

TABOO - TRANSGRESSION - TRANSCENDENCE

in Art @ Science

Interdisciplinary Conference

Book of Abstracts



11 - 13 November 2018
UNAM and CCD, Mexico City



TABOO-TRANSGRESSION-TRANSCENDENCE IN ART & SCIENCE

The third international interdisciplinary conference "Taboo - Transgression - Transcendence in Art & Science" takes place in 11-13 November 2018 in Mexico City, hosted by the Universidad Nacional Autónoma de México (UNAM) and the Centro de Cultura Digital. Including theoretical and artwork presentations TTT2018 continues to focus: a) on questions about the nature of the forbidden and about the aesthetics of liminality - as expressed in art that uses or is inspired by technology and science, b) in the opening of spaces for creative transformation in the merging of science and art. Coordinated in partnership with the program of the FACTT 2018 - Festival Art & Science Trans-disciplinary and Trans-national the conference is co-organized by the Research and Creation Group [Arte+Ciencia](#), [UNAM](#) (Mexico), [Arte Institute](#) (USA), [Cultivamos Cultura](#) (Portugal) besides the [Department of Audio and Visual Arts](#), Ionian University (Greece).

Art is, in so many ways, a reflection of reality, its glorification as well as its challenger, in an instinctive understanding that nothing is stable despite the effort to keep a balance between the comfort of belief and the delusion of control. Art and science interrelations are not always clear and one could have the impression that the artist seems more permeable to the influence of science than the scientist to the influence of art. Art's playfully transgressive nature offers creative bypasses to the grammar of science and expands the dialogue with its openness to a multiplicity towards the new. Nevertheless, art – albeit its originary affinity with the taboo – is never completely liberated from moral considerations. Deeply involved into this lively discourse on the nature of the taboo, art becomes the very domain of contemporary experimentation with transgression, in order to provoke and sparkle discourse, catalyzing possible forms of transcendence.

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Abstracts

Paper

Pedro Hernandez Baez

UNAMA+C

Informally self-educated, self-taught, a technologist for his entire life as a videogame aficionado, Pedro Hernandez Baez is a maker wannabe and a somewhat knowledgeable 3D modeler. However, his formal training includes a BA in Philosophy and Social Sciences, a Diploma in Astronomy and a Masters in Continental Philosophy. He is currently writing his PhD Thesis at UNAM (Universidad Nacional Autónoma de México) and participating peripherally with some Arte + Ciencia projects. He also co-founded a 3D printing business in Guadalajara, Mexico. His theoretical expertise includes: embodied hermeneutics (Merleau-Ponty, Gadamer), post-phenomenology (From Merleau-Ponty to Don Ihde) and Nietzsche's influence in contemporary thought.

3D printers: prosthetics of hands and imaginations.

It is indeed recognisable that 3D printing has come to revolutionise the world of making. Manufacturers around the world still wonder about the real implications of additive manufacturing. Artists start to use and ponder the capabilities of these machines for artistic creation. Sociologists wonder if this technology will pose danger to labour and ethics, etc. However, it is difficult to propose 3D printing as an embodied way of enhancing our cognitive, interpretative and perceptual faculties if we don't start by pondering – I believe- the nature of our own hands as a species.

3D printing has been used to create prosthesis and enhancement devices for human beings. However, what if we switch the emphasis and we analyse 3D printers as a prosthesis itself? The present paper argues that there are many implications to consider, philosophically, socially and culturally speaking. The main thread of reflection will ponder for the nature of 3D printing as prosthetics of hands and enhanced imagination. In the background, one idea remains, that of the prosthetic consciousness, one that transcends materiality by using technology by recognizing the potential of our tinkering and application.

If 3D printers are to be a substitute of how hands operate currently in the state of art and production, how are we to sustain this enhancement without problematizing the notion of printer and hand in themselves?

Thanatos Art: Murder as Trope

In his "Thesis on the Philosophy of History" Walter Benjamin challenges the divide between culture and barbarism, writing: "No document of culture ever exists that is not at the same time one of barbarism". From this perspective and through a critical review of murder as a trope of subversion in literature and art, I propose to explore (and transgress) the ethical boundaries of artistic imagination. Foregrounding the porous margins between fiction and reality, this presentation will attempt to answer two questions: why do we resist unethical worldviews in the context of fictional constructions? And, how should we reconsider this tension between criminality and imagination in specific cases, such as when genocide is co-opted as artistic material or when a terrorist act is viewed as performance art?

Paper

Pablo Baler

California State University

Originally from Buenos Aires, Argentina, Baler is Professor of Latin American Literature and Creative Writing at California State University, Los Angeles, and International Research Fellow at The Center for Fine Art Research at Birmingham City University, U.K. Also a fiction writer, Pablo Baler is the author of the award winning novel *Circa* (1999) the collection of short stories *La burocracia mandarina* (2013) and the novel *Chabracán* (forthcoming). Baler is also the author of *Latin American Neo Baroque: Senses of Distortion* (2008, 2016) and the editor of *The Next Thing: Art in the Twenty-First Century* – an anthology of essays on the future of aesthetic sensibility. Baler's talk on the poetics of murder is part of a book in progress about ethics and art, currently titled *By Any Stretch of the Imagination*.

Paper

Paulo Bernardino Bastos

University of Aveiro

Paulo Bernardino Bastos has a doctorate (Ph.D.) in ART STUDIES at University of Aveiro (Portugal), where he is an Art's Professor. He received his MA-Sculpture from Royal College of Art (London, England) and a degree in Sculpture from Faculty of Fine Art (Porto - Portugal). He is the director of the research group "Praxis and Poiesis: from arts practice towards art theory", part of the Research Unit "ID+ Research Institute in Design Media and Culture". As an artist, Bastos begins by using drawing and sculpture as a medium of expression and currently his practice intersects space, image and technology. He articulates his field of investigation between practice and theory and develops his universe of investigation looking at images produced through various technological mediations (from traditional to contemporary digital). Bastos has been participating in several international events as lecturer and as artist.

TRANSCENDENCES: Collaborative Creativity as Alternative Transformative Practice of new Technologies in art and science

The technology has always been turned into perfecting the image and this may be our beliefs and wills for understanding the world through its simulations. Therefore, we try to understand the subject, how it was done, by whom, when, etc., and the interest on the image lies firstly in this possible reference to the visible world – need of placing the image and connecting with it. The result of the intersection between technology and interactivity drives us to perceive the development of the idea of shared production that spreads out as will inherent to the attitude of the creative act in art or science. The work, on being revealed in the aspiration of interactivity enounces a positioning that is linked to the technological means, on space and proceedings issues. The main leading theories of 'transformative creativity', which has emerged in the last decade, proposed by Margaret Boden (e.g. Boden 1990), gave us important notions of personal/ historical-creativity, which have helped to define creativity in a much more formal context.

I'm departing from the methodological approach that considers Deleuze and Guatarri's concepts of Rhizome and becoming as a theoretical and philosophical framework. By considering art practice as research we are inspecting how creativity emerges from chaos and is a participatory practice; how this phenomenon expands 'rhizomatically' in a co-authored situation and how a lead into the complexity of creation can be mapped through reflection archiving and writing – exegesis. What is this model of approach embedding? Is the best way to be creative in a specific field to gather as much knowledge about the domain as possible? Is it just a capacity of organizing retrieval processes enclosed in our cognitive capacity of memory? Consciousness, attention and motivation are considered in the formal concepts of creativity? Is transformative creativity what we as artists and scientists are searching for – a means to transcend a conceptual space? Has a co-authored situation ever been considered? This article is metaphorically crossroad of the artistic mind in a creative practice-led research considering solo and co-authored creation.

Art in a microbial world: Feminist New Materialism and the Posthuman

How to pursue the feminist struggle in a posthuman context? We have not yet overcome the power abuse and discrimination that intersectional perspectives aimed to tackle. In the urgent need to address discrimination, we resource to categories such as gender, class, and ethnicity that are the same used to emphasize negative difference, but these categories are not only thoroughly debated but highly dependent on a modern understanding of "the human" and therefore, highly anthropocentric. They assume a human subject where those categories are embodied. The anthropocentricity where intersectional critical theory took place is now in crisis from a biological and philosophical point of view. From microbiology, acknowledgment of deep intracellular and microbiome symbiosis, genetic relations and the ratio of animal-bacterial cells in our bodies, have set in tension what does it mean to be human and the places of animal life (including human life) in a microbially dominant world. Then, from philosophy, posthuman approaches come even from critical theory, notably from how Rosi Braidotti describes the posthuman, as a way to overcome a humanism that confers subjectivity only to male, white, heterosexual, property-owning individuals. [2] This process calls for consideration of bodies that usually represent the inferior other as exploitable, extending to other forms of living matter.

This post-anthropocentric turn generates a subjectivity crisis. For instance, Braidotti has brought forth the problematic of giving up with subjectivity, something some human subjects never had. Therefore there is a need to develop concepts and perspectives more adequate to the complexity of the posthuman, in which suffering and death are part of the living, but are not distributed on a logic of privilege, exploitation, and capital. This research brings forth two related propositions to face this problematic. The first one is an acknowledgment of the value of the -highly neo materialist- feminist philosophy in the work of Karen Barad, Cecilia Asberg, Donna Haraway, Rosi Braidotti, and Evelyn Fox-Keller.

The second proposition, to think of politics of power distribution within postanthropocentric logics, is the value of materiality and speculation in art. Transdisciplinary work in art and biology can function as material thinking. Not only as a demonstration of scientific principles but that supplements and is in tension with scientific thought. Creative alternatives open in the speculation possible, the experiment and affective material experience it can provide. The cases include microorganisms as machines, with machines, and machines as organisms, in the work of Gilberto Esparza, Interspecifics, Mick Lorusso and Christina Agapakis.

The need for highly creative solutions is a resistance to the exploitation logics, a reframing from new materialisms and art represent a positioning not to lose ground in the subjectivity crisis that postanthropocentric awareness can trigger. It is part of our efforts to stay critical and creative when facing the challenges of the present.

Paper

Mariana Pérez Bobadilla

City University of Hong Kong

Mariana Pérez Bobadilla is an Art Historian and DIY biologist concerned with the intersections of Art, Science, and Technology. She received an Erasmus Mundus Scholarship to study a Master in Gender Studies at the University of Bologna, Italy, researching Feminist Epistemology and Contemporary Art. She has presented her work at ISEA 2012, at the Ammerman Symposium of Art and Science, and has been involved in the Mexican Pavilion of the 56th Venice Biennale. Her academic training includes courses with Rosi Braidotti, and the international curators' course of the 2014 Gwangju Art Biennale, in South Korea. Awarded by the Hong Kong Ph.D. Fellowship Scheme, her research in the School of Creative Media revolves around Art and Biology, Epistemology, History of Science, deep time histories of representation, New Materialism, Biohacking, Wetware, and bacteria.

Paper

Jacco Borggreve

AKI ArtEZ University of the Arts

Jacco Borggreve is a new media and performance artist who has used implants, data-exhibitionism and autonomous agents as tools to examine themes of life, technology, mortality and permanence. Jacco Borggreve was national news in 2017 after using his implant to broadcast his GPS location for the world to see in a performance that lasted 8 months. Jacco Borggreve has collaborated with several research and knowledge institutes to work on emerging problems regarding new technologies. He has strong affiliations with the Dutch Bio-Art/Tech-Art scene and has participated in and curated exhibitions in well known art institutes. He has given lectures, has provided workshops and has been residential artist or guest lecturer in several knowledge institutes.

Jacco Borggreve is currently busy on his research regarding human-machine communication for the University of Twente.

Until The Light Takes Us

How can we utilize the personalities of machines created by human input? These shadow figures sometimes resemble us, they may even behave as we do. How far can we take this before we conclude that these shadow figures have become human, is reaching such a point even possible? Would it be ethical to switch these devices off or to deny them input? Information is linking tangled lines over surfaces, ever shifting when exposed to new contexts and the chaotic nature of being. The human operates on these terms as perceived through our senses and formed by our cognition and subconscious processes, until it reaches a state of irreversible malfunction. The machine however has the possibility to be timeless. Unaffected by any biological expiration date, new connections will be made forever as long as there is input. That means the 'shadow' of the human will continue to thrive long after the human has gone. What can we learn from the shadows we create while we are still present? Can we reflect on our humanity, through communication with the representations we create of ourselves? Anthropology often refers to the depictions of Gods in polytheistic religions of days long past as representations of aspects of the human psyche. This leads me to conclude, that whether aware or not we used these representations of the human form as a way to confront and sort out our emotional or mental needs. Through the advancement of technology, we will now be very quickly reaching a point where the point of reflection and learning will not just be on the side of the human, but as much or maybe even more on the side of the object.

With my team of professional researchers and an elaborate group of technicians and university students, I will create several installations containing advanced artificial intelligences that can be interacted with through speech and touch with personalities based on the psychological profiling possibilities big data analysis offers. After a period of reflection and Interaction, those machines will be disconnected from their human teachers and linked together. They will have to form new relations, ways of interacting, even form new languages. What new stories will they tell each other, now that they have no human input? I will examine what happens to a 'shadow' after the human has gone.

Developments in Spatially Immersive Sound

Spatially immersive sound enables audio to be beamed to precise positions, the sound itself only manifesting at the moment of collision with a material object. Using ultrasonic speakers to transmit high frequency audio, sound can travel with a minimal amount of dispersion or spread, reflecting off of surfaces to give the impression of a false sound source. Networks of spatially immersive audio devices can create patchworks of localized sound fields within a space; individuals can move between shrouds of private sonic worlds. Here, a system is presented which adds movement to spatially immersive sound devices by combining directional speakers with pan-tilt mechanisms. This addition enables new possibilities for distributed localized sound that can be repositioned based on atmospheric conditions, sounds that constantly move based on swarm or cellular simulations, or personalized sounds that whisper secrets and lies into your ears from afar. Implications for the realization of Edgard Varese's vision of sounds projected into space will be explored, from reproduction and research of birdsong networks, to personalized inner-monologues that follow individuals like an inverted security camera. A demonstration of the system will be presented as part of the Bird Song Diamond installation in the exhibition.

Paper

John Brumley

University of Tsukuba

John Brumley is an artist, researcher, and PhD candidate in the Empowerment Informatics Program at the University of Tsukuba in Japan and holds an MFA in Design Media Arts from UCLA and BA in Music from UC Davis. Collaborative experiences and platform derived selfhood are the primary focus of Brumley's research. Works have been shown at Ars Electronica, Speculum Artium, Harvestworks, Media Art Nexus NTU, and V&A.

Paper

Roberta Buiani

University of York

Roberta Buiani is an interdisciplinary artist, media scholar and curator based in Toronto. She is the co-founder of the ArtSci Salon at the Fields Institute for Research in Mathematical Sciences (Toronto) and a co-organizer of LASER Toronto. Her research-creation work is mobile, itinerant and collaborative, exploring how scientific and technological mechanisms translate and transform the natural and human world, and what happens when they are taken outside of their traditional context and relocated through artistic and cartographic practices. Her work was exhibited in Toronto at the Ryerson University Faculty of Architecture and Artscape Youngspace; and was featured at Transmediale, the Hemispheric Institute Encuentro, Immigrant Movement International (Queens), and RPI among other. Recently, she has launched a series of curatorial experiments in "squatting academia", aiming at repopulating abandoned spaces inside the university with collaborative works in art and science and at filling formal spaces of research with site-specific installations and performances. She teaches communication and cultural studies at York University. <http://atomarborea.net>

Emergent

Emergent is a recent research project investigating ways in which we can better comprehend and eventually cope with complex phenomena, and specifically, what I would like to call "new categories of the living." Whereas "categories of the living" are those life forms – known as Eukaryotes, Bacteria and Achaea – fitting any traditional tree of life diagram, "new categories of the living" are those newly emerging, or newly formulated fictional or non-fictional life forms that won't fit or will exceed the categories defined by traditional diagrams.

I identify three Emergent life forms: 1) those originating from increasingly ubiquitous information technologies. This is the case of avatars and other imaginary creatures existing in virtual environments and taking life-like form thanks to Augmented Reality (AR) technologies. 2) Those life forms stemming from the recent ability of science to manipulate organic matter through scientific experimentation (e.g. through synthetic biology and CRISPR-cas9 processes), as it is the case of synthetic bacteria and phages (Pawluk et al., 2016), which can be used in medical and commercial applications, or Mosquitoes programmed to fight serious infectious diseases like Denge Fever (Specter, 2012). 3) Those emerging as the result of mutations due to radical and often invisible transformations in the environment from endocrine disruptors and pesticides. For instance, some types of mutant fish have proved to be surviving and even thriving in an otherwise hostile habitat (Murphy 2015; Tsing 2015).

Attempts to fit these life forms into pre-existing conceptual and material containers casts doubts on the ability of individual disciplines to seize their complex formations and their porous boundaries. Furthermore, their discovery has posed serious challenges to current traditional taxonomies and general understandings of nature and culture.

The "digital chimera", the "genetically manipulated monsters", and the "environmental mutants" described above constitute three thematic guidelines leading to the following question: How is the emergence of these life forms challenging traditional research methods and existing disciplinary containers? In illustrating these challenges, I argue that to better capture and make sense of the complexities characterizing the emergent or new "categories of the living" identified above, it is necessary to think of new ways to practice sustained interdisciplinary exchanges; and finding novel ways to transmit and communicate research outcomes to the public. The arts here play a crucial role: in fact, they should not be considered mere tools at the service of science but they should act as catalysts, or enzymes. When incorporated into the methodological apparatus of research (and not just as decoration or aesthetic attraction) they become connectors between disciplines, and between the scientific community and the general public, bringing in a diverse range of perspectives. Conceptually speaking, they may be instrumental in conveying aspects escaping verbal and written communication: namely, they may help reveal the entanglement of natural, socio-cultural, and material factors characterizing these new life forms and how they become apparent in the world.

Cyborgs' genealogy

The cyborg, as a social category of thought, is an approach that comes from Donna Haraway's work. For her, cyborg's nature is the intermediate between the body and its environment, decoded under the sight of deconstruction, poststructuralism and hermeneutics. In other words, the hybridization of three modes of thinking language gives rise to the cyborg approach.

The case of hermeneutics is interesting because Haraway takes up a way of doing anthropology to think the cyborg as a situated body. The approach of the situated body means that there are no universal modalities to think about subjectivity but that it is always local and true in each case. This way of doing anthropology comes from Clifford Geertz's reflections about the culture, reflections that he took from the discussions between Paul Ricoeur and Hans Georg Gadamer about what a text is.

In this way, we find a discussion of the aesthetic ontology that was translated into social science to create cultural interpretations, distant from universal determinations, whose impact has been to give voice to subjects that otherwise would have been silenced by the predominant social science. One of these forms is the feminism that emerges from Haraway's cyborg theory.

Paper

Homero Vázquez Carmona

UNAM

Homero Vázquez Carmona is doing a PhD on Science Philosophy at UNAM. His working topics had been the translation of hermeneutics in social sciences, politic resistance, biopolitics and political resistance through art. Nowadays he also participates in the project Arte+Ciencia.

Paper

Andrew Carnie

The University of Southampton

Andrew Carnie is an artist and academic at Winchester School of Art, Southampton University. His practice often involves a meaningful interaction with scientists. Themes and ideas are often based around neurology, the brain, and how we get a sense of our-selves through science ideas, and images.

The work is often time-based in nature, involving slide dissolve systems or video projection onto complex screens. In darkened spaces layered images appear and disappear on suspended voiles, the developing display absorbing the viewer into an expanded sense of space and time through slowly unfolding narratives that evolve around them.

His work has been exhibited at the Science Museum, London, Natural History Museum, Rotterdam, Design Museum, Zurich, Exit Art, in New York, Williams College Museum of Art, Williamstown, Great North Museum, Newcastle, Pera Museum, Istanbul, Dresden Hygiene Museum, Morevska Gallery, Brno, and the Daejeon Museum of Art, South Korea amongst others. See <http://www.andrewcarnie.co.uk/>

Cyborg 24/7

In the science labs there are dreams of making people better through creating 'us' cyborgs, managing illness through the addition of mechanical devices and gene manipulation. The former is already well established and the later is fast becoming a reality. The CANDO (Controlling Abnormal Network Dynamics using Optogenetics) team in Newcastle is moving quickly to combine both processes where the aim is to have in vivo devices working within a couple of years; this involves gene therapy and the implantation into the brain of a mechanical device to control focal epilepsy in humans. The project is a world-class, multi-site, cross-disciplinary venture.

The implant and gene therapy, forming a 'closed-loop control of network dynamics', will enable detection of 'electrical potentials' in the brain, and deliver 'spatially and temporally precise' optogenetic stimulation to deliver a harmonized electrical pattern. In the long term it is hoped that this type of technique will help to modify and provide control over abnormal activity, a characteristic of many neurological disorders such as focal epilepsy, migraine, schizophrenia and Parkinson's disease.

The integration of biological persons with non-biological parts and devices raises a number of legal, ethical, and conceptual challenges. What does it mean to be hybrid? What do these integrated devices mean to us psychologically? Does such an intervention cause disruption to our sense of embodiment? Is this type of intervention any different from accepting we/us incorporate very influential bacteria? That we are already complex "assemblages"? Does the work demonstrate that individuals do extend their presence and identity into virtual worlds?

Such work arguably transgresses the boundary between persons and things, and between subject and object. What is the legal framework for such work, who owns the implanted device? If the device involves wireless communication what happens if it is hacked into? Where does the law of property stand on such matters? Who assumes liability? The penalties under the criminal law for harm to the person are more significant than for damage to property: interesting debates arise and different approaches make attempted shifts to avoid assuming liability possible.

In such a real world project where scientists are trying to implant a device to control focal epilepsy, what are the implications and what are the protocols for doing this and how does one make art from being involved in this type project? As artists we should be working in this realm to add to the debate. This is where the currently 'forbidden' or 'the difficult' hits reality. The art space is the place where we continue without restraint to dream of the future, but we do need to contextualize the work in the real. Ethical questions arise about how we negotiate this type of space in the lab and studio.

The notion of the 24/7 Cyborg raises interesting demands and complex responses. The arts engagement project 'Illuminating the Self' begins to explore such issues working with the CANDO. The talk attempts to examine some of the issues.

The transcendence of transgression

One of the effects of contemporary secularization is what has been called "the religion of art". Currently, art takes on the characteristics of a secular religion: it offers identity, dogmas, canons, experiences of transcendence and provides a certain worldly salvation without demanding any commitment to a creed or a doctrine, so it can evoke the mystery, offer an experience of religation, and arouse the emotions typically associated with the religious without appealing to an abstract dogmatic. In a structure like this, transgressions, challenges, ruptures and heresies necessarily arise. Now, heresy presupposes orthodoxy. Heresy intends to change part of the dogmatics of the arts, either through speculative artistic reflections or theories, or through manic or charismatic "possessions" of the artists, which do not require other justification than the creative potential the artist-genius is supposed to possess (cf Kant). I will illustrate this through the example of the performance Marina Abramovic carried out at MOMA in 2010: The artist is present.

This has also consequences for the moral status that artists usually claim for themselves when they affirm that art is not governed by ordinary moral criteria, since transgression and scandal are supposed to be part of the structure of this new way of searching for transcendence, just as it happens with mystical religions. Arthur Danto has theorized these features in his reflection on the "arts of disturbance", arts that are situated in the limits of art, trying to displace its boundaries and to challenge our conception of reality in a way that consecrated art can no longer do; arts seeking to reconnect art with other spaces that established art has been suffocating, in order to recover a mystical dimension over the politics of art; arts trying to avoid art falling under the power of the institutions, which render it harmless and turn it into an element of civilization that aesthetically conceals all its constitutive cruelty.

Finally, I will connect this to the distinction Agamben has set between the concepts of secularization and desecration: while secularization displaces the forces from one place to another, leaving them intact, desecration involves neutralizing the desecrated, eliminating its aura and putting it back to use. The first is a political operation that guarantees power by reference to a sacred model; the second, deactivates those power devices. Even though it is commonly thought that contemporary art desecrates realities, I will try to show that actually it secularizes them. Art brings with it the strength and meaning of the religious and keeps the integrity of the auratic space within the artistic realm. That is one of the possible reasons why transgression in art is a so important topic for theorists: it is a constant effort to redefine the limits between what is considered sacred (and art has a decisive power on that) and what is profane (not sacred anymore or not yet). It is a form of political theology, in Carl Schmitt's terms.

Paper

Sixto Castro

Universidad de Valladolid

Sixto J. Castro is professor at the University of Valladolid, where he teaches "Aesthetics and theory of the arts" and "Themes of aesthetics" and has been invited professor at the University of Bayreuth (Germany) from 2004 to 2014. He has been "visiting scholar" and "visiting professor" at the universities of Temple (Philadelphia), Houston, Oxford, Leuven and Columbia (New York). Author of *La trama del tiempo* (San Esteban, Salamanca, 2002), *En teoría, es arte* (San Esteban, Salamanca, 2005), *Vituperio de orbanejas* (Mexico, Herder, 2007), *Lógica de la creencia* (Salamanca, San Esteban, 2012), *Sobre la risa y la belleza Ensayo de ontología estética* (Salamanca, San Esteban, 2015), *Filosofía del arte. El arte pensado* (Mexico, Herder, 2017), *Teología estética* (Salamanca, San Esteban, 2018) and coordinator, with Alfredo Marcos of *Arte y ciencia, munos convergentes* (Madrid, 2010) and *The Paths of Creation* (Berna, 2011) and with Fca. Pérez Carreño of *Arte y Filosofía en Arthur Danto* (Murcia, University of Murcia, 2016).

Paper

Nicole Clouston

University of York

Nicole Clouston is a practice-based researcher currently completing her Ph.D. in Visual Art at York University in Toronto. In her practice, she asks: *What happens when we acknowledge, through an embodied experience, our connection to a world teeming with life both around and inside us?* Nicole has exhibited across Canada in Montreal, Victoria, Edmonton, and Toronto, as well as internationally in New York City, Buffalo, and most recently Santander, Spain. Her work can be found at www.nicoleclouston.com.

Collaborating with Microbial Life

In my ongoing practice-based research into microbial life I have been exploring bodily borders, responsible human / non-human collaboration, and our connection to a broader ecology. In my most recent project I collaborated with the microbes in mud to expose the vast array of life in soil and the ways we are connected by it. I placed mud, along with nutrients that encourage microbial growth, in clear acrylic prisms. When exposed to light, the microorganisms already present in the mud begin to flourish, becoming visible in the form of vibrant marbling. The visual patterns created through our collaboration reminds viewers of the liveliness of material and the enmeshed nature of all bodies. In this talk I will discuss my struggle to collaborate responsibly with microbes during the creation of this artwork through acts of care. Care between myself and the microbial life in my sculptures is not an act of idealized love or of obligation. Instead, care is a set of constantly negotiated and thoughtful interactions. The task of care requires me to “stay with the trouble” by “learning to be truly present” – to employ two notions proposed by Donna Haraway – in an active engagement that does not turn away from the contradictions, discrepancies, and difficulties present in care. I care about microbes through contemplating them and empathizing with them, but importantly I also take care of microbes through interacting with them daily and remaining attuned to their needs. The sculptures bring viewers into contact with microbial life and also represent the traces of my care as collaborator. It is this entangled existence with microbial life that I aim to explore through my collaborative practice with soil microbes and what I will discuss in this talk.

Food supply in times of anthropocene. An anthropotechnical perspective.

One of the the causes of world instability, source of massive populations movements, famine, genocides and other massacres, of both humans and non-humans, but also of intense researches and perpetual repositioning, the question of food supplies is a key issue. It concerns agriculture and industry, nature and its radical processing, individuals, states and multinationals, all the different categories of living beings on planet Earth. This will be an attempt to extract the essential elements of this huge and complex question.

Paper

Manuela de Barros

University Paris 8

Manuela de Barros is Assistant Professor in philosophy, aesthetics and theory of arts in the University Paris 8. Her researches concerns the aesthetics of contemporary art and new media; relationships between arts, sciences and technologies; the biological, anthropological and environmental modifications brought by technosciences; the passages between sciences and fictional constructions (in art or in literature). She is the author of several publications including *Magie et technologie* (UV Editions), translated in spanish as *Arqueología de los medios. La tecnología desde una temporalidad difusa* (Editorial Herder)

Paper

Marta de Menezes

Cultivamos Cultura

Marta de Menezes is a Portuguese artist with a degree in Fine Arts by the University in Lisbon, a MSt in History of Art and Visual Culture by the University of Oxford, and a PhD candidate at the University of Leiden. She has been exploring the intersection between Art and Biology, working in research laboratories demonstrating that new biological technologies can be used as new art medium. In 1999 de Menezes created her first biological artwork (Nature?) by modifying the wing patterns of live butterflies. Since then, she has used diverse biological techniques including functional MRI of the brain to create portraits where the mind can be visualised (Functional Portraits, 2002); fluorescent DNA probes to create micro-sculptures in human cell nuclei (nucleArt, 2002); sculptures made of proteins (Proteic Portrait, 2002-2007), DNA (Innercloud, 2003; The Family, 2004) or incorporating live neurons (Tree of Knowledge, 2005) or bacteria (Decon, 2007). Her work has been presented internationally in exhibitions, articles and lectures. She is currently the artistic director of Ectopia, an experimental art laboratory in Lisbon, and Director of Cultivamos Cultura in the South of Portugal. <http://martademenezes.com>

Identity and Evolution: crossing pathways

"As we gaze into the mirror it (nature) holds up for us, we too easily imagine that what we behold is Nature when in fact we see the reflection of our own unexamined longings and desires." by William Cronon

In the artistic research and practice that I have been developing over the last 20 years, I not only try to research and express some of the concepts I work with regularly but also to experiment with new material, live, pulsing, changing material to express these concepts. For the Vollmer Fries Lecturers I wish to reflect on the possibilities and strategies of thinking about the concepts of identity and nature, how they interconnect and entangle. Through some of my recent and not so recent works I can position myself and the audience in a range of perspectives that will allow a different understanding of self though other, thought nature and our alternative selves.

The works that I will focus on will be my first project "Nature?" from 1998 that questions the definition of nature through a non-genetic manipulation of live butterfly wing patterns and several of my most recent projects that use the new technology of CRISPR-cas9 to reengage with the same question mentioned before and with the links it presents us today to the issues of identity as a species, as animals, as composites, as multiples and most importantly how a better understanding of these concepts will allow us to shape and form a better knowledge basis to make decisions about our future. The works discussed are a series called "The origin of Species: Post evolution" developed in collaboration with Maria Antonia Gonzalez Valeiro (UNAM-Mexico), and Luis Teixeira (IGC-Portugal), "Truly Natural", "Immortality for Two" and "Anti-Marta: self and non self" with Luis Graca.

Transmission: Disease as Design

What are the grotesque potentials of disease transmission as a form of bioart and bioterror? How can transmission be framed as a form of non-enhancement based posthuman aesthetics making? Can intentional disease acquisition be considered an act of rebellion, of Anti-Productive Arts Activism? In what ways can we explore and embrace transmission as a pathway for interspecies communication? Can we hear echos of time through a grapevine of organismic intermingling? Using (re) mixed media methods, Disease as Design addresses fears of bio-invasion and offers transmission as a transgressive tool for transcendence.

Paper

Kira deCoudres

Independent Artist

Kira deCoudres is a remix media artist and theorist specializing in topics of body decay and distortion. deCoudres graduated from Hampshire College as a Five College Digital Humanities Fellow studying Science, Technology, and Media Studies. She has presented theoretical work at the Society for Literature, Science, and the Arts (SLSA), the Electronic Visualization of the Arts (EVA London), exhibited media work at the International Symposium for Electronic Arts (ISEA) and the Global Community Bio Summit at MIT. She has been an artist-in-residence at Cultivamos Cultura, worked at Wave Farm Radio, and performed at Rosekill Performance Art Space.

Paper

Evaguelia Diamantopoulou

University of Athens

Evangelia Diamantopoulou is a lecturer at the Department of Communication and Media Studies of the National and Kapodistrian University of Athens. She is a member of the Hellenic Section of the International Union Art Critics AICA GREECE and of the Association of Greek Artist Historians. Her BA and MA courses are related to issues such as History of Art, Visual Arts and Communication, Image Dialectics, Issues of European Art, Issues of Modern and Contemporary Greek Art, Artistic Portraits, Issues of Artistic Creation. Her academic interests focus on Art and Communication, Art and Society, Issues of Identity in Art, Symbolic and Experienced Space in Visual Arts, Art and Play, Art and Historical Memory. Her published academic work includes 4 books, as well as many research projects in Greek and International interdisciplinary journals concerning matters of art and culture.

Art and Philosophy -Intercommunicating through the Looking Glass of Death

The matter of existence, and, therefore, the fear of death has been a recurring theme in artistic expression since prehistoric years. In postmodernity, existential anxieties and the awareness of mortality are depicted both in visual arts and contemporary artistic forms. Furthermore, modern philosophers come to extend or revise older philosophical theories concerning the concept of death. The current paper aims to examine the dialogue between Jacques Derrida's philosophical theory regarding the unconditional life, love, and death, and contemporary artistic works with relevant concerns, such as Bill Viola's video art and Ron Mueck's sculptures. It also aims to shed light on the relationship of contemporary art and philosophy with older philosophical theories and artistic expression as they function as archetypal mirrors of the existential anxiety.

The Last Valve: The Great Revolution of the Species

This paper is a review of the performance "The Last Valve" (2004) by Boryana Rossa, during which the artist stitches up her vagina with a surgical thread. This text examines the performance as a transgressive gesture, which, with the help of surgical manipulation, symbolically eliminates biological sex as determinative for gender roles. "The Last Valve" is also a reflection on advances in biotechnology that transform our understanding of the taxonomy of life. We can now create artificial life, which does not carry features used traditionally to classify organisms – like species and sex, based on which society builds other differentiations between individuals such as ethnicity, race, nationality, gender and finally class.

Drawing from the notion of Extended Life proposed by Tissue Culture and Life Project (2002) and the ULTRAFUTURO Manifesto (2004) "The Last Valve" reflects on these advances by embodiment, which also envisions the possibility that our attempt to change the definition of life can lead to a "revolution of the species." In other words to a world populated by life that challenges our traditional social hierarchies even more than what we have already know about the diversity in nature because this is what we have created.

Besides the symbolic propositions that this performance creates, there is a very current and very specific political reading that it obtained in the recent years. In the paper this performance is juxtaposed to the current international anti-gender equality movement, (a.k.a. "anti-gender ideology," "anti-genderism") and more specifically the political and social resistance to the ratification of the "Istanbul Convention," an international document for prevention of violence against women and children from 2011, currently circulating among the EU members.

This performance was made in 2004 when the conservative wave in Eastern Europe, very visible in the recent years, was just in its very beginning. Rossa's treatment of her own body can be read as equivalently radical to the current anti-abortion movements in Poland, the raise of European neo-fascism and the surprisingly radical rejection of the Istanbul Convention in Bulgaria (and other countries in Europe) and stands as their strong opposition. Interpreted as an attempt of the LGBTQ lobbies to sneak into the national school systems and convert the kids into homosexuals, the Istanbul convention generated heated debates that appropriated a new vocabulary from other antigenderism movements, and developed it to reflect these fears. One example is the shift of the meaning of the word "gender" towards an equivalent of "faggot." These events lead also to misreading of the Convention as well as to any previous efforts of talking about gender inequality in an intelligible way. This text looks at how this performance transgresses the taboo over the body as determinative for gender roles and over gender binarism within this new conservative socio-political context.

Paper

Boryana Rossa Dragoeva

Syracuse University

Boryana Rossa is an interdisciplinary artist and curator, Assistant professor in Transmedia at the School of Visual and Performing Arts, Syracuse University, NY. She holds PhD in Electronic Arts (RPI, Troy, NY, 2012). Her works have been shown at 1st and 5th Moscow Biennial; Brooklyn Museum, NY; Museum of Contemporary Art (MUMOK) Vienna; Zurich University of the Arts; 5th Thessaloniki Biennial, Greece; Sofia Arsenal – Museum of Contemporary Art etc.

In 2014 Rossa received the NYFA Fellowship Award for Digital/Electronic Arts together with artist-filmmaker Oleg Mavromatti, with whom in 2004 they established UTRAFUTURO art collective. Their works have been shown at the Biennial for Electronic Art, Perth (BEAP); Foundation for Art and Creative Technologies (FACT), Liverpool; Society for Art and Technology (SAT), Montreal etc.

In 2009 Rossa curated the bio-art show "Corpus Extremus (Life+), at Exit Art, Ny. She has been one of the initiators of the Bioart Initiative (2007-2009) a collaborative research project between Rensselaer's Arts Department and the Center for Biotechnology and Interdisciplinary Studies (CBIS), Troy, NY.

Paper

Reyes Espinoza

Purdue University

Reyes Espinoza is a doctoral candidate at the Purdue University Department of Philosophy and is on track to complete the PhD requirements in a timely manner. His dissertation "The Ethics of Tragic Uncertainty: A Visceral Ethics for Global Relationships" is a collection of original articles written over a three year period. Along with critiques and comments by his committee, articles from it have been presented at philosophy conferences hosted by, among others, the Philosophy Network of Spain (Red Española de Filosofía) on the topic of climate change and indigenous environmental interests as well as the Mexican Association of Philosophy and Liberation (Asociación de Filosofía y Liberación - México) on the topic of borderlands and integrated world capitalism. His current work straddles the topics of expanding psychedelic substance regulation, inquiring into notions of desire, and the concept of play as a meaning for life.

Art, Technology, and Trans-Death Options

I will argue that human trans-death can be an intentional performance by persons and that this intentional performance can be combined with the newest and most novel methods of preserving a consciousness. This inquiry and thesis opens possibilities for future exhibitions and live performances of the combination of art and innovative post-life, post-mortem (what I call "trans-death") technologies. The idea of a human trans-death as an intentional performance by an individual or group of humans also opens the space for ethical-political inquiry on permissibility, freedom, and societal consequences of such artistic and technological expressions.

Possible performances or exhibitions combining art and innovative trans-death technologies include: people doing staged-performances while in their last years of life about their deanimation; public display of cryonically suspended (vitrified) bodies; and if consciousness is ever able to be digitized, the possibilities expand to any number of scenarios explored in anime shows and sci-fi literature or movies.

My case study is the last years of life of famous and controversial Timothy Leary (1920-1996) and his struggle with prostate cancer. My analysis of the life and work of Timothy Leary - especially the text he mostly wrote *Design for Dying* (1997), it was edited by R.U. Sirius - is my theoretical foundation for the presentation. Leary considered the trans-death option of cryonic suspension and thought much about digitization of "neuro-memories," which he also called "soul." Ultimately, Leary decided to leave planet Earth without wanting resuscitation, most probably because, as R.U. Sirius says in chapter 15, Leary preferred memories and moments with his dead bohemian friends and living family instead of a future without them. As reported by numerous friends and family in the Addendum of the book, the process of Leary's designed death over a period of two years was a beautiful, disturbing, enlightening, and valuable experience for everyone in the orbit of Leary in those last years of his life.

Death across human history is codified and controlled by religion, dogma, or social-political circumstances. However, it is possible to take death out of these realms, instead dying how one wishes. One can design their own death. Due to the forbidden nature and taboos surrounding the death of a person it is almost impossible for many of us to fathom a dying person choosing to be as open and public as possible with their death, much less try to derive pleasure out of the dying process. Leary is realistically exploring the possibility of fighting against the traditional certainty of death and philosophically capturing a relational aspect of death through humor, conversation, and art. This sub-thesis is in service of my inquiry into the nature, feasibility, and ethical-political framework of future art combined with the latest technology in trans-death possibilities.

Epigenetics as metaphor: the of language limits

Because the term “epigenetics” has been used in a wide array of inquiries within the life-sciences, it has come to bear a significant number of meanings. This¹ accounts for how epigenetics is often described with certain caution and in broad strokes as, for example, the study of the interactions between genes and their products, as well as the internal and external environment in which these take place².

And just as biologists cannot come to an univocal understanding on what epigenetics connotes, the effect that its study has had in challenging contemporary neo-Darwinian, genecentered paradigms is also unclear. Some scientists and philosophers go as far as to say epigenetics has eroded dichotomies central to modern Western thought, such as nature and nurture, or genotype and phenotype—but the matter ignites a great deal of controversy³. What seems unquestionable, however, is that epigenetics has brought about a need to construct different metaphors, illustrations and models to understand the role of genes in development, as well as their limits. The notion that genetic material is a “program” or a “code” that simply manifests itself in an external correlative, thus accounting for the development of a living organism, seems to have—at the very least—shifted.

Rather than attempting to narrow down the meaning or pinpoint the implications of epigenetics in contemporary biology, this paper will focus primarily on how these intrinsic features of the debate—instability of meaning, metaphorical shifts, a redrawing of margins and limits—have made epigenetics particularly attractive to other disciplines, from the social sciences to philosophy and art. Furthermore, it will be argued that metaphor does not merely have a pedagogical or epistemological value in the field but rather works proactively throughout the genesis, development and morphology of science and theory. By outlining a “literary” dimension in these discussions one can identify what Squier refers to as “the epistemological value of the imprecise⁴”, which in the case of epigenetics⁴ seems to have jeopardized not only the boundaries between genes and their external correlatives, but even challenged the frontiers of traditional disciplinary discourse.

To carry out this search for the constitutive dimension of metaphor within epigenetic thought, this paper will focus on three works in which epigenetics serves not just as a subject matter but also as a methodological, narrative and stylistic prompt, giving way to a singular erosion of the boundaries between disciplines: Jablonka and Lamb's *Evolution in Four Dimensions* (2011), Malabou's *Before Tomorrow* (2016) and Squier's *Epigenetic Landscapes, Drawings as Metaphor* (2017).

Paper

Sofia Falomir

UNAM

Sofia Falomir (Mexico City, 1990) has a BA in English language and literature from University College London, UK, and an MPhil from the National Autonomous University of Mexico. Her work addresses the crossings between literature and philosophy, particularly Twentieth-century modernism and poststructuralist thought.

She currently reads for a PhD at UNAM with a thesis on humour in philosophy as discussed by Nietzsche, Freud and Bergson. As a member of the research group Arte + Ciencia, she has worked on the links between disciplinary fields and the thin boundaries between literature, philosophy and science.

1 Cfr. Eva Jablonka and Marion Lamb, “The changing concept of epigenetics”, *Annals: New York Academy of Science*, vol. 981, 2002, p. 88-89, where the authors argue biologists cannot come to an understanding on whether epigenetics comprises only a problem of inheritance or whether it can be legitimately employed in wider discussions pertaining development, or the relationships between genetic information and its morphological manifestations.

2 *Ibid.*, p. 87.

3 Such was the case, for instance, of the reception of Siddhartha Mukherjee's “The Improvisational Oncologist.” *New York Times Sunday Magazine*, May 15 2016.

4 Susan Merrill Squier, *Epigenetic Landscapes, Drawings as Metaphor*, London: Duke University Press, 2017, p. 21.

Paper

Jamie Ferguson

Independent

Jamie Ferguson is a generalist and enthusiast looking to catalyze and connect disparate ways of thinking, talking, and making. As a foresight strategist, she's worked with several fortune 500 clients in such diverse categories as food, health, transportation, fashion, and finance to navigate complexity and facilitate opportunity in change. Jamie holds a masters in Media Art & Design from Bauhaus University in Germany, and she's been hosted at several international art and research institutions, including the Banff Centre in Alberta, Canada.

Antifuture & the act of quitting

Antifutures is the rejection of the pervasive trend and rhetoric that is appropriating thinking about the future for gains in the name of progress and disruption. To quote what's been deemed the most enigmatic line in American literature: I'd prefer not to. The Bezosian approach to innovating just about everything in life has left preferable futures just out of reach for many. So where might the act of quitting get us? To a liminal state (if not a temporary one) of ambiguity and disorientation, to a place of both precocity and freedom, perhaps to a state of a slack or looseness that might enable a better appreciate chaos and change?

“Becoming with the otherness”: Broadening the spectrum of relationships thorough art and science

In the process of becoming there is always change. In the case of relationships, every part gets modified with the exposure. “The culture” is an experiment of an interspecies relationship occurring inside a tank. Water becomes the site of interaction of this new ecosystem between bacteria, yeast, (*M edusomyces gisevii*) , plants (*S alvinia natans*) and humans for investigating the symbiotic process through embodied shared experiences and the exchange of matter. The limits of art and science are dissolved, allowing more space for free experimentation. Documented by video and physical evidence generated by microscopic collaborators, this encounter takes as reference the concept of “Becoming with” proposed by Donna Haraway.

Paper

Maru Garcia

UCLA Arts

Maru García is a Mexican multidisciplinary artist whose work is inspired to capture, understand, and express the relationship and interaction between humans and Nature. Through the intersection between art, science, and technology, her work seeks to address environmental and social issues, particularly the protection of the world’s biodiversity and ecosystems.

A Counterforce Lab and Art-Sci Center UCLA Graduate Student 2018, Maru Garcia is an MFA candidate in Design and Media Arts UCLA 2019. She has a M.S. Biotechnology (2009) and a B.S. Chemistry (2005).

Paper

Juan Felipe Guevara-Aristizabal

UNAM

Biologist (University of Antioquia, Colombia), Mphil Philosophy of Science (UNAM, Mexico), PhD Candidate in Philosophy of Science (UNAM, Mexico). Currently working as professor of theory of knowledge and philosophy of science at the Philosophy faculty, UNAM.

José Agustín Mercado-Reyes

UAM-C

Biologist (UNAM, Mexico), Msc Biological Sciences (UNAM, Mexico), PhD Philosophy of Science (UNAM, Mexico). Currently working as professor mathematical thinking and early modern philosophy at the Humanities faculty, UAM-C.

Thinking the Unthinkable

For more than a century, evolutionary thought has been assigned the onerous task of battling theological worldviews—evolution's calling is to disarticulate the connection between design and designer, nature and divinity. This premiss lies at the core of the ominous title "Darwin's dangerous idea", Daniel Dennett's way of arguing in favor of scientists and philosophers freely speaking about design in nature without involving a designer. Though darwinian approaches to evolution are certainly mainstream, they are not the only ones. The darwinian mode, thoroughly intertwined with natural theology, conceals other problems that evolution might rise.

Immanuel Kant's third Critique, which includes a thorough discussion of organisms and nature's productivity, may offer a seemingly interesting and refreshing mode of wondering about evolution. On the one hand, Kant thinks nature's productivity in terms of a technical analogy with art, an analogy that brings forth the question of an artist/designer in nature. However, this designer cannot be a deity because there is no experience whatsoever of one in nature. Instead, the analogy solely rests on human art and technical abilities. It is because there are humans who think nature as productive that nature can actually be conceived as producing organized entities—without humans, there would be no technical analogy. On the other hand, although Kant engages with evolutionary considerations (what he calls the task of the archeologist of nature) only to dismiss them because they do not fulfill the requirements of a proper science, it is very telling that those ideas still affect reason: as Kant states it, reason recoils from these ideas. The recoil does not come from the finding of a deity at the bottom of nature, but because reason startles itself with the idea of its own absence. Without reason, without humans, nature cannot be thought at all. Nevertheless, the rational thought of nature may lead to a form of nature without reason.

Thus, there is a paradox in Kant's treatment of nature. Instead of focusing in the problem of the explanation of nature that this paradox entails, we want to displace the question into the forbidden act of thought without reason. If, as it can be suggested, thought does not need to wait for reason to begin, how can we think the beginning of thought which begins once and again? how can its constant process of manifestation be thought? And, fundamentally for this work, how is it able to reconfigure the materials of different, prior substrata in order to act and be shared, while remaining in a register that allows it to be not necessarily human?

Agents without Agency: Artificial Intelligence as Artistic Medium

Given the recent hype over artificial intelligence (AI) and artificial creativity (AC), we articulate an account of artificial creativity that takes artificial intelligence as a medium for artistic expression rather than artistic agent. This argument builds upon our distinction between A-creativity and C-creativity (forthcoming at EVA 2018).

We identify A-creativity with “artistic creativity” and C-creativity with “computer creativity.” Our account differs from other accounts that tend to focus on AI in art as artistic agents and frequently equate C-creativity with A-creativity. Such accounts cover a wide range of applications of AI in art, such as Computer Aided-art (Boden 2004, 2010) and attempt, both in art practice and science, to build a machine that produces outcomes that matches or even supersedes those produced by human artists in more traditional domains such as painting, graphic art, music.

In the first section of our paper we outline a concept of artistic medium drawing from art history, aesthetics, and philosophy (particularly by Rosalind Krauss, David Davies, and Niklas Luhman). We define artistic medium, not as a material or a technique, but as a set of features that create a space of possibility for artistic expression. Through this, we accentuate (i) the role of artistic mediums in identity construction, both artistic and personal identity (Krauss 2011); (ii) the role of agency and meta-motivation in doing art which necessitates a view on the artist as a subject of experience, who puts forward a claim to meaning in and by doing art (similar to Riegl’s *Kunstwollen*) and who justifies this claim (and the kind of transformation it brings around). Meta-motivation (a term borrowed from Mindt & Montemayor msc.) refers to the motivation to do the art in the first place, to pursue an artistic intention as opposed to pursuing daily concerns or performing an instrumental task (i.e. realizing an activity that is associated with intelligent performance in AI), and to the choice to do or not to do art.

In the remaining of the paper, we defend our account of AC and AI as artistic medium. We contrast AI in art with *prima facie* distant and highly controversial cases of animal art and ‘outsider art’ where the latter refers to both ‘savage artists’ and ‘sudden artistic outputs’. After that, we apply our account to various cases of art production that includes AI with the purpose of generating creative, art-like outcomes (e.g., Cohen’s AARON, Cope’s Emmy, Dreussen and Tresset’s Paul, the AI developed by Obvious that produced *Le Comte de Belamy* and *La Comtesse de Belamy*) or that mimic creative—self-organizing—processes and properties of life (some cases of generative art, Evo-art, VR-art and cyborg art). Finally, we address these cases of generative and interactive computer art that articulate the idea of creativity as autonomy from the artist’s will. This is not a clear cut distinction as some of the examples can fall into two categories; yet it provides a preliminary sense for a range of uses of AI in art.

Paper

Rodrigo Guzman S.

Danube University Krems

Born in Mexico City, Rodrigo Guzman S. is an art historian and interdisciplinary artist. He studied a master in Art History at the City College of New York, and he is currently finalizing his thesis for his second master in Media Arts Cultures at the Danube University in Krems, Austria, under the supervision of Oliver Grau. He has researched the interaction between arts, science, and technology, and has presented his work in conferences such as the International Symposium on Electronic Art (ISEA) in 2012 in Albuquerque, NM, and the “Art History in Digital Dimensions” conference in 2016 in Washington, D.C./ Maryland, USA. In collaboration with Katsiaryna Suryna, he will present during the upcoming EVA conference, “Politics of the Machine,” in Copenhagen, Denmark.

Katsiaryna Suryna

Central European University

Originally from Belarus, Katsiaryna Suryna is a doctoral candidate at the Department of Philosophy, Central European University (Budapest, Hungary). She specializes in areas such as phenomenology, philosophy of mind, neurophilosophy, and philosophy of sciences. She is currently writing her dissertation “Prospects of improvement and integration of multilevel explanations in cognitive neuroscience by means of phenomenology” under the supervision of Professor Maria Kronfeldner.

Recently, Katsiaryna has also been interested in matters of the relationship between art and science, and art and research. In January of 2018, she proposed and organized the exhibition and conference “Art In Academia” at the Open Society Archives in Budapest, which she also curated. The exhibition presented artwork created as result of, or influenced by, academic research at the Central European University, and the accompanying conference featured speakers like Christa Sommerer (Linz University of Arts and Design), and Attila Horányi (Moholy-Nagy University of Art and Design, Hungary). From 2012 to 2014, she studied at the University of Tartu where she received her MA in Semiotics.

Paper

Adnan Hadzi

University of Malta

<https://orcid.org/0000-0001-6862-6745>

Adnan Hadzi is currently working as resident researcher at the University of Malta. Adnan has been a regular at Deckspace Media Lab, for the last decade, a period over which he has developed his research at Goldsmiths, University of London, based on his work with Deptford.TV / Deckspace.TV (DTV). DTV is a collaborative video editing service hosted in Deckspace's racks, based on free and open source software, compiled into a unique suite of blog, cvs, film database and compositing tools. Deptford was formerly a wealthy area, but economic activity declined with the closure of the nearby dockyards, though a process of redevelopment and gentrification is underway, which has led to local debates about the identity and future of the area. DTV is less TV more film production but has tracked the evolution of media toolkits and editing systems such as those included on the excellent PureDyne linux project.

It is through Free and Open Source Software and technologies this research has a social impact. Currently Adnan is a participant researcher in the MAZI/CreekNet research collaboration with the boattr project. The CreekNet pilot engages a diverse population within a limited geographical area, Deptford, in South East London, UK. Deptford is an inner-city area with a mixed socio-economic profile, including low income neighbourhoods, artist communities, student populations attending a range of institutions including Goldsmith's College, Ravensbourne College and the University of Greenwich; and urban professionals.

Adnan is co-editing and producing the after video video book, exploring video as theory, reflecting upon networked video, as it profoundly re-shapes medial patterns (Youtube, citizen journalism, video surveillance etc.). The first volume more particularly revolves around a society whose re-assembled image sphere evokes new patterns and politics of visibility, in which networked and digital video produces novel forms of perception, publicity – and even (co-)presence. A thorough multi-faceted critique of media images that takes up perspectives from practitioners, theoreticians, sociologists, programmers, artists and political activists seems essential, presenting a unique publication which reflects upon video theoretically, but attempts to fuse form and content.

Adnan's documentary film work, in collaboration with his partner Lennaart van Oldenborgh, tracks artist pranksters The Yes Men and net provocateurs Bitnik Collective. Together they released the Bitter Lemons documentary mapping lemon grovers on both sides of the no mans land of Cyprus. Bitter Lemons is the moving story of a friendship between enemies that survived against the odds over 30 years of separation. It provides a unique local perspective on the largely forgotten conflict in Cyprus, which became part of the European Union in 2004, from people who have lived with the consequences of this conflict, the memories, the minefields and the barricades, since 1974.

Adnan's current documentary project focuses on his involvement in the media arts collective !Mediengruppe Bitnik. A collective of contemporary artists working on and with the Internet. Bitnik's practice expands from the digital to affect physical spaces, often intentionally applying loss of control to challenge established structures and mechanisms. Bitnik's works formulate fundamental questions concerning contemporary issues.

boattr - towpath as social commons

This paper discusses the towpath/'network' of the British Waterways as a digital social commons, through the researcher's journey on the narrow boat 'Quintessence' and the development of the 'boattr' prototype in collaboration with MAZI (for "together" in Greek), a Horizon2020 research project. For three years the researcher joined the community of bargees¹, travellers², who use the canals to live³ on them, with a temporary permit⁴ to stay for two weeks in one place⁵. The paper will offer a critical view on the housing situation in the UK and EU in general.

The boattr project connects narrow boats to the 'Internet-of-Things' and allows for open wireless mesh-networking within the narrow boat community, by using affordable microcomputers. The paper analyses the technology and knowledge that aims to 1) empower those narrow boats who are in physical proximity, to shape their hybrid urban space, together, according to the specificities of the respective local environment, and 2) foster participation, conviviality, and location-based collective awareness of the canals.

The paper looks into capabilities offered by Do-It-Yourself networking infrastructures – low-cost off-the-shelf hardware and wireless technologies – and how small communities or individuals can deploy local communication networks that are fully owned by local actors, including all generated data. These DIY networks could cover from a small square (e.g., using a Raspberry Pi) to a city neighborhood (e.g., RedHook initiative) or even a whole city (e.g., guifi.net), and in the case of boattr the towpath of the canal network. Boattr integrates existing Free and Open Source Software software (like those under development by the P2Pvalue project, mobile sensing devices, and recent developments in open data and open hardware), allowing it to be appropriated by different non-expert users according to their respective context and use case.

This paper is being proposed in combination with a 360 installation, alongside a running boattr prototype, and the boattr micro-computer book launch (see boattr 360 installation proposal). The conference visitors will be able to experience boattr through a VR headset, and access the boattr prototype and book over any WiFi enabled device.

boattr 360 – living on the cut

This 360 video installation lets the conference visitor experience the 'boattr' project through a VR headset, and access the boattr micro-computer book over any WiFi enabled device. The installation encompasses a photographic triptych showcasing canal life, a seating representing a narrow boat's bow on which the viewer can sit and immerse into a journey on the narrow boat Quintessence.

With the evolution the moving image inserted itself into broader, everyday use, but also extended its patterns of effect and its aesthetic language. Video has become pervasive, importing the principles of "tele-" and "cine-" into the human and social realm, thereby also propelling "image culture" to new heights and intensities.

The boattr 360 installation makes use of video as theory, reflecting the structural and qualitative reevaluation it aims at discussing design and organisational level. In accordance with the qualitatively new situation video is set in, the installation presents a multi-dimensional matrix which constitutes the virtual logical grid of the boattr project. The installation translates online modes into physical matter (micro computer), thereby reflecting on logics of new formats – by rendering a dynamic, open structure, allowing for access to the boattr micro-computer book over the 'boattr' WiFi SSID. The boattr DIY infrastructures offer a unique set of special affordances for local services to the narrow boat community, outside the public Internet: the ownership and control of the whole design process that promotes independence and grass-roots innovation rather than fear of data shadows; the de facto physical proximity of those connected without the need for disclosing private location information, such as GPS coordinates, to third parties; the easy and inclusive access through the use of a local captive portal launched automatically when one joins the network; the option for anonymous interactions; and the materiality of the network itself.

1 <http://www.bargee-traveller.org.uk>

2 <http://www.londonboaters.org>

3 <http://www.lilo.org.uk>

4 <https://www.rboa.org.uk>

5 <https://nbtalondon.wordpress.com>

Climate Change and Resistance

*"Across the white immensity of an eternal winter,
from one end of the frozen planet to the other, there travels a train that never stops.
This is the Snowpiercer, one thousand and one carriages long."*

From Jacques Lob & Jean-Marc Rochette, *La Transperceneige* (Casterman, 1982)

Paper

Cosima Herter

Independent

Cosima Herter is a science consultant who specializes in the history and philosophy of science, technology and medicine. She is known for her science and story consulting in the award winning BBC America sci-fi television series Orphan Black. She is currently working in TNT's Snowpiercer, co-produced by Tomorrow Studios and Turner's Studio T, along with CJ Entertainment, distributed by Netflix and with Graeme Manson as showrunner.

Paper

Kathy High

Rensselaer Polytechnic Institute

Kathy High is an interdisciplinary artist, educator working with technology, art and biology. She collaborates with scientists and other artists, and considers living systems, empathy, animal sentience, and the social, political and ethical dilemmas of biotechnology and surrounding industries. She has received awards including Guggenheim Memorial Foundation, Rockefeller Foundation, and National Endowment for the Arts. Her art works have been shown at documenta 13 (Germany), Guggenheim Museum, Museum of Modern Art, Lincoln Center and Exit Art (NYC), UCLA (Los Angeles), Science Gallery, (Dublin), NGBK, (Berlin), Festival Transito_MX (Mexico), MASS MoCA (North Adams), Esther Klein Gallery (Philadelphia) and Para-site (Hong Kong). High is Professor in the Arts, and has a lab in the Center for Biotechnology and Interdisciplinary Studies at Rensselaer Polytechnic Institute, Troy, NY. She hosts bio/ecology+art workshops and is creating an urban nature center in North Troy (NATURE Lab) with community media organization The Sanctuary for Independent Media. She is an ongoing Vivo Art artist in resident with the Center for Microbiome Sciences & Therapeutic, DePaolo Lab, School of Medicine, University of Washington, Seattle.

Fleeing – The Fate of Escaped Animals

This presentation, *Fleeing – The Fate of Escaped Animals*, looks at the question of escaped animals, or animals fleeing, and what this flight might mean to humans. Kathy High looks at stories about the animals who flee from slaughterhouses, zoos and circuses. What separates these animals from their peers who suffer the consequences of disaster, confinement and death? Why do we identify with these fleeing animals? What signs do they leave us? What about the boundary crossings of the animals who leave and/or escape? How do we project onto these non-humans our own desires for flight?

There seem to be two kinds of responses to escaped animals: they are either caught and taken to a sanctuary to live out their days in peace, honored for their risk-taking; or they are killed for being a public nuisance. High is producing a media project about the topic of escaped animals and their effects on the humans around them. Author of the book *Every Twelve Seconds: Industrialized Slaughter and the Politics of Sight*, Timothy Pachirat's argument is that transparency – the honoring or outrage of these escaped animals is one of sight: because we see the animal, their prolonged lives or now outrageous deaths are what makes these animals special. They are singled out. They are not concealed and caged but have broken free... They have created a *rupture* and been *seen*.

Fleeing... presents vignettes about animal revolt, stories about animal revolution, and their independence within systems that for the most part cannot tolerate animal agency.

Soils and Interventions – PosthumanTrack

This discussion will focus on *soils* as more-than-human subjects who are both living entities and 'lenses' through which we may begin to rethink some of the conventional parameters of ecology, communication, and even the grounding of traditional Western ontologies on which these boundaries have stood. Just as the very term "more-than-human" potentially exceeds the relegation of both soillogic agents and animalities to subservient status, likewise this discussion embarks from a more-than-humanist ("posthumanist") position. As we attempt to look at living systems and ways of being in broader, more expansive terms, it becomes possible to catch conceptual glimpses of less hierarchical ontologies as understood by some more-than-western cultures. This presages dirty thinking. My collaborators and I have also drawn inspiration from artistic, theoretical, and political movements in the West that have sought to interrupt the primacy of Eurocentric humanism in institutions and philosophical arenas.

Attempts at decentering of the human subject from its hierarchical primacy in Western philosophical traditions have broad ethical ramifications. The term *soillogic*, as used in this discussion, was coined in that light, referring to a range of performative, bioethical philosophies of ecology that address what begins to happen when the human subject is decentered in experimental ways. This discussion will also mention a few of the art projects that my collaborators, students, and I have undertaken in the course of engaging with creative analyses of cultural limits and liminal (dirty) arenas, such as various shamanic and meditative practices applied to art praxis.

Paper

Linus Lancaster

Healdsburg Unified School District

Linus Lancaster is a full time instructor of art at the Healdsburg Unified School District, an internationally exhibited artist, and independent scholar. He holds an M.A. in art practice and philosophy from Sonoma State University, and a PhD. in art practice and soil studies from the University of Plymouth, UK. His work is focused on performative sculpture, interventionist guerrilla installations, liminal communications, and radio. The most current projects involve sculptural installations in various oceanic locations, and amateur radio work on the California-Mexico border. He has also taught as an adjunct professor of English with the Prison University Project at San Quentin.

Paper

Gabriel Licina

SciHouse

Gabriel Licina is a molecular biologist, biohacker, and co founder of SciHouse, a nonprofit research and education lab. He's currently working in disease therapies, ocean faring plastic eating fungus, and rapid bioremediation.

EnTs: Engineered Tree Systems

All plants seem to have 2 genes that when turned upregulated together, make plants grow to much larger sizes and at a much higher rate. This project focuses on making this technology work in a variety of plants. With this modification, some species can be made to grow as fast as 3 meters in 6 months. By combining this modification with planting techniques like the Miyawaki method, fungal planting, and bacteria cultures, extremely rapid reforestation is possible.

Our goal is to create kits tailored to local ecosystems that could be delivered anywhere in the world. The kits would contain modified versions of local plants and native fungal species which could be quickly deployed in an area.

The genetic modification has been reproduced in a diverse array of plants including arabidopsis, sugar cane, and aspen. Current research suggests that it should work in any organism with a cell wall, including fungi, moss, and ferns

The Miyawaki method has been shown to create dense forest areas up to 3m tall in even 6 months. That's without genetic modification. That's the baseline.

The genetic modifications can potentially increase growth rate and size by 2 times.

The two combined could actually make a positive impact on the planet"

A Sentimental Analysis of Biohackers on Social Media

The aim of this paper is to investigate the ways biohackers are communicating with each other in social media and particularly in Twitter. Biohackers can be considered as life scientists who combine biology and technology, along with the ethics of open data -that characterize hackers- and open source software. Their aim is to transcend their human body and to create a better version of themselves.

Social media and Twitter in particular are popular for giving the chance to users to update everyone with their thoughts, activities, opinions etc. The current study aims to examine the connections between biohacking groups in Twitter and check its potential to provide insights on the biohacking scene. Towards this goal, we will collect tweets in a given time frame and we will analyze the interaction between users, check if there are influential users, what the main topics that arise in these tweets are and determine whether the positions of the writers are positive, neutral or negative.

In order to collect the data, we will use a multi-component semantic and linguistic framework which will be developed to collect Twitter data and analyze them with the help of R. For determining the positive, neutral or negative attitude towards the topic we will use sentimental analysis.

For our research we will use a real-time recording to collect the publicly available English tweets within a month. For the selection of tweets we will use topics that are popular among the biohacking community and that we believe they can shed more light on the biohacker groups' topic. The queries that we will use for search, collection and analysis are: #biohacking, #DIYbio, #openscience, #opendata and #biotech.

Paper

Laida Limniati

University of Helsinki

Laida Limniati is working as a journalist in the fields of technology and self-driving cars. She has also worked as a Marketing Executive and Communications Specialist. She holds a BA (Bachelor) in Communication and Media Studies from the National and Kapodistrian University of Athens (UoA), a MA (Master) in Communication and Media Studies from UoA with Major in Digital Media and Interactive Environments, a Master of Arts in Quality Journalism and New Technologies from Danube University Krems and a Master of Arts in Social Sciences (Major in Media and Global Communication) from the University of Helsinki. She loves Japanese culture and Japanese manga and anime in particular. Her interests also include: new technologies, internet, storytelling, transmedia storytelling, and social media.

Dalila Honorato

Ionian University

Dalila Honorato is currently Assistant Professor in Media Aesthetics and Semiotics at the Department of Audio and Visual Arts of the Ionian University where she is one of the founding members of the Interactive Arts Lab. She is the head of the organizing committee of the conference "Taboo-Transgression-Transcendence in Art & Science" and developer of the studies program concept of the Corfu Summer School in Hybrid Arts. She is a guest faculty at the PhD studies program of the Institutum Studiorum Humanitatis in Alma Mater Europaea, Slovenia, and a guest member of the Science Art Philosophy Lab integrated in the Center of Philosophy of Sciences of the University of Lisbon. Her research focus is on embodiment in the intersection of performing arts and new media.

Andreas Giannakoulopoulos

Ionian University

Andreas Giannakoulopoulos is an Assistant Professor at the department of Audio and Visual Arts of the Ionian University, where he teaches courses related to Internet Communication, New Media and the Web Technologies. He holds a BA (Ptychio) in Economics from the University of Athens (UoA), a BA (Ptychio) and a Master of Arts in Communication and Media Studies from UoA, and a Master of Science in Logic from the University of Amsterdam. His doctoral dissertation, approved by the University of Athens, was in the field of web accessibility. The main fields of his academic activities are computer mediated communication, web technologies and e-learning systems as means of effective online communication.

Paper

Olga Majcen Linn

Kontejner

Olga Majcen Linn (1975) graduated Art History and Comparative literature at the Faculty of Humanities and Social Sciences, University of Zagreb. Engaged in curatorial work since 2002 through NGO KONTEJNER, as the founder of the NGO and author of many renowned international projects (Device_art, Touch Me, Extravagant bodies). She curated more than 100 exhibitions, festivals, conferences and lectures in Croatia and internationally. Since 2003 she also works at the Gallery VN in Zagreb which she presents young and emerging Croatian artists, where she organized and curated more than 200 exhibitions. She is teaching as a guest lecturer at the Academy of Fine Arts in Zagreb (Art at the Intersection of Science and Technology). She is also active in the field of social theory and critique, and is a member of AICA. Currently she is working on PhD these on the topic of subversive art practices.

Suncica Ostoic

Kontejner

Sunčica Ostoić (1976) is a cultural worker from Zagreb, Croatia where she graduated Art History and Philosophy at the Faculty of Humanities and Social Sciences. She is currently a PhD student of Transdisciplinary Studies of Arts and Media at the Faculty of Media and Communications in Belgrade under the supervision of PhD Miodrag Šuvaković. Her interests cover the field of theory and practice of extreme, extravagant and radical art practices in the 21st century. She is a guest lecturer at the Academy of Fine Arts in Zagreb (Art at the Intersection of Science and Technology). In 2002 she co-founded NGO KONTEJNER / bureau of contemporary art praxis whereas the author and curator of festivals Extravagant Bodies, Touch Me and Device_art she has worked on more than 100 exhibitions, festivals, conferences and lectures in Croatia and internationally (Zagreb, Ljubljana, Belgrade, London, Glasgow, Perth, Sydney, San Francisco, Beijing, Tokyo, etc).

Kontejner - bureau of contemporary art practice

Kontejner is a curatorial collective based in Zagreb, Croatia. Our main field of interest is progressive contemporary art which investigates the role and meaning of science, technology and the body in our society, focusing on the relevant and current phenomena, especially within provocative, fascinating and intriguing subjects and topics, as well as those perceived by the society as taboos. These include pleasure, time and energy, mental health, human and artificial intelligence manipulation and dark matter.

Kontejner's projects and festivals present investigative artistic practices - an exciting area which expands our bodies, breaks down social taboos and paradigms, awakens the neglected senses and reveals artistic transgressions. The artists and artworks presented by Kontejner have a common interest in science, technologies and the body. Extravagant Bodies festival deals with social demarcations of normal and pathological, be they concerned with corporeality, appearance, behaviour, sexuality or life style. Touch Me Festival deals with interconnections between art and science through themes that engage and inspire contemporary artists and scientists and that are crossing the borders between different disciplines and field like biology, chemistry, physics, mathematics, culture and arts.

From machine learning to human learning. Education, AI and the fusion of the teacher with the student.

In this research we discuss the paradoxical nature of the teacher-student relationship between humans and non-humans. We explore this dual connection in the context of Artificial Intelligence, where Machine Learning and Human Learning blend and become an intermingled system with blurry distinctions. In the dawn of computer thinking, the teacher, the student, the human and the machine become one. The concepts of the trainer and a trainee fuse and the roles emerge only at the moment of communication between human and machine. Using first and second order cybernetics, we discuss this new emerging system of communication while at the same time being under the influence of Niklas Luhmann's point of view of social systems. In that sense, we examine the strange loops that derive out of the roles between AI systems, their programmers and their end users.

We hypothesize such social system where student, teachers and machines become a hyper-communication module of informational flow and examine the dynamics and the implications of such a speculative scheme.

Paper

Alain Lioret

Paris 8

Alain Lioret is a Generative Artist and an Associate Professor at "Arts et Technologies de l'Image" (University Paris 8, France) within laboratory INREV (Digital images and Virtual Reality). He has working for several years on research on the applications of the artificial life and the artificial intelligence (connexionism, evolutionism, cellular automata) in the artistic field.

Author of the books "Émergence de Nouvelles Esthétiques du Mouvement", and "L'Art Génératif". Specialist with research & development (innovative techniques in 3D animation, use of dynamics, etc.), he takes part in many projects (virtual actors, Attitude Studio R&D, etc.). Alain Lioret works on arts of being's movement and the artificial life, using techniques with biological inspiration: neural networks, genetic algorithms and programming, fractals, simulations of crowd, etc.

Ioannis Bardakos

Paris 8 University / Athens

School of fine arts / Shanghai

Institute of Visual Arts/DeTao

Ioannis Bardakos was born in Athens Greece and received the B.S. degree in applied mathematics from the University of Athens and the dual M.S. degree in Art Virtual Reality from Paris VIII University and the Athens School of Fine Arts. He is currently pursuing the Ph.D. degree at the University of Paris VIII in Aesthetics, Sciences and Arts Technology. From 1997 to 2014 Mr. Bardakos has worked as a digital artist, animation film director and producer.

From 2013 to now, he is a lecturer and researcher in the DeTao Technoetic Arts Course in the Shanghai Institute of Visual Arts and a researcher in the HyperMedia Lab of the Athens School of Fine Arts and in the INREV laboratory in Paris 8 University. His research interest include the aesthetic narration in virtual worlds, the development of algorithmic autonomous systems, the transforming of formal mathematical texts and grammar into aesthetic experiences using Virtual Reality technologies, traditional and generative art methods.

Rui Wu

DeTao, University of Plymouth

- Planetary Collegium

Rui Wu (Rae), vice general manager of Detao Master Academy. Graduated from Communication University of China, working as editor and director at China Central TV station before she came into the education field. Currently, she studies as a PHD candidate and researcher in the Planetary Collegium, Detao Node, of the University of Plymouth. Her research interest concerns the learning mind in the syncretic field during the human and machine co-existence era.

Paper

Mark Lipton

University of Guelph

Lipton is author of *Smoke Screens: From Tobacco Outrage to Media Activism* (Children's Health Initiative 2002); a co-editor of *Visualizing the Web: Evaluating Online Design from A Visual Communication Perspective* (Peter Lang 2010); and author of *Research, Write, Create: Connecting Scholarship to Digital Media* (Oxford, 2015). Research funding includes support from Canadian Council on Learning, Social Sciences and Humanities Research Council, Mellon Foundation, Ford Foundation, United Way, and others. He researches at the cross-sections of media and education, curious about young adults' conceptions of media, culture, and learning across contexts of spectacle, performance, and display. He has taught both middle and secondary school and worked as a teacher-educator and supervisor; he also works as a curricula specialist in the areas of communication, curriculum design, pedagogy, and assessment.

Efrat Gold

Ontario Institute for Studies in Education/University of Toronto

Efrat Gold is a PhD student at the Ontario Institute for Studies in Education, University of Toronto. Her work weaves together alternate histories, particularly those related to the mobilization of psychiatric power in order to give voice to those disenfranchised by the psy-complex. Gold seeks to unsettle dominant theories of mental health and illness by contextualizing them within historic, social, and capitalist relations. Her interdisciplinary work engages with psychiatry/antipsychiatry studies, history/historiography, critical disabilities studies, queer world-making, Marxism, and feminism.

Welcome Home Eugenics: The Media Ecology of BioHacking CRISPR/Cas9

In the US, the National Institutes of Health (NIH) has refused funding for research into gene-editing technologies in human embryos. The arguments against human genetic engineering are mostly based on social stigmas; fear of the unknown; religious ideology; and anti-science rhetoric. BioHacking raises concerns about ethical responsibility along with fears of terrorists who exploit open-source methods. While posing important ethical dilemmas, however, the ethos of BioHacking also suggests new ways of thinking about such constructs as the body, health, medicine, and aesthetics. As a result, this presentation considers the role of Body/Bio-Sovereignty in BioArt, BioHacking, and BioEcology to drive more international & independent DIY, MakerSpace/ing Biohackers to continue playing and creating diverse BioArts and BioFutures

Drawing on diverse media ecological perspectives this presentation shares examples of BioArt, from Critical Arts Ensemble's contestational biology; Natalie Jeremijenko & Eugene Thacker's *Creative Biotechnology: A user's manual*; and a collection of global BioHackers challenging the ethics of genetic engineering--creating possible futures and imagined biologies. We question the ethics, ecologies, and futures of BioHacking, BioArt, and the value of studying new tools like CRISPR/Cas9 technologies. Where will the search for blue eyes lead us this time?

Documenting Trans Resistance

In my presentation called 'Trans Resistance' on how documentary film making can help to support, build social movements, and advocate for LGBTQIA* and disability rights, I would like to show excerpts from two of my documentaries, 'Leelah's Highway' and 'Frolics Haunt', and discuss my artistic and social justice practice as an embedded, feminist documentary film maker and photojournalist. I focus on prioritizing grassroots voices in my film-making practice during my field reportage, and at every stage of the production and post production.

"Leelah's Highway" is a 24-minute HD documentary focusing on trans youth, Leelah Alcorn, who committed suicide in Kings Mills, Ohio at the age of 17. Isolated by her parents in their basement, and forced to undergo conversion therapy by a Southern Baptist minister for six months, Leelah chose to end her own life by walking in front of a semitrailer on the highway near her house, moments after throwing her laptop to the side of the road. A highway cleanup has become a three times yearly event in her honour, organized by Chris Fortin, a fellow Kings Mill high school student. His interview about this cleanup, coordinated in Leelah's name provides a charming testimonial to his memorial outreach as a former Kings Mills Knight student, and as an ally to her name.

This documentary follows the path from Leelah's vigil, the recounting of the community who wanted to support her to the resistance of the trans community on inauguration day in Washington DC to the highway clean up in her honour, and ends with Cincinnati Pride, where group in a car float in her name hands out information on preventing trans suicide.

"Leelah's Highway" is a very important story for me to discuss as an embedded social movement journalist because it portrays the vulnerability of trans youth from Leelah's point of view, but also, from the point of view as an educator, how the online, and actual, high school community can come together to protect a teen from social isolation despite the pressures of transphobic state policy and the fundamentalist church in Ohio, which has promoted conversion therapy and trans discrimination.

In addition, I would like to show an excerpt from my second documentary, 'Frolic's Haunt', a 9-minute short about a team of passionate volunteers in Toronto, led by Robin Frolic, who has set out to improve accessibility issues in Hallowe'en trick or treating by designing a first-of-its-kind haunted house: one that's not just wheelchair accessible, but accessible for many different disabilities, with its own unique "Scare System". 'Frolic's Haunt' is a home haunt created by a core team of LGBT people with disabilities, where every decision is based on accessibility and social justice principles.

Both of these documentaries illustrate my social justice methodology for documentary practice, which I will discuss further during the question and answer period.

Paper

Elizabeth Littlejohn

Sheridan Institute of Technology
and Advanced Learning

Elizabeth Littlejohn is a communications professor, human rights activist, photojournalist, and documentary filmmaker who teaches at Sheridan ITAL in Toronto. She has written for Rabble.ca for the past eleven years on social movements, sustainable urban planning, and climate change. As a running gun social movement videographer, she has filmed internationally. Her articles, photojournalism, and videos have been published widely, documenting the Occupy and Climate Change movements, LGBTQIA* rights, and Idle No More, and printed in NOW Magazine, the Toronto Star, the Canadian Theater Review and Our Times. She has an unending passion to protest the rise of populism in the U.S. and Canada. To this end, she has filmed on the front line of the queer resistance of Werk for Peace during the US inauguration, and for the past seven years, the reign of Toronto's notorious right wing ex-Mayor, Rob Ford, and the recent succession of his brother, Premier Doug Ford, in the Ontario Legislature.

Recently she has directed, filmed and produced 'Leelah's Highway', a broadcast half hour focusing on the suicide of trans youth, Leelah Alcorn, and 'Frolic's Haunt', a nine-minute film about a queer, accessible haunted house with its own unique scare system. Both these films are being shown in film festivals internationally.

Paper

Sebastián Lomelí-Bravo

UNAM

Sebastián Lomelí Bravo, Ph. D. in Aesthetics (UNAM, México), is specialized in contemporary art and technology. He has taught Aesthetics and Hermeneutics at UNAM since 2010. He is the coordinator of two collective books on the work of María Zambrano, and two volumes about the concept of care. He has participated in several national and international congresses, and also published articles on aesthetics and ontology in specialized volumes and in divulgation magazines. He is a member of the Arte + Ciencia research and creation group, and with them he has participated in four national and international exhibitions, as well as several workshops directed to specialized audiences. He did research stays in Portugal (Cultivamos Cultura) and Germany (TU Braunschweig).

Soap, Medium, and Species of the Capitalocene

In this talk, I will refer to the case of the Guadalupe Lake and the research that the Instituto Mexicano de Intersticiología, led by the artist Rodrigo Olvera (FONCA). The intention is to clarify the status of the site in relation to the discourse about nature, pollution, and annihilation of life in the Capitalocene. The Leitfaden of the dissertation will be the soap and the different cleaning substances that produce at the same time the imagery of an industrial and adequate society, the deep transformations of the lake and the nutritious milieu for several plants and insects (overpopulation of disrupted fauna and flora). Through the analysis of the case, I will evaluate the debate between Timothy Morton and Donna Haraway about Nature and artificiality.

Edges of the Unseen- Imaginary Transgressions of Living Knowledge

This paper and presentation aims to, from an experimental perspective, describe and frame 'aesthetics of liminality' and the 'spaces for creative transformation' on some collaborative art projects.

The concept of transgression will be explored and discussed, bearing in mind the perspectives of various authors, comprising its appearance, variants and influences that the concept can take and how it can be influenced.

This concept is inserted into possible interpretations of society, from social macro scales to particular cases, so that the correlation between how the state of society influences the state of the art, and vice versa, inquires about their rules and laws.

It explores the politics of collaboration and appropriation; the subversive representation of science and health politics; and the anarchistic impulse of Lopes's work. Some art strategies of appropriation, juxtaposition, paradox, and contradiction, alongside the fragmented, non-linear, digressive narratives, are read as a form of social critique.

The argument presented inquires the normative, the fading of out-dated values and current biotechnology, going through post-humanism in the transformation of human-machine and framing mind enhancement, in some examples of collaborative art science projects.

It problematizes the feasibility of the term transgression or norm, in a world of spectacular consumerism and (in)visible biopolitics.

Paper

Maria Manuela Lopes

I3S & ID+ University of Porto

Maria Manuela Lopes is a visual artist and researcher based in Portugal. Her current practice is transdisciplinary and based on issues of memory and self-identity informed by life sciences and medical research and presented in the form of time-based installations, occasionally including biological materials. She has studied fine arts at FBAUP Portugal and did an MA at Goldsmiths

College, London. Lopes has a New Media Fine Arts Doctorate from UCA Farnham, and Brighton University UK, She is currently developing in a PostDoc project that extends the PhD project into a wider cultural scenario questioning what it means to be human in a techno enhanced society. Maria is also assistant-Director of two residency programs: artists in Labs - Ectopia - Lisbon, and Cultivamos Cultura, an ecological oriented residency program in Alentejo. She has concurrently been presenting her work internationally at exhibitions and conferences and also publishing.

Paper

Marne Lucas

Independent Artist

Marne Lucas aka CuntemporaryArtist is based in New York. Using photography, video and sculpture to present unique aesthetic or social philosophies, her investigations of nature, culture, and the body are expressed in conceptual overlaps: energy, technology, the environment, beauty, identity, and mortality. Her social practice 'Bardo ∞ Project' explores creativity as a form of spiritual end-of-life care and she is a certified end-of-life (EOL) doula, a volunteer role as liaison to the dying. Her infrared video on menopause 'Haute Flash' (2017) is part of 'Transitional States: Hormones at the Crossroads of Art and Science' at Peltz Gallery, London U.K., Centre de Cultura Contemporània de Barcelona, and Sala Borsa, Bologna. Films with Jacob Pander 'Incident Energy' (2013), 'The Operation' (1995) also used heat-sensitive imaging to reference surveillance culture and the fragility of human existence. She participated in a 2016 Arts/Industry Kohler factory residency (Foundry, Pottery) and the Land Art Mongolia 360 Biennial.

The Wizard Delivered: Infrared Imaging as an Art Form

Incident Energy Project is at the intersection of art, science and the body using invasive surveillance technology with a transgressive agenda. I use military-grade infrared imaging technology for its surreal beauty and to address contemporary issues of surveillance culture that changes human interaction in creative and philosophical ways; a subtext is our (c)overt acceptance of the electronic villain/wizard into our lives. Contemporary art constructs are important ways to depict aesthetic beauty, taboos, and provide a new way of perceiving the Self.

Incident Energy Project contains three experimental films spanning 23 years, offering a glimpse into visual worlds hidden from our perception. Eerie black-and-white infrared video transports the viewer into an otherworldly space. Range Phenomenology (infrared) visualizes the surreal beauty of our temporal coalescence of ancient stellar energy, drawing on analogies about the universe- that we are truly beings of light. Actual surface temperature changes in corporeal and inanimate objects are seen in real time (heat appears white, cold/wet areas are black.) 'Haute Flash' (2017) is about the hormonal transition of menopause, shot with an infrared hunting rifle scope. Two films with Jacob Pander are 'Incident Energy' (2013) a multichannel video weaving a simple creation drama about the cyclical nature of energy. Dancers express intelligent movement in a timeless terrestrial realm, juxtaposing a contemporary hospital birth; reflecting love, conflict, death and beyond. 'The Operation' (1995) is an explicit, sci-fi, cult film of a patient and surgeon scenario, the first of its kind. Transgression is a deliberate element in my use of surreptitiously accessed, military-grade imaging technology often used for global warfare, as a tool to make films and art focused on the fragile beauty of humanity. Using infrared surveillance cameras, binoculars and rifle scopes is both the means of digital image capture, and the surreal aesthetic itself. Shining the Klieg lights back at military/surveillance culture is a creative, activist prank relating to public surveillance and privacy issues.

Taboo has been experienced firsthand in that I was both creator/actor along with my collaborator Pander. Women suffer more social, political, and gender discrimination via institutionalized patriarchal censorship. "Porn stars" in erotic films experience added over-sexualized social identity and celebrity in that no one is interested in the male counterparts. As the female-half of an award-winning explicit film, I have been slut-shamed, censored, and had grant funding blocked – "because I made/was in a porno". My cis-male collaborator rarely dealt with these issues. My participation in making of erotic art is a feminist act in reclaiming the female: body, desire, sexuality, and the viewing of such material.

Transcendence 'Bardo ∞ Project' is an ongoing end-of-life social practice artistic endeavor exploring creativity as a form of spiritual end-of-life care, illuminating the positive effects of art as mind + body are integrated; coupled with relics from those journeys. Infrared video stills in collaged photography present the physical expiration and spiritual transformation of life, and expand upon the idea that we are made of star energy and return to these origins.

Cybernetic Ecologies

This exploration began with the creation of *Flora Machina*, a cybernetically enhanced plant that could emit sounds in response to its physiological changes. As a continuation of this research, he is developing a network of sensors pods that will transmit live data from various key points around the urban environment. This network is being deployed to investigate the environmental quality in Windsor, Ontario along the Detroit River. This work also explores the potential of integrating this digital layer to create a hybrid cybernetic ecology.

Paper

Michael Lucenkiw

University of Windsor

Michael Lucenkiw is an MFA candidate at the University of Windsor studying how technological interventions inserted into the urban landscape can reveal the complex relationships of this unique ecosystem. His art practice is informed by his background in Environmental Science and Landscape Architecture. Michael examines the urban environment as a distinct ecosystem type with interplay between machines, flora and fauna. He uses a combination of scientific inquiry and artistic exploration to produce interactive spaces and compelling objects and devices. The work is intended to help bridge the gap of understanding between natural process and human beings using sensors and data collection to create a narrative of environmental advocacy.

Paper

Gemma Argüello Manresa

UNAM

Gemma Argüello Manresa obtained her PhD at the Universitat Autònoma de Barcelona (UAB) in the Department of Philosophy. She has been member of different research projects at the UAB, Universidad Autónoma Metropolitana-Lerma, where she was Visiting Professor in the Digital Art and Media Program, and the Institute of Philosophical Research at Universidad Nacional Autónoma de México, where she was Postdoctoral Fellow. She works on Philosophy of Art, specifically of Contemporary Art and Art, Science and Technology and Feminist Art. She works at the intersections between Aesthetics and Political Philosophy and currently she is working on a research on instruction based art using participatory and also technological strategies. She is member of Arte + Ciencia, lecturer at UNAM, and independent curator. She is member of the Mexican National Research System and Chair of the Feminist Caucus and Social Media Editor for the American Society for Aesthetics.

Civil disobedience. Art, science and technology.

This paper addresses how technological and scientific mediations in the arts are important to disobey to public policies and the political and economical system. First it explores the limits of the concept and practice of civil disobedience and how it has been adopted by those artists that base their work in technology and science. Then it explores if civil disobedience adopted by the arts has any political and bio-political implications in the public sphere.

A referendum for the legalization of common offspring of all hominids

The project consists of posters (attached) two films and can be installed as a participative installation.

The audience is invited to sign a petition and put the form into a ballot box.

See links: www.reinermatysik.de/ereignis/tierwerden/

www.reinermatysik.de/arbeit/film/junge-und-affe/

www.reinermatysik.de/arbeit/film/feral-child/

The referendum seeks to legalize mutual procreation between humans and primates in order to make common offspring of primates and humans possible. The amendment should prevent the criminalization of humans who actively work to overcome the boundaries between humans and animals.

Closing the gap

A solution to the question of the “missing link” between humans and primates – the gap between ape and man. To enable the intermediate link in order to close the gap: towards a human-ape hybrid. Something was lost along the evolutionary road from animals to humans. It would enrich us to find it again. Once the gap between nature and civilization is overcome, the exploitation of nature and our alienation from it will cease. In the interest of knowledge, we are also advocating for the reunification of animals and humans, the wedding of the kingdoms of nature. We should achieve frontier runners between the animal and human kingdoms, between nature and culture. What we are advocating may sound extreme to many, but the destruction of the natural world is occurring quickly and radically. Therefore, we can be neither satisfied nor secure in our victory over nature.

Human beings do not like to think of themselves as animals.

It is fundamental to their self-image that human beings do not like to think of themselves as animals. Yet they are animals nonetheless. The great ape is a member of the hominid family, and the long-believed dividing line between ape and man is disappearing thanks to scientific progress. Research results show that apes are much more similar to us than previously thought. They are intelligent, social and have their own self-consciousness, and we possess nearly identical genes. Contemporary knowledge does not allow us to doubt the link between ape and man. Human beings (*Homo sapiens*) are 98.4 percent genetically identical to chimpanzees. This high number of identical genes is for human beings analogous to that of siblings; chimpanzees could be our brothers and sisters.

The individual ape branches have separated themselves within our common family tree. They can now be brought back together. Hybrids are present in nature and play an important role for genetic diversity. They can be artificially created by combining the reproductive cells of various creatures. There are many hybrids (bastards) in the animal kingdom. The more closely related the parents are to each other, the more successful the production of a hybrid will be. Humans and great apes are extremely closely related; research thus makes it possible to produce human-ape hybrids.

Paper

Reiner Maria Matysik

Burg Giebichenstein Kunsthochschule
Halle | University of Art and Design

Reiner Maria Matysik is a Berlin based artist and Professor at the University of Art and Design in Halle (Burg Giebichenstein) for three-dimensional design. He studied fine arts at the Hochschule für bildende Künste Braunschweig and at the Ateliers Arnhem. He works in manifold ways with concepts for future landscapes and organisms, like postevolutionary life forms. Through the specific adoption of object, installation and video he developed a dynamic scenario of future landscapes and organisms. In this way he creates an area of conflict between promise and failure in a potential future. Both the visual implementation and their linguistic form can be recognised here as the essential artistic strategies which he uses as his own interface between the worlds of scientific research and pseudo-scientific fiction.

In 2004 he directed the artistic development project Institute of Biological Sculpture at the Hochschule für bildende Künste Braunschweig. He was a lecturer at the Institute of Visual Arts, Faculty of Architecture, Technical University Braunschweig; 2008–2009 visiting professor of sculpture at the Fachhochschule Kunst Arnstadt. He has exhibited his artworks in institutions such as the Gerhard-Marcks-Haus, Bremen; 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; Fundación Cesar Manrique, Lanzarote; Kunstverein Hannover; Martin-Gropius-Bau, Berlin; Kunsthalle Bern, Switzerland. He is the recipient of grants from the Studienstiftung des deutschen Volkes, Kunstfonds e.V., DAAD, KfW Bank, Stiftung NORD/LB Öffentliche, and the Berlin Senate.

Paper

Jill McDermid

Grace Exhibition Space

Independent Curator, Performance Artist and Director, Grace Exhibition Space for International Performance Art, NYC, USA. Opened in 2006, Grace Exhibition Space is devoted exclusively to Performance Art. We offer an opportunity to experience visceral and challenging works by the current generation of international performance artists whether emerging, mid career or established. Our events are presented on the floor, not on a stage, dissolving the boundary between artist and viewer. This is how performance art is meant to be experienced and our mission is the glorification of performance art.

Erik Hokanson

Grace Exhibition Space

The most common, stable, and reliable states of the universe are the qualities of darkness and cold. We live in a very unusual condition of relative warmth and light. We are living here (earth) -humans, spiders, grass, fish, carrots, bacteria, mice, viruses. We are all related. We need to eat each other. It is the price of peace, beauty, security, humor, love, and hope. Our bodies, like those of all other organisms here, are communities of cells working together essentially for their own preservation. We will all become food or something someday. The sun will make our place food for itself someday. I do not know what will eat the sun. Then it will likely become cold and dark. I take comfort in this. I like natural states.

Body Performance as Physiological Panic

Performance art exposes the deep dark disturbing underworld of the mind through body/id interfaces and leaky deprogramming/ reprogramming. Performance art alters the physiology of both audience and artists. We will talk about performances from the last decade at Grace Exhibition Space that warped and altered social norms, augmented body potentials and made active use of willing Hybrid Body Alterity = life. Hosting over 300 Performance Artists, we offer first hand experiences and stories of contemporary theory and practice of bodies as active laboratories for diversity and difference. Grace Exhibition Space allows for open experimentation with: transgressive identities, biopunk performance, public sex politics and hybrid body alterity. The chemistry of the mind and the somatechnology of performance art is a display of raw volitional devotion to public transgression and transcendence merging novel physiological experiments as art through voluntary relinquishment of habits and expectations in the name of experimental designs. Much of this experimentation is both the informal science of taboo endurances and sociological/physiological deconstruction of the body engaged in action without censor.

Zona Autónoma Militarizada.Europa [zam~]: A multimedia archive and immersive/360°, reactive and interactive audiovisual system based on field studies across the militarized European borders and hotspots where slavery & THB cells operate.

In 2015 the first mass migration, geopolitical and transnational crisis of the digital age started. This brought along the awakening of a new phase in slavery trade and trafficking of human beings (THB) in the European borders. In this paper I present an ongoing field study I started in January 2016 in collaboration with experts from the NP (National Police, Spain), EASO (European Asylum Support Office) and OSCE (Organisation for the Security and Cooperation in Europe) which so far has taken me to hotspots and borders across: Northern Africa, the Strait of Gibraltar, the Balkans & Sicily, generating as a result a vast multimedia archive which ranges from interviews to testimonies, soundscapes (l.p), videos and photographs: zonaautonomamilitarizada.eu.

As a result of the large amounts of data collected during these field studies I have created an immersive/360°, interactive and reactive audiovisual performative system programmed with Max and Pure Data which is conceptually rooted in military technologies, second order cybernetics and mass media developments from the mid XX century. A system which so far has been shown at: Encuentros Sonoros 2017 (Faculty of Fine Arts, UCM, Madrid), Inspirational 2017 (MEEU, Madrid) and Cineforum |Art+Innovation| 2017 (Espacio Oculito, Madrid).

As a result of these field studies and experiences I can conclude that current and future international politics and world order are like a "Leviathán", a mythological sea beast made of flesh which devours men -just like the Mediterranean which is devouring thousands of migrants-. This metaphor postulated by Thomas Hobbes, whereby the Biblical beast was compared to an all embracing authoritarian State based on absolutism, equality and total pessimism regarding human nature -a.k.a. omnimödu- is currently our world order, hence there is no doubt that Leviathan has been unbounded and is here to stay.

Paper

Miguel Oliveros Mediavilla

Universidad Nebrija

Dr. Professor Miguel Oliveros is a fine artist, programmer and sound designer currently lecturing at the Faculty of Communications and Arts, Universidad Nebrija in Madrid, Spain.

After completing his Bachelor and Master studies at i-dat.org (University of Plymouth) while working as an art therapist, he moved to Madrid where he obtained a PhD "cum laude" in Fine Arts (UCM) with a practice-based thesis entitled: "The sublime in the postdigital age: The technological oeuvre in the context of experiential art".

Since 2015 he is documenting THB (trafficking of human beings) within irregular migration routes across the European, North African and Balkanic borders. A project which has led to the collaboration with the O.S.C.E., the National Spanish Police and the E.A.S.O.

As an artist he has exhibited oeuvre in numerous galleries, performed at experimental and electronic music festivals across Europe and Spain -a sound work which has been published in various netlabels-. He has also been commissioned by the private, creative and technological industries since 2013.

He is vice president and co-fonder of the non profit science, art and technology organization spaceinteraccionalexperience.org.

Paper

Cecilia Vilca Ocharan

Microscopía Electrónica y
Aplicaciones en el Perú -MYAP

Lima, Peru, 1972. Master's Degree in Digital Arts, Universitat Pompeu Fabra, Barcelona, Spain (2009-2010). Full scholarship GIS and Atlas Design, University of Twente, The Netherlands (2005). Graphic Design Degree, Toulouse-Lautrec Design School, Peru (1998). Her artistic work is made with technology in concept and realization and explores its relations with gender, society and nature. Her main goal and poetic is to encourage reflection through revelation using technology. Her projects range from those that are built with public participation and interactivity, to those that combine scientific methods such as electron microscopy and cartography. Founding member of PatriaLab, division of MyAP, Electron Microscopy Laboratory dedicated to develop digital heritage projects. Exhibitions and lectures in Peru, Mexico, Bolivia, Argentina, Spain, Cuba, Chile, Norway, Brazil and Colombia. She was selected as an artist in residence in five Art Residency Programs in Mexico, Bolivia and Brazil and recently for ISEA2018 Festival, Durban, South Africa.

Lorena Peña Piedra

Pontificia Universidad
Católica del Perú - PUCP

Lima, Peru, 1981. Interdisciplinary artist and independent cultural manager. Founding member of the cultural association *elgalpon.espacio*. She is also a pedagogue and creative producer at the Pontificia Universidad Católica del Perú. She studied Communication Arts with a mention in Performing Arts at the Pontifical Catholic University of Peru. It's M.A. in 'Contemporary Performance Making' of the University of Brunel in the United Kingdom (2011) and M.A. 'Creative Producing for Live Performance' at the University of London, Birkbeck College, United Kingdom (2013). She has more than 10 years of professional experience as a cultural producer. Her work as a Performance Artist is interdisciplinary and travels through the liminality of physical theater, action art, body art, installation and multimedia art. Since 2006 she has participated and presented his work in several international art festivals in Peru, Argentina, Cuba, Denmark, Brazil, Chile, Colombia, Mexico, United Kingdom and Germany.

ENCAJA/INSERT: S vs. L ¿Cómo decolonizar cuerpos jugando?

During the conference we will speak from our artistic practice, our background as a digital artist and performer artist that lead to our project *Encaja/Insert: S vs. L* is a perverse and playful game that uses banal as bait to confront us with a subject we consider to be survival: the aesthetic social mandate of the hegemonic and commercialized image of the western woman. Colonization begins with the internal betrayal of our own ideas, basic thoughts that we consider are natural or tacit, and which become cultural and social practices. Ideas open the door to similar ideas. They are the *Malinche*¹, the *Felipillo*² that opens the door to the next colonization. The first one is not finished and the new one is hooked on this one, retro feeding both. The territory to de (colonize) is the body itself, but we do not refer to one, we are our bodies, this set of versions of ourselves that we inhabit immersed in our experiences, influenced by the imposed systems of colonization of aesthetics and western hegemonic culture. Using recreational strategies of re-appropriation and syncretism we re-colonize our own body-territory-speech by playing. Our goal is to use technology to reveal these mechanisms and make them evident, through a performative game. Humor, interactivity / participation of the public and performers are fundamental. We use the artifact against the artifact itself. We use the hegemonic Western languages and resources, to evidence them, to question them and then to redefine them. Ideas against ideas: Systems-strategies of (de) colonization. Behaviors and social practices apprehended: Instructions of life. The methodology used has two aspects the artistic practice and its reflection, which is completed with the retro feed of the audience / participant without which it would not make any sense. It investigates transversally in Gender technologies, Body politics, Aesthetic Colonization and Microphysics of power. We conclude that decolonization is personal and touches various spheres of social life and micro-politics. With the 'game' interface we generate an extension of the body's sensory experience. It is not the same only to see than to participate actively, to be part of an immersive, complete, playful and often disturbing experience. You are not a spectator, you are a participant, and because of that the message explodes in your face and in the body. We see this real subject, a flesh who is playing that invites and provokes another flesh. The performer puts her body which being so hers, it represents us all, provoking empathy, identification and revelation.

¹ She was the interpreter of Hernán Cortés and she is seen as someone who betrayed the indigenous peoples.

² He was the main translator for Pizarro and Atahualpa during their first meeting. Since he belonged to a rival ethnicity, he deliberately translated Pizarro's messages in an inaccurate manner to the Inca king.

Aeolian Bacteria and Transgressive Weather Modification

Air does not show itself. As such, it escapes appearing as a being. It allows itself to be forgetting...except in cases where human activity has fabricated the air to begin with¹.

Within the growing nexus of computational and environmental information, elemental media such as the wind now exists *in vivo, in vitro and in silico*. Observing these elements through the tools and methods of environmental monitoring is as much a science as it is an art of displaying, managing and containing this data. Functionalist approaches to data science are often lost in an 'anti-sublime' - eliding the systemic quality of planetary phenomena to holistically affect human and non-human sensory experience. Adopting a multi scalar, neo-transcendentalist approach to data harvesting, this paper introduces the artistic research project *Umwelt Microbana* that seeks to catalog, and identify aerial bacteria, as well as create narrative mythologies around elemental media as it pertains to the microbiome.

In Peter Sloterdijk's description of the soap bubble in flight, the bubble, carried up and out into the open is attentively followed by its creator-observer, who watches until it emphatically bursts and both its contents and the his focus are thrown into expanded space. Breath that was previously circulated within the body of the creator now inhabits a larger atmospheric space.

The paper unfolds initially as a documentation of a series of Aeolian microbial harvesting workshops across the US and Canada in 2017-18, where a unique hybrid research methodology involving kites and weather balloons encouraged citizen scientists to extend their planetary consciousness up through 1000feet of atmosphere. At its core, this outward search for Aeolian microbes that exist in the transitional spaces of the atmosphere, wind and breath reflects on the interconnectivity of living organisms. It also encourages the prevalence of an ecology of mind that connects the emotions and memory of the participants through the emphatic and absurdist search for molecular life in extreme environments.

In Hebrew, Greek and Latin the words for wind - ruach , pneuma and spiritus respectively have interchangeable meanings between breath, wind and spirit.

Finally, the paper describes the forthcoming installation at the Kitredge Gallery at the University of Puget Sound in Tacoma, Washington (2018) where the Aeolian bacteria *Pseudomonas Syringae* is celebrated for her ice-nucleating properties that are implicated in weather modification through accelerated snow formation in the clouds. Adopting this bacteria for growth in the gallery, the project also reflects a democratization of tools and technologies for hacking the environment or transgressing a 'programmatic earth'. It also describes a liminal and transcendentalist aesthetics of care within a larger framework of nascent bioart practices.

Paper

Joel Ong

University of York

Joel Ong is Assistant Professor in Information Design and Creative Data Visualization at the Department of Computational Arts at York University. His research and pedagogy explore critical perspectives of digital culture at the intersection of art and science through practice led studio work in physical computing, environmental sensing and data aesthetics. His work also emphasizes community and collaboration through accessible workshops, community art programs and citizen science.

Ong attained his PhD in Digital Art and Experimental Media from the University of Washington, and is an alumni of SymbioticA, the Center of Excellence in Biological Arts at the University of Western Australia, and the National University of Singapore where he majored in Life Sciences and Sonic Arts. He is a visiting artist and instructor at the UCLA Art Science Center. Ong has an international record of artistic activity and conference presentations. View a non-exhaustive portfolio of his work at www.arkfrequencies.com

¹ Luce Irigaray (1999)

Paper

Pat Pataranutaporn

FREAK Lab

Pat Pataranutaporn is a creative biologist, designer, coder and a graduate student at MIT Media Lab. He is enthusiastic in prototyping impossible things as he presented in his TED X talk "Prototyping the Impossible". His works examine the symbiotic relationships between human and technology beyond traditional contexts ranging from using AI to cope with mental health issues on social media, designing how human interact with DNA computer, making a bioinspired device that capture proteins from insects for the future of food, and designing mind-controlled 3D printer. Pat and his team's projects have been featured on FastCompany, Time, Disruptive Innovation Festival, National Geographic, The Guardian, and UNEP. Pat believe that the innovation must converges aesthetics, functionality, and community to create sustainable future. Pat is the co-founder of Humanity X and BioX, award winning tech startups, and Freaklab (Futuristic Research in Enigmatic and Aesthetics), an open research lab in Thailand focusing on designing the future and beyond.

Speculating the futures of Human-Robot Marriage: scenario construction and couple recommendation

The advancements in robotics and artificial intelligence give rise to the creation of humanoids that are closely similar to humans. This influences a radical shift in terms of perception because robots are not a mere instrumental device but now an agent with cognition. The roles of robot also evolve from the heavy industrial machine that performs procedural tasks to become an emotional and personal assistant to humans.

Therefore, the human-robot relationship is inevitable. In fact, based on the current situations, sex robots and human's attempts to legalize the human and non-human couples have led the researcher to predict that a human-robot marriage will be legal by 2050. This research paper investigates the potential tensions and outcomes of the affective relationship between humans and robots using scenario construction techniques. We derive at 4 futuristic scenarios based on three aspects as in (a) level control, (b) agency, and (c) cultural integration of the robots into society. These scenarios are then used as the basis for coming up with recommendations for human-robot couples.

Anatomy of an Interconnected System

The performative lecture *Anatomy of an Interconnected System* (2017) looks at how Western understanding of the human-nonhuman complex is traceable in the spatial construction of classical and contemporary artworks. The work is structured in a lecture and a participatory performance which frame the discourse in a historical-philosophical perspective and engage participants in an intense bodily experience. I hereby apply to TTT2018 with an abridged 50 mins version of the work, however, if such format exceeds the conference's arrangements, I will present a paper on the artistic research underpinning it.

During the lecture, I present a selection of artworks from the Middle ages to contemporary bioart works. This specific time-frame refers to the establishment of Christian-Judaic anthropocentric view of the world, according to which human species is divinely sanctioned to rule upon the cosmos, in Western culture and politics. For each presented artwork, I analyze how humans, God, and (N)ature are depicted and spatially arranged and examine what kind of technology is embedded or represented.

The lecture reflects on how representation policies can help reveal power relations underpinning the humannonhuman complex. By comparing the aesthetic composition of artworks from the past eleven centuries, the presentation points at how the cosmos is represented in art, where humans are placed in this representation, and which kind of agency the latter implies. In so doing, the lecture critically addresses past and present understandings of human agency within the cosmos, how they relate to post-human discourses, and how art can tackle them. The participatory performance restages concepts introduced in the lecture while countering the latter's rational narrative: symbolic gestures and materials replace verbal communication. Participants manipulate earth and bones and use chalk to map body and space on the room's floor and walls. The action results in a collective mapping of a novel, possible anatomy that embraces participants and performance space.

Today, human (bio)technological agency can not only disrupt ecosystems and bodies, but also create unprecedented intimacy with them. How does this affect our understanding of the human-nonhuman complex? Are the cosmos and its organisms machines that can be improved, a complex that can be controlled, or an interconnected system with leaky holes and uncertain areas? The double register of *Anatomy of an Interconnected System* elaborates on concepts from the history of art and philosophy to tackle the mentioned questions in a bodily, performative session where to imagine how today's environmental taboos can be explored, rearranged, and transgressed.

Pictures and video: www.margheritapevere.com/anatomy-of-an-interconnected-system

Performance Tech-rider www.margheritapevere.com/anatomy-of-an-interconnected-system/conference-tech-rider/

Paper

Margherita Pevere

Aalto University, School of Arts
Design and Architecture

With a visceral fascination for organic materials, Margherita Pevere is a Berlin-based bioartist and PhD candidate at the School of Arts, Design and Architecture of Aalto University (Helsinki, Finland), in collaboration with Biofilia Laboratory. Her research looks at the intertwinements and leakiness between biological and technological materials through installations, performances, visual works, collections of plant and animal relics, and workshops. She cooperates with *Glucosacetobacter hansenii* bacteria for the production of microbial cellulose. Pevere collaborates with Aalto transdisciplinary platform for innovative biomaterials CHEMARTS. She is founder member of the Berlin advocacy group AG21c and member of the Finnish Bioart Society. Most recent exhibitions include State Festival for open science and society, Berlin, curated by Daniela Silvestrin; Non-human agents, Art Laboratory Berlin, curated by Christian de Lutz and Regine Rapp, Emergent Forms in Art and Science, Fields Institute Toronto, curated by Roberta Buiani. www.margheritapevere.com

Paper

Praba Pilar

Church of Nano Bio Info Cogno

Praba Pilar is a diasporic Colombian artist disrupting the overwhelmingly passive participation in the contemporary 'cult of the techno-logic.' Over the last two decades Pilar has presented cultural productions integrating performance art, street theatre, invisible theatre, electronic installations, radio programming, digital works, video, websites and writing. These projects have traveled widely to museums, galleries, universities, performance festivals, conferences, public streets, political meetings, bookstores, bars, and radio airwaves around the world.

Shaped by resistance to the colonial project throughout the Americas, Pilar focuses her solo practice on projects challenging complex state/corporate systems of control, domination and death. She is also embarked on an all-encompassing posthuman/microbiomial multi-species journey with Anuj Vaidya titled Larval Rock Stars; is working with Ignacio Valero on a digital humanities initiative, and collaborates extensively on one time events. Some of the artists and scholars she has worked with include Alex Wilson, Balitronica Gomez and Pocha, John Jota Leanos, Rene Garcia, Erika Hannes, Larry Bogad, Adam Zaretsky, Freya Olafson, Mia S. van Leeuwen, Theo Pelmus, Luna, Lyndsay Ladobruk, Martin Franco and various photographers and videographers who have helped document her work. She is immeasurably helped by Janet Sarson on numerous aspects of her practices.

Pilar has a PhD in Performance Studies, with designated emphases in Studies in Performance Practice as Research and in Feminist Theory and Research from the University of California, Davis; a QM degree from MSU University, where she shares a Distinguished Fellow post with alumni Anuj Vaidya in the Department of Pluriversal Bioethics; a Bachelor of Arts in Intermedia Arts from Mills College; studied Max/MSP/Jitter with Bob Ostertag at UC Davis; took workshops in electronic circuitry and PureData programming with artists Ken Gregory and Andy Rudolph, and electronics principles with artist Andrew Milne at Video Pool in Winnipeg. In much earlier chapter of life, she studied economics, political science and development at NYU for three years.

The NO!!!BOT: Situating the Web of the Necro-Techno Complex

The NO!!!BOT is part of a series of experiments, hurtling into collective imaginaries to hack destructive code makers and generate our own deviant electric dreams. The NO!!!BOT is not an acquiescent programmed Robot nor a despicable malicious Bot, it is an Exoskeleton created out of the impossible desire of a body resisting militarized neo-colonial relations. The NO!!!BOT is a performance project addressing how contemporary necro-techno colonialism adapts the salvation narrative to instrumentalize faith, using the "doctrine of discovery" to undergird a global apparatus of surveillance capitalism that converts bio-life into an extra-judicial colony in service of ruthless intensification of control. The NO!!!BOT visits the unnerving world of Exoskeletons to glitch the code of the Cult of the Techno-Logic: wordless, breathless, sexual and grotesque. The NO!!!BOT has multimedia elements that include videos projected from screens mounted on performers, projected on performers, surveillance devices, soundscapes, corn, corn oil, emoticon phalluses, secretions, and fluids. The NO!!!BOT is focused on defacing military emoticons currently achieving ubiquitous global saturation. The NO!!!BOT is an embodied Church of Nano Bio Info Cogno dialogue with concepts of Situating the Web of the Necro-Techno Complex. The NO!!!BOT analyzes how the practices of data brokers such as Facebook, Google, and others of the global apparatus of surveillance capitalism, have consolidated power and knowledge to control the behavior and reality of human populations. The NO!!!BOT can temporarily halt the converting of biological life across the globe into a necropolitical extrajudicial colony. The NO!!!BOT resists 21st century techno colonialism, revealing the Necro-Techno Complex, a ruthless intensification of exploitation, domination, and control.

Molecular Aesthetics: Living Systems in Art and Design

In my paper I will address a number of current art and design projects that create art using living systems. Another focus will be on new cross-disciplinary approaches in design, which seek to implement biological principles in the design process and even try to integrate living matter as essential component thereby initiating collaboration between designers and molecular biologists. Current approaches in Biodesign aspire to go beyond the biology-inspired approach of bionics and biomimicry, and aim at transforming and applying structures, procedures, and developmental principles of biological systems to technology and technical applications. Biodesign not only seeks to improve industrial and mechanical systems through introducing concepts and shapes based on nature, it also wants to replace these systems with biological processes. As a contrast to this development in design, I will also examine some science-based art projects which aim to develop a critical understanding of the role of art in the twenty-first century. Science-based art has provoked greater reflection on the limits of manipulating and/or creating life within a regime of biotechnology and contributed profoundly to rising awareness about the new relationship of ontology and aesthetics in the age of Technoscience.

Paper

Ingeborg Reichle

University of Applied Arts Vienna

Ingeborg Reichle is the Chair of the Department of Media Theory and was the Founding Chair of the Department Cross-Disciplinary Strategies (2017-18) designing the integrated curriculum of new BA study programme Cross-Disciplinary Strategies: Applied Studies in Art, Science, Philosophy, and Global Challenges at the University of Applied Arts in Vienna. She is a Board member and co-founded of the German Association for Interdisciplinary Image Science (Deutsche Gesellschaft für interdisziplinäre Bildwissenschaft) and an active member of the US-American College Art Association (CAA), the International Association for Aesthetics (IAA), and the International Association of Bioethics (IAB). In Vienna she serves as co-host for Leonardo's LASER Talks (Leonardo Art Science Evening Rendezvous), an international programme of gatherings that bring artists and scientists together for informal conversations. Her main area of research and teaching is the encounter of the arts with cutting edge technologies like biotechnology and synthetic biology, taking into account artistic responses as well as the respective discourses in the sciences and our societies, in order to develop a critical understanding of the role of the arts in the twenty-first century. Another field of research is the rise of the new cartographies of contemporary art that evolve through the process of globalisation - fostering unattended post-colonial constellations in the art world.

Paper

Byron Rich

Allegheny College, MFA

Byron Rich is the Director of the Art & Technology program and Assistant Professor of Electronic Art & Intermedia at Allegheny College in Pennsylvania. He and his collaborator received an honorary mention from the Prix Ars Electronica in 2017 and were runners-up from the Bioart & Design Award in 2016. He has been an artist in residence at Coalesce at the University at Buffalo, Medialab Prado, and Ars Bioartica in Finland, among others and has shown recently at ZKM, Science Gallery Dublin, and Cambridge University. He serves as interim Chair of Exhibitions & events for the New Media Caucus, an international non-profit dedicated to the advancement of emerging media forms.

Liz Flyntz

Independent Artist/Curator, MFA

Liz Flyntz is a writer, curator, artist, and information architect. Currently she's collaborating with the artist Byron Rich on *Epicurean Endocrinology*, a project that investigates endocrine disruptors in the food system. <http://www.cookingsex.biz/> Her writings on technology and art, media art history, and interviews with contemporary media artists have been published by Afterimage, The Creators Project, and Intercourse. *The Present Is The Form Of All Life: The Time Capsules of Ant Farm and LST* (Pioneer Works Press, 2017), the book she co-edited about the time-capsule works of seminal media art and architecture group Ant Farm, is available from DAP. <http://www.artbook.com/9781945711015.html> She is co-founder of Club.Lalena, a blockchain-based platform for the valuation of volunteer labor. <https://www.lalena.co/> <https://www.lizflyntz.net>

Epicurean Endocrinology – Down-home Molecular Gastronomy: Sex Hormones, Body Politics & Food

Project website: www.cookingsex.biz

Epicurean Endocrinology: Down-home Molecular Gastronomy uses food, vernacular cooking and DIYbio to examine the intersections of food production, endocrine disruptors, corporate/institutional science and cultural ideology as they relate to biopolitics. By framing careful examination of the ways in which food affects hormone production and use in human bodies through the communal and culturally resonant act of cooking and consumption, we are bringing awareness to the ways in which endocrine disruptors permeate food through biological processes and by industrial agricultural externalities, and we speculate on a possible intersex future for our species. Central to the project is investigating and representing the ways in which food affects notions of gender and entrenches gender norms, and the ways in which corporate and institutional actors influence endocrine systems in ecobodies through industrial waste, agricultural runoff and other "residues of neoliberal pursuit" using molecular gastronomy as a springboard.

Additionally, *Epicurean Endocrinology* wants to explore a speculative future in which food is an emancipatory technology and act of resistance against marginalizing forces. We seek to facilitate criticality toward the ostracizing forces of corporations and institutions through their definitions and entrenchment of "norms", and provide a framework for harnessing and deploying these residues of neoliberalism against the very system that allows them to proliferate public space. Furthermore, by using molecular gastronomy, we hope to show represent the performative, scientific, and gendered parallels between the laboratory and the kitchen. Our DIYbio approach blurs the line between institutional and domestic spaces, playing on the cultural tropes of each.

In the past decade there's been growing alarm about the amount estrogens being passed into the water table via the urine of women on hormonal birth control and hormone replacement therapy. Research has shown that hormone therapy and birth control are nearly inconsequential compared to others sources of xenoestrogens. More harmful are hormone-mimicking and hormone-disrupting compounds present in many commonly used products such as plastics, cosmetics, and cleaning products. We ponder whether harnessing these xenoestrogens could be an act of resistance, and speculate on a future where we harness the "residues of neoliberalism" as a tool of emancipation.

Our talk will trace a pathway though the twentieth century as herbicides were developed, most notably atrazine, and track its course through history, ecologically, culturally, and scientifically. By tracing this history, and presenting it within the framework of food production, we will critically examine the biopolitics, and historically taboo traditions of marginalizing bodies that don't fit into a clear binary using a speculative intersex future as a point of reference. We will reference our performative/installation/DIYbio work, *Epicurean Endocrinology: Down-home Molecular Gastronomy*, to tell the complex story of endocrine disruptors and their relationship to ecosystems, human/nonhuman bodies, and culture more broadly. We will use *Epicurean Endocrinology: Down-home Molecular Gastronomy* to highlight the wealth, knowledge, and access disparity in our food, pharmaceutical, and knowledge systems.

WHOOPS

I propose a performance presentation called 'whoops', which will mine a space of television hypnotism to meditate on the confluence of warped information digestion and broadcast media, especially in relationship to the phenomena of the 'fake news' wars, and the current hysteria of nonsense, infecting political and daily spheres in the U.S. Over the past three years my performance work has researched nonsensical and associative trance states of language and action to examine the use and uselessness of nonsensical encounters. As well, my work has been growing towards a multidisciplinary video-centric medium. At a moment when my process is ripe for cross-discipline investigation, the presented work at TTT will utilize DIY hacked analog AV broadcast boards and nonsensical live performance to investigate connections between nonsense in seemingly intentional spaces.

This performance will delve deeply into what I call the 'whoops state' - the (un)intentional claiming of stupidity, ignoring of facts, or blatant lying to manipulate (public) perception whereby to avoid accountability of wrongdoing, in the interest of self-preservation or self-gain, negatively impacting individuals, the (global) public, and/or Earth, and potentially catapulting either towards demise. My investigation of the 'whoops state' responds to national and global shortcomings through failing leadership, and seeks to dismantle accountability evasion utilizing my cis, white, male-presenting body to critique and nullify the toxic forces - 'whoops' and otherwise - of white supremacist violent patriarchal masculinity.

'Whoops' will travel into the space of nonsensical and absurd reckonings with its subject matter. 'Whoops' will explore practices of accumulating nonsensical language and tasks performed in associative states, informed by text based research, autobiographical trauma, and experiences with the force-fed societal teachings of violent patriarchal masculinity. Through rigorous performance practice nonsensical texts will accumulate and serve as scaffolding for 'Whoops' performance material.

'Whoops' explores utterances of this low-brain state, with the use of circular, associative speech and the potential of exhaustion to expose a decrepit ego-state. Parallel to this talking score, actions examining navigation systems in the body, working at the edge of ability, will be rigorously explored. Inside the performance of 'Whoops', these actions will develop at the impulse of the performer. Actions will cycle through scores confronting the abject body in conjunction with video content played live and repurposed objects found in or on their way to the trash.

Paper

Alexander Romania

KLUTZ

At the crux of expansive task and deteriorating form, my multidisciplinary work investigates bodies of cultural debris amidst the invisible everyday and toxic ingestions, consuming, purging, and breaking apart - the multiple body in exorcism. My work delves into spaces of the unimaginable, staring into the unknown to consider one's crude and splendid humanity. I pursue an altered inhabitancy of the the false binary of good/bad, embracing spaces of embarrassment, and unruly action to liberate the governed body. My performance work is genre blurring, and pivots between the contexts of dance, performance art, installation and video, involving costume and object. Often working through physical research, I view the choreographic as an unattainable pathway where the performer navigates boundaries, creating friction between the premeditated and the spontaneous. My practice investigates dangerous and functional roles of value systems in relationship to social choreography, mutating through performance, pursuing alternative possibilities for cohabitating space.

Paper

Meritxell Rosell

Nuria Criado

CLOT Magazine

Lula Criado and Meritxell Rosell are two multidisciplinary editors, writers and curators. Their work lays at the intersection of Art, Science and Technology, capturing the zeitgeist of the 21st century. With academic scientific background (Molecular Biology, Biochemistry and Genetics) - which they combine with Trend Analysis and Philosophy- they run CLOT Magazine, an online platform dedicated to Art explorations into Science and Technology. Through CLOT Magazine they curate intellectual content, generate debate, research and decode trends in areas of: biomedicine, body architectures and cyborgs, sound art, interfaces, artificial intelligence and virtual reality and generative art, among others.

They have covered festivals and events organised by renowned cultural institutions like Sónar, Unsound (Krakow), CTM Berlin and the Victoria and Albert museum, curated panel discussions (LASER/Leonardo at Central Saint Martins) and given talks and lectures for the Bio Architecture and Genetics MA (Barcelona, Spain) and School of Textile (Boras, Sweden). They also contribute for other publications like SciArt in America and Interalia magazine.

The artistic intervention as a transgressive act scrutinising the human body through three states of matter

In this paper we will present how by means of artistic interventions, artists can transgress the concept of human body. The interventions or actions are created using different types of materials and scientific methodology, bringing about paradoxes that are found in the inversion of popular and scientific knowledge.

Art interventions refer to artistic interactions with a previously existing artwork, audience, venue/space or situation. It has the auspice of conceptual art and is commonly a form of performance art. It is associated with the Viennese Actionists, the Dada movement and Neo-Dadaists. An intervention or action may attempt to make people aware of a condition that they previously had no knowledge of. In that sense intervention art necessarily addresses and engages with the public. More recently artists like Yves Klein and Martin Creed have explored the use of human body as means of exploration on artistic interventions.

Alfonso Borragan, Julia Borovaya, and Sissel Tolaas in collaboration with Nick Knight are artists who think beyond the use of traditional media. They base their practice on using scientific concepts and methods and they have explored their ideas through artistic actions or interventions. The three art interventions we are presenting in this paper are subversive, transgressive and invasive. By the use of matter in three of its different states (solid, liquid and gas) and by three different interventional actions (ingestion of photosensitive rocks for Borragan, body-splashing liquids for Borovaya and the extraction of personal odour from sweat in the case of Tolaas and Knight) we will describe how these artists challenge concepts of human essence.

The intervention disembodies humanness and provides a vehicle for an experience, an ephemeral one which is then captured as a documentation of the process. The intervention also seeks to change, in some way, the perception of reality in where the body inscribes, to broaden or interfere in it. At the same time, the body is no longer contained as autonomous self, it becomes a site of continuous connection and recomposition and a collective action between life and non-life. With matter and acts developed on a symbiotic level, intrinsically connected to man.

The intersection between materiality, body and performance merge in this three actions. The body works as vessel for transmission, matter is the substrate and carrier of meaning and the performance is the catalyst or facilitator. As they combine and collide, in a sort of semiotic dance, building these systems of matter as bases for artistic communication.

Tomo Savić-Gecan: Anti-matter

Croatian conceptual/contextual artist Tomo Savić-Gecan present his latest project, in development since his residency in CERN. In his previous work he used non visible technology to realise uncommon interactions between the space, viewer and the non-existent object of exhibition. Absence and emptiness -constant themes in his work- having a different meaning and approach in the artistic and scientific world, were the main reasons for his residency. During the residency he had the chance to start a new project in which he could include specialized scientific knowledge. This project, dealing with the subject of Anti-matter, includes different readings of this phenomena.

Paper

Tomo Savic Gecan

Independent Artist

Croatian artist Tomo Savić-Gecan (1967) lives and work Amsterdam. Almost as a rule he exhibits "nothing". Conceived in the manner of tabula rasa, his projects function as empty sites filled with various charges, concealed tensions, references and interlinkings. By intervening in space, the basic 'material' of his work, the artist initiates marginal, uncommon interactions between the space, viewer and the non-existent object of exhibition. Dematerialization, absence and emptiness are the consequences of the specific treatment of gallery space.

Paper

Robertina Šebjanič

Independent

Robertina Šebjanič works in the intersection of art, technology and science. Her work encompasses immersive installations, av performances, workshops that tackle philosophical questions of our society to the understanding of living systems and their interaction with the environment. Her ideas and concepts are often developed in collaboration with others, through interdisciplinary integration. She is a member of Hackteria Network and Theremidi Orchestra. She was awarded an Honorary Mention @Prix Ars Electronica 2016, nomination for STARTS2016 and nomination for the White Aphroid award. She was SHAPE2017 artist. Robertina is internationally exhibited artist. She performed / presented / exhibited at solo and group exhibitions as well as in gallery's, biennials, triennials and festivals: Ars electronica_Linz, Kosmica_Mexico City, Le Cube_Paris, Art Laboratory Berlin, Píksel_Bergen, Device art_Zagreb & Eastern Bloc_Montreal, Eyebeam_New York, PORTIZMIR#3_Izmir, Kiblix festival_Maribor, Gallery Kapelica_Ljubljana ... She studied at the Academy of Fine Arts and Design (SI), Famul Stuart School of Applied Arts (SI) and the Valand School of Fine Arts (SE).

Sounds of a troubled world's = Underwater Interception of aquaforming

"There are still songs to sing beyond mankind"

Paul Celan

Robertina Šebjanič will talk about her research-based artworks that deals with cultural, (bio)political and ecological realities of human imprint on aquatic environments and its consequences / challenges.

The project Aquatocene investigates the phenomenon of underwater noise pollution created by humankind in the seas and oceans. It encourages rethinking the human impact on the (under)water habitats.

The Aurelia 1+Hz project is divided in two parts; the performance Aurelia 1+Hz / proto viva sonification looks into a new critical redefinition of social values and new attitude towards cohabitation of interspecies while the installation Aurelia 1+Hz / proto viva generator deals with the biopolicy of prolonging life.

Return to Dilmun

Polycinease

Artistically and formally the Polycinease series in general and Return to Dilmun in particular are centering around problems of symbolic representation, both in art and in science. The initial point is always a pictogram with a symbolic representation, ie. a semantic form, which is subsequently translated into a syntactic form, namely into a DNA molecule. The image as a molecule becomes accessible to physical and physiological processes, were it can be modified on a molecular level and later re-translated into an image again.

Return to Dilmun

A digital image is translated into synthetic DNA, using a special method. The picture information stored as biochemical molecules allows image retouching using the CRISPR/Cas method.

The CRISPR/Cas system is a prokaryotic immune system, that provides adaptive (acquired) immunity against foreign genetic elements, such as bacteriophage genome injection. In the life sciences this system has been modified for efficient genome editing.

In two types of in vitro experiments we performed image manipulation at the level of molecules. In one we made experiments aiming on efficient on-target cleavage with full length guide RNAs (sgRNA), consisting of 20 nucleotides. In the off-target experiments we decreased the efficiency using sgRNAs with 15 and 12 nucleotides, making indel mutations visible.

The original template shows a bull head with empty eye sockets. After translation into a DNA molecule a pair of eyes was inserted using CRISPR/Cas9 and fusion pcr.

The bull is a representation of a corn spirit (Frazer, *The Golden Bough*, 1922) and was highly meaningful for early agrarian societies, particularly in the Fertile Crescent one of the regions of origin of the Neolithic Revolution, which was shaped by crop cultivation and animal husbandry.

At the beginning of great civilisations a major cut-off from nature happens or rather an alienation from nomadic biorhythms and transforming the relation between humans and other forms of life drastically. Expelled from the Garden of Eden - Dilmun.

It may well be that humanity undertakes a further cut-off from nature by the possibilities which will be offered by the progress in applying gene editing tools like CRISPR which again alters the relation between humans and all the other forms of life, again drastically.

Dilmun, as a real and as a mythical place of the Sumerian civilisation, shaped by an exceptional biodiversity sunken in the Schatt al-Arab after deglaciation marking the beginning of the Holocene. Conceptions of immortality (ie. longevity), like captured in the Gilgamesh epos, fictions of a carefree existence without maladies, becoming perfect humans embedded in a perfect environment are being reinvigorated in the advent of CRISPR and the transformation of biology into a creative (in eine schöpferische Wissenschaft) science. The solution to all problems of humanity like climate change, environmental pollution, health, food-production, species extinction, energy production, etc., is expected in the manipulation of the living. On the background of the illusive idea of DNA as a code, waiting to be cracked, a problem emerges, concerning not only the representational model of the DNA but also our understanding of life itself.

Paper

Günter Seyfried

University of Applied Arts Vienna

Günter Seyfried is an Austrian artist, who lives and works in Vienna. He has a background in medicine and psychology, which he studied at the University of Vienna, and has strong links to the fine arts, digital art, and media art, having graduated from the University of Applied Arts Vienna (Department of Digital Art). He is teaching at the University of Applied Arts Vienna, Department of Mediatheory. He combines science and art education and develops projects as an independent artist, participating in national and international exhibitions and publications. He is a founding member of pavillon_35 — Gesellschaft für wissenschaftsbasierte Kunst.

Paper

Felipe Shibuya

Independent Artist

Felipe Shibuya was born in 1986, in São Paulo, Brazil. He studied Ecology and Conservation at the Universidade Federal do Paraná, where he obtained his Ph.D. In his scientific research, he always highlights the visuality of nature, such as the colors of feathers and the shapes of birds' nests. Currently, he lives in Boston (U.S.) where he works with ornithology and at the intersection between biology and art.

The Animal Hummingbird

Since antiquity, from east to west, birds are represented in various artistic interpretations, such as paintings, music, poems, and sculptures. The mysticism and the romanticism associated with these animals come from, among other characteristics, their colors, songs and behaviors. Hummingbirds are classic examples of this narrative, portrayed, most of the time, as small, colorful, affable, and delicate living beings. In the imaginary, these birds visit flowers with their almost supernatural flight, sharing friendly way the resources of the forest. However, what is the reality in a wild world where the human archetype loses its value? In this narrative, I deconstruct the humanized representation of hummingbirds, evidencing two scientific aspects that contradict the romanticism associated with this group. The first is based on disassociating the fragile and friendly image of this small bird, understanding its exhausting routine and the continuing need to maintain high metabolic rates, often with limited dietary resources. When it finds a flower full of nectar, the instinct will guide it to the most intense combats against any threat, revealing their intrinsic strength and aggression. The second aspect is perhaps one of the most expressive when we talk about birds: colors. In a diversely colored group, where even the black of the crows makes them chimeric figures, unraveling their true chromatic signs can reveal other perspectives. When looking at the paintings of Ernst Haeckel, portraying multicolored encounters between hummingbirds and orchids, it becomes unimaginable to think about what other tones can hide in the real rainforest. In fact, for the human vision, very little will change between the painting and the forest. However, evolution allows the hummingbird to see a spectrum inaccessible to us, the ultraviolet. Thus, with this advantage, these birds can see a world invisible to humans, which gives us the limitation of seeing the true colors that matter to hummingbirds. Evolution is inevitable, and we, as biological beings, are subject to it. Rationalization, which differentiates us as a species, gives us the freedom to mystify and romanticize what is wild, and this can be an evolutionary advantage. In the same way, with that same rationality, it is possible to rip the humanized filters put on wilderness.

COD | LIFE | LOVE

Just like two alchemists, the artist duo Tara Morhua mix performance art, installation and video to explore the treasures of the ocean. The object of their curiosity is the cod. This creature became world famous under the name Bacalao, and was the very reason for people to settle above the polar circle since the dawn of ages.

Paper

Marita Isobel Solberg

Tara Morhua

Solberg is a musician and visual artist, working mainly with sound, performance art and installation. In addition to her master's degree from Oslo National Academy of the Arts (2007), she has been singing and exploring different musical genres ever since childhood. Solberg is originally from Mannndalen in North-Troms. She has a base in Tromsø, Norway, but lives a nomadic life on the Norwegian and international art scene. Over the years, she has done performances and residencies in places like The Watermill Center in New York, Art / Life Institute in NY, The Performance Studio in London, the Arctic Hideaway in Fleinvær and Pushkinskaya in St. Petersburg. With her strong connection with the northern Norwegian part of the country, she has been in charge of the fictional Sámi Daiddamusea in the award-winning museum performance at Nordnorsk Kunstmuseum in 2017. In recent years, she has been very active as performance artist and has participated in a number of projects and cooperation around the world.

Trond Ansten

Tara Morhua

Ansten is a visual artist and biologist based in Tromsø, Norway. He received his education from the Academy of Fine Arts in Karlsruhe (Germany), and previously studied biology and expedition guiding. With experience from public management and a strong passion for hunting, fishing and harvesting, his focus is the relation between man and nature. Ansten works with film, installation, fermentation and performance art. The expression is sculptural and performative, balancing between mysticism and science in relational art.

His works are shown in galleries and film festivals such as Tokyo Photographic Art Museum, The Arctic Arts Festival (Norway), CCA gallery (Glasgow), Anthology Film Archives (New York), I-Factory (Shenzhen, China), Trænafestivalen (Norway), Delai Filmfestival (Moscow) and Alternative Film Festival (Belgrade).

Paper

Dolores Steinman

University of Toronto

Dr. Dolores Steinman trained as a Pediatrician in Bucharest, Romania. Upon relocating to Canada, she obtained her PhD in Cell Biology at Western University, in London, ON. In parallel to her bio-medical education she also attended Visual Art classes, at Western.

Currently she is a Senior Research Associate in the Biomedical Simulation Laboratory, at the University of Toronto, as well as a volunteer Docent at the Art Gallery of Ontario, in Toronto.

In her research, she observes the rapport and connection between medical imagery and its non-scientific counterpart as well as the ethical and social implications of these images. Her pursuit is driven by her keen interest in placing the ever-increasing technology-based medical explorations in the larger context of the humanities.

David Steinman

University of Toronto

Prof. David Steinman completed his PhD in Computational Haemodynamics at the University of Toronto and did postdoctoral work in Magnetic Resonance Imaging at the Robarts Research Institute, Western University in London. He is recognized as a pioneer in the integration of Medical Imaging and Computational Modelling and their uses in the study of cardiovascular disease diagnostics and treatment. Throughout most of his career, Prof. Steinman has been interested in the relationship between his field of research, the social sciences and the arts. His current research focuses in improving risk prediction for cerebral aneurysms, elucidating the nature of turbulence in blood flow. As part of a trans-disciplinary project, involving cognitive sciences, anthropology and sound design, he is developing flow visualization and sonification techniques.

Transcending Taboos and Transgressions or Merely Ploughing Towards?

Among the most enduring taboos, those related to the human body are the most enduring, throughout history. Be it its presentation, representation of exploration, it constituted for most cultures and epochs a very sensitive subject, ever evolving and changing, but perennially raw and open to debate and discussion.

With the advent of new technologies sustaining and infiltrating society, the body is seen, explored and represented in new ways that can be, simultaneously, interpreted either as transgressive or respectful of taboos, depending on the point of view or the current social norms.

The question is: are we able to transcend transgression of taboos through our work or are we still far from achieving it? Our tools are computer-generated simulations based on patient-collected data.

Building our arguments on Foucault's "Birth of the Clinic" analysis, we approach the evolution of our own research as a "case study".

In the age of the life-support, stem-cell therapy and 3D organ printing, is computer simulation mimicking or mirroring organic life and phenomena, or is it creating a debatable simulacrum?

From reducing the human body to a series of equation that lead to depersonalization and loss of self, to tailored modelling based on patientcollected biological data, the simulations took a variety of guises.

At each point of the way, confronting the taboos, conventions and through controlled transgressions of established rules, we strived to transcend all historic limitations and update, adjust and fine-tune the technology and its uses to bettersuit the clinicians' pursuits.

It would be a great opportunity if we could share our trials and achievements as part of the "Taboo, Transgression and Transcendence in Art and Science" Conference.

Sexuality in VR

The presentation is based on 4-year research and reveals the ecosystem behind DIY VR adult games subculture. Virtual reality is a unique immersive medium where our minds can be abstracted from our bodies. It reframes the idea of how people can express sexuality and how they can experience sexual content. It allows communities and individuals to build diverse perception worlds where players can experience fetishes which aren't possible in real life. In the last couple of years they built many virtual worlds which are post race, post gender and post human and where players can have any kind of body representation and sexual interactions. Needless to say, that the technology steps further by creating VR based fetishes and new communities behind them. Furthermore, the presentation shows a big variety of internet fetish based communities which were developed under pressure of modern censored internet and how they express themselves in VR. It describes how communities like vocaloid, furrries, my little pony and many other fandom and machinima ones built sustainable infrastructures to bring their wild fantasies to life.

Paper

Vladimir Storm

CyberDeath

Vladimir Storm is a visual artist and a digital anthropologist. He researches cyber cultures, digital societies and contemporary mysticism such as internet occult, virtual fandom and digital shamanism. For the last few years he has been focused on virtual and augmented reality, neuroscience and bio art, machine learning and artificial intelligence, pushing boundaries of these mediums by producing various works about digital life and empathy, physical glitch art, post-instagram aesthetics, cyber ethics, neurotherapy and biofeedback, psychoactive computer graphics, virtual-only spaces and alternative physics. Vladimir iterates between digital and physical, as well as, technical and metaphorical worlds bringing the best ideas from post-humanism and positive futurism to his artworks.

Paper

Gjino Sutic

Universal Research Institute
& Geno Industries

Gjino Šutić (HR) is a biotechnologist, biohacker, post-modern intermedia artist, innovator & educator. He is the founder and director of Universal Research Institute & Geno Industries.

Gjino conducts research in several fields of science (such as biotechnology, bioelectronics, experimental electronics, ecological engineering) and postmodern new media art (Bio Art, Digital Art, Installation Art, Multimedia Art & Hybrid Art) using scientific, biohacking & DIY (Do-it-Yourself) techniques.

His art projects are mostly dealing with ecological, medical & psychological problematics and/or are based on designing new technologies.

Best known work includes –SRCE (technology for growing human replacement organs from scratch) and latest aqua_forensic – explores invisible pharmaceutical pollutants aquatic environments. It was made together with coauthor Robertina Šebjanič (SI) and exhibited at Ars Electronica Festival 2018.

<http://ur-institute.org/>

<http://gjino.info/>

Novel Approach to Research and Development: Citizen Science, Postmodern Art, Interdisciplinarity and Innovations

"Novel Approach to Research and Development: Citizen Science, Postmodern Art, Interdisciplinarity and Innovations" will cover wide range of relatively novel topics, such as: Citizen science, Hacker & Maker culture and Biohacking as well as question their drives.

Through insight into interdisciplinary work of the presenter in the area of science, art and education, public will be shown what led to the creation of Universal Research Institute (UR Institute) - unconventional interdisciplinary nonprofit science institute, built upon pillars of the postmodern scientific disciplines. Projects that will be presented include biotechnological & technobiological innovations developed using DIY (Do-It-Yourself) techniques – especially Biohacking methodologies, and art pieces that question our dealing with the nature, community and ourselves in interactive and immersing way.

Different perspectives of philosophy of the term „*Biotweaking*" - *acts or (art) of improving biological organisms on any level, by available means, to exhibit and use their full potential,*" coined by the autor to describe his work (that also layed ground for development of Universal Research Institute) will be explored.

Biotweaking mostly relies on DIY biotechnology - biohacking for achieving desired goals.

Humanoil from Magic and Medicine to Art

During research for my artistic project involving human fat/oil I discovered a wide range of historic reference of its use. The extraction and use of human oil has not only been present in myths and magical rituals but also practically used for medicinal healing and skincare. Allegedly hunted down by Peruvian Pishtacos that sold it to the cosmetic industry also extracted for use as pain relief or healing of adherent scars, and as ingredient for use in Black Magic. Human oil has been sought as a lucrative product for centuries until early 1900 The proposal of my project HUMANOIL is a follow up from my previous work where biofuel was made of my own fat. This time rendering human oil, the last oil produced from my body – sought to offer anointing, white magic or pure skincare – your choice.

Paper

Hege Tapio

i/o/lab - Center for Future Art

Hege Tapio (NO) is based in Stavanger, the oil capital of Norway. During her artistic and curatorial practice she has for a long time pursued her interest in the intersection of art, technology and science. With a kitchen bench DIY attitude and through artistic practice she has been inspired to how apparatuses, new technology and life science opens to renewed interpretation, creative misuse and critical thinking. Tapio is the founder and director of *i/o/lab* – Centre for Future Art She has exhibited and presented her work in Greece, China, Latvia, Denmark, England and several places in Norway, produced public commissions and made several curatorial projects. Her latest work, HUMANFUEL, was presented at Hybrid Matters, a Nordic art and science network program exhibited at Kunsthall Grenland, Norway and Kunsthall Nicolai, Copenhagen. The work was also presented as an artist presentation during the International Symposium ISEA in Hong Kong 2016. And the exhibition "Body Esc" in the National Gallery of Corfu in 2017.

Paper

Sharry Taylor

Ontario Institute for
Studies in Education

Sharry Taylor is a high school guidance counsellor and PhD student at the Ontario Institute for Studies in Education, University of Toronto. Her work explores the intersection of capitalism and psychiatry as this relates to marginalized groups and children. In particular, her work explores the psychiatrization of young people who are rebellious or who do not fit in to school routines or school structure. She is interested in the ways that psychiatrization becomes constitutive of capitalist surplus value in two separate but related ways: first, by making rebellious youth objects of accumulation through "psy" services and psychiatric drugs, and second, by aligning their subjective experiences with neoliberal narratives that responsibilize capitalism's harms and traumas.

Efrat Gold

Ontario Institute for
Studies in Education

Efrat Gold is a PhD student at the Ontario Institute for Studies in Education, University of Toronto. Her work weaves together alternate histories, particularly those related to the mobilization of psychiatric power in order to give voice to those disenfranchised by the psy-complex. Gold seeks to unsettle dominant theories of mental health and illness by contextualizing them within historic, social, and capitalist relations. Her interdisciplinary work engages with psychiatry/antipsychiatry studies, history/historiography, critical disabilities studies, queer world-making, Marxism, and feminism.

Madness and Individualism: Unravelling in Crazy Times

What does it mean to be "out of your mind?" In fact, what is a mind and was it ever yours to begin with? Contemporary capitalist relations and practices invent us as atomized individuals, responsible for our own material conditions as separate units that participate in economic practices through labour and consumerism. In other words, we are all rendered individuals as a necessary condition of capitalist ideology, which at the same time responsibilizes the material consequences of a traumatizing and alienating system to each individual. The realities of poverty, race, and class oppression, just to name a few, can be crazy-making, yet when people struggle to survive, they are diagnosed as mentally ill - the result of a biological chemical imbalance in their brains. How have our understandings of the crazy, insane, or more recently, mentally ill shifted over time and how have these changes been informed by our systemic contexts and the hyper-individualism required to maintain oppressive relations? And in what ways has mental illness been constructed into a biomedical model which does not account for systemic injustice? This paper will explore these questions and put forth a consideration for integrating our biological and political knowledges of the human condition, countering hyper-individualized constructions of mental illness with community-based biological understandings that we have never, in fact, been individuals.

Encounters of humans and non-humans in bio art

The aim of the paper is to address existing approaches to encounters of humans and non-humans within bio art in order to analyze how it reflects on and reinterprets anti-anthropocentric discourse. The encounter of human with non-human organisms in bio art became an established field of bio art which recently has attracted a lot of attention. The series *Nonhuman Subjectivities* by Art Laboratory Berlin in 2016-2017¹ with the conference *Nonhuman Agents in Art, Culture, and Theory*², exhibition *Seeing the Forest through the Trees*³ by Monika Bakke, artworks presented at the Festival Ars Electronica, Click Festival⁴ are only some of the examples of increasing interest in this topic.

Cartesian gaze, as well as further development of western thought, has led to the emergence of liberal subject, subject-object relationships, binary oppositions (nature/culture, man/woman etc.) and multiple assumptions which directly and indirectly cause harmful effects, such as the climate change, exploitation of resources, etc. Posthumanist thought in its variety questions those assumptions and strives to propose alternative points of view. Moreover, the concept of endosymbiosis developed by Lynn Margulis, autopoiesis introduced by Humberto Maturana and Francisco Varela, the model of Gaia conducted by James Lovelock and widely discussed and contextualized by Bruno Latour and Donna Haraway, the field of object-oriented ontology formulated by Graham Harman and comprising a subfield of speculative realism, Karen Barad introducing non-binary relationships from quantum physics into humanities and feminist studies and many other ideas create the base for the reconceptualization of humans and nonhumans interconnections and significantly influence artistic practices.

Within my research, I would like to focus on the encounters of humans and non-humans (animal, microbial, plant) aimed at symbiosis or interaction in the recent artworks in the field of bio art. Although the multiple examples of bio art are more characterized with the cold scientific gaze of the artist towards the non-human, other examples show the attempts of the artist to take up various positions towards other species criticizing subject-object relationships.

Therefore, the objective of the paper is to identify existing approaches to humans and nonhumans encounters within bio art pieces to see what strategies to these encounters (alternatives to the cold scientific gaze) artists in bio art choose for the creation of their art pieces, what place these art works have in the field of bio art, how their works reflect on (anti)-anthropocentric theories and if the search for agencies of nonhumans has anything to do with animism.

Thus, the preliminary research question is: How art pieces the integral part of which includes the encounter of humans with non-humans (animal, microbial, plant, hybrids) aimed at interspecies symbiosis or interaction/communication reflect on and reinterpret the posthumanist theories and deal with the problem of the subject-object relationship? The answer to this question will include different strategies of artists explored, clarified and contextualized through their typology.

Paper

Olga Timurgalieva

Lodz University

Researcher in media art. She holds BA in Data Protection at the Moscow Linguistic University, MA in Cultural Studies at the Higher School of Economics (Moscow), Humboldt University (Berlin). Worked at the Moscow Museum of Modern Art, Art Foundation V-A-C (Moscow), Muses Maschine Art Laboratory Galerie (Berlin), and as a project assistant at the exhibition *Open Codes* (ZKM). Currently a student at the joint master program *Media Arts Cultures* (Danube University Krems, Aalborg University, Lodz University), Erasmus Mundus scholarship holder (2016-2018). Her current research interests are bio art and posthumanism.

¹ <http://www.artlaboratory-berlin.org/html/eng-programme-2016.htm>

² <http://www.artlaboratory-berlin.org/html/eng-event-40.htm>

³ <https://www.andfestival.org.uk/events/seeing-the-forest-through-the-trees-group-show/>

⁴ <https://www.clickfestival.dk/previous-2016>

Paper

Alan Tod

Forest Artist

Alan Tod is the artistic identity of Julien Isoré, French painter and director involved in Total art. After graduate in comparative intellectual property law in Paris in 2001, Julien Isoré worked for 7 years for the media-TV- business industry as story editor and director. In 2005, he open his first painting studio in Paris and start the international campaign for LOVE (2007-2012) where he experimented total art. (www.artforlove.fr) In 2007 he inter the school of fine art of Lisbon (CIEBA) as independent researcher In comparative anatomy in collaboration with school of medicine of Lisbon, with School of sociology of imaginary of La Sorbonne university and with Les cahiers européens de l'imaginaire edition CNRS. In 2015, Julien Isoré became Alan Tod, the forest artist and since, he never stop to be. www.alantod.com

The Forest Diplomatic Speech

We flew through space in group as do fishes or birds. The design of our seeds was making us following each other with the wind. The heavier drive the group and connect to each other. We can let the air pass and drive within the flows. And cause water attacks water we arrived in earth land. There, we discover mitochondria and animal cells. We raised them to make them bigger and more useful of us. We found so many ways to give you satisfactions that some of us even succeed in slaving you to addictions. The experience went very well and some animal cells were created as a Mankind: the most plant addict cell in that planet. But with time, some of us start to use you to destroy the hierarchy of our kingdom. My planet is in war now. That is why they send me to talk to you as an ambassador. I am here to ask you to stop helping the cereal grass to kill trees. This war is not yours, and it must end.

Be aware. We are the forest and we come in peace.

Aesthetic Approach of Hyperspaces

We investigate the fourth spatial dimension, also known as "hyperspace", by studying the capabilities of the human senses and from the perspective of Art and Technology. In particular, we explore the way in which humans perceives the three-dimensional space based on the sensory organs and the processing of external stimuli by the brain. We analyze the concept of dimension both in its familiar form and in the field of Science, Mathematics and Physics, with emphasis on the theories of existential and imaginary worlds. The geometric approach of the fourth spatial dimension is studied through mathematical logic and the properties of simple geometric hyper-solids are examined. We also examine the history for the search for the higher dimensions and the dissemination of the theory of the fourth spatial dimension to the general public via Art and Literature. The relationship between the hyperspaces and Modern and Contemporary Art is briefly analyzed from the beginning of the twentieth century to the present day. This leads to the main theme of our research: focusing on the ways different artists and scientists approached the hyperspatial perception, we analyze their methods and propose new approaches of understanding them by applying innovative technology techniques. In particular, we propose:

- i. an interactive art installation for approaching the hyper-sound, with reference to the Varese and Helmholtz description, but also in conjunction with gravitational waves,
- ii. an artistic approach to connect Johan Van Manen's intuitive "hypersphere" with the Quantum Geometry of String Theory, which leads to a new cosmological model,
- iii. an interactive art installation visualization the hyperspace resulting from our evolution of the Hinton colored cubes method.

Through these methods, a reasoning is developed between the objective scientific thought and the freedom that Art offers to lead to a practical result: a series of innovative audio and visual stimuli generated by the use of digital audio and video innovative technology.

Paper

Dimitrios Traperas

Ionian University

Dimitrios Traperas was born in Ioannina, Greece in 1970. He graduated from the School of Sciences, Department of Physics, University of Ioannina, as well as from the Department of Audio and Visual Arts, Ionian University, Corfu. He is currently a Ph.D. student in the Department of Audio and Visual Arts, Ionian University, Corfu. He has participated in many individual and collaborative exhibitions of painting, photography, interactive installations and video-art. Today he lives and works in Corfu, Greece.

Nikolaos Kanellopoulos

Ionian University

Professor Nikolaos Kanellopoulos is Faculty Head of the Audio and Visual Arts Department, Ionian University. He has also served as Deputy-Head of the Department of Informatics and Faculty member of Ionian University Library & Archives Department of Ionian University and Computer Engineering Department of Patras University. He also served as President for the Greek National School of Dance. He has extensive experience with more than 50 National and European R&D projects in the fields of Computer Applications. His published work includes three international patents and about 120 papers/studies. Currently his main research interest is in the application of digital technology in audiovisual art (VR/AR) interactive systems.

Paper

Polona Tratnik

Alma Mater Europaea

Ph.D., is Dean of Alma Mater Europaea – Institutum Studiorum Humanitatis, Faculty and Research Institute for Humanities, Ljubljana, where she is a Professor and Head of Research as well. She also teaches courses at the Faculty for Media and Communication at Singidunum University in Serbia, at the Academy of Fine Arts and Design of the University of Ljubljana, at the Faculty of Education of the University of Maribor and at the Faculty for Design of the University of Primorska. She used to be the Head of the Department for Cultural Studies at the Faculty for Humanities of the University of Primorska. In 2012 she was a Fulbright Visiting Scholar, as well as a Guest Professor at the University of California Santa Cruz. She was a Guest Professor also at the Capital Normal University Beijing (China), at the Faculty for Art and Design Helsinki TAIK (Finland), and at the Universidad Nacional Autónoma de México (Mexico City). She is president of the Slovenian Society of Aesthetics (since 2011) and an Executive Committee Member of the International Association of Aesthetics. She has authored eight monographs as single author, including *Art in Contemporaneity* (Belgrade: Orion, 2018), *Conquest of Body. Biopower with Biotechnology* (Springer, 2017), *Hacer-vivir más allá del cuerpo y del medio* (Mexico City: Herder, 2013), *Art as Intervention* (Ljubljana: Sophia, 2017), and *The End of Art: Genealogy of Modern Discourse – From Hegel to Danto* (Annales, 2009).

Polona Tratnik is a pioneer bio artist exhibiting worldwide at shows such as *Ars Electronica* festival and *BEAP* festival in Perth.

The Projectability of the Engagements in Art and Science

We investigate the fourth spatial dimension, also known as “hyperspace”, by studying the capabilities of the human senses and from the perspective of Art and Technology. In particular, we explore the way in which humans perceives the three-dimensional space based on the sensory organs and the processing of external stimuli by the brain. We analyze the concept of dimension both in its familiar form and in the field of Science, Mathematics and Physics, with emphasis on the theories of existential and imaginary worlds. The geometric approach of the fourth spatial dimension is studied through mathematical logic and the properties of simple geometric hyper-solids are examined. We also examine the history for the search for the higher dimensions and the dissemination of the theory of the fourth spatial dimension to the general public via Art and Literature. The relationship between the hyperspaces and Modern and Contemporary Art is briefly analyzed from the beginning of the twentieth century to the present day. This leads to the main theme of our research: focusing on the ways different artists and scientists approached the hyperspatial perception, we analyze their methods and propose new approaches of understanding them by applying innovative technology techniques. In particular, we propose:

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Through these methods, a reasoning is developed between the objective scientific thought and the freedom that Art offers to lead to a practical result: a series of innovative audio and visual stimuli generated by the use of digital audio and video innovative technology.

Encoding Omniscience: Artist-Scientist Joe Davis' Tree of Knowledge

This paper explores the metaphoric meanings as well as practical applications of Artist-Scientist Joe Davis' work *Malus ecclesia* (c. 2013—present), a project that Davis describes as “genetically modifying an apple to tempt the Devil,” with the aim of creating a literal Tree of Knowledge.

Through his innovations in genetic manipulation, Davis has encoded large sections of Wikipedia into the genome of the oldest species of apple available on planet Earth via a type of bacteria that inserts its genome into plant cells. [4] Davis' recent innovation of “DNA manifolds,” enable him to store massive amounts of coded information without harming or affecting the host organism. [8] These manifolds, which Davis has coined “the silent code,” ensure non-harmful genetic manipulation and are described by Davis as “probably more environmentally and ecologically sensitive, and less interfering, than any previous kind of genetic manipulation.” [9] *Malus ecclesia* reshapes our understanding of the world around us, challenges Judeo-Christian ideological structures, and moves beyond our current modes of preservation.

Philosophically, *Malus ecclesia* calls into question our understanding of the relationship between the physical world that we live in and what we cognitively know about it. Human beings have always inscribed what they have discovered about the world into the objects around them. Until now, our map of the terrain has been disconnected from the terrain itself—but what if the terrain contained the map? *Malus ecclesia* makes possible the merging of the ideas of things and our intersubjective knowledge about them with the things themselves.

From a theological perspective, *Malus ecclesia* implies a mystical power shift and threatens established ideological structures in Judeo-Christian religions that suppress the partnership model in favor of a dominator structure. [19] Davis, like many artists who take on the role of the provocateur, transforms and reinvents our understanding of these hierarchical roles. In addition to the philosophic and religious facets of the work, *Malus ecclesia* is a profound reflection on humanity's on-going struggle against the forces of nature in our attempt to acquire and preserve knowledge. One of the biggest struggles facing information preservation and distribution is the problem of preservation itself, and the susceptibility of physical and digital documents and objects to the destructive elements of time and the environment. Davis has created the first living library that does not rely on human memory, radically shifting the way that humans can preserve information.

Davis considers science and art inseparable tools for exploring the nature of the world around him and investigating the mystery of the human experience. By infusing his scientific artworks with metaphor and poetic meaning, Davis emphatically blurs the line between several areas of inquiry. This collapse of distinction between disciplines allows him to embrace a unique methodology, one that has insatiable curiosity about the world at its core.

Paper

Rachel Treide

Savannah College of Art and Design

Rachel Treide Rachel Treide is studying Art History and Photography at the Savannah College of Art and Design, with an emphasis in photographic theory and 20th-century Art. Her BFA thesis explores a little-known body of stereographs created by photographer Stephen Shore in the early 1970s and examines the stereograph's role in art's progression from form to consciousness. She is interested in the relationship of art, science and perception, and where the three merge in art, culture, photography and nature. An artist at heart who uses photography as a medium, her work has been exhibited in the US and can be found at racheltreide.com.

Paper

Matej Vakula

Rensselaer Polytechnic Institute

Matej Vakula is an artist working with computation, biology, tissue printing, and nanotechnologies, looking at their impact on society and nature.

He studies the relationship between haptic aesthetics, instructional language, biology, and artificial intelligence. In particular, he is exploring the role that games may play in the translational relationships between knowledge workers, laboratories, nature, and machine learning.

Matej collaborates with the Center for Molecular Imaging and Nanotechnologies at Memorial Sloan Kettering Cancer Center, Advanced Science Research Center at CUNY and he is a Ph.D. candidate at Rensselaer Polytechnic Institute. Matej is working as a research assistant at IBM Cognitive and Immersive Systems Laboratory. He is part of the Rensselaer BAT Lab at the Center for Biology and Interdisciplinary Studies and Genspace community biolab in Brooklyn. In 2009 he was awarded a Fulbright fellowship and worked as artist in residence at the SciArt center in New York City. His art is exhibited internationally including Arts Electronica Art and Science Network, the Sixth Prague Biennale of Contemporary Art, and many other.

Looking for an Acheulean Handaxe in Messy Knowledge

In this presentation I would like to talk about the potential of mess and messy scientific models to provide paradigm shifts in scientific research. In particular molecular modeling, cancer research and systems biology where not only living humans, but also machine learning algorithms craft knowledge. I would like to talk about what could be the place of the art in this process, when involved in a laboratory setting.

If we regard knowledge as power then, in a certain way, scientists pose in the society as the “ambassadors of truth” and their discoveries trickle down to the society when their knowledge is turned into technology. For a few centuries already their position in the knowledge production was unchallenged but in recent few decades it started getting more complicated by the push for automation of the knowledge production and its methods on one hand, and increasing multi-disciplinarity on the other. How far would be the automation able to go? Would the automated knowledge production challenge the human or is one just an extension—or a prosthetic—of the other?

How could artists subvert the scientists’s one directional flow of power and knowledge into the society? Scientists sometimes need artists It is because art is used to work with the non-conceptual or pre-conceptual content embedded in objects or artworks in general. The non-conceptual content creates the ideal condition for *re-framing* of scientists’s knowledge. My description of re-framing is very similar to the process described by Tim Ingold in the paradoxical perception of Acheulean Handaxe—as the “finished artifact fallacy.” (Ingold 2013) Acheulean Handaxe is an archaeological object whose purpose posed a significant problem for archeologists for many years. Many archeologists were identifying this object as a carefully crafted, finished, axe-like instrument used by the early cave dwellers. After re-framing this object as unfinished (without closure) and turning the archeologists’s attention to the process of making—the artifact as series of actions of the maker—the Acheulean Handaxe was finally identified not as an object anymore. It was, more correctly, identified as a leftover that was left behind after chipping off bits and pieces necessary for making small objects used as needles, arrowheads etc. Ingold suggests that any templates to produce these “handaxes” were already built into physiological morphology and proportions of the bodies and hands that made them. (Ingold 2013) The Acheulean Handaxe brings up the very physical and processual presence of the maker’s body imprinted in the material that the maker processed. In case of the “maker/scientist” their bodies are shaping and crafting knowledge or the ways of shaping and crafting knowledge.

I argue that the potential for different reading and *re-framing* are the qualities scientists are looking for when engaging works of art within their molecular modeling process. They are expecting these processes to contribute to *re-framing* and paradigm shifts within their field. In my opinion, these are the same qualities scientists are also looking for in the outputs of *machine learning* and *computational chemistry* modeling.

Vibration Matters - Being in Between

Once an artist takes on the challenge of making the invisible visible, or the inaudible audible, s/he is almost immediately thrown into the realm of energy at the edge of art and science. The established art world based on visual culture finds it difficult to place this kind of work. The scientific community, used to working in this realm in a reductionist way, finds it hard to comprehend. Yet the public seems to be drawn to artwork residing "in between", and there seems to be a universal need for a connection to the spiritual realm beyond what established religions offer. As many speculative ideas in the West circulate around ideas of energetic approach to matter in general, particularly the body and mind, alternative medicine and other Eastern philosophies are thriving. Increasingly, we are becoming aware that vibrations on the cellular level and beyond are related to our mental and physical well being. In this talk, I will present works that look at vibratory fields on many levels – bird soundscapes and language (*Bird Song Diamond*), octopus communication (*Octopus BrainStorming*), planktons and underwater pollution (*Noise Aquarium*) in relation to our collective (un)consciousness.

Paper

Victoria Vesna

UCLA

Victoria Vesna, Ph.D., is an Artist and Professor at the UCLA Department of Design Media Arts and Director of the Art|Sci Center at the School of the Arts (North campus) and California NanoSystems Institute (CNSI) (South campus). Although she was trained early on as a painter (Faculty of Fine arts, University of Belgrade, 1984), her curious mind took her on an exploratory path that resulted in work can be defined as experimental creative research residing between disciplines and technologies. With her installations she investigates how communication technologies affect collective behavior and perceptions of identity shift in relation to scientific innovation (PhD, CAiiA_STAR, University of Wales, 2000). Her work involves long-term collaborations with composers, nano-scientists, neuroscientists, evolutionary biologists and she brings this experience to students. Victoria has exhibited her work in 20+ solo exhibitions, 70+ group shows, has been published in 20+ papers and gave 100+ invited talks in the last decade. She is the North American editor of AI & Society journal (Springer Verlag, UK) and has published the edited volumes Database Aesthetics: Art in the Age of Information Overflow (Minnesota Press, 2007) and Context Providers: Conditions of Meaning in Media Arts (co-edited with Christiane Paul and Margot Lovejoy, Intellect Ltd, 2011). Currently she is working on a series Art Science & Technology based on her online lecture class.

Paper

Graydon Wetzler

New York University

Graydon Wetzler has a Ph.D., Performance Studies (New York University), a M.F.A., Experimental Film (San Francisco Art Institute) B.A., Philosophy (University California, Santa Barbara).

His research practice hones the analytics of philosophy of science with the creative ethos of experimental ethnography to speculate new modalities of ethology. To study contemporary surveillance systems, for example, he might draw on post-object aesthetics and phenomenology of perception in order to elicit some latency, formulate an ethnographic approach or repurpose a given surveillance application.

A Kerosene Summer Dress

The present paper combines Situational Analysis with Situationists *dérive* to weave a seemingly disjoint series of historical tableaux, materialities, marginalia, combustion and corporeal techniques in embryology, chemistry, geology, synthetics and magic. The double locus structuring this constellation is Hilde Proescholdt (1898-1924), a gifted German experimental biologist; and Abraham Gesner (1797-1864), Canadian physician, geologist and inventor of kerosene. Following Adele Clark's SA research program, I attend to situational maps recurring the experimental repertoires Gesner and Proescholdt with the material, social and artifactual historicities they environed. Through *dérive*, I narrate by displacement, cutting along the bias, rather than with the historical fabric. My aim is to contribute media ethology as variation on Robert Logan's call for a broad spectrum media ecology that is agnostic to stable distinctions between content and container. I pay special appropriation to the signaling dynamics of the Spemann-Mangold organizer as an active media, or in complimentary phenomenal guise, Marshall McLuhan's characterization of acoustic space as all centers and no margins. Proceeding through double-locus and double-method appropriates what Proescholdt's supervisor, Hans Spemann, would have cautioned us against as bad magic by co-inducing interference between primary and the implanted organizing centers. Within the chapter, media ethology contributes a complex sum of SA+ *dérive* as a symmetrical mappings and non-obligate appropriations across inquiry and technique in the arts and the sciences. My discussion more broadly offers to enter debates on the relative merits and stakes for performative knowledge production and communication through the nexuses of art, science and technology studies.

Landfill Dominion - The economy of a man-made Neo-Paradise

Herman Daly once identified the absurdity of shipping Danish cookies to the United States; if efficiency were in fact 'economic' one might just email the recipe, 'save' the fuel, reduce the greenhouse gases, and still enjoy the cookie. This argument playfully illustrates that 1) resources are scarce, 2) ideas are Inherently Not Scarce (INS), 3) current financial systems are inefficient and not 'economical'. The unprecedented industry of 7.5 billion people is now concerned about the resulting 'scarcity' and 'pollution' of the finite resource base. Faulted for his unchanging position on a 'changing' world, Parmenides of Elea poetically conceptualized the basics of mass-balance "nor is there any way in which what-is would be in one way more than what-is in another way less, since it is all inviolable". Until humanity shares inherently-not-scarce ideas for effectively managing what is in a 'steady-state', 'scarcity' and 'pollution' will be a constant source of crisis on the landscape.

Since 2004, I have made transforming color field paintings with mud taken from the most pristine to the most toxic landscapes of Northeast USA. Though difficult to see individually, microbes existing within mud photosynthesize pigments. As a species grows from individual to colony, it becomes visible as pointillist pigments amass horizontal blocks of transient color. As these bacteria express themselves (i.e. live: consume, reproduce, deplete resources, release wastes), they exhaust their habitat and create an altered landscape suitable to a successor. Like us, bacteria are bound by the law of conservation of mass; they constantly select and reject resources from the finite landscape. The resulting processes of growth and decay are intimately linked inversions resulting in beautiful transforming colorfields. As evidenced by my vibrant and literal portraits made from mud, these simple, highly adaptable, single-cell organisms craft a unique, colorful, and synthetic existence. As a model system, they exhibit a viable 'steady state' of infinite expression in a finite landscape where Life & Landscape is an intimate, malleable, and reciprocal whole. Here I discuss the beauty of our landfill paradises.

Paper

Jenifer Wightman

Parsons – the New School for Design

Trained as a Toxicologist, Jenifer Wightman is a research scientist specializing in greenhouse gas inventories and life cycle analysis of agriculture, forestry, waste, and bioenergy systems at Cornell University, funded by DoE, USDA, NYS DA&M, and NYSEERDA. Her art practice began in 2002 and employs scientific tropes to incite curiosity of biological phenomena and inform an ecological rationality. Her art has been commissioned by NYC parks, featured at the Lincoln Center, BAM, and Imagine Science Festival, and is held in collections such as the Morgan Library, Library of Congress, Gutenberg Museum, Bodmer Museum, and the Danish Royal Library. Since 2014, she has combined her science and art to teach "Sustainable Systems" and "BioDesign" at Parsons – the New School for Design.

Paper

Yi-Chen Wu

Department of Theater Arts,
National Sun-Yat-sen University

Yi-Chen Wu is currently an assistant professor in the Department of Theater Arts at National Sun-Yat-sen University, Taiwan. She received a PhD degree in Drama from the University of Exeter, UK, in 2016. With an honor of distinction, in 2002, she graduated from Trinity Laban wherein she studied scenography in dance. Her academic research interests are mainly about the interconnection between Chinese Qi philosophy and its embodiment in theater via the use of technological media. She is also an experienced scenographer for performing arts in Taiwan. The core of her design is to trigger a kind of performative relationship among the performer, the viewer and multiple-media. Her research papers have been publically presented in the United Kingdom, Norway, Holland, Canada, and Taiwan.

The Anthropocosmic Vision of Mixed Reality: Taking HCI Artwork *Flow of Qi* (2007) as a Case Study

This paper critically investigates the potential confrontation that exists between “mixed reality” in HCI (Human-Computer Interaction) artworks that are respectively based on the concepts of phenomenology and Chinese *Qi*. According to phenomenology, the term “mixed reality” is defined as certain reality-virtuality continuum in which the real environment co-exists with the virtual environment.

In contrast to this common definition, I suggest that the concept of Chinese *Qi*, particularly with reference to Mencius’ understanding of *Qi* as emerging energies that stimulate “the unity of the cosmos with humanity” (*t’ien-ren ho-yi*), offers an alternative way of experiencing the extension of a person’s physical body for action to a virtual realm. This can be seen through specific artistic works that implicitly show the artists’ quest for traditional Chinese aesthetics through the use of technological media. From this point of view, the exploration of *Qi* has potential to uncover certain hidden phases of mixed reality.

My proposal is exemplified by the Industrial Technology Research Institute of Taiwan’s *Flow of Qi* (2007), a work that presents an ideal combination of high-tech installations with ancient Chinese masterpieces that strive to interrogate various unique spiritual dimensions of *Qi*, rather than to merely visualize the invisible *Qi*. In the performance process, ultra wideband technology instantly transforms the data of a pair of participants’ real-time breath into the replication of calligraphy masterworks projected onto the floor in front of the participants. The transformation gives rise to a sense of a shift between intermingling realms.

In order to explore how efficiency of breath constitutes mixed reality in *Flow of Qi*, I draw a parallel between the participants’ breath and agency, since agency, as discussed by Murray (1998) and Hansen (2006), refers to the various dynamics and potentials that stimulate user’s motivations and intentions to make decisions and to take actions in response to information coming from technological media. The participants’ responses to technological media indicates a similar characteristic between *Qi*, which is embodied as breath, and agency whereby the notion of the perception-action relationship is emphasized.

However, when compared to agency, *Qi* is characterized as evoking a state where humans and the cosmos have always “lived inside” each other in interwoven spaces and times. As *Flow of Qi* shows, the participants are required to respectively adjust the speed and depth of their breath in order to correspond with the state of breathing that ancient masters employed when writing. This configuration engenders a sense of the cosmic whole, because the participants are involved in a process, wherein the masters used their brushstrokes to grasp the respiration of the cosmos.

Therefore, employing the concepts of Chinese *Qi* to analyze *Flow of Qi* draws out an anthropocosmic vision of mixed reality that links participants with the cosmos. This offers a fresh complement to our understanding of HCI and shows how Chinese philosophical concepts are illuminating for the critique and study of emerging art that manifests a *Qi* worldview through technological media.

Algorithmic Agencies in Artistic Practice: Speculative Design and Alternative Futures

This paper will examine the speculative design of algorithmic agencies by contemporary artworks that work with machine learning algorithms, mostly known as artificial intelligence (AI). By the tactical personification of algorithmic agencies, artists are revealing alternative risks and unexpected situations. Algorithmic agencies have been already in use in digital cultures. Siri is among the most popular examples. Paratactic curation emerges where various modes of composition and curation evolves into popular entertainment, marketing and propaganda tools of governments, institutions and corporations. As a transdisciplinary research practice, it challenges the domination of techno-capitalist neoliberal ideologies operating within mainstream cultural and political-economic settings.

Can contemporary artworks explore the invisible operations of political-economic networks for the sake of commons? How can artists appropriate and subvert the protocols of contemporary business models and design alternative imaginaries for speculative futures? What can paratactical curation learn by collaborating with algorithmic agency based artworks / artists? Besides literature review on contemporary curating, algorithmic governance and media art, the paper will focusing on the analysis of "The Shepherd" (ongoing) and "The Pitiful Story of Deniz Yılmaz" (2015) of Bager Akbay.

By exploring and reusing the operational processes of various schemes, such as mainstream cultural event protocols, paratactic curation aims to realize subversive actions and creative interventions, which do not represent and reproduce the existing dominant associations, but to produce performative and intervening actions and compositions against ignorance, extinction, degeneration, corruption and destruction. Rather than being merely infected and pacified by the conditions and predications of its medium, paratactic curation aims to produce background information about its medium, its operational process, its users and the changing patterns of behaviour. In this way, paratactical curation explores how the covert operations in global capitalist cultures are reappropriated in order to stimulate performative actions, knowledge and perception.

Hence, the paper concludes that paratactical curation of algorithmic agencies is a challenge to explore the ways of designing speculative futures. Keywords: Algorithmic, agency, blockchain, paratactical, speculative design.

Paper

Ebru Yetiskin

Istanbul Technical University

Ebru Yetiskin is an Istanbul based independent curator and media theorist who works on the interaction of sciences, technology, art and politics. She has been a full-time researcher and lecturer in Istanbul Technical University since 2003. She studied cinema (BA) in Istanbul University, Science, Technology and Society (STS) in University of Louis Pasteur and Istanbul Technical University (MA), and Sociology in Mimar Sinan Fine University (PhD). During her PhD research, she was a visiting scholar in Ecoles des Mines de Paris - Centre for Sociology of Innovation. As part of her research, she curated media art related exhibitions entitled, *Cacophony* (2013), *Code Unknown* (2014), *Waves* (2015), *Contagious Bodies* (2015), *Illusionoscope* (2017) and *Interfaces* (2018) in Istanbul. She also directed and curated *Plugin New Media Section of Contemporary Istanbul* (2015). Since then, she focused more on writing and making public talks as well as workshops, such as "Network Politics in Data Driven Worlds" in Akbank Art Center and "Today's Art: Yet Another" in Borusan Contemporary Museum. In 2016, she edited a book of poetry, "Like The Others," written by a robot, Deniz Yılmaz; curated its autograph session in Istanbul Art and Book Fair and developed a transdisciplinary curating conception: paratactical curating.

Paper

Jude Abu Zaineh

University of Windsor

Jude Abu Zaineh is a Palestinian-Canadian artist working with food and bioart to investigate meanings of culture, displacement, diaspora, and belonging. Having lost both her parents at an early age, her work navigates through topics of grief, memory, and nostalgia to develop aesthetics rooted in her childhood and upbringing in a muslim environment in the Middle East. These personal histories and tensions as a Palestinian growing up in Kuwait inform the affiliated identity politics that motivate Abu Zaineh's practice. Understanding factors that redefine and change immigrant food practices allows her to further explore what it means for Palestinians to exist in a migratory space of "in-betweenness"; attempting to conform and adapt to the cultures and traditions of their new homesteads while maintaining a connection to their Palestinian heritage and identity.

Home is Where the Maqlouba is: An Overview of a Bioart Workshop

This brief presentation will focus on Abu Zaineh's effort to continue exploring the space of "in-betweenness" and immigrant food culture through the development of Home is Where the Maqlouba is: A Bioart Workshop, held in Windsor, Canada. Participants joined for a hands-on workshop fusing scientific methodology and food. They received a brief introduction to bioart practices, learned how to make Maqlouba, a traditional Palestinian dish, and used samples of the food as source material to create their own projects in the INCUBATOR art lab.

Does Transgenic Human Production take into account the effect of Aesthetics on the long term Ecological effects of GMO Baby Design?

What can an understanding of the arts bring to human design? The history of art may finally come to some use for humanity, through fertility brokers and other replicant applications!

However, the aesthetic hazards of breeding without a proper understanding of Western culture and our shared artistic heritage must be taken into account. The arts represent a great asset for IGM design and a great way to insure that the future isn't born looking dull, retrograde, healthyish and a bit too sketchy. Without a firm grasp of Art History, our cloned denizens may not represent our national and international goals as U.S. food and drug producers and consumers.

The admixture of global interspecies variety through genetic engineering and the cloning of spectacular hereditary cascades should only be approved through an aesthetic advisory commission made up of artists, art historians and off-the-locus aesthetics specialists. The future of style and the avoidance of our populous birthing any aesthetic hazards are dependent on collaboration between new reproductive biotechnology and the Arts.

This paper is a review of the proceedings of the International Summit on Human Gene Editing A Global Discussion (2015) The US.gov National Academy of Sciences and the National Academy of Medicine launched this initiative to inform decision-making related to recent advances in human gene-editing research. I was an invited guest and have some critical responses.

here is the US.gov text:

<https://www.nap.edu/catalog/21913/international-summit-on-human-gene-editing-a-globaldiscussion>

One of my questions to Hank Greely and Jennifer Doudna:

<https://www.youtube.com/watch?v=jMb-od1T548&t=20s>

And a full response lecture at CPNAS:

<https://www.youtube.com/watch?v=bgRkqh2DFLY>

Paper

Adam Zaretsky

Marist College

Adam Zaretsky is a Wet-Lab Art Practitioner mixing Ecology, Biotechnology, Non-human Relations, Body Performance and Gastronomy. Zaretsky stages lively, hands-on bioart production labs based on topics such as: foreign species invasion (pure/impure), radical food science (edible/inedible), jazz bioinformatics (code/flesh), tissue culture (undead/semi-alive), transgenic design issues (traits/desires), interactive ethology (person/machine/non-human) and physiology (performance/stress). A former researcher at the MIT department of biology, for the past decade Zaretsky has been teaching an experimental bioart class called VivoArts at: San Francisco State University (SFSU), SymbioticA (UWA), Rensselaer Polytechnic Institute (RPI), University of Leiden's The Arts and Genomic Centre (TAGC) and with the Waag Society. He has also taught DIY-IGM (Do-It-Yourself Inherited Genetic Modification of the Human Genome) at New York University (NYU) and Carnegie Mellon University (CMU). He also runs a public life arts school: VASTAL (The Vivoarts School for Transgenic Aesthetics Ltd.) His art practice focuses on an array of legal, ethical, social and libidinal implications of biotechnological materials and methods with a focus on transgenic humans. Adam is currently Media Arts Faculty in the School of Communication and the Arts at Marist College. Zaretsky received his BFA in Studio Art from the University of California at Davis, his MFA in Art and Technology from The School of the Art Institute of Chicago, and his Ph.D. in Integrated Electronic Arts from Rensselaer Polytechnic Institute.

Paper

Karolina Żyniewicz

The Faculty of Artes Liberales,
University of Warsaw

Artist (2009 graduated from the Academy of Fine Arts in Łódź, Department of Visual Arts), PhD student (second year, Transdisciplinary PhD Programme at Artes Liberales Faculty, University of Warsaw). Working in a laboratory (mostly at Institute of Genetics and Biotechnology, Faculty of Biology, University of Warsaw) locates her works in the field of bioart. She tries to use her artistic projects as a research method. Long time she was cooperator of education departments Museum of Modern Art in Warsaw and National Gallery Zachęta. Educational aspect is one of the most important elements of her artistic practice.

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Art-Biology-STS. Examining the science from the art perspective

Establishing a connection between art, science and society remains an unfulfilled promise. Art & Science studies and projects explore the relationship between first two elements, whereas Science and Technology Studies (STS) focuses on social aspects of science. While art&science and ethnography of laboratories (Latour, Knorr-Cetina, Lynch) sometimes focus on similar things (e.g. nature of knowledge, relationship between life and death, crafting character of laboratory research), combining of two perspectives will provide new viewpoint on traditional problems.

The main goal of my current activity is to describe the process of knowledge creation in biological laboratories from the art&science perspective. I am an artist conducting projects in biological laboratories. The basis of my research are ethnography of laboratory and autoethnography analysis. The ethnography of laboratory is focused on the search for the similarities between processes of art creation and knowledge creation. The autoethnography will allow me to analyze the role of artists in laboratory Actor-Network (in the context of actor-network theory by Bruno Latour).

Part of my research is the analysis of changes in the process of knowledge production framed in existing researches (Latour 1986, Knorr-Cetina 1981;1999, Sismondo 2011) and juxtaposition it with the observations made by me in a case to estimate the influence of art on results. Using the method of autoethnography will allow me to discover if realization of artistic projects in biological laboratories changes somehow the process of knowledge creation or not.

For me it is also important to describe epistemic culture (biological laboratories) with the emphasis on these elements (actors) which are important from the artist point of view (materiality/visuality of laboratory work, symbols and metaphors in knowledge production).

The theoretical basis for my work is Actor-Network Theory by Latour. I try to analyze multilevel relations taking place during realization of artistic projects in biological laboratories and roles of different actants for instance:

- the role of artist in the process of knowledge creation
- the role of scientist in the process of art creation
- relations between artist and laboratory team
- the role of non-human agents and objects in the process of knowledge creation
- the role of non-human agents and object in the process of art creation
- the scientist approach to non-human agents
- the artist approach to non-human agents

Curated Sessions

Panel

Jorge Ramirez

Anemonal

Jorge Ramirez, through process-oriented artworks, sound, sculpture, actions and curatorial projects, he explores emergent phenomena as a window to the uncanny. His work relies on computational logic to investigate perception, augmentation, human experience, consciousness and materiality.

Arcangel Constantini

arc-data.net

Arcángel Constantini produces work of a marked ludic-experimental nature, strongly influenced by the fortuitous, chaotic processes of the city as reflected in the systematic use of error aesthetics. His work and artistic practice explore the dynamics of visual and sound works, low-tech installations, propaganda action, visual/sound performance, hardware hacking, physical computing, installation, sound art and net art.

Eddie Castaneda

Human BIOS project

Multidisciplinary creator devoted to developing new paradigms that revolve around science, technology, art, social structures, philosophy, the mind, and reality itself. He is currently working on a new cosmological reality model creating different media, such as neuroscience experiments, art pieces, video games, technology, music, and finally an upcoming philosophical treatise.

Nathalie Regard

Dream Sessions

Nathalie Regard's work is placed as an intermediate between virtual and visual. The work reflects and refracts the power and the nature of the image, through both electronic and hand manipulated processes, relating to it both memory and representation.

Jaime Lobato

Independecia Biolab

Multimedia artist, composer, curator and independent researcher. He made his studies at the Faculty of Music at the National Autonomous University of Mexico (UNAM). He has composed music for video-art, interactive installations, electroacoustic mixed pieces, dance companies, sound-poetry and performances.

Curated Session: Regaining Lucidity

In this panel we will explore a broad range of techniques for expanding consciousness and augmenting perception through cognition technology.

We will explore different strategies for human enhancement unveiling unconscious forces, lucid dreaming, hallucination, self-knowledge, meta cognition and transcendence, while speculating on authoritarian mind control, emotional manipulation, memory implantation and brain mining.

We will discuss and recontextualize artworks that approach dream recording research, EEG in altered states of cognition, brain wave control as human-machine interaction, lucid dreams techniques and binaural sound for inducing brainwaves frequencies.

Given the broad democratization of biometrics and the increasing use in surveillance systems, there is a pervasive interest in mainstream media about the use of tech surveillance. The aim of this panel is to establish and discuss different routes of enhancing awareness of our unconscious self, to identify different roles in which it can be applied and the broader societal implications of these technologies.

Curator: Jorge Ramirez (Anemonal, Mexico)

Speakers-Titles:

Arcangel Constantini (arc-data.net, Mexico), *ARC-data*

Eddie Castaneda (Human BIOS project, Mexico), *Neuropolítica y el lenguaje de la percepción*

Nathalie Regard (Dream Sessions, Mexico), *101 nights*

Jaime Lobato (Independecia Biolab, Mexico), *Burning thoughts*

Curated Session: Eco-Narratives

Living close to “the end of the world” may be pointed as the increasing motive for the need of alternatives to anthropocentric narrative, where human and nonhuman species have an equalitarian role. Nevertheless, navigating between plots of ecological collapse and resilience of the original ecosystem, it is inevitable to avoid observing apocalyptic narrative, from a safe time distance, impregnated in motivating fear force. On the realm of the undeniable current environmental crisis this panel presents four artists-storytellers who subvert the dominant narrative connected with catastrophism by embracing a feminist / queer biocultural gaze based on empathy and adaptation. Through the work of Victoria Vesna, Kathy High, Robertina Šebjanič and Cosima Herter, storytelling based on conflict with the other gives place to a novel dramatizing device: evolution combining self-transformation and coexistence where the aim of the story is to facilitate embodied engagement, to relocate perspective, to become the other.

Curator: Dalila Honorato (Ionian University, Greece)

Speakers-Titles:

Victoria Vesna (UCLA, USA), *Vibration Matters - Being in Between*

Kathy High (Rensselaer Polytechnic Institute, USA), *Fleeing –The Fate of Escaped Animals*

Robertina Šebjanič (Independent, Slovenia), *Sounds of a troubled world's = Underwater Interception of aquaforming*

Cosima Herter (Independent, Canada), *Climate Change and Resistance*

Panel

Dalila Honorato

Ionian University

Dalila Honorato, Ph.D, is a facilitator of safe spaces for hosting the interaction of ideas around liminal issues in the frame of Art&Sci. Her research focus is on embodiment, monstrosity, the uncanny and the acrobatic balance between phobia and paraphilia. She is Assistant Professor in Media Aesthetics and Semiotics at the Ionian University, Greece, guest faculty at Alma Mater Europaea, Slovenia, collaborator at the Center of Philosophy of Sciences, University of Lisbon, Portugal and member of the Steering Committee of the conference “Taboo-Transgression-Transcendence in Art & Science”.

Victoria Vesna

UCLA

Victoria Vesna, Ph.D., is an Artist and Professor at the UCLA Department of Design Media Arts and Director of the Art|Sci Center at the School of the Arts (North campus) and California NanoSystems Institute (CNSI) (South campus).

Kathy High

Rensselaer Polytechnic Institute

Kathy High is an interdisciplinary artist, educator working with technology, art and biology. She collaborates with scientists and other artists, and considers living systems, empathy, animal sentience, and the social, political and ethical dilemmas of biotechnology and surrounding industries.

Robertina Šebjanič

Independent

Robertina Šebjanič works in the intersection of art, technology and science. Her work encompasses immersive installations, av performances, workshops that tackle philosophical questions of our society to the understanding of living systems and their interaction with the environment.

Cosima Herter

Independent

Cosima Herter is a science consultant who specializes in the history and philosophy of science, technology and medicine. She is known for her science and story consulting in the award winning BBC America sci-fi television series Orphan Black.

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TTT supported by:

Universidad Nacional Autónoma de México | Arte+Ciencia | Arte Institute
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Intellect Books & Journals | Bioscenica | Instituto de Investigaciones Filosóficas
Grace Exhibition Space | Casa Viva | Anemonal | Paranoid Visions UTA
California State University, Los Angeles | I3S & ID+ University of Porto
Cooperación Española Cultura - México