the human body, a mimetic desire can be seen, which traces back to the romantic era and leads to present performances in electronic music (Kraftwerk), Break Dance and Contemporary Dance and finally in film and acting (5th Element, Real Humans). Beside these demonization's of the artificial, another line can be investigated by establishing the opposite: The Muzak Corporation was founded in the 30ies of the 20th century to take away the uncanny from new inventions, such as elevators. In "Variation VI", a performance by John Cage, electronic tools for household and radio player were used to create new sounds, derived from the confrontation between human action and machine, in everyday life. After having discussed the material of the uncanny with its nimbus of demonization, this contribution takes the pladover from a Cageian performative setting to discover the sound world of new technical equipment, which concerns human lifelines. This was based on my own experiences from a performance, given in 2011 at the Montreux Jazz Festival, where an Echocardiogram was used as a musical instrument, in which the sonic possibilities of the machine are demonstrated through a compositional confrontation.

BIO

Steffen A. Schmidt (Dr. phil. habil.) Head of Postgraduate Programme Cultural Media Studies at the ZHdK; Teacher on Music History and Theory, Film Music, Music Theatre, Musical Analysis, composer and musical performer for contemporary Dance and Theatre in Berlin and internationally; Project on Heart Beats; Research on musical Rhythm and Intermedia Theory.

BIO MODERATOR

Boris Magrini, Swiss art historian and curator. Focus: The intersection of arts, technology, science and society. Curatorial projects: Duplex in Geneva, I Sotterranei dell'Arte in Monte Carasso, Kunsthalle Fribourg and Kunsthalle Zürich, Mutamenti Bellinzona, 2007), Anathema (Fri-Art, Fribourg, 2007-2008), Modifier (Dienstgeb.ude, Zurich, 2010) and Leise Rehe – Wilde Beeren (Cabaret Voltaire, Zurich, 2011-2012). Talk series: Reality Check (Kunsthalle Zürich 2014) Hackteria Swiss Curriculum (Corner College with Hackteria. Editor: Italian pages of Kunst-Bulletin (Switzerland). Publications: Leise Rehe-Wilde Beeren: "Hackteria: An Example of Neomodern Activism" (Leonardo ElectronicAlmanac) and "Beyond Mere Tools", in Political Interventions, Edition Digital Culture 1.

**BOOK LAUNCH-
TRANSDISCOURSE 2: TURBULENCE AND RECONSTRUCTION- Ed. SCOTT.**
6:30 pm, 20th of February

This is a new Cultural Studies book. It is an anthology of viewpoints on society from the arts and the sciences. The authors in this book were collected together because of their shared concern for society. They all believe that the arts and the sciences are effective spaces to raise public awareness and to encourage us to think differently about our old and out-dated concepts of representation and categorization and reconstruct new potentials about how the designs of the future might benefit our environment and the survival of our bodies. Essential to all writers is the need to drop our old disciplinary boundaries to question our interdependent relationship to technology and to reality. Turbulence and reconstruction are processes that not only affect our representation and categorization, our designs for agriculture, urban nature and energy consumption but also our relation to media and technology– the virtual, digital ideologies of interaction and substitution.

THE AUTHORS: ANNA ACHTELIK, TERESA CHEN, HUGH DAVIES AND VINCE DZIEKAN, ANGELIKA HILBECK AND HERBERT HILBECK, SUSANNE N. HILLMAN, AGNIESZKA JELEWSKA, CHRISTOPH KUEFFER AND JILL SCOTT, ELLEN K. LEVY, JOHANNA LIER, BORIS MAGRINI, PATRICK MORIARTY AND DAMON HONNERY, JUERGEN MORITZ, JAN SŁYK, KIT WISE