

# SLSA 2011 Program

Sept 15, 2011

Please see the website for last-minute changes: <http://litsciarts.org/slsa11/changes.php>

Session 1 - Thurs 1:30pm - 3pm

Session 1 (A) Museum Classroom

## **Informational Animals with Material Bodies: Biosensors, Genome Scans, and Non-Determining Technologies**

Chair: *Scout Calvert*

Thick networks of laws, standards, and practices define human and animal relations in contemporary North American livestock production. Billions of animals are raised in North America each year for food and fiber, posing challenges for food safety, biosecurity, animal welfare, and human livelihoods. Consumer interest in food quality, animal welfare, and food safety is on the rise. Voluntary and mandatory certification practices address some consumer concerns, but contentiously. In the wake of high profile diseases like BSE (Bovine Spongiform Encephalitis, or “mad cow disease”), avian flu virus H5N1, E. coli, and salmonella, demands for new technologies for disease surveillance are emerging. Meanwhile, improvements in genetic technologies have made genetic testing and tracking more cost effective. This panel considers the ways animals and their bodies are understood and husbanded within information and biotechnical systems, including with major advances in genetically-mediated cattle pure-breeding, and the development of biosensors for use in animal welfare monitoring and disease surveillance. But these technologies are ambivalent, as in the case of Angus cattle breeding: phenotype prediction databases can prevent the spread of genetic disease or promote it. Biosensors can have the potential to monitor animal health and welfare but what will be monitored will be contentious, with more powerful actors setting priorities. And reliance on such technologies for preventing safety breaches in the food chain could encourage large-scale production systems that push the technologies past our abilities to predict and control the outcomes.

*Scout Calvert.*

### **Standardization on the Hoof: Purity, Degeneration, and Genomic-Enhanced Pedigrees**

For decades, beef breed associations have been gathering performance data on pure-bred animals that have become the basis for “expected progeny differences,” calculations made by comparing animals in electronic pedigrees, or herdbooks. The American Angus Association began digitizing its herdbook in the late 1960s. In 1978, it launched the Certified Angus Beef branding program, a marketing promotion that has successfully made the Angus breed co-extensive with succulent beef through a voluntary certification process. Angus has become the predominant cattle breed in the U.S., and “seedstock” production (breeding bulls and cows for their gametes or “genetics”) has become lucrative. The traffic in semen and embryos has flourished as performance pedigrees have become more robust, enabling ranchers to breed cattle that conform to industry standards. As EPDs became popular tools for the selection of artificial insemination sires, three genetic diseases reached frequencies up to 10% in the pure-bred population. EPDs coordinated a shared quest for Angus certification that also resulted in a catastrophic narrowing of the Angus gene pool. Although use of performance pedigrees are implicated in the frequencies of these diseases, pedigrees can also be used to breed them out. Breeders struggled to determine if the inbreeding practices that produced prized “genetics” skirted too close to the incest taboo and created genetic defects. Which breeding practices lead to purity, and which to degeneration? Can what is lost be restored?

*Corinna Ghaznavi.*

### **The Animal Vehicle in the Work of John McEwen**

The Animal Vehicle in the Work of John McEwen In 1978, working within and against the cultural climate of minimalism, Canadian sculptor John McEwen created Marconi, a steel slab sculpture, 2.5” thick, in the shape of a German Shepherd. With this he established the idea of the animal vehicle, which offers the bare bones of a narrative structure understood as contingent and constrained. McEwen describes his as an ‘impure Minimalism,’ that best works in an in between space where ideas, materials, the imagination and the concrete merge. The result is never didactic nor fixed: the real animal is implied, the actual animal is steel: the quickening that the viewer experiences when approaching the animal is halted by the hardness of the inert material, but the animal continues to live on in the imagination of the viewer who has engaged with the sculpture. My paper discusses the more recent, and highly

controversial, 1991 installation *Babylon* commissioned by the McMichael Collection of Canadian Art to bridge the traditional landscapes of the collection with the contemporary world of sculpture. The resulting work juxtaposes language and the art object, the animal and a ‘working minimalist’ sculpture, nature, technology, the natural world and the civilized one into a single installation. It challenges the idea of wilderness and offers a more complex reading of our place within it, and our relationship to it. Through analysis, and by positioning McEwen’s work along that of contemporary philosophical thinking on the animal, I will highlight the important contribution that McEwen’s work overall, and *Babylon* in particular has made for the discourse surrounding the animal.

*Monica List.*

### **The Use of Biosensors in Animal Production: Possible Implications for Animal Welfare**

In the field of animal production, the United States is known for lagging behind Europe in the adoption of voluntary or legislated standards for the care and treatment of animals on farms. Currently there is no national legislation in the US that sets minimum standards for housing and care of animals on farms. However, in 2004, the United States Department of Agriculture (USDA) expanded its animal disease traceability efforts by initiating the National Animal Identification System (NAIS). NAIS allowed producers who were not part of a disease program to voluntarily participate in national animal health safeguarding efforts. Although so far there is no discussion of the possibility of animal welfare monitoring being incorporated into this government led initiative, it should be taken into account. The development and implementation of efficient and low cost monitoring technologies, such as nanobiosensors, would allow for the simultaneous monitoring of health, production and welfare that are a common interest for government, producers, and consumers alike. The Europe based Welfare Quality® Project is discussed as a recent example of relevant integrated research in animal welfare, as the findings of this project may provide valuable information in predicting possible outcomes of the integration of animal welfare monitoring with animal disease surveillance through the use of biosensor technologies. This paper discusses some of the potential impacts of the integrated use of these technologies on animal welfare science and policy in the United States.

*Samantha Noll.*

### **Why Did the Chicken No longer Cross the Road?: Broiler Chickens, Pharmakon, and a Critique of the Epistemic Foundations of Genetic Modification**

Margaret Atwood, in her biotech apocalyptic novel *Oryx and Crake*, depicts a future where genetic engineering has twisted the animal kingdom into something much different than it is today. Atwood’s world is a place where scientists create hybrid species such as “pigoons” (pig-like creatures engineered for organ harvest), “snats” (a hybrid between a rat and snake), and genetically engineered chickens that have been practically reduced to a blob of breast meat. Here the practice of genetic modification is used to heal but it also brings about the destruction of the human race. Although this is a work of fiction, in the real world great strides have been made in the modification of animals for medical purposes and food use (Prather et al. 2008, 246). This makes Atwood’s picture of the future seem more plausible than one may have first thought. Within this paper, I will specifically critique the history of the modification of the broiler chicken in an attempt to show how such modifications, when taken too far, can actually destroy the organism being modified. I will utilize the work of feminist epistemologists in this critique to forward the argument that the understanding of what it means to be a chicken shapes our conceptions of what modifications are acceptable. In addition, I will argue that moving away from propositional knowledge (or knowing that) and including other types of knowledge, such as knowing how, will give us new insights that can help us better determine which types of modifications should be allowed and which types should be deemed unethical. The practice of the genetic modification of animals is not going away any time soon. However, without critiquing the epistemic foundations of such a practice, I fear that we are in danger of a future like the one depicted in Atwood’s novel.

## Session 1 (B) Artery Gallery

### **The Multispecies Salon**

Chair: *Eben Kirksey*

The swarm is a network with no center to dictate order. While structurally innovative, swarming is a politically unstable mutation of the body politic. Might this military tactic, a hallmark of the Bush and Obama war on terror, be reappropriated by a multitude of creative agents to cure the ills of Empire? Might the poison be the cure? Swarming became the tactic, rather than the theme, of *The Multispecies Salon*—a series of art exhibits in San Francisco, New Orleans, and New York City. More than one hundred artists—hailing from the far reaches of the United States, Europe, and Australia—explored human entanglements with other creatures during these shows. Rather than being a static exhibit, the *Multispecies Salon* went through a lifecycle of growth and decay. Blurring the boundaries between

bioart and ecoart, art practices that “take non-humans seriously,” the Salon showcased original artworks that illustrated human entanglements with plants, microbes, and animals. We displayed art forms that will help us think about living with, and in, multispecies worlds. New organisms that have been created by humans, or are dependent upon on us for their very survival, animated the Multispecies Salon. We showcased creatures living and dying in industrial runoff, and the life support technologies that help keep endangered organisms alive beyond the reach of deadly pathogens and toxins. Bringing the Salon to SLSA we propose staging an ethnographic para-site. Blurring the boundaries between an anthropological field site and an academic conference, we will welcome noisy, parasitic, interruptions.

*Eben Kirksey.*

#### **Anti-Rabbit Art**

Spectacular multispecies relations fueling the dreams and schemes of biocapitalism animate a collage, “Anti-Rabbit Art”, by Cameron Michel, Vashti Windish, and Eben Kirksey. Anti-rabbits, the molecules used to make images in this collaborative artwork, brought us down a proverbial rabbit hole and into the Wonderland of immunochemistry. We found that the immune systems of multiple species – donkeys, cows, chickens, mice, and goats – were laboring at biotechnology corporations to manufacture these glowing commodities. Anti-rabbits were being widely used in research laboratories around the world, to make molecular structures visible to the human eye. In this piece we used anti-rabbits to illustrate the elusive lure of promissory capital, a driving force that is oriented away from production and toward future knowledge, technologies of life, and promise. Purloining images made with anti-rabbits from a laboratory that was developing a drug for elephantiasis, we explored ethical articulations of biocapital. Drawn into the uncanny worlds illuminated by anti-rabbits, we found microbial agents that were generating queer becomings in insectoid bodies.

*Brandon Costelloe-Kuehn; Kathy High.*

#### **Embracing Animal as an Architecture of Care**

Transgenic laboratory animals, the laboratory workhorses of biotechnological advancements, are under-represented and rarely even seen. Embracing Animal was an environment purpose-built by Kathy High for transgenic laboratory rats to live in art galleries. The rats were chimera—a fusion of DNA from another species (in this case human). Traveling under the technical name of HLA-B27/β2m, these creatures were produced by Hammer et al in 1990 to develop drugs for rheumatoid arthritis and inflammatory diseases. Kathy High suffers from a related disease and regarded the rats in her installation—Star, Tara, Matilda, Flowers, and Echo—as adopted kin, her sisters in suffering. After her sisters passed away, High had them cremated and enclosed in glass globes. This memorial, which is currently being exhibited in the Multispecies Salon in New York City, gives presence to a multitude of other animals. There are over 80 million lab rodents used every year in scientific research in the United States. By making these laboratory laborers more visible, Embracing Animal sparked ethical debates. It asked viewers to develop a radically different mode of attentiveness to animals that are usually feared or used instrumentally, but rarely approached with empathy. Transgenic rats embody the logic of the pharmakon—they are born to suffer and die so that a cure for diseased human bodies might be found.

*Praba Pilar.*

#### **The Gospel of Nano Bio Info Cogno**

Bringing fantastical prophecy, a cyborg ritual, and an outrageous sermon to the SLSA meetings, the Reverend of Nano Bio Info Cogo will invert phobic cries for a pre-cautionary principle. Paging back to texts from the dawn of the Enlightenment—such as Man, A Machine from 1748—the Reverend will channel the messianic spirit of our age. Her Church proclaims the liturgy that drives emergent technologies - Nanotechnology, Biotechnology, Information Technology and Cognitive Neuroscience - forward into the neoteric millennium. An opportunity to imagine the ultimate techno-communion - the moment when humans will transcend their bodies by uploading their minds to hardware, leaving the meatware behind - this performance will incite audience members to dwell on the pharmacological dimensions of the post-human singularity. In this imagined future, the death of the body promises immortality through technology. If the Gospel of Nano Bio Info Cogno promises an ultimate cure, an end to the ailments of biological embodiment, her prophecy of technological rapture is haunted by the specter of apocalyptic death.

*Eben Kirksey; Deanna Pindell.*

#### **Thneeds Reseeds**

The original storybook thneeds were sweaters—and so much more. “A thneed’s a fine something that all people need,” in the words of the Old Oncler, the nemesis of the Lorax in a classic tale about environmental destruction by Dr. Seuss. “It’s a shirt. It’s a sock. It’s a glove, it’s a hat. But it has other uses, yes, far beyond that!” Thneeds Reeseeds are a sculptural remediation strategy, a biotactical intervention, aimed at exposing and derailing biopolitical regimes for dominating and managing sylvan life. Repurposing a commodity, sweaters that her friends no longer wanted, Pindell has created a novel technology of interspecies care and cultivation. She shrank the sweaters into soft-ball sized balls which can be used to help reseed the clear-cut forested landscapes near her home on the Olympic Peninsula of Washington State. The Thneeds were created with one particular species in mind: Silvery Bryum (*Bryum argenteum*), one of the most prolific mosses in the world. Found in all sorts of seemingly hostile environments—from the tarmac of New York City airports, to the tiled roofs of Quito—Pindell sees this moss as a “first responder” from the plant kingdom in clear cut forests. Open to surprises, to multispecies feasting, Pindell hopes her sculptures will bring a multitude of lively agents to these abandoned landscapes.

#### Session 1 (C) Hotel 1

##### **word/play: the friction of the interstices**

Chair: *Martha Kenney*

While many writers look for good objects to think "with," this panel is interested in thinking "through." Specifically, we take up the spaces between words that are close neighbors, human/humane, real/time, plot/conspire, as the inspiration for our papers. The friction between these words animates particular themes and investments in larger ongoing research projects. While Harlan Weaver’s paper on human/humane traces the connections between increased regulation of dogs and their compassionate killing, Astrid Schrader argues that re-articulating human subjectivities in light of technicity and animality requires a reconfiguration of real/time. Martha Kenney uses the space between conspire and plot to figure conspiracy theory as a genre of storytelling and kind of knowledge-making. Taken together, these papers think through the tension of proximate difference as a way to better articulate the central issues of our projects.

*Martha Kenney.*

##### **Conspire/Plot: Listening to Coast to Coast AM**

To conspire is to plot. To scheme. To act collectively. To breathe together (con-spire). Conspiracies make things happen by bringing (sometimes surprising) actors into relation with one another. Conspiracy theory is also about plotting. It requires defining and following the relevant actors and telling stories about how they secretly shape our world. This paper is about conspiracy theory as a genre of storytelling, a kind of epistemology, and a form of political participation. It is about plots (schemes) and plots (stories). Here, I draw on my dissertation chapter about Coast to Coast AM, a popular late night call-in radio show about conspiracies and the paranormal. I think about Coast to Coast as an epistemic community building knowledge through radio storytelling. However, conspiracy is not only my topic, but also informs my approach. In this paper I ask how we (scholars) can learn to listen to conspiracy stories without explaining them away. Resisting the urge to characterize conspiracy theories merely as paranoid, debased, or symptoms of an anxious culture, I consider how we might pause, breathe together, and tune in to other ways of plotting stories and narrating worlds. During my presentation I will be playing clips from the show, while I discuss the pleasures and challenges of conspiracy as method.

*Harlan Weaver.*

##### **Human/e: death by compassion in canine euthanasia**

Describing the single dog euthanized out of those taken from Michael Vick’s dog fighting operation, Tim Racer of Bay Area Dog Lovers Responsible About Pit Bulls (BADRAP) notes: “This dog had been bred and fought, and bred and fought, and bred and fought. You felt immediately almost ashamed to be human.” Racer argues, “putting that poor dog to death was probably the most compassionate thing that could be done”, connecting being human to acting humanely (“The Dog Are All Right,” PBS 2011, 8:28). Throughout this paper, I examine connections between the rise in enforcement activities targeting dogs and increased efforts for their “humane” treatment through cases in which dogs are euthanized out of (often overtly stated) compassion. Beginning with debates about Breed Specific Legislation, laws that mandate the euthanasia of particular kinds of dogs, the paper then turns to the treatment of dogs taken from dog fighting busts. The case of Oreo, the “miracle” dog thrown from a Brooklyn rooftop and nursed back to health by the New York ASPCA in June 2009 only to be put down six months later, concludes the paper. These moments of compassionate killing bring into question how the doing of “humane”

informs the ontology of “human”. By interrogating this moral play of human/e, the paper points to the deeply related question of how the being of “non-human” relates to doings designated “inhumane.”

*Astrid Schrader.*

**Real/Time: Human Speed in Environmental Crisis**

At the center of the current environmental crisis, and perhaps any perception of crisis, is the question of speed. What distinguishes humans from the rest of nature is no longer a flexible mobility versus stasis or activity versus passivity but the rate of change that our technologies enable. Whether we are talking about climate change or the spreading of so-called “harmful algal blooms” (red tides) that threaten to suffocate major taxa of life in the ocean, anthropogenic forces interfere with the ‘natural dynamics’ at ostensibly unprecedented speed. While it has become conventional wisdom that the accelerations of technoscientific developments have transformed what it means ‘to be human’, it has remained difficult to reconfigure the ‘human’ in relationship to both technicity and animality at the same time. Revisiting the debate between Bernard Stiegler and Jacques Derrida about the artifactuality of ‘real-time’ technologies and examining its possible ethico-political consequences in the context of an environmental crisis, this paper explores how Derrida’s affirmation that “life is always already inhabited by technicization” (Derrida 2002) might enable a re-articulation of the ‘human subject’ in relation to both technicity and animality without reaffirming a (second-order) human exceptionalism in terms of a particular relationship that Stiegler calls technicity. I propose that such a re-articulation requires a re-configuring of speed and time. In addition to Stiegler and Derrida, I am instructed by toxic microorganisms whose ‘harmful species beings’ elude technoscientific detection efforts in ‘real-time’.

Session 1 (D) Hotel 2

**The Second Electronic Literature Collection: 63 Works.**

Chair: *Marjorie Luesebrink*

The Second Electronic Literature Collection: 63 works Does born-digital literature “kill” print literature, or take its place? Does it “cure” a dying art? Does it act as a healing intervention that, as supplement, infuses literature with 21st-century vitality and relevance? Perhaps, a true pharmakon, it does both. The recently published Electronic Literature Collection/2, successor to the 60-work Electronic Literature Collection/1 (2006), includes 63 works in 6 languages from 12 countries. It includes works of animation, augmented reality, codework, gaming, hypertext, interactive fiction, and video, which are also narrations, poems, text movies, textual instruments, poem generators, documentaries and essays—works of creative nonfiction, critical engagement, and memoir. Many of these texts are ergodic, collaborative, performative, generative, combinatorial, conceptual, 3D, locative, and/or they make use of audio, chatterbots, databases, stretchtext, and appropriated text. Works made with Processing, Java, JavaScript, Flash, Shockwave, and other software are included, some based on network forms, some made for a CAVE virtual environment. Our panel, which includes both authors of the pieces and commentators on them, will introduce this collection.

*Caitlin Fisher; Marjorie Luesebrink; Stephanie Strickland.*

*John Zuern.*

**Generally Electronic, Particularly Literary—or the Other Way Around?: How the Electronic Literature Collection Pushes Comparativism**

By looking at a some particular examples, this paper will make the general argument that the two volumes of the Electronic Literature Collection challenge us to elaborate a multilateral, multi-tasking comparative critical method that moves between “natural” human languages (e.g. English, French, Catalan) as well as between media formats (e.g. animation, hypertext, interactive fiction) to illuminate electronic literature's crucial interventions into “our”—whatever that means—globalizing communication networks.

Session 1 (E) Hotel 3

**Economics and Science**

Chair: *Alissa G. Karl*

*Alissa G. Karl.*

**“A modern scientific robot”: ERNIE and the British economic imagination of the 1950s**

This paper surveys recent original archival research on the Electronic Random Number Indicator Equipment (ERNIE), a random number generator unveiled by the British government in 1957 to select lottery numbers from among those who purchased so-called “Premium” government savings bonds. Premium Bonds and their mechanized prize draw executed by ERNIE were one strategy to encourage savings and check inflation in late-1950s Britain. The archival research performed at the UK National Archives and National Savings and Investments (the UK government entity in charge of public savings programs) that is discussed in this paper includes governmental correspondence and documentation as well as media discourse about ERNIE’s inception and introduction to the British public. This paper reads the ERNIE archive to examine the ways in which popular discourses about mechanization, computation and science – and in particular the literal, built forms through which they are embodied and imagined – frame and generate the notion of what “the economy” is in the mid-twentieth century. Popularly represented as a male robot, ERNIE figures and disseminates abstract economic concepts in a corporeal form, and I examine how discourses about computation and mechanization that surround the device achieve this kind of figuration. Furthermore, ERNIE and its surrounding discourses not only reproduce the figuration of the nation as an economic body that can be identified under Keynesian economics, but also, by combining notions of randomness and systematicity in particular ways, posit the “natural” and “scientific” economy as a function of both.

*R.d. Crano.*

**From the Chicago School to the Smart Phone: Rethinking the Legacies of Wiener and Hayek**

This paper argues that a strange coupling of cybernetic systems theory and neoliberal social thought renders us ill-equipped to perceive the role of telematic media in producing the most egregious wealth disparity the democratic world has ever known. Historically, cybernetics and neoliberalism both emerged as sober, neutralizing antidotes to the high-modern totalitarianisms of interbellum Europe. Despite working in vastly divergent fields and adhering to rather conflicting social ideologies, Friedrich Hayek and Norbert Wiener independently elaborated models of spontaneous self-organization rooted in freely accessible information (be it packet or price) and a series of endogenous, self-correcting controls. Hayek’s work, of course, inaugurated the Chicago School’s postwar boom and spurred the rapacious privatization programs under Thatcher and Reagan, while Wiener’s quickly spread from neurobiology and robotics to communications engineering and automated production. Key to Hayek’s thought is his “catallactic” conception of society, which attests to the necessarily fragmented nature of human knowledge and the consequent impossibility of any central planning. From this, I construe the ideal neoliberal market as that of financial abstraction, and the ideal society, one tele-mediated by evermore, ever-smaller, increasingly customizable screens. I propose that, well beyond the supply-sider’s victory over 1970s stagflation or the aggressive anti-regulatory politicking over the succeeding decades, the great triumph of neoliberalism occurs by virtue of its embeddedness in the communications revolution. The convergence sets in motion twin processes of global financialization and social demassification that lubricate novel distributions of power, which we today aim to more rigorously understand.

Session 1 (F) Hotel 4

**(Bio)Semiotics**

Chair: *Sean Eirik Simpson*

*Sean Eirik Simpson.*

**Distributed Signifying Ambiguities: Classic Maya Sculpture as a Complex System of Pictorial Reasoning**

In cognitive science studies, a complex “global” system is identified as composed of underlying “local” constituents. System-level theories offer descriptions and explanations of global properties and processes. Constituent-level theories offer descriptions of local properties and interactions. One complex system, so far unnoticed, is Classic Maya relief sculpture--an exemplary practice of *pictorial reasoning* which Tatiana Proskouriakoff long ago discerned as “one of the great intellectual achievements of mankind” (*A Study of Classic Maya Sculpture*, 1950, p. 181). Maya sculpture generates and performs subject matter according to what Proskouriakoff specified as the “qualities [or properties] of the whole design [that] affect simultaneously all elements in it” (p. 11). My presentation explores the *emergence* of such complex, system-level categories and properties from ambiguously-signifying, constituent-level categories and properties. Investigation of target-domain, pictorial reasoning analogizes/maps the source-domain, spatial and cognitive constraints of direct, diagrammatic reasoning (vs. indirect, sentential reasoning) in general, and of three models of diagrammatic reasoning in particular--the classical schema called the logical square, with its permutational distribution of categories; the classical schema of chiasmic logic, with its inversive distribution of categories; and a recent schema of chiasmic logic, with its analog-driven, rotocentric

distribution of categories. These models may be aptly described as complex, global systems, whose system-level properties emerge from distributions of ambiguously-signifying, constituent-level local properties. It is from the ontological connections between these global and local properties that the canonical principles and the conceptual meanings of Maya sculpture historically unfolded as an *organization of reasoning itself into an efficient pictorial practice*.

*Victoria N. Alexander.*

### **A General Introduction to Biosemiotics**

The real mind-body problem is that scientists don't know the pre-Cartesian history of semiotics. Signs have not always been associated exclusively with the human mind, words or culture. This lost notion of sign as non-mentalistic—had it been retained, modified, and developed—might have provided for a naturalistic understanding of the origins of human mentation from more primitive semiotic processes such as are found, for example, in cellular signaling or immune systems. Unfortunately Descartes, unschooled in this alternative, convinced the majority of the western world that the road to inquiry necessarily forked. Those interested in mind were ushered off in a direction barred to empirical investigation, and those interested in matter were shown the only way open to science. At this unhappy division, semiotics was sent to the left with human mentation, and there is has remained, for the most part under-investigated and not well understood. With the introduction of information and communication concepts in biology, terms such as "message," "signal" and "code," suddenly appeared in science like unwelcome specters. Uncomfortable with semiotics on the "matter side" of inquiry, most scientists accepted the uses of these terms only if understood in a metaphoric sense. The term "signal," to most scientists today remains a placeholder for concepts not fully understood yet and which, they feel, will eventually be reduced to chemical and physical processes. Biosemioticians believe, however, that the sign concept spontaneously crossed the Cartesian barrier as a natural consequence of the self-correcting nature of scientific practice.

*Pierre-Louis Patoine.*

### **Killing me softly with this text ; dangers of fiction and powers of the mind**

Psychosomatic manifestations are possible because of the integration of the nervous system – central and peripheral, sympathetic and parasympathetic – with the glandular, muscular, respiratory, digestive systems, with the organism as a complex whole. Through this integration, meaning – as a continuous neurophysiological event – is circulating amongst organs. It is both determined by and determining of our bodily state. An especially strong form of meaning, aesthetic experience, and immersion in literary fiction in particular, must have organic consequences. Phenomena like identification, catharsis, empathic reading all point toward psychosomatic effects of literary practices. From Sade to Genet to contemporary writers like Dennis Cooper, literature is full of edgy, dangerous texts, rich in their violence and bold in their attempt to go beyond what is commonly considered healthy. Are those text therapeutic or poisonous? Can the biosemiotic reader absorb their toxicity? In what ways do they reorganize the lived body's semantic somatotomy? And how does fictional immersion orient the flow of embodied semiosis, successively inhibiting and activating vital zones? I propose to explore those questions by examining the complementary roles of metacognition and sensorimotor neuronal simulations in literary reading, considered as a psychedelic technique leading to altered states of consciousness. By orchestrating a dialogue between such a neuroaesthetic model and the so-called "dangerous texts", my aim is ultimately to contribute to an ethic of fiction and to a refinement of the art of reading.

Session 1 (G) Hotel 5

### **Religion, Theology, the Sacred and Science**

*Maxwell Kennel.*

### **The Pharmakon of Technology for Theology**

The pharmakon of technology, specifically where the pursuit of theology is concerned, can be defined specifically in terms of the temporal distinction between the Greek terms 'kairos' and 'chronos'. Technology, for the specific purposes of this presentation, will be treated as pharmakonic insofar as it skews temporality towards the quantitative 'chronos' time, rather than the qualitative 'kairos' time (the latter of which, we will argue, is essential for the pursuit of any theology). With this distinction in mind an argument will be made, drawing upon the work of Bernard Stiegler and others, for a healthier view of technology-informing-temporality that emphasizes the formation of social and spiritual space through the technological pursuit of 'kairos' time, at the expense of 'chronos' time which is often the default condition of technology-informing-temporality.

*Lisa Cockburn.*

**The Unholiest Dichotomy? Religion and Science in a Posthuman World**

Since the emergence of science, it has been in dialogue, and often conflict, with religion. At times seeming to comprise two necessary parts of human experience, at other times aggressively vying to occupy the same epistemological space, the relationship between religion and science is complex. It staunchly stands as the last remaining dichotomy of modernity to be tackled by postmodern theorists: although a great deal has been said of other dualisms – nature/culture, mind/body, male/female, human/nonhuman, material/discursive – there appears to be something taboo about religion/science. Perhaps it is the extreme amount of attention it continues to receive in other, particularly political, realms – such as the evolution/creationism wars of the last 20 years – but the line between religion and science remains as simultaneously blurry and contentious as ever. Although numerous posthuman scholars draw from A.N. Whitehead’s work, his philosophical project of integrating science and religion begun in the early part of the 20th century has largely been abandoned. Still, I argue that there lies in posthuman theory important elements in addressing this last “unholy” dichotomy, and I will discuss the applicability of posthuman theory to an integration of religion and science.

**Session 2 - Thurs 3:30pm - 5pm**

Session 2 (A) Museum Classroom

**Design, Architecture, Spaces**

Chair: *Matthew Friday*

*Matthew Friday; David Jensenius; Iain Kerr.*

**Towards a Geography of the Event**

Given: 1. A definition of place exceeds identities. An understanding of place begins with an engagement of what is moving through and what is activated in a place. A place starts with ideas rather than identities. 2. Place is more than a physical and cultural geography. 3. Place is only sustainable as a set of human and nonhuman practices. 4. Because we cannot occupy an exterior position to the world, our habits of dwelling have a profoundly ethical dimension. In this presentation members of Spurse will discuss their ongoing research projects at CAFKA and the Guggenheim BMW Lab. Spurse is a creative consulting and design collaborative that catalyzes critical issues into collective action through research, design, building, exhibitions, events, teaching, and publication. Spurse includes specialists in the fields of sustainable architecture, environmental design, systems programming, experimental art and community education. Spurse has developed a series of apparatuses and methodologies for producing new commons. We argue that to grasp the way humans and non-humans become enlisted as discreet entities or members of a commons, our tools must also recognize the durational aspect of space.

*Laurin Alexandre.*

**Dealing with uncertainty in urban space: leads from an empirical exploration on locative practices in Montreal**

According to anthropologist André Leroi-Gouhhan “The human act par excellence is perhaps not so much the creation of tools as the domestication of time and space, or, to put it differently, the creation of human time and space” (1993, p. 313). This domestication runs by multiple social, technical and sociotechnical practices that build (aménager) a human habitat. The living and the “organized inorganic” (Stiegler, 1998) inhabit spaces that are continuously transformed by their mutual determination. In this regard, I am interested in the ways our relations to space, through our constant embodied human experience, are shifted by the use of digital information to get around. Throughout my observations, it seemed that different sociotechnical configurations and mobilities changed the amount of human effort invested in locative processes. This tendency was apparent when people’s trajectories collided with the indeterminacy and unexpectedness of the built environment. I interviewed and followed 4 people whose experiences were quite revealing on locative efforts using different location-based technologies and modes of transport: A 27-year-old quasi-Luddite female student, a hyper-connected SUV-driving photojournalist, a suburb-living Montreal-working real-estate agent using a GPS without an up-to-date map, and an experienced truck driver from the country. From dependence to rejection their relationships to technologies are all different. In fact, their practices are deeply anchored in personal sociotechnical configurations that make it easier or more difficult to know



where they are. The use of a technology can't always encompass the full localization process: because getting the information is only one part the game!

*Megan Fernandes.*

### **Mood, Bioconstructivism, and the Aesthetics of Variation**

“It’s a very old aesthetic problem to show an object or a figure amidst forces, between being torn apart and being created. It’s everywhere – in Bernini’s treatment of folds”- Lars Spuybroek This paper explores a new intersection between disciplines including design, architecture, science, and media studies and how they have influenced the emerging field of Bioconstructivism, a new architectural phenomena interested in “form-finding principles derived from biological ideas” and designing for exploratory or “plastic” behavior, unpredictability, and interactivity. Bioconstructivism is interested in the aesthetics of variation, the possibility of quick sensory and mood change by designing spaces that use new materials for continuous changes in light, air circulation, diagonal hallways, unexpected massing, etc. The focus on a more detailed and careful attention to how materials are manipulated and politicized simultaneously occurs with new discourses about “forces” which are both environmentally and aesthetically informed. For example, in his book *Subnature: Architectures other Environments*, David Gissen, argues that elemental forms such as dankness, smoke, exhaust, weeds, and mud, are not residual forms of “tampered” space, but actually forces which test the potential, limitations, and durability of architecture. Gissen details several accounts in which “subnatural” forces are essential in creating stylized space and therefore, producing distinct styles of subjectivity. The paper will explore how these forces participate in a larger discourse of affect theory, particularly looking at mood as both a cognitive and atmospheric assemblage that allows for new discussions of relationality and agency.

*Joshua Neves.*

### **Ruins and Blueprints**

Drawing on media urban research in Olympic Era Beijing, this presentation pursues postsocialist urban development through the imbricated figures of ruins and blueprints. Ruins express the state, action or material debris tied to downfall, collapse and destruction. Blueprints, on the other hand, signify both the photographic process for reproducing technical designs (in white and blue) and, in common language, plans, schemes and patterns in general. Ruins and blueprints, I submit, are critical modes for making claims on the social in post-1989 China. The actual and projected forms of demolished courtyard houses in Beijing’s alleyways (hutong) and new urban structures like the CCTV Headquarters or Olympic park are apertures for looking into the cultural politics of transformation (zhuanxing). They suggest the impossibility of keeping the real and virtual, present and absent, separate. In particular, I am interested in how Beijing is produced as an instrument of futurity, and how such audiovisions circulate as material and imaginary artifacts. My argument, in contrast to simplistic renderings of state power and dissident resistance, is that Beijing is a medium. It is a media capital and a mediated capital that functions as material technology for public communication about the future of Chinese sociality—from the design of local life worlds to broader regional and national configurations.

## Session 2 (B) Artery Gallery

### **Researching Sci-Art: Critical Engagements with Ethics Boards**

Chair: *Hannah Rogers; Dehlia Hannah*

There are many power dynamics encoded in our understanding of art and science. Some people are eager to imagine science in the service of artistic practice or artists in the service of science. In other contexts, artists are seen as contributing to science, while Science Studies has brought forward examples of science influenced by art. New Media practices, particularly the digital and biological artworks, have opened up new spaces for art to critique science and at the same time art itself has elicited criticism on bioethical grounds. This panel will explore the power dynamics between art and science, intersections, and tensions between ethical norms and epistemological imperatives that inform art-science hybrid practices. This panel will illuminate the central role of the Institutional Review Board (IRB) and other ethical oversight bodies in shaping and constraining artistic practice, and interrogate the ethics and politics of art at the boundaries of science. IRBs were established to provide ethical oversight of research in the biological and social sciences. As artists have begun to work with biological materials, animals and human subjects, these institutional bodies have been drawn increasingly into the web of art, both as resources and as arbitrators of the ethical implications and the research needed for some artworks. This panel will bring together artists and scholars in the history, philosophy and social studies of sciences to consider the ways artists and ethical boards interact and reveal some surprising dynamics that arise between ethics bodies and their applicants when the applicants are artists. The panel will be organized to provide audience members with a brief historical and

philosophical background of IRB practices and introduce several artworks that will focus our discussion. We aim to engage the audience in responding to these and other artworks and exploring future possibilities for devising ethical standards [...]

*Hannah Rogers.*

### **First Presentation**

Hannah Rogers will offer a brief history of the development of Institutional Review Boards in the United States to provide context to our discussion of artists involvement with these institutions. While the review boards were developed in 1974, they are seen as an institutional response to Nazi atrocities and the Tuskegee Syphilis study. The structure of institutional review boards has elicited criticism, particularly from scholars in the social science. It has been noted that IRBs have, in certain cases, potentially overextended their legitimate reach to the effect of restricting research in oral history, for example. It has been proposed that different standards need to be devised for research in different scientific fields, and that procedures need to be developed that will enable the IRB process to be open to new types of research, which may pose unfamiliar ethical dilemmas. As artists begin to engage the attention of IRB this raises questions about the relevance of current standards to artworks that deliberately aim to provoke ethical reflection and re-evaluation, and to draw attention to flaws and uncertainties in the processes of ethical decision making that are currently institutionalized – including the engagement with ethical review at SymbioticA and experiences to which Jennifer and Kathy will speak more directly. Artworks which have fallen under IRB oversight as well as projects that have critiqued the concept of the IRB will be discussed. Before we dive into discussing those examples, it is important to consider why artists would actively seek out the regulation of the IRB, its legitimating power, and the limitations it imposes. What do artists gain through submitting their work to IRBs? In what cases is an artists' involvement with IRBs compulsory versus a choice? What is at stake in the use of the term "research" to describe creative practices?

*Jennifer Gradecki.*

### **Second Presentation**

Artist Jennifer Gradecki will reflect on her experiences seeking approval for an artwork from the IRB of the University of California, Los Angeles, where she recently completed her Masters of Fine Arts degree. As an art student, Gradecki was not required to apply to the IRB, but chose to do so in order to analyze it. The IRB rejected the study on the grounds that it was unethical, unsafe, may incite coercion, and would not produce meaningful information. The work, titled IRB# G10-02-066-01 (2010-Present) is a participatory installation that questions the role of the IRB in the generation of artistic research, explores the possibility of exchange between the disciplines of art and psychology, and examines the social relations that a shock machine may represent or produce in a gallery setting. The piece consists of an IRB application for a study entitled "Social Interaction as a Function of Voluntary Engagement with a Shock Machine," letters of correspondence with the IRB, two chairs flanking a small table that holds a shock machine, and a sign that explains the guidelines for participation. Viewers are invited to use the shock machine, effectively participating in the study deemed "unethical" by the UCLA IRB, to determine the ethical nature of the piece for themselves. Gradecki debated with the IRB over a series of email correspondences, defending her work and questioning their criteria and rulings. Ultimately, the IRB maintained their disapproval of the installation, insisting that "future displays restrict individuals from using the device in any manner," but Gradecki continues to display the piece as participatory. Participant responses have been positive, which further questions the verdict of the IRB. Gradecki will discuss artistic and social scientific precedents for IRB# G10-02-066-01, and her experiences displaying the work. She will present data about participant responses, provide updates on the current [...]

*Kathy High.*

### **Third Presentation**

Artist Kathy High will discuss some of her experiences with the IRB in relation to Blood Wars (2010-2011). She will introduce the question of how to develop new "creative ethics" guideline for artists working in art + science. We (artists and social scientists, philosophers and citizens) need to establish ways to set standards for reviewing artists works for NSF grants, to assist IRB boards/committees in assessing these artist proposals, and to write some of our own guidelines and our own questions that need to be asked. We understand our own processes and ways of making inquiry, and ways of judging the successes of our own works differently from the ways that scientists and others may evaluate or respond artworks or scientific research. Therefore artists should have more input into the adjudication of our works and being involved in 'setting the rules' for these committees. Drawing on her own

experiences with IRBs and dialogue with other artists confronting similar institutional constraints, High will open discussion of unique ethical issues raised by art in this field and address the what it means for artists to be working institutionally in general.

*Dehlia Hannah.*

#### **Fourth Presentation**

Dehlia Hannah will revisit the philosophical foundations of the ethical decision making processes of IRB and consider how the works of High, Gradecki and others have problematized the relationship between art, ethics and politics at the intersection of art with the social and biological sciences. She will focus on how the IRB in functioning as a site of ethical arbitration also serves to shape and constrain aesthetic forms and epistemological possibilities. Drawing on recent work in agnotology, which supplements epistemology to identify how sites of ignorance are produced, how knowledge is suppressed and topics of inquiry overlooked, Dehlia will argue that artworks can serve a central role in revealing how IRBs influence the content and direction of scientific research. By engaging artists and audience participants in the types of ethical and epistemological decision making usually reserved for experts in positions of institutional authority, artworks hold the potential to open up the IRB process to critical scrutiny and to function as exemplars for the formulation of new standards and evaluative procedures. Finally, Dehlia will raise questions for discussion by panels and audience members including: Why and when do artworks elicit scrutiny from an IRB? To what extent do artists' choice of materials, formal practices and institutional affiliations determine whether IRB approval ought to be sought or granted? How are the ethical issues raised by artists working in close proximity to the sciences different from those raised by other kinds of art? Should all art be evaluated to determine whether it endangers the well-being of persons and other organisms? Are practices that are ethically permissible for certain purposes, i.e. medical research, acceptable for the purposes of art? What kinds of epistemological or aesthetic goals justify ethically questionable or uncomfortable practices?

#### Session 2 (C) Hotel 1

##### **Exercising Power: Bodily Practices in Early-20th-Century U.S. Literature**

Chair: *John Bruni*

During the early 20th century, the ideology of regulation—that collapsed the boundaries between the scientific and the social—entered U.S. culture in a number of rather interesting ways. Our panel examines naturalist and science-fiction narratives to explore the multiple levels of control: from the gendered body to the management of natural resources. Under the sign of modernity, we suggest, the revision of male/female roles through bodies at play, war, and as “free agents” in an emerging global economy/ecology is an ongoing concern. Cara Erdheim’s analysis of Jack London’s boxing novel, *The Abysmal Brute* (1913), explores the connections between scientific models of self-discipline, in particular, exercise and diet, and an ecological ethics that drives naturalism’s economic and political reformism. Next, Patrick B. Sharp looks at 1920s and 1930s science fiction writers, such as Phillip Nowlan and Catherine (C.L.) Moore, to explain how the literary representation of female soldiers both supports and challenges reductive ideas about evolution and gender. Lastly, John Bruni reads Edith Wharton’s *The Custom of the Country* (1913) through Michel Foucault’s concept of bio-power to demonstrate the ways that the (re)making of women as economic free agents is guided by a business morality that underwrites the ethical imperative for clean/pure water. Individually and collectively, we open a new channel for examining bodily practices in an era shaped by national fantasies of military and economic dominance—at the intersection of evolutionary and ecological processes.

*John Bruni.*

##### **Biopower and the "Pure Water Move" in Edith Wharton's *The Custom of the Country***

This paper decodes the convoluted “Pure Water move” in Edith Wharton’s *The Custom of the Country* (1913) that discloses the ethical implications of an emerging regime of what Michel Foucault calls bio-power. Set up as part of Wharton’s critique of business morality, the political struggle for control of water resources in the Midwestern urban center of Apex City shows the connections between global economies and ecologies. My reading of the novel explains how the circulation of water (maintained through state-level regulations) and economic “free agents” (such as Undine Spragg) create a fluid national identity that must be compulsively re-performed. The novel, I therefore propose, challenges the belief that evolution supports a biologically determined definition of identity. Wharton’s reading of evolutionary theory shapes her model of identity as not simply being, but as an ongoing and unpredictable process of becoming. That identity remains incomplete suggests there can be no stable point from which observations can be made. I proceed to explain how the performance of gender roles undercuts the validity of objective reporting and thus disrupts the logic that underwrites the exploitation of both labor and nature. As I point

out, Wharton posits that the freedom of movement of U.S. citizens is secured through unequal labor practices that shape global trade. In addition, the shift from self-possession to possession of natural resources guides how national citizenship becomes global.

*Cara Erdheim.*

**Physical Fitness, Science and Sport in American Literary Naturalism**

My paper views Jack London's boxing narratives in relation to a scientific discourse about physical fitness pervasive in the thinking and writing of early twentieth-century naturalist novelists. I locate *The Abysmal Brute* (1913), a sports story about a boxing champion who trades in his fortune and fame for a wilderness adventure, within the larger context for American naturalism as a literature very much focused on the body, appetite, and environment. Rather than emphasize the elitist (and masculine) escapism present in this novel, I'm interested in how *The Abysmal Brute* informs and is informed by scientific discussions about exercise circulating in *Bernarr Macfadden's Magazine*; this early twentieth-century publication stresses extreme dieting, supreme physical conditioning, excessive exercise, peculiar temperance, and fierce frugality. I will argue that both *Physical Culture* and London's novel expose another side of the survivalist rhetoric that we have come to associate with American naturalism. At last year's SLSA conference, I noted that my ecocritical work on so-called social Darwinian writers had become increasingly focused on food; moreover, I noted that the challenge of my larger project had become about how to reconcile this counter-narrative of culturally disordered eating and self-restriction on the one hand with the ecological ethics so central to naturalism's economic and political reformism on the other: perhaps, sports stories such as *The Abysmal Brute* can ease the process of addressing this challenge.

*Patrick B Sharp.*

**The Rise of the Evolutionary Amazon in SF**

In the battle for women's suffrage, a number of feminists in the United States appealed to evolutionary narratives of gender—in particular, the Darwinist formulation of sexual selection—as a foundation for making their claims about women's rights. Authors such as Charlotte Perkins Gilman and Inez Haynes Gilmore even turned to writing SF utopia novels where women gain control of sexual selection and equality to the benefit of their societies. The writing of Perkins and Gilman emphasized the "civilized" aspects of the feminine evolutionary essence such as sympathy, cooperation, and the maternal concern for future generations. In the aftermath of World War I, however, where women began to play a role in war industries and the military itself, images of violent women became increasingly prevalent in SF. Drawing on the older tradition of the American Amazon, SF authors such as Philip Nowlan and Catherine (C. L.) Moore created female soldiers in the 1920s and 1930s who play a key role in evolutionary battles for survival. For male authors such as Nowlan, these female soldiers became compliments for the male protagonists in a way that preserved traditional gender hierarchies. C. L. Moore's work, however, put forward woman characters who were protagonists in their own right. Though Moore's most famous character, Jirel of Joiry, shows traces of evolutionary essentialism, the character developed over several stories into an independent woman warrior that would provide the model for SF authors for generations to come.

Session 2 (D) Hotel 2

**SLSA Creative Writers Read I**

Chair: *Susan Allender-Hagedorn*

SLSA members are very creative people. This is the first of two sessions where members read from their fiction/creative non-fiction.

*Rebecca Housel.*

**Cancer-Creationism: Survival of the Fittest**

*Karen Leona Anderson.*

**Cure, Rosemary, Smut, The Law of Simple**

*Michael Filas.*

**from The Lyrica Cantos**

*Mari-Lou Rowley.*

**poems from Viral Suite, CosmoSonnets, NumenRology**

## Session 2 (E) Hotel 3

**19th century Literature, Art and Science**Chair: *Sylvia Pamboukian**Sylvia Pamboukian.***Proof of Spirit in Anthony Trollope's Doctor Thorne**

Laudanum is...proof spirit mingled with opium in the proportion of nineteen to one – and yet that one acts as powerfully...in nineteen times its own bulk of spirit as..pure. Cornhill, 1857. Cornhill Magazine asserts opium's stable identity since it acts as “powerfully” diluted or pure. What about alcohol? Overlooked by Cornhill, alcohol featured prominently in contemporary debates about the nature of materia medica because of its multifaceted nature as sociable drink, pharmaceutical, diluent, and poison. This paper explores the depiction of alcohol in Trollope's 1858 novel, *Doctor Thorne*, which, I argue, undermines the very notion of essential identity. In the novel, Dr. Thorne treats alcoholic stonemason-turned-baronet Roger Scatcherd and his son, Louis, by giving and withholding alcohol. Contemporary medical texts assert alcohol's value as a medicine and diluent, yet it also appears in the *Poisons Bill*, which identified toxic substances, and teetotalers called it a poison. In the novel, alcohol defies labels such as poison, medicine, and beverage, just as the stonemason-baronet and Doctor Thorne muddy boundaries between classes and professions. If Derrida deconstructs pharmakon to show the slipperiness of translation, Trollope deploys alcohol to correct the Victorian tendency to pigeon-hole pharmaceuticals. Instead of asserting an unchanging identity, as Cornhill does, this novel cautions readers about reducing materia medica to simple categories, a danger both for Victorians and for us, who may construct too-neat views regarding alcohol. Trollope reminds his readers that identity is neither simple, monolithic, nor stable.

*Michelle Foa.***On Music, Language, and Science: Emile Zola's Paradigm of Modern Art**

Emile Zola's 1886 novel *L'Oeuvre* (The Work), one of the best known 19th-century French novels on the arts, tells the story of a fictional painter in Paris named Claude Lantier and his frustrated ambition to found a school of modern painting. More broadly, *L'Oeuvre* constitutes one of Zola's most extended meditations on the arts, their different formal structures, and their various modes of representation. The downfall of modern painting is depicted in the novel as the result, at least in part, of the protagonist's rejection of direct observation in favor of an interest in music and scientific theories of color perception, the latter being the hallmark of the newly emergent Neo-Impressionist painters. In my paper, I will analyze the tensions that Zola sets up in *L'Oeuvre* between the aims and identities of the arts, as well as link Zola's deeply negative portrayal of Neo-Impressionist painting and music to his commitment to an empiricism that he thinks should underpin all forms of artistic production. Ultimately, one suspects that Zola's anxiety about music and color theory concerned not just the fate of painting but the fate of his own art form, literature. Indeed, throughout the novel music is positioned at or beyond the farthest reaches of language, thereby testing the limits of Zola's own medium. My paper will explore the competition between the arts that Zola articulates, as well as their perceived relationship to inductive and deductive scientific reasoning, placing Zola's views in their very rich historical context.

*M.K. Nixon.***Papa Don't Preach: Commodification and Control of Women's Bodies in Henry James's Washington Square**

*Washington Square* is in many ways a typically Jamesian novella—light on plot and heavy on character development. Catherine Sloper is an heiress in the first half of the nineteenth century whose father refuses to let her marry an obvious fortune-hunter. Rather anticlimactically, Catherine simply remains unmarried in her father's house for the rest of her life. However, the characters' interactions in this novella take on radical implications when the text is read in light of the fact that Catherine's father is one of an emerging breed of doctor in the American context—the male obstetrician. The text makes it clear that Dr. Austin Sloper's masculine scientific knowledge was involved in Catherine's birth—an incident which left his wife dead, likely from a particular form of streptococcal infection that increased after the advent of the male obstetrician into the world of parturition. This paper argues that marginalization of female midwives by the modern American obstetrician represents a literal commodification of female bodies. Doctors in fact created the obstetrical field in order to expand their potential market. Since Victorian social mores mandated doctors' ignorance of female anatomy, however, their obstetrical efforts were usually little more than semi-educated guesswork. Thus, Sloper's foray into the field of obstetrics represents a form of speculation wherein women's bodies are the wagered property. Within this context, it becomes clear that Austin

Sloper's treatment of Catherine as well as her reaction to this treatment are intricately related to the scientific and commercial milieu of the 1830s.

Session 2 (F) Hotel 4

**Code**

Chair: *Sandra Robinson*

*Sandra Robinson.*

**From Bacteria to 'Bionets': The Vitality of Self-Organizing Digital Systems**

Recent design initiatives in organic and natural computing suggest a turn toward vital, or life-like, models for information processing and control that are not based on human cognition, but rather nonhuman, self-organizing, biological life. Following Adrian Mackenzie's (2009) call to shift the "focus away from abstract understandings of code, calculation, and software to specific design processes" and, I would add, design inspiration, my paper explores the significance of this turn in computing; that is, the specific models found in biological life processes of nonhumans that provide a template for autonomous control in communications and information technology. "Machinic life", as John Johnston recently noted, is "increasingly directed toward its own autonomization" (2008). The current fascination with self-organization maintains the original assumption of cybernetics that "some aspect of a living organism's behaviour can be accounted for [and] modelled by a machine" (ibid.). In this paper, I explore the sources of biological inspiration in self-organization that inform organic or natural computing system design. Bacteria and slime moulds demonstrate a classic flow of self-organizational processes, from local to global, that give rise to emergent behaviour and action; a many-to-one organization where the one is comprised of the many operating in unison without direct, centralized control.

*Choukah Sarah.*

**François Jullien's Movements of Indetermination and the Configurations of Genetic and Computer Codes**

In this paper presentation we explore the concept of indetermination with French sinologist François Jullien's "Les transformations silencieuses" as a starting point (2009). We find that Jullien's reading of Ancient Greek and Chinese philosophy allows him to develop an original perspective on both, without reducing either or opposing one to the other. Following Jullien, we thus delineate indetermination as a silent transformation involving communicational movements of "modification-continuation" (2009: 26) working through and beyond spheres of human logos. This reading allows us to see indetermination as a process working through affective and discursive boundaries in contemporary relations between various, living and non-living, spatiotemporal scales of existence. We frame this discussion by mapping and describing several tensions and problematic instantiations peculiar to our contemporary postnatural political economy. We specifically take this opportunity to explore some current implications and consequences of biotechnological and transhumanist discourses and practices, such as grinding (DIY biohacking focused on self-modification) as well as genetic engineering in animals. We conclude by discussing how this particular perspective on indetermination improves our interrogations of some contemporary intersections between genetic and computer codes, as well as the ways they affect relations between animals, humans and machines. Bibliography Jullien, F. (2009). *Les transformations silencieuses*. Paris, France: Grasset et Fasquelle.

*Adam Bradley; Neil Randall.*

**The First Person Shooter Game as Evolutionary Simulacrum**

I propose to explore the question of whether or not evolutionary processes cross over into digital domains, specifically games. By investigating two primary online first-person shooter universes, those of Halo and Call of Duty, I will show that these game worlds function, through the degree and intensity of player engagement, not only as locations for play and for the articulation of simulation, but as environments in which we can observe the interspersing of real-world evolutionary processes in a virtual setting. I ground my thesis, after the necessary brief and highly specific discussion of what I mean by "evolutionary processes" (drawing from Darwin, of course), in the simulation/simulacra theories of Jean Baudrillard, demonstrating how Baudrillard's concept of the four successive stages of the image (hence the sign) and his placement of these stages within a broader concept of the hyperreal provide a basis for an ongoing theorization of digital games in general and FPS games in particular. I supplement Baudrillard with Charles Peirce, particularly his three sign typologies (rheme, dicent, argument) as they relate to Baudrillard and to the FPS discussion. Baudrillard claims, in essence, that the difference between the real and the represented has disappeared - "the sovereign difference between them that was the abstraction's charm." - not only in simulations themselves but in real-world experience and, by extension, in the experience of virtual game worlds,

which themselves rely on a logical, if simplified and fantasized, representation and comprehension of the bases of living: learning, training, experience, and, above all, survival. In this paper I will show that the hierarchical ranking systems, defined rule sets, and clear survival advantages towards the “fittest” competitors (following Herbert Spencer) are all expressions of evolutionary processes and reflect Baudrillard’s concept of the simulacrum.

Session 2 (G) Hotel 5

### Science & the Nation

Chair: *Thomas McPhail*

*Thomas McPhail.*

#### **Electronic Colonialism Theory and the Concept of Nation State**

Theme: critical media theory Traditionally, mass media research looks either at select micro issues, such as agenda setting, ownership, or violence, or at a specific medium, such as print, radio, television, or the internet. Only occasionally do scholars examine the macro aspects of the overall mass communication system. Harold Innis, Marshall McLuhan, Armand Mattelart, Jacques Ellul, Ben Bagdikian, and George Barnett are representative of the macro research school. Electronic colonialism theory (ECT) reflects much of the current global concerns, particularly with reference to culture, and is an important theoretical concept to aid in understanding the evolving digital universe. It provides a theoretical frame for examining the stakeholders and transnational issues, including new media, such as Facebook, twitter, and MySpace. Background: A major changes occurred during the late 1950s and early 1960s that set the stage for the current era of virtual empire expansion. The major change was the shift to a service-based, information economy among core nations. The service economy relies substantially on satellites, telecommunications, digital technologies, and computers to analyze, transfer, and communicate information. It renders obsolete traditional national borders and attempts to regulate new media, as well as making technological barriers often futile. Canada is the gold standard for being an electronic/information colony of another nation, the USA. Even the rapid growth of Netflix across Canada is resulting in calls for CRTC regulatory intervention (since it acts like a broadcaster yet is not one). Electronic colonialism represents the dependent relationship of poorer regions on the post industrial nations caused and established by the importation of communication hardware and foreign-produced software, along with engineers, technicians, and related information protocols, that establish a set of foreign norms, values, and expectations that, to varying degrees, alter domestic cultures, languages, habits, values, and the socialization process itself. From comic books to satellites, [...]

*sam smiley.*

#### **Remixing "Scientific American": Histories, Fictions, Representations**

Scientific American began publishing in 1845, and is currently a popular science magazine that is published in Europe, the U.S. and Canada. La America Científica was the Spanish edition which appeared in 1890, and stopped being published a few years later. The titles of these publications bring forth these questions. Who is a "Scientific American"? And what is "American" science? Cuál es La America Científica? This presentation will be analyzing the history and representation of "American" science within and without the United States, using as a metaphorical framework, the magazine Scientific American. We will be looking at video interviews with researchers from Mexico, U.S., Canada, Sweden, and Colombia, as well as texts from "Scientific American" in the 19th century to engage with the question "What is a 'scientific american'?"

*Jason Hawreliak.*

#### **Every Hero Needs a Villain: Representations of Cultural Hero Systems in First Person Shooters**

According to the cultural anthropologist Ernest Becker, cultural norms and standards of value, or “hero systems,” provide psychological buffers against existential anxiety. Cultural hero systems provide frameworks for distinguishing success from failure, right from wrong, or in-groups from out-groups. Drawing from Becker and video game theorist Ian Bogost, this paper examines the narrative, visual, and procedural techniques employed to (re)create cultural hero systems in two First Person Shooter (FPS) video games: Medal of Honor: Operation Anaconda (2010), and the Hezbollah produced Special Force 2 (2007). Although these games are structurally very similar, and both use recent events for their source material, they present antithetical representations of the hero/villain dichotomy. Medal of Honor (MoH) is a conventional, Western produced shooter, in which the heroes are represented as American soldiers fighting in Afghanistan, and the villains are represented as culturally and ethnically distinct terrorists, intent on destroying America. Special Force 2 (SF2) is an example of “Islamogaming,” or games produced from a non-Western perspective, and which attempt to counter the unfavourable representations

of Muslims in popular Western video games. In SF2, the heroes are Muslim youth fighting in the 2006 war against Israel, and the villains are members of the Israel Defense Forces. A comparative analysis of these games will highlight the role of video games in constructing, perpetuating, and contesting cultural hero systems at the discursive level. The paper will conclude by considering the death denying function of games generally.

#### Session 2 (H) Hotel 6

##### **Poesis and the Procedural**

Chair: *Bradley Fest; Sten Carlson; Robin Clarke*

This panel will begin by framing and reading from a collaborative manuscript of poetry, *Dear Human Converter Box*, a book conceptually situated in the interface between artificial intelligence and poetics. The authors will read from the manuscript and gloss some of its central theoretical and political concerns, which include the procedural and collaborative processes involved in its composition. This portion of the panel will conclude with a multimedia “performance” of one poem via a text-to-voice application. The third panelist will present a general theory of “poetic assemblage” and engage specifically with *Dear Human Converter Box* as an instance of such assemblage.

*Sten Carlson; Robin Clarke.*

##### **Dear Human Converter Box: Poetry in the Age of Intelligent Machines**

Panelists will read from and discuss their line-for-line collaboration, *Dear Human Converter Box*, a book-length sequence of poems that investigates the possibilities of a machinic intelligence brought to bear on the making of poetry. Taking two texts—Giambattista Vico's *The New Science* and Manuel DeLanda's *War in the Age of Intelligent Machines*—as its conceptual frame of reference, the book stages the transfer of cognitive structures from humans to machines in the late twentieth century, bringing an experimental, oppositional poetics to bear on those very cognitive structures. Once artificial intelligence has been achieved, DeLanda argues, “we might imagine specialized ‘robot historians’ committed to tracing the various technological lineages that gave rise to their species.” One of the wagers of this project is that, whereas the robot historian would largely assemble genealogies to describe, illustrate, and account for the history of AI (a history, DeLanda points out, that would look very different than one written by a human historian), the robot poet would involve itself in processes of aesthetic experimentation and discovery that would interrupt, complicate and transform the fundamental forms of such an intelligence. Considering, for example, that artificial intelligence has developed largely along procedural lines in the service of the military-industrial complex, what are the implications on that intelligence of a felt and imagined machinic poesis capable of (in Vico's terms) “perturbing to excess” its own rational, barbarous properties and processes? Put differently, how is the poem—as a site of imagination, critique, pleasure, irrelevancy, excess—a technology capable of refusing strictly rational “intelligence” as such? As a line-for-line collaboration between two poets, *Dear Human Converter Box* takes up these problems not only at the thematic and formal levels, but at the level of the composition process itself. Certain objective formal constraints put into place in the book, as well as freestanding language [...]

*Sten Carlson; Robin Clarke.*

##### **Dear Human Converter Box: Poetry in the Age of Intelligent Machines [cont.]**

[abstract cont. from above] systems like ready-made word “palettes” and appropriated source materials create systems of information, knowledge, and music continually assembling themselves in ways the authors hadn't anticipated. On the one hand, the formal techniques and collaborative processes in this project enact the very processes of assemblage and emergence that the book is about. On the other, collaboration and assemblage challenge the suppositions of much lyric poetry that posits the poem as an isolated, autonomous, and rarified aesthetic object and the author as a discreet, ahistorical and unmediated identity. As both enactment and opposition, then, the poetry in this book emerges—via mutual aid, inspiration, contradiction, multiplication—as what our co-panelist Bradley Fest calls a “poetics of assemblage.”

*Bradley Fest.*

##### **The Robot Poet: Toward an Assemblage Theory of Poetry / a Poetics of Assemblage**

One of the major impasses that any coherent theoretical or critical approach to poetry has historically faced was accounting for the relationship between part and whole in the poetic text. Whether it was the New Critical emphasis on looking at the whole of the poem-itself, deconstruction's focus on parts that broke the form of the whole, theories of influence where the whole was the entire canon of Western literature, or the many other critical approaches that have flourished in the wake of theory, entire schools of literary criticism have often been defined by their approach to this problem. Drawing upon the work of Manuel DeLanda and his mobilization and codification of Gilles Deleuze



and Felix Guattari's theory of assemblage, this paper will attempt to point toward an assemblage theory of poetry. What assemblage theory offers, I will argue, is a mode of looking at poetry that can simultaneously account for the absolute heterogeneity of the various parts that make up a poem, while able to retain a complex view of the assembled whole, a view that understands any assemblage to also be a part of other poetic assemblages. To demonstrate how such a critical approach might be undertaken I will engage with the work of my colleagues on this panel, Sten Carlson and Robin Clarke, and further suggest that their ongoing collaborative project Dear Human Converter Box points toward a poetics of assemblage, a poetry that fundamentally understands itself as an emergent property of the process of imaginative assemblage.

Reception I - Thurs 6pm - 7:15pm; THEMUSEUM open until 11pm

Reception I (A) at THEMUSEUM + RAM (to 11 pm)

The reception will include finger foods and a cash bar with beer and wine. Delegates are welcome to view Rethinking Art and Machine until the plenary begins at 7:30, and then again when the plenary is complete until 11:00 pm. For information about the RAM exhibition, visit: <http://www.themuseum.ca/RAM/>. Tickets for RAM can be purchased at THEMUSEUM for \$10 if you do not already have them.

Plenary I - Thurs 7:30pm

Plenary I (A) Isabelle Stengers

*Isabelle Stengers.*

### **Reclaiming the Pharmakon**

Indeterminacy, as a general feature in defining what we call pharmakon, is, arguably, closely connected to the question of the "we" that have constructed such a category. For other, so called "traditional", peoples, potent beings, able to kill or cure, are rather a matter of attentive "culture" with no generality, as each being has its own demands. Such beings do not deviate from, but are foreign to, the ideal of stability in the name of which pharmaka were disallowed since Plato. My talk will address this contrast through my own experience as a philosopher confronting the pharmacological questions of science and refusing both the deconstructive critique, which disallows the claims of science, and the philosophy of science, which attempts to extract the stable rational ideal that science aims to illustrate. Reclaiming the pharmakon - and here, in particular, the scientific pharmakon - is not a task for philosophers for two reasons: firstly, because science and philosophy share the same Platonist heritage and, secondly, because that reclamation depends on concrete power dynamics that a philosopher can only call for, but not summon. However, if, as Whitehead wrote, philosophy is a collection of footnotes to Plato, some of these notes, which he himself signed, may well open the possibility of a humour of truth that civilizes the ideas in the name of which we fight and destroy (including on the academic battleground), and brings us back among those others who know that the beings that make them what they are must be honoured in order not to become possessive, destructive powers.

Session 3 - Fri 8:30am - 10am

Session 3 (A) Museum Atrium

### **Thierry Bardini's *Junkware* (2011)**

Chair: *Rich Doyle*

*Timothy Weaver.*

*Choukah Sarah.*

*Rich Doyle.*

### Session 3 (B) Museum Classroom

#### **Critical Game Studies I: Art Games**

Chair: *Patrick Jagoda; Stephanie Boluk*

The videogame industry has reached nearly 25 billion dollars in annual profits, outpacing the publishing and film sectors. The past two decades have seen a dramatic expansion in videogame development that has made this medium increasingly important to literary theory, art history, and media studies. Recent scholarly texts such as Alexander Galloway's *Gaming* (2006), Ian Bogost's *Persuasive Games* (2007), and McKenzie Wark's *Gamer Theory* (2007) have established methodologies for examining videogame form, procedural rhetoric, and gaming culture. This stream of four panels builds on this work, analyzing the formal, technological, and political aspects of this new medium. We bring together both senior and junior scholars working at the cutting-edge of four major areas in this fledgling field. The first panel, "Games of War" (Patrick Jagoda, Tim Lenoir, and McKenzie Wark), explores political games that use medium-specific affordances to work through aspects of everything from conventional to nuclear warfare. The second panel, "Art Games" (Patrick LeMieux, Mark Sample, and Zach Whalen) turns to independent videogames and alternate artistic uses of game engines. The third panel, "Virtual Worlds" (Stephanie Boluk, Katherine Hayles, and Victoria Szabo), explores the architecture, narrative potential, and utopian dimensions of multiplayer online spaces. Finally, the fourth panel, "Videogame Spaces and Posthuman Agents" (Edmond Y. Chang, Steven E. Jones, and Timothy Welsh) turns to theories of space and agency as they operate in contemporary digital games. Together, these panels explore the technological and artistic status of videogame studies and the directions in which this field is headed.

*Patrick LeMieux.*

#### **99 Exercises in Play**

In "Cybernetics and Ghosts," Italo Calvino notes the similarities between Raymond Queneau's *Hundred Thousand Billion Poems*, the game of chess, and the "electronic brain," suggesting that gaining access every poetic, programmatic, or neural combination is impossible. Yet it is exactly those hidden patterns and unconscious repetitions that Calvino and the Oulipo explore in their writings—and those same patterns that most computer games seek to obfuscate in their software design. For the past twenty-five years, the mainstream game industry, as indicated by the best-selling games, has been invested in the pursuit of the fantasies of immediacy, filmic realism, and immersivity, and, in doing so, attempt to hide those repetitive, procedural, discrete elements—what Ian Bogost calls "unit operations"—that drive computational media. Thus, like readers, computer game enthusiasts engage in networks of patterns that make up the aggregate histories of virtual worlds. Following Mary Flanagan's approach to game criticism, this paper examines two categories of meta-gaming practices which "critically play" the serial logics intrinsic to games. Based on this genealogy of alternative play-styles, I develop new types of software which imagine an alternative history of the game industry dedicated to these curiosities. Rather than pursuing advanced forms of visual representation, I propose building serial software based on the mass, invisible repetitions governing player performance. My "Oujeupo" project, *99 Exercises in Play*, titled after Queneau's *Exercises in Style*, first translates *World 1-1* from the original *Super Mario Bros.* into a contemporary game engine and then uses Mario's genre-defining mechanics as a constraint for producing ninety-nine meta-games.

*Zach Whalen.*

#### **Art Games and the Long Pause Unto Death**

Videogames have, since at least *Spacewar!*, included death as the thinly and routinely narrativized token for the player's successes or failures. As a result, death has become as trivial as scorekeeping or other mechanical tropes of videogame play. Thus, it is not surprising that so-called art games turn so often toward a de-trivializing of death, creating games where the death of either the player character or NPCs provide metrics of success or failure with implied stakes larger than the scope of a game's skill. Games like *Passage* (Rohrer 2007), *Every Day the Same Dream* (Pedercini 2009), *Today I Die* (Benmergui 2010), *The Execution* (2DCube 2008), *One Chance* (AwkwardSilenceGames 2010) and *I Fell in Love with the Majesty of Colors* (Weir 2008) offer players a *memento mori* experience where moments of decision, action or - more interestingly - inaction, lead to moments of reflection upon one's own mortality. While these thanatoptical meditations may in some cases be evidence of literary or artistic pretensions, moments of nonplay where the player pauses to consider her complicity with a game's procedures invoke some of the deepest engagements possible with videogame texts. This paper explores the trend of temporal suspension within art games, arguing that the movement between engagement and disengagement forms the core aesthetics of videogame textuality. By moving through key examples and critical theories of temporality, I will contend that ludic semantics are driven by a core of ethical indeterminacy.

Mark Sample.

**Waiting on a Cup of Coffee: The Deliberation of Experience in Videogames**

"Video games are actions," declared Alexander Galloway in a manifesto that stakes out the essential differences between videogames and other forms of expressive culture, such as literature, photography, and cinema. But what about games in which action looks like inaction? What about games in which action means sitting still? What about games in which action is nothing more than the simplest of daily activities? In this paper I explore two examples of "slow gaming" - games that question what counts as "action" in videogames. The first is *Heavy Rain* (2010), a realistically-rendered game for the PS3 by auteur David Cage, and the second is *A Slow Year* (2010), a tiny Atari VCS game by designer and theorist Ian Bogost. In many respects, these two games are a study in contrasts, yet both challenge the dominant mode of action in videogames, encouraging what I call "deliberation." Acts of deliberation ultimately, I argue, transform the central fact of these games from "action" (as Galloway would put it) to "experience" - and not just any experience, but the kind of experience that Walter Benjamin identifies as *Erfahrung*, a weighty accumulation of meaningful history that stands apart from the more fleeting moments of time that commonly pass as experience in the modern age.

Session 3 (C) Hotel 1

**Indeterminacy**

Chair: *Samuel Talcott*

*Samuel Talcott.*

**Rationalizing Indeterminacy: Canguilhem's Critical Reception of Bachelard's Historical Epistemology**

This paper examines the problem of indeterminacy in the work of the historians and philosophers of science, Gaston Bachelard and Georges Canguilhem. Such an examination provides not only a better understanding of the origin of contemporary interest in the *pharmakon*, but also highlights the role that history and philosophy of science plays in raising the issue of indeterminacy. Bachelard's historical epistemology of early 20th century physics argues that it surpasses classical physics through the incorporation of indeterminacy into its very structure, effectively rationalizing the indeterminate. In response, this calls for a transformation in the very structure of thought itself, which is now posed as living and developing on the basis of its errors and its ability to recognize them. Drawing in part on archival research into Canguilhem's courses on error, the paper argues that he critically responds to and develops Bachelard's endeavor to incorporate indeterminacy into the rational. Worried that the radical discontinuity Bachelard establishes between quotidian experience and the phenomenotechniques of contemporary physics leaves us incapable of fully accounting for indeterminacy in human experience, Canguilhem shifts focus from a scientific discipline understood by relatively few to the universal experience of health, illness, and all the attendant variability here. This makes the indeterminacies of the organism central to the life sciences and medicine, as well as to the philosophical project of making sense of human experience. Thus, for Canguilhem, attention to indeterminacy in these areas marks out the way to a rational systematizing of values and a possible ethics.

*Christopher Rudge.*

**Invention and the *Tekhnē*color Labcoat: Scientific History's Psychotropic Trace**

Throughout the intersubjective, oral history of modern science, there runs a psychotropic trace. Discerning this trace focuses our attention on the discovery of LSD, as well as its ingestion by certain scientists seeking their own *aporetic* discoveries. By their own accounts, Francis Crick, the pioneering co-discoverer of DNA, and Kary Mullis, the inventor of DNA sequence replication, self-administered LSD to access ontological or inventive modes beyond the field of their immanent, embodied sensoria. Having identified this 'psychotropic trace', my paper will consider LSD as a *pharmakon* in the context of Derrida's quasi-transcendental theorising on the nature of "invention" in his essay *Psyche: Invention of the Other* (1989). For Derrida, 'invention' occurs as a limited form of production in "only two possible, and rigorously specific registers": the '*tekhnē*' and the '*fabula*'. Whereas the *tekhnē*-invention summons the possibility of further invention, and "is capable of a certain self-reproductive recurrence and even of a certain reiterative simulation," the *fabula* only "recites and describes itself [and] presents itself from the start as a beginning." By reference to these distinctive registers, my paper examines how LSD - little understood or examined by contemporary science, and almost always comprehended through the lens of its ignominious history - resides interstitially between an unpotentiated *tekhnē* and an oblique *fabula*. I conclude by suggesting LSD as a *pharmakon* that is "not yet shown and that therefore looks like a hallucination," and by focussing on the conditions of indeterminacy and interstitiality in relation to scientific 'invention' more generally.

Joy James.

### **Art, Affect, Pharmakon**

Art traffics in transformation, focusing the movement of force into form. Affect is the pharmakon of art's encounters. Pharmakon signals the space of indecidability, pure potentiality. A successful encounter emerges as an oscillation: a moment of agitation that holds thought at the threshold of knowing, without or before plunging it into a revaluation of all values. A revaluation precipitated by the introduction of difference in itself. Working with the propositions outlined above, this paper explores the eventfulness of the art object through Stewart and Seaton's *Change Without Notice*. The 2010 exhibition featured two immersive video installations that engaged politics of gender and sexuality, ecological and social sustainability. I will discuss the use of immersive video technology in the relation of techné to the affective capacities of the work, and the impact of this relation on the possibility for the introduction of the new.

Session 3 (D) Hotel 2

### **Stengers' *Cosmopolitics I* (Cosmopolitics as Speculative Practice)**

Chair: Steven Meyer

This year (and the next) the Whitehead stream addresses the work of Isabelle Stengers. The first volume of Stengers' *Cosmopolitics* appeared in English in 2010, followed this past spring by Michael Chase's translation of *Thinking with Whitehead*. Although we will hold off full-scale consideration of the latter work till 2012, two of this fall's sessions variously place the titular subjects of Stengers' grand projects in conversation. A key chapter of *Cosmopolitics* is called "Culturing the Pharmakon?" in striking concert with the conference theme. Instead of "subtly channel[ing] the multiplicity of *pharmaka* . . . toward the over-arching question of writing," as Derrida does, Stengers takes a "detour through the sophist and the *pharmakon*" in order to "amplif[y]" what, following Bruno Latour, she calls the "factishistic proposition" regarding "new artifacts capable of being referred to as 'living' or even 'thinking'"—"those beings we fabricate and that fabricate us," Latourian factishes. As for "the question of the 'sophist' capable of celebrating and cultivating the event that constitutes the creation of a factish," it is "new only because it responds to a new problem: *all cults are not equal*." (Here cult refers, Stengers explains, "to a celebration of the event that brings a new being or a new method of measurement into existence.") In light of the argument laid out in *Cosmopolitics*, our ten speakers examine a variety of such unequal cults, attendant on fabrications ranging from zombies and tree houses to systems of tuning and models of the immune system.

Steve Shaviro.

### **Zombie Cosmopolitics**

In this talk, I would like to take a speculative (Whiteheadian and cosmopolitical) look at recent scientific and philosophical debates about the nature and function of consciousness. Cognitive science and philosophy are haunted by the figure of the philosophical zombie: a being who would be outwardly indistinguishable from other sentient beings, but who would not be conscious (would not feel pain, experience qualia, etc). Though thinkers like David Chalmers and Daniel Dennett have argued about the logical possibility, and the implications, of this figure, arguably the most adventurous appearances of the philosophical zombie have come in recent science fiction. Peter Watts' *Blindsight* (2006) is a "first contact" novel that posits humanity's encounter with alien beings who are technologically superior to us, but devoid of consciousness. Project Itoh's *Harmony* (2009, translated 2010) presents an oppressively utopian future world in which the complete extinguishing of consciousness becomes the final solution to human suffering and dissatisfaction. Tricia Sullivan's *Lightborn* (2010) presents an alternative history in which human and animal consciousness can be directly manipulated by the biological equivalent of computer viruses. Scott Bakker's *Neuropath* (2008) explores the disturbing consequences of the argument, proposed by Thomas Metzinger and other thinkers, that consciousness is entirely delusional and has no causal powers. All these novels explicitly present consciousness as merely epiphenomenal; and yet they all suggest (perhaps in spite of themselves) a certain affective intensity and efficacy of nonconscious, noncognitive thought.

Andrew Goffey.

### **Sophistication and the Poison of Performance**

In the first volume of her *Cosmopolitics*, Isabelle Stengers invokes the curious figure of the 'non-relativist sophist'. As a gesture, this invocation is deliberately provocative—not least because we have learned, since Plato's *Theaetetus*, to think of the sophist as the figure par excellence of relativism (Protagoras's 'man-measure'). Yet the place of sophistry in what—for want of a better word—we can call the 'Western tradition' is a complicated one, and

it is not surprising perhaps that Stengers, opposed to the diacritical gesture of a modernity that prides itself on the dichotomous logic of being and non-being, truth and illusion, communication and nonsense, can find favour in the practices of those who have been stigmatised as charlatans, mere technicians of the word. This paper explores the logic of 'non-relativist sophistry' such as it can be extrapolated from Stengers work, in the context of a more general understanding of sophistry as 'logology'. Drawing on Barbara Cassin's reconstruction of sophistry and in particular on her genealogical account of the performative, the paper discusses some of the broader implications of Stengers's reading of the philosophical tradition and explores the ethico-political ambiguities of the 'performative turn' that it enables us to disclose.

*Erik Bordeleau.*

### **Peace, Anonymity and Speculative Presence**

It is not always easy to figure out just how concretely speculative constructivism, and more specifically, Stengers' ecology of practices and her cosmopolitical proposal, conceives of its interventional power to induce new ways to think, feel, imagine and act. Effective political intervention is indeed one of Stengers' main concerns and it is often explicitly thematized, especially in her books aimed at a larger audience. Take Stengers' cosmopolitical proposal. It involves two different concepts of peace: first, the "diplomats' peace," which is the always precarious, creative and technical result of contingent negotiations, and which relates to the political realm of representation proper. Second, the "speculative possibility of peace," which constitutes an indispensable requisite for the cosmopolitical proposal, and which stands beyond its limits, at speculative and erotic distance, as pure process attractor. In the passage from politics to cosmopolitics, what is at stake is precisely the very possibility of a peace, a peace whose mode of existence is nothing but propositional or virtual, a pure possibility that could as such effectively make a difference. But how the most abstract, imperceptible and tenuous mode of existence can possibly induce transformations of a political kind? How can it arouse our faculty of imagination and operate as a 'lure for feeling'? How can it get a hold over [faire prise] and actually "infect" somebody else's dreams? Here lies perhaps the paradox of the fundamentally anonymous experience of thought and lived abstraction that Stengers calls "speculative presence."

*Isabelle Stengers.*

### **Response**

Session 3 (E) Hotel 3

### **Simondon's Technical Object**

Chair: *Bruce Clarke*

Gilbert Simondon has been under recovery at the intersections of philosophy, cybernetics, media theory, and systems theory. Translations of his major works into German and English are ongoing and forthcoming. Until now, for primary texts, Anglophone readers have made do with "The Genesis of the Individual" published in *Incorporations* (1991), and an obscure 1980 translation of the first part of *On the Mode of Existence of Technical Objects* recently available on the Web. Whereas much attention has been given to the importance of his idea of individuation for the work of Deleuze, Simondon also offers a significant rethinking of cybernetic themes in his discriminating the modes of existence of technical and natural objects and his reworking of the concepts of form and information. This panel will focus in particular on Simondon's discourse on the technical object, as a base from which to approach the wider range of his thought and influence.

*Michael Cuntz.*

### **Organization, Concretization, Reticulation, Individuation: The Liminal Mode of the Technical Object**

How is the mode of existence of technical objects actually defined in Simondon's writings? One must inquire into its status as a quasi-organism vs. its status as what later on will be called a quasi-object. Simondon's description of this mode of existence systematically and necessarily oscillates between establishing genuine analogies to organic beings and emphasizing their differences: The concrete technical object tends to become organic, but is only asymptotically approaching the status of an actual organism. The inability to grasp its proper mode of existence in between the physical and the biological world is, according to Simondon, the main reason why people fear the technical object as uncanny. However, there is also in Simondon an opposed reflection that underlines not so much the organization and concretization of the technical object, but rather, its reticulation and openness, as well as the possibility of decomposing it and recombining its elements. If the quasi-organicity of the technical object would imply a deficiency compared to living beings, its reticulation and openness would imply that it also contains capacities and potentials which exceed those of living entities. This raises the question of the recursive interaction of the technical

object and its individuation with the individuation of human beings, a question that remains rather implicit in Simondon's writings. Does the technical object modify or even enhance human individuation?

*Bruce Clarke.*

**“An Open-Ended Virtuality”: Simondon’s Technical Object and Latour’s *Aramis***

Freeing nonhuman objects from merely instrumental or utilitarian consideration, Gilbert Simondon's *On the Mode of Existence of Technical Objects* prefigures in some degree what Michel Serres and Bruno Latour will develop under the name of the quasi-object, and brings to mind Latour's singular study, *Aramis, or The Love of Technology*. The parallels between them concern their mutual considerations of the interrelations of machines and humans on shared planes of being. However, *Aramis* does not proceed altogether in the spirit of Simondon's philosophy of technology. It becomes clear that the problem with *Aramis* is that it is not (yet) an object, and that *Aramis* is devoted to a thorough description of the mode of existence of the technical *project*. Relative to *Aramis*, Simondon's approach to the technical object may be deemed deficient in its sociological witness. However, Latour's sociology itself needs another supplement, the discourse of social systems theory. The view from systems theory also benefits Simondon. As a meditation on systematicity, Simondon's discourse of the late 1950s is as far along as Latour's of the early 1990s. Nevertheless, the work of Simondon and Latour, especially when combined together, powerfully unveils much of what the “technical object” has been hiding in plain sight.

Session 3 (F) Hotel 4

**Reproduction As *Pharmakon***

Chair: *Susan Squier*

“The formation and coalescence of the American reproductive sciences involved complex intersections of a stunning array of actors—human and nonhuman.” —Adele E. Clarke As a process, a symbolic object, a set of relationships, and (most recently) a variety of technologies used to perpetuate, link and divide species, sexes, and races, reproduction has long been understood as the prime site for the production and management of life itself. Yet recent explorations in feminist science studies—the systematic exploration of gender and science—have illuminated the limits of reproduction as a tool for biological and cultural production and analysis. The papers in this panel explore reproduction as *pharmakon*—a process that can cure or kill—at three scales: the population, the individual, and the cellular. An interdisciplinary convergence of women's studies, literary studies, and new media studies, this panel offers a range of perspectives on how contemporary research in the humanities and sciences unsettles our understanding of the meaning and limits of reproduction.

*Nicolette Hylan.*

**The Patriarchal Potential of in vitro fertilization in Simon Mawer's *Mendel's Dwarf***

This paper traces how Simon Mawer's understudied novel *Mendel's Dwarf* (1999) updates a long-time concern of radical feminists by highlighting the potential of in vitro fertilization (IVF) to restrict women's reproductive autonomy as it privileges men's interests. *Mendel's Dwarf* juxtaposes the professional and romantic endeavors of present-day geneticist and achondroplastic dwarf Benedict Lambert with those of his renowned ancestor Gregor Mendel. The novel challenges the persistent notion that scientific discoveries are necessarily liberating as it documents the application of Mendel's findings to twentieth-century eugenics and registers the potential of IVF to restrict women's reproductive autonomy. When Benedict's longtime love-interest Jean and her husband Hugo seek to bear a child despite his compromised fertility, the couple turns to IVF. Jean secretly solicits Benedict's more potent sperm and assistance with the process of embryo selection, which she hopes together will enable her to bear an average-sized child and bolster her husband's flagging sense of virility. *Mendel's Dwarf* thus highlights the reality that IVF often subjects fertile women to invasive and painful procedures so that men can claim a genetic tie to their children, a prize that perpetuates the patriarchal family and supports normative masculinity. Whereas IVF taxes and objectifies Jean's body, it confers both sexual pleasure and a renewed sense of sexual prowess on Benedict. When Benedict divests Jean of reproductive agency, refusing to consider her wishes as he selects embryos for implantation, Mawer further signals the way in which IVF compromises women's reproductive agency. By leveling his critique of IVF in the form of a highly entertaining novel, Mawer renders a subject of past feminist scholarship and activism accessible to a new generation of readers.

*Kristin Messuri.*

**“How Deep Is the Corruption this Wanton Has Spread”: Maternal Contagion in Gaskell’s *Ruth*”**

Elizabeth Gaskell's *Ruth* (1853) was met with harsh criticism upon its publication because of its controversial protagonist, an unwed mother. *Ruth* is treated as a source of moral and physical contagion; she is, in this sense, a victim of the same social attitudes that later shaped the Contagious Diseases Acts of the 1860s. My discussion extends such readings of *Ruth* to consider her status as an infectious mother with the ability to transmit her immorality to her own son and to other children with whom she comes into contact. I position the novel in the larger context of mid-Victorian understandings of contagion and reproduction, arguing the novel raises the possibility of the transmission of moral contagion in two ways: heredity and epigenesis. The anxiety over the hereditary transfer of immorality reflects contemporary proto-eugenic discourse. This strain of thinking intersects with the theories of James Cowles Prichard, a Victorian psychologist who popularized the concept of moral insanity (the medicalization of immorality) in England. In Gaskell's novel, illegitimacy is treated as a congenital disease in which immorality is transferred from mother to son; Leonard is said to be "stained and marked with sin from [his] birth." In the mid-Victorian period, immorality was also thought to be transferred through social and environmental contact, a means of transmission I describe as "epigenetic." Although my use of the term is anachronistic, I suggest it provides a useful way to conceptualize the transfer of moral contagion through breast milk, physical touch, or social interaction.

*Ryan Richins.*

#### **Narrative and the Semi-Living: Doll B, a Semiography**

Our increasing power to manipulate the physical "stuff" of life introduces an opportunity to explore to what extent our definition of "the living" is influenced by the narratives we impose (or extract) and what effects those narratives may have. In 2000, artists Oron Catts and Ionat Zurr created the first tissue engineered sculptures presented "alive in a gallery context": *The Semi-Living Worry Dolls 2000* a.k.a. *Tissue Culture and Art(ificial) Wombs*. The installation consisted of seven humanoid but genderless "dolls" designed in the likeness of traditional Guatemalan worry dolls and grown/sculptured/birthered (each of these processes is referenced in the artists' discussion of the dolls' creation) from a cell line known as McCoy. The artists use the term "semi-living" to highlight the inherent complexity involved in defining "the living" at a time during which science (and art) are increasingly able to manipulate life on their terms. The sculptures were created to explore Catts/Zurr's questions: "if we can grow something as complex as an organ outside of the body, why re-implant them back into the body? Why stay loyal to the original design? And if this is possible... should we go down this path?" In the decade since the installation these questions have only grown more pertinent as our ability to create life beyond the body and the constructs of traditional reproduction expands. This talk will explore *The Semi-Living Worry Dolls 2000* and the artists' move toward creating life that defies the "original design" through the lens of narrative; it is a biography of Doll B, one of the seven worry dolls. Doll B is largely a new design in form, but its function to "[coerce] people to face the problematic existence of Semi-Living entities" and the resulting responsibility plays out in some surprisingly traditional ways, narratively speaking.

*Susan Squier.*

#### **Response to panelists**

Session 3 (G) Hotel 5

#### **XXX: Toxic Rhetorics, Environmental Paradoxes, and Animal Prophylaxis**

Chair: *Jared Grogan*

Our panel approaches the divided concept of *pharmakon* from a rhetorical perspective, that is, as more than an exercise of wit, but as both a paradox and an opportunity to investigate an important shift from one seemingly determinate state into quite a different one. Speaker #1 examines how the Greek term *techne* passes through a number of "conceptual personae" and is (re)connected with a number of metaphors, principles, analogies, and other concepts relevant to a theoretical and material assemblage we might associate with 'sustainability'. Speaker #2 suggests that while local resistance appears to be a poison to the emancipatory power of the multitude, it might also serve as an elixir by using two forms of local resistance – buy-local movements, and Slow Food -- in an attempt to trace the pharmacological aspect of these local movements through an analysis of their rhetoric. Speaker #3 shows how the Detroit Zoo re-situates itself in Detroit's contentious rhetorical economy. Re-figuring the animal as a prophylactic, a veritable cure-all with immunizing qualities, the Zoo stakes a claim for mediating the continuing health and economic welfare of Detroit's youth.

*Derek Risse.*

### **Humane Discourses: Animal-Prophylaxis in the Detroit Zoo's Educational Initiatives**

In February of 2006, amidst contentious inter-city funding debates, the Detroit City Council voted near unanimously to shut down the Detroit Zoo's main facilities on Belle Isle and in Royal Oak. Though this decision was later reversed, the months of February and March proved a useful focal point for thinking about the relative nuance of literacy initiatives in the region. In a strange turn of events, the Detroit Zoological Society (DZS) addresses the problem of economic viability, not by appealing to cost cutting measures, but by avoiding the question of present uncertainty all together: The DZS works to ameliorate concerns about the Zoo's reach and influence in the community laterally, re-staging Detroit's historical labor, gender and race disputes, while promoting the Zoo's role in mediating Detroit's future. Taking the Zoo's recent educational initiatives as a central referent for these changes, I will work to show how the Zoo newly re-situates itself in Detroit's contentious rhetorical economy. Re-figuring the animal as a prophylactic, a veritable cure-all with immunizing qualities, the Zoo stakes a claim for mediating the continuing health and economic welfare of Detroit's youth. This, I argue, has startling implications for the way that we approach the question of ethics in animal literacy initiatives.

*Whitney Hardin.*

### **Localized Rhetorics of Resistance**

In Empire, Hardt and Negri argue that the sovereignty of nation-states has given way to Empire, a world characterized by a lack of boundaries, and put forth a theory of the multitude, a figure well-suited to take advantage of the emancipatory possibilities of this new world. Hardt and Negri also note the tendency of some Leftists to respond to globalization's deterritorializing forces with a renewed attention to the local. Arguing that the local is sometimes championed without being sufficiently critiqued, Hardt and Negri call for more attention to be paid to the "technology of localization," the means by which we create and recreate the local. Their concern is that movements which rally around the local misdirect us, distracting us from the real fight. In keeping with the theme of pharmakon, I would like to suggest that while local resistance appears to be a poison to the emancipatory power of the multitude, it might also serve as an elixir. This paper looks at two forms of local resistance –buy-local movements, and Slow Food- in an attempt to trace out the pharmacological aspect of these local movements through an analysis of their rhetoric.

*Jared Grogan.*

### **Techne Paradoxical: Eco-Techne from Toxic to Paradox**

Like many of the vital concepts we've inherited from the Greeks, techne has developed a complex history and architecture. This presentation works through a number of recent interdisciplinary discourses on sustainability order to rethink the concept of techne (and vice versa). Beginning with an overview of techne's entanglement in a wide range of academic and popular discourses on the environment (from deep ecology to ecosophy, from 2nd to 3rd wave environmental texts), I examine how techne passes through a number of "conceptual personae" and is (re)connected with a number of metaphors, principles, analogies, and other concepts relevant to a theoretical and material assemblage we might associate with 'sustainability'. Techne is a familiar way into philosophical questions about technology and nature/culture relationships; it is a concept that was increasingly cathected with increasing awareness of an ecological crisis, and it now increasingly/potentially serves as a concept linking third wave environmental strategies back to a number of techne's practical, political, and rhetorical registers, while also bringing techne into play with novel forms of persuasion, new networks of social action, and innovative ideas about rhetorical interventions into science, politics, and economics.

Session 3 (H) Hotel 6

### **Species and Companions**

Chair: *Helena Feder*

*Helena Feder.*

### **"The Science of Empathy, Animal-Others, and the Inhuman Discourse of Violence"**

In March various news media published photos of US soldiers posing with the corpses of civilians in Afghanistan; NPR interviewed David Livingstone Smith about his book, *Less Than Human*, in conjunction with this story: "these soldiers — called the 'kill team' — also took body parts as trophies ... When people dehumanize others, they actually conceive of them as subhuman creatures," says Smith. This violence relies on, perhaps requires, a discourse of animality, a story about nonhuman animals and humans as objects. And yet, as Gay Bradshaw notes in *Elephants on the Edge*, "Violence is a powerful word, and it is not usually employed in the case of animals ... In contrast to the



more frequent animal descriptor of aggression, violence includes intent and implies moral violation, attributes typically reserved for the human species.” This rubric of violence requires animal-others as objects incapable of reciprocating the violence their existence justifies. Oddly, this intersects with an opposite, ahistorical “dialectic” of violence depicted in popular culture, in which the victims of violence always become perpetrators of violence, creating fresh victims (as in zombie movies, revenge narratives, etc.). The photos from Afghanistan surface during a time of renewed scientific interest in violence’s seeming opposite, empathy – from the discovery of mirror-neurons to work on cross-species empathy. Can the science of empathy tell us anything about the discourse of animality at work in the “inhumanity” of violence? I will consider, among other texts, Simon Baron-Cohen’s Zero Degrees of Empathy and Frans de Waal’s Age of Empathy.

*Cynthia Kraman.*

**The Tame: Towards an Ecocriticism of Surrender**

Since 1959 an experiment has been conducted on foxes in Novosibirsk, southern Siberia by Dmitry Belyaev, then Lyudmilla Trut. Each generation was selected for tameness. By the mid-1960’s after nine generations, they were gentle---also, they’d gone through morphological changes---white patches, curly tails, long ears---having acquired a domestication phenotype, they looked like dogs. Recently I spotted an owl that held and returned my steady gaze. The Audubon guide describes this particular owl as “tame.” Tameness connotes an active interest in humans. It is a term made famous by Wyatt’s lament, “They flee from that sometime me did seek...I have seen them gentle, tame, and meek/that now are wild...” Tameness is discussed in two articles in a recent New Yorker (21 March 2011). One article describes seals resurfacing in New York Harbor; Ian Frazier writes, “they find us interesting” (39). Another investigates children who suffer environmental stress. Their ability to coexist is severely compromised by trauma. Does this suggest the un-taming of entire populations? Then again, were we once, and are we perhaps, still, at various places, very different animals---wilder, less able to coexist? Did natural selection make us more sociable? Is sociability a mark of the modern? There must be losses too. Have women, to pick only one highly manipulated group, been selected to make us more tame---too tame? This paper will investigate “the tame” as a prime example of the pharmakon.

*Karl Zuelke.*

**Human/Equine Co-becoming: Equine Therapy and the Meeting of Species**

In *When Species Meet* and *The Companion Species Manifesto*, Donna Haraway discusses the mutual history and shared becoming of dogs and humans. Her ideas extend to other companions, and clearly, horses have had a profound impact on the human as another co-shaping companion species. The co-evolution of humans and horses has taken an intriguing new twist in the recent phenomenon of equine therapy, already widely recognized for demonstrating significant benefits in the treatment of a variety of psychological and physical disorders in humans. In *The Tao of Equus*, equine therapist Linda Kohanov documents extraordinary instances of equine intelligence and empathy in the interaction of horses with human clients. This presentation examines the phenomenon of equine therapy in the context of Haraway’s “significant otherness.” While the horse remains a powerful mythic figure, like dogs, apes, cyborgs and oncomice, “the figures are at the same time creatures of imagined possibility and creatures of fierce and ordinary reality.” Equine therapy engages a human/nature totality, and raises a number of questions regarding the “language” of cross-species communication and the ways in which horses and humans continue to influence one another’s development.

Session 4 - Fri 10:30am - 12pm

Session 4 (A) Museum Atrium

**Susan Squier’s *Poultry Science, Chicken Culture* (2011)**

Chair: *Ron Broglio*

*Spencer Schaffner.*

*Ron Broglio.*

*Kari Weil.*

## Session 4 (B) Museum Classroom

**Critical Game Studies II: Games of War**Chair: *Patrick Jagoda*

The videogame industry has reached nearly 25 billion dollars in annual profits, outpacing the publishing and film sectors. The past two decades have seen a dramatic expansion in videogame development that has made this medium increasingly important to literary theory, art history, and media studies. Recent scholarly texts such as Alexander Galloway's *Gaming* (2006), Ian Bogost's *Persuasive Games* (2007), and McKenzie Wark's *Gamer Theory* (2007) have established methodologies for examining videogame form, procedural rhetoric, and gaming culture. This stream of four panels builds on this work, analyzing the formal, technological, and political aspects of this new medium. We bring together both senior and junior scholars working at the cutting-edge of four major areas in this fledgling field. The first panel, "Games of War" (Patrick Jagoda, Tim Lenoir, and McKenzie Wark), explores political games that use medium-specific affordances to work through aspects of everything from conventional to nuclear warfare. The second panel, "Art Games" (Patrick LeMieux, Mark Sample, and Zach Whalen) turns to independent videogames and alternate artistic uses of game engines. The third panel, "Virtual Worlds" (Stephanie Boluk, Katherine Hayles, and Victoria Szabo), explores the architecture, narrative potential, and utopian dimensions of multiplayer online spaces. Finally, the fourth panel, "Videogame Spaces and Posthuman Agents" (Edmond Y. Chang, Steven E. Jones, and Timothy Welsh) turns to theories of space and agency as they operate in contemporary digital games. Together, these panels explore the technological and artistic status of videogame studies and the directions in which this field is headed.

*Patrick Jagoda.***Fabulously Procedural: Braid and the Nuclear Sensorium**

If we are ever able to make sense of the type of art form that videogames are, it is critical to understand the new sensorium - the experiences of temporality, speed, space, protocols, and history - that they open up. This paper turns to the 2008 platformer *Braid*. By intertwining narrative, visual, audio, and algorithmic components, this independent game interrogates the impulses that drive videogames and the historical subjects that they produce. In particular, *Braid* explores the significance of the atom bomb and the perpetual threat of nuclear war that has shaped the period following World War II. In his analysis of nuclear criticism, Derrida has famously argued that nuclear war is "fabulously textual." *Braid*, however, suggests that, in its reliance on information, processes, and codes, nuclear war is, in fact, fabulously procedural. Through strategic complicity with the activity-oriented attitude that has characterized both Cold War politics and videogames, the game encourages a powerful form of self-reflexivity in the player. By exploring *Braid*'s commentary on the history of videogames, I suggest that the multimedia interactivity and procedural operations of the form provide an aesthetic horizon for the experience of our postindustrial multimedia society and its inextricable interrelation with nuclear arms. If cultural works are fields through which the dynamics of different media and modes of production can be apprehended then *Braid* is, ultimately, a multi-layered exposure (or indeed a "braiding") of the logics that underlie the contemporary military-industrial-entertainment complex.

*McKenzie Wark.***Guy Debord, Game Designer**

While celebrated as a writer and film maker, not to mention revolutionary, Guy Debord was also a game designer. He even thought that his game, *The Game of War*, might be the work for which he would be best remembered. The game is a version of classical 18th century wargames, with some curious modifications. Debord tried to capture in it his distinctive understanding of the dynamics of events. In short, it may be the best exemplar of what this leading figure in the Situationist International actually meant by 'situation.' While 'situation' passed into the avant garde via Sartre, Debord seems to have been more strongly influenced by Clausewitz. His game algorithm vividly creates the experience of friction and the fog of war. If one is to conceive of game design as a potentially critical medium, then Debord's *Game of War* deserves much closer study than it has received so far.

*Tim Lenoir.***Trolling Affect: Neuro Capitalism and Games of War**

I will explore ongoing efforts in military training simulations and commercial game design aimed at integrating a new generation of brain-machine interfaces and systems for remote wireless mapping and mirroring of gestures, affects and emotions, such as Emotiv Systems' EPOC headset, the Microsoft Xbox Kinect and its patented new body scan capability for generating a surrogate and projecting it into a virtual environment. While opening up possibilities

of realizing the dream of Matrix-like augmented reality, where a fusion of virtual and real is effected beyond the agency of the screen, in order to function effectively, these systems couple with realtime datamining systems for measuring, mapping, and interpreting affect that potentially enable unprecedented levels of surveillance, control, and silent intrusion.

#### Session 4 (C) Hotel 1

### **Dancing Nerves and Etherial Energies (The Arts, Science, and Occultism 1890s-1920s - 1)**

Chair: *Fae Brauer*

*Fae Brauer.*

#### **Hysterical Men: Charcot's 'Virile Hysteria' and Nijinsky's Nervous Choreography**

Contrary to previous diagnoses and neurasthenic prognoses, Jean Martin Charcot revealed that in 'the nervous age', men suffered hysteria as much, if not more so, than women. Far from being effeminate or 'inverted', intellectually indulgent or culturally decadent, they were vigorous soldiers or robust workers, as inscribed by Charcot's body maps, drawings, sculptures and photographs and as captured by his term, 'virile hysteria.' When undergoing the Grand Attack, Charcot pointed out that their movements were far more angular, violent and athletic than women, as illustrated by the locksmith Gui whose body formed a perfect arc-de-cercle and who produced what Charcot called an "acrobatic performance as beautiful as it was varied." Charcot's descriptions and images of men like Gui suffering this so-called "disease of nervous disorganization" proved instrumental to the "hysterical dancing" of Vaslav Nijinsky and his nervous choreography. The choreography of the body in Classical ballet was, Nijinsky explained, the antithesis of human movement in the modern nervous age. For movement to appear penetrated by emotion, nervous anxieties, trauma and "living ideas", the traditional five positions of ballet needed to be inverted. Instead of balletic movement remaining harmonious and arabesque, it needed to become angular, acrobatic, convulsive and violent, as demonstrated by Nijinsky's dancing in Scheherazade, Petrushka and L'après-midi d'un faune and his choreography of Jeux and Le Sacre du Printemps. Although critics were quick to condemn Nijinsky's "knock-kneed idiots contorted by paralysis", the iconography of male hysteria developed by Charcot provided Nijinsky, as this paper will argue, with a modernist lexicon for dance able to convey the everyday somatization of nervous anxiety and uncontrollable trauma.

*Sarah Burkhalter.*

#### **"Kh!kh! and th!th!": Paul Klee's Kinesthetic Response to Dance**

During his Italian trip in 1902, Paul Klee was thoroughly impressed by Japanese dancer Sada Yacco. In a hybrid performance of dancing and fighting— "heaving chests emit 'kh!kh!' and 'th!th!,'" he recorded in his diary—she struck him as embodying a "real sprite." Her Tanagra-like figure contrasted with her abrupt rhythm and rootedness, a tension that appealed to his sensitivity for a "style based directly on reality." This concern for lived energy developed into a guiding principle in his work: movement, resonance and biological processes indeed became central models in his definitions of artistic creation and reception. Although Klee sought most of his vitalistic inspiration from music and nature, his experiences with dance may be seen as spurring an early interest in the kinetics of figuration. I will examine the motif of the dancing and balancing body in his oeuvre, and discuss how it supported distinct graphic solutions for suggesting movement. I will also correlate the embodied, dynamic qualities of line, form and space as theorized in his Bauhaus teachings with his own empathic response to performers, as well as evaluate his dismissal of Loïe Fuller as being "purely technical, purely decorative." Finally I will draw a parallel between the tasks of art and dance, as both share the agency, in Klee's words, of "making visible."

*Peter Mowris.*

#### **From the Commune to the Cabaret: Uses of Physiological Psychology in the Work of Hans Arp and Sophie Taeuber, 1916-1922**

Art historians have long connected the phenomenon of chance to the Dada period works of Hans Arp and Sophie Taeuber that they made while living in an anarchist commune outside Zürich known as Monté Verità. The definition of chance on which historians generally rely has remained rather vague. This paper will augment extant knowledge of Arp and Taeuber by considering their interest in the theories of Taeuber's dance teacher Rudolf von Laban, who incorporated theories of physiological psychology into his painstakingly rehearsed choreography. At the time of Dada, this psychology dominated theories of consciousness and social formation. In general, the discipline held that mental change was the result of alterations to the structure of the nervous system. In connection to this belief, a powerful domain of sociological theory or Völkerpsychologie applied this basic theory of consciousness to the

history of cultures. Laban was particularly fascinated with the tenet from this discipline that chance was the most conspicuous element of so-called “primitive” consciousness, which indicated for him that these earlier societies were more rhythmically connected to conditions of space and to one another. As Laban saw it, a chance occurrence could place dancers closer to forms of consciousness in primitive societies that he felt were more inherently rhythmic. I shall argue that Arp and Taeuber drew on this notion of chance but made it the essence of their finished works, believing the result to be more intense nervous sensation within the experiences of making and viewing art.

Anne Ortner.

**Dancing the Ether, or Choreographies of the Soul: Loie Fuller, the Imaginary of Electricity and the Poetry of Movement around 1900**

“De cette foire confuse et poussièreuse, je conserve une seule image vivante et flamboyante. Mme Fuller (...) Est-il possible d’oublier cette femme qui trouva la danse de son époque?,” writes Jean Cocteau about the Exposition Universelle 1900 in Paris. Loie Fuller’s embodiment of the “Electrical Fairy” certainly constitutes the peak of her career: Through a highly elaborate stage apparatus of fabric, mirrors and electrical light, tricks and illusions, which is constantly refined and complexified, she transforms herself into giant “moving image,” an enormous dancing cinema screen receiving light projection, immaterializing her body and transforming herself into a multitude of shapes and beings. But not only the ethereal aesthetics of her dance, nor the simple staging of electricity, of the transitional, the convertibility and transformation of things and forces made her dance “the dance of her époque.” At the end of the 19th century the notion of Féerie applied to the magic of light as well as to scientific experiments. I would like to demonstrate to what extent the Féerie of Fuller’s dances draws from the popular spiritistic ether discourse and how she transforms the stage into a telepathic laboratory. Thereby and, moreover, I hope to reposition the birth of modern dance within the broader context of the experimental sciences of the late 19th century. This field was not only redefining the body as an electrical, nervous and vibrant one, but, furthermore, was sketching “choreographies of the soul” by means of autographical instruments, notating either movements “of the soul” (Charcot and Baraduc), or the “soul of the movement” (Marey, Gilbreth, Laban).

Session 4 (D) Hotel 2

**Stengers’ *Cosmopolitics II* (Cosmopolitics and Whitehead 1)**

Chair: *Steven Meyer*

This year (and the next) the Whitehead stream addresses the work of Isabelle Stengers. The first volume of Stengers’ *Cosmopolitics* appeared in English in 2010, followed this past spring by Michael Chase’s translation of *Thinking with Whitehead*. Although we will hold off full-scale consideration of the latter work till 2012, two of this fall’s sessions variously place the titular subjects of Stengers’ grand projects in conversation. A key chapter of *Cosmopolitics* is called “Culturing the Pharmakon?” in striking concert with the conference theme. Instead of “subtly channel[ing] the multiplicity of *pharmaka* . . . toward the over-arching question of writing,” as Derrida does, Stengers takes a “detour through the sophist and the *pharmakon*” in order to “amplif[y]” what, following Bruno Latour, she calls the “factishistic proposition” regarding “new artifacts capable of being referred to as ‘living’ or even ‘thinking’”—“those beings we fabricate and that fabricate us,” Latourian factishes. As for “the question of the ‘sophist’ capable of celebrating and cultivating the event that constitutes the creation of a factish,” it is “new only because it responds to a new problem: *all cults are not equal*.” (Here cult refers, Stengers explains, “to a celebration of the event that brings a new being or a new method of measurement into existence.”) In light of the argument laid out in *Cosmopolitics*, our ten speakers examine a variety of such unequal cults, attendant on fabrications ranging from zombies and tree houses to systems of tuning and models of the immune system.

*Steven Meyer.*

**On “Experiential Togetherness”: What Exactly Does *Cosmopolitics* Have to Do with *Thinking with Whitehead*?**

In 1997 Isabelle Stengers published seven short volumes (an “argument in seven steps”) with the collective title *Cosmopolitics*. In 2002 she published her 550-page commentary, *Thinking with Whitehead*. Then in 2003 *Cosmopolitics* was released in two volumes, containing respectively the initial three ‘steps’ and the concluding four. In this paper I set out to establish the relations between the pair of masterpieces, which can roughly be distinguished as interventions in science studies, on one hand, and in philosophy (or history of philosophy), on the other. In this context the striking feature of their relation (at least in terms of some obvious markers) is the relative absence of any. There is no mention of cosmopolitics in *Thinking with Whitehead*. There is a single mention of Whitehead in the first of the seven parts of *Cosmopolitics*—by way of asserting that an allusion to Karl Popper has been supplied

so as to “avoid introducing traditional philosophical references (Nietzsche, Whitehead)”—then nothing till the seventh part, where there are two allusions in the body of the text as well as a third in a footnote which is, it so happens, the final one, effectively giving Whitehead the last word. Alternately, one might view it as supplying a link to the next ‘step,’ yet to unfold. The terms I will attend to in building on this link are: togetherness, specious present, the ecological proposition, the cosmopolitical unknown.

*James Bono.*

**Thinking Stengers’ *Cosmopolitics* with Whitehead: Experimental Creation, Knowledge, and the Space of Hesitation**

This paper will take as its starting point Isabelle Stengers’ articulation of the “primary obligation of the scientist,” namely, “to avoid dreaming the dream of experimental creation” (*Cosmopolitics* 1, p. 68). I shall argue not only that this obligation entails what Stengers, following Deleuze, advocates as the “idiot’s” resistance to the production of a “universal neutral key” with its ethical demand for “slowness,” but also that it suggests a genealogical connection to Whitehead. More specifically, Stengers’ refiguration of “knowledge” as that which “must be referred to as ‘encounter’ and ‘learning’ because it is addressed to a being that itself presupposes and requires a milieu” (p. 68), I argue, evokes Whitehead’s “adventures of ideas” and notions of “wandering,” “event,” temporality (or historicity and “causal efficacy”), and “conformation.” All of which suggests the central, but fraught and “dangerous,” role that “abstraction” plays in science: serving both as productive “lure for feeling” and as seductive invitation to a universalizing and hegemonic knowledge-regime that puts into play what Stengers calls the “fratricidal twins of ‘reductionism’ . . . and ‘holism’” and the Western obsession with proof. I shall illustrate my argument with reference to two competing models for the immune system: clonal selection theory and cognitive network theory.

*Isabelle Stengers.*

**Response**

Session 4 (E) Hotel 3

**Body Practices**

Chair: *Jennifer Lieberman*

*Jennifer Lieberman.*

**“Black Body Radiation”: Medical Technologies in African American Speculative Fiction**

By reflecting upon and resisting the long history of unequal access to medical care in the U.S., African American literature about medical practices and technologies can revise productively the notion of the pharmakon. This paper investigates an array of early African American speculative fictions -- from W.E.B. Du Bois and Pauline Hopkins’ novels about African American doctors who become PanAfricanist leaders, through the Harlem mystery novels of radiologist Rudolph Fisher -- to explore how writers and medical practitioners grappled with questions about bioethics and the dangers of medical science well before the Tuskegee syphilis experiment and the invention of the HeLa immortal cell line brought these questions to the surface of U.S. popular discourse about race and medicine. Indeed, questions about medical ethics have been an important facet of African American speculative fiction since the beginnings of the genre in the early twentieth century. Throughout the Jim Crow era, when most people of color were disallowed from completing medical degrees in the U.S., science and speculative fiction writers imagined a world in which African American scientific and technical expertise might be more fully realized. They also problematized racist practices within (and conceptualizations of) medical science and worked to reconcile folk wisdom with technological advancements and changing understandings of biological realism. Beyond outlining a history of literary engagement with medical technologies and discourses, this paper illuminates how African American speculative fiction contributed to scientific and artistic debates about how to define and to improve human life.

*Janie Hinds.*

**Metaphor and Madness, Benjamin Rush and the Poets**

Benjamin Rush, Revolutionary-era Philadelphia physician, had a hand in several scientific projects during his lifetime, though he is best known for his political and medical authority. His writings, however, express a number of apparent contradictions, as seen in his published work, letters, and medical lectures. I propose in this paper to explore one of Rush’s rhetorical habits of indeterminacy: a slippage among literal and metaphorical descriptions of medical conditions, practices, causes and effects—metaphors he relied heavily upon in struggling to describe what

he could not see: the operations of the mind. Rush relied heavily upon poetry to explain medical conditions, self-consciously excusing himself thus: “The reader will excuse my frequent recurrences to the poets [to describe] madness. They view. . . with a microscopic eye, and hence many things arrest their attention, which escape the notice of physicians” (Medical Observations 68). More than merely quoting poets, Rush invented his own figures, thereby disconnecting himself from the pseudo-authority he claims for poets. Further clouding his descriptive authority, Rush’s metaphors often point in two directions: the body explains the mind through physiological metaphors, while the mind equally defines the body, but in political or physiological metaphors—“government,” e.g., could describe both political control of the masses and treatment of the insane. From this study, I conclude that his medical understanding and treatments of “madness” were as influenced by his figurative rhetoric as by either empirical or theoretical medical practices.

*Leslie Allison.*

**Blood Brothers: Containment, Race, and the Pharmakos in Carson McCullers’s *Clock Without Hands***

Published in 1961, Carson McCullers’s last work, *Clock Without Hands*, was not warmly received by critics. Panned for its “disjointed” plot and “rough draft” quality, *Clock Without Hands* was ignored by its audience and has received little scholarly attention. And indeed, *Clock Without Hands* is an unusual work, most notably due to its intense focus on the sick male body. Taking place in Milan, Georgia during 1953, it tells the story of four men: JT Malone, a pharmacist dying of leukemia, Fox Clane, an overweight diabetic judge seeking to reinstate Confederate currency, Jester Clane, his teenage grandson struggling with his developing homosexuality, and Sherman Pew, an African American teenager who administers insulin shots to Fox. As Malone searches for a cure for his leukemia, Sherman seeks to make the judge sicker by substituting water for insulin in his daily injections. But as the plot makes clear, the larger “sickness” in need of a cure is racism, as white anger over racial integration ultimately leads to Sherman’s tragic death. For the residents of Milan, Sherman literally becomes the pharmakos, as they believe they can “purify” their town by sacrificing him. This paper seeks to investigate how McCullers situates the tropes of sickness and racism within the male body. More than a simple metaphor for racism, the sick male body acts as a space of indeterminacy and uncontainability between self/other. Through the idea of tainted “blood” (either by the “bad blood” of leukemia or the interracial blood of Sherman), McCullers questions the logic of boundaries and the limits of human connection.

Session 4 (F) Hotel 4

**Uncertain knowledges: history, epistemology, and ontology**

Chair: *Aimi Hamraie*

This panel examines the work that shifting a research framework from static to multidimensional and often posthuman ontologies can do for understanding the relationship between scientific knowledge, indeterminacy, and culture. Panelists will examine this relationship through attention to neuroendocrinology, architectural design research, psychoanalytic history, and asexuality in animal science. Whether the objects of scientific study are estrogen receptors, an unpredictable diversity of bodies, unconscious plagiarism, or animal behaviors inaccessible by language, we ask, how can these targeted, material, and historical inquiries contribute to our understanding of the ethical and ontological implications of uncertainty? How do history and epistemology implicate shifting standards of the validity of evidence and the impact of empirical and material knowledge on theory? How can science studies scholars negotiate these shifts in ways that further theorize practical responsibility toward objects of inquiry? Finally, what can feminist philosophies of science contribute to our fields of research, helping us elaborate the relations, systems, and entanglements (or the lack thereof) that are produced through research practices?

*Deboleena Roy.*

**“In Search of Protein Intimacy”**

Isabelle Stengers presents cosmopolitics as a means to “consider” that which is not in our own manner of thinking, and where all forms of inquiry are seen as having a legitimate place in the cosmos. Instead of searching for a distinction between “truth” and “fiction,” or science and myth, she implores us to turn towards that unknown space where we stop silencing the questions with which we are unfamiliar or uneasy. Stengers describes the cosmopolitical space as that which permits an “ecological perspective,” whereby variable practices are not submitted to the pressure of forming a forced consensus but are rather able to combine in a symbiotic agreement. Through this engagement or “reciprocal capture,” practices from disparate disciplines present themselves to one another over a shared object of knowledge. If as feminist scholars we are to take this form of ethical experimentation seriously, then we must examine how the practices from two disparate fields such as feminism and neuroscience for instance, can benefit

from such engagements. In this case, cosmopolitics entails imagining the brain as an object of joint political value that in turn brings out the value of our own distinct practices. It also involves a realization that feminism itself takes shape or comes into form upon its very engagement with the brain itself. Using the discovery of estrogen receptors in gonadotropin-releasing hormone neurons, this paper examines some moments and opportunities of reciprocal capture between feminism and reproductive neuroendocrinology.

*Kira Walsh.*

**“A History of Cryptomnesia”**

Cryptomnesia--translated as "hidden memory"--is a term coined in 1899 by the Swiss psychologist Théodore Flournoy (1854-1920) in his case study of the popular spiritualist medium, Hélène Smith. Impressed by the creativity and scope of Smith's "spiristic" reports--which included news of communication with Martians as well as a diverse range of spirits--Flournoy turned to cryptomnesia as a psychological explanation for Smith's visions. For example, an analysis of Smith's Martian language showed that it was composed of elements of Russian and German--languages in which Smith had received instruction as a child that she had largely forgotten as an adult. Smith's remembered these traces independent of the context in which they were originally learned and misattributed their origins to the supernatural. Cryptomnesia has persisted as term both within psychoanalysis and in experimental psychology, but has come to be used most often to refer to instances of unconscious plagiarism (wherein an individual erroneously believes that an idea previously presented by someone else is their own original work) as in Freud's "Note on the Prehistory of Psychoanalysis." Interestingly, cryptomnesia as a "diagnosis" has shifted from its use as an explanation for mediums and has more recently been applied to creative writers. My paper will explore the way that the concept of cryptomnesia has changed over time. Additionally, I will look at the cases of two creative writers accused of cryptomnesia and consider whether cryptomnesia is an integral part of the creative process rather than an aberration.

*Kristina Gupta.*

**“Diamond’s Conundrum’: Scientific Research on Asexual Phenomena in Non-Human Animals”**

Feminist and queer studies scholars have debated the question: can scientific studies investigating the sexuality of non-human animals teach us about human sexuality? Some, including Anne Fausto-Sterling and Jennifer Terry, critique the use of research on non-human animals to answer questions about human sexuality. Others, including Myra Hird and Elizabeth Wilson, argue that research on the sexuality of non-human animals can challenge assumptions about human sexuality in productive ways. This paper explores this question through examining whether scientific research on asexual phenomena (“asexuality”) in non-human animals can shed light on the phenomenon of asexuality in humans. I begin by reviewing the scientific research examining asexuality in non-human animals. Then, I explore three questions suggested by the scholarly debates outlined above: first, how are cultural assumptions about sexuality shaping the research on “asexuality” in non-human animals? Second, what (if any) insights about human asexuality are provided by the research on “asexuality” in non-human animals? Finally, (how) does the research on “asexuality” in non-human animals challenge assumptions about human (a)sexuality? At the end, I will return to the broader question of whether scientific studies investigating the sexuality of non-human animals can teach us anything meaningful about human sexuality.

*Aimi Hamraie.*

**“Flexible Use as Agential Design: Disability, the Built Environment, and Epistemological Uncertainty”**

The exclusion of people with disabilities from the built environment reveals the responsibility that non-human actors, like architecture and industrial design, bear for shaping communities by including and excluding certain bodies. Universal Design (UD) is a movement to promote disability access in the built environment that focuses on adaptability and flexibility as responses to the inevitable uncertainties that arise when designers try to accommodate a multiplicity of bodily forms. Designing flexibly is meant to counteract the rigidity of inaccessible built environments that were not designed with a multiplicity of bodies in mind. As a design movement, UD encourages flexibility by producing scientific knowledge about ranges of bodies (rather than single, average bodies) and by adopting strategies to maximize flexibility. This paper looks at the Universal Design principle of “flexible use” as an example of (what I call) “agential design,” or the design of spaces and objects to account for unpredictable but diverse morphologies. Using posthumanist theories of non-intentional agency, namely Karen Barad’s concepts of “agential realism” and “ethico-onto-epistemology,” Bruno Latour’s “actants,” and Jane Bennett’s “vital materialism,” the paper examines Universal Design’s approach to uncertainty through research and flexibility as a way of theorizing the built environment’s agency and responsibility for accessibility. I argue that flexibility demonstrates the agential capacities of built environments that are often characterized as rigid, empty containers for

human interaction. Instead, flexible use has methodological and epistemological implications for how designers and researchers understand and address spatial inclusion for people with disabilities.

Session 4 (G) Hotel 5

### **Laboratories, Experiments, and Education**

Chair: *Steve Zides*

*Steve Zides.*

#### **The “Two Cultures Physics Course”, a Pharmakon of Science Education**

At liberal arts institutions, science faculty are presented with the daunting task of creating an introductory course (for non-science majors) that is both relevant and comprehensive, essentially a quintessential experience in the scientific mode of thinking. In physics departments, this usually results in a Physics for Poets course, which is often a watered down “reminding” of the physical laws already encountered in grade school with sparingly little poetry. Within the physics community, this formulaic approach is justified as the only Hippocratically plausible solution to this perennial problem. Over the last several years, I have worked with Wofford’s Theater, English, Art History and Philosophy departments toward a more controversial solution to the Physics for Poets problem. With the help of these humanities departments, a series of “two cultures” physics classes were created in which the plays, short stories, paintings, and ethical issues were taught in consort with the established pantheon of physical laws. In this presentation, I will outline the construction, implementation and assessment results for each of these classes. As one might expect, student reviews were mixed and indeed the remedy for one student is the poison for another. However, this poison/remedy dichotomy has always existed in the traditional Physics for Poets course; leaving us with the lingering question of which approach is Scylla and which is Charybdis. A question I hope to address by the end of the presentation.

*Nathan Blake.*

#### **The One Best Way: Frank and Lillian Gilbreth’s Engineering of the World War I “Cripple”**

This presentation analyzes the post World War I discourses of disability, masculine agency, and human-machine systems through the motion studies of Frank and Lillian Gilbreth. For the Gilbreths, photographic testing, managerial analysis, and ergonomics took precedent over the artificial limb itself, and was essential to the systematic discernment and display of the “one best way” to perform a task, which would require the worker “to act as nearly like machines as possible.” Images of veteran amputees enabled through mechanical prostheses and optimized work stations contributed to a new understanding that bodies could be systematically dissected, quantified, and engineered—that the human was not a singular and whole organism, but rather already partial and part of a larger body of labor—and could thus be transformed for the social good. These modes of recording and analyzing micromotions of the body at work also contributed to the notion that disability is a difference of degree—that every individual has some power or faculty that is not utilized to the fullest extent. While this view helped to counter the stigma of “the cripple,” and to integrate veterans into the workforce, it threatened to reduce each body’s actions to the singular and rigid track of a control machine that doesn’t include the capacity for feedback and becomes oppressively mechanical. I address this “pharmakon” of technological efficiency and ability as it reflects contemporary tendencies of digital quantification.

*Philip Lewin.*

#### **An Inquiry into Education**

The pharmakon of the classroom, if not of the culture more generally, has arguably become the nexus of phenomena centering around electronic technologies and the internet. Even to begin to name the manifestations of this reality is to grow weary -- smart phones linked to the social media of Internet 2.0, Ipads, computer classrooms, scanners, digital cameras, laptops, academic databases, fansites, blogs, Powerpoint presentations, Facebook -- so familiar and pervasive, so endlessly recreative and mutually reinforcing, has this domain become -- and, I would add, so recent, no more than 15 years old at its limits, yet old enough that the generation of students currently in the classroom has never known a world that was not electronically saturated. In this presentation, I wish to raise the question -- for all of us in the humanities and sciences -- of the nature of education that is appropriate for this time and place. My fear is that traditional liberal arts education makes sense only in the context of the modern, and thus is no longer appropriate within the increasing hegemony of the digital postmodern. The consequences of this transformation are profound for the forms that culture will take in the future.



## Session 4 (H) Hotel 6

**War and Criticism: Blurring the Lines of Conflict and Theory**Chair: *Dock Currie*

In the relation between the humanities (including the social sciences) and the making of war, the humanities ostensibly analyses and critiques the war-machine and the war-machine, in turn, ostensibly appropriates, re-articulates, and applies such analyses to its own making of war. However, this apparent or perceived relation is insufficient insofar as the humanities are not passive and innocent stewards of abstract knowledge. Rather, they are arbiters and executors of the written word as an inherently violent medium, and the war-machine – for its part – is not simply the reactionary and programmatic play of a preordained and circumscribed logic. On the contrary, the war machine is itself a textual producer, that is, a writer of events. Moreover, their conflation is increasingly becoming more direct and immanent, wherein the participants are at once theoretician and soldier, architect and executor, machine and machinist. The chronological placement of theory and criticism is, as a result, subject to a collapse into the very material it seeks to theorize and criticize, thus becoming indistinct from and constitutive of one another. The work of the humanities is therefore suspect. Is it the abstract corrective of a material making war or is it itself the harbinger of a more virulent, more diffuse form of making war? This panel is intended to parse out some of the ways in which the function and play of intellectual discourse become enmeshed and implicated in, and culpable for, contemporary armed conflict and certain acts of war perpetrated by the State.

*Sarah Brumwell.***Asymmetry, Violence and The (Bio)political Individual**

The intertwined and yet incongruent interests of liberalism and the military-industrial complex have given rise to an asymmetric global order under the guise of a 'universal humanity'. By laying claim to this concept, neo-liberal hegemony has at once blurred the friend-enemy distinction and relegated dissimilar modernities to a subhuman status. Nevertheless, the pervasiveness of that hegemony prevents the possibility of a spatial exclusion, and so these 'enemies' disperse and camouflage themselves within an order that does not recognize them. The 'spacelessness' of the uni-polar order thus intensifies political antagonisms that it cannot avoid internalizing, and the terror generated by this ambiguity ultimately atomizes social life and makes it the primary focus of political and military interests. Drawing on the works of Walter Benjamin, Carl Schmitt, Michel Foucault and Louiza Odysseos, I will investigate the nature of violence within this chimerical network, specifically considering its relationships to security and the quotidian life of the individual.

*Malcolm McPherson.***Dispatches and Discharges of Network-Centric Warfare: Weaponizing Bio-power in Criticism**

Can current criticism of NCW be read as a discursive performance of NCW, and in what ways does NCW, already a slippery object of study, bleed into the very methods of criticism which attempt to understand, confront, and contain it? For whom? In order to further tease out the implications of 'writing war', this paper examines the reception of Michel Foucault within the work of Michael Dillon and Julian Reid as a potential example of such textual-strategic responses to the 'violence' of Foucault with another, more decentered form of violence.

*Dock Currie.***War Theory Reified: From the Page to the Battlefield**

Eyal Weizman has recently written about the Israeli Army's adoption of certain Deleuzian and Virilian principles of warfare in the conduct of their operations. In other words 'the State' has appropriated the operational philosophy of 'the Nomad.' This work seeks to inquire as to whether these appropriations remain true to the intention and spirit of the writings from which they are taken. This work will take direction from Gilbert Simondon and his distinction between actions and endeavors undertaken with a hylomorphic (material) understandings and sets of premises as opposed to actions and endeavors undertaken with an artisanal understandings and sets of premises. It is to be contended that the war criticism of Virilio and Deleuze was written from the artisanal mode but has been interpreted by 'the State' in the hylomorphic. In other words, while they may attribute a Deleuzian or Virilian lineage to their tactics, the Israeli army and armies of 'the State' generally cannot read Deleuzian or Virilian texts as they were meant to be read nor utilize their contents as they were meant to be utilized. As Deleuze writes of Tamerlane "who constructed a fantastic war machine turned back against the nomads, but who, by that very fact, was obligated to erect a State apparatus all the heavier and more unproductive since it existed only as the empty form of appropriation of that machine." (1) Giles Deleuze, *Capitalism and Schizophrenia: A Thousand Plateaus* Tr. Brian Massumi (Minneapolis: University of Minnesota, 1987), 419.

**Session 5 - Fri 2pm - 3:30pm****Session 5 (A) Museum Atrium**

**Brendon Larson's *Metaphors for Environmental Sustainability: Redefining our Relationship with Nature* (2011)**  
Chair: *Andy McMurry*

*Joshua Schuster.*

*Randy Harris.*

*Andy McMurry.*

**Session 5 (B) Museum Classroom****Critical Game Studies III: Virtual Worlds**

Chair: *Patrick Jagoda; Stephanie Boluk*

The videogame industry has reached nearly 25 billion dollars in annual profits, outpacing the publishing and film sectors. The past two decades have seen a dramatic expansion in videogame development that has made this medium increasingly important to literary theory, art history, and media studies. Recent scholarly texts such as Alexander Galloway's *Gaming* (2006), Ian Bogost's *Persuasive Games* (2007), and McKenzie Wark's *Gamer Theory* (2007) have established methodologies for examining videogame form, procedural rhetoric, and gaming culture. This stream of four panels builds on this work, analyzing the formal, technological, and political aspects of this new medium. We bring together both senior and junior scholars working at the cutting-edge of four major areas in this fledgling field. The first panel, "Games of War" (Patrick Jagoda, Tim Lenoir, and McKenzie Wark), explores political games that use medium-specific affordances to work through aspects of everything from conventional to nuclear warfare. The second panel, "Art Games" (Patrick LeMieux, Mark Sample, and Zach Whalen) turns to independent videogames and alternate artistic uses of game engines. The third panel, "Virtual Worlds" (Stephanie Boluk, Katherine Hayles, and Victoria Szabo), explores the architecture, narrative potential, and utopian dimensions of multiplayer online spaces. Finally, the fourth panel, "Videogame Spaces and Posthuman Agents" (Edmond Y. Chang, Steven E. Jones, and Timothy Welsh) turns to theories of space and agency as they operate in contemporary digital games. Together, these panels explore the technological and artistic status of videogame studies and the directions in which this field is headed.

*Katherine Hayles.*

**Challenges of Digital Storytelling**

Creating a game with a good balance between the ludic pleasures of play and an intriguing narrative is an ambitious task. Challenges include the pacing and sequencing of narrative events to maintain tension along different user-defined paths, as well as creating game play that both advances the narrative and interacts synergistically with it through metaphor, theme, and meaning. Various strategies will be analyzed through three popular computer games, "Braid," "The Path," and "Portal."

*Victoria Szabo.*

**Gaming the Real: The Convergence of Maps, Social Media, and Virtual Worlds**

In 2007, the authors of the *Metaverse Roadmap* asked: "What happens when video games meet Web 2.0? When virtual worlds meet geospatial maps of the planet? When simulations get real and life and business go virtual? When you use a virtual Earth to navigate the physical Earth, and your avatar becomes your online agent? What happens is the metaverse" ([metaverseroadmap.org/](http://metaverseroadmap.org/)). This initial formulation set up four distinct areas of metaverse development: augmented reality, mirror worlds, lifelogging, and virtual worlds. Five years later, the boundaries between these areas are already collapsing as disparate technologies converge in annotated, immersive 3D spaces. Social media development, videoconferencing, virtual world creation, 3D mapping, GPS-based tagging systems, and game modifications are all increasingly accessible to casual users. Non-specialists now can and do create their own digital cultural and historical reconstructions, online exhibitions, avatar-driven training sessions, and augmented reality systems. Increasingly these projects either leverage game engines, or introduce game-like elements into their

construction. The effect is to blend physical and virtual into a set of reality systems whose persistence depends on the active engagement of the user-author. Collectively these developments bring into daily life an increasingly game-like experience of the world. This paper will discuss how game aesthetics are becoming increasingly prevalent in non-game immersive 3D experiences, with special attention to projects that attempt to construct interactive, participatory mirror or hybrid world representations of "real" places and spaces, past and present.

*Neil Randall.*

**It's About Time: Adapting Chronology and Duration in The Lord of Rings Online.**

Turbine's *The Lord of the Rings Online* (2007, 2008, 2009) lacks nothing in ambition as an attempt to adapt the J.R.R. Tolkien novels and (to a lesser degree) the Peter Jackson films to the format of massive multiplayer online (MMO) games, but in certain respects the ambition outstrips the implementation, with important effects on the play experience. One important such respect is that of time, in both the durational and the chronological sense, a problem exacerbated by the game's design goal of having the players shadow the main quest in the books and the films, the destruction of the One Ring. In the novels, the quest took less than a year to complete, the main portion of it (from Rivendell to Mordor) occupying only three months, but in the MMO the quest drags on for as long as it takes the player to reach the highest level, and even then it is far from complete. Sub-durations similarly ring false: Moria takes months of both play time and game time to complete, compared with mere days in Tolkien, as the passage through Hollin on the way toward Moria, a few weeks in Tolkien but much more in the game. Chronologically, even stranger things happen. As only one example, the player can watch the Fellowship leave Rivendell but then return to the Elvish refuge much later and encounter the Fellowship members as if they had never moved. The lack of necessary chronological order to the player's quests accounts for the temporal dislocation, but the result is a part of a continual confirmation, throughout the game, of the fragility of the quest-shadowing system. This paper draws upon adaptation theory to discuss the durational and chronological dislocations in *The Lord of the Rings Online*.

*Stephanie Boluk.*

**Work, Play, and Utopia: The Grasshopper Reconsidered**

In Aesop's fables the grasshopper is punished for playing games while the ant toils in preparation for winter. Yet what would happen if there were no winter or scarcity of resources? When computer games were still in their infancy, Bernard Suits wrote a philosophical dialogue titled *The Grasshopper: Games, Play, and Utopia* (1978). Suits inverts the moral message of the grasshopper's death and celebrates the playing of games as a utopian gesture and the highest order of human activity. As games, particularly through the expansion of the videogame industry, become an increasingly dominant cultural interface, the relationship between labor and leisure has become more precarious. Not only do many videogames often feel like work, but through gameplay analytics, real-time data tracking, and the increased ability of players to design and customize assets within a game, the labor of players is also funneled back into the flow of capital. While Suits' text cannot be uncritically applied to our contemporary economic context, it does provide some insight into the current debates surrounding what has come to be known "gamification" (the incorporation of game elements into non-game contexts and vice versa). Taking Suits' essay as a point of departure as well as Michael Hardt and Antonio Negri's theory of political love, I will examine the relationship between play and labor. Examining experimental games such as *Love and Dwarf Fortress I* will ask whether Suits' utopian vision of games can serve as a model for contemporary game design.

Session 5 (C) Hotel 1

**Mediums, Media, and the Ether (The Arts, Science, and Occultism 1890s-1920s - 2)**

Chair: *Linda Dalrymple Henderson*

*Linda Dalrymple Henderson.*

**Repositioning the Ether in Early 20th-Century Art and Culture**

It is remarkable that an entity as ubiquitous as the ether of space in the late 19th and early 20th centuries could be lost in histories of the cultural production of this period. Yet, that has been the case in most all accounts of the development of modern art during the first two decades of the 20th century. Contrary to standard narratives, it was only in 1919 that the popularization of Einstein's Relativity Theory began to challenge the public's belief in the impalpable ether, which was understood to fill all space and to serve as the necessary medium for the various newly identified ranges of invisible wave vibrations. At the same time, with the ether posited as the possible source of matter itself and radioactivity suggesting the continuous dematerialization of matter, artists faced a fluid new paradigm of interpenetrating space and matter in continuous cohesion and dissolution. The ether was also a site

where science and occultism readily intersected, and analogies were regularly drawn between X-rays and spirit photography as well as wireless telegraphy and telepathy. It is little wonder, then, that modern artists responded so creatively to the new "meta-realities" suggested by the ether—from the dematerialized forms of Cubism and Futurism to Duchamp's decision to "make a painting of frequency" in his Large Glass project and Kandinsky's fascination with Baraduc's "ether plastics." Extending Albert Kuemmel's 2008 title, *Aether: Ein Medium der Moderne* and adding to the multivalence of the term medium, one could argue that the ether was the central medium of modern art.

*Robert Brain.*

**“A Medium is a Medium is a Medium”: Ectoplasm Images, Psychical Research, and the Futurist Moment**

The French physiologist Charles Richet in the 1890's proposed that the strange phenomena of "materialization" observed in spiritualist séances—slime oozing from the bodily orifices of the spiritualist medium—should be understood as "ectoplasm," as extrusions of protoplasm outwith the body of the medium "precisely as a pseudopod from an amoeboid cell." Richet's proposal altered prevailing approaches to spirit phenomena. Ghosts and table-turning were out, replaced by the biological equivalent of the ether, the ubiquitous protoplasmic *prima materia* responsible for transferring vibrations within all cells of all living beings. The medium's body became a transmitter, a wireless receiver of cosmic rays whose vibrations produced phantoms, presences and infra-visibilitys of myriad kinds. Ectoplasm images, obtained through experiments with new forms of photographic and self-recording instruments, suggested that ectoplasm itself was a photomatic medium, thereby inviting reflection on the automatic and indexical character of photography itself. The difficulty of disentangling the identity of the medium, the ectoplasm, and the experimental recording media contributed to both the appeal and vexation of research into materialization. The material culture of materialization straddled science and vernacular settings, and became a key resource for Futurist artists F.T. Marinetti and U. Boccioni. The latter's notion of "Plastic Dynamism" generalized the epistemic conditions of the scientific séance into a theatrical and regenerative artistic space in which the spectator would experience the vibrations of quasi-material substances, the materialization of emanations, "doublings," phantom visions, and what psychical researchers called four-dimensional "cinematography."

*Pascal Rousseau.*

**Telepathy as the Ultimate Medium**

Coined in 1882 in the context of the experiments of the British Society for Psychical Research (SPR), the term "telepathy" confirmed the historical connection between imagination, empathy and (tele)communication. Ranging across a large spectrum of nonsensory means of exchanging information at a distance (clairvoyance, precognition, mediumism, etc.), telepathy was considered to be a very new medium to communicate images, sensations and emotions through the etheric field by means of electromagnetic signals. Brainwaves could be ultra-performative and unmediated means of emotional transmission via the amplification of an electric cerebral activity. Because thoughts were considered to be material entities reduced to frequencies (as in the "Thought-Forms" defined by Theosophists Annie Besant and Charles Leadbeater), the pioneers of abstract painting from Kandinsky to Kupka were convinced that the ultimate step of modern art would be a direct communication from mind to mind, without material mediation. As the emotional impact of the work of art would become a pure sympathetic resonance and aesthetic ecstasy an etherial transference, it would be possible to announce the obsolescence of the medium of painting. Instead, art would function by means of a new "elective sensibility" in which colors as purely mental vibrations could be captured by the "sixth sense" of the spectator's brain.

Session 5 (D) Hotel 2

**Stengers' *Cosmopolitics* III (Cosmopolitics as Compositional Practice)**

Chair: *Steven Meyer*

This year (and the next) the Whitehead stream addresses the work of Isabelle Stengers. The first volume of Stengers' *Cosmopolitics* appeared in English in 2010, followed this past spring by Michael Chase's translation of *Thinking with Whitehead*. Although we will hold off full-scale consideration of the latter work till 2012, two of this fall's sessions variously place the titular subjects of Stengers' grand projects in conversation. A key chapter of *Cosmopolitics* is called "Culturing the Pharmakon?" in striking concert with the conference theme. Instead of "subtly channel[ing] the multiplicity of *pharmaka* . . . toward the over-arching question of writing," as Derrida does, Stengers takes a "detour through the sophist and the *pharmakon*" in order to "amplif[y]" what, following Bruno Latour, she calls the "factishistic proposition" regarding "new artifacts capable of being referred to as 'living' or even 'thinking'"—"those beings we fabricate and that fabricate us," Latourian factishes. As for "the question of the 'sophist' capable of celebrating and cultivating the event that constitutes the creation of a factish," it is "new only

because it responds to a new problem: *all cults are not equal*.” (Here cult refers, Stengers explains, “to a celebration of the event that brings a new being or a new method of measurement into existence.”) In light of the argument laid out in *Cosmopolitics*, our ten speakers examine a variety of such unequal cults, attendant on fabrications ranging from zombies and tree houses to systems of tuning and models of the immune system.

*Michael Halewood.*

### **On Equal Temperament: Tuning, Modernity and Compromise**

In *Cosmopolitics*, Isabelle Stengers stresses the importance of confronting particular concepts and problems within the milieu that they were initially developed. The task is, she argues, to re-create the lure and demands that these problems and concepts were designed to address. In this way, both the extent and limits of their efficacy and authority can be traced. This paper will, tentatively, attempt to follow this procedure with regard to the development in the 18th century of a new system of musical tuning – equal temperament. Developed in response to the rise in importance of keyboard instruments such as the harpsichord and the pianoforte, this system of tuning apparently solves the problems which had dogged musicology since at least Pythagoras’ discovery of the link between ratios and pitch. In this paper I will outline the tuning problem that equal temperament was designed to overcome. I will point out that whilst it is in one sense successful (in that it enabled musical compositions to change key within a piece and thereby develop more complex harmonic structures), equal temperament is actually based on a compromise which breaches the original link between pitch and “natural” resonance. I will then go on to discuss how the consequent, totalizing version of Western harmony which emerged is an integral aspect of modernity’s understanding of itself which effaces the original compromise which enabled it to arise and endure.

*Joan Richardson.*

### **It's About Time**

Over the years of my participation in the Whitehead Stream I have been amplifying relations extending from William James—“reciprocal captures”—turning back in time to figures like Fechner and Helmholtz and moving into the present through Bergson, Whitehead, Wahl, Bohr, Deleuze, Latour, and, now Stengers and Stiegler. Last year in *Timing Sentences* I discussed “interpoints” and “folding” in the context of reimagining grammar and syntax so as to accommodate the actual superpositionings present in the mind’s “radiant and productive atmosphere”—grammar and syntax as active and flexible as a musical score, sentence structures growing from the inside out, as it were, unfolding, the propinquity of words releasing the charge between them. This year I shall go on to describe the reader of such sentences, who, like the performer/interpreter of a musical score, finds herself, of necessity, to be—to borrow a phrase from Stengers—“a form of ethical experimentation,” as she chooses the tempo and manner of sounding each phrase to suit the occasion, the “event” of offering, astute to diagnosing the “new immanent modes of existence” her practices might suggest. As Stengers notes, “A true diagnosis, in the Nietzschean sense, must have the power of a performative.” And since, as Stiegler observes, “what is given in speech is time,” depending on how we use time, it can either poison us or heal us. Time is, then, the *pharmakon* of all *pharmaka*.

*Xin Wei Sha.*

### **“Recherche-Création”**

In 2005, at a symposium on Whitehead and Deleuze in Brussels, I ventured that what I was trying to do with poietic (and thus neither instrumental nor truth-deciding) mathematics was to find some articulations adequate to life. Stengers responded, only physics is adequate to life. Over the years, this comment has remained on my list of challenges to explore. It may be fruitful to interpret this term “physics” in Stengers’ sense of ecology of practices, and also to fashion a material, lower-case mathematics that is sympathetic to poetic expression. Stengers’ cosmopolitics provides a more ample space within which to articulate both. In our atelier for “recherche-création,” the Topological Media Lab, a delicate, ungainly ecology of practices has grown up over the past five years that may bear some marks of the sort of cosmopolitical conversation of which Stengers has written. Its experiments constitute stammering empirical, ethico-aesthetic ventures into questions such as the spectra of intentional and accidental, or collective and solo corporeal movement, and the relation between movement and body-memory or room-memory. One implicit thread that this atelier has sustained over the decade is a topological, material, poetic, humane but non-anthropocentric approach to the question of novelty. I consider the cosmopolitical aspects of the amalgam of experiment and art.

*Isabelle Stengers.*

### **Response**

## Session 5 (E) Hotel 3

**Time and Mathematics in Postwar American Art**Chair: *Melissa Warak*

This panel of new studies in American postwar art explores ways that artists of the 1960s and 1970s used time and mathematics to inform, or in some cases, as a medium itself of their work. Looking at three cases of different media - performance, sculpture, and video, these papers seek to show the breadth of interest in time and mathematics as sources for visual art. The authors look to the methods cultural sources that artists employed in order to apply - and sometimes misapply - scientific findings to fit their own aesthetic and conceptual ends.

*Katie Geha.***Beryl Korot: Weaving the Apparatus**

This paper examines Beryl Korot's video installation *Dachau 1974* (1974) in light of the burgeoning medium of video and interest in information in the 1970s. I consider how the work relies on innovative technology, the portapak camera, as well as the ancient technology of the handloom as structuring devices for memory, or a collapsing of past and present. In *Dachau 1974*, Korot followed tourists in the German concentration camp and recorded the site in a straightforward manner, allowing for the natural sounds of the site—birds chirping, the crunch of feet on gravel, the chatter and even laughter of the passersby—to act as the soundtrack to the four-channel video. How does one implement new technology, the video apparatus, to create a work about an atrocity that occurred in the recent past? Korot answered that question by implementing the patterning of weaving to her video images, creating one of the earliest multi-channel video installations. Korot's use of the loom, or "the first computer on earth", will be contextualized through discussions on the apparatus and the advent of video technology during this period. The new video technology in combination with the ancient technology of the handloom offers a larger meditation on history and our experience of time. Can one approach this video installation as one might approach a tapestry? That is, might one see the threading, or process and information, while also experiencing the pattern, or a work created through the accumulation of time, as a graphing of history?

*Melissa Warak.***La Monte Young and Minimal / Maximal Time**

Though composer La Monte Young has often been called the "Father of Minimalist Music", this descriptor is in many ways a misnomer. How might we better understand the dialectic of minimalism and maximalism at play in Young's music? Looking at compositions and performances from Young's oeuvre from 1957 to 1965, this paper argues for an avant-garde vision of time as a conduit for expanded consciousness using the case study of Young's sometimes-idiosyncratic applications of time as a malleable artistic medium. As an early member of the Fluxus group, Young's performance art of the early 1960s embodied his theoretical approach to what Dick Higgins later termed "intermedia," the simultaneous experience of opposing impulses in a work of art. Young has referred to his Fluxus-era performances collectively as the "Theatre of the Singular Event", by which he meant that the entire performance became a harmonic or even synaesthetic experience of the sonic and the visual within a live, ephemeral, and carefully timed setting. Using science, mathematics, and concepts extracted from Asian thought and mystical philosophies, such as that espoused by P.D. Ouspensky, Young – and eventually his ensemble called the Theatre of Eternal Music - had the singular goal of elevating consciousness through the experience of live music.

*Larisa Dryansky.***Recreational Math, New Math, and American Art of the 1960s**

In her essay "LeWitt in Progress", Rosalind Krauss made a convincing case against abstract and rationalistic interpretations of Sol LeWitt's sculpture. Krauss's argument rested in particular on the fact that, despite appearances, the artist's serial method is based on very elementary and schematic notions of algebra. While accurate, this reading seems to have deflected attention from the very real importance of mathematical and scientific sources for understanding the work of American artists of the 1960s who are associated with Minimalism and Post-Minimalism. Thus, from Tony Smith to Mel Bochner, many appear to have been avid readers of Martin Gardner's *Scientific American* recreational math column. More generally, the introduction of the "New Math" in the curriculum of American schools and the national debates that ensued had interesting repercussions on the thought processes of artists such as Robert Smithson and others. Far from promoting a rational approach, these complex mathematical models, and the access they provided to counter-intuitive interpretations of reality contributed to the artists' loosening of the positivistic bonds of High Modernism.

## Session 5 (F) Hotel 4

**World Science Fiction**Chair: *Lisa Yaszek*

Throughout the late nineteenth and early twentieth centuries, leading figures in the nascent science fiction community argued that, as the natural aesthetic companion to science, SF would transcend national and cultural boundaries to help create a technoscientifically literate world society. And as recent scholarship demonstrates, SF is more than simply a Continental or Anglophone phenomenon. Rather, authors from a variety of nations including China, Japan, and Brazil have also used this genre to explore their hopes and fears about science, technology, and society for nearly two centuries. This panel explores the historical and contemporary dimensions of SF as world literature. Arielle Saiber begins by mapping the curious phenomenon of Italian SF over the past 70 years, showing how Italian authors draw upon national literary traditions to make sense of technoscientific change. Next, Lisa Yaszek demonstrates how Afrodiasporic authors have used classic SF characters for nearly a century to celebrate black technoscientific ingenuity and how African authors extend that tradition today through their online fiction and blogging personas. While Saiber and Yaszek demonstrate the national diversity of the SF community, the next two panelists explore how SF authors use their chosen genre to represent global culture itself. Everett Hammer examines recent British and American authors who use SF to make sense of genomic science and global immigration, expressing their ideas through both the content and form. Finally, Doug Davis shows how postcyberpunk authors anticipate, engage and extend “thing theory” to critically assess 21st century global capitalism.

*Lisa Yaszek.***Sexy Black Nerd Saves the World and Gets the Girl: The Secret History of Geekdom in Afrofuturism**

This presentation explores the secret history of geekdom in Afrodiasporic and African science fiction (SF). Yaszek begins by reviewing recent calls on the part of African American scholars and African politicians alike for a new mode of speculative fiction celebrating black technoscientific ingenuity. As she demonstrates, such calls are very much in line with the historic mission of SF: to create a mode of fiction encouraging technoscientific literacy. In the second part of this presentation Yaszek turns to the work of black SF authors themselves. For nearly one hundred years, Afrodiasporic authors including George Schuyler, Minister Faust and Bill Campbell have used the classic characters associated with SF geekdom—including the mad scientist, the creative engineer and even the SF fan—to tell fantastic stories about science, society, and race. More recently, African authors including the Nigerian-American Nnedi Okarafor and Ghanians Kwasi A. Kwakwa and Jonathan Dotse have adapted these characters in their online fiction and blogging personas to speak to technoscientific issues that are specific to their own countries of origin and to the continent of Africa as a whole.

*Doug Davis.***Thinking about Tomorrow's Things, Today: Thing Theory, Science Fiction Studies, and Ian McDonald and William Gibson's New Forms of Political Realism**

Social, political, and economic realities are densely bound up within a culture's material culture, and as a narrative form devoted to exploring the impact of new things upon society, science fiction should be at the forefront in discussions of what Bill Brown and other critics call “thing theory.” Yet few have considered what SF can bring to theory's new turn towards things. SF critic Darko Suvin argues that SF should be a new form of political realism rooted in what he calls “cognitive estrangement.” Suvin holds that our world's power relations often lie invisibly or ignored behind the global market's reified commodities, but in the new worlds of SF those relations are newly exposed, recast in unalienated form via new things that are not reified, but that are visibly built by an author as part of the genre's world-building aesthetic. In this paper, I bring the “Thing Theory” into dialog with the genre theory of SF critics such as Suvin. Specifically, I analyze the recent work of William Gibson and Ian McDonald and explore how they produce cognitively estranged visions of today's global market by doing a kind of aesthetic thing theory. Gibson's enigmatic artworks and McDonald's financial, artificial intelligences are near-future technosciences that have not yet been defined and reified by existing commodity logics. As such, their articulation in the text serves also to map the new global networks of power and production of 21st century capitalism.

*Everett Hammer.***Transnational Mutations: The Immigrant Genome in British and American Slipstream**

This paper begins by outlining a body of fiction about genomic science that has been growing especially rapidly since the 1970s. After highlighting works by Octavia Butler, Kazuo Ishiguro, and Richard Powers, the talk focuses

on Zadie Smith's *White Teeth* and Jeffrey Eugenides's *Middlesex*, two uncannily similar turn-of-the-century novels that take as central concerns the intergenerational impact of global immigration. Whether the move is from Bangladesh to England or from Greece to the US, both works imagine the possibilities of genomic testing and modification in light of larger tragicomic narratives about cultural assimilation. Moreover, each text relies upon a spiraling, four-book narrative structure to mirror the base pairs and double helixes of its content and to interweave tradition's insistence upon repetition with innovation's reach toward variation. Formally and thematically, these novels wryly depict human genomes as the microscopic ties that bind, the equally physical and spiritual essences that link individuals with ancestors, whatever their origins. Yet the works also use their structures to complicate genomic influence, insisting environment and personal agency also mold humans for generations before their births. Here Eugenides's Pulitzer-winning novel is particularly penetrating: while *White Teeth* demonstrates fiction's capacity to resist genetic determinism, *Middlesex* proactively stresses its ability to overcome scientific ignorance. Taken together, the novels reflect a widening literary effort to rethink human culture alongside biology, allowing neither category to assimilate the other. Recognizing this dual commitment provides a deep scientific and transnational back-story for existing attention to the novels' affirmations of racial and sexual hybridity.

*Arielle Saiber.*

### **When Flying Saucers Land in Lucca: Italian Science Fiction**

Worse, perhaps, than calling Italian science fiction "derivative"—as has been often recited by science fiction readers and critics, Italian and not—is thinking it does not, or could not, exist. Consult a science fiction anthology in English from any period and you will be hard-pressed to find an author from Italy. The same goes for encyclopedias of SF and monographic studies written in English, where authors writing in most of the world's major languages are discussed. One can even find translations into English of SF novels and anthologies written in Romanian, Czech, Chinese, Finnish, Serbian, Ukrainian, but none in Italian. Yet, Italy has been producing SF since the 50s, some of it quite exceptional—notable in its "humanistic" bend and in its prominent echoes of Italy's vast canon of epic poetry and fantastic imaginings. The infamous pronouncement in the 1970s by Carlo Fruttero, the editor of the major Italian SF serial *Urania*, when asked why the magazine rarely if ever included works by Italian authors—that it was "impossible to imagine a flying saucer landing in Lucca"—was a curious sort of selective blindness shared by much of Italy and, consequently, by the rest of the world. Flying saucers have been landing in Lucca (although they seem to prefer to hover around Milan, Rome, Bologna, and Turin) for quite some time, albeit not without a struggle, and not without those who continue to insist they are not there.

Session 5 (G) Hotel 5

### **The Pharmakon in the Classroom: Nurturing Creative Scientists and Artists**

Chair: *Laura Otis*

Education cannot eradicate creative thinking, but it can kill a great deal of it, prompting some educators to clarify the diagnosis and attempt a cure. As individuals, creative people differ enormously in terms of the mental strategies they use to articulate questions and solve problems. Qualitative research has revealed that highly creative people in the sciences, arts, and humanities rely on common mental "tools" such as imaging, analogizing, recognizing patterns, modeling, playing, and synthesizing, all of which function at a pre-linguistic level. Yet some people believe that they think mainly with words rather than images. Some think that their creativity is field-specific; others feel that their skills and strategies transcend disciplinary boundaries. Can this sprawling landscape of imagination and creativity be taught, in any sense? What is the best way for an educator to foster it? What is the relationship between scientific and artistic creativity? This panel will bring together scholars from physiology, literature, and creativity studies, all of whom have conducted qualitative research on creativity that transcends the science/art boundary.

*Laura Otis.*

### **How We Think We Think**

We can never know for sure what goes on in other people's minds, but for teachers, it's worth trying to learn how greatly individual thought can vary. In this session, I will present some of the most interesting discoveries I have made in 34 interviews with scientists, artists, and other creative professionals in which I asked people about their personal thought styles. My study began as an investigation of visual and verbal thinking, but it quickly exploded its frame. It is now a more general investigation of what creative thought involves and how mental words and images interact in the creative process. For the purposes of this study, I adhere to cognitive science's standard definition of thought: conscious, active, goal-oriented, novel mental processing. But cognitive neuroscience does not have the last word here. My aim is to create a critical dialogue between creative people's introspective reports on their thoughts



and laboratory findings about what human thought involves. The perceived experience of thought does not necessarily reflect what the brain is doing—but neither do fMRI scans. Qualitative research provides an essential complement to neuroscientific studies, since participants’ insights can suggest new questions to ask and new experiments to do. Each unique mind has a story to tell, and these stories can be silenced by quantitative studies. By listening to creative people’s insights about the ways they think they think, we can design educational strategies that won’t “cure” scientific or artistic creativity.

*Robert Root-Bernstein.*

### **Scientific Thinking as a Pharmakon**

Scientific thinking is one of the most powerful and beneficial tools invented by human beings, yet its misrepresentation in pedagogy and to the public does terrible harm. The problem starts with scientists themselves claiming to use a “scientific method” that, in fact, none of them use. In reality, many eminent scientists admit that they solve their problems using modes of thinking that bear no resemblance to verbal, mathematical or logical reasoning. Analysis of autobiographical material, letters, and interviews reveals instead that they perform creative problem solving using a very different set of what embryologist/philosopher/artist C. H. Waddington termed “tools of thought.” These imaginative thinking tools include observing, abstracting, patterning and modeling, but also analogizing, body thinking, empathizing and playing (Root-Bernstein & Root-Bernstein, *Sparks of Genius*, 1999). In other words, scientific thinking is like creative thinking in the arts, and it is not surprising that the best scientists are very often artists as well. The failure by scientists to admit the creative bases of their problem-finding and -solving strategies leads to the misrepresentation of scientific thinking in science textbooks and popularizations that not only mislead students and the public, but actually mis-train them. Data and examples will be provided showing how commonly each tool for thinking is used by scientists; how scientists implement some of them in creative work; how we fail to describe such thinking in our textbooks; and what can be lost in translation from such sensual, imagistic, embodied thinking to logical formulations of words and numbers.

*Michele Root-Bernstein.*

### **Worldplay and the Remedy of Creative Imagination**

What does it take to teach for creativity without trivializing or trashing it? More classroom work...or more classroom play? The spontaneous invention of imaginary worlds in childhood offers a unique lens with which to consider the natural development of imaginative and cognitive skills and their lifelong nurture. In ongoing study of worldplay, I estimate roughly 12% of children construct one or more personally seminal play worlds that involve the imaging, patterning and modeling of a consistent make-believe scenario over some period of time. Simulating a plausible play reality, they construct personal knowledge that reflects and extends their understanding of the real world. What I would particularly like to explore here is the creative act of worldplay, the making of drawings and stories, constructed languages or games that support and document play narrative. In these juvenile records, inner mentation and outer instantiation intertwine, shedding light on dynamic tensions in the development of creative potential and in our understanding of creative process and product, too. What is the relationship between sensual, imagistic thinking and symbolic languages of communication, between the emotional valences of pretense and rational conceptions of reality in innovative thinking? How might creative outcomes be best nurtured in school, with discipline-specific knowledge or discipline-general imagination? Can the invention of imaginary worlds be effectively adapted for the classroom without losing the intrinsic and idiosyncratic motivations of play? Exploring possible answers, we explore the question of creativity itself and the nature of our prescriptions for its care.

Session 5 (H) Hotel 6

### **The Works of Steina and Woody Vasulka & the Emergent Platforms of Alchemedia, Biomedia and Pharmakomedia**

Chair: *Timothy Weaver*

Since the early 1970s, Steina and Woody Vasulka have been pioneering artists, originators, inventors, innovators and archivists of electronic media. Their seminal works have laid the foundation of the new media lexicon for video art, interactive installation, live cinema performance and robotics-based art. This panel will bring forward the work of the Vasulkas through the conceptual, emergent platforms of “alchemedia”, “biomedia” and “pharmakomedia and the war machine.” Panel presentations will build upon documented video, performance and installation works from the Vasulka Archive in combination with video interview comments from the Vasulkas. Extended focus will be upon theoretical, creative and critical linkages between the media experimentation of the Vasulkas and a sample of artists/theorists whose praxis is located on the cited emergent platforms. The panel’s expanded dialogue on these

platforms will focus on the influence that the Vasulkas have had for over forty years upon conceptual, technical and process experimentation in what has become the theory and evolving forms of new media.

*M.E. Warlick.*

**Steina: New Media Alchemist**

Artists Steina and Woody Vasulka have played a central role in the development of electronic sound and video. From their early fusions of sound and visual imagery in the 1960s, they have been innovators in the field of New Media. In more recent work, Steina fuses images of opposing natural environments. Waves of glacial northern oceans crash against the hot dry rock formations of the American southwest. For an artist born in Iceland, now living in Santa Fe, these conjunctions of her native and her adopted homelands reflect her migrations and the life-long transformations of her work. As the Icelandic representative, she exhibited the series Orka, (Life Force), at the Venice Biennale in 1997, in the Alvar Aalto pavilion in the Giardini del Castello. There she composed a three-channel video environment, utilizing three disk players, three projectors, six speakers, and a video synchronizer. She installed mirrors in the space to reflect and multiply her images, which she had filmed in Iceland. This installation and more recent works provide an opportunity to investigate the surprising appearance of alchemical allegories. While she considers herself an animist and does not claim any intentional references to alchemy, her work nevertheless plays with the traditional elements of alchemy -- earth, air, fire and water -- and their oppositional fusions. This paper will explore these connections through comparisons to traditional alchemical imagery, framed within the debates concerning the importance of alchemy to contemporary art, most notably in the works of James Elkins and Urszula Szulakowska.

*Timothy Weaver.*

**The Vasulkas' Investigations of Biological Space: from Biophilia to Biomedica**

The electronic media investigations of Steina and Woody Vasulka have emerged from their personal memories of the animism and ecologies of Iceland (Steina) and the historical residues of the cultural destruction of 1940s war-torn Europe (Woody). These works intersect with the definitions, delineations and discussions of biophilia and necrophilia as boundary parameters of biological space as noted in the psychoanalytic writings of Erich Fromm. Steina's thread of animism and ecology of the land is interwoven through her time-based video, performance and installation works as testimonies and manifestations of biophilia in early experimental video, installation and performance. Woody Vasulka's video opera "The Commission" and the interactive robotic installation, "The Brotherhood," parallel Fromm's delineations of life through narratives and interactions which emulate and mediate bio- and necrophilic polarities. These conceptual, critical and psychological delineations of biological space have persisted in the evolution of biomedica and continue to influence emerging forms of new media-based biocultural expression. This panel segment will critically review the works of the Vasulkas as the underlying historical media platform for current and emerging new media-based forms of biomedica including works of artificial-life based cinema, life cinema and works which emulate biomimicry through interactive installation and robotics. The presentation will draw connections between the Vasulkas' seminal works regarding biophilic space to recent and emerging works which have expanded their line of new media-based inquiry including those of biomedica artists: Gordana Novakovic, Noisefold, Bill Vorn and the presenter of this panel segment.

*Trace Reddell.*

**Woody Vasulka's Brotherhood : Pharmakomedia and the War Machine**

"Psychedelics expanded not only minds but recording technology as well," Brian Eno reflected in 1996, yielding an axiom that extends to other technological arts, including the pioneering new media of Woody Vasulka. Vasulka has described LSD-25 as a chemical ally that combated "starving artist" fatigue while prompting new degrees of focus, productivity and participation in electronic systems. The resulting "pharmakomedia" locates the intersection of human biocomputing, cybernetic arts, and psychedelic sciences while engaging the war machine underlying art technology. Evident in Woody Vasulka's video documentation of Jimi Hendrix's performance of "Machine Gun" at the Fillmore East, army weapons manifest as electric ghosts captured in the staccato-pierced feedback of electric guitar as well as in the "memory traces" of Hendrix's body. Steina and Woody Vasulkas' founding of the Kitchen accommodated otherwise culturally discarded Viet Nam veterans and draft dodgers who served as their early technical crew. In both cases, as the Vasulkas migrate intelligence from human bodies into what Manuel De Landa calls "physical contraptions," in which "artificial forms of perception (vision, hearing) came to be synthesized and embodied in computers," they act as reproductive organs for the machinic order. Like earlier proto-circuit benders, Louis and Bebe Barron, the Vasulkas operate under the influence of cybernetics to identify the circuits of electric

and digital systems along the continuum of the living, the life-like, the non-organic life, and the not-living. Whether such distinctions are useless, arbitrary, or ultimately unknowable is the chief inquiry behind Woody Vasulka's interactive robotic work, "The Brotherhood."

#### Session 6 - Fri 4pm - 5:30pm

##### Session 6 (A) Museum Classroom

**Rich Doyle, *Darwin's Pharmacy* (2011)**

Chair: *Trey Conner*

*Trey Conner.*

*Dorion Sagan.*

##### Session 6 (B) Museum Atrium

#### **Critical Game Studies IV: Videogame Spaces and Posthuman Agents**

Chair: *Patrick Jagoda; Stephanie Boluk*

The videogame industry has reached nearly 25 billion dollars in annual profits, outpacing the publishing and film sectors. The past two decades have seen a dramatic expansion in videogame development that has made this medium increasingly important to literary theory, art history, and media studies. Recent scholarly texts such as Alexander Galloway's *Gaming* (2006), Ian Bogost's *Persuasive Games* (2007), and McKenzie Wark's *Gamer Theory* (2007) have established methodologies for examining videogame form, procedural rhetoric, and gaming culture. This stream of four panels builds on this work, analyzing the formal, technological, and political aspects of this new medium. We bring together both senior and junior scholars working at the cutting-edge of four major areas in this fledgling field. The first panel, "Games of War" (Patrick Jagoda, Tim Lenoir, and McKenzie Wark), explores political games that use medium-specific affordances to work through aspects of everything from conventional to nuclear warfare. The second panel, "Art Games" (Patrick LeMieux, Mark Sample, and Zach Whalen) turns to independent videogames and alternate artistic uses of game engines. The third panel, "Virtual Worlds" (Stephanie Boluk, Katherine Hayles, and Victoria Szabo), explores the architecture, narrative potential, and utopian dimensions of multiplayer online spaces. Finally, the fourth panel, "Videogame Spaces and Posthuman Agents" (Edmond Y. Chang, Steven E. Jones, and Timothy Welsh) turns to theories of space and agency as they operate in contemporary digital games. Together, these panels explore the technological and artistic status of videogame studies and the directions in which this field is headed.

*Steven E. Jones.*

#### **Platform Studies and the Construction of Game Space: Kinect vs. Wii**

When Microsoft entered the mimetic-interface console market in 2010 with the introduction of the Kinect, it pitched the system in oddly anachronistic terms as the fulfillment of the old dream of total immersion. The symbolism at the E3 2010 Kinect release pageant—which included a performance by Cirque du Soleil—was focused on eliding the mediation of the console itself: "Might the next step be an absence of an object?" The absence of an object meant literally no controller, but it can also be read as an ontological claim implying a total, sublime domination by the subject ("no gadgets, no gizmos, just you," an ad read). By contrast, Nintendo's Wii (2006) is a gadget-ridden "object-oriented" system, that shifts attention to physical player space, the living room (Juil), but also shifts attention to the boundary relations between the player and game and controllers-objects all. As a platform, the Wii assumes that gaming is less about cyberspace than it is about cybernetics—in Norbert Wiener's sense: mechanisms of control and feedback. So its design focuses on the negative space between the player and the game. Drawn from a forthcoming book in the Platform Studies series at MIT Press, this paper will read the two competing platforms in the context of these conceptual design differences, and will turn at the end to the projected Wii 2 and current 3DS to explain these differences.

*Edmond Y. Chang.*

#### **Queering Bioshock**

One of the central conceits and mechanics of the video game Bioshock (Irrational Games, 2007) is that of 'splicing,' a biomedical, bodyhacking technology that augment the player-protagonist Jack (and his enemies) with superhuman abilities and powers. Set in the fictional undersea city of Rapture, the game renders a libertarian, Ayn Randian objectivist, posthuman utopia where its citizens are free to live, buy, choose, and change their own minds and bodies. Rapture's technopolitics echo the World Transhumanist Association's (now repackaged as Humanity+) belief in "the feasibility of redesigning the human condition, including such parameters as the inevitability of aging, limitations on human artificial intellects, unchosen psychology, suffering, and our confinement to the planet earth." However, what are the risks and stakes of this transhumanist, posthuman future? Drawing on close playing of the game, I offer a "technoqueer" analysis of Bioshock that reveals how its splicing mechanic questions how bodyhacking technologies are available only to certain bodies and identities. Like a pharmakon, these technologies can augment and transcend on the one hand and police and condemn on the other, particularly along lines of normative race, gender, and sexuality. Given that the game begins in the middle of a splicer civil war and the near collapse of the city, I hope to show how the game's narrative and play critique the colorblind, queerblind liberatory logics and rhetoric of Rapture's techno-utopian dream and of "radical" transhumanism more broadly.

*Timothy Welsh.*

### **Sympathy for the NPC: Re-sensitizing Violence in Modern Warfare 2**

For this year's SLSA on the topic of the Pharmakon, that which can both kill and cure, I would like to discuss the much maligned topic of violent videogames. While gaming is often placed on the side of "kill," because of its ties to the military and to school shootings, my paper will present a case for "cure" through a reading of Infinity Ward's Call of Duty: Modern Warfare 2 (Xbox360, PS3, PC, hereafter MW2). With its release in 2009, MW2 reignited debates about gaming and violence with its "No Russian" level, in which the playable character goes along with a terrorist attack. As one would expect, the game was immediately dubbed a "terrorism simulator" by the popular press; but what I want to suggest is that these arguments overshadow MW2's more remarkable accomplishment, which is getting players of a military-themed, first-person shooter to think twice before pulling their plastic triggers. I propose to demonstrate how MW2 uses first-person face-to-face encounters to ascribe emotional significance to non-playable characters. Though Slavoj Žižek might argue that in doing so the game obscures the reality of "depersonalized war turned into a technological operation," I contend that MW2 challenges players to recognize the face of the human in a digital display that was always already depersonalized. In this way the MW2 and the "No Russian" level have the potential to "re-sensitize" players by exposing them to some of the ways in which the digital mediates real-world military violence.

Session 6 (C) Hotel 1

### **Transmission: Energy, Vibrations, Ideas (The Arts, Science, and Occultism 1890s-1920s - 3)**

Chair: *Alexei Kojevnikov*

*Ghislain Thibault.*

### **Paradigms of Transmission: Ether and the Mad Scientist**

Media historians have ably described how many of the late 19th century media technologies operated inside an episteme of the inscription, which can be said to be characteristically "Edisonian." The phonograph, the typewriter and the film, for instance, carried with them a conception of one's writing, voice, movement, presence, as transmittable scripts to be stored and reproduced. This paper approaches how Nikola Tesla's visions of wireless technologies signal a different, competing approach to the "arts of transmission." Several of his technical apparatuses to harness the ether emphasize fluid spaces where information circulation, dynamic energy transfer and perpetual motion were cohabitating. The transmission which is called upon here is one of constant spacing and differing of time and materiality. To be sure, the different effects of presence that are played out through these two paradigms of transmission reenact the melodrama between writing and speech, time-biased and space-biased media, stasis and mobility. I suggest here that while the Teslian ethereal transmission acted at first as a counter-narrative to inscription media, it played a strong role in shaping the emerging culture of mass media and broadcasting. Tesla's accounts of technology proliferated in the popular press and participated to forging social imaginaries of transmission as an ethereal, propagative process. By revisiting claims to wireless power transmission made by Tesla from the 1890s until the 1930s, I wish to highlight how both the production of discourses and materialities at the fringe of the normative scientific community engaged in the construction, understanding and reception of the media technologies.

*Alexei Kojevnikov.*

### **Space-Time and the Russian Revolution**

Two short mathematical papers of 1922-1924 by the Petrograd mathematician Alexander Friedman demonstrated that in Einstein's general relativity, the Universe can expand, contract, collapse, and be born. The first introduction of the cosmological concept of a non-static Universe, currently called the "Big Bang," contradicted the long held and strong assumption among scientists that a satisfactory cosmology had to provide for stability. Little has been studied about the cultural context in which Friedman's cosmological ideas emerged. In this presentation, I shall explore the reception of Einstein's relativity and other main intellectual novelties in revolutionary Russia following the end of the civil war in 1920 and the resumption of cultural exchanges with Europe. A variety of unconventional interpretations by scientists, poets, and painters, including Mayakovsky, Khlebnikov, Filonov, and Chizhevsky, linked relativity and the fourth dimension with recurrent ideas on astronomical and historical catastrophism, death and resurrection, eternal return, and fundamental periodicity on the cosmic, historical, and personal time scales. These speculations reflected traumas and existential experiences of the generation that survived the revolutionary cataclysm and contributed to a cultural climate in which the idea of the collapse and rebirth of the Cosmos became conceivable.

Session 6 (D) Hotel 2

### **Stengers' *Cosmopolitics IV* (Cosmopolitics and Whitehead 2)**

Chair: *Steven Meyer*

This year (and the next) the Whitehead stream addresses the work of Isabelle Stengers. The first volume of Stengers' *Cosmopolitics* appeared in English in 2010, followed this past spring by Michael Chase's translation of *Thinking with Whitehead*. Although we will hold off full-scale consideration of the latter work till 2012, two of this fall's sessions variously place the titular subjects of Stengers' grand projects in conversation. A key chapter of *Cosmopolitics* is called "Culturing the Pharmakon?" in striking concert with the conference theme. Instead of "subtly channel[ing] the multiplicity of *pharmaka* . . . toward the over-arching question of writing," as Derrida does, Stengers takes a "detour through the sophist and the *pharmakon*" in order to "amplif[y]" what, following Bruno Latour, she calls the "factishistic proposition" regarding "new artifacts capable of being referred to as 'living' or even 'thinking'"—"those beings we fabricate and that fabricate us," Latourian factishes. As for "the question of the 'sophist' capable of celebrating and cultivating the event that constitutes the creation of a factish," it is "new only because it responds to a new problem: *all cults are not equal*." (Here cult refers, Stengers explains, "to a celebration of the event that brings a new being or a new method of measurement into existence.") In light of the argument laid out in *Cosmopolitics*, our ten speakers examine a variety of such unequal cults, attendant on fabrications ranging from zombies and tree houses to systems of tuning and models of the immune system.

*Thomas Lamarre.*

### **The Polyphony of Things: Stengers and Whitehead on Non-Human Modes of Existence**

Despite the recent emphasis on "objects" and "things" in approaches as different as Harman and Bennett, there is a tendency to avoid discussing things and objects that have been commonly treated as commodities, representations, or symbols. But wouldn't the challenge of such approaches lie precisely in their capacity to transform our understanding of such non-humans? Stengers and Whitehead potentially provide such a transformative understanding. Take the emergence of non-humans in communication networks, sentient computers, evolving programs, and even avatar life. Such production and elucidation of non-humans doesn't happen in the laboratory that is central to Latour's and Stengers' account of non-humans, yet it elucidates non-human entities that allegedly have lives of their own, in that they remain answerable for their actions in the world independently of the conditions under which they were initially detected. Latour seeks to understand the actions of non-humans as symmetrical with the actions of humans, in a manner that evokes harmonious representation and cosmology. In contrast, Stengers rethinks the role of science in politics and the truth-claiming capabilities of the sciences. Her philosophy thus goes beyond elucidation and representation. In her account of Whitehead, for instance, she writes of "the need to actively and explicitly relate any knowledge-production to the question that it tries to answer." Here we find an approach to non-human modes of existence that encourages a politics of the polyphony of things, including those commonly treated as commodities or symbols.

*T. Hugh Crawford.*

### **The Power of Wonder: Stengers, Bennett, Whitehead and Heinrich**

In an essay included in the recent volume on the emerging Speculative Realism movement, Isabelle Stengers turns to the notion of "wonder" as a strategic practice to complicate an overly-facile modernity. This paper seeks to link the idea of wonder to Stenger's earlier articulation of idiocy (in "A Cosmological Proposal") and to connect with recent work seeking to harness the power of wonder, e.g., Jane Bennett's discourse on the ethical affect of enchantment along with the vibrancy of matter, and Hubert Dreyfus and Sean Kelly's articulation of all things shining. All are participating in a drive to develop disciplines of idiotic-hetero-temporality that point toward a different affective ethics, one that can be directly connected to AN Whitehead's "creative advance into novelty." I will spend some time working through the scientific/wonderful texts of Bernd Heinrich by way of illustration, and maybe spend some time talking about tree houses.

*Isabelle Stengers.*

### **Response**

Session 6 (E) Hotel 3

### **Cyber Biopolitics**

Chair: *Vincent Duclos*

*Vincent Duclos.*

### **Bandwidth for Life: Anthropotechnic Perspectives on Global Tele-Health Enterprises**

The last few years have seen the emergence of various global initiatives intended at « bridging the gap » in terms of access to health care, using digital media to provide medical expertise. This paper argues that tele-technologies are more than allowing medical data to circulate: they are triggering passions, generating spheres of affective influence, and mobilizing ways to inhabit common worlds. I will focus on telemedicine within the Indian healthcare landscape and how it now serves as the stepping stone to India-led enterprises such as the Pan-African e-Network Project, a « Shining example of South-South cooperation ». It stands in tension between an attempt to devise an original aid presence and an affectively-loaded nation-building context where we can see the power of ICT to trigger political energies. Central to the Pan-African e-Network is a mission to transform daily referral practices through the active promotion of the instant availability of « world class » medical care. The aim is to bring awareness of expertise opportunities « lying out there », to mobilize African medical practitioners to log in to digital resources as well as to promote connectedness as a source of empowerment in clinical decision-making. In contrast to narratives of « free information flows », I wish to highlight how the integration of existing care practices within larger networks of knowledge circulation through tele-technologies produces original spaces of proximity, with their own affective and ethical dimensions.

*Jeff Pruchnic.*

### **What is Virtual Life?**

Two arguments are made in this talk, both of which are fairly straightforward but at the same time somewhat perverse insofar as they try to invert traditional approaches to the subjects under review. The first is that the creation and population of "virtual worlds" -- online communities that take place inside computer-based simulated environments -- is an example of one of three primary ways that the purposes that drive biological evolution, as first defined by Darwin, take place in contemporary times, a moment in which many evolutionary biologists have proposed that human biological evolution has ended, or at least no longer functions in the ways in which we have traditionally conceived of evolution. The second is that studying the ways that virtual worlds and the "virtual life" populating them have developed and been sustained online might also offer novel strategies for thinking through one of the more urgent concerns of contemporary biological life: environmental crises and the question of how to promote more sustainable lifestyles and uses of natural resources. In taking up these questions, this talk also discusses more generally attempts to link biological evolution and human ethics from the nineteenth century into the present.

Session 6 (F) Hotel 4

### **Migrating Substances: The pharmakon as medicinal drug, poison and metaphor**

Chair: *Bettina Wahrig*

Substances administered to the human body are dealt with under varying categories: The same substance may be called a medicinal drug, a poison, a stimulant, or an illicit drug, depending on the person who administers or uses it, depending on its dose and on the cultural context. Substances may be called precarious, when they easily change

roles in the scientific field. Activated by scientific and cultural practices, they become autonomous and high performing agents. They may change from poisons into drugs – psychoactive or stimulant - or nutrients, and vice versa. In the context of modern sciences, substances become precarious by being transported and imported, chemically isolated and modified. There are metaphorical links between insecure or precarious actions of substances and the concepts of perceptability and visibility. Depending on the context, precarious substances may be appropriated and become threats or resources for the dominating cultures, but also symbolize (cultural) identity. They can be alienated, modified, devalued, re-evaluated, and cross borders in the literal and the metaphorical sense. Poisons and stimulants comport the association of the effeminate, the criminal, the invisible, the violent, and the exotic. They may enhance or threaten the Self. This panel will unite perspectives on the “pharmakon” from different disciplinary perspectives, namely cultural and literary studies, film studies, and history of science. We will cover a time-range from the early 17th to the 20th century and compare stimulants, precarious and poisonous substances in science, literature, and film.

*Martina Mittag.*

**Will the real colonizer please stand up? Early modern controversies on the effects of tobacco on the Western body.**

Hailed variously as philosopher's stone and cure-all for all kinds of maladies (including the Great Plague) and passionately condemned as deadly poison and barbaric custom, the reputation of tobacco in the Western world has, from its arrival in the late 16th century up to today, been the subject of bitter controversy. The pharmacological promises of the beginning were soon disappearing into irrelevance in comparison with its recreational significance. Based on late sixteenth- and early seventeenth-century English texts the paper will pursue how tobacco is placed within an emerging discourse of power, that has freed individuals and nations from the constraints of a God-given order of things, and led them to appropriate new worlds with all the resources that these seemed to offer. After tobacco had been brought to Europe from South America, aficionados rapidly created their own culture around the plant, 'translating' and adapting its original use to the European mindset. Tobacco was thus part of a process of colonization, that used and appropriated resources from other cultures, creating characteristic patterns of colonization. But the advent of smoking also marks a reverse moment, which is supported by the same discourse of power and its concomitant revolution in the use of the Western body: the abject qualities, the toxic substance of tobacco here serve as colonizing agents of the body itself and turn tobacco into a telling instance of control over whatever is Other to the Self.

*Bettina Wahrig.*

**Coca around 1871: between a cure-all, a stimulant and an ethnological marker of distinction**

In the 1850s, the physician Paolo Mantegazza (1831-1910), founder of the first Italian museum of anthropology, travelled to Argentina and Peru, where he discovered his wife, Coca leaves and a few indigenous people. Back home in Milan, he belonged to the very few Europeans who disposed of fresh Coca leaves. In 1859, he published the results of his self-experiments with the drug and caused a wave of interest, which was also fostered by the simultaneous isolation of cocaine. The hype created by these news resulted in more publications and the popularity of Coca wine, even if Cocaine as well as fresh leaves remained a rarity in Europe. In 1884, Karl Koller and Sigmund Freud introduced the substance into therapy, the latter as a cure-all and as a specific against morphine addiction. I would like to follow the fate of Mantegazza's thinking in the aftermath of his experience with Coca. I would like to show how his attempt to cast his anthropological knowledge into a system was influenced by his earlier works on Coca and other psychoactive substances. His 1871 book „Quadri della natura humana - feste ed ebbrezze“ classifies ethnic groups according to the psychoactive substances and their techniques of inebriation. His concept of „nerve nutrients“ coincided with similar concepts of stimulants (Bibra 1855). I will follow the intertwining of the substance, concepts of identity and of their limits.

*Heike Klippel.*

**A Poisoned Self**

The idea of the self as a stable identity is an illusion like a film in the cinema, but just the same it is generally taken as a reality, and the doubts are suspended. Films which broach the issue of personality changes or modifications therefore tend to declare these as unusual and often use a “pharmakon” to account for them. In such cases, where a different physical appearance, character, or emotional condition is shown as the effect of a chemical, a process of altered perceptions of the self and others occurs. In this paper, we will analyse two examples for cinematic representations of the influence of drugs, namely cortisol and LSD. The focus will not be on the drugs themselves,

but on the visual reflections of the drug experience in feature films: How is the modified perception of the outer world shown to the audience? Which imagery is created to illustrate how others perceive the personality changes of the person under the drug influence? What happens to the idea of the 'real self', can it be restituted, and at which costs? Which narrative and visual structures are used to depict the relation between the drug's benefit and harm?

Session 6 (G) Hotel 5

### Early Modern Science

Chair: *Steven Swarbrick*

*Steven Swarbrick.*

#### "Taste this": Richard Crashaw in the Cybernetic Fold of the Baroque

What is the aesthetic now and how does it open up new ways of assessing Richard Crashaw, a poet who, in the twentieth century, seemed the pinnacle of bad taste? In this paper, I argue that the relationship between aesthetic taste and physical taste—the one traditionally belonging to intellectual distance, cognitive appraisal, disinterest, and the other to sensuous experience, perception, affect—needs to be rethought within the context of Richard Crashaw's poetry. The impetus for this reconsideration comes, however, not only from Crashaw, but from the overlapping concerns that Crashaw's poetry shares with our own postmodern or late capitalist "condition." Indeed, the overriding assumption of this essay is that the transitions undergone over the last half century (for which there have been many manifestos: cyborg manifestos, posthuman manifestos, and so on) toward new forms of affective labor, toward increasingly non-mimetic digital technologies, and, concurrently in the academy, toward a decreased interest in issues of representation, have introduced new ways of articulating some very old ideas about the aesthetics of lived experience. I am therefore concerned to chart the problem of taste as a problem related to affect, and to suggest that a redistribution of taste according to affective, rather than purely representational, modes of experience enables us to reconsider Crashaw's poetic corpus in light of our own, surprisingly similar, surprisingly baroque, aesthetic sensibility.

*Michael Clody.*

#### William Harvey's Inspired Vitalism

Attempting to explain the efficient cause of conception, William Harvey writes the following: the woman, after contact with the spermatic fluid in coitu, seems to receive influence, and to become fecundated without the co-operation of any sensible corporeal agent, in the same way as iron touched by the magnet is endowed with its powers and can attract other iron to itself. (On Conception, 575) Conception presents Harvey with an especially vexed problem since, in his observations of various animals and eggs, the male's sperm "does not so much as reach the cavity of the uterus." Coming from what is, in its fundamentals, an Aristotelian position, Harvey has been left with a basic question: how can the sperm imprint its form on the matter of the egg without (sustained) contact? It is here that I argue Harvey relies on the poetic model of inspiration—the magnet, here, can be read as not only that of Gilbert but also that of Plato's Ion—and, in so doing, demonstrates the way in which his natural philosophic explorations reveal an influence beyond the arenas in which his work is conventionally restrained. In other words, we can thus look beyond his situation in the debates between empiricism and rationalism, or vitalism and mechanism, and instead focus on the discursive overlap of poetics and the new science.

*Gabrielle Sugar.*

#### From Atom to Cosmos: the Ambivalence of Knowledge in Early Modern and Contemporary Women's Science Fiction

In both the early modern and contemporary periods, cosmology addresses the intimate relationship between the infinitely small—the particles that constitute the universe—and the infinitely large—the cosmos itself. My paper examines Margaret Cavendish's *The Description of a New World, Called the Blazing World* (1666) and Ursula K. Le Guin's *The Dispossessed: An Ambiguous Utopia* (1974) to investigate the indeterminate relationship between the two sides of the infinite. In *The Blazing World*, Cavendish responds to contemporary mechanical philosophies, including those of Thomas Hobbes and René Descartes, to create a unique universe based on her theory of organic materialism, which explains both the infinitely small and infinitely large. In *The Dispossessed*, Le Guin responds to contemporary theories of quantum physics in the construction of her Hainish universe. Both Cavendish and Le Guin, however, reveal that increased knowledge does not necessarily lead to a greater comprehension of our world. Cavendish's theory of nature contradicts her contemporaries, preventing a cohesive cosmic theory, and Le Guin highlights the near-impossible merger of quantum theory and Einstein's theory of



general relativity. Yet, while both texts emphasize the ambivalent function of new theories, they also present a gendered interpretation of a dilemma that extends across periods. In their imaginative constructions of the cosmos, they emphasize the connection between innovative science and speculative literature, illustrating how women are unconventional participants in the production of new knowledges during periods of intellectual transformation.

*Gregory Kalyniuk.*

### **On the Genealogy of Humour(s)**

From the Presocratic origins of Hippocratic medicine up until the late Renaissance, the theory of the four humours had grounded the belief that humanity was governed according to the same order of significations and similitudes as the natural world. Knowledge of the humours presupposed that resemblances between elements, qualities, planets, seasons, organs, and temperaments formed natural signs whose sense in the great Chain of Being could be interpreted. With the advent of classical or pre-modern thought, however, the space of natural signs and their interpretation gave way to a new space of representation with positive and empirical grounding. As figures of representation, the humours would fall back into an obscure dimension of depth that would become the object of the emergent positive orders of knowledge. “The king’s place” in Velázquez’s painting *Las Meninas*, whose emptiness for Foucault designates the absence of Man in the classical space of representation, would incubate the still nascent human sciences in what would soon be realised to be the space of Man’s finitude, and, consequently, Man’s death, but also what Deleuze will in *The Logic of Sense* call the crack, or the Death Instinct as it invites the formation of a new Image of thought which would give to it its historical sense. The humours, no longer capable of signifying the unconscious forces constitutive of Man, now give way to a humour borne out of the void left open in their absence, which harmonises the pure event with its own nonsense.

Session 6 (H) Hotel 6

### **Feedback, Disciplinarity, the Voice**

Chair: *Frances L. Van Scoy*

*Frances L. Van Scoy.*

### **Construction of Narratives from Game Play**

Whenever someone plays a game, a narrative is generated. The record of the narrative may be the memory of the events of a first person shooter, a transcript of the play of a work of interactive fiction, or the “photographs” captured while playing *The Sims*. This project is the construction of a game prototype that generates a text that can be read and understood after game play is complete by a reader who did not play the game. This text is a mix of player text, an interpretation of player text by a natural language processing (NLP) module, and pre-written text. The game is intended for middle school girls and is based on Lewis Carroll’s *Through the Looking Glass*, and the game world is a modification of a chessboard with an ocean on the west coast. The player character (PC) is Alice. Initially the PC does not know that the goal is to enter one of the four castles and become a queen. Different combinations of artifacts and experiences are required to enter each castle. The attitude of the player as she interacts with the non player characters helps determine how easy or hard it is to win. The WordNet(R) database is used by the NLP module. Essentially the NLP module looks for the occurrence of specific words (or related words) to infer the meaning of Alice’s statements. (WordNet® is a registered tradename of Princeton University.)

*Brendon Larson.*

### **Feedback Metaphors: The Link between Science, Society, and Ethics**

Scholars have proposed multiple types of scientific metaphors, but many of these classifications imply a duality between science and society and an associated fact-value dichotomy. The classic example is philosophical discussion of constitutive metaphors, as opposed to pedagogical/communicative ones. In this paper, I briefly review metaphoric taxonomy, at levels ranging from Lakoff’s cognitive metaphors to Pepper’s root metaphors, to demonstrate the extent to which they help to break down the science-society duality. I also provide examples of scientific metaphors that are constitutive yet also contain contextual values (following Helen Longino), drawing from Nancy Stepan, Dorothy Nelkin, and other scholars, as well as my own work based on interviews with biodiversity scientists who have recently promoted novel metaphors. I propose the neologism “feedback metaphor” to highlight those scientific metaphors that interweave science and society. Given their value-ladenness, I further propose that such scientific metaphors need to be subject to greater moral scrutiny.

*Jean-Louis Trudel.*

### **The hybridity of science fiction**

Science fiction is often classed as a form of popular fiction, along with romance, crime stories, westerns or political thrillers. More tentatively, it has been conceived as a creative form as distinct from fiction as poetry or journalism. Following Suvin, Russ (1975) made the case for an aesthetic of science fiction based on the rigorousness and coherence of its ideas. Science fiction was envisioned by Russ as a didactic literature essentially distinct from the modern novelistic tradition as a result of its emphasis on phenomena external to the fictional circumstances of its stories. More recently, Luckhurst (2005) has pointed to literary hybridization as a source of the vigour of science fiction from different epochs. However, the central hybridity of science fiction remains the one signalled by its very name. At the very least, it materialized historically as the common denominator linking the rejuvenation of older forms — utopias, imaginary voyages, philosophical fables, future tales, and even alternate histories — through the infusion of science as a new fount of imaginative legitimacy. This rejuvenation of older forms must not be confused with the new and specific roles played by science in science fiction: as a subject (of didactic exposition and popularization), as an object (of discussion and ethical disquisition), and as a means of extrapolation. However, if science has given new life to old forms, it also bears the blame for the perilous estrangement of science fiction from the rest of literature.

*Ron Broglio.*

#### **What is the Voice of the Inhuman?**

Wittgenstein notes the problem of communication: “If a lion could talk, we could not understand him.” The lion problem is an issue of speaking which is related to voice but different. In this problem the concern is the discourse community in which language is fashioned to human (or nonhuman) experience of being-in-the-world. Voice precedes speech and enables it. This talk pursues the parameters and possibilities of a trans-being vocality with emphasis on Jean-Luc Nancy’s essay “Vox Clamans in Deserto.” For Nancy, the voice is corporeal but not by way of taking in (food, air) nor by expelling (vomit and shit) but as an opening and opening up which opens the body in and unto the world. By way of example, he quotes a poetic passage from Kristeva about a baby crying: “The voice springs from this rejection of air and nutritive or excremental matter; so as to be vocal, the first sonorous emissions not only have their origins in the glottis but are the audible mark of a complex phenomenon of muscular and rhythmic contractions that is a rejection implicating the whole body.” Can we use this capacity to address the other in an address that would be outside of a discourse community and outside of language? Voice can throw itself and articulates what it means to be bodily thrown into the world, to be a being who is situated in a world. Hearing voice transports the listener, possesses and intoxicates the listener who may well give voice in response.

**Reception II - Fri 6pm - 7:15pm; THEMUSEUM open until 11pm**

**Reception II (A) at THEMUSEUM + RAM (to 11pm)**

The reception will include finger foods and a cash bar with beer and wine. Delegates are welcome to view Rethinking Art and Machine until the plenary begins at 7:30, and then again when the plenary is complete until 11:00 pm. For information about the RAM exhibition, visit: <http://www.themuseum.ca/RAM/>. Tickets for RAM can be purchased at THEMUSEUM for \$10 if you do not already have them.

**Plenary II - Fri 7:30pm**

**Plenary II (A) Bernard Stiegler**

*Bernard Stiegler.*

#### **A Pharmacology of the University**

The vocation of the scholastic institution in its totality (from the primary school to the doctoral school) is to form and, at the core of the doctoral or graduate school, to trans-form a type of attention that, from ancient Greece until today, and passing through the Reformation, the Counter-Reformation, the Revolution, the Restoration, and the Third Republic, that is, through laïcization or secularization, was called, firstly, logos, and, later, reason. Reason is formed. All human beings are reason-able, but their capacity to reason must be formed. The formation of reason (Bildung) passes through the disciplines. The disciplines through which reason is formed are in themselves schools of thought. They emerge from processes of transindividuation at the heart of which lie individual experiences or

experiments in thinking by researchers, which punctuates the history of these disciplines that constitute a body of knowledge shared and critiqued by a peer community and recognized as such. We live today in the epoch of what has been called, paradoxically, the attention economy – the paradox being that it is also very much the epoch that wastes and destroys attention: it is the epoch of the dis-economy of attention. Contemporary attentional forms are radically transformed by contemporary tertiary retention – I will clarify what I mean by this term during the lecture. This trans-formation poses the question of a radical transformation of the university capable of reconstituting the field at the heart of which the future of the university can be re-opened, that is, projected. This presupposes, however, an examination of the pharmacological condition of the university – and, through it, the pharmacological condition of the “universal”.

### Session 7 - Sat 8:30am - 10am

#### Session 7 (A) Artery Gallery

#### **sAcRiTInScTe: Several approaches to that knotty conundrum of the intersection of science and art.**

Chair: *Dennis Summers*

Every year, the New York Times rediscovers that the arts and sciences have something in common. This is old news to SLSA members. This panel will address this issue with hard science and hard art. The panelists will take three different approaches -each informed by their professions: art historian, scientist and artist, in order to tease out the subtleties of this complex relationship.

*MaryAnn Wilkinson.*

#### **Nature Nurtured: Contemporary Sculptors Inspired by Biology**

Nature and the pursuit of scientific knowledge have inspired artists at least since the beginning of the Age of Enlightenment. This talk will examine three contemporary sculptors who use aspects of scientific investigation as the basis for sculpture projects. Their projects are an amalgam of art and science that comment on the nature of contemporary art practice as well as the relationship of mankind and the natural world. Sculptor Nancy Graves's breakthrough in the mid-1960s centered around her series of sculpted life-sized camels, inspired by the wax models of 18th century anatomist Clemente Susine as well as her film studies of camels in motion. Intrigued by the extraordinary shape and gait of these animals, she moved from realistic models to making sculptures that reduce camels to an abstraction. The Hyperbolic Crochet Coral Reef is a project by the Institute for Figuring in Los Angeles, founded by Margaret and Christine Wertheim. The Crochet Reef resides at the intersection of mathematics, marine biology, handicraft and community art practice and also responds to the environmental crisis of global warming and the escalating problem of oceanic plastic trash. Appropriating archeological and other scientific methods of collecting, ordering, and exhibiting objects, Mark Dion's spectacular, fantastical curiosity cabinets question the construction of knowledge about nature.

*Sidney Perkowitz.*

#### **Teleportation, quantum weirdness, and art**

In 1900, Max Planck suggested that energy comes in discrete packets or quanta rather than a continuous flow. Since then, physicists from Einstein to Feynman have extended quantum ideas into an extremely powerful theory. It explains previously impenetrable natural phenomena and enables technology from smart phones to lasers. But quantum behavior remains puzzling, and “quantum weirdness” has even made it into popular culture. One such feature is entanglement, where two photons or two electrons are somehow connected through empty space. Experiment shows that manipulating one of the pair affects the other, even over hundreds of kilometers, with their mutual influence traveling at least 10,000 times faster than light. If this seems like teleportation, as when Captain Kirk is beamed from the Enterprise, it is; scientists have successfully teleported photons and atoms.<sup>1</sup> Einstein, the contemporary theorist John Bell, and many others have worried about entanglement (Einstein called it “spooky action at a distance”) but physicists throw up their hands at explaining it because it resembles nothing in ordinary life. Yet artists, while not dealing directly with entanglement as an artistic problem, have expressed some of its features in their art, giving hope for useful visual metaphors to describe if not explain this mysterious phenomenon.

1. Sidney Perkowitz, *Slow Light: Invisibility, Teleportation, and Other Mysteries of Light* (Imperial College Press, London, 2011).

*Dennis Summers.*

### **The Entanglement of John S. Bell and Jasper Johns**

John S. Bell was critically important in both quashing the validity of classical physics and raising paradoxical questions about the nature of subatomic particles. Jasper Johns was critically important in both quashing abstract expressionism and raising paradoxical questions about the nature of painting. They were both born within 2 years of each other and transformed their respective fields at roughly the same time. My talk will creatively address the entanglement of these two individuals.

#### Session 7 (B) City Hall Council Chambers

##### **Attention!**

Chair: *Marcel O'Gorman*

This panel takes a cross-disciplinary approach to the concept of "attention," as it is understood in media theory, philosophy, cognitive psychology, and locative art. Each panelist has been asked to comment on/critique/enhance/denounce a text by another panelist. Bernard Stiegler will comment on Britt Anderson's critique of the misuse of the concept of attention in cognitive psychology. Kate Hayles will react to the locative art/psych experiment of Colin Ellard. Britt Anderson will respond to Kate Hayles' concepts of deep and hyper attention. Finally, Colin Ellard will address Bernard Stiegler's treatment of attention in *\_Taking Care\_*. The individual presentations will be followed by an open discussion that will welcome audience input.

*Britt Anderson.*

##### **Attention.**

*Colin Ellard.*

##### **Attention.**

*N. Katherine Hayles.*

##### **Attention.**

*Bernard Stiegler.*

##### **Attention.**

#### Session 7 (C) Hotel 1

##### **Aesthetics Beyond the Phenomenal**

Chair: *Scott Richmond; James Hodge*

Several philosophers have recently reinvested aesthetics as the name for the constitutive inexhaustibility and fundamental indeterminacy of the world. Despite their differences, both Steven Shaviro and Graham Harman stress the importance of aesthetics for speculative philosophy. This aesthetics need not give onto the Kantian "super"-sensible, above and beyond our sensory experience, but might also be below, to the side, beyond, behind. Clearly related to influential accounts of affect and affectivity, this aesthetics is not however reducible to it. In a formula, aesthetics names the phenomenal experience of the non-phenomenal. Technical media operating at speeds or scales above or below human perceptual experience pose key challenges to contemporary aesthetics. If the aesthetic entails, at root, embodied experience, what does it mean to engage aesthetics through technologies that foreground our perceptual finitude? In this panel, our three main goals are: to understand aesthetics beyond or beneath the phenomenal by attending to technical and aesthetic objects which phenomenalize what is beyond perception and sensation; to develop descriptive vocabularies commensurate to the ways aesthetic objects make manifest the rich indeterminacy of the world, our bodies, and their correlation; and, to disclose the constitutive relation between aesthetics, indeterminacy, and technicity. These goals divide into three overlapping questions: How do technical and aesthetic objects phenomenalize the non-phenomenal? How can we speak of the phenomenalized non-phenomenal aesthetic encounters open up? And, how can aesthetics, understood as the concrete phenomenal encounter between a beholder and a technical object, inform an understanding of the non-phenomenal world?

*Patrick Jagoda.*

##### **Gaming the System**

As Ian Bogost has observed, videogames use "system building as a way of knowing." Games make available experiences of dynamic systems that operate at scales that exceed individual human comprehension. To explore

some of the ways that videogames render large-scale systems cognitively, perceptually, and aesthetically accessible, this paper turns to two different digital game genres that consistently pursue this task: system simulations and Alternative Reality Games. My analysis focuses on two contemporary exemplars of these genres. First, I discuss Impact Games's PEACEMAKER. This 2007 computer game allows the player to address the Israel-Palestine conflict by negotiating a vast political system composed of Israeli and Palestinian people, radical resistance groups such as Hamas, and foreign investors from the United States, the European Union, and the United Nations. This simulation promotes a complex form of systems-oriented thinking that moves among domestic and transnational scales, as well as historical and present-day dimensions. Second, I analyze the 2008 Alternate Reality Game SUPERSTRUCT, produced by Jane McGonigal at the Institute for the Future. This game grapples with global-level environmental, economic, and demographic threats. Through puzzles addressed to a sizeable network of players, the game promotes an emergence of new forms of social life. Both games employ transmedia elements and digital interfaces to make worldwide systems aesthetically and phenomenally graspable. The textual, audio, visual, and procedural dimensions of these games open up encounters, however fleeting or partial, with phenomena scaled beyond the usual threshold of human perception.

*James Hodge.*

**Long Durational Aesthetics: Animation & the Informatic Scales of History**

The sub- and supra-human scales and speeds of information technology pose key challenges to theorizing new media's negotiation of history. Late twentieth- and early twenty-first century cultural and media theory generally imagines computers and information culture as antithetical to history as such. The execution of computer code, and digital inscription more generally, often operates at a distinct remove from human perception. Given such a situation, how then may we account for historical experience if it is, as many philosophers of history contend, based upon our phenomenal encounter with the evidential traces of the past? Put schematically, our sense of history now depends upon our experience of the refiguration of the trace considered in terms of the "exteriority of writing," or the sense of writing in excess of meaning or linguistic signification. Animation names such a figuration of the exteriority of writing. The advent of computational networks has opened up new scales for new media artists to explore long durational aesthetics. Beyond opening up questions of so-called "real-time," such works readily open up the question of temporal scales operating in excess of human perceptual limits. This paper examines how two works examine issues of perception and scale as a way of further investigating the problem of history in the age of new media. It discusses the centrality of animation to the historical aesthetic of two works of long duration new media art: Barbara Lattanzi's OPTICAL DE-DRAMATIZATION ENGINE and John F. Simon, Jr.'s EVERY ICON.

*Scott Richmond.*

**Phenomenal Flicker: Medium, Materiality, and Aesthetics in Tony Conrad's THE FLICKER**

At first glance, Tony Conrad's 1965 THE FLICKER seems to have much in common with Peter Kubelka's 1960 ARNULF RAINER. They both present a series of alternating black and white frames, creating strobing effects when projected. Like other "structural" film (P. Adams Sitney), Kubelka's film engages in a typically modernist play of medium specificity. THE FLICKER, however, was part of Conrad's radically multimedial practice that included music, poetry, film, even philosophy, and a variety of other technical means—and, as Branden Joseph teaches us, whose controlling figure was John Cage, not Clement Greenberg. Viewers routinely hallucinate watching THE FLICKER. The strobing elicits manifestly illusory visual percepts, such as evanescent green and purple spirals slithering over one another. It also produces a sensation of pleasurable or frightening surrender. The visual and sensual experience of the film exceeds what is physically given; the phenomenal exceeds the physical in a visceral, unstable way. THE FLICKER's hallucinatory illusion thematizes and aestheticizes not the poverty of embodied perception (its divergence from reality), but its constitutive excess. In place of the materiality of the medium, Conrad makes palpable the materiality of the body. I see what is nevertheless manifestly not there—not *visible*, in any straightforward meaning of the word. In Merleau-Ponty's idiom, Conrad's film elicits a visible experience of the *invisible*—it phenomenalizes what is constitutively beyond perception. By putting THE FLICKER under both art-historical and phenomenological scrutiny, this paper attempts to articulate a conceptual vocabulary commensurate to Conrad's aesthetics of the non-phenomenal.

*Steve Shaviro.*

**Response by Steven Shaviro.**

Response by Steven Shaviro.

## Session 7 (D) Hotel 2

**Representations of Technology in Literature**Chair: *Carol Colatrella*

Considering diverse ways that technology and humanity connect, this panel considers representations of tools and technological processes in Classical, American, and British literature. Panelists investigate the ways in which representations of technology in literature and literary criticism explore human dimensions and shape human understanding. Texts include Classical myths and post-Romantic novels, stories, dramas, and non-fiction addressing the development and deployment of automata and cyborgs and how diverse technologies mentioned in literary works influence and are influenced by individuals and society.

*Narin Hassan.***Industrial Revolution, Empire, and the Novel**

This paper provides an overview of the impact of the Industrial Revolution in the nineteenth century and its relationship to empire, gender, the home, and professions. Referencing literary texts such as Charles Dickens' *Hard Times*, Elizabeth Gaskell's *Mary Barton*, and non-fiction by Friedrich Engels and Henry Mayhew, I will discuss the increasing use of tools and technologies and the professionalization in medicine and other scientific fields. I will briefly trace the rise of the woman doctor, and the relationship of travel, both linked to industry and technology, and medicine. Another section of the chapter considers the relationship of technology to shifting ideas of nature/botany/landscape in discussing the Crystal Palace, both the technological innovations and progress in terms of iron and glass production and the role of the Crystal Palace as a symbol of technological progress and modernity), Wardian cases that transported tropical plants, domestic greenhouses and conservatories. Changing literary depictions of nature reveal the influx of new technologies, in that fictions discuss the railway, the telegraph, and new modes of communication. This section will also survey the impact of new technologies on publishing and fiction in the nineteenth century, discussing for example "sensation fiction." Sensation fiction was associated with new technologies and mass culture, in addressing the masses and made more readily available through cheaper means of publishing and the rise of the circulating library. Finally, the paper will discuss technologies in the home and the relationship of domesticity to technology, noting research on infant feeding, bottles, and pumps.

*Kevin LaGrandeur.***Technology in Cross-Cultural Mythology: Western and Non-Western**

What is really significant when we look at technology in the ancient world is that technology is not limited to Classical mythology. Rather, its presence in those stories coincides in important ways with its appearance in other types of fictional and non-fictional accounts, and not just in Western literature, but in the literature of other cultures as well. These other accounts include quasi-mythological tales like *The Iliad*, tales from ancient cultures in India and China, and non-fictional accounts of real instances of technological innovation by ancient inventors. The devices made by ancient Greek engineers—such as the Antikythera mechanism, or the devices of Ctsebius and Hero of Alexandria, and Philon of Byzantium—are especially notable because they reflect, and are reflected by, the various fictional accounts. Chief in importance among technological innovations that appear in all three realms (stories, myths, and reality) are automata, especially humanoid automata. Their main significance is their ability to enhance and project the power and status of their makers or owners, who were sometimes the same individuals.

*Carol Colatrella.***Technology, Citizenship, and Social Improvement in Works by Douglass, Melville, Gilman, and Edson**

The paper examines four American texts--Frederick Douglass's *Narrative of the Life of Frederick Douglass* (1845), Herman Melville's *Moby-Dick* (1852), Charlotte Perkins Gilman's *What Diantha Did* (1909-10), and Margaret Edson's *W;t* (1999)--that illustrate diverse prospects for human development of and engagement with technologies and the not always predictable effects of these interactions for society. Textual analysis of these works considers the ways in which their characters experience costs and benefits in developing and/or deploying various technologies designed for different outcomes. Concerns center on questions of national identity, citizenship, and individual achievement particularly pertinent to the U.S., yet these issues are also increasingly important in other places as technical innovations spread around the world. Lessons learned may be extended to works from different genres and periods as we consider what it means to be human and how technologies deployed for political, economic, social, and medical purposes constrain and enable that humanity.

## Session 7 (E) Hotel 3

### **Science and Politics in the Work of Kim Stanley Robinson**

Chair: *Adeline Johns-Putra; Adam Trexler; Robert Markley*

This panel addresses the relationship between science and politics in the work of science fiction writer Kim Stanley Robinson. It will include presentations from Adeline Johns-Putra (Exeter), Adam Trexler (Exeter) and Robert Markley (Illinois-Urbana). The three presentations will deal primarily with Robinson's climate change 'Science in the Capital' novels, which promotes a vision of science and politics in concord, but it will also touch on other Robinson novels, such as his acclaimed earlier Mars trilogy, his novel on Antarctica, and his latest *Galileo's Dream*.

*Adeline Johns-Putra.*

#### **Utopian Unions: Science and Politics in the 'Science in the Capital' Trilogy**

This paper traces the shifts in Kim Stanley Robinson's utopianism from the Mars trilogy to the Science in the Capital trilogy, from the Martian landscape to the crisis of anthropogenic climate change. I suggest that Robinson's utopian impulse--already, in the Mars trilogy, a complex adaptation of the notion of utopia--is further adapted in the Science in the Capital novels in order to contend both with the emotional contours of climate change and with the discursive demands of climate science.

*Adam Trexler.*

#### **'War of the Agencies!': Assembling Scientific Agency in *Fifty Degrees Below Zero***

Kim Stanley Robinson's Science in the Capitol trilogy has often been interpreted as a revolutionary or utopian response to climate change. However, the trilogy downplays popular revolution and political leadership as the likely source of social change. Rather, *Fifty Degrees Below Zero* traces how the National Science Foundation leads a massive initiative to tackle climate change, encompassing emissions reductions, carbon capture, infrastructure replacement, and enormous mitigation projects. This account of the National Science Foundation is particularly interesting given the ongoing discussion in S&TS of scientific institutions as political and scientific hybrids that perform boundary work between different groups. By assembling the social practices of science, the bureaucracies of the Federal government, and the party politics of elected officials, the NSF gains the power to provoke a cascade of responses to abrupt climate change, and a more general political shift toward social justice, democratic transparency, and international cooperation. Thus, the Science in the Capitol trilogy nominates boundary work as a bureaucratic technology capable of manufacturing a utopian state.

*Robert Markley.*

#### **Climate Change and Consciousness in Kim Stanley Robinson's Science in the Capitol Trilogy**

This paper explores the ways in which Robinson reconfigures debates about climate change, the practice of science, and human consciousness in *Forty Signs of Rain*, *Fifty Degrees Below*, and *Sixty Days and Counting*. Robinson himself has characterized the trilogy as "a comedy about global warming", but, in terms of the history of science fiction, we might supplement this characterization and term these novels a shadow history--rather an alternative history--of the first decade of the 21st century. The interweavings of science and Buddhism provide a way to think through the implications of humanity's (re)emerging into what Robinson elsewhere has called a paleolithic postmodernism.

Session 7 (F) Hotel 4

### **Applied Neuroscience**

Chair: *Andrew Logemann*

*Sally McKay.*

#### **Art & Agency: An Neuroaesthetic Analysis of Talk Show by Omer Fast**

In neuroaesthetic discourse, neuroscientists, artists and art theorists come together to assess the material dimensions of perception in the art experience. Neuroaesthetic theories on imitation have emerged as a result of the discovery of mirror neurons. Mirror neurons are small groups of neurons that fire the same way when a subject performs an action or when the subject observes another performing the same action. Art historian David Freedberg and neuroscientist Vittorio Gallese apply mirror neuron theory to aesthetic experience. They argue against the "primacy of cognition in responses to art," suggesting that mirror neuron-induced empathy provides unmediated access to the mental states of others. In this paper, I propose that performative and new media works by contemporary artist Omer Fast challenge this theory by insisting on the entanglement of cognition with the senses; revealing the importance of

conscious agency to aesthetic engagement. It is not my goal to debunk mirror neuron research, nor to argue for the primacy of cognition. Instead I wish to extend mirror neuron theory by showing how artworks themselves can facilitate embodied forms of knowledge that are largely inaccessible in the epistemological context of fMRI studies conducted in the lab. I argue that, while autonomic processes of sense perception are integral to aesthetic experience, in the context of Talk Show and Refresh they cannot be disentangled from conscious cognition and volition. I propose that audience agency is a necessary condition for a fully aesthetic art experience.

*Melissa Littlefield.*

**A New Graphology?: Neuroscience and the Self**

Graphology, or the study of handwriting for clues about character and identity, has been a popular American pastime--and (pseudo)science for nearly two centuries. As Tamara Plakins Thornton argues in *Handwriting in America: A Cultural History* (1996), graphology has constructed--and reconstructed--the concept of self via its changing analysis of writing. Although the practice of seeking the self in/of the script has fallen out of favor in the past few decades, another--related--practice has come to prominence: the neuroscientific study of writing and its relationship to emotion, health, and state of mind (Katanoda, Yoshikawa, and Sugishita 2001; Trovino 2007; Fontana et al. 2008). Importantly, this turn to neuroscience as a better arbiter of tried philosophical question(s) is neither novel, nor unique to graphology. In this presentation, I propose to pick up where Thornton's study leaves off: with the postmodern, the poststructural, the posthuman era in order to evaluate the "remains" of humanism that inform neuroscientific studies of writing. I propose that instead of breaking with traditions of graphology's search for the self, fMRI studies of writing are shifting the locus of self from hand to brain--a shift, that, not coincidentally--was already happening in early twentieth century journalism and fiction. Take, for example, Dr. Rafel Schermann, who believed that "'it is not the hand that writes, but the brain'" (NYT "Graphologist says Brain Does Writing" Nov 20, 1923, 2).

*Andrew Logemann.*

**"The Irreparability of the Past": Joyce and the Neuroscience of Memory**

This paper will consider the use of neuroscience as a theoretical framework in modernist studies, with an eye toward the arguments it engenders and forecloses, and the extent to which James Joyce's *Ulysses* engages in theorizing about the brain, the mind, and the challenges of authentic representation. I argue that recent scientific discoveries about the nature of memory (from Luborsky, LeDoux, Gallese, among others) allow us to shed fresh light on the aesthetics of Joyce's novel. Specifically, I demonstrate the extent to which the famously prolix lists of the "Ithaca" episode encode complex processes of remembering and forgetting that accord with what we are only now learning about the neuroscience of memory. As Tony Thwaites has argued recently, the lists of "Ithaca" provide "a glimpse... of those primary processes in which, for the first time, elements become essentially representable" (495). In "Ithaca," Joyce explores memory, history, and the ability to render the discrete events of Bloom's interiority legible and meaningful. Thus, as I will argue, neuroscience prepares us to recognize and appreciate in Joyce's fiction a consistent, developing line of inquiry into human perception and the dynamics of memory.

*Sarah Birge.*

**Wrong Bodies, Wrong Minds: Bodily Integrity as an Unstable Basis for Self**

Medical narratives (such as autobiographies written after trauma) describe a rupture not only in the integrity of the body, but in one's identity, and the restoration privileged in these stories occurs through a reconceiving of the body and self through narrative. However, this revised self-understanding often remains predicated on a sense of narrative wholeness even in the face of loss. For example, in the case of Body Integrity Identity Disorder, a condition that involves an intense desire to become an amputee despite a lack of medical need for the procedure, post-amputation narratives (much like gender reassignment narratives) frequently describe a historical presence of this "true" self, the one that has always been "trapped" inside the body and is able to be realized fully only through medical intervention. On the other hand, in cases of accidental trauma or disorders, the true self is more frequently seen to be the previous self, whose wishes often take precedence in instances of surrogate decision-making such as DNRs (Do Not Resuscitate). This paper explores the fluidity of self manifest in instances of cognitive disability like Alzheimer's disease. By juxtaposing neuroscientific explanations for self-feelings of wholeness and bodily integrity with novels exemplifying the shifting relationships between body and self, the essay asks whether there might be alternative constructions of selfhood that would, in the face of an inability to narrate, be formed through environmental and social relationships that construct and maintain self-integrity.



## Modern Literatures

Chair: *Shari Jill Powers*

*Shari Jill Powers.*

### **The Decline of the Atom: Pound's Vortex as Turbine**

When Ezra Pound proposes the image of the vortex as a turbine in *Blast!* (1915), he specifically states that it occurs, not as an idea, but as “a radiant node or cluster” “through which and into which, ideas are constantly rushing” (GB 92), he was using this image to set up a context for words as media of translation and transformation, just as paint is the medium of translation for the painter, in what he calls the “prime pigment” of poetry. However, his use of the turbine is problematic in its very construction because his heuristic is completely internalized, a “phantastikon,” as he calls it in Canto I of his *Cantos*, of authorial subjectivity, which powers this turbine. How much does Pound objectify his model, not only as poetic generation as a force, but as a model for his critical didactic/moral goals with an actual artistic process? These questions demand an analysis of attitudes toward the Modernists’ observations and use of the sites of the past, present, and future as objects, fetishes of their own perceptions of time and space. The commodity fetishism inherent within these literary systems is produced by the amalgamation of commodity production in economic circulation (history of production in literature and its subsequent paradigmatic networking), and how the effects of underlying economic reality merely infuse the consciousness of these artists without necessarily directly affecting them, where the subjectivity typical of capitalistic social formations is responsible for its own unique productions.

*Brian Deyo.*

### **Common Sense and Nonsense: Rewriting the History of the Senses in James Joyce’s A Portrait of the Artist as a Young Man**

My paper examines how James Joyce’s *A Portrait of the Artist as a Young Man* rewrites the history of the senses. I argue that Joyce represents the humanist subject as the result of the repression of animality. I focus on the representation of subject-formation in the main character, Stephen Dedalus, who is initially beholden to Christian paradigms of sexual regimentation he learns in school. I begin by explaining how the institution of the school inculcates hostility toward an “animalized body” that is constructed as feminine, sensuous, and sinful. I then suggest Joyce articulates a connection between the spiritual value of ascetic self-discipline and labor-power, so that Christian sexual morality is wedded to the productive energies of imperialist economies. Joyce’s equation of Catholic spiritual technologies with capitalist ideology facilitates a critique of the biopolitical formation of the humanist subject, which is announced during a pivotal scene when Stephen is tempted by the rector of studies to join the priesthood. Horrified by the prospect of joining the cold, colorless life of the Jesuit order, Stephen rejects an identity devoted to a narrative logic of salvation and chooses a life subject to chance. In conclusion, I argue Stephen’s openness to the latter betrays Joyce’s interest in the power of sensuous, instinctual life to demystify religious discourses that demand the sacrifice of material embodiment.

*Cari Hovanec.*

### **Snail Senses: Virginia Woolf and the Study of Animal Perception**

Virginia Woolf’s 1919 short story “Kew Gardens” presents the famous botanical gardens through the eyes—such as they are—of a snail. To such a tiny creature pebbles are like boulders, blades of grass like trees, the rustle of a dead leaf an alarming signal. The story offers a tantalizing glimpse at animal perception and consciousness. Woolf’s exploration of snail senses also intersects with contemporaneous developments in biology. From the popular essays of J.B.S. Haldane to the theoretical biology of Jakob von Uexküll, early-twentieth-century science evinced a fascination with the perceptual experiences of animals ranging from dogs to ticks to barnacles. This research planted the seeds for the current field of sensory ecology, which investigates how animals acquire and use information about their environments. This paper shows that literature and biology of the 1910s-1930s simultaneously developed an interest in the sensory worlds of other species. I argue that both literature and science were engaged in a modernist project of decentering the human observer and placing him or her within a field of multiple possible perspectives. Modernists could thus experiment with representing non-human experiences and non-human subjectivities. Their writing—literary and scientific—insists that animal perspectives are worthy of attention and encourages readers to empathize with other creatures. In describing and speculating about animal perception, Woolf and her contemporaries also remind us that our own understanding of the world is contingent upon our biological capacities, and that there are more things in heaven and earth than are registered by human senses.

*Bradley Neczyk.*

**Sublime Pharmaceuticals**

My paper will examine the historical progression, literary expressions, and philosophical discourses between society, the institution, and mental illness. I will use my recent artistic research along with pulling from sources such as Kafka, Freud, Jung, Kant, Foucault, McEvelley, and Zizek. I have built a specific minimalist vocabulary of imagery and media specificity that has enabled me to work visually through subjective experiences, societal conceptions, medical dissection, the objectification of the subjective, categorization, containment, psychoanalysis, and pharmaceuticals surrounding mental illness. I will look at the Foucault's model of the progression of mental illness as a societal development, along with ideas of the medical gaze into the body now being applied to subjective experiences of the mind. Once diagnosed the primary treatment becomes pharmaceutical drugs with the focus on symptom management. These acute shifts in one's biochemistry quickly alters one's internal interactions and external relations. A metamorphosis occurs, a plastic Kafkian shell forms and mediates these interactions, which is a conceptual materialization of the chemical and psychological accumulation of the medication and its effects. The opacity of this barrier creates a sublime experience for the individual, where an awareness of the limitations and materiality of one's mind, its susceptibility to biochemical shifts that cascade subjective experiences, creates a simultaneous pleasure and displeasure in the individual. There is a presence of terror in the accuracy of pharmaceutical treatment, not into the central nervous system, but into the mind. My visual images follow through these ideas while eliciting intuitive responses to them.

Session 8 - Sat 10:30am - 12pm

Session 8 (A) Artery Gallery

**Writing on the Membrane**

Chair: *Derek Woods; Ada Smailbegovic; Sean McAlister*

In "Topology and Ontogenesis" (1964) Gilbert Simondon writes that the "living being lives at its own limit," as the selective membrane maintains "a milieu of interiority in relation to a milieu of exteriority." In this sense, "the essence of the living being is perhaps a certain topological arrangement." Yet it is crucial to attend not just to spatial form but to the unfolding temporal dimension of material entities, the rhythm of duration as systems emerge, change, and dissolve. On this panel we will discuss writing poised at the threshold between living and non-living systems. We will be writing at the limit of the organism as we ask what it means for life to be open to change, and yet capable of giving rise to differentiable qualities and sensations. Drawing on Simondon's understanding of life as a "theatre of individuation," Ada Smailbegovic will explore incongruities between conceptualizations of living beings as structural entities, and understandings of life that focus on temporal trajectories of change. Derek Woods will examine biological and social limits in a conflict between systems theory and Deleuzian ontology, with a focus on the discourse of symbiosis. Finally, Sean McAlister will explore the possibilities for narrating diffuse states of life and matter offered by Poe's cosmological fictions.

*Ada Smailbegovic.*

**Life as a Theatre of Individuation**

In "The Position of the Problem of Ontogenesis" (1989), French philosopher Gilbert Simondon offers the notion of a metastable equilibrium as a way of addressing the question of potentiality that is elided by biological explanations of development with their emphasis on how cells assume a particular identity. Considering that Simondon understands individuation not as a constitution of identity but only as a partial and relative resolution within a system, he is able to keep in view the multiplicity of potentials that are available to the system, as well as the sense that such a system "encloses a certain incompatibility in relation to itself." These incompatibilities or tensions go on to carry the system along new trajectories of individuation, thus turning life into a permanent "theatre of individuation" capable of "dephas[ing] itself in relation to itself [...], overflow[ing] out of itself from one part to another." This paper is interested in exploring the idea of life as a continuous "theatre of individuation," particularly in relation to organisms, such as the slime mold *Dictostelyum discoideum*, which within their lifecycle negotiate between a unicellular and multicellular existence. Writing about *Dycostelium* in "The New Concept of Umwelt" (1937), the Estonian ethologist Jakob Von Uexküll interprets the activities of these amoebae not as slitherings towards a form of differentiated, multicellular existence, but "as a musical event, where the amoebae are a great number of independent musicians, playing a sonata in two movements." Following both Uexküll and Simondon, as well as

Henri Bergson's shift away from the primacy of stable form or structure in understandings of life, this paper seeks to explore incongruities between the conceptualizations of living beings as structural entities or forms of material organization and understandings of life that focus on the unfolding temporal trajectories of change.

*Sean McAlister.*

### **Poe's Affective Cosmologies**

There are resonances, in Edgar Allan Poe's cosmological writing, of the turn to ontology that is characteristic of the more general turn to affect in recent cultural and literary studies. Philosophers such as Spinoza, Bergson, Whitehead, and Deleuze have all offered foundational articulations for a new direction in humanities research characterized by an emphasis on affect, singularity, and complex networks of association that have called into question more conventional models of the role of the human subject in the construction of social and cultural meaning. This paper argues for Poe's inclusion among the early theorists of a turn to affect. Among the many popular genres that Poe has been credited with inventing is science fiction, the novelty of which in antebellum America's magazine culture allowed his cosmological writings (which include speculative cosmologies like *Eureka*, cosmologically-themed science fiction tales like "The Power of Words" and "The Colloquy of Monos and Una," and mesmerism tales like "The Facts in the Case of M. Valdemar" and "Mesmeric Revelation") to function in the generic interstices between fiction and positive scientific discourse. In the scientific hoax/short tale "Mesmeric Revelation" (1844), for instance, the mesmerized subject, whose state hovers between life and death, asks his auditors to conceive a matter much more rare than ether, as this ether is more rare than metal, and we arrive at once...at a unique mass—an unparticled matter." The narrator of "Mesmeric Revelation," along with so many other impossible narrators in Poe's cosmologies who experience forms of distributed, unorganized cognition and post- and non-human states of consciousness, offers a weirdly compelling representation of speaking affect. This paper considers such generic confrontations of literary and scientific discourse as contributing to an experimental pre-history of affect theory.

*Derek Woods.*

### **When Your Inside Is My Outside: Symbiosis and Autopoietic Closure**

One conflict between Deleuzian ontology and second-order systems theory hinges on the inside/outside distinction. As Cary Wolfe explains, the Deleuze of *The Fold* (1988) "depends on a relationship between inside and outside ... in which *information* or something like it is able to cross the line or 'cut' of constitutive distinction." The Deleuzian fold establishes a topographical continuity between what systems-theorist Humberto Maturana considers "nonintersecting phenomenal domains." To underwrite this kind of closure, second-order systems theory draws on the concept of autopoiesis or self-(re)production. Niklas Luhmann then extends this concept from living membranes to social systems: "if we abstract from life," he writes, we can describe a general autopoiesis that applies to "nonliving systems" as well. The problem becomes one of understanding systems closure when writing life and non-life, individual and social bodies. My paper will discuss examples from symbiosis research, which, for historian of science Jan Sapp, "denies a rigorous delimitation of the individual." The "metadisciplinary discourse" of symbiosis provides a useful test case for the matter of closure and continuity outlined above. How does the system/environment distinction alter when we consider closely integrated, lichen-like relationships—when your inside is my outside? A focus on efforts to write symbiosis may help to clarify epistemological problems concerning the closure or permeability of biological and social systems. It will also contribute to discussions of symbiosis—by Donna Haraway via Lynn Margulis, or by Michel Serres—which work with descriptions of topological limits.

Session 8 (B) City Hall Council Chambers

### **CAFKA Panel - Intervention: Contemporary Artists in Urban Spaces"**

Chair: *Marcel O'Gorman*

This panel organized by the Contemporary Art Forum of Kitchener and Area features Pedro Reyes, Justin Langlois, and Lucy Howe, three artists whose work explores the themes of apocalypse, utopia, sustainability, and repurposing, all in the context of the city. The panel is chaired by Gordon Hatt, Executive Director of CAFKA.

Session 8 (C) Hotel 1

### **Nature and Technology**

Chair: *Morgan Tunzelmann*

*Morgan Tunzelmann.*

### Reconfiguring Touch with the Sensitive Plant

'Tis me, 'tis ours, are changed; not they. For love, and beauty, and delight, There is no death nor change; their might Exceeds our organs, which endure No light, being themselves obscure. - P.B. Shelley, "The Sensitive Plant," Shelley's poem personifies the "sensitive plant" or *mimosa pudica*, a creeping herb whose leaves temporarily fold inward when touched or disturbed. This botanic phenomenon is also known by names like *mate-loi* ("false death") and *mori-vivi* ("dies then lives"). This electronic poster presentation will model the plant as a way to consider theories of touch described by Jean-Luc Nancy and Jacques Derrida, particularly the notion of Psyche as an "untouchable extension" (Derrida 16). This phrase alludes to difficulties in defining touch: does touch exist without sensorial feedback (or a haptic quality)? Is flesh always the medium of touch (as Aristotle asserted)? The presentation will have three parts: a poster describing touch theories and comparing touch screen technology with the mechanics of plant movement; a touch screen displaying an image of the plant; and an actual potted *mimosa pudica*. When tapped, the screen display will change to an image of the plant with the leaves folded inward, as well as a selection from Shelley, Derrida or Nancy. Viewers may also touch the plant itself and watch its reaction. Viewers will consider how the experience of touching changes depending on its context (technological or biological).

*Andy McMurry.*

### Nature's Waterloo

Nature's Waterloo This purposes to be a 30 minute film essay on the vagaries of nature, science, and urban development in my hometown, Waterloo, Ontario. Part memoir, part critique, part visual haiku, the video would run as a poster session, perhaps in the Critical Media Lab. I'd like to show a 15 minute version during an appropriate session as well. To give some sense of how the project will unfold, one segment will be a discussion of Waterloo's Perimeter Institute, which is located on the site of the arena where I played minor hockey and across from Waterloo Park, which for many years was best known for its controversial captive bear attraction. Another segment puts RIM, makers of the Blackberry, alongside squirrel hunting and lightning rod inspection. Yet another examines plans for light-rail transit by reflecting on the electric buses that ran on our main street when I was a child. I arrange these observations--cutting-edge science/ technology, personal anecdote, and natural entanglement--into a blender so as to produce a sub-history of memory, place, and progress. The film will obliquely question the capacity of this city--and by extension, North American society in general--to square its demands for economic growth and development with its ecological base, no matter how much it imagines it is decoupling economy from environment. In effect, the film critiques what John Michael Greer calls our the "ecotechnic future."

Session 8 (D) Hotel 2

### Literature and Science 1750-1900

Chair: *Douglas Basford*

*Douglas Basford.*

### "the ambitious monkey synthesis": Hart Crane and the Biopolitics of Higher Consciousness

The current scholarly energy around ecocriticism and biopolitics is ideal for revisiting one of Hart Crane's most famous but misunderstood and insufficiently theorized poems, "The Wine Menagerie." In what has been variously described as impressionistic or surreal imagery, Crane makes most manifest in the poem his embrace of P. D. Ouspensky's mysticism, which understands transcendence by means of an analogy of animal-human differences with differences between the human and cosmic consciousness. Typical of his heterogeneous compositional methods, Crane creates a convergence of images of animals drawn from various sources at the Modernist nexus: Greek myths via Nietzsche's *The Birth of Tragedy* and via illustrations of leopard-pelt-adorned Maenads in Ernst Buschor's book of Greek vases, violent animal mating rituals described in Pound's translation of Rémy de Gourmont, Quetzalcoatl in D. H. Lawrence's *The Winged Serpent*, the threateningly comic zoo in William Vaughn Moody's "The Menagerie," Eliot's Apeneck Sweeney, and Expressionist aesthetics of early performances of O'Neill's *The Hairy Ape*. What are the implications of creating such a bestiary-collage from disparate sources--which stake out strong political positions--in the service of a unitary yet troubled personal transcendence? How might Derrida's play on "je suis" permit us to revise our understanding of Crane's ambivalence about being animal and among animals? In turn, can Crane's multitudes encourage useful critique of the solitariness of human-animal interactions in Derrida, without necessarily invoking the pack of Deleuze and Guattari, but instead relying on more nuanced readings of and through Modernist scientific enthusiasms?

## Session 8 (E) Hotel 3

**Species, Invasion, Environment**Chair: *Lucinda Cole*

Agriculturalists and biologists have been discussing the impact of so-called "invasive species" on the human world for at least three hundred years. We seek papers and presentations that contribute this conversation, but are informed by recent developments in cultural studies, animal studies, and/or ecocriticism.

*Rajani Sudan.***"Gendering Pe(nts): Crusoe's Cats, Hamilton's Hogs, and the Science of Husbandry in the English Island Imaginary"***Christopher Morris.***"Of Hogs and Men: Ecological Invasions of Bermuda and Other Desert Isles"***Lucinda Cole.***"The Plagues of Egypt and Providential Ecology"**

## Session 8 (F) Hotel 4

**Biopolitics**Chair: *Sherryl Vint**Sherryl Vint.***Biocultural Vampirism in Daybreakers**

We live in an era in which the speculative and the material are so entwined that neither can be understood in isolation. This is true not only in the mundane sense that biotechnological science has advanced such that a layperson can no longer distinguish hype from fact, but more importantly in the material sense that our beliefs and assumptions about the biological world and its 'norms' can now be made manifest in a milieu in which biological has become a science of engineering. In *Dolly Mixtures*, Sarah Franklin uses the term biocultural 'to emphasize the inseparability of the new biologies from the meaning systems they both reproduce and depend upon, such as beliefs about nature, reproduction, scientific progress, or categories such as gender, sex and species'. My paper will examine Michael and Peter Spierig's *Daybreakers* (2009) in the context of this biopolitical conflation of subjectivity and species, looking specifically at the film's characterization of vampirism as both a kind of 'lifestyle' and as a biomedical condition, their difference marking both species and cultural divisions. While on one level the film simply use imagery of biotechnology to drive its action-adventure narratives, from another point of view it articulates an anxious response to a world in which the discourse of liberal humanism is no longer a sufficient ground upon which to define 'the human' and protect it from the biopolitical management of economies of bodily fragments as diagnosed in Catherine Waldby and Robert Mitchell's *Tissue Economies*.

*Rebekah Sheldon.***"That Nameless Thing That is Living": Queer Sex Magic and Non-Reproductive Life**

The title of this presentation comes from Eugene Thacker's *After Life* (2010). Tracing the concept back to Aristotle, Thacker explores how life came to designate both living beings and the conditions for their emergence and notes the problems introduced by their supplementarity: Life construed as a set of conditioning forces has trouble accounting for form, while life as it designates actually existing entities requires a supplementary theory of emergence. Thus even in Graham Harman's object-oriented ontology, objects exert an "allure" (142) or "enchantment" (143) that makes change possible. We suggest that the problem of life may be productively reframed through the discourse of magic. As Timothy Morton notes, Harman's employment of magical terms to describe virtual forces is neither a mistake nor a surprise: magic requires a robust account of non-human forces. Historically, it has bound those forces through highly gendered positions: the will of the practitioner giving form to occult matter. Yet its attention to matter, to performativity, and to poeisis has made it a fecund site for queer and feminist interventions. This presentation will explore two instances of queer sex magic – Kenneth Anger's short film "Invocation of My Demon Brother" and the writings of Jack Parsons. The works of these two men stress processes of generation without reproduction. Yet neither work evades the economy of reproduction all together. Taken together, they point to the hetero-reproductive underpinnings of the concept of life at the same time that they offer an immanent critique.

*Phil Rose; Ainsley Moore.*

**The Extended Pharmacist: Entering the Era of Remote Drug Dispensing and Pharmaceutical Counseling**

We will explore the emerging field of telepharmacy – that is, the use of telecommunications for the provision of pharmacy services at a distance. Specifically, we scrutinize the recently introduced Canadian invention called the MedCentre, an automated drug-dispensing machine, whose most distinguishing feature is its synchronous audio-visual link with a remote pharmacist. We begin by outlining the various components of the holistic version of the technology, the manifestation that its inventors most actively promote, including its interplay with systems of e-prescribing, electronic patient health data, and sophisticated quality control. We then investigate the various possible services and disservices that the technology might be expected eventually to perform when implemented, along with its possible broader cultural ramifications for patients, pharmacists, and physicians. Our work broadly belongs to the medical humanities in its probing of the ethics involved in integrating the extended pharmacist into health systems, and in its objective for minimising or avoiding sociotechnical conflict.

Session 8 (G) Hotel 5

**Contemporary Fictions**

Chair: *Alicia Rivero*

*Alicia Rivero.*

**“Feminization of Nature and the Other in Belli and Castillo”**

Environmental problems caused by development and their relationship to the treatment of women, minorities, and nature constitute a largely overlooked leitmotif in many Latin(a) American texts, such as *The Inhabited Woman* and *Waslala* by Nicaragua's Gioconda Belli, as well as *So Far from God* by the Chicana Anna Castillo, who have not been compared previously from an ecocritical and ecofeminist perspective. Although these two theoretical approaches have been variously conceived, ecocriticism studies “the relationship between literature and the physical environment” (Glotfelty, *Ecocriticism Reader* xviii), whereas ecological feminism posits “important connections between how one treats women, people of color, and the underclass, and how one treats the nonhuman natural environment” (Warren, *Ecofeminism* xi). Legler links pollution to “a patriarchal environmental ethic that has conceptualized the land as ‘woman’”; she views such “constructions” as “essential to the maintenance of hierarchical ways of thinking that justify the oppression of the various ‘others’ in patriarchal culture by ranking them ‘closer to nature’” (in Warren 227-38). Belli and Castillo’s novels exemplify the concepts summarized by Glotfelty, Warren, and Legler. Castillo and Belli censure conventional gender roles, while decrying environmental contamination due to economic development at the expense of the impoverished, minorities, and nature. They attack the underlying racial and class discrimination, sexism, and injustice in these situations, taking their own countries as a fictionalized point of departure. Thus, these ecofeminist writers are comparable: their ethical position implies cultural change, as ecological writing does, according to Branch in *Reading the Earth*.

*Jenni Halpin.*

**(Un)Friendly (Mis)Understandings in Michael Frayn’s /Copenhagen/**

Throughout Michael Frayn’s */Copenhagen/* the ideas of early quantum physics and atomic structure appear in the characters’ discussions and are made manifest in the play’s form. As the inciting incident of the play is Margrethe Bohr’s recurrent querying of Werner Heisenberg’s purposes in making his historical (and friendship-ending) 1941 visit to the Bohrs in Nazi-occupied Copenhagen, it seems reasonable that the Bohrs and Heisenberg would pursue explanation in the language of their best times together: the language of complementarity and uncertainty. Building on the scientific basis of their previous friendship and in terms of their best abilities to come into agreement, Frayn’s three characters move hopefully toward a resolution that tends to remove blame from Heisenberg’s shoulders only by shifting it onto Bohr’s, suggesting that—like position and momentum—Heisenberg’s reputation and his friendship with Bohr are complementary and cannot both be repaired.

*Laura Wiebe.*

**“Quantum Gravity”: Posthuman Science in Justina Robson’s Futuristic Fantasy Series**

The phrase “quantum gravity,” the title of Justina Robson’s recent fantasy fiction series, points to the puzzles and the possibilities of science, specifically the mismatch between quantum mechanics and theories of gravity and the quest for a unifying theory that satisfactorily explains both. Quantum phenomena and concepts feature literally and figuratively in the novels, which are set in a multi-world future, after the eruption of a quantum bomb opens a hole

in the fabric of space-time and alerts humans to the existence of other worlds and peoples. The “QBomb” changes known reality for humans but also how reality can be known and who can know it: the explosion and the conditions it revealed are perplexing but also catalyst and material for new cross-world relations and scientific investigation. Robson’s invocation of quantum physics functions, above all, to raise questions about epistemological and ontological uncertainties, about tensions between ‘reality’ and perception. The novels explore these issues through the subjectivities of hybrid characters who blur the lines demarcating racial and species identity, the individual and its environment, subject and object. In this sense, the narrative resonates with Neil Bohr’s holistic conceptualization of quantum phenomena and the posthumanist concept of agential realism that feminist science studies scholar Karen Barad develops from it (*Meeting the Universe Halfway*, 2006). Beginning with this premise, my paper will discuss the Quantum Gravity series’ representation of “quantum gravity” as a posthuman science, a lens through which to reconceptualize being and knowing in posthuman worlds.

Session 8 (H) Hotel 6

**Political Collectivity, Ethics, & Democracy**

Chair: *James Brown*

*James Brown.*

**Hospitality, Responsibility, and Ethical Programs**

In the now famous “Mother of All Demos,” Douglas Engelbart demonstrates, in 1968, the desktop interface that we now take for granted. During that presentation, we find an interesting linguistic hiccup. Engelbart, explaining his experimental system, asks the audience to envision a computer that is “alive for you all day and...instantly responsible [pause] responsive [nervous laughter], instantly responsive.” When Engelbart accidentally posits a computer as “responsible,” he senses that he has made a gaffe. He was interested in the technological “augmentation of human intellect,” but assigning responsibility to computers was a bridge too far. However, the boundary between human and technics is, as Bernard Stiegler and others have argued, undecidable. As Stiegler suggests, “the who is nothing without the what.” Both human and technological object are response-able, exposed to one another, and this encounter stages the broader ethical predicament of hospitality. Over and beyond conscious choice, one is exposed and hospitable to the other. When it comes to networked technologies, all of this is made more complicated by the others that arrive at the doorstep with or without an invitation. How does software sift and sort these human and nonhuman others? Networked software, as pharmakon, both welcomes and shuns, simultaneously giving place to and killing off the other. What kinds of ethics are embedded in such software? Using Engelbart’s Freudian slip as a starting point, this presentation examines the “ethical programs” of networked software platforms, systems that decide how (or whether) others arrive in digital environments.

*Jeffrey Barbeau.*

**'Propensity' and an 'Ethics of Becoming': Notes Toward a Potential Vocation for Artists and Theorists of the New**

My paper draws on Nigel Thrift's (2008) notion of propensity and William Connolly's (2011) ethic of becoming to advocate for a renewed orientation in the humanities toward the cultivation of novelty within more or less normalized political spaces. To aid this cultivation, I will first explore how Thrift (2011) uses Gabriel Tarde's work on imitation to outline the contours of a recently emergent 'security-entertainment complex' that he refers to as Lifeworld, Inc. Thrift proposes that Lifeworld, Inc describes the vast technological and social developments that have made available (and even compelled) new modes of phenomenological awareness. To think with Thrift (2008) in terms of propensity, then, is to recognize ‘a disposition to behave in a certain way which is only partly in the control of the agent.’ Secondly, I use William Connolly’s (2011) most recent book, *A World of Becoming*, to explore the ‘constitutive tension between dwelling in time to amplify sensitivity to unfolding events and acting resolutely when and if it seems wise to do so.’ With Connolly, I advocate for an appreciation of the ways in which we are continually subjectified by emerging techno-scientific forces as citizens of a particular sort. Against the tendency to see the social as hopelessly over-determined by the simple impingements of hegemonic discourse, I argue that this turn toward an analysis of duration, novelty, and the irruption of the new through Thrift and Connolly provides researchers and artists with the conceptual resources to fashion new and different spaces for experimentation with subjectivity.

*Heather Davis.*

**When We Are Inhabited: collectivity, politics and other-than-humans**

As we watch the rapid transformation of the biosphere through human action, what seems increasingly clear is that our current conceptualizations and enactments of the ‘human’ and ‘nature’ are no longer adequate. They are breaking, mutating, evolving before our very eyes, seemingly without a satisfactory response. One method to address this situation is to re-imagine political groupings. How would we do and act politics differently if collectivity, as an exemplary form of political action, was no longer thought of as a strictly human category? In other words, what happens if, alongside the deconstruction of consciousness, language, and culture as unique markers of the human, we were to take seriously the proposition that collectivity is also thoroughly nonhuman? Gilbert Simondon’s philosophy offers a way to think through these questions. The collective, for Simondon, is made possible due to nonhuman forces that pass beyond and before the human. In this system, the collective cannot be separated from nature, but rather, nature remains the engine of all invention. The radical centering of nature in Simondon’s thought is a provocation against the majority of Western accounts of the place of nature, usually seen as eternal and ahistorical, a backdrop for the action of humans. This paper will draw on Simondon’s philosophy to re-conceptualize collectivity as non-anthropocentric, exploring what it would mean to our notion of politics to view the collective, at its base, as non- or other-than-human.

Session 9 - Sat 1:30pm - 3pm

Session 9 (A) Artery Gallery

**Bio/art**

Chair: *Jennifer Rhee*

*Jennifer Rhee.*

**Hearing the Digital: Infinity and Agency in the Sound Art of Ryoji Ikeda**

This paper looks at the relation between space, the senses, movement, and agency in the digital sound works of Ryoji Ikeda. Ikeda’s works play with oscillations between constraint and amplification to continuously reorganize sensory and spatial experience. For example, Ikeda’s cd transforms virtually any room into the site of a singular interactive aesthetic event; the listener, by moving around the room or turning his or her head, interferes with the sound frequencies of Ikeda’s works, thus changing the sounds themselves. And Ikeda’s 2009 show “+/- [the infinite between 0 and 1]” might be understood as a response to philosopher Quentin Meillassoux’s valorization of mathematics as a superior mode of thought, of knowing the world. For Meillassoux, mathematics is privileged above and wholly distinct from art. Ikeda, on the other hand, privileges mathematics explicitly for its aesthetic potential. In “+/- [the infinite between 0 and 1]”, Ikeda specifically explores the aesthetic capacities offered by and within infinity. In this paper, I will consider how Ikeda’s works, in their focus on mathematics and their transformation of space and the senses, conceptualize agency in digital technology. The agency of Ikeda’s works, in that it is undeniably embodied, is also potentially as infinite as the mathematical values between 0 and 1.

*Jessica Antonio Lomanowska.*

**The Roach Lab: Generating the Posthuman in Biomedial Art**

According to Robert Mitchell, bioart enables an embodied experience on two levels: "bioart produces in its 'spectators' an embodied sense of the link between two senses of media, by using living beings—or by revealing ways in which spectators are bound, beyond their control, to other forms of life—bioart frames spectators as themselves media for the transformative powers of life". These two conceptions of media—generative and communicative—converge in a way that questions what technology does for us, and to us. My project, The Roach Lab, includes an artistic installation that links mutation, embodiment and finitude to the posthumanist study of nonhuman animals and insects. This installation involves the construction of what Sherry Turkle terms "an evocative" object through which to rethink our relationship with nonhuman others. The focal point of the project is the construction of a robotic "thinking" cockroach, endowed with the capacity to respond to participants vis-à-vis a web interface. The cockroach subject opens the possibility of cross-species identification and multiplicity precisely because its position as media in and of itself produces "uncanny potentials that cannot immediately be pinpointed in terms of a register of known possibilities". By crossing the boundaries of animality and digitality, this project proposes that modes of "becoming-with" in posthumanist thought offer the most productive engagement with "pluralism's call for attention to embodiment", where the metamorphosis of the human is contiguous with nonhuman animal modes of communication and media. By coupling animality and technology, biomedial art exposes the human animal.



*Dylan McConnell.*

**Information Overload: *Cybridity* and an Overwhelming, Lonely World**

This presentation will examine *Cybridity*, a digital art arcade cabinet project that my team and I unveiled at the University of Waterloo's "Cabinets of Curiosity" event, held April 27, 2011. I will describe how *Cybridity* is intended to provide users with an overwhelming experience, or an "informational overload," while also isolating users from the outside world. I will explain how the flash video game component of *Cybridity* questions the ways in which we gather information from new and social media, and our ability as viewers, readers and listeners to absorb this information that we are provided with wherever we go. I will also explain how the unorthodox inside out (or, more specifically, "outside in") cabinet construction of *Cybridity* was inspired by the current phenomenon of social networking sites like Facebook and Twitter, which claim to bring people from around the globe closer together through mediated, digital communication. The reality is that as we become more dependent on technology to communicate with others, we physically isolate ourselves from others and in fact become less "social." The presentation will consist of a read essay (with possible powerpoint/image display) and a live demonstration of the *Cybridity* digital art project. It would be best to have a projector available to better display the flash game component.

Session 9 (B) City Hall Council Chambers

**"Pharmakon: The art of poison and antidote in the Critical Media Lab"**

Chair: *Marcel O'Gorman*

Four artists from the "Pharmakon" exhibition at the Critical Media Lab will discuss their work and its relation to the concept of "Pharmakon," that which can both cure and kill. David Clark - "88 Constellations for Wittgenstein" (net.art project) Paul Roorda - "Truth Serum," "Antidote," and other pharmaka (mixed media sculpture) Maria Whiteman - "Taxonomia" (photography) Colleen Wolstenholme - "Viagra/birth control rosary" (jewelry)

Session 9 (C) Hotel 1

**Immersion and Abstraction**

Chair: *Jay Vidyarthi*

*Jay Vidyarthi; Bernhard Riecke; Diane Gromala.*

**Are you Immersed? Characterizing "Immersion" across Literature, Art and Interactive Media.**

Describing media as "immersive" is ambiguous. From debilitating addiction to therapeutic relief, media engagement holds a clear duality in its effect on humanity. Without an interdisciplinary characterization of "immersion", why do we allow this concept to be so readily invoked in discussions of books, visual art, video games, virtual reality systems and more? // While "immersion" into traditional media concerns the contemplative distance of a spectator to another world depicted in a written novel or work of art, contemporary technologists can speak in terms of a virtual distance which has a perceptual element. If engaged in the social interactions and perceptual attributes of a novel's image-less, textual world, is the reader "immersed"? Alternatively, if participants enter a highly functional VR system, with a head-mounted display, spatialized audio and haptic feedback, but do not believe the illusion, are they "immersed"? // The ambiguity surrounding "immersion" is a significant obstacle to researching media which lie across literature, art and technology. The present dialectic moves from phenomenological boundaries between self, world and other worlds to theoretical similarities between "immersion" as discussed by traditional and interactive media theorists. A unifying characterization is established and discussed in the context of an ongoing project which explores boundaries of what is considered "immersive": the Sonic Cradle, a chamber combining biofeedback, sensory deprivation, music and meditation.

*Brill Kenneth.*

**Personal Vision Versus Destining- An Exploration of the Authorship of Hentschläger's ZEE**

As a result of the powerful tools and influence that technology has on the modern artist, it is increasingly difficult to parse or determine to what degree a work is the result of a personal vision, as opposed to an actualization brought on by larger, technological advances, precursive systems and events. This paper examines this question through the lens of a particular artist's work, "ZEE", by Kurt Hentschläger. The encapsulating, sensorial experience of Hentschläger's ZEE is impossible to document. The audience experiences a saturated ocean of overstimulating elements, tempered by their own behavior, location, breathing patterns, heart rate and mental responses to the work. Hentschläger's

masterful mixture of various dramaturgical technologies creates a new, immersive, ephemeral experience. One that lingers in the viewer, haunting them with its challenges and its charms. I question how much the work can be attributed to the keystroking of a programmer or the button pushing of a psychologist, rather than the impassioned vision of an artist. The work stems not only from a creative vision but also from a scientific exploration and utilization of technology, a topic of distinction that Heidegger has considered extensively. My conclusion is that if there is no real distinction between technical skill and art beyond the differences that we attribute to it for intellectual purposes, then it would be in our interest to pursue the goal of saving power, through the creation of challenging work that adds to our standing-reserve.

*Aden Evens.*

### **The Ontology of Material Abstraction**

This paper explores the ontology of the digital, proposing that the central power of the digital is abstraction. Digital technologies bring this abstraction to actuality, and the intrusion of immaterial abstraction into the material world perturbs our usual experience of the actual. For example, digital abstraction enables the perfect reproduction of digital artifacts, eliminating the distinction between copy and original and thus challenging established economic and legal expectations. But this same abstraction also means that digital artifacts can be widely disseminated with minimal cost and few resources, and it encourages an aesthetics of appropriation and combination. The same power of abstraction both provides the digital's extraordinary capability and suggests its problematic limitations. The paper examines further implications of the abstraction at the heart of digitality, asking where it gets a purchase in the actual and investigating other ways in which the ontological characteristics of the bit emerge in the behaviors of digital technologies and the culture that has grown around them.

Session 9 (D) Hotel 2

### **Medicine and Narrative**

Chair: *Ronald Schleifer*

*Dr. Jerry Vannatta.*

### **Narrative Medicine: Goals and Competencies**

This talk describes the practical usefulness of the "humanistic understanding" of narrative in the everyday practices of physicians, and consequently its importance in the training of medical students.

*Ronald Schleifer.*

### **Definitions of Health and the Chief Concern of Medicine**

This talk describes the practical usefulness of including in the patient's History and Physical Exam (the "chart") the explicit category of the "chief concern," which of necessity would encompass definitions of health.

*Francis Steen.*

### **Developing a diagnostic narrative**

Acts of diagnoses and prescription involve the tentative reconstruction of a factual state of affairs and the construction of a possible cure. The backward-looking diagnostic narrative must be negotiated within the context of and integrated into the patient's own causal self-representation, not only by the patient, but also by the doctor, in order to open up the forward-looking possibility space of the cure.

Session 9 (E) Hotel 3

### **Postapocalyptic Topographies**

Chair: *Sean Miller*

Armageddon, the rapture, end times, the deluge, nuclear holocaust, global warming. In its myriad forms, apocalypse bears with it both the sense of revelation and cataclysm. It is anticipatory yet horrific. Historically, the postapocalyptic topos has provided fertile ground for an imaginative engagement with contemporaneous ambivalences towards technology, nature, and community. In keeping with the conference theme of "pharmakon," this panel will explore the figure of the apocalypse as an event imagined to result, more often than not, in one of two polarized outcomes: one that kills, as pandemic destruction with dystopian aftermath; or one that cures, as utopian renewal or purification.

*Sean Miller.*

***Encyclopedia Apocalyptica: A Thought Experiment on the Postcataclysmic Recovery of Techno-Scientific Knowledge***

In a post-cataclysmic world, how might an isolated community reconstruct contemporary techno-scientific knowledge and, by implication, the socio-economic stability that is dependent upon it? James Lovelock suggests that "[o]ne thing we can do to lessen the consequences of catastrophe is to write a guidebook for our survivors to help them rebuild civilization without repeating too many of our mistakes." This paper will explore what shape such a "guidebook" might take. In doing so, it will address the following concerns: the implied environment, both social and material, that would necessitate such a book, as well as the inherent epistemological, hermeneutic, and ideological complications of such a project. Significantly, in keeping with Timothy Lenoir's definition of "techno-science" as science that is "inextricably bound to the machines that enable it," such an undertaking must contend with not only the distributed, fragmented, and hyper-specialized nature of contemporary techno-scientific knowledge, but also its status as second-hand or received knowledge to the non-specialist. Would it be meaningful to assert that the world is round to that imagined future user, without instructions for the making and use of a gnomon to verify such a claim's veracity? Accordingly, such a guidebook would need to be not only incremental, layering one techno-scientific insight upon another, but also largely heuristic. It would have to explain by means of a carefully attuned configuration of durable media, how one could go about making, for example, a glass lens, gunpowder, penicillin, or perhaps eventually, even a transistor. Lastly, this paper will consider such a guidebook's potential pedagogical applications.

*Eric La Freniere.*

**Apocalypse Now: The Digital Panopticon and the "War on Terror"**

This spoken-visual presentation investigates digital power relations to argue that we are already living the apocalypse. Foucault's Panopticism is used as a touchstone metaphor to discuss corporate and governmental efforts to employ New Media remedies / poisons to manage individual bodies and social discourse. The acceptance of the New Media *pharmakon* is treated as the internalization of a totalizing, hyper-abstract cognitive modality that inherently codes for violent binary oppositions. The history of digital technology is surveyed vis-à-vis the Industrial Revolution, commerce and conflict and the economics of fascism, and the emergence of cybernetics during the Second World War. The concept of humans and their nervous systems as machines is examined as a Cold War paradigm. The idea of the military-industrial complex is used to explore the development of computer and communication technologies. The seemingly inevitable demise of net neutrality is compared to the Panopticon as a "discipline mechanism," and the heavily-digitized "War on Terror" to Foucault's plague-stricken town as a "discipline blockade." Advertising and propaganda are discussed in terms of pseudo-news and astroturf movements, lost privacy and constant solicitation, and excluded alternatives and unthinkable thoughts. The use of digital technologies to amass speculative fortunes and regulate public opinion and political outcomes is considered. Convenience and security are investigated as reasons for the development of a cyber-surveillance society. The corporatist-panoptic functions of the world's most popular internet sites are reviewed, as is the terminal relationship of privacy to the individual, as well as that of the individual to democracy and freedom.

*Chris Goldsmith.*

**"Every hollow space invites invasion": Containment and Anxiety in Post-apocalyptic Fictions**

This paper will argue that post-apocalyptic topographies can often be read as stark binaries: small, enclosed, habitable spaces, and the vast, unbounded, uninhabitable world. Depending on the cause and nature of the apocalyptic event, the world-at-large can be indifferent, barren, actively hostile – but it always, this paper argues, threatens to overwhelm and erase the smaller enclaves of human habitation that exist within and in opposition to it. The paper will juxtapose Defoe's 1719 novel *Robinson Crusoe* – the precursor to much 20th and 21st century post-apocalyptic fiction – with Romero's 1978 film *Dawn of the Dead*. There are numerous areas of overlap: in each there is a small band of survivors, isolated in a place with abundant resources, threatened by anthropophagus enemies, (obsessively) concerned with the construction and policing of boundaries and barriers, which are meant to conceal as well as repulse. The breaching of those boundaries and the overrunning of the enclave which happens in *Dawn of the Dead* is typical of much contemporary post-apocalyptic fiction, and can be read as the expression of an anxiety about the fragile or unstable nature of the structures of civilization, and about the possibility of their imminent collapse – an anxiety only latent in *Robinson Crusoe*. The paper will close with an attempt to account for

the growth and flowering of this anxiety, and may briefly examine counter-narratives in which human spaces grow into and drive back the post-apocalyptic wasteland.

Session 9 (F) Hotel 4

**Modernism**

Chair: *Brandon Jones*

*Brandon Jones.*

**The Pharmakon of Delusion: Freud, H.D., and Clinical Psychosis**

Paranoia and schizophrenia have become central motifs in psychological critiques of modern and postmodern literature. Authors such as Bersani, Deleuze and Guattari, Sass, and Trotter have established these clinical terms in literary discourse, relating paranoid and schizophrenic mechanisms to trends of thought – not necessarily limited to psychoanalytic applications – in twentieth century art and culture. The fundamental clinical feature of these psychoses – in conjunction with hallucinations – is delusion formation, characterized by a false belief that is incongruous with reality and firmly held despite evidence to the contrary. Delusions are actually intended to contribute to an internally driven method of recovery, thereby exhibiting pharmakon-like ambivalence. The glaring distinction between delusion formation and artistic outlet is that the imaginary realm of the latter makes little to no claim of an empirical underpinning. Can we ever, then, speak of a point where creative, aesthetic expression starts exhibiting psychopathological tendencies? This essay addresses that question by examining the epistemological and phenomenological issues in the debate between Sigmund Freud and modernist poet Hilda Doolittle (H.D.). Juxtaposing the controversial definition of delusion in psychiatric nosology with the distinction between delusion and sublimation in Freudian psychoanalysis, I argue that while H.D. embraces the therapeutic techniques of psychoanalysis in her personal life and poetry, as an artist she nevertheless disagrees with the physician regarding the premises of reality. It is a disagreement hinging on the distinction between the imagination and the external world as phenomenal modalities - one that continues to resonate with contemporary theoretical issues concerning the clinical understanding of delusion.

*Anne Brubaker.*

**By the Numbers: Statistical Rhetoric and African-American Women's Writing**

Like the paradoxical concept of pharmakon, numbers—particularly when applied to human phenomena—simultaneously dehumanize and define us. We have tended, however, to overemphasize the reductive aspects of social quantification, associating such methods with nightmare visions of disempowerment, regimentation, and depersonalization, in the process obscuring how marginalized or subaltern writers deploy numerical data as a constructive tool for social justice and political representation. This paper focuses on selected essays by African-American women writers such as Frances Harper, Ida B. Wells, Pauline Hopkins, and Alice Dunbar Nelson, exploring the ways in which these women collect, interpret, and disseminate statistical data to reveal and reform systemic gender and racial inequalities. More largely, this project investigates the constitutive role of statistical thinking on late nineteenth and early twentieth century conceptions of race and conventions of American realism.

Session 9 (G) Hotel 5

**Animal Studies**

Chair: *Nancy Barrickman*

*Nancy Barrickman.*

**Killer Apes, Killer Humans: With Man Gone, Will There Be Hope for Gorilla?**

Humanity has a history of portraying the ape as a brute and a killer, yet we do more harm to them than they have ever inflicted upon us. From zoonoses that jump from humans to apes and back again, to medical experiments to cure these lethal microbes, to habitat loss, the balance of life is overwhelming tipped against the apes. Drawing from Daniel Quinn's *Ishmael*, I suggest that viewed through an ape's lens, humanity is a voracious and insatiable destroyer. The numbers of apes are dwindling rapidly. The taker mentality of humanity construes attempts to preserve the ape world as impediments to the machine of economic development that produces our built-worlds and extracts the resources for our many Western luxuries. Wood for our houses, rare-earth metals for our gadgets, palm oil for our health bars – objects we use daily but rarely consider the price to our cousins. Yet, there is a facet of science that frames the trans-specific relationship differently. Field primatologists venture into the nonhuman world

to extend their gaze beyond species' boundaries. They see in the apes' eyes a nearly identical emotional world. These sorts of glimpses have strengthened our spiritual connection to the delicate ecology that must be preserved to ensure every species survival, including our own. The ape world resembles the leaver cultures of humanity, themselves dwindling rapidly. If we relearn that wisdom, perhaps we can begin to heal our relationship to the world. For, with gorilla gone, will there be hope for man?

*James Barilla.*

### **Don't Feed the Monkeys?**

For most people feeding wildlife is one of the backyard's chief pleasures. They love to feed wildlife. And wildlife loves to get fed. In Northampton, Massachusetts, a bear's two square mile home range will provide an estimated twelve tons of birdseed every year. Should we be feeding them? Are we building bonds of interspecies appreciation, or even affection? Or are we endangering their lives as well as our own? To explore the thorny issues surrounding wildlife and food, I travel to the city of Dania Beach, just south of Fort Lauderdale, where wild green monkeys have lived for nearly fifty years. Every evening, this nonnative species shows up at the Motel 6 parking lot to cadge bananas from captivated tourists and locals alike. In the company of a city official, I track down one of the last troops of monkeys in a maze of airport runways and mangrove swamps. He's brought a pile of bananas and grapes, and when he toots the horn they come out eagerly. I can feel this surge of longing to feed them, to give them a meal on a wet and frigid day. Why don't laws against feeding work? Because for so many people, feeding wildlife is a powerful, even religious, experience. How can we reconcile this emotional response to wild animals with the rational knowledge of what is best for them, and for us? And most profoundly, if we take away this means of connection, will people simply cease to care about wildlife?

Session 9 (H) Hotel 6

### **This is the End: Extinctions**

Chair: *Gerry Canavan*

*Gerry Canavan.*

### **Hope, But Not For Us: Ecological Science Fiction and the End of the World**

The recent resurgence of science fictional narratives about ecological apocalypse suggests the critical-resistant work of the mind that Fredric Jameson has memorably called "the attempt to imagine capitalism by way of imagining the end of the world." If capitalism has always been, in K. William Kapp's terms, "an economy of unpaid costs," then our increasing recognition that the bill is coming due represents a kind of nascent revolutionary consciousness. Though apocalypse appears on the surface to assert the \*impossibility\* of significant change in our social relations, the radical disruption of history offered by eco-apocalypse is at the same time a dialectical reassertion of both the possibility and the necessity of such change. Apocalypse reminds us that consumer capitalism is not eternal -- and, indeed, apocalypse seems in our time the only force strong enough to shake the foundations of capital, the only power left that could still create a renewed free space in which another kind of life could be possible. This paper therefore seeks to draw out the unexpected utopian potency that lurks within our contemporary visions of eco-apocalypse. The active fantasy in such narrative is, I argue, fundamentally salvific: a desire that the nightmares of exploitation and environmental degradation, and our own complicity in these practices, might somehow be stopped despite our inability to change. I focus my reading in particular on Margaret Atwood's *Oryx & Crake* (2003) and *The Year of the Flood* (2009), with additional references to other recent science fiction film and literature where appropriate.

*Matthew Taylor.*

### **Extinction as Pharmakon: Life after People**

As with other contemporary apocalypse narratives such as the History Channel's *Life After People* and the National Geographic Channel's *Aftermath: Population Zero*, Alan Weisman's *The World Without Us* presents its readers with two themes not easily reconciled. The first is that despite the damage humans are inflicting upon the global environment, the Earth will quickly recover in our absence. The death of our species, that is, will lead to the renewal of life as a whole on the planet. The book's second register, however, is one of nostalgia over humanity lost. By picturing our things slowly decaying in our absence, the book depends, at least in part, upon the pathos of these objects' newfound inhumanity. This combination of posthumanist pleasure with a humanist obsession over the afterlives of our possessions perhaps motivates the frequent characterization of the text as being "[a]t once . . . harrowing and, oddly, comforting" (Louise Erdrich). Drawing upon the work of Latour, Stengers, Agamben, and

Thacker, my paper begins by critiquing this philosophical tradition (extending from Darwin to modern transhumanism), in which we are invited, paradoxically, to celebrate our evolutionary rebirth in the wake of human extinction. This model is problematic not only because it presumes the impossible survival of the liberal subject but also because it reinscribes the same anthropocentric metaphysics of “life” that it seeks to overcome. The paper concludes by tracing possible alternatives in which the human/nonhuman difference is disarticulated but without a promise that it will be to “our” benefit.

*Beatrice Marovich.*

**Plastic, Fantastic: Creaturely (Cellular) Immortality in Popular Science**

The quixotic quest to immortalize human life is no new phenomenon. Sensational figures like the theoretical gerontologist Aubrey de Grey have managed to charm large audiences and mainstream news outlets with claims that our scientific technologies can bring us closer to functional immortality than we might allow ourselves to believe. But these sorts of claims are only as new as Francis Bacon’s 17th century *History of Life and Death*. One comparatively new figure (if the early 20th century can still be considered “recent”) to contemporary discourses of immortality, however, is the strange survivalist “success story”—the immortal cell, a line of cells not subject to the Hayflick limit which can continue their division “infinitely.” In this presentation, I will examine the figure of the immortal cell in (especially) two works of popular science—Rebecca Skloot’s *The Immortal Life of Henrietta Lacks* (2010) and Jonathan Weiner’s *Long for This World: The Strange Science of Immortality* (2010). What I will highlight, in their textual treatment of this cell, is a literary figure of “creaturely immortality.” Using the work of philosopher Catherine Malabou, I will suggest that the so-called immortal cell exhibits, or illuminates, an especially “plastic” relation between mortality and immortality. This is not, Malabou clarifies, a flexible or elastic connection but a plastic (sculptural) connection between figures. Each figure has the ability to both give form to the other and to take form from it. The mortal shapes the figure of the immortal and vice versa. The result, I will ultimately suggest, is a creaturely immortal who exists as kind of pharmakon: able to both heal bodies, and to do incredible harm, able to evoke the realm of angels as well as those of demons. It is a figure of immortality that is not the site of utopian hope but is, instead, resolutely ambivalent.

*Joshua Schuster.*

**What Is Extinction?**

I do not take it for granted that we currently understand the biological, philosophical, and psychological impact of the sixth mass extinction even that we are now witnessing. This paper provides a beginning framework for understanding extinction as a confrontation with the limits and loss of life along with the limits and loss of thought. Here are some questions I seek to open with and begin to discuss: How can we think of an event that appears only in disappearance, what figure can we give to the loss of figuration for a species, and how can we put into form what has reached the moment of its dissolution of form? What does extinction mean to the species itself if there is no species left to think it or experience it? What does extinction mean to other species as a biological phenomenon, as a consequence of inter-species violence, and as an opportunity for other species to flourish? And what does extinction mean to humans – indeed does extinction only have meaning for humans – for as the conservationist Aldo Leopold noted that while some animals do mourn for the death of friends and family, “For one species to mourn the death of another is a new thing under the sun”? What does elegy mean at the level of the species – what kind of mourning are we speaking of in the event of extinction? This essay examines the philosophical claims made by Darwin concerning extinction as a regular event in speciation, and concludes with a discussion of recent philosophical arguments made by Ray Brassier linking extinction and nihilism.

Session 10 - Sat 3:30pm - 5pm

Session 10 (A) Artery Gallery

**Microbiology**

Chair: *Tyler Fox*

*Tyler Fox; Diane Gromala.*

**Permeable Bodies: Bacteria and Indeterminate Embodiment**

In Cary Wolfe’s “What is Posthumanism?” embodiment is central to the posthuman shift away from anthropocentric understandings of the world. For Wolfe, embodiment is a way of recognizing the radical difference between

different animal bodies (human and non-human) that leads to a heterogeneity of being-in-the-world, inextricably linked to the specificity of particular bodily forms and capacities. This culminates in a new conception of posthuman bioethics, grounded in embodiment. In this paper, I expand upon Wolfe's theories through a consideration of the embodied hybridity expressed in human-bacteria symbiosis. A brief review of human-bacteria relationships begins to weaken conceptions of human embodiment as distinctly whole: there are 10 times the number of bacteria cells as human cells on the body, bacteria of the gut extend the human body's ability to breakdown and digest food, bacteria affect mood, immunity, and other physiological processes and development. Bacteria also use complex forms of inter- and intra-species communication. In short, the bacteria within play central roles in human existence and experience and align with other posthuman articulations of cyborgs, cybernetics, and network societies where dynamic relationships between systems and environments trump essentialist categorization. As many have argued, posthumanism dismantles conceptions of human centrality and superiority. Relational conceptions of embodiment found in human-bacteria symbiosis reveals a permeable connection to the world allowing for a shift away from human centrality, through a prosthetic extension of bodily capacity.

*Martin French.*

### **Viropolitics**

Viropolitics describes not the administration of life (biopolitics), nor the organization of death (necropolitics), but instead the disqualification of life through the production of a novel political category – suspect life – and the radical indeterminacy of subjects who occupy this category. This paper advances the concept of viropolitics by positioning it in relation to the vital politics literature, and by engaging with the science of virology. The vital politics literature stands in need of a threshold concept between the politics of life and the politics of death; the principle character of the science of virology – the virus – steps into this role with an uncanny sense of ambivalence. Although frequently figured as a harbinger of death in popular culture, the virus is by most definitions neither alive nor dead. It exemplifies indeterminacy. In its refusal to be scripted into the grand narratives of life and death, the virus engenders a deep suspicion and constant surveillance, two features that are characteristic of viropolitics.

*Suzanne Black.*

### **Phage as Pharmakon: Arguments from absence and metaphorical indeterminacy in the discovery and visualization of bacterial viruses**

Although bacteriophages (the group of viruses that infect bacteria) have been exhaustively studied in molecular biology since the 1940s, they have received only passing attention in the cultural studies of science. Yet they seem obvious examples of the pharmakon, something that might cure by killing. In this talk, I will use the concept of pharmakon to understand the indeterminacy present in two historical breakthroughs in phage research. First, I will look at the discovery of phage by Twort and D'Herelle in 1915 and 1917, as well as Sinclair Lewis's fictional account in *Arrowsmith* (1925). Second, I will look at the rhetoric surrounding the initial electron micrographs of bacteriophage in 1942. I will argue that in each case an early account marked by uncertainty about what one is seeing is supplanted by a more rhetorically confident account arguing for the existence of an "invisible microbe" and the existence of specific physical features like heads and tails. I will also seek to use the concept of pharmakon as a tool for understanding the metaphorical polysemy that surrounds phage, which are compared variously to machines, higher animals, and human beings.

Session 10 (B) City Hall Council Chambers

### **CAFKA Panel - "survive.resist: Curating the 2011 CAFKA Biennial"**

Chair: *Marcel O'Gorman*

Members of CAFKA's programming committee discuss the development of the 2011 biennial of art in public spaces. This panel will feature an overview of the works in CAFKA 2011, providing a behind-the-scenes look at the logistics and philosophy of mounting this ambitious artist-run biennial. Ernest Daetweiller, Gordon Hatt, Sarah Kernohan, and Gareth Lichty will lead the discussion.

Session 10 (C) Hotel 1

### **Revising/Revisiting Bodies and/as Machines**

Chair: *Nicholas Anderson*

*Nicholas Anderson.*

### **Norbert and the Pussycats: Norbert Wiener's Felines and the Pharmacologies of Cybernetic Organisms**

Inhabiting Norbert Wiener's texts on cybernetics is a clowder of felines, which he calls upon to illustrate the mechanism of feedback and the role it plays in spontaneous living within an open-ended environment. Wiener's cats dramatize a disappearance of animal life into mechanical and informatic processes, each one becoming in his discourse more or less an adaptive servomechanism. Yet rather than interpret his account of cybernetics as the strict reduction of life to the technological, I argue that he suggests a more radical indeterminacy in the categorical distinctions between animals and machines. The cats and kittens of Wiener's writing suffer a rhetorical, conceptual, and experimental violence that exposes their bodies to technoscientific analysis and manipulation, but which nevertheless suggests a co-implication of the organic and the artificial, biology and technology, by way of a mutual supplementarity through which the mechanization of the animal is in simultaneous play with the animalization of the machine. Rendered as cybernetic organisms, these felines help uncover the logic of the pharmakon at work in Wiener's cybernetics. Their violent exposure clearly speaks to the fantasy of the technological control of life itself: a seductive remedy to mortal existence. At the same time, it speaks to a structure of non-mastery at the heart of cybernetic theory, positing bodies and systems whose very technicity means that they are fragile and finite, vulnerable in their openness to the world and definitively mortal.

*Kumiko YOSHIOKA.*

### **Human milk as secretion and excretion**

In *Generation of Animals*, Aristotle classifies bodily composition into (1) natural part, (2) unnatural part, (3) secretion or excretion, (4) waste-product, and (5) nutriment. Semen in males and catamenia in females are secretion. Blood is nutriment, and so is milk, which is "blood concocted" or the "residual nourishment that at first is used up by the fetus." For Thomas Morgan Rotch, who became the first full professor of pediatrics at Harvard, however, milk is not a secretion of useful nutriment through and through. He claims, "The mammary gland acts both as a secretory and as an excretory organ." On the one hand, milk is secretion or nourishment; Like semen, it is a crux of reproduction. On the other, lactation, like urination, can be excretion, getting rid of excess or "foreign elements." Moreover, like the lachrymal fluid, production of milk can be under strong influence of the nervous system. As a practicing physician during the time of high infant mortality, Rotch was aware of the prematurity of the science of infant feeding and "the superiority of human milk to all other kinds of infant food." He defined his own project as an "endeavor to copy nature." Yet he also acknowledges occasional failure of breastfeeding because of mastitis, depressed nipples and other disturbances. This paper examines how the dual function of lactation was played out, allowing the nineteenth-century "baby doctors" to identify "poor milk" and "bad milk," develop pathology of breastfeeding and methods of artificial feeding, and establish pediatrics as a discipline.

*Allison de Fren.*

### **The Subtle Apparatus: The Aetheric Instrumentality of the Female Android in the Works of E.T.A. Hoffmann and Fritz Lang**

This paper discusses the role of android women in E.T.A. Hoffmann's short stories "Automata" and "The Sandman" and Fritz Lang's 1927 film *Metropolis* as subtle apparatuses, instruments of aetheric and meteorological forces that induce in others a state of automatism, ambivalently marked by both the promise of metaphysical communion and the threat of social control. The depiction of the mechanical woman as a conduit of natural forces is elaborated via historical linkages between pneumatica (machines powered by air, water, and steam) and hysteria (the mechanical paroxysms of a female body suffering from "vapors"). The line between the two is traced through the work of René Descartes—who, inspired by the pneumatic figures in the grottoes and fountains of Saint-Germain-en-Laye, compared the human body to a machine through which "animal spirits" flowed; Robert Boyle—who helped reify the Cartesian view in his writings on hysteria as the susceptibility of a weakened sensory apparatus to "adventitious matter"; and Franz Anton Mesmer, who proposed a form of automatism ("magnetic sleep")—by which tidal flows of animal spirits were conducted through the body—as a means of curing the nervous disorders associated with hysteria. The idea of the female hysteric as subtle apparatus of imponderable fluids lent itself to a metaphorical instrumentality embodied by the female androids in the works of both Hoffmann and Lang, who are created by Mesmer-like figures and in proximity to whom Romantic heroes undergo neurasthenic symptoms that vacillate between the revelatory and delusional.

*Steven LeMieux.*

### **Indigestion Machines: Writing Restraint/Writing Reluctance**

Toward the end of *When Species Meet* Donna Haraway briefly proposes a possible answer to the problem of eating well that Derrida raises in his 1988 interview. Briefly put, if we cannot draw a distinction of worth between any



bodies then there ceases to be any sort of body that can be simply consumed. Haraway introduces the notion of nourishing indigestion as a means forcing the consumer to recognize those bodies she or he consumes. In indigestion we can begin to become curious, to notice and care about what we eat. With this project I will be focused on the relationship between a writer and the keyboard, a tool that quickly becomes transparent once we have learned how to use it. I hope to create antacids, machines that worm their way into otherwise invisible relationships. I will be working at making the keyboard apparent in two related fashions. The first is through restraint. Through an arm apparatus that pulls back on each finger with elastic cord writing will become physically exhausting. The second machine focuses on pain rather than exhaustion. By attaching thumb tacks to every key the relationship between keyboard and writer shifts dramatically every keystroke is measured. This presentation will focus on three things, indigestion as a desirable state, the efficacy of these particular machines in nourishing indigestion, and what is afforded by writing indigestion (and the problem of making that indigestion known to the reader).

#### Session 10 (D) Hotel 2

##### **Reflections on Modeling across the Disciplines**

Chair: *luis.arata@quinnipiac.edu*

This panel examines how models function as entities built over indeterminate foundations. Drawing on examples from the arts to the sciences, this panel consist of three presentations that explore questions basic to modeling: What are the relations between model, modeled, and modeler? What benefits and powers do models offer? What are their risks and limitations? Luis O. Arata will present “A Unified View of Models.” Drawing on examples from several fields, Arata will present a model that highlights what modeling shares across disciplines, beyond differences. The question to be examined is if such view enhances the general practice of modeling. Sidney Perkowitz will present “Models, Metaphors, and Mathematics.” Perkowitz will explore how writers and literary scholars rely on metaphors and scientists on models to serve a similar function: to compress or abstract versions of reality that offer description and illumination. However, the scientific model can have a predictive power that metaphors usually lack. He will illustrate how scientific models can prod the imagination just as metaphors do. Jay Labinger will present “The Dark Side of the Model.” In keeping with the conference theme of “Pharmakon, that which can both kill and cure,” Labinger will explore several critical ways in which modeling can present risks. He will illustrate a variety of risks with examples from his own field, chemistry, as well as other areas.

*luis.arata@quinnipiac.edu.*

##### **A Unified View of Models**

Drawing on examples from several fields, Arata will present a model that highlights what modeling shares across disciplines, beyond differences. The question to be examined is if such view enhances the general practice of modeling. Definitions of models tend to fall short of being comprehensive enough to cover all forms of modeling, or else are too narrow, engendering a proliferation of disjointed definitions. A shift beyond the traditional approach of defining models for what they are and focus rather on what they attempt to do, achieves a more coherent view of modeling. I propose to define a model as an interface that enables the performance of tasks according to preferences. Defining models with respect to tasks illuminates their function: the modeler is a designer of mediations fashioned to yield desired performances. This view underscores how the human touch is an integral part of models since they hinge on personal preferences and styles. When the limitations of modeling are kept in mind, when its techniques are perfected, when modeling skills are honed, then this superb tool of the human imagination helps guide our hand in performing tasks, with a personal touch that is the modeler’s signature. I will illustrate this view with examples from economics, biology, literature, and art.

*Sidney Perkowitz.*

##### **Models, Metaphors, and Mathematics**

Writers and literary scholars use metaphors, scientists use models. Both forms are compressed or abstracted versions of reality that offer description and illumination. But a metaphor is a figure of speech, whereas a model is typically a physical or mathematical analogue of a process or system. The model is chosen to provide simplified or concrete access to complex situations or to those that lie outside human experience, such as quantum behavior. Another significant difference is that whereas metaphors do not usually have predictive power, mathematical models do. That makes it possible to confirm the value of the model as far as it extends – for in a model, completeness is traded for simplicity – and to rework it to better approximate reality. Still, scientific models can prod the imagination just as metaphors do. A model provides a compact conceptual “hook” that lets a scientist play freely with an idea or phenomenon. In *Models and Metaphors*, Max Black expressed this interplay when he wrote “perhaps every science

must start with metaphor and end with algebra, and perhaps without the metaphor there would never have been any algebra." [1] I'll illustrate these ideas with varied scientific models such as considering electricity to be a fluid, atoms to resemble solar systems, solids to behave like a collection of tiny balls connected by springs, and the electromagnetic field to operate like a myriad of interconnected gears. [1] Max Black, *Models and Metaphors: Studies in Language and Philosophy* (Ithaca, Cornell University Press, 1962) 242.

*Jay Labinger.*

### **The Dark Side of the Model**

In keeping with the conference theme of "Pharmakon, that which can both kill and cure," I will explore the ways in which modeling, in science and other realms, may have less positive aspects. I can envision several types of risks, which could be categorized as: • a chimera effect, wherein the casual and/or inapt conflation of concepts that appropriately belong to one model with those from another, or from that which is being modeled, results in more confusion than clarification • a simulacrum effect, wherein a model comes to be viewed as more important or even more "real" than the entity or phenomenon being modeled • a Trojan Horse effect, wherein the existence of a (necessarily) imperfect model undermines confidence in scientific (or other) knowledge by providing an indirect, less well-defended pathway for assault • a dependency effect, wherein an explanation of an observation or phenomenon is deemed unacceptable in the absence of a simple, straightforward model I will illustrate these potential pitfalls with examples from my own field of science (chemistry) as well as other areas.

Session 10 (E) Hotel 3

### **Art as Ontology: Art Roundtable Slsa 2011 Waterloo**

Chair: *oscherwitz steven j.*

Steven j Oscherwitz <http://www.sjoartphilosophy.com> With the enormous advancement of this years inclusion of the arts at The Waterloo 2011 conference , it is an important time to continue to ask questions as to the meaning and nature of the arts at slsa . Several months ago there were some specific issues suggested in response to my post on lit-sci which asked for suggestions on how the arts can continue to flourish at the slsa annual conferences. I wish to propose that these issues as well as producing pragmatic issues such as funding for the arts , more importantly reflects on the theorhetical importance of art to the study of Litrature and Science. I want to suggest that the further discussion of these issues will continuied to be strengthened by examining the specific ontological nature of these issues. I feel we need to ask the question where exactly is arts ontology - its sense of being and placement in the present compeared to the past ontological schematas of Aristotle, Descartes , Husserl , Whitehead, Deleuze ? Discussing the philosophical nature of arts ontological status in these different schemata in relation to contempory studies will continue to show that there is a robust and growing theorhetical need for the inclusion of the arts at slsa . The fact will become so apparent, over and over again that Artists generate theorhetical work that proves to have a very genuine and potent form of awareness that brings meaning to what would otherwise remain vacuuous knowledge. The overall spirit of this task needs to remain the freedom of expression.

Session 10 (F) Hotel 4

### **Psychology**

Chair: *Eric White*

*Eric White.*

### **"On the Brink of New And Terrifying Possibilities": The Shock of Modernity in Christopher Nolan's THE PRESTIGE (2006)**

Baudelaire famously expresses his ambivalence toward the metropolis in a contradictory affirmation of mutually exclusive subject positions. The "perfect flâneur" plunges eagerly into the multiplicitous spectacle of urban modernity as if it were "an immense reservoir of electrical energy" contact with which entails a "violent nervous shock." For this traumatophilic subject-in-process, metropolitan modernity is the condition of possibility for psychic metamorphosis. But in the face of the phantasmagorical flux of city-life, the "dandy" would remain imperturbably the same. The dandy's "distinguishing characteristic...consists in...an unshakeable determination not to be moved." The story told in *THE PRESTIGE* about an agon between fin-de-siècle illusionists explores a comparably conflicted range of response to modernity. As one character explains, in the paradigmatic magical trick "making something disappear isn't enough. You have to bring it back." The illusionist's performance unfolds as an elaborate game of fort-da. By the end of the trick, the audience has its every wish fulfilled when loss is recompensed and assurance

given that the bounds of normative reality have not been transgressed. But the film intimates the possibility of an alternative perspective on the shock of modernity. To prevail over his rival, one of the magicians commissions a scientist-wizard to invent a wonder-working machine that “can actually do the things a magician [only] pretends to.” And such is indeed the case when in his culminating performance the magician’s apparent teleportation is revealed as the psychic transport of a would-be self-same subject who henceforth enters into an endless process of simulacral othering.

*Elizabeth Donaldson.*

**“My 12 Hours as a Madman”: LSD and Disability Immersion Experiences of Schizophrenia**

In 1953, *Maclean’s* journalist Sidney Katz published a shocking account of “the torments of hell and ecstasies of heaven” he experienced as part of a schizophrenia experiment at Saskatchewan Hospital. Along with articles like “Help for the Living Dead” (*Saturday Evening Post*, 1955) and “Step into the World of the Insane” (*Look*, 1954), Katz’s “My 12 Hours as a Madman” helped to introduce the general public to cutting-edge research in psychiatry involving a new drug: lysergic acid diethylamide, or LSD. Although LSD became infamous as a psychedelic years later, in the early 1950s LSD was primarily thought of as a psychotomimetic, a drug which could produce a “model psychosis” or “artificial schizophrenia.” This paper focuses on the use of LSD in psychiatry in this often overshadowed period. More specifically, I examine experiments that use LSD as a prosthetic tool to produce “disability immersion” experiences of schizophrenia in people without psychiatric symptoms or diagnoses. This use of LSD often reversed the traditional way drugs circulate in psychiatry: instead of patients receiving mind-altering medication to ameliorate disabling psychiatric symptoms, mental health professionals took LSD to temporarily disable their normal cognition. Despite the problematic nature of disability immersion experiences in general and the negative valence sometimes attached to mental illness and schizophrenia in these accounts, these trips into madness produced, I will argue, positive therapeutic insights, perhaps best illustrated by architect Kiyō Izumi’s LSD-inspired design for Yorkton Psychiatric Centre.

Session 10 (G) Hotel 5

**Pharmakon in/and Theory**

Chair: *Kari Weil*

*Kari Weil.*

**Animal Death and Melancholy Becomings**

In contrast to, if not defiance of Heidegger’s designation of human Dasein as a “being towards death,” recent works of art, literature and theory show death as a captivating, Deleuzian “becoming”, or even “becoming animal” that challenge our understanding of death “as such” by focusing on the shifting and elusive boundaries between what or who is living, what or who is dying. In this paper I will examine two such (impossible) representations of animal death: Hélène Cixous’s “Aube Partagée” and British artist, Sam-Taylor Wood’s short video entitled, “A Little Death.” I call these deaths, “melancholy becomings” because they invoke that imperfect “over-naming” of the natural world that Walter Benjamin claimed to be the deepest reason for melancholy. Death is that which we cannot name properly, that which defies our linguistic skills and creates disorder in our conceptual abilities, especially when, as in these works, life, death and eros are thrown together. But these works, like the matter of “becoming” more generally, are also melancholic in the manner in which Freud understands that term. Even as they affirm loss of a sort, they make it impossible to know what, if anything is lost in death and what, if anything, is to be mourned.

*Sam Kimball.*

**The “I” as Pharmakon: Freud’s Death Instinct, Derrida’s Auto-Affection, and the Evolutionary Costs of First-Person Consciousness**

In this presentation, I intend to discuss the terms of my title by putting forward and exploring the implications of a cross-disciplinary claim about the Darwinian limits of first-person, self-reflective consciousness insofar as this consciousness is conceived to be evolutionarily adaptive. My claim is that the strange “logic” of the Pharmakon provides a means of understanding how the operations of Freud’s notorious “death instinct” are evident in the phenomenological experience Derrida calls “auto-affection” and how they thereby clarify the evolutionary costs of first-person consciousness. In developing this claim, I hope to show a previously under-appreciated convergence between evolutionary psychology, classical Freudian psychoanalytic theory, and Derrida’s deconstructions.

*Peter Schwenger.*

### **Asemic Writing, or, Derrida Redoubled**

This paper is about the theoretical implications of asemic writing: the visual representation of writing as such, freed from its conventional signs, and freed from any responsibility to convey meaning. Examples will be shown by Henri Michaux, Roland Barthes, Rosaire Appel and others. Asemic writing invites us to revisit some of the paradoxes of the pharmakon, and takes these to an extreme. Derrida asserts that “mimesis is akin to the pharmakon.” When one imitates writing as such, then, the paradoxes of the pharmakon redouble. To begin with, a perfect imitation of writing would be indistinguishable from writing, and so asemic writing must foreground difference in the service of semblance. This is parallel to the way that the sign’s mimesis of a concept is necessarily different from the concept as it is really experienced. The concept that is one element in the sign tends to replace the materiality of writing with itself; it ushers us quickly, too quickly, past the lines of the page to a line of thought that then proceeds to engage us while obliterating the very writing that conveyed it to us within the limits of the game. But opposing that game is play, the complex and subtle play of thought before it is systematized. This is the difference between linguistic signification and a broader sense of significance. The abstract gestural quality of asemic writing returns us to concepts that are essentially mute, but nevertheless convey an emotional eloquence beyond that of the sign.

*Arkady Plotnitsky.*

### **Three Pharmacies--Plato’s, Gödel’s, and Derrida’s: Platonism, Undecidability, and the Pharmakon in Philosophy, Mathematical Logic, and Deconstruction**

Derrida’s Dissemination establishes a fundamental relation between the signifier “pharmakon” in Plato, considered in the chapter “Plato’s Pharmacy,” and Gödel’s concept of an undecidable proposition in mathematical logic. By taking advantage of the double meaning of pharmakon (“remedy” and “poison”) in the ancient Greek, Derrida defines the pharmakon as an undecidable signifier. The pharmakon enters the interactive network of Derrida’s “undecidables”: the pharmakon, the supplement, the hymen, etc. In the process, the pharmakon is given a broader meaning. It is not only “neither remedy nor poison,” but also “neither good nor evil, neither the inside nor the outside, neither speech nor writing ... Neither/nor, that is, simultaneously, either or ...” In its interactions with other Derridean undecidables, the pharmakon represents the dynamics of deconstruction. First, rather than the metaphorical role of mathematical undecidability in deconstruction, this paper considers the roles of both Platonism and a certain deconstructive-like dynamics, leading to undecidability, in mathematical logic. Secondly, rather than the functioning of deconstruction within Platonism, it considers the role of Platonism in deconstruction. I argue that it is not only that deconstruction is a kind of pharmakon within Platonism, but also Platonism is a kind of pharmakon within deconstruction, or within mathematical logic. A proper dosage of one for the other is crucial for the health of the corresponding project. I also argue that one should not be surprised that mathematics plays a key role in this configuration. Plato’s thought is defined by the relationships, in turn pharmakon-like, between mathematics and philosophy.

Session 10 (H) Hotel 6

### **Post- and Transhumanisms, Past and Present**

Chair: *Michaela Giesenkirchen Sawyer*

This panel investigates aspects of the impact and history of Post- and Transhumanist thought and practice. The first half is devoted to philosophical evaluations of present-day transhumanist science and its impact on our understanding of animal and human nature. The second half provides an intellectual history of Post- and Transhumanist approaches in nineteenth- and twentieth-century mathematics, literature, and art.

*Wayne B. Hanewicz.*

### **"The Singularity: What Can Our Questions Teach Us?"**

There is increasing dialogue about the future of the human species. The dialogue centers around 3 interrelated, but distinct, central concepts: (1) the Singularity, (2) Transhumanism, and (3) Post Humanism. For the most part, this transformation of humanity entails the integration of various technologies ranging from artificial or extended intelligence to robotics, and from neuroscience to psychopharmacology. These technologies will alter both the form and the content of human being, including the (1) special nature of human consciousness (if, indeed, it is special), (2) the place of ethics and values in human life, (3) the search for meaning in one’s life, and (4) the place for mythic, spiritual and archetypal symbols in human life. Yet, we have paid far more attention to the form rather than the content of human transformation. This paper will (1) distinguish the 3 major conceptual frameworks for examining the future of human being, viz., Singularity, Transhumanism, and Post-Humanism (2) identify some of the less

visible but equally important content issues entailed by human transformation, and (3) suggest alternative conceptual frameworks for examining human transformation.

*Michaela Giesenkirchen Sawyer.*

**Modernism's Posthumanist Turn: Gertrude Stein and Picasso**

This paper will identify and interpret the posthumanist turn inherent in the early modernisms of Gertrude Stein and Pablo Picasso. The transition from *The Making of Americans* to *The Long Gay Book*, in Stein's case, and from the Blue and Rose Periods to Cubism, in Picasso's case, can be understood as a working through of precisely those Victorian conceptions of mathematics and time that Leslie Simon's presentation discusses. The result, in both cases, is a posthumanist approach to representations of the human, where it begins to comprise, or be replaced by, the non-human, and existential integrity becomes a multi-perspectival, narrative performance of infinite series of permutations and beginnings and endings.

*Karen Mizell.*

**“Justice, Enhancement Technologies, and the Biosovereignty of Nonhuman Animals”**

In this presentation, I examine normative concerns consequential to the application of emerging biotechnologies to the enhancement (uplift) of nonhuman animals. Transhumanists anticipate exponential advances in human evolution driven by progress in genetic, nano-technological, and robotic engineering that will surmount biological limitations. Just as the future of human biology is affected by emerging biotechnologies, it is reasonable to surmise that the same technologies may impinge upon the fixed bounds of nonhuman animal biology. Taking a cue from transhumanism, many theorists anticipate technologies that will alter the biologically fixed architecture of nonhuman bodies and brains. Such alterations presage social and moral constructions that recognize and include highly sapient nonhuman animals, which I discuss in the context of Rawlsian and neo-Kantian civil associations. I argue that it is not unreasonable to expect that the design of a just community rests on respect for the moral personhood of, at least some, nonhuman animals.

*Leslie Simon.*

**“Transhumanism, Mathematics, and the Limits of Time”**

The contradictions inherent in the structure of time proposed by evolutionary biology – with its suggestion of limitlessness extending only into the future, not into the past – complicated bourgeois notions of self-development in the nineteenth century and continue to haunt our understanding of human potentiality in the twenty-first. The difficulty of parsing the limitations of human nature derives from the problem of defining time as either a bounded or boundless entity – or both. I will explore this problem through the early-nineteenth-century controversies in mathematics over the substance and shape of time, which sparked at the outset of European industrialization. While algebraic formalists like George Peacock and Augustus De Morgan studied the infinite and the imaginary, and perceived the mathematical symbol as an abstraction disconnected from any field of a priori knowledge or truth, intuitionists like William Rowan Hamilton made absolute connections between the antecedent space of reason and the consequent space of thought and action. The divergence between these two approaches to the temporality of human existence emerges in contemporary philosophies of the bourgeois individual as a self-actuating persona, and has been inherited by recent transhumanist attempts – in art, in philosophy, in life – to understand the material and psychic boundaries of the human being. I read the mapping of time as the plotting of narrative, and suggest that the modern storyline of human progress is continuously disrupted by its conflicting urges to establish beginnings and ends, taking the open-ended form of the infinite series.

Reception III - Sat 6pm - 8pm

Reception III (A) with Artists at CML

This reception with a beer and wine bar and finger foods gives delegates a chance to meet the artists participating in the Pharmakon exhibition at the Critical Media Lab. Everyone is invited. For information about the exhibition, visit: <http://criticalmedia.uwaterloo.ca>.

SLSA Salsa Party - Sat 8pm until 2am

SLSA Salsa Party (A) with CAFKA and IMPACT at Chrysalids Theatre

This party is a collaboration with the IMPACT Theatre Festival and the Contemporary Art Forum of Kitchener and Area. There will be a full bar, lounge, dance floor, and several performers, including a 10-member salsa band. All delegates received a ticket for this event in their conference package. It is important to bring the ticket with you since the event will likely sell out.

### Session 11 - Sun 8:30am - 10am

#### Session 11 (A) MUS Café

#### **Narrative, Language, Science**

Chair: *Paul Halpern*

*Paul Halpern.*

#### **The Principle of Self-Consistency in Connie Willis's *Blackout* and *All Clear***

In 1990 physicists Igor Novikov, Kip Thorne, and others set out to eliminate some of the paradoxes associated with backward time travel by proposing a principle of self-consistency for closed timelike curves (loops in time). Briefly, the principle mandates that any loops in time must be such that past events form an integral part of a logically consistent pattern that includes present-day consequences. The authors used the example of a pool ball falling into a pocket, going back in time, emerging, and knocking the original version of itself into the same hole. Connie Willis's paired novels *Blackout* and *All Clear*, both published in 2010, imagine time-travelling historians from 2060 exploring London during the time of the Blitz, and finding themselves stranded in the past. The series of events they undertake turn out to be part of the essential fabric of history. In this talk, I will examine the model of time proposed in those novels, and compare it to the principle of self-consistency and other attempts to resolve time travel paradoxes.

*Daniel Aureliano Newman.*

#### **"Selfish Genes, Uncertain Paternity, and the Triumph of Comedy in Zadie Smith's *White Teeth*."**

Genetics are implicated in narrative, because paternity is so often structurally and ideologically crucial to their plots. In *Braveheart*, the execution of William Wallace avoids moral (and historical) despair because we know Princess Isabelle is pregnant with his child. More interesting, from literary and biological perspectives, are cases where paternity is ambiguous. Thus Scorsese's *Departed* validates the shocking murder of Billy Costigan by implying that Madolyn Madden's child is his, not that of her boyfriend and his nemesis Sullivan. These dynamics are pointedly undermined in two postcolonial novels, Rushdie's *Midnight's Children* and Smith's *White Teeth*. In his portrait of modern India, Rushdie challenges the genealogical logic of cultural and genetic inheritance; narrator Saleem Sinai is multiracial and polyreligious, and the inheritance of his physical traits mimic this pluralism by merging realistic Mendelian and fantastic transmission. At first glance, *White Teeth* similarly subverts genealogy; yet this intuitive reading ignores the sophistication of Smith's genetics. In fact, she uses selfish-gene theory to undermine not only the traditional connection of genealogy and narrative, but also the postmodern subversion of that tradition. Selfish-gene theory provides a powerful posthumanist theory few theorists seem willing to recognize as progressive. My talk will show that Dawkinsian genetics challenges the satisfaction many readers find in the indeterminate paternity of Irie's child, who may have been fathered by either genetically-identical Igbal twin. Thus Smith offers a more nuanced view of determinism, destiny and identity, and delivers a key—and politically potent—aspect of the novel's comedy.

*Patricia Merivale.*

#### **Strings as Mythology in (Science) Fiction: "A Frayed Knot"**

"String Theory," perhaps the most 'popular' theory since  $E = MC^2$ , -- a serious candidate for the "Holy Grail" of physicists, the TOE -- is also among the most controversial. With its numerous extra enfolded dimensions and its scale so tiny, it remains, LHC notwithstanding, seemingly untestable, which is a problem for science; and it is very hard to visualize -- a problem for (science) fiction. It is not so much a 'holy grail' in the fictions I examine, as a 'Maltese Falcon': characters (not always scientists) pursue it ardently, whether as 'truth,' or competitive success, or an occult, religious, ecologically counter-cultural image for a mystery seemingly outside the purview of science -- and generally come up empty. There's lots of stringy 'wallpaper' and/or 'technobabble' in, for instance, "Star Trek" or "The Big Bang Theory," as well as in some scifi novels and speculative fictions. Notable exceptions, where the 'science' and the 'fiction' balance out rather well, are those apocalyptic narratives where 'strings' are used carelessly,

viciously, hubristically,, or just unluckily, by our own Dr. Frankensteins -- for 'science' is a pharmakon that can kill or cure. Vacuums devour space-time; information overloads break down the 'quantum computer' of the 'information' universe. Mark Alpert's griping Crichton-esque techno-thriller, "The Omega Theory," illustrates one way of ensuring that the 'Knot' isn't too "Frayed"; Paul Murray's Irish Bildungsroman, "Skippy Dies," illustrates another.

#### Session 11 (B) Artery Gallery

##### Film

Chair: *James CAHILL*

*James CAHILL.*

##### **A Taste for Blood: Jean Painlevé's hematological cinema**

Blood attained special figurative significance for French film theory and aesthetics during the interwar period, particularly in relation to speculations on cinema's purported vital essence. The scientific and wildlife filmmaker Jean Painlevé, who trained in comparative anatomy, made a number of filmed studies treating blood, all marked by their mixture of scientific and surreal sensibilities and a predominance of disturbing, even horrific imagery that often elicits strong corporeal reactions. These included *The Experimental Treatment of a Hemorrhage in a Dog* (1930), a surgical demonstration film in which a live animal is drained of its blood and then revived; *The Vampire* (1939-1945), on the vampire bat and its role in spreading blood born disease that is punctuated by essayistic reflections on hygiene, colonialism, fascism, anthropomorphism, and cruelty; *Fresh Water Assassins* (1934-47), a film on the economy of flesh-eating in fresh water ponds; and his commentary for Georges Franju's abattoir film *Blood of the Beasts* (1949). This paper reads Painlevé's blood films with an attention to their acute sensitivity to the significance of blood, situating it in the contexts tropical medicine and its role in colonial administration, matters of social hygiene, and the spread of fascism. I argue that their often brutal images (what Painlevé referred to as the "unpleasing...too object-like" qualities of scientific documents) cannot be explained away by their strong figurative power, but rather that the ambivalent relation between the literal and the figurative marks out the distinct vocation of a documentary cinema that is both committed and cruel.

#### Session 11 (C) Hotel 1

#### Session 11 (D) Hotel 2

##### Epidemics

Chair: *Bruce Wyse*

*Bruce Wyse.*

##### **An Early Victorian Memento Mori Vision: Bulwer's "Kosem Kesamim" and the Cholera Epidemic of 1832**

While the appearance of cholera in Britain in 1831 - 1832, "demanded and got attention from everyone, from all shades and all forms of opinion" ( R. J. Morris), "[t]here is, on the face of it, a surprising dearth of direct literary responses to the cholera. It is all but ignored in the Victorian novel, and almost never explicitly described" (Pamela Gilbert). My paper argues that Edward Bulwer's "The Tale of Kosem Kesamim, the Magician," an inset tale in his otherwise topical serial *Asmodeus at Large* (1832), traces the public apprehension over cholera in 1831 and 1832, reflects the discourses on, and controversies about, this misunderstood disease during its first outbreak in Britain, and carries conjecturally within it, albeit in fanciful and hybrid form, the germs of late nineteenth-century germ theory. The story builds towards a remarkable twofold visionary unveiling of the secrets of Creation: a revelation first of the inexpressible beauty, joy and infinite complexity of Nature and Being, and then its displacement by its antithesis, a hellish vision of the ubiquity of death and decomposition. This uncannily literalized perception that "In the midst of life we are in death" is a memento mori vision. However, the text also vividly conveys the more ambivalent insight that life and death are interdependent and inextricable. In a remarkably prescient fashion, the fantastic text imaginatively probes the realm of natural, material processes of generation, degeneration, decay and regeneration, and unveils the phenomena of the life cycles of micro-organisms, conjuring up the paradigm shift that would one day enable researchers finally to understand, control and counteract cholera.

*L. Andrew Cooper.*

##### **The Rhetoric of Remakes: Transformations of Apocalyptic Contagion Across Decades and Media**

Written in 1954, Richard Matheson's novel *I am Legend* describes a world lost to a contagion that turns the entire population—exception for one lone survivalist—into bloodthirsty vampires. The narrator is Robert Neville, whose search for a solution has spawned three different films, *The Last Man on Earth* (1964), *The Omega Man* (1971), and *I am Legend* (2007), each showing a different decade's attitude toward world-ending viruses. In the original, Neville's efforts to kill the infection make him a criminal in a new world order; his "cure" makes him a monster. By 2007, the story not only ends up with a bona fide antiviral, but Neville becomes a hero. In parallel to these developments, Matheson's novel also spawned a new form of monster, the flesh-eating zombie introduced in *Night of the Living Dead* (1968). *Night* has spawned four sequels, three remakes, and an entire subgenre of zombie stories in print, film, television, comics, and video games. Notable among these progeny is *Resident Evil*, which started as a series of video games in 1996 and continues in multiple media. Instead of focusing on scientists who make cures, *Resident Evil* focuses on the scientists who make the world-killing virus. Using brief examples of Matheson's concept transforming across decades and media, this presentation argues that the transformations reveal changing attitudes toward scientific cures and killing as well as changes in the ways media make rhetorical interventions in scientific discourse.

*Justin Derry.*

### **A Material History Of How Contemporary Epidemics Matter: Speculating on Crisis and Regenerating the Future**

Throughout history, epidemics have mattered as a preeminent force through which life and the living have irrupted within political stratifications infecting a nation with crisis, menace and death. As Foucault has argued, the arrival of biopower as a political technology was seen as both the remedy to prevent (among other things) an epidemic, and as an optimal means to reproduce vital and economic growth. However, contemporary biopolitical rationalities seeking to remedy and prevent epidemics are entangled with capitalist modes of reproduction and speculative investment that both reinforce exploitive power structures and create surplus profit from an epidemics real or potential materiality. In effect, the biopolitical remedies to a threatening epidemic are at once exploitive and profitable. Starting with the AIDS epidemic and extending to what has be speculated as the immanent threat of the next viral outbreak, this paper will explore how epidemics matter to and are constitutive of neoliberal experience and embodiment. This paper will argue that in our contemporary era actual and potential epidemics are agentive phenomena that are entangled in mutual becoming with practices of embodiment, capitalist relations and military strategy. This paper will demonstrate the dynamic practices that relate financial capitalism's speculative practice of investing and profiting from potential events that have not and may not materialize, and the biomedical and military surveillance apparatuses designed to monitor, prevent and preempt a potential epidemic's actual emergence.

*Penelope Ironstone.*

### **Imagining the Coming Pandemic: Worst-Case Scenarios and Anticipatory Anxiety in Pandemic Fictions**

Part of my SSHRC-funded research project called "From Seasonal Flu to Pandemic Influenza: The Cultural Life of a Virus," this paper will address fictional imaginings of the "coming pandemic" in such novels as *The Influenza Bomb* by Paul McCusker and Walt Larimore, *Wings of Terror: The Bird Flu Pandemic* by Sandra Ghost and Chuck Mottley, and the more recent *Z1N1: The Zombie Pandemic*. I argue that these novels reflect a broader pandemic imaginary that hinges on worst-case scenario as the only scenario for thinking about anticipated outbreaks. As we witnessed with the novel influenza A H1N1 (2009) pandemic, these imaginings are not limited to the genres of science fiction writing, but are also found in narratives underpinning pandemic preparedness and public health schemes, and may be attributed to a structure of anticipatory anxiety that has been produced in response to a model of pandemic risk. Extrapolating from the data gleaned from the 1918-1919 Spanish Influenza Pandemic, this model speculates that hundreds of millions of people might die in a pandemic sparked by a novel virus, leading to the collapse of medical, social and political institutions. This paper will trace the rhetorical underpinnings of this anticipatory anxiety, the manner in which the construction of time, space and subjectivity in the pandemic narrative serve to bolster the idea of the worst-case scenario as the only scenario. As I will show, this pandemic imaginary feeds into and reflects the anticipatory anxiety that prevails in global public health and biosecurity discourses.

Session 11 (E) Hotel 3

### **Medical Practices**

Chair: *Ning Du*

*Ning Du.*



### **The science of baby-feeding in postcolonial governmentality: Battles over infant formula and breastfeeding in contemporary China**

This study looks at the controversy of breastfeeding versus infant formula as a site of everyday life practice where China's postcolonial governmentality is both contested and sustained. In recent years there is a revival of breastfeeding in urban China. While it should be acknowledged that this revival is partially triggered by domestic infant formula safety problems, the battles of choice between breastfeeding and formula reveal something far more profound than that. To opt for breastfeeding should not be seen as merely a measure of self-help in face of food safety crises. Rather, it involves the ways in which one situates oneself as a parent in the larger context of a society where development has been upheld as the mandate of both the nation and every individual. What is at stake is a tension between different bodies of truths, where notions about national/individual empowerment, competitiveness, and child-parent relationship are intertwined. This paper examines the recent advocacy of breastfeeding in China, particularly that by Xiao Wu, a Chinese American who currently lives in China and who has become a popular author and activist for her work in promoting breastfeeding for the Chinese audience. By analyzing both Xiao Wu's advocacy and the social responses she has received, this study shows how the regime of governmentality centered on "development" and "empowerment" is contested by "counter-conducts" which promote alternative truths about child-raising; meanwhile, it also points out how the counter-conducts themselves also indirectly support the rationality of life that they challenge.

Session 11 (F) Hotel 4

### **The Vibrancy Effect: Non-Human Agency in Techno-Scientific Art Practice**

Chair: *Christopher Salter; Sofian Audry; Harry Smoak; Jaclyn Meloche*

Art, biological, physical and social science and the humanities are currently finding common ground in their vigorous turn towards a seemingly renewed interest in vitalism. While, as the French philosopher and medical doctor Georges Canguilhem stated that the history of vitalism was traditionally associated with biological forms of life traced back to the Hippocratic and Aristotelian traditions, this renewed interest has shifted the focus towards what Jane Bennett calls "material vitalism" - one that sees the material world as an endlessly active, energetic and resonating space in which we must "become more adept at discerning and contending productively with the force of things." Bennett's charge towards "vibrant matter" is not just rhetorical. As technical-scientific processes increasingly reach into every aspect of our lives, formerly fast held distinctions between human and non-human life and matter are cracking. At the same time as scholars shift from an earlier focus on text, discourse and language to the lively dynamics of matter and stuff, technologically-inflected art and design practices are also conceiving, building and staging such "material agency" (Pickering)- deferring or displacing actions and "performances" traditionally accorded to human actors onto materials, machines and processes. This panel composed of artist/scholars aims to examine how this "vibrancy effect" plays itself out in techno-scientifically inflected practice. How do artists work with vibrant matter can do over what such matter is? What is experimental procedure with the "non human" and how does this play itself out over an entire production process, from concept and design to public exhibition?

*Christopher Salter.*

### **Alien Agencies: Performance, Science and Experimental Practice with Non Humans**

What is "performance" in a scientific context? Who or what is performing? How do we articulate such performative practices that take place in hybrid studio-lab environments? What kind of knowledge arises and why is it important? Early microstudies from scholars like Bruno Latour/Steve Woolgar, Karin Knorr-Cetina, Michael Lynch, Andrew Pickering and others exposed the ways that laboratories were sites for what Hans-Joerg Rheinberger labels the "local, technical, instrumental, institutional, social, epistemic and aesthetic/experiential aspects" of scientific practice. By examining the manner in which human scientists are intertwined with what Latour famously labeled the "non-humans" (such as instruments of observation and measurement or materials such as cells, particles, electrical charges, etc), many of these studies sought to "study science as it happens" in its performative context rather than as a fixed object. Now some thirty years later, what could the lessons of this pioneering work in laboratory ethnography offer new hybrid art-science practices, particularly in understanding how artists work with new performative materialities or what Andrew Pickering calls "material agencies?" Could the so-called "performative turn" in science studies offer new ways of doing laboratory ethnographies that acknowledge the peculiarities of the epistemic and experiential cultures of artistic practice?

*Sofian Audry.*

### **An Embodied Machine Learning Agent: Distributed Agency, Machine Learning and Performativity**

This presentation concerns an experimental project featuring a minimalist embodied agent embedded in daily life. The agent adapts to its environment through a single perceptual modality by relying on a machine learning approach. The goal of this project is to start experimenting with interactive learning agents as ways of creating meaningful aesthetic experiences. By appealing to different concepts in cultural studies, science and technology studies, cognitive science, phenomenology and performativity theory, I build the argument that the embodied interaction of the agent with its world becomes the site of an aesthetic experience and the production of meaning. Furthermore, I show how its connectionist structure and its learning behavior augment the world by extending it with a brainlike phenomena that couples with it.

*Jaelyn Meloche.*

### **Title: Milk Does the Body: Re-Framing the Performativity of Material Matter in ‘The Lactation Station’**

Inspired by the question: how does material matter become an active and dialogical agent in the space of performance art?, I will consider how pasteurized breast milk, in Jess Dobkin’s *The Lactation Station*, becomes performative matter through transformance and embodiment. The concept of performativity, which finds its roots in theater studies, offers a framework in which to reconsider the enactment and relationship of the body on stage vis-à-vis the spectator vis-à-vis the materiality of matter. In the writings of Erika Fischer-Lichte and Richard Schechner, the body is exemplified as a vehicle for aesthetic transformance in the space of performance practices. Rooted within feminist discourses on the construction and production of the body, Judith Butler argues that, through repeated ritualized acts, matter becomes gendered and sexed. Stemming from scientific and post-structuralist analysis, Karen Barad maps an ontological narrative that considers the agential autonomy of matter. Complemented by Jane Bennett’s argument that non-human matter is characterized as a “performative” agent that exists within an intra-active relationship with the body, Barad assigns performative agency to all matter that is materially-discursive thus complicating the inherent nature of embodiment and thingness. Therefore, through a historical, contextual and cultural analysis of the relationships between human and non-human subjects, this paper seeks to renegotiate the function of material matter in performance art in order to exemplify its agential state of Being.

*Harry Smoak.*

### **Your Participation Not Required: Experiment/Experience in responsive environments**

In the philosophies of science since the mid 20th century, increasing interest and attention has been given to the role of the experimental apparatus as an abstract machine deployed to generate positive actualities. Since the English philosopher and scientist Francis Bacon introduced experiments to science in the 17th century, experimental science has relied on repeatable observations. Today, observation itself is seen as fallible. The feedback between constructed experimental situation and the the explanations, here scientific theories, developed is of the utmost importance and interest to the scientist. At the empirical frontier, then, art (particularly that strain employing technoscientific apparatuses and processes) like science exploits uncertainty in the construction of experimental situations. In the case of science, this involves feeding back the agencies of nonhuman configurations into both the construction of explanations and into processes of technological individuation. The application of technical devices individuated in one milieu are necessarily inappropriate (and in fact cannot be appropriate) for the new situation, and must meet its new milieu as the milieus must meet it. What are the heuristics that technoscientific art uses to harness chance and the unexpected at the moment of its unfolding? How is the unexpected interpreted and integrated back into the construction of future experimental situations? Using the author’s own work in the design of sensor-based responsive media environments, this presentation will examine some of the repercussions of the above questions- specifically, looking at the ways in which experimental life operates in techno-scientific art practice and production.

Session 11 (G) Hotel 5

### **Digital Cultures**

Chair: *David Cecchetto*

*David Cecchetto.*

### **Networked Communication in the Aural Topography of Exurbia**

This presentation stages my web-based installation *Exurbia* as a testing ground for theories of aurality and digital networks. *Exurbia* is a digital sound-editing program where users compose individual sound-works from a shared collection of sound samples. The program has four distinct features: • The interface is TIME-INTENSIVE, being predominantly aural and executed in real time; • Editing is DESTRUCTIVE (i.e. there is no 'undo' feature); • All of

the source materials (i.e. the sound samples) are SHARED among all users. • Each edit on a single user's computer impacts every instance of a single file throughout the Exurbia COMMUNITY. Collectively, this results in an environment for intense and personal creation of sound-based works, while simultaneously making the resulting works vulnerable other users' creative processes. Crucially, participants can listen to one another's work, but are anonymous and cannot communicate textually. Though my presentation explains Exurbia's mechanics, its focus the work's theoretical purchase. While it is a cliché that Internet technologies have the potential to both kill and cultivate communities, Exurbia realigns this problematic to highlight ways in which Internet communities are conventionally constituted through vision. In particular, Exurbia acts as a social experiment that diffracts an aural interface and experience with an online community.

*Stephen Wilcox.*

### **The Dialects of Digital Media: Marshall McLuhan, Katherine Hayles and Pattern-Recognition**

In light of recent scholarship on embodiment in digital space it is worth revisiting the work of media theorist Marshall McLuhan, whose theories can be utilized to unify dispersed areas of study. In the conference paper I will connect McLuhan's recognition of the role of pattern-analysis in digital media studies with what N. Katherine Hayles has identified as the emergence of the dialect of pattern and randomness over presence and absence in contemporary Western literature. In Hayles' *How We Became Posthuman*, she asks 'When and how does noise coalesce into pattern?' It is my contention that it is through emergent and experimental media that we are able to identify patterns among randomness. This argument follows from McLuhan's thesis, recently echoed by David Wills in *Technology*, that media have fundamentally linguistic characteristics. From this perspective the notion of 'media literacy' fittingly emphasizes the linguistic-basis by which media augment perception through patterns in search of patterns. This linguistic quality appears in media through their capacity to encode experiences, thereby providing patterns (genres, forms, etc.) that we may interpret. This advocacy for pattern-analysis comes at a time when scholars are reacting to the tendency for computer-mediated environments to disregard pre-existing aspects of physically-embodied experience—a move back towards the dialect of presence/absence. However, the objective of this paper is to demonstrate the necessity for media to be discussed as inextricable from the complex dialect of pattern/randomness that they always mediate.

*Wayne Miller.*

### **What is publishing in bits?**

Fundamental questions about the nature of the digital come together in asking what it means to publish a text digitally. The digital is a construct, the consequence of a technology that can express logic in analog electrical currents. Take away the analog basis, and the digital is just an idea. But this idea has given us cyberspace, social networking and even an emerging global intelligence rooted in the Internet. How do we understand what it means to release a text into cyberspace, to share it with communities both ad hoc and long lasting, to share it everywhere at once? Is that already what we mean by publishing, even if it occurs without the vetting and guardianship to which we have grown accustomed in the analog world? Does the digital lack legitimacy insofar as it lacks permanence? Or are such fears like calling for the return to the gold standard in currency, understandable but naïve and quaint? In this paper, I examine the interface of the digital with the analog as expressed in such issues as persistence, authority and accuracy. I also examine the discourse around ebooks. Can we say – confidently – that we are publishing in bits?

Session 11 (H) Hotel 6

### **The Affective Turn and Its Relevance for Theorizations of Contemporary Visual Culture, New Media, and Performance Studies**

Chair: *Jeffrey Barbeau; Susan Cahill*

Patricia Ticineto Clough (2008) has recently described the still emerging field of Affect Theory as an exploration of 'pre-individual bodily forces augmenting or diminishing a body's capacity to act.' This recent turn to the study of affect has provided an opportunity for a vigorous reconsideration of the field of aesthetics in all its diverse forms. This panel will explore the growing influence of Affect Theory on both cultural production and political critique, while also broaching parallel questions about the constitution of subjectivity and processes of becoming through visibility, new media, and performance studies. How has an appreciation of this affective terrain enhanced both the practice and theorization of the creative arts? What new channels of exploration in the field of visual and material culture have been introduced by an awareness of how bodies and other agglomerations are traversed by forces that defy traditional classifications? Panelists are encouraged to draw from theorists such as Clough, Nigel Thrift, Sara Ahmed, William Connolly, Brian Massumi, Katherine Hayles, Steven Shaviro, Teresa Brennan, and many others.

Questions of pre-conscious flows, variable capacities, metastability, the possibility of novelty, Cybernetics, and what Clough (2008) calls the 'biomediated body', represent some fruitful openings for study. Patricia Ticiento Clough. (2008). 'The Affective Turn: Political Economy, Biomedica, and Bodies', *Theory, Culture & Society*, 25(1), 1-22.

*Matthew Tiessen.*

**Affect Theory, Individuation, and Immanent Processes of Creative Inter-Relation**

Are artists autonomous agents, affecting and being affected by pre-individual forces that inhere in them as individuals and in the individual capacities of things? Must affect-driven discussions of creativity perpetuate the idea of pre-existent (i.e. virtual) forces that affect (i.e. condition) individual bodies? Does not affect-theory (in the Spinozist, Deleuzian, and Massumian sense of affecting and being affected) demand that we develop new concepts to replace the idea that individual (and pre-individual) bodies and forces even exist and that these bodies have somewhere within them inherent (though unactualized) capacities waiting to be released? My paper, expanding on my completed PhD dissertation on affect, art, and creativity, will develop the following argument: that because the "individual" elements of creative networks are so profoundly relational, to speak of individual agents or forces at all is to describe an incomplete picture. After all, how can any individual action occur or any individual element exist in the absence of that upon which that action is enacted, or without that action being made possible by another element or "individual"? Moreover, how can pre-individual forces exist in a world wherein relation itself (the moment of affecting and being affected) creates – moment by moment – what we only later define as the "individual?" That is, how can "pre-individuating" forces pre-exist something (the "individual") whose capacities and "individuality" are, in fact, merely effects of the "agency" of immanent, immediate, and inter-dependent relations? I will argue, then, that if "individuals" are so intertwined with their networks that their very capacities are produced by the network's relationality itself, individuals (and their pre-individuations) might be able to be (categorically) dispensed with entirely. In other words, I begin to ponder the question: How can we think about networks of affect without thinking – or making assumptions about – individuals?

*Petra Hroch.*

**New Materialist Posthumanist Feminism, Sustainable Design, and Affective Flows**

This paper focuses on the relationship of affect theory to sustainable design practices as a form of critical and creative cultural production. By drawing on the recent work on affect of new materialist posthumanist feminist theorists, especially Rosi Braidotti, Karen Barad, and Jane Bennett, alongside the theory and practice of sustainable design, I argue that an understanding of human and non-human affective forces and flows has vital implications for sustainable design as an artistic practice concerned with creative expression within ecological and economic limits. I will consider contemporary examples of sustainable design – biomimicry in particular – to interrogate ways in which sustainable design operates as a site of creative practice that explicitly acknowledges and responds to interdependent processes of affecting and being affected. In so doing, I argue that sustainable design as an artistic and indeed mediating and performative practice opens us in new ways to questions about the sustainability of all material systems and the transversal relations of which they are a part.

*Livia Monnet.*

**The Wound and the Knife : The Affective-Performative Event and the Queer Body in Matsumoto Toshio's Funeral Parade of Roses (Bara no Sôretsu, 1969)**

Bara no sôretsu (Funeral Parade of Roses, 1969) is Japanese director, media artist, and theorist Matsumoto Toshio's debut feature film. Co-produced by Matsumoto Production and the Art Theatre Guild of Japan (ATG), it is one of the most radical, challenging, and innovative films in Japanese independent and avant-garde cinema, as well in the "new cinemas" of the 1960s in general. The film reimagines Oedipus Rex as a postmodern, queer tragicomedy. Building on Deleuze, Spinoza, Brian Massumi, and the recent work of several Deleuzian film scholars, this presentation argues that Bara no sôretsu may be regarded as an affective-performative event that forces spectators to think the unthought or the unthinkable, and which is expressed as a powerful aesthetics of the false. The film's affective performance also radically undermines established conventions and understandings of genre. The second part of the presentation contends that Funeral Parade of Roses envisions the queer body as a Body-without-Organs, or an abstract machine enabling the construction of transgressive assemblages; as a perverse time-image of "the fundamental fictionality" (kongenteki kyokôsei) of art and existence alike (Matsumoto); as a metaphor for the killing of the modern paradigm of Oedipus/psychoanalysis; and as a new aesthetico-political paradigm. The film's philosophy of the queer body also articulates a trenchant critique of the Japanese radical student movement, and of

other New Left radicalisms, as well as a parodic deconstruction of the romantic ideals of the 1960s avant-garde's and countercultures.

#### Session 12 - Sun 10:30am - 12pm

##### Session 12 (A) Artery Gallery

#### **of Elemental Forces & Compositional Forms: recent work by Adam Bobbette & Christine Shaw with respondent Etienne Turpin**

This ART PANEL will feature a conversation between the educator and curator Christine Shaw, Ph.D., and the artist and landscape architect Adam Bobbette, whose recent projects engage the problems and ambiguities of the elemental and their attendant forms of composition, in relation to wind and fire, respectively. In both Shaw's curatorial project developed through her engagement with Sir Francis Beaufort's Scale of Wind Force, and Bobbette's project for a guide to the 'Combustible City' of Manhattan, there is an attempt to relate the force of the elemental to the form of composition in the work of curation and artistic practice. The discussion will be moderated by Etienne Turpin, Ph.D., whose recent work also engages themes of the elemental, primarily through his study of the Anthropocene and its legibility in Northern Ontario, Canada. The panel will develop the theme of 'the elemental' as an anticipation of and an analog to the pharmakon through an interrogation of the ambiguities, reversibilities, and elisions that the forces of the elemental make manifest. The goal of this panel is to discuss recent projects by Shaw and Bobbette that signal the strange yet productive force of elemental autoantonymics – those grandparents of the pharmakon – as they relate to current themes in aesthetics, urban ecology, and philosophy.

##### Session 12 (B)

##### Session 12 (C) Hotel 1

#### **Cell, Laboratory, Nation**

Chair: *Elizabeth Neswald*

*Elizabeth Neswald.*

#### **Visiting Labs, Observing Cultures: The Laboratory Visitor as Ethnographer**

Between 1907 and 1932 Francis Gano Benedict, director of the Carnegie Nutrition Laboratory in Boston, made seven extended tours of European physiology and metabolism laboratories. He compiled detailed reports of these visits for his funding organization, the Carnegie Institution of Washington, complete with hundreds of photographs of laboratories, apparatus and researchers, sample protocols, handbills of his lectures and newspaper clippings announcing his visits. Although the tours were primarily intended to enable Benedict to assess laboratory set-ups, view apparatus, network with European physiologists and discuss research plans and questions, as an American scientist abroad, Benedict also described his observations of local scientific and academic customs, laboratory cultures and national scientific temperaments, in addition to more general cultural commentary. Simultaneously, Benedict used the reports as a device to present himself, as well as the European labs and laboratory cultures, to his funding organization, fashioning himself as an experimental expert, a scientific diplomat and, after the First World War, as an emissary of peace. This paper will analyse Benedict's Reports of Visits to Foreign Laboratories, looking at the interplay of these three overlapping persona of investigator, expert and ethnographer and at their significance for laboratory visit and travel reports as a genre of scientific writing.

*Judith Nicholson.*

#### **Cell: a semiotic analysis**

Cell: it is organism, biology, life. Cell: it is chamber, architecture, infrastructure. In North America, cell is also artifact, mobile telephony, culture. In Canada and the U.S., "cell" is vernacular for the mobile phone. Consequently, for North American readers, the title of Stephen King's *Cell: A Novel* (2006) articulates the novel's terror of mutated life, infrastructure, and culture. In *Cell*, an electronic plague, known as *The Pulse*, is transmitted to cellphone users who, upon hearing it, become telepathic zombie-like wanderers with carnivorous homicidal tendencies. Survivors of *The Pulse*, non-cellphone users at the moment the electronic virus is unleashed, call

themselves “normies.” Victims, or “phone crazies,” form terror cells that, during the day, mob and kill normies and scavenge for food. At night, crazies sleep together “like a thousand Nokias resting in their cradles” (Curtis 2006). Cell follows the exploits of normies who form their own cell with hopes of vanquishing the crazies and restoring order in a post-apocalyptic society. This paper is a semiotic analysis of cells that kill and cure in King’s novel. I argue that in a post-9/11 era characterized by the mobility of people, viruses, and terrorists (who use mobile phones to coordinate campaigns and to detonate explosive devices), the true horror of King’s novel emerges from how the sign “cell” now also signifies mobility, bioterrorism, and anarchy. This paper suggests that the answer to the novel’s unanswered question of who creates The Pulse virus and its far-reaching apocalyptic consequences—whether scientists, hackers, terrorists, or oblivious users—is everyone.

Session 12 (D) Hotel 2

**Palmistry, Astrology and Catalan Mysticism: Surrealism and the Occult**

Chair: *M.E. Warlick*

*M.E. Warlick.*

**Dr. Charlotte Wolff: Palmistry as Portraiture**

The hand is a well-known surrealist motif, found in photographs, paintings and sculptures by many of the most prominent artists of the movement. These hands have often been interpreted as symbols of castration anxiety, reflective of the surrealists’ fascination with Freudian psychoanalysis. Placed within this context of the hand in surrealist art, this paper will explore the work of psychologist Dr. Charlotte Wolff, who adapted traditional methods of palm reading to develop theories of human psychological behavior through her complex analyses of individual hands and their gestures. Her psychological studies and the surrealist fascination with the human hand intersected in the surrealist periodical, *Minotaure*, 6 (1935), which included an article by Wolff in which she analyzed the hands of several famous artists and writers, including André Breton, Paul Éluard, and Marcel Duchamp. The esoteric tradition of palmistry and Charlotte Wolff’s modern psychological interpretations provide further evidence of the Surrealists’ fusion of esoteric and alternative routes to uncover the mysteries of the human mind.

*Ashley Busby.*

**Linked to the Stars: Surrealist Women Artists and Astrology**

In the existing literature on Surrealism and the occult, astrology is often listed as a source; however, specific visual work has yet to be related to these interests. Aside from the circular birth charts and basic symbolic representations of the signs of the Zodiac, astrology as a field is bereft of visual representation. While first generation Surrealists such as André Breton and Max Ernst demonstrated an interest in astrology in their writing and publications, it was two later additions to the group, Leonora Carrington and Remedios Varo, whom gave astrology a place within their visual output. Carrington transposed circular astrological charts into her paintings as a means to create fantastic spaces—magic circles where mystic rites occur. Varo used her paintings to highlight an idea of cosmic guidance akin to the focus of horoscopic astrology. This paper explores the astrological significance of these works and attempts to discern why these women might have been drawn to this specific realm of occult practice. The history of astrology, from earliest times, has been largely dominated by male practitioners. And yet, from the late 19th century onward, women began to rise to some prominence in the field, helping to reshape modernist practice. This paper sees Carrington and Varo’s paintings as a part of this new found role for women in astrology.

*Elliott King.*

**Stairway to Heaven: Dali's Nuclear Mysticism and the History of Catalan Science**

The name Francesc Pujols may be most commonly aligned outside Catalunya not with his prominence as a poet, philosopher and art critic in turn-of-the-century Barcelona but with the eclectic statue Salvador Dali erected to him outside the entrance to the Teatre-Museu Dali in Figueres. Given the centrality of this Monument to Francesc Pujols and the numerous references Dali made to Pujols’ philosophy, however, this ‘genial but unknown philosopher’ (Dali’s words) remains marginally acknowledged, especially in Anglophonic scholarship, as nearly all Pujols’ essays remain in rare Catalan editions and are almost entirely out of print. And yet Pujols was, and is, remembered in Catalunya for his unique brand of ‘Catalan science’, a ontobiological system he devised based on the combinatorial logic of Ramon Llull. This paper presents Dali’s 1950s ‘Nuclear Mysticism’, a period of his work historically derided for its superficiality and dis-ingeniousness, as an amalgam of science and Catholicism deeply rooted in Llull’s pursuit of the ‘truth of knowledge’ and a close reading of Pujols’ philosophy. Llullism and its interpretation, as will be demonstrated, offer a rich precedent for many of Dali’s seemingly eccentric, purportedly ‘mystical’ pursuits --

specifically, his hybrids of contradictory elements, his loose interest in alchemy, and his endeavor to reconcile science with faith amidst calls for Catalan hegemony.

Session 12 (E) Hotel 3

**The Pharmakon as a Figure for the Grey Zone: Healing Ambiguity at the Border of Knowledge**

Chair: *Tristanne Connolly*

Presented by the Research Project on the Grey Zone in Health and Illness: the City and Well-Being Funded by the Canadian Institutes of Health Research and the University of Waterloo Moderator: *Tristanne Connolly*, University of Waterloo

*Benjamin Waterman.*

**The “Symbolizing Animal” and the Genetic Limit of Understanding the Human Body: Eugenics, Ideology and Rhetoric in Galton’s Huxley Address**

The focus of this paper is to develop an understanding of science as a socio-cultural enterprise that employs rhetoric in its argumentation. An analysis of Sir Francis Galton’s “Possible Improvement of the Human Breed under Existing Conditions of Law and Sentiment” is conducted in connection with the terms eugenics, ideology and rhetoric. Galton’s work is analyzed as an example that demonstrates some of the rhetorical dimensions of a scientific discourse. The argument is also made in this analysis that an appreciation of the rhetorical dimensions of Galton’s address is beneficial for developing a clearer understanding of the human body in a discussion of genetics.

*Morgan Tunzelmann.*

**Touch and the Surgical Embrace in Pauline Chen’s Final Exam: A Surgeon’s Reflections on Mortality (2007)**

This paper broaches the surface of a topic that belies discursive treatment: touch, and its empathetic counterpart, feeling, thus beginning to consider the potential that such an approach may have in further conceptualizing the grey zone of medicine. At this point I consider the site of touch, the operation of touch and the abject reverberations of the sense, rather than any elucidation of the sense itself. I suspect that the need to deflect the abject (even sublime) effects of touch upon the psyche inherently produces a stultified and distant relationship between the dual identities of the physician as a competent professional and as a caregiver. It almost goes without saying that touch, as an area of inquiry within medicine, is usually relegated to the area of “alternative” treatments. Indeed, it is difficult to use the word in public or scholarly discourse without evoking the popular sub-genre of books and magazine articles on what is variously called alternative, holistic, or Eastern medicines. These medicines include practices whose effectiveness ranges from dubious to strong (or dubious to weak, depending on whom one asks): reflexology, acupuncture, acupressure, and massage therapy. Although I understand that the development of normative practices in Western medicine has relegated such treatments, often unfairly, to the fringes of care, and that the outcomes of holistic treatments can be inherently incompatible with scientific methods of measurement that comprise clinical trials, my intention here is to deal with touch as it emerges intermittently and in a relatively unselfconscious manner within a narrative that describes medical practice in a professional setting (the clinic or hospital): in this case, a memoir by surgeon and *New York Times* columnist Pauline W. Chen, entitled *Final Exam: a Surgeon’s Reflections on Mortality* (2007).

*Alan Blum.*

**Dementia, Hallucination, Death: The Method of the Madness in Alzheimer’s Disease**

An analysis of the collective engagement with the disease known as Alzheimer’s and the dementia reputed of it reveals recourse to a socially standardized formula that attributes causal agency to the brain in the absence of clinching knowledge. I propose that what Baudrillard calls the model of Molecular Idealism stipulates such a neurological view of determinism in order to provide caregivers with reassurance in the face of the perplexing character of dementia and the depressing reactions to mortality that it brings to the surface.

*Steve Bailey.*

**Discussant**

Session 12 (F) Hotel 4

**Extending Life: The Dead, The Animal and The Machine**

Chair: *Kelly Ladd*

This interdisciplinary panel workshops related concepts of the non-human: the dead, the animal and the machine. Specifically, how they are fleshy sites of animation. The first talk addresses the reanimation of dead flesh through the figure of the zombie. The second is concerned with making animal flesh intelligible to the human through machinic intervention: the critter cam. Finally, the third paper examines the borderspace between the human, the robot and the animal through biohybrid robot noses. These three interventions interrogate, by extending what it means to be alive, how non-human flesh can be mobilized as critiques of the human.

*Natasha Myers.*

**Discussant**

*Julia Gruson-Wood.*

**Living Through Death: Zombies and Scientific Horror**

Zombies are the archetypal ‘spreaders’ of outbreaks and infectious diseases; they are the apocalyptic embodiment of disease in-and-of-itself. Disease, in its most extreme form, reverses what was once a generative life into a rapid process of deterioration until death; it consumes sentience and agency; and as an irresistible contagion, it consumes others. Accordingly, as much as zombies are indeed the living dead, zombies are, more than anything, survivors. It takes a really strong species to not be killed by death. On the contrary, just like a disease, death is the only thing that makes zombies “come to life”. In a poignant symbolic sense, zombies are the representation of disease and a hyperbolic narration of the plague diseases have on human life. This paper examines how zombies hold life and death in permanent tension while also making them anachronistic concepts in service of a technology of ‘animation’. Because zombies function as a horror fantasy space for the sciences obsession of the reanimation of dead flesh and for what exceeds the ability of medical intervention, they are the ultimate metaphorical manifestation of scientific fears of uncontrollable contagion that lives not only despite death but also exclusively through death. This paper mobilizes the figure of the zombie, as an undead creature, to extend the category of the human and, as a result, reconfigures the transition into death that marks all living flesh.

*Peter Hobbs.*

**Crittercams: Animal Technologies of Infolding**

For zoologists, the crittercam provides a “breakthrough perspective,” a view of life from the animal-object of study. In her essay, “Crittercams” (2008), Donna Haraway pursues the aspirations and assumptions embodied in this ontological leap to take up an animal’s point of view (POV). What does it mean to see through the eyes of an emperor penguin, a tiger shark, or a humpback whale? What does the gesture of becoming animal fully entail? Does the crittercam apparatus live up to its promises of animal home movies? How does extending human vision into the realm of the animal change how and what we see? To supplement Haraway’s analysis, my paper focuses on an episode of the National Geographic program Wild Chronicles in which a crittercam is deployed to record the nocturnal habits of a Washington DC housecat, Molly. The chubby calico’s POV turns out to be captivating in a very fleshy sense, as her desires and underbelly become meshed with those of the viewer. Sutured to Molly’s POV, we are dragged along as she sheds her gentle persona and becomes feral. What results is a mangled and diffracted perspective that I argue provides us with a fleshy critique of humanism.

*Kelly Ladd.*

**What The Anthropocene Smells Like: Biohybrid Noses**

This intervention aims to extend the embodied borders of the robot, human and the animal through an engagement with sensual forms of knowing. Noses or smelling, as a concept, signal a non-visual form of knowing. Noses are designed to recreate how we smell the world in ways that exceed our own ‘smelling’ abilities: many use canine DNA and frog oocytes as ‘living software’. Existing as uncanny points of contact between humans, machines and the animal, robotic noses are designed to be mass-produced as hand-held chemical sensors to aid in the war on terror. I examine the complicated assemblage of representation techniques, data collection, sensual interaction and ‘smells’ that make up this liminal technology. To better understand this sensible borderspace, this intervention traces all the different trails emerging from one particular biohybrid nose that uses frog oocytes and moth pheromones as a ‘smell’ platform. This is a story of empire, model organisms and defense technologies. In a world where the boundaries between nature and culture are constantly being rewritten, this is truly a totem apparatus.



**"Viral Infections"--a panel of poets from QuArc, a conjoined issue of K-W's national literary, The New Quarterly, and Ottawa's Arc Poetry Magazine**

Chair: *Kim Jernigan*

Sound poet **Christian Bök** was born "Christian Book" but changed his name "to avoid unseemly confusion with the Bible." He has published three collections—Crystallography, Euonia, and Pataphysics: The Poetics of an Imaginary Science—but by his own reckoning is best-known for holding the world record for the fastest rendition of Kurt Schwitters' "Ursonate." Euonia won the 2002 Griffin Prize (Canada's most prestigious award for poetry) and the book, which consists of 5 chapters each using a single vowel only, went on to sell 20,000 copies in Canada. It was a best seller in the UK as well. Bök is also a conceptual artist and has worked in science-fiction television creating alternative languages. He currently teaches at the University of Calgary. **Miranda Hill** is a writer of short fiction and poetry. Her work has appeared in The New Quarterly, The Dalhousie Review, and The Fiddlehead and will soon be published in the 23rd volume of The Journey Prize Stories. Her first book of fiction, a collection of short stories, will be published by Doubleday Canada in 2012-2013. Hill is also the founder and executive director of Project Bookmark Canada, a national charitable organization that installs plaques bearing text from stories and poems in the exact physical locations where the literary scenes take place. The organization is working to build a cross-Canada network of installations that celebrate place, fiction, and poetry, enticing Canadians and visitors to read their way across the country. Poet **Bruce Taylor**, a graduate of McGill University and the University of Toronto, lives with his family in Wakefield, Quebec. He has published 4 poetry collections, most recently No End in Strangeness: New and Selected Poems (Cormorant, 2011). A recipient of the E.J. Pratt Medal and prize for excellence from the University of Toronto, Taylor has also twice won the A.M. Klein Prize for Poetry. He has worked as a teacher, puppeteer, and freelance journalist and had poems commissioned for CBC Radio.

Session 12 (H) Hotel 6

**SLSA Creative Writers Read II**

Chair: *Susan Allender-Hagedorn*

SLSA members are very creative people. This is the second of two sessions where members read from their fiction/creative non-fiction.

*Janine Debaise.*

**Ecology in a Crazy Household: Weaving Science into a Book about Home**

*Cheryl Wood Ruggiero.*

**from Old Woman at the Warm Springs**

*Megan Fernandes.*

**Neuronal, (Kinetics) of the Pink Leaf, The Brain Lobe Adventure, Constellations, Psyche Extends**

*Jesse Millner.*

**Shapes the Clouds Assume, Between Idea and Cottonwood**

*Charles Hagedorn.*

**Tales from the Not-So-Deep Woods**

Wrap-up Session - Sun 12pm - 1pm

Wrap-up Session (A) TBD

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